COMMONWEALTH OF KENTUCKY
BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION

In the Matter of:

The Application of Duke Energy Kentucky, Inc., for (1) a Certificate of Public Convenience and Necessity Authorizing the Construction of an Advanced Metering Infrastructure; (2) Request for Accounting Treatment; and (3) All Other Necessary Waivers, Approvals, and Relief.	)))))))	Case No. 2016-00152

PETITION OF DUKE ENERGY KENTUCKY, INC.
FOR CONFIDENTIAL TREATMENT OF INFORMATION
CONTAINED IN ITS RESPONSES TO COMMISSION STAFF'S
POST HEARING DATA REQUESTS DATED DECEMBER 13, 2016

Duke Energy Kentucky, Inc. (Duke Energy Kentucky or Company), pursuant to 807 KAR 5:001, Section 13, respectfully requests the Commission to classify and protect certain information provided by Duke Energy Kentucky in its responses to Post Data Request Nos. 7 and 10 as requested by Commission Staff (Staff) in this case on December 13, 2016. The information that Staff seeks through discovery and for which Duke Energy Kentucky now seeks confidential treatment (Confidential Information) in the Confidential Attachments to Post Data Request Nos. 7 and 10 include printed and electronic versions of detailed forecasted financial data, by year, over the next seventeen years including, but not limited to, Duke Energy Kentucky's operational assumptions, investments, and estimated labor expenses, overheads, and loadings for both its gas and electric and information technology operations. This information is subject to existing labor agreements currently in place and that are periodically subject to negotiation, and which are used as a benchmark against potential vendors who offer similar services.

In support of this Petition, Duke Energy Kentucky states:

1. The Kentucky Open Records Act exempts from disclosure certain commercial information. KRS 61.878(1)(c). To qualify for this exemption and, therefore, maintain the confidentiality of the information, a party must establish that disclosure of the commercial information would permit an unfair advantage to competitors of that party. Public disclosure of the information identified herein would, in fact, prompt such a result for the reasons set forth below.

2. The public disclosure of the information that Duke Energy Kentucky seeks protection, detailed forecasted financial data and company cost assumptions, would damage Duke Energy Kentucky's competitive position and business interests. If the Commission grants public access to the information, it may make it difficult to achieve the anticipated savings, including equipment purchases, labor costs and savings, etc. as potential future suppliers could potentially manipulate the market and undermine Duke Energy Kentucky's ability to manage its costs. If third-party vendors had free access to Duke Energy Kentucky's detailed internal labor costs, overheads, and loadings, they could use this information to their advantage in potentially winning contracts they otherwise would not or to manipulate their prices causing Duke Energy Kentucky to actually pay more than it otherwise would have.

3. The information for which Duke Energy Kentucky is seeking confidential treatment was developed internally by Duke Energy Corporation and Duke Energy Kentucky personnel, or is provided to Duke Energy pursuant to a collective bargaining agreement, license or contract and is not on file with any public agency, and is not available from any commercial or other source outside Duke Energy Kentucky. The

aforementioned information is distributed within Duke Energy Kentucky only to those employees who must have access for business reasons, and is generally recognized as confidential and proprietary in the energy industry.

4. Duke Energy Kentucky does not object to limited disclosure of the confidential information described herein, pursuant to an acceptable protective agreement, the Staff or other intervenors with a legitimate interest in reviewing the same for the purpose of participating in this case.

5. This information was, and remains, integral to Duke Energy Kentucky's effective execution of business decisions. And such information is generally regarded as confidential or proprietary. Indeed, as the Kentucky Supreme Court has found, "information concerning the inner workings of a corporation is 'generally accepted as confidential or proprietary.'" *Hoy v. Kentucky Industrial Revitalization Authority*, Ky., 904 S.W.2d 766, 768 (Ky. 1995).

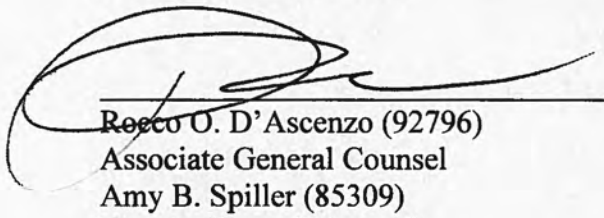
6. In accordance with the provisions of 807 KAR 5:001, Section 13(3), the Company is filing one copy of the Confidential Information separately under seal, and one copy without the confidential information included.

