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

TESTIMONY IN SUPPORT OF SETTLEMENT OF
PEGGY LAUB
ON BEHALF OF
DUKE ENERGY KENTUCKY, INC.

December 6, 2016
TABLE OF CONTENTS

I. INTRODUCTION AND PURPOSE ............................................................................. 1

II. OVERVIEW OF THE PROCEEDING ........................................................................ 2

III. OVERVIEW OF THE STIPULATION .................................................................... 4

IV. CONCLUSION ...................................................................................................... 12

ATTACHMENT:

PAL-SET-1-AMO opt-out costs
I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Peggy A. Laub. My business address is 139 East Fourth Street, Cincinnati, Ohio 45202.

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


Q. ARE YOU THE SAME PEGGY A. LAUB THAT SUBMITTED DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN SUPPORT OF SETTLEMENT?

A. The purpose of my supplemental testimony is twofold. First, I will generally describe this proceeding and explain and support the Stipulation and Recommendation (Stipulation), along with the attachments thereto, that was entered into by and among Duke Energy Kentucky, Inc. (Duke Energy Kentucky or Company), and the Office of the Attorney General of the Commonwealth of Kentucky, by and through the Office of Rate Intervention (the AG) (Duke Energy Kentucky and the AG may be referred to collectively herein as the Parties).
Second, I will explain why the Stipulation represents a fair, just and reasonable resolution of all the issues in this proceeding. The Stipulation was filed on December 6, 2016. I have personally reviewed the Stipulation, was directly involved in the negotiations that resulted in the Stipulation, and affirm that it accurately reflects the agreement that the Company and the AG have reached.

II. OVERVIEW OF THE PROCEEDING

Q. PLEASE GENERALLY DESCRIBE THE RELIEF SOUGHT BY DUKE ENERGY KENTUCKY IN THIS PROCEEDING.

A. Duke Energy Kentucky’s Application in this proceeding requests the Kentucky Public Service Commission (Commission) issue a Certificate of Public Convenience and Necessity (CPCN) for approval to replace and upgrade its electric and gas metering infrastructure technology (Metering Upgrade) for both its gas and electric operations. Duke Energy Kentucky’s existing metering infrastructure consists mostly of meters that are manually read once a month by Company personnel. With the Metering Upgrade, Duke Energy Kentucky is seeking approval to install Advanced Metering Infrastructure (AMI) devices for the Company’s electric and combination electric and natural gas customers (Combination Customers) and Automated Meter Reading (AMR) devices for its customers who only receive natural gas service from the Company (gas-only customers). Duke Energy Kentucky also requested specific accounting treatment through creation of a regulatory asset related to the undepreciated remaining net book value of the Company’s existing metering equipment and inventory, as well as a proposal to establish depreciation rates for the new metering devices (fifteen
years for electric devices and nine years for gas modules), and any necessary
waivers to optimize the functionality of the Metering Upgrade and obtain the
expected operational efficiencies that it enables.

Q. HAS THE AG INTERVENED IN THIS PROCEEDING?
A. Yes. On May 10, 2016, the AG moved the Commission for full intervenor status
in this action pursuant to KRS 367.150(8) and 807 KAR 5:001 Section 4(11).
The Commission granted the AG’s motion by Order entered May 17, 2016.

Q. HAS THE AG AND COMMISSION STAFF PROPOUNDED ANY
REQUESTS FOR INFORMATION UPON DUKE ENERGY KENTUCKY
IN THIS PROCEEDING?
A. Yes. Both the AG and Staff of the Commission (Staff) have engaged in
substantial investigation of the Company’s Application in this proceeding. Both
the Staff and AG have each propounded two sets of discovery upon Duke Energy
Kentucky in accordance with the procedural schedule issued by the Commission.
The first set of data requests was issued on May 23, 2016, with the Company
providing its responses on June 7, 2016. The Staff issued its second set of
discovery on June 17, 2016, and the AG issued its second set of discovery on June
20, 2016. The Company provided responses to both sets on July 5, 2016.

Additionally, following the AG’s submittal of his expert’s testimony of
Paul Alvarez, both the Staff and Duke Energy Kentucky issued discovery
questions to the AG. Responses to those questions were timely submitted on
August 15, 2016. Finally, in response to Mr. Alvarez’s testimony, Duke Energy
Kentucky submitted rebuttal testimony on October 13, 2016. All this is to
demonstrate that the record in this proceeding is fully developed, which facilitated the resulting Stipulation.

