BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION

In the Matter of:	)	
	)	
ELECTRONIC TARIFF FILING OF	)	
BIG RIVERS ELECTRIC CORPORATION	)	**Case No. 2021-00289**
AND KENERGY CORP.	)	
TO IMPLEMENT A NEW STANDBY	)	
SERVICE TARIFF	)	

RESPONSE OF KIMBERLY-CLARK CORPORATION TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

1. Refer to the Justin Bieber Direct Testimony (Bieber Testimony), page 3, lines 66–67, and page 4, lines 68–69.

   a. Explain why Big Rivers Electric Corporation (BREC) is only requiredto obtain a fraction of the self-supply capacity in order to supply maintenance and backupservice.

Response: As explained in Mr. Bieber's Direct Testimony, according to Big Rivers Electric Corporation's ("Big Rivers'") proposed Large Industrial Customer Standby Service ("LICSS") tariff, a standby customer would be required to cooperate to schedule a maintenance outage so as to maximize the value of the customer's self-supply capacity, and must submit the schedule request in advance, subject to Big Rivers' approval. This provides Big Rivers the opportunity to ensure that Maintenance outages will be scheduled during periods in which Big Rivers has sufficient unused capacity to provide Maintenance Power Service, such as off-peak periods. Therefore, the provision of Maintenance Power Service would not impact Big Rivers' peak load forecasts or its planning reserve margin requirement ("PRMR"). Since Big Rivers' PRMR would be unaffected by the provision of Maintenance Power, Big Rivers will not need to procure any incremental capacity in order to provide Maintenance Power.[1]

As further explained in Mr. Bieber's Direct Testimony, a standby customer requires Backup Power Service when an unplanned outage of its self-generation facility occurs. As a transmission-owning member of the Midcontinent Independent System Operator ("MISO"), Big Rivers plans to meet MISO's annual PRMR.[2] MISO conducts an annual Loss of Load Expectation study to determine planning reserve margin requirements, a study which among other factors takes into account equipment forced outage rates.[3] Big Rivers utilizes a PRMR that is equal to 9.4% of its forecasted summer coincident peak load, where the peak load forecast includes 1.6% transmission losses.[4] This results in a reserve margin that is

[1] Direct Testimony of Justin Bieber, pp. 7-8.
[2] Big Rivers Corporation and Kenergy Corp. Joint Response to Kimberly-Clark Corporation's First Set of Data Requests, Item 3, September 3, 2021, Reproduced in Exhibit JB-1.
[3] Midcontinent Independent System Operator Planning Year 2021-2022 Loss of Load Expectation Study Report, pp. 5-7.
[4] Big Rivers Corporation and Kenergy Corp. Joint Response to Commission Staff's First Set of Data Requests, Item 2, September 3, 2021, Reproduced in Exhibit JB-1.

11.1% greater than forecasted peak load, excluding transmission losses.[5] While it is unlikely that a standby customer would experience a forced outage coincident with the system peak, it may be reasonable for Big Rivers to incur costs to increase its PRMR by an amount up to 11.1% of the standby customer's Self-Supply Capacity in the unlikely event that it is required to provide Backup Power Service. However, Big Rivers would not be required to obtain additional capacity above this amount in order to provide Backup Power Service.[6]

b. Explain how much capacity BREC would be required to either maintain or acquire in order to provide the maintenance and backup service.

Response: See response to 1 a.

2. Refer to the Bieber Testimony, page 4, lines 70–75.

a. If BREC did not have any excess capacity, explain how much capacity BREC would have to procure to provide the service.

Response: See response to 1 a. for an explanation of how much capacity Big Rivers would have to procure to provide Maintenance and Back-up Service if Big Rivers did not have any excess capacity. However, if Big Rivers did have excess capacity, then the amount of incremental capacity required to provide Maintenance and Back-up Service would be reduced by an amount equal to the excess capacity position.

b. Explain whether Kimberly-Clark is completely energy self-sufficientand if not, explain how often it would utilize the Maintenance and Back-up service on a monthly basis. Include in the response whether Kimberly-Clark's reliance on the serviceis affected by weather or seasonal variations.

Response: Standby customers, such as Kimberly-Clark, are not typically completely energy self-sufficient, which is the reason a standby customer may elect to take Maintenance and Back-up Power Service under a standby tariff. If a customer was energy self-sufficient, there would be no need for standby service. In addition to requiring Maintenance Power and Back-up Power Service, standby customers, like Kimberly-Clark, also require supplemental service to serve loads that exceed the demand of the onsite generating unit. Kimberly-Clark's cogeneration unit typically generates 14 MW and the mill load is normally around 32-33 MW, so even during normal operations Kimberly-Clark's supplemental load is in the range of 18-20 MW.