7. Duke Energy Kentucky respectfully requests that the Confidential Information be withheld from public disclosure for a period of twenty years, three years beyond the term of the forecasts included in the Confidential Attachments to Post Data Request Nos. 7 and 10. This will assure that the Confidential Information – if disclosed after that time – will no longer be commercially sensitive so as to likely impair the interests of the Company or its customers if publicly disclosed.

8. To the extent the Confidential information becomes generally available to the public, whether through filings required by other agencies or otherwise, Duke Energy Kentucky will notify the Commission and have its confidential status removed, pursuant to 807 KAR 5:001 Section 13(10)(a).

WHEREFORE, Duke Energy Kentucky, Inc., respectfully requests that the Commission classify and protect as confidential the specific information described herein.

Respectfully submitted,



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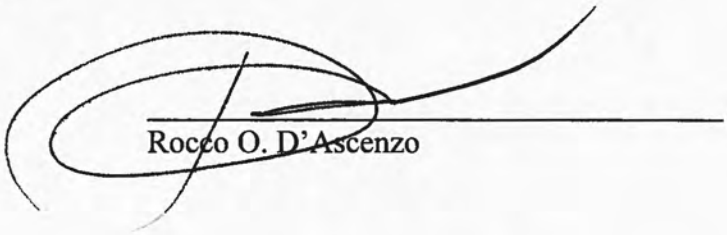
E-mail: amy.spiller@duke-energy.com

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing Petition for Confidential Treatment has been served via electronic or overnight mail to the following party on this 22nd day of December, 2016.

Rebecca W. Goodman
Executive Director
Office of Rate Intervention
Office of the Attorney General
1024 Capital Center Drive, Suite 200
Frankfort, Kentucky 40601-8204



Rocco O. D'Ascenzo

VERIFICATION

STATE OF NORTH CAROLINA)
) **SS:**
COUNTY OF MECKLENBURG)

The undersigned, Justin C. Brown, Manager GS Planning & Regulatory Support, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of her knowledge, information and belief.

Justin C. Brown, Affiant

Subscribed and sworn to before me by Justin C. Brown on this 21 day of December, 2016.

Heather Paige Blum (printed)
NOTARY PUBLIC

My Commission Expires: January 9, 2018

VERIFICATION

STATE OF OHIO)
) **SS:**
COUNTY OF HAMILTON)

The undersigned, Don Schneider, Director – Advanced Metering, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

Don Schneider, Affiant

Subscribed and sworn to before me by Don Schneider on this 13TH day of DECEMBER, 2016.

NOTARY PUBLIC

ADELE M. FRISCH
Notary Public, State of Ohio
My Commission Expires 01-05-2019

My Commission Expires: 1/5/2019

VERIFICATION

STATE OF OHIO)
) **SS:**
COUNTY OF HAMILTON)

The undersigned, Peggy Laub, Director of Rates & Regulatory Planning, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of her knowledge, information and belief.

Peggy Laub

Peggy Laub, Affiant

Subscribed and sworn to before me by Peggy Laub on this 19th day of DECEMBER, 2016.

Adele M. Frisch

NOTARY PUBLIC

ADELE M. FRISCH
Notary Public, State of Ohio
My Commission Expires 01-05-2019

My Commission Expires: 1/5/2019

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Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

STAFF-POST HEARING-DR-01-001

REQUEST:

Provide the cost justification for the opt-out provision for Duke Energy, Inc.'s ("Duke Energy") operating companies in Ohio, North Carolina, and South Carolina for both the one-time fee and monthly fee.

RESPONSE:

For cost justification of the opt-out costs in Duke Energy Ohio, see Attachment STAFF-POST HEARING-DR-01-001(a), Direct Testimony of Justin Brown which explains the Ohio costs, including a breakdown of such costs in the attachment JCB-1. For cost justification of the opt-out costs in Duke Energy Carolinas' North Carolina and South Carolina jurisdictions, see Attachment STAFF-POST HEARING-DR-01-001(b).

