COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC 2018 JOINT INTEGRATED RESOURCE PLAN OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY	**)** **)** **)** **)**	**CASE NO. 2018-00348**

RESPONSE OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY TO COMMISSION STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED SEPTEMBER 16, 2020

FILED: SEPTEMBER 22, 2020

Louisville Gas and Electric Company and Kentucky Utilities Company
Response to Commission Staff's Post-Hearing Request for Information
Dated September 16, 2020

Case No. 2018-00348

Question No. 1

Witness: Stuart A. Wilson

Q-1. Refer to the January 16, 2020 public comment of Southern Renewable Energy Association (SREA) at page 3. The SREA comment states that LG&E/KU's developed levelized cost for wind energy imports were 40 percent higher as compared to the NREL's ATB for the highest quality wind energy resource and that this may have been due to the inclusion of $12 per MWh for additional transmission costs. Explain how the $12 per MWh transmission costs were derived.

A-1. The Companies assumed that wind resources in MISO would provide the energy for any wind-based purchased power agreements, which would require annual firm point-to-point transmission service out of MISO to the Companies' MISO interface at MISO's published tariff rates. The transmission rate per MWh was derived by dividing MISO's annual total transmission rate of approximately $47,000/MW-year by the expected annual wind energy assuming a 40-50% capacity factor range. $12/MWh is the average of the rates at a 40% capacity factor and a 50% capacity factor.

- At a 40% capacity factor, the rate is $13.41/MWh = $47,000 / (8,760 hours/year * 40%)
- At a 50% capacity factor, the rate is $10.73/MWh = $47,000 / (8,760 hours/year * 50%)
- ($13.41 + 10.73) / 2 = $12.07/MWh