III. OVERVIEW OF THE STIPULATION

Q. PLEASE BRIEFLY DESCRIBE HOW THE STIPULATION CAME ABOUT.

A. The Stipulation is the product of much negotiation and compromise by the Company and the AG. The filed Stipulation resolves all issues in this proceeding regarding the Company’s Application to construct its Metering Upgrade initiative. The negotiation of the final Stipulation occurred over several weeks, with multiple meetings both in person at the AG’s offices and at the Commission’s offices with Staff, and via teleconference. Duke Energy Kentucky is appreciative of the AG’s willingness to view this case on its own facts and to fashion an agreement accordingly.

Q. PLEASE DESCRIBE THE STIPULATION.

A. There are many terms and conditions contained in the Stipulation, which demonstrates the level of thoughtfulness and attention to detail exhibited by the Parties. As an overall package, the Stipulation addresses all issues raised by the Company in its Application as well as many of those raised by the AG, through its witness. On balance, I believe the Stipulation, as a whole, represents a fair balance of interests.

I will summarize the significant key points. The Parties agree that the Company’s Application for a Metering Upgrade, establishment of depreciation rates for the new devices, deferral requests, and waivers should be approved as
filed and supported in its Application and testimony but subject to the following modifications:

1. The Parties agree that the Company should be permitted to create a regulatory asset for the actual undepreciated costs of its existing metering infrastructure upon retirement, including related inventory as requested in its Application. Duke Energy Kentucky agrees that in its next rate case, it will propose an amortization period of fifteen years for this asset, without carrying charges. The fifteen-year amortization period is intended to align with the depreciable life of the new Metering Upgrade electric infrastructure. The Company does, however, reserve the right to request carrying charges if the Commission requires and orders a longer amortization period for this asset.

2. The Parties agree, although the Company does not anticipate any cost over-runs, that in the event such over-runs occur, the Company will specifically identify those over-runs on an itemized basis in a manner consistent with how the information is presented in the Company’s Confidential Attachment DLS-4 in this proceeding. Duke Energy Kentucky commits to include an explanation of such over-runs in its testimony and will bear the burden to prove the prudency of the recovery of such over-runs. Additionally, the Company commits that there will be no degradation of the device capabilities or the operational benefits due to the over-runs. Finally, the Company commits to look for additional opportunities for efficiencies during deployment and will report on those
opportunities as part of periodic reporting during the Metering Upgrade deployment phase.

3. The Parties have agreed to two distinct processes for electric and gas operations, which will enable customers to experience the estimated operational benefits that are anticipated with the Metering Upgrade along with providing the Company an opportunity to recover its costs. First, the Company is committing that in its next electric rate case, estimated to be filed sometime before December 31, 2019, to make appropriate test period adjustments related to the electric Metering Upgrade for recovery of costs, revenue, realized savings to date, and projected future operational savings through a levelized, net-present value, pro-forma adjustment to the test year revenue requirement.

Second, because the Company is uncertain of the timing of its next natural gas base rate case, in order to enable natural gas customers to also experience the operational benefits anticipated with the metering upgrade, the Parties have agreed upon a separate process through a subsequent application to the Commission intending to establish a gas Metering Upgrade tracking/reconciliation mechanism. The concept is to enable gas customers to also share in the estimated operational benefits, and the Company to recover its costs of enabling such benefits, without the pending likelihood of a full-blown natural gas base rate proceeding.

As stipulated, within six months of approval of this Stipulation, Duke Energy Kentucky will file a separate and distinct application for the
Commission to review and consider the creation of a discrete tracking mechanism to allow Duke Energy to both recover natural gas Metering Upgrade deployment costs and to offset these costs by crediting customers with the anticipated natural gas operational benefits as set forth in the Expense Reduction and certain Avoided Cost O&M Benefit Types in Confidential DLS-4.

This mechanism will be subject to annual review and true-up in a manner that is similar to the Company’s recently approved Accelerated Service-Line Replacement Program (ASRP). The precise details and rate impacts of this mechanism are not yet known, as the Company has not begun analyzing and developing this program. Again, the Parties are not requesting approval of the mechanism itself in this proceeding. The Parties are merely asking that the Commission approve the stipulated process where the Company will file a separate application to establish the mechanism for review and consideration in the near future. The merits of the tracking/reconciliation mechanism will be fully addressed by the Commission in the later proceeding and the Parties and the Commission have all rights to support or oppose any portion of the filing.

4. The Parties have agreed to the creation of a Residential Electric Advanced Meter Opt-out (AMO) Program tariff. This voluntary offer will enable residential electric customers the ability to not have an AMI device capability enabled on their electric meter. This will mean that those electric and combination electric/gas customers will continue to
experience a monthly manual meter reading, rather than having automatic
meter reading. This will also mean that the remote
connection/disconnection capabilities will not be enabled and that those
customers will not have access to interval usage data or be able to take
advantage of many of the enhanced basic services that will eventually be
enabled by fully functional AMI devices.

