VERIFICATION

STATE OF NORTH CAROLINA)
)
COUNTY OF MECKLENBURG)

SS:

The undersigned, Lari D. Granger, Senior Product & Services Manager, 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.

Lari D. Granger, Affiant

Subscribed and sworn to before me by Lari D. Granger on this 31 day of October, 2016.

CARMEN MALSBURY
Notary Public
Mecklenburg Co., North Carolina
My Commission Expires Dec. 26, 2018

NOTARY PUBLIC

My Commission Expires: Dec. 26, 2018

VERIFICATION

STATE OF INDIANA)
) **SS:**
COUNTY OF HENDRICKS)

The undersigned, Richard Philip, Manager, Products & Services, 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.

Richard Philip, Affiant

Subscribed and sworn to before me by Richard Philip on this 31 day of October, 2016.

NOTARY PUBLIC

My Commission Expires: 10-2-20

VERIFICATION

STATE OF NORTH CAROLINA)
)
COUNTY OF WAKE)

SS:

The undersigned, Jean P. Williams, Manager DSM Analytics, 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.

Jean P. Williams

Jean P. Williams, Affiant

Subscribed and sworn to before me by Jean P. Williams on this 4th day of November, 2016.

PEGGY HOLTON NOTARY PUBLIC WAKE COUNTY, NC

Peggy Holton

NOTARY PUBLIC

Peggy Holton

My Commission Expires: 12/22/2016

KYPSC CASE NO. 2016-00289
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Duke Energy Kentucky
Case No. 2016-00289
Staff Second Set of Data Request
Date Received: October 24, 2016

STAFF-DR-02-001

REQUEST:

Refer to Duke Kentucky's response to Staff's First Request for Information ("Staff's First Request"), Item 1.a.

a. Provide the estimated costs incurred from those participants who are not Duke Kentucky customers.

b. Explain whether Duke Kentucky adjusted the estimated program costs to account for these costs.

c. If the answer to 1.b. is no, explain whether Duke Kentucky will adjust the actual program costs when determining the over-/under-collection to account for these costs.

d. Explain how Duke Kentucky determined "customer shopping patterns."

e. Explain how offering the program in conjunction with Duke Energy Ohio will minimize non-Duke Kentucky customers' participation.

RESPONSE:

a. Currently there are no costs being recognized for costs associated with participants who are not Duke Energy Kentucky customers. The program assumptions for the retail channel of lighting measures included in the Residential Smart$aver Program did not assume any explicit "leakage" or a number of bulbs going to non-Duke Energy Kentucky Customers. Future evaluation, measurement

and verification activities will be able to determine if and to what extent leakage exists and will then be used as the basis for the energy savings recognized for the lighting measures that reach customers through the retail delivery channel.

b. The programs costs have not been adjusted for estimated costs associated with non-Duke Energy Kentucky customer participation.

c. As mentioned above, if any leakage is determined through the EM&V process, Duke Energy Kentucky will update the energy savings and net benefit associated with the measures. The Company is not proposing to adjust costs, as it believes any costs incurred with any leakage that would occur are program administration costs, meaning that they are incurred as part of the program design utilized to reach Duke Energy Kentucky customers. Duke Energy Kentucky believes that its program design, including any potential costs associated with leakage is the most cost effective way to reach customers through the retail channel.

d. Customers generally shop closer to their home and the retail program will engage only Duke customers through promotional material and retail events. This channel serves those customers that purchase bulbs on impulse or prefer to discuss purchase options/applications with store personnel.

e. Offering the Ohio/Kentucky programs will make it more convenient to shop closer to home for a limited number of LED lamps and fixtures as should reduce any potential for leakage across the state utility boundaries.

PERSON RESPONSIBLE: Lari Granger

Duke Energy Kentucky
Case No. 2016-00289
Staff Second Set of Data Request
Date Received: October 24, 2016

STAFF-DR-02-002

REQUEST:

Refer to Duke Kentucky's response to Staff's First Request, Item 5. Explain whether the statement "Customers who select the switch will not see any energy savings on their bill" refers to general energy savings from thermostat control or energy savings from the Power Manager event.

RESPONSE:

That statement refers to energy savings from thermostat control. A Power Manager event is not expected to provide "energy savings" relative to the monthly consumption of a customer. The energy not consumed during an event is assumed to be used after the event has ended to return the conditioned space return to its normal temperature setting.

PERSON RESPONSIBLE: Rich Philip

Duke Energy Kentucky
Case No. 2016-00289
Staff Second Set of Data Request
Date Received: October 24, 2016

STAFF-DR-02-003

REQUEST:

Refer to Duke Kentucky's response to Staff's First Request, Item Item 11.d. Duke Kentucky responded that it does not provide real-time feedback on customer curtailment performance. Explain how the participant is assured that his or her energy curtailment is sufficient to avoid a penalty.