PERSON RESPONSIBLE: Justin Brown

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

DIRECT TESTIMONY OF

JUSTIN C. BROWN

ON BEHALF OF

DUKE ENERGY OHIO, INC.

September 18, 2015

TABLE OF CONTENTS

Attachments
JCB-1 - Rider NSM Cost Schedule

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

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

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

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

Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.

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

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

A. No, I have not.

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

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

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

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

II. DUKE ENERGY OHIO'S APPLICATION

Q. WHY HAS THE COMPANY FILED THIS APPLICATION?

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

Q. WHAT IS THE DEFINITION OF AN "ADVANCED METER?"

A. An "advanced meter" is defined in Rule 4901:1-10-01, O.A.C. as, "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." Duke Energy Ohio has deployed Advanced Metering Infrastructure (AMI) meters across its service territory, and those AMI meters meet the definition of "advanced meters." This application refers to those meters as standard meters, since they are now the standard meter for Duke Energy Ohio's residential electric customers.

Q. WHAT IS THE DEFINITION OF A "TRADITIONAL METER?"

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Q. HOW WERE THE COSTS FOR THESE SERVICES DETERMINED?

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

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

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

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

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

III. CONCLUSION

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

A. Yes.

Case No. 14-1160-EL-UNC
Attachment JCB-1
Page 1 of 3

725 : Assumed # NSMD Customers

	One-time Costs	Annual Costs	Monthly Costs	NSMD 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[1]	$ 54,787.50	$ 75.50
Distribution Maintenance[2]	$ 37,120.00	$ 51.20
IT Systems[3]	$ 243,122.00	$ 335.34
Cost Totals	$ 334,979.50	$ 462.04

[1] Metering Services includes: meter repair/testing, meter storage labor, and buying meters for reserve stock.

[2] Distribution Maintenance includes: removal of AMI meters and/or installation of non-standard meters.

[3] 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[1]	$ 349,015.00	$ 29,084.58	$ 40.12
Distribution Maintenance[2]	$ 3,538.29	$ 294.86	$ 0.41
Cost Totals	$ 352,553.29	$ 29,379.44	$ 40.53

[1] Metering Services includes: manual meter reading for monthly on-cycle reads, off-cycle reads, and revenue assurance.

[2] 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
Page 1 of 1

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.

Issued:

Effective:

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

9/18/2015 3:48:00 PM

in

Case No(s). 14-1160-EL-UNC

Summary: Testimony Direct Testimony of Justin C. Brown on Behalf of Duke Energy Ohio, Inc. electronically filed by Mrs. Debbie L Gates on behalf of Duke Energy Ohio Inc. and Spiller, Amy B and Watts, Elizabeth H