Kimberly-Clark expects to schedule maintenance outages 2-4 times per year during off-peak periods when capacity on Big Rivers' system is not constrained (subject to approval by Big Rivers). Unplanned outages requiring back-up service by definition are not planned. However, based on past experience, Kimberly-Clark's generation may trip offline unexpectedly 2-3 times a year for less than two hours each time. Given the infrequent nature of unplanned outages, it is unlikely that an unplanned outage would occur at the same time as a system peak.

Ambient temperatures driven by seasonal variations do have some impact on expected production. Kimberly-Clark's cogeneration unit is expected to produce about 12.5 MW in the summer months and 14-15 MW in the winter months.

It is relevant to note that the Self-Supply Capacity is not equal to the standby generation nameplate capacity. The Self-Supply Capacity, as defined in Big Rivers' proposed LICSS tariff is "the demonstrated

[5] Load Forecast Before Transmission Losses x (1 + 1.6% Transmission Losses) x (1 = 9.4% Planning Reserve Margin Requirement) – 1 = 11.1%.
[6] *Id.*

capacity of the Standby Customer's generating unit(s), as determined by the reduction in Big Rivers' MISO Planning Reserve Margin Requirement that results from the Standby Customer's own generation."

3. Refer to the Bieber Testimony, page 4, lines 76–80. PJM conducts an annual Base Residual Auction and several incremental auctions that set capacity marketclearing prices. Given that BREC is a member of MISO, explain how BREC could obtaina competitive capacity price as the basis for pricing the capacity component of its tariff.

Response: This section of Mr. Bieber's Direct Testimony refers to Big Rivers' existing tariff for Maintenance and Back-up Power Service under the Standard Rate QFS – Cogeneration/Small Power Production Sales Tariff ("QFS"). Specifically, Mr. Bieber explains that Big Rivers' proposed LICSS tariff would represent a significant departure from the precedent set by this Commission in approving the rates for Maintenance and Back-up Power Service under the QFS and would result in unduly discriminatory rates for a very similar service.

Kimberly-Clark does not agree that Big Rivers should obtain a different competitive capacity price as the basis for the LICSS tariff. The service to be rendered by Big Rivers through the LICSS tariff is the provision of standby service. LICSS customers are not selling capacity to Big Rivers; they are buying standby service. Mr. Bieber recommends that the LICSS tariff should be structured similar to the rate design for Maintenance and Back-up demand under the QFS tariff. The QFS tariff charges customers 110% of Big Rivers actual cost to provide Backup Service, including transmission service, by importing energy from a third party. The weekly Maintenance Demand charge for off-peak Maintenance Service under the QFS tariff is determined by converting the demand charge in the RDS tariff from a $/kW-month rate to a $/kW-week rate. Specifically, Mr. Bieber recommends that the LICSS customers should be charged 110% of Big Rivers actual cost to provide Backup Service, including transmission service, by importing energy from a third party. He also recommends that the LICSS Maintenance Demand charge should be determined by converting the demand charge for the LIC tariff from a $/kW-month rate to a $/kW-week rate.[7]

4. Refer to the Bieber Testimony, page 4, lines 84–87. Explain Kimberly- Clark's understanding of its self-generated capacity contribution to BREC's MISO required Planning Reserve Margin Requirement (PRMR).

Response: The Self-Supply Capacity, as defined in Big Rivers' proposed LICSS tariff is "the demonstrated capacity of the Standby Customer's generating unit(s), as determined by the reduction in Big Rivers' MISO Planning Reserve Margin Requirement that results from the Standby Customer's own generation." Mr. Bieber did not recommend any changes to Big Rivers' proposed definition of Self-Supply Capacity.

By definition, Big Rivers' MISO PRMR is reduced by an amount equal to the Self-Supply Capacity of the standby customer's generation unit. However, the Self-Supply Capacity is not equal to the nameplate capacity of the generation unit. As a transmission-owning member of the MISO, Big Rivers plans to meet MISO's annual PRMR.[8] MISO conducts an annual Loss of Load Expectation study to determine planning reserve margin requirements, a study which among other factors takes into account equipment forced outage rates.[9] Big Rivers utilizes a PRMR that is equal to 9.4% of its forecasted summer coincident peak load, where the peak load forecast includes 1.6% transmission losses.[10] This results in a

[7] Direct Testimony of Justin Bieber, p. 14.
[8] Big Rivers Corporation and Kenergy Corp. Joint Response to Kimberly-Clark Corporation's First Set of Data Requests, Item 3, September 3, 2021, Reproduced in Exhibit JB-1.
[9] Midcontinent Independent System Operator Planning Year 2021-2022 Loss of Load Expectation Study Report, pp. 5-7.
[10] Big Rivers Corporation and Kenergy Corp. Joint Response to Commission Staff's First Set of Data Requests, Item 2, September 3, 2021, Reproduced in Exhibit JB-1.

reserve margin that is 11.1% greater than forecasted peak load, excluding transmission losses.[11] While it is unlikely that a standby customer would experience a forced outage coincident with the system peak, it may be reasonable for Big Rivers to incur costs to increase its PRMR by an amount up to 11.1% of the standby customer's Self-Supply Capacity in the unlikely event that it is required to provide Backup Power Service. However, Big Rivers should not be required to obtain additional capacity above this amount in order to provide Backup Power Service.