RESPONSE:

Customers are required to have a curtailment plan and are encouraged to practice their procedures. They can compare the results from any "practice" based on their after-the-fact metered information. In addition, customers are required to test annually to demonstrate their capability to meet the contracted curtailment levels, and receive results from the test each year. Only a customer with their own real-time metering capability would see the results in "real-time".

PERSON RESPONSIBLE: Rich Philip

Duke Energy Kentucky
Case No. 2016-00289
Staff Second Set of Data Request
Date Received: October 24, 2016

STAFF-DR-02-004

REQUEST:

Refer to Duke Kentucky's response to Staff's First Request, Item Item 11.e. Explain how PJM determines noncompliance charges and penalties for an event and how any penalties assessed from PJM are assigned to customers that did not meet their curtailment commitment.

RESPONSE:

From PJM's manual 18:

> The LM Compliance Charge for an event for a dispatched registration in a zone for the onpeak period (which includes all hours for which a Limited Demand Resource would be expected to respond) is equal to the lesser of (one divided by the actual number of on-peak events during the Delivery Year for the dispatched registration in such zone, or 0.50) * Provider's Weighted Daily Revenue Rate in such zone for the dispatched registration, multiplied by the net under-compliance in such on-peak period for the dispatched registration.

Duke Energy Kentucky will take the sum of all the non-compliance charges from PJM for the event in question and allocate those charges to the non-complying customers in proportion to their contribution (in average MWs during the event) to the noncompliance.

PERSON RESPONSIBLE: Rich Philip

Duke Energy Kentucky
Case No. 2016-00289
Staff Second Set of Data Request
Date Received: October 24, 2016

STAFF-DR-02-005

REQUEST:

Refer to Duke Kentucky's response to Staff's First Request, Item Item 12.

a. Provide a comparison of the rates of Duke Ohio and Duke Kentucky and the dollar amount of savings possible for participating customers applying the two different sets of rate schedules.

b. Considering the difference in dollar savings potential caused by the difference in the two utilities' rates, state whether Duke Ohio results are relevant in evaluating the Duke Kentucky programs.

RESPONSE:

a. Non-residential electric Duke Energy Ohio and Duke Energy Kentucky customers can take service under various rates, depending on their voltage and size. The average cost per kWh for a given bill depends on the customer's rate, size, and load factor.

For the purpose of this comparison we will assume a typical small commercial customer is served under Rate DS, Service at Secondary Distribution Voltage, in both jurisdictions and we will further assume that the customer has a peak demand of 40 kW and monthly usage of 14,000 kWh.

For this example, the monthly bills are as follows:

Duke Energy Ohio, Rate DS: $1,319.10 ($0.094 per kWh)

Duke Energy Kentucky, Rate DS: $1,159.27 ($0.083 per kWh)

Assuming that an Energy Efficiency measure saves 1000 KWh of annual usage, the Ohio customer would save a total of $94.00 in a given year and the Kentucky customer would save $83.00.

b. Yes, the Duke Energy Ohio results are relevant in evaluating Duke Energy Kentucky programs. In order to answer this question, it is important to note the purpose of EM&V, particularly as it applies to a program such as Smart Saver Custom. EM&V is performed in order to confirm whether the amount of savings projected at the time of the application (ex ante savings) equals the amount of savings verified independently after the completion of that project (ex post savings). In other words, the EM&V is designed to check the accuracy of the methodology used to estimate the savings for a given project.

As explained in the EM&V report dated March 11, 2016, the evaluation performed by Cadmus chose a statistically significant set of random projects completed in the Duke Energy Ohio and Duke Energy Kentucky regions and performed this verification using a variety of industry-accepted, International Performance Measurement and Verification Protocols (IPMVP) methods including pre- and post-metering, calibrated engineering models, etc. This evaluation measured the ex post savings and compared them to the ex ante savings and the ratio of those results, the "realization rate", will be applied to all future projects.

The difference in dollar savings potential that might be caused by different retail rates for electricity between Ohio and Kentucky does not enter into this

analysis because the EM&V methodology only involves comparing expected savings to actual measured and verified savings and the amount of savings from a project are driven by the equipment or technology adopted by the customer.

It is possible that customers in a state with higher retail electricity rates might be more likely to adopt energy saving measures, i.e. the participation might be higher, however, that does not impact the realization rate, which is based entirely upon a comparison of expected savings for a given project compared to measured savings for that project.

PERSON RESPONSIBLE: Jean Williams