Duke Energy Carolinas - Manually-Read Meter Option Cost Analysis

			2017	2018	2019	2020	2021	
Expenses (One-Time per Participant)								
	One-time Costs to Establish MRMO							
1	Customer Service @ 3 mins/customer	$5.35						Sr. Business Ops Analyst will take calls for MRMO participants, explain tariff details, and set up account.
2	Metering Services Work Order Mgmt @ 5 mins/customer	$4.52						Work Force Mgmt Spec II to create initial work orders for meter programming, meter exchange and manual read routing.
3	Metering Services Technician to program, exchange meter @ 1.25 hrs/customer	$94.62						Meter Technician to disable radios, travel to customer premise, remove existing meter and replace with non-communicating meter, close work orders
4	Vehicle to exchange meter @0.75 hrs/customer	$4.44						SRW Utility, Stake, Flat 4x2 @ 5.92/hour
5	Manual Meter Reading Route Analysis @ 30 mins/customer	$36.62						Meter Route Analyst to determine location of MRMO participant and find existing manual reading route to adjust for efficient meter reading route provided to vendor.
6	10% Recovery of IT System Costs	$13.94						10% of $360,705 IT System Costs / 2,588 (Estimated MRMO Participants)
	Total One-Time Charge	$159.48						Sum of rows (1) through (6)
Development of Monthly Rates								
	Current Rates							
1	Monthly Rate per meter		$11.77	$11.77	$11.77	$11.77	$11.77	Monthly rate to capture meter reading expenses and 90% of IT System Costs at NPV=0
	Current Participants							
2	MRMO		400	812	1,648	2,588	2,588	Estimated cumulative number of MRMO Customers
	Annual Revenue							
3	MRMO		$56,507	$114,709	$232,859	$365,600	$365,600	(12 months) * (# of participants) * (Monthly Rate)
	Total Annual Revenue		$56,507	$114,709	$232,859	$365,600	$365,600	
Expenses Recovered via Monthly Rate (Initial Development plus On-going)								
	On-Going Monthly Cost to Support MRMO							
1	Monthly Meter Readings * 12 * # of MRMO Customers		$35,760	$72,593	$147,363	$231,367	$231,367	Total Monthly meter reading costs * 12 months * # of participants
2	Customer IT System Change to provide MRMO tariff (90%)	$324,635	$0	$0	$0	$0	$0	IT Cost for System Implementation (remaining 90% of total)
3	**Total Expenses (2017-2021, including IT System Change)**	$324,635	$35,760	$72,593	$147,363	$231,367	$231,367	
4	Net Income	($324,635)	$20,747	$42,116	$85,496	$134,233	$134,233	Total Revenue minus Total Expenses
5	Taxes @ 37.6%	($122,063)	$7,801	$15,836	$32,147	$50,472	$50,472	Net Income times 37.6%
6	After Tax Income	($202,572)	$12,946	$26,281	$53,350	$83,761	$83,761	Net Income - Taxes
7	5-Year Net Present Value @ 6.95%		($0.00)					
	Target Rate to Achieve $0 NPV:		$11.77	**Total Monthly Charge per Participant**				

5 Year Cash Flow

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

STAFF-POST HEARING-DR-01-002

REQUEST:

Provide all the calculations discussed in Duke Kentucky's response to Staff's Second Request, Item 1.b.(2), that support the amount shown for "Annual costs assoc. with Electric meter failures" that appears on Exhibit DLS-4, page 2 of 13, row 18.

RESPONSE:

The detailed calculations discussed in Duke Energy Kentucky's response to Staff's Second Request, Item 1.b.(2) can be found in Confidential Attachment AG-DR-01-069(1) on the tab labeled "OBC" rows 8 and rows 45 through 51 that has previously been filed in this proceeding. The "Annual Costs assoc. with Electric Meter Failures" on tab "OBC" reflects no costs for the first 3 years after deployment, since the meters are under a three year warranty. These costs reflect the AMI meter fail rate of 0.5% whereas the benefits reflect the existing meter fail rate of 1.83%.

PERSON RESPONSIBLE: Donald L. Schneider, Jr.

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

STAFF-POST HEARING-DR-01-003

REQUEST:

Provide the number of digital meters and analog/electro-mechanical meters in service for Duke Kentucky.

RESPONSE:

Duke Energy Kentucky has 23,350 digital walk-by meters and 76,943 analog walk-by meters installed for its electric customers.

PERSON RESPONSIBLE: Donald L. Schneider, Jr.

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

STAFF-POST HEARING-DR-01-004

REQUEST:

Provide documentation, after contacting the manufacturer, regarding the estimated useful life of the AMI electric meters Duke Kentucky is proposing to install.

RESPONSE:

Based upon conversation with Itron's Area Vice President, Itron's electric meter design supports a twenty-year estimated life expectancy. However, Itron also noted that given the pace of technology advancement, the trend in the market observed is shorter depreciation schedules from a regulatory / accounting perspective as systems such as AMI are more computer / sensor driven.

This is consistent with the Company's belief that a fifteen-year depreciable life is appropriate given the trends in the utility industry across the country, pace of technology advancement, and the computer/sensor driven nature of the devices.

PERSON RESPONSIBLE: Donald L. Schneider, Jr.

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

STAFF-POST HEARING-DR-01-005

REQUEST:

Provide the effect it would have on annual expense if the gas modules were depreciated over a 15-year and 18-year life, compared to a nine-year life.

RESPONSE:

Exhibit DLS-4 does not include depreciation expenses for gas modules. However, if the requirement to test gas meters once every 10 years is extended to every 15 or 18 years, the total amounts shown for "Annual costs assoc. with Gas modules" and "Material burden costs - Gas modules" that appear on Exhibit DLS-4, page 4 of 13, rows 7 and 8 would decrease.