The Company’s business case for pursuing the Metering Upgrade
is based upon the operational benefits achievable with full deployment.
In order to not to significantly erode those benefits for all other
customers, the AMO tariff has been designed to recover the costs of
providing the AMO option from those electing the program. These costs
are based upon the estimated incremental costs to manually read a
customer’s meter after deployment is completed and to enroll the
customer into the AMO program. The monthly incremental fee will be
$25.00 per customer premises. The one-time registration fee for Opt-out
service will be $100.00. It is important to know that, with the approval of
this AMO program at the outset of deployment, Duke Energy Kentucky
intends to waive the $100.00 one-time fee for any residential customer
who elects to participate in the program before a new AMI device is
installed. These costs were negotiated and are supported by the actual
estimated incremental costs as depicted in Attachment PAL-SET-1.
Once an AMI meter is installed, any customer who then elects to opt-out
will be charged the $100.00 registration fee. This is because the
Company will then have to send out a technician to either disable the radio communication capability or install a different meter with disabled radios and to register the customer as an opt-out customer.

Finally, because the costs of developing this AMO program are not included in the Company's Application and will result in an immediate and unplanned operations and maintenance (O&M) expense to develop this capability, the Parties have agreed to the creation of a deferral of those one-time O&M costs (estimated to be $140,000) for future recovery.

5. Finally, the Parties have also agreed upon a process to develop and file for approval a Residential Peak-Time Rebate Pilot (PTR Pilot). Similar to the Metering Upgrade gas tracking mechanism I previously described, the Parties are merely asking the Commission approve this process in this case. The actual PTR Pilot program, once designed, will be filed separately for Commission review and consideration in a subsequent proceeding. The PTR Pilot will be designed and developed as a demand side management (DSM) program and vetted through the Company's residential DSM collaborative. The PTR Pilot is intended to collect information to evaluate future similar rate offerings that are enabled by the Metering Upgrade technologies. In concept, the PTR Pilot will provide a credit to eligible residential customers who are able to actually lower their consumption from a defined baseline in response to a pricing event during the year. The costs of developing and operating this program
will be included as part of the Company’s DSM recovery mechanism (Rider DSM) which is reviewed by the Commission annually. The PTR Pilot will be open to up to 1,000 residential electric customers and will run for two years from implementation. Following the conclusion of the two-year period, the Company will have an independent evaluation, measurement, and verification (EM&V) study performed to determine the program’s effectiveness in terms of both cost and benefits achieved. The Company will then present the results and recommendations to the Commission upon completion.

Q. ARE THERE ANY ADDITIONAL COMMITMENTS CONTAINED IN THE STIPULATION TERMS AND CONDITIONS?

A. Yes. Duke Energy Kentucky is making several commitments in resolution of this proceeding. These commitments include providing customers access to their data, providing aggregate non-customer specific usage data to governmental and educational institutions for research purposes, updating certain charges in future rate cases, as well as periodic (annual and semi-annual) reporting during the Metering Upgrade deployment, including but not limited to, progress of deployment, various non-financial benefits metrics, and development of new AMI-enabled products and services for its customers.

Q. WHY HAVE DUKE ENERGY KENTUCKY AND THE AG ENTERED INTO THE STIPULATION?

A. There are a number of reasons why Duke Energy Kentucky and the AG have entered into the Stipulation. In general terms, the Parties, who represent diverse
interests and divergent viewpoints, agree that the Stipulation, viewed in its entirety, is a fair, just, and reasonable resolution of all the issues in this proceeding. This Stipulation creates a clear path for the Company to proceed with its Metering Deployment initiative with certainty. This Stipulation also creates value for customers and benefits for the Company that were not included in the initial application, but raised by the AG in testimony or during settlement negotiations. For example, the creation of the AMO program gives residential customers a choice in whether they continue to have a manual meter reading. It is anticipated that existence of the AMO program will also provide a smoother deployment process for the Company in that customers will have the ability to choose between the AMI electric meter or manual meter reading without significantly impacting the anticipated operational savings anticipated with the Metering Upgrade deployment. The creation of the Residential PTR Pilot program, if approved, will provide an opportunity for eligible customers to proactively take action to reduce their energy bill. This PTR Pilot provides an AMI-enabled voluntary rate design that will be available to interested and eligible residential customers soon after deployment. This will be done in a way that is financially neutral to the Company because it enables Duke Energy Kentucky an opportunity to recover its costs. The commitments regarding future electric rate case adjustments and the creation of the process for the gas Metering Upgrade cost/benefit tracking and reconciliation mechanism addresses concerns raised by the AG regarding the handling of costs and sharing of benefits with customers. The Commission will still have all of its authority in future rate
proceedings to evaluate the Company’s proposals in terms of prudency and reasonableness.

