<table>
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<tr>
<th>DATA REQUEST</th>
<th>WITNESS</th>
<th>TAB NO.</th>
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<tbody>
<tr>
<td>AG-RHDR-01-001</td>
<td>Christopher Jacobi</td>
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<td>AG-RHDR-01-002</td>
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<td>Jeff L. Kern</td>
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<td>AG-RHDR-01-013</td>
<td>Jeff L. Kern</td>
<td>13</td>
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REQUEST:
For all projects being or to be recovered through Rider ESM, provide the actual and projected additions by project for each month starting January 2019 and ending with March 31, 2021. Provide in electronic format with all formulas intact.

RESPONSE:
Please see AG-RHDR-01-001 Attachment for actual and currently projected additions by ESM project from January 2019 through March 2021. Please refer to the response to STAFF-RHDR-01-005 for as-filed actual and forecasted additions for projects being or expected to be recovered through Rider ESM for January 2019 through March 2021.

PERSON RESPONSIBLE: Christopher Jacobi
REQUEST:
Indicate whether all plant balances for which costs are recovered through Rider ESM are reflected in FERC Account 311 as they appear to be in the adjustments to remove such costs in Schedule B-2-2.

RESPONSE:
Yes, all capital costs recovered through Rider ESM are reflected in FERC Account 311 once they are actually placed into service. Forecasted ESM additions are reflected in Completed Construction Not Classified within the Steam Production function.

PERSON RESPONSIBLE: Christopher Jacobi
REQUEST:

Refer to the responses to Staff 2-06 and Staff 2-07 which provide a breakdown of plant by FERC Account for the base year and the test year, respectively. Provide a similar schedule which starts with December 31, 2018 balances by FERC account and depicts steam production plant additions, retirements, and ending balances by plant account for each month starting with January 2019 and ending with March 31, 2021 that were used in the as-filed original projections. Provide a breakdown of the data separately for any FERC plant account that contains amounts for projects being recovered through Rider ESM. For all amounts that were depicted as Completed Construction Not Classified in the as-filed original projections, provide the amounts of such that were considered to be related to projects being recovered through Rider ESM. Provide an electronic format with all formulas intact.

RESPONSE:

Please refer to the response to STAFF-RHDR-01-004 and STAFF-RHDR-01-005 for details of additions by FERC account for the months of December 2018 through March 2021, consistent with the as-filed original projections. Please refer to the responses to STAFF-DR-02-006 and STAFF-DR-02-007 for retirements by FERC account for the months of December 2018 through November 2019 and April 2020 through March 2021, respectively. Please refer to the response to STAFF-RHDR-01-004 for retirements by
FERC account for the months between the base period and the forecasted period, December 2019 through March 2020.

PERSON RESPONSIBLE:  Christopher Jacobi
REQUEST:

Refer to Schedule B-2-2 and further to be the adjustment of ($41,089,898) for the base year
and ($69,086,352) for the test year to “remove assets recovered through the ESM rider.”
Provide copies of all workpapers used to derive these amounts in electronic format with all
formulas intact.

RESPONSE:

The $41,089,898 adjustment to remove assets recovered through the ESM rider as shown
on Schedule B-2.2, page 1 of 2, represents the actual balance as of May 2019 since there
were no forecasted ESM additions for the months of June-November 2019.

<table>
<thead>
<tr>
<th>ESM Project</th>
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<tr>
<td>EB020290 - Lined Retention Basin West</td>
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<td>EB020745 - Lined Retention Basin East</td>
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<tr>
<td>EB020298 - East Bend SW/PW Reroute</td>
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<td>EB021281 - East Bend Landfill Cell 2</td>
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See STAFF-RHDR-01-006 Attachment for the calculation of the forecasted period
adjustment to remove assets recovered through the ESM rider as shown on Schedule B-
2.2, page 2 of 2, of $69,086,352.

PERSON RESPONSIBLE: Christopher Jacobi
REQUEST:

Provide a copy of the capital budgets pertaining to projects being recovered through Rider ESM for 2019, 2020, and 2021.

RESPONSE:

Please refer to response to STAFF-RHDR-01-002.

PERSON RESPONSIBLE: Christopher Jacobi
REQUEST:

Please identify and describe all typical costs associated with LED Outdoor Lighting, including financing costs.

RESPONSE:

The costs that go into the calculation of the monthly rates for Rate LED include the cost of the actual equipment, adjusted for materials, storage, freight and handling. Labor is added to this, which includes overheads, fleet and supervision. Finally, the monthly rate is determined by applying the Levelized Fixed Charge Rate (LFCR) which includes depreciation, taxes, insurance, and the approved capital structure (which incorporates the financing costs).