Based on the current 10-year testing requirement, the total amounts on DLS-4 reflect replacement of $1/9^{th}$ of the gas modules each year, which results in the $5,388,531 for "Annual costs assoc. with Gas modules" and $1,122,970 "Material burden costs - Gas modules". If $1/15^{th}$ of gas modules are replaced each year, that would result in total amounts of: $3,233,119 for "Annual costs assoc. with Gas modules" and $673,782 for "Material burden costs - Gas modules". If $1/18^{th}$ of gas modules are replaced each year, that would result in total amounts of: $2,694,266 for "Annual costs assoc. with Gas modules" and $561,485 for "Material burden costs - Gas modules".

Duke Energy Kentucky believes the gas module depreciable life should match the gas meter testing requirement period.

PERSON RESPONSIBLE: Donald L. Schneider, Jr.

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

STAFF-POST HEARING-DR-01-006

REQUEST:

Explain if the 396 residential electric meters used for load research are accounted for in Duke Kentucky's mass meter account in such a way as to distinguish them from other meters so they do not become a part of the regulatory asset requested for the amount of undepreciated meters.

RESPONSE:

These meters and other C&I AMI meters purchased in 2016 will be separately identified and kept in a unique plant account in our Capital Asset records which will ensure that they will not be included in the regulatory asset account.

PERSON RESPONSIBLE: Peggy Laub

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

PUBLIC STAFF-POST HEARING-DR-01-007

REQUEST:

Refer to PAL-SET-1, page 1 of 2. Provide detailed cost support for the amounts shown on this attachment.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET
(AS TO ATTACHMENT ONLY)

See Public Staff-Post Hearing-DR-01-007 Attachment. The Confidential Staff-Post Hearing-DR-01-007 Attachment is being filed under Petition for Confidential Treatment.

PERSON RESPONSIBLE: Peggy Laub

DEK

Duke Energy Kentucky - Advanced Meter Opt-out Cost Analysis

Expenses (One-Time per Participant)

One-time Costs to Establish AMO

1	Customer Service @ 3 mins/customer	$1.37	Cust Svc Rep-FT Probation (Customer Call Center) will take calls for AMO participants, explain tariff details, and set up account.
2	Metering Services Work Order Mgmt @ 5 mins/customer	$4.63	Cust Relations Clerk B (Metering Services) to create initial work orders for meter programming, meter exchange and manual read routing.
3	Manual Meter Reading Route Analysis @ 20 mins/customer	$21.57	Meter Route Analyst (Metering Services) to determine location of AMO participant and find existing manual reading route to adjust for efficient meter reading route.
4	Senior Meter Tester to disable meter radios @ 30 mins/customer	$40.47	Senior Meter Tester (Metering Services) to disable radios in the Meter Lab
5	Field service personnel to exchange meter @ 45 mins/customer	$54.26	Premise Troubleshooter (Service Delivery) to travel to customer premise, remove existing meter and replace with non-communicating meter, close work orders
6	Vehicle to exchange meter @ 45 mins/customer	$2.96	Pickup 1/2 Ton 4x4 @ $3.95/hour
7	Gas Operations to remove AMI module from gas meter @ 45 mins/customer; 70% of electric customers have dual gas service	$40.09	Meter Specialist I (Gas Operations) to travel to and from customer premise, remove existing gas module for dual service customer, and close work orders
8	Vehicle to remove gas AMI module @ 45 mins/customer	$2.24	Van >8500 @ $4.27/hour
	Total One-Time Costs	**$167.60**	Sum of rows (1) through (8)

