

**BEFORE**

**THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Duke )  
Energy Ohio, Inc. for Approval of a )  
Grid Modernization Opt-Out Tariff and a )  
Change in Accounting Procedures Including )  
a Cost Recovery Mechanism. )

Case No.14-1160-EL-UNC

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**DIRECT TESTIMONY OF**

**JUSTIN C. BROWN**

**ON BEHALF OF**

**DUKE ENERGY OHIO, INC.**

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September 18, 2015

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### **Attachments**

JCB-1 - Rider NSM Cost Schedule

JCB-2 - Sheet No. 127 Rider NSM Non-standard Meter

## **I. INTRODUCTION**

1   **Q.   PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2   A.   My name is Justin C. Brown, and my business address is 400 South Tryon Street,  
3       Charlotte, North Carolina, 28202.

4   **Q.   BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5   A.   I am employed by Duke Energy Business Services LLC, an affiliate of Duke Energy  
6       Ohio, Inc. (Duke Energy Ohio or Company), as Manager of Grid Solutions, Planning and  
7       Regulatory Support.

8   **Q.   PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL**  
9       **EXPERIENCE.**

10  A.   I have a Bachelor's Degree in Economics from the University of North Carolina at  
11       Charlotte and a Master's Degree in Business Administration with a concentration in  
12       International Business from the University of South Carolina. I began my career with  
13       what is now Bank of America in 1997 as a Credit Services Analyst. After my time with  
14       Bank of America, I spent 10 years in various technology consulting and management  
15       roles with CompuCom Systems, PG&E National Energy Group, Carolinas HealthCare  
16       System and the Compass Group before joining Duke Energy in 2008 as a Lead  
17       Information Technology (IT) Audit Consultant. I was named Regulatory Strategy  
18       Manager in 2010, and since that time I have held positions of increasing responsibility for  
19       the Company. At present, my title is Manager, Grid Solutions Planning and Regulatory  
20       Support. I have responsibility for both federal and state public policy and regulatory  
21       proceedings affecting the Company's Grid Solutions organization.

1 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC UTILITIES  
2 COMMISSION OF OHIO (COMMISSION)?

3 A. No, I have not.

4 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS  
5 PROCEEDING?

6 A. The purpose of my direct testimony is to provide information related to the Company's  
7 application to establish an advanced meter opt-out tariff and recover costs related to the  
8 opt-out program.

9 Q. WHAT ARE THE ATTACHMENTS FOR WHICH YOU ARE RESPONSIBLE?

10 A. I am sponsoring Attachments JCB-1 and JCB-2. Attachment JCB-1 contains the updated  
11 spreadsheet supporting the need for customer charges related to the opt-out decision and  
12 JCB-2 is the updated tariff sheet for Rider NSM, which reflects the updated costs shown  
13 in JCB-1.

## **II. DUKE ENERGY OHIO'S APPLICATION**

14 Q. WHY HAS THE COMPANY FILED THIS APPLICATION?

15 A. On October 16, 2013, the Commission issued a Finding and Order in Case No. 12-2050-  
16 EL-ORD, adopting rules 4901:1-10-01 and 4901:1-10-05 of the Ohio Administrative  
17 Code (O.A.C.) (the Rules). Those Rules established requirements for advanced meter  
18 opt-out service, directing electric distribution utilities to provide residential electric  
19 customers with the option to use a "traditional meter" instead of the utility's "advanced  
20 meter." The application in this case was filed to propose a program consistent with the  
21 Commission's Finding and Order, as well as its later Entry on Rehearing, entered on  
22 December 18, 2013.

1    **Q.    WHAT IS THE DEFINITION OF AN “ADVANCED METER?”**

2    A.    An “advanced meter” is defined in Rule 4901:1-10-01, O.A.C. as, “Any electric meter  
3        that meets the pertinent engineering standards using digital technology and is capable of  
4        providing two-way communications with the electric utility to provide usage and/or other  
5        technical data.” Duke Energy Ohio has deployed Advanced Metering Infrastructure  
6        (AMI) meters across its service territory, and those AMI meters meet the definition of  
7        “advanced meters.” This application refers to those meters as standard meters, since they  
8        are now the standard meter for Duke Energy Ohio’s residential electric customers.