PERSON RESPONSIBLE: Jeff L. Kern
REQUEST:

For the Fixture, Maintenance, and Equipment monthly charges associated with LED Outdoor Lighting, please describe how average installed costs are calculated and provide an illustrative example of those calculations.

RESPONSE:

Average installed costs for fixtures and other equipment are calculated based on the actual cost of purchasing the equipment plus materials, storage, freight and handling. Please see response to STAFF-RHDR-01-014.

Maintenance costs were originally established in Case No. 2017-00321 based upon maintenance trips to replace the driver every 15 years, replace the surge protection or photocell every 10 years and other repairs or service every 10 years, including material, labor and overheads. Costs were determined for fixtures with less than 170 watts and those with 170 watts or more. These maintenance costs were increased by the overall percentage for street lighting approved in this case.

PERSON RESPONSIBLE: Jeff L. Kern
REQUEST:
Describe the financing facilities utilized by Duke to pay the upfront costs associated with LED Outdoor Lighting if the customer elects to pay monthly.

RESPONSE:
The upfront costs associated with LED Outdoor Lighting are financed through the general construction budget. This is the same as any other equipment installed by the Company. The Levelized Fixed Charge Rate includes a component for the cost of capital and is used to determine the monthly rate.

PERSON RESPONSIBLE: Jeff L. Kern
REQUEST:

Describe and specifically identify any increased or additional costs Duke would accrue should it be required to allow customers to “pay off” fixed charges associated with LED Outdoor Lighting by monthly payments should the Commission order it to do so.

RESPONSE:

After a customer would “pay off” the fixed charges associated with Rate LED, there would still be maintenance costs and potentially the cost of replacement. Structuring Rate LED in that fashion would effectively duplicate Rate OL-E. Please see response to AG-RHDR-01-012. In addition, the Company would be responsible for replacing equipment as necessary under the current Rate LED. If it were changed to allow equipment to be “paid off” then the customer would become responsible for any required replacements.

PERSON RESPONSIBLE:    Jeff L. Kern
REQUEST:

Explain how the costs of the LED pole foundations, brackets and wiring is determined and calculated.

RESPONSE:

The costs of pole foundations, brackets, and wiring were determined using the same methodology as for Fixtures and Poles. See response to AG-RHDR-01-007.

PERSON RESPONSIBLE: Jeff L. Kern
REQUEST:

Explain how the monthly charge is calculated to cover the costs of the LED pole foundations, brackets and wiring.

RESPONSE:

The monthly charge is calculated by multiplying the total cost as described in the response to AG-RHDR-01-010 by the Levelized Fixed Charge Rate (LFCR). The LFCR is derived from the approved cost of capital, depreciation, taxes, and insurance. See response to STAFF-RHDR-01-014.

PERSON RESPONSIBLE: Jeff L. Kern
REQUEST:
Would Duke agree to limit the duration of the monthly charge for the LED Outdoor Lighting? If not, please explain why.

RESPONSE:
Duke Energy Kentucky would not agree to limit the duration of the monthly charge for the LED Outdoor Lighting. Rate LED was built to satisfy many customer requests for a regulated tariff structure in a manner similar to the closed SL rates that does not require the customer to pay for the Capital equipment charges upfront or spread out over time. This rate was built in a similar manner to all other regulated tariffs that utilize a "regulated cost sharing" model similar to how all lighting rates were structured and the company operated under prior to the approval of the Rate UOLS and Rate OL-E rate model. Due to the nature of the "shared cost" model, these costs would not be subject to ending on a shorter term basis and would be ongoing charges until the system is removed. Further, if Rate LED limited the duration of the monthly charge it would effectively be the same as the combination of Rate UOLS and Rate OL-E. A customer who desires an agreement of that nature can still utilize those rates rather than Rate LED.

PERSON RESPONSIBLE:    Jeff L. Kern
REQUEST:

Please respond to the following from page 22, second paragraph, of the Commission’s Order of June 4, 2020:

“Having reviewed the relevant record, the rehearing pleadings, and being otherwise sufficiently advised, the Commission finds that rehearing should be granted on this issue in order to obtain more information and to inquire as to why this provision was not structured similarly to Duke Kentucky’s Rate OL-E, Outdoor Lighting Equipment Installation, which has been in Duke Energy’s tariff in its current form since at least 2007.” (emphasis added)

RESPONSE:

Please see response to STAFF-RHDR-01-009.

PERSON RESPONSIBLE: Jeff L. Kern