DEK

143 : Estimated # AMO Customers

Topic Area	Topic Details	Rate	Hours to Complete	Unit Cost	Frequency	# of Events Annually	Annual Cost	Assumptions/Questions
Monthly Meter Reading - Labor	Meter Reader must perform manual meter reads each month. Includes average travel time between AMO customers and time to exit vehicle, locate meter, probe meter, and return to vehicle.	$ 46.18	0.5	$ 23.09	Monthly per AMO Customer	1,716	$ 39,625.75	Blended hourly rate (50/50) for work performed by job titles Meter Reader and Meter Reader Full Time.
Monthly Meter Reading - Vehicle	Meter Reading employee vehicle costs for duration of monthly meter reading throughout the route, per customer	$ 3.69	0.5	$ 1.84	Monthly per AMO Customer	1,716	$ 3,162.16	Assumes employee uses Sport Utility - Compact 4x4 (Category 11.92)
Off-cycle Meter Reading - Labor	Manual off-cycle meter reads. Necessary due to inability to perform Remote Order Fulfillment services for non-AMI meters (bill complaints, move in/move out, re-reads)	$ 52.23	1	$ 52.23	Annually for 10% of AMO Customers	14	$ 746.94	Hourly rate for work performed by Meter Reader. Assumes 10% of AMO customers have off-cycle reads/year.
Off-cycle Meter Reading - Vehicle	Meter Reading employee vehicle costs for duration of off-cycle meter reading	$ 3.69	1	$ 3.69	Annually for 10% of AMO Customers	14	$ 52.70	Assumes employee uses Sport Utility - Compact 4x4 (Category 11.92)
							$ 43,587.55	**Annual Total**
							$3,632.30	Total Monthly costs
							$25.40	Costs per AMO Customer per Month

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DEK

143 : Estimated # AMO Customers

Topic Area	Topic Details	Rate	Total Cost	Assumptions/Questions
IT Resource Costs	IT costs to update Customer System (CMS) with account flags for non-communicating meter, work order tracking, and billing/bill annotation functionalities.	[redacted]	[redacted]	Based on blended rate of internal/external resources. Includes standard active project contingency for hours to complete.
Business Project Resource Costs	Business project team costs (subject matter experts for billing, accounts receivable, call center, metering services) to change processes to account for non-communicating meters, develop system requirements, test IT system functionality.	[redacted]	[redacted]	Based on blended rate of internal/external resources. Includes standard active project contingency for hours to complete.
			$ 139,046.00	**Total IT System Costs**

DEK

General Plant and A&G Adder Derivation

Cap Structure: **DEK's 2016 Rider ASRP Filing**

	Cost	Wgt.	Wgt. Cost	Pre-Tax WACC	After-tax WACC
Long-Term Debt	4.70%	43.60%	2.05%	2.05%	1.26%
Short-Term Debt	1.01%	5.61%	0.06%	0.06%	0.03%
Common Equity	9.70%	50.80%	4.93%	8.01%	4.93%
			7.03%	10.06%	6.22%

Tax Rate: (TRS net of Section 199) 38.47%

2015 FERC Form 1 References **Duke Energy Kentucky, Inc.**

A&G: (pp 323)		
Total A&G	$	20,731,564
Less P&B (926)	$	(7,609,272)
A&G w/o P&B	$	13,122,292
General Plant:		
Gross Gen Plt (pg. 207 line 99)	$	5,952,414
Less Acc. Depr (pg. 219, line 28)	$	(1,132,261)
Net Gen Plt.	$	4,820,153
Rev Req't - Return&Taxes	$	484,815
Gen Depr. Expense (pg 336 line 10)	$	491,145
Total Gen Rev. Req't	$	975,960
Total A&G, Gen Plant	$	14,098,252
Total Direct Labor (p 354, line 28)	$	29,436,757
Less A&G Labor (p 354, line 27)	$	(6,191,511)
Total Direct w/o A&G	$	23,245,246
==> Labor Burden Rate		60.65%

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2015 Job Values

	Cust Svc Rep-FT Probation	Cust Relations Clerk B	Meter Route Analyst	Senior Meter Tester	Premise Troubleshooter	Meter Specialist I (Gas Ops)	Meter Reader	Meter Reader - Full-Time
Hourly Rate	[redacted]							
Burdens								
Payroll Tax								
Loader Rate (Pension & Benefits)								
Incentives								
Total Burden Rate								
Hourly Rate with Burdens								
Labor Overheads								
Total Hourly	$ 27.40	$ 55.61	$ 64.71	$ 80.94	$ 72.34	$ 76.37	$ 52.23	$ 40.13
	Union	Union		Union	Union	Union	Union	Union