9    **Q.    WHAT IS THE DEFINITION OF A “TRADITIONAL METER?”**

10   A.    A “traditional meter” is defined in Rule 4901:1-10-01, O.A.C. as, “Any meter with an  
11        analog or digital display that does not have the capability to communicate with the utility  
12        using two-way communications.” Those meters are the non-standard meter for Duke  
13        Energy Ohio’s residential electric customers.

14   **Q.    WHY DOES THE TARIFF APPLICATION ESTABLISH FEES FOR**  
15   **CUSTOMERS THAT CHOOSE THE NON-STANDARD METERING OPTION?**

16   A.    Rule 4901:1-10-05(J)(5)(f), O.A.C. states that “costs incurred by an electric utility to  
17        provide advanced meter opt-out service shall be borne only by customers who elect to  
18        receive advanced meter opt-out service.” The rule also allows the Company to establish  
19        one-time and recurring cost-based fees for customers that choose the non-standard  
20        metering option.

1   **Q.    WHAT COSTS ARE ATTRIBUTABLE TO DUKE ENERGY OHIO'S NON-**  
2   **STANDARD METERING OPTION?**

3   A.    At a high level, there are one-time costs and recurring costs necessary to offer an non-  
4   standard metering option (advanced meter opt-out) for residential electric customers.

5   **Q.    DESCRIBE THE ONE-TIME COSTS ASSOCIATED WITH SERVING OPT-OUT**  
6   **CUSTOMERS?**

7   A.    The one-time costs are broken into three primary categories: Information Technology  
8   (IT) Systems, Metering Services and Distribution Services.

9           After the Commission issued the Entry on Rehearing, Duke Energy Ohio  
10   recognized that it would need to make changes to its customer systems in order to offer a  
11   non-standard metering option. An IT systems project was established to make customer  
12   system changes so that the customer service representatives who respond to customer  
13   issues could properly identify opt-out customers, ensure that they have the correct meter  
14   installed, and apply opt-out fees as required under the Rules. At the time of the original  
15   application, the cost estimate for the IT Systems project was \$686,140. Due to limited  
16   software development bugs and aggressive management of risk and issues the actual  
17   costs of the project ended up being \$243,122. Since the IT Systems project was  
18   necessary in order to offer the non-standard metering option to all Ohio residential  
19   electric customers, the Company believes that these prudently incurred costs should be  
20   included in the tariff. The Company proposes a deferral of the IT system costs until the  
21   next electric base rate case to alleviate the high one-time costs to opt out customers. The  
22   updated IT systems costs are reflected in the revised tariff filed with my testimony.



1           Because of the requirement to offer the non-standard metering option, Duke  
2           Energy Ohio will need to maintain a separate meter stock from its standard, AMI meters.  
3           The Company believes the stock traditional meters (those having no communication  
4           capability) will become harder to find in the future as AMI meters are the new norm in  
5           the utility industry. The Metering Services costs are required to conduct repair, testing,  
6           storage, and purchase of non-AMI meters. Pursuant to the Rules, these costs must be  
7           borne only by customers electing a non-standard residential electric meter.

8           Distribution maintenance costs involve the removal of AMI meters and the  
9           installation of a non-standard meter for opt-out customers.

10          Altogether, the one-time fee per customer will be \$126.70, if the Commission  
11          grants the IT System cost deferral as requested. If the IT System cost deferral is not  
12          granted, the one-time fee per customer for choosing the optional non-standard meter  
13          option would be \$462.04, as reflected in the updated tariff filing, Attachment JCB-2,  
14          attached to this testimony.