IV. CONCLUSION

Q. DOES THIS CONCLUDE YOUR PRE-FILED REBUTTAL TESTIMONY?
A. Yes.

Q. WAS ATTACHMENT PAL-SET-1 PREPARED AND COMPiled AT YOUR DIRECTION AND UNDER YOUR CONTROL?
A. Yes.
VERIFICATION

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

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

Peggy A. Laub, Affiant

Subscribed and sworn to before me by Peggy A. Laub on this 6th day of December, 2016.

ADELE M. FRISCH
NOTARY PUBLIC

My Commission Expires: 1/5/2019
# Duke Energy Kentucky - Advanced Meter Opt-out Cost Analysis

## Expenses (One-Time per Participant)

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer Service @ 3 mins/customer</strong></td>
<td>$1.37</td>
</tr>
<tr>
<td><strong>Metering Services work order mgmt @ 5 mins/customer</strong></td>
<td>$4.63</td>
</tr>
<tr>
<td><strong>Meter Reading to perform route analysis @ 20 mins/customer</strong></td>
<td>$21.57</td>
</tr>
<tr>
<td><strong>Metering Services to disable meter radios @ 30 mins/customer</strong></td>
<td>$40.47</td>
</tr>
<tr>
<td><strong>Field service personnel to exchange meter @ 45 mins/customer</strong></td>
<td>$54.26</td>
</tr>
<tr>
<td><strong>Vehicle to exchange meter @ 45 mins/customer</strong></td>
<td>$2.96</td>
</tr>
<tr>
<td><strong>Gas Operations to remove AMI module from gas meter @ 45 mins/customer; 70% of electric customers have dual gas service</strong></td>
<td>$40.09</td>
</tr>
<tr>
<td><strong>Vehicle to remove gas AMI module @ 45 mins/customer</strong></td>
<td>$2.24</td>
</tr>
</tbody>
</table>

**Total One-Time Costs** $167.60

---

Customer Call Center will take calls for AMO participants, explain tariff details, and set up account.

Metering Services to create initial work orders for meter programming, meter exchange and manual read routing.

Metering Services to determine location of AMO participant and find existing manual reading route to adjust for efficient meter reading route.

Metering Services to disable radios in the Meter Lab.

Service Delivery to travel to customer premise, remove existing meter and replace with non-communicating meter, close work orders.

Pickup 1/2 Ton 4x4 @ $3.95/hour

Gas Operations to travel to and from customer premise, remove existing gas module for dual service customer, and close work orders.

Van >8500 @ $4.27/hour

Sum of rows (1) through (8)

---

Note: All costs reflect fully loaded costs.
### Estimated # AMO Customers

<table>
<thead>
<tr>
<th>Topic Area</th>
<th>Topic Details</th>
<th>Rate</th>
<th>Hours to Complete</th>
<th>Unit Cost</th>
<th>Frequency</th>
<th># of Events Annually</th>
<th>Annual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Meter Reading - Labor</td>
<td>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.</td>
<td>$ 46.18</td>
<td>0.5</td>
<td>$ 23.09</td>
<td>Monthly per AMO Customer</td>
<td>1,716</td>
<td>$ 39,625.75</td>
</tr>
<tr>
<td>Monthly Meter Reading - Vehicle</td>
<td>Meter Reading employee vehicle costs (Sport Utility - Compact 4x4) for duration of monthly meter reading throughout the route, per customer</td>
<td>$ 3.69</td>
<td>0.5</td>
<td>$ 1.84</td>
<td>Monthly per AMO Customer</td>
<td>1,716</td>
<td>$ 3,162.16</td>
</tr>
<tr>
<td>Off-cycle Meter Reading - Labor</td>
<td>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)</td>
<td>$ 52.23</td>
<td>1</td>
<td>$ 52.23</td>
<td>Annually for 10% of AMO Customers</td>
<td>14</td>
<td>$ 746.94</td>
</tr>
<tr>
<td>Off-cycle Meter Reading - Vehicle</td>
<td>Meter Reading employee vehicle costs (Sport Utility - Compact 4x4) for duration of off-cycle meter reading</td>
<td>$ 3.69</td>
<td>1</td>
<td>$ 3.69</td>
<td>Annually for 10% of AMO Customers</td>
<td>14</td>
<td>$ 52.70</td>
</tr>
</tbody>
</table>

**Note:** all costs reflect fully loaded costs

<table>
<thead>
<tr>
<th></th>
<th>Annual Total</th>
<th></th>
<th>Total Monthly costs</th>
<th>Costs per AMO Customer per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$ 43,587.55</td>
<td></td>
<td>$3,632.30</td>
<td>$25.40</td>
</tr>
</tbody>
</table>