DEK

2015 Vehicle Chargeback Values

	Service Delivery Pickup 1/2 Ton 4x4 Category 11.41	Gas Operations Van > 8500 Category 11.71	Meter Reading Sport Utility - Compact 4x4 Category 11.92
Average Monthly Chargebacks	$ 684.09	$ 740.64	$ 638.82
Work Hours Per Month	173	173	173
Average Hourly Rate	**$ 3.95**	**$ 4.27**	**$ 3.69**

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

STAFF-POST HEARING-DR-01-008

REQUEST:

Refer to PAL-SET-1, page 1 of 2. Provide the one-time opt-out cost for an electric-only customer.

RESPONSE:

The current electric opt-out calculation spreads the costs over the total residential electric customer base (electric only and combination electric/gas). Therefore, if the calculation of the opt-out for electric only residential customers is dissected from the total number of residential electric customer base, the costs for combination customers would increase.

If electric-only customers did not share in the one-time costs associated with gas service, the electric-only customers' one-time costs would be equal to $125.26, which is less than the total on PAL-SET-1, but still more than the proposed $100 tariffed rate.

One-time Costs to Establish AMO	
Customer Service @ 3 mins/customer	$1.37
Metering Services Work Order Mgmt @ 5 mins/customer	$4.63
Manual Meter Reading Route Analysis @ 20 mins/customer	$21.57
Senior Meter Tester to disable meter radios @ 30 mins/customer	$40.47
Field service personnel to exchange meter @ 45 mins/customer	$54.26
Vehicle to exchange meter @ 45 mins/customer	$2.96
Gas Operations to remove AMI module from gas meter @ 45 mins/customer	$0.00
Vehicle to remove gas AMI module @ 45 mins/customer	$0.00
Total One-Time Costs	**$125.26**

As previously stated, the one-time cost estimate in PAL-SET-1 reflects an allocation of gas-related costs across all residential electric opt-out customers. If residential electric opt-out customers with gas service (combo customers) paid all the one-time costs associated with gas service, the combo customers' one-time costs would be equal to $185.74, which exceeds the total on PAL-SET-1.

One-time Costs to Establish AMO	
Customer Service @ 3 mins/customer	$1.37
Metering Services Work Order Mgmt @ 5 mins/customer	$4.63
Manual Meter Reading Route Analysis @ 20 mins/customer	$21.57
Senior Meter Tester to disable meter radios @ 30 mins/customer	$40.47
Field service personnel to exchange meter @ 45 mins/customer	$54.26
Vehicle to exchange meter @ 45 mins/customer	$2.96
Gas Operations to remove AMI module from gas meter @ 45 mins/customer	$57.28
Vehicle to remove gas AMI module @ 45 mins/customer	$3.20
Total One-Time Costs	**$185.74**

PERSON RESPONSIBLE: Peggy Laub

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

STAFF-POST HEARING-DR-01-009

REQUEST:

Refer to PAL-SET-1, page 2 of 2. Explain why the labor rates for meter reading differ.

RESPONSE:

"Monthly Meter Reading - Labor" uses a blended hourly rate representing the average total hourly labor rate for two separate job titles, since that work would be split evenly between the two job titles. Off-cycle Meter Reading - Labor" only uses the total hourly rate for one job title, since only those employees would perform the off-cycle meter reading work.

PERSON RESPONSIBLE: Peggy Laub

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

PUBLIC STAFF-POST HEARING-DR-01-010

REQUEST:

Using the data from Exhibit DLS-4, calculate the pro-forma adjustment discussed on pages 4-5 of the Stipulation, assuming 2019 as the test year.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET
(AS TO ATTACHMENT ONLY)

See Public Staff-Post Hearing DR-01-010 Attachment. For a calculation on the electric benefits see Confidential Staff-Post Hearing DR-01-010 Attachment, which is being filed under Petition for Confidential Treatment.

In this example, the Company used the 7.05 % as reflected in the Stipulation and Recommendation and derived from Attachment DLS-4 as the discount rate and also assumed a five year amortization period in the rate case.

PERSON RESPONSIBLE: Peggy Laub

DUKE ENERGY.