15   **Q.   WHAT ARE THE RECURRING OR ONGOING COSTS ASSOCIATED WITH**  
16   **SERVING OPT-OUT CUSTOMERS?**

17   A.   Ongoing costs can also be broadly categorized as Metering Services and Distribution  
18          Maintenance costs. The Metering Service costs involve manual meter reads, both on-  
19          and off-cycle, and physical meter inspections for revenue assurance. Those services are  
20          performed remotely for standard AMI customers, but will require manual efforts in order  
21          to serve customers taking the non-standard metering option. Customers opting out will  
22          likely be spread throughout the entire service territory making travel to and from each  
23          customer location more time consuming than traditional meter reading routes, where for

1 example a meter reader can read each house on a street. This will result in more drive  
2 time between each manual meter read. The Company plans to continue reading each  
3 non-standard meter on a monthly basis. This will ensure accurate reads during the billing  
4 cycle and help avoid estimated bills. Additionally, with non-AMI meters, revenue  
5 assurance inspections cannot be performed remotely as they lack communications  
6 capability. These inspections will require travel to the customer's meter location.

7 The Distribution Maintenance costs involve purchasing, locating and installing  
8 additional communication devices in the AMI network to read AMI meters that become  
9 stranded when customers opt out. The estimate for the Distribution Maintenance costs  
10 slightly changed from the original tariff filing, resulting in a lowering of this cost. The  
11 revised estimate for the monthly ongoing costs is also reflected in the updated tariff  
12 attached to my testimony.

13 The Company estimates the recurring cost per customer to provide the ongoing  
14 Metering Services and Distribution Maintenance services is \$40.53 per month.

15 **Q. HOW WERE THE COSTS FOR THESE SERVICES DETERMINED?**

16 A. After ascertaining all of the work necessary to create the opt-out program, subject matter  
17 experts in various departments were called upon to determine costs associated with the  
18 relevant service. The costs used to determine the one-time and monthly fees include fully  
19 loaded labor. The costs associated with the IT Systems project are actual costs as this  
20 project has been completed.



1   **Q.   HOW MANY CUSTOMERS DOES DUKE ENERGY OHIO EXPECT TO**  
2   **CHOOSE THE NON-STANDARD METERING OPTION?**

3   A.   The Company estimates that 725 customers will enroll in the opt-out tariff. That number  
4       is based on roughly 325 customers who have at any time refused an AMI meter during  
5       the Company's multi-year deployment and roughly 400 customers who did not receive  
6       AMI meters because they were unresponsive to the Company during the deployment and  
7       have hard-to-access meters that are not accessible by the Company (i.e. indoors, behind  
8       locked gates, etc.) and require the customer to provide the Company access.

9   **Q.   HOW DOES DUKE ENERGY OHIO PROPOSE TO RECOVER THE COSTS**  
10   **ASSOCIATED WITH PROVIDING THE NON-STANDARD METERING**  
11   **OPTION?**

12   A.   If the Commission approves Duke Energy Ohio's proposed deferral of \$243,122 in IT  
13       system change costs, customers enrolled in the non-standard metering option would be  
14       charged \$126.70 when they initially enroll in the program and \$40.53 each month. If the  
15       Commission does not approve Duke Energy Ohio's proposed deferral, the fixed IT  
16       system costs would be spread across the 725 expected participants. That would mean  
17       customers would be charged a one-time fee of \$463.04 when they initially enroll in the  
18       program and the ongoing fee would remain \$40.53 per month.