5. Refer to the Bieber Testimony, page 5, lines 92–93. Explain the steps Kimberly-Clark takes currently to continue operations in the event that its generator goesoffline and how the various procured services and commodities prices are set.

Response: If Kimberly-Clark's turbine were to trip unexpectedly, the control systems will load shed the incremental standby demand in an orderly fashion. It is likely that Kimberly-Clark will shed the full 14 MW within several minutes. Kimberly-Clark has tested the load shed signal to each area to ensure that it will work, although Kimberly-Clark has not experienced an actual unplanned outage since the installation of the load shed controls in September. Kimberly-Clark's plan would be to stay down until it resolves the issue with the turbine. If the issue will last more than an hour or two, there will be an escalation to leadership to determine whether Kimberly-Clark wishes to start up assets without the turbine because starting up without the on-site generation would be very costly based on the current demand rate.

If Kimberly-Clark does choose to run, it cannot operate its process without steam, which is normally produced by the cogeneration unit. It would take roughly 6 hours to warm up the boiler. Kimberly-Clark will also call the Big Rivers control room to discuss its intent and get Big Rivers' feedback. The price that Kimberly-Clark would pay for the incremental 14 MW of power is based on the existing Rate Schedule 32 that covers all Kimberly-Clark power usage. This means that if the cogeneration unit is down for more than 30 minutes, Kimberly-Clark will pay the standard Kenergy/Big Rivers Industrial Demand Charge for that month, which would include the incremental 14 MW of power demand.

6. Refer to the Bieber Testimony, page 7, lines 136–146 and page 8, lines 147–148.

   a. Explain the process between BREC and Kimberly-Clark to schedulemaintenance outages.

Response: The process between Big Rivers and a standby customer, like Kimberly-Clark, to schedule maintenance outages is defined in Big Rivers' proposed LICSS tariff. Kimber-Clark has not recommended any changes to this process or tariff language.

"The Standby Customer shall be required to cooperate with Big Rivers to schedule Maintenance outages so as to maximize the value of Standby Customer's Self-Supply Capacity. The Standby Customer's Maintenance Power requirements for each generating unit must be submitted to Big Rivers at least sixty (60) days prior to the beginning of each calendar year. Within thirty (30) days of such submission, Big Rivers shall respond to the Standby Customer either approving the Maintenance Power schedule or requesting that the Standby Customer reschedule those Maintenance Power requirements. The Standby Customer may adjust the Maintenance Power schedule upon prior notice to Big Rivers."

   b. Explain whether Kimberly-Clark provides a suggested wish list of outage periods and BREC selects the final maintenance outage periods.

Response: See response to 6 a.

[11] Load Forecast Before Transmission Losses x (1 + 1.6% Transmission Losses) x (1 = 9.4% Planning Reserve Margin Requirement) – 1 = 11.1%.

c. Explain the duration and number of maintenance outages that are scheduled each calendar year.

Response: See response to 3 b.

d. Explain what an appropriate price would be in the event that BREC does have to procure capacity to provide the provision of maintenance power.

Response: As explained in Mr. Bieber's Direct Testimony, according to Big Rivers' proposed Large Industrial Customer Standby Service ("LICSS") tariff, a standby customer would be required to cooperate to schedule a maintenance outage so as to maximize the value of the customer's self-supply capacity, and must submit the schedule request in advance, subject to Big Rivers' approval. This provides Big Rivers the opportunity to ensure that Maintenance outages will be scheduled during periods in which Big Rivers has sufficient unused capacity to provide Maintenance Power Service, such as off-peak periods. Therefore, the provision of Maintenance Power Service would not impact Big Rivers' peak load forecasts or its planning reserve margin requirement ("PRMR"). Since Big Rivers' PRMR would be unaffected by the provision of Maintenance Power, Big Rivers will not need to procure any incremental capacity in order to provide Maintenance Power.[12]

Respectfully submitted,

/s/ Kurt J. Boehm

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[12] Direct Testimony of Justin Bieber, pp. 7-8.