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Annual Electric Benefits		Electric & Gas Allocation		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Benefit Type	**Duke Benefit Description**	**Electric Percentage**	**Gas Percentage**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Expense Reduction	Reduced meter reading costs	67%	33%	[redacted]						
	Reduced meter operations costs - consumer order workers for meter orders	100%	0%							
	Reduced meter operations costs - field metering labor	100%	0%							
Avoided Costs - O&M	Avoided restoration costs - OK on arrival	100%	0%							
	Avoided restoration costs - major storms	100%	0%							
	Associated with Upgrading & Integrating TWACS (1)	75%	25%							
	Associated with Maintenance of TWACS	75%	25%							
	Associated with Operating TWACS	75%	25%							
	Miscellaneous O&M savings	100%	0%							
Increased Revenue	Non-technical loss reduction - power theft, equipment failures and installation errors	100%	0%							
Fuel Portion of increased revenue (2)										
	Total									

PV of Annual Benefit (2019 dollars) [redacted]
Total PV 2019-2023 [redacted]

Levelized Benefit [redacted]
PV of Levelized Benefit [redacted]
Sum of Levelized Benefit [redacted]

Savings Already Reflected in TY Revenue Requirement [redacted]
Pro Forma Credit to Include in TY Revenue Requirement [redacted]
Total Credit Amount Included in TY Revenue Requirement **$ 4,204,592**

Discount Rate 7.050%

(1) Per Stipulation and Recommendation this benefit is not included
(2) Per Post hearing data request 14 fuel is 23.18% of typical residential bill

Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Total
2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	All Years
										$ 18,343,292
										$ 11,703,434
										$ 638,790
										$ 640,716
										$ 673,285
										$ -
										$ 531,555
										$ 2,207,986
										$ 1,212,164
										$ 42,082,116
										$ (9,754,635)
										$ 68,278,702

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

STAFF-POST HEARING-DR-01-011

REQUEST:

Explain if "prudency" is synonymous with "reasonableness" as used on page 4 of the Stipulation.

RESPONSE:

Yes. The terms are synonymous. The use of the term prudency was intended to be consistent with the term reasonableness as is used in KRS 278.190 defining the Commission's authority to determine the reasonableness of rates and consistent with the utility's right to collect and receive fair, just and reasonable rates under KRS 278.030.

PERSON RESPONSIBLE: Peggy Laub

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

STAFF-POST HEARING-DR-01-012

REQUEST:

Provide a breakdown of the $140,000 non-recurring cost for information technology required for the opt-out program.

RESPONSE:

See STAFF-POST HEARING-DR-01-007 Confidential Attachment.

PERSON RESPONSIBLE: Peggy Laub

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

STAFF-POST HEARING-DR-01-013

REQUEST:

Provide the non-recurring cost incurred for information technology required for the opt-out program for Duke Energy's operating companies in Ohio, North Carolina, and South Carolina.

RESPONSE:

Duke Energy Ohio incurred $243,122 in information technology (IT) costs required for the opt-out program in that jurisdiction. Duke Energy Carolinas has not yet incurred IT costs required for the opt-out programs in its North Carolina and South Carolina jurisdictions because the opt-out programs have not yet been implemented and the IT work has not yet commenced.

PERSON RESPONSIBLE: Justin Brown

Duke Energy Kentucky
Case No. 2016-00152
STAFF'S POST-HEARING First Set Data Requests
Date Received: December 13, 2016

STAFF-POST HEARING-DR-01-014

REQUEST:

Provide an analysis which shows the amount of the non-fuel-related portion of the Benefit Type Increased Revenue as discussed on page 4 of the Stipulation and its effect on the adjustment to be made in Duke Kentucky's next base electric rate case.

RESPONSE:

Using today's rates, the non-fuel portion of the residential customer bill comprises approximately 72.8% of the total bill (assuming 1,000 kwh). Assuming the next rate case results in a similar ratio, the allocable non-fuel-related portion of the Benefit Type Increase Revenue should be similar, or roughly 72.8 % of the total. The annualized (i.e. levelized) amount would then act as credit against the Company's then determined revenue requirement.

See Confidential Staff-Post Hearing DR-01-010 Attachment for an example of such calculation.

PERSON RESPONSIBLE: Peggy Laub