### **III. CONCLUSION**

19   **Q.   DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

20   A.   Yes.

725 : Assumed # NSMO Customers

|          | One-time Costs | Annual Costs  | Monthly Costs | NSMO Costs per Customer (One-time and Monthly) |
|----------|----------------|---------------|---------------|--|
| One-time | \$ 334,979.50  | N/A           | N/A           | 462.04   |
| Ongoing  | N/A            | \$ 352,553.29 | \$ 29,379.44  | 40.53  |

725 : Assumed # NSMO Customers

| Topic Area                            | Total One-time Costs | One-time Costs per NSMO Customer |
|---------------------------------------|----------------------|----------------------------------|
| Metering Services <sup>1</sup>        | \$ 54,737.50         | \$ 75.50                         |
| Distribution Maintenance <sup>2</sup> | \$ 37,120.00         | \$ 51.20                         |
| IT Systems <sup>3</sup>               | \$ 243,122.00        | \$ 335.34                        |
| Cost Totals                           | \$ 334,979.50        | \$ 462.04                        |

<sup>1</sup> Metering Services includes: meter repair/testing, meter storage labor, and buying meters for reserve stock.

<sup>2</sup> Distribution Maintenance includes: removal of AMI meters and/or installation of non-standard meters.

<sup>3</sup> IT Systems includes: IT project to build NSMO billing and service routing functionalities into Customer Management System (CMS).



**725 : Assumed # NSMO Customers**

| Topic/Area                            | Annual Cost   | Monthly Cost | Monthly Cost per NSMO Customer |
|---------------------------------------|---------------|--------------|--------------------------------|
| Metering Services <sup>1</sup>        | \$ 349,015.00 | \$ 29,084.58 | \$ 40.12                       |
| Distribution Maintenance <sup>2</sup> | \$ 3,538.29   | \$ 294.86    | \$ 0.41                        |
| Cost Totals                           | \$ 352,553.29 | \$ 29,379.44 | \$ 40.53                       |

<sup>1</sup> Metering Services includes: manual meter reading for monthly on-cycle reads, off-cycle reads, and revenue assurance.

<sup>2</sup> Distribution Maintenance includes: purchasing, locating, and installing additional communication devices to read stranded meters caused by NSMO.

Duke Energy Ohio  
139 East Fourth Street  
Cincinnati, Ohio 45202

P.U.C.O. Electric No. 19  
Sheet No. 127  
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## **RIDER NSM**

### **NON-STANDARD METER OPTION (NSMO) – RESIDENTIAL**

#### **APPLICABILITY**

Applicable only to residential customers served under Rate RS, Rate RSLI, Rate RS3P, or Rate ORH who request a traditional meter rather than an advanced meter, i.e. the Company's standard meter for Ohio residential electric customers. Rider NSM is optional and is available subject to the Terms and Conditions below.

#### **BACKGROUND**

Section 4901:1-10-05(J) of the Ohio Administrative Code (OAC) states that electric utilities shall provide customers with the option to remove an installed advanced meter and replace it with a traditional meter, and the option to decline installation of an advanced meter and retain a traditional meter.

As defined in OAC 4901:1-10-01:

"Advanced meter" means any electric meter that meets the pertinent engineering standards using digital technology and is capable of providing two-way communications with the electric utility to provide usage and/or other technical data.

"Traditional meter" means any meter with an analog or digital display that does not have the capability to communicate with the utility using two-way communications.

#### **CHARGES**

Residential customers who request a traditional meter rather than an advanced meter shall pay a one-time fee of \$462.04 and a recurring monthly fee of \$40.53.

#### **TERMS AND CONDITIONS**

The Company shall have the right to refuse to provide advanced meter opt-out service in either of the following circumstances:

- (a) If such a service creates a safety hazard to consumers or their premises, the public, or the electric utility's personnel or facilities.
- (b) If a customer does not allow the electric utility's employees or agents access to the meter at the customer's premises.

Rider NSM is not available to customers taking service under a time-differentiated rate.

Rider NSM is not available to customers with a history of tampering or theft

The supplying and billing for service and all conditions applying thereto, are subject to the jurisdiction of the Public Utilities Commission of Ohio, and to the Company's Service Regulations currently in effect, as filed with the Public Utilities Commission of Ohio.

Filed pursuant to an Order dated \_\_\_\_\_ in Case No. 14-1160-EL-UNC before the Public Utilities Commission of Ohio.

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