# COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

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APPLICATION OF BIG RIVERS ELECTRIC	)	
CORPORATION FOR TERMINATION OF	)	CASE NO.
CONTRACTS AND A DECLARATORY ORDER	)	2018-00146
AND FOR AUTHORITY TO ESTABLISH A	)	
REGULATORY ASSET	)	

### ORDER

On May 1, 2018, Big Rivers Electric Corporation (BREC), pursuant to KRS 278.200 and 807 KAR 5:001, Section 19, filed an application seeking a declaratory order confirming BREC's determination that the Station Two Generation Station (Station Two) units are no longer capable of normal, continuous, reliable operation for the economically competitive production of electricity and that a series of related contracts (Station Two Contracts), except the Joint Facilities Agreement, have terminated. BREC also requests a finding from the Commission authorizing BREC to continue to operate Station Two under the terms of the Station Two Contracts to allow the city of Henderson, Kentucky and the city of Henderson Utility Commission (collectively "Henderson") time to find alternate arrangements for the operation of Station Two and for the city's power supply needs, if Henderson desires that BREC do so.<sup>2</sup> Lastly, BREC requests Commission authorization to establish, for accounting purposes, a regulatory asset to defer the

<sup>&</sup>lt;sup>1</sup> Application at 4.

<sup>2</sup> Id.

expenses related to the termination of the Station Two Contracts.<sup>3</sup> Big Rivers states that it currently has on its books an approximate \$89.6 million asset relating to the value of the Station Two Contracts that BREC would have to retire and write off as a result of the termination of the Station Two Contracts.<sup>4</sup>

An initial procedural schedule was established pursuant to the Commission's June 1, 2018 Order. That schedule provided for a deadline to request intervention, two rounds of discovery upon BREC's application, an opportunity for intervenor testimony, and discovery upon intervenor testimony. The intervenors in this matter are the Attorney General of the Commonwealth of Kentucky, by and through the Office of Rate Intervention (Attorney General), and Kentucky Industrial Utility Customers, Inc. (KIUC). By Order dated July 10, 2018, the procedural schedule was amended to allow BREC to file rebuttal testimony and for the intervenors to propound one round of discovery upon BREC's rebuttal testimony.

A hearing was held on July 25, 2018, for purposes of taking oral arguments on KIUC's motion to compel BREC to respond to certain items of KIUC's first round of discovery. An Order was issued on August 13, 2018, granting in part and denying in part KIUC's motion and amending the procedural schedule. As noted in the August 13, 2018 Order, the instant interim Order addresses BREC's request for a declaratory ruling associated with the termination of the Station Two Contracts. The issue relating to BREC's request to establish a regulatory asset will be bifurcated to allow additional

<sup>&</sup>lt;sup>3</sup> Application at 6–7.

<sup>4</sup> Id.

discovery on that issue, and the Commission will issue a separate Order addressing that issue once discovery has been completed.

On July 27, 2018, KIUC, pursuant to the Commission's directive during the July 25, 2018 hearing, submitted a notice indicating that it did not oppose BREC's request for a declaratory order confirming that the Station Two units were no longer economic; that the Station Two Contracts were terminated; and allowing BREC to continue operating Station Two for up to 13 months, if necessary, to allow Henderson to make alternative power supply arrangements. In a notice filed on July 30, 2018, the Attorney General did not question the economic assessments of the Station Two Contracts and stated that there is no reason to delay the Commission's determination that those contracts should be terminated as being no longer capable of normal, continuous, reliable operation for the economically competitive production of electricity. The Attorney General also stated no objection to BREC's request to allow it to continue operating Station Two for a period up to and including May 31, 2019, but requested that the Commission direct BREC to cease operations as soon as practicable prior to that date if the opportunity arises. Both KIUC and the Attorney General reserved their rights to object to BREC's request for authorization to establish a regulatory asset.

#### **BACKGROUND**

Station Two consists of two coal-fired electric generating units near Sebree, Kentucky and is owned by the city of Henderson.<sup>5</sup> Total generating capacity of Station Two is 312 megawatts (MW), with Unit 1 capable of producing 153 MW and Unit 2

<sup>&</sup>lt;sup>5</sup> Direct Testimony of Robert W. Berry (Berry Testimony) at 5.

generating 159 MW.<sup>6</sup> BREC operates and maintains the Station Two units pursuant to the Station Two Contracts, which consists of a series of contracts that were originally executed on August 1, 1970, and that have since been amended several times.<sup>7</sup> One of the amendments occurred in 1993 (1993 Amendments), which provided the option for BREC to extend the term of the contracts to continue for so long as either of the Station Two units "is capable of normal, continuous, reliable operation for the economically competitive production of electricity, temporary outages excepted." According to BREC, it subsequently exercised that option. Two Contracts were amended again in 1998 (1998 Amendments), which, again, provides for the extension of the terms of the contracts. Specifically, Section 1 of the 1998 Amendments provides:

The terms of all the Contracts except the Joint Facilities Agreement shall be extended for the operating life of Station Two, the operating life of which shall be considered to continue for so long as Unit 1 and Unit 2, or either of them, is operated, or is capable of normal, continuous, reliable operation for the economically competitive production of electricity, temporary outages excepted.<sup>11</sup>

<sup>&</sup>lt;sup>6</sup> Direct Testimony of Metin Celebi (Celebi Testimony) at 6.

<sup>&</sup>lt;sup>7</sup> Berry Testimony at 5. The signatories to the Station Two Contracts are BREC, the city of Henderson, Kentucky, and the city of Henderson Utility Commission. The Station Two Contracts consist of a Power Sales Contract, a Power Plant Construction and Operation Agreement, and a Joint Facilities Agreement. The termination of the Station Two Contracts will not impact the Joint Facilities Agreement.

<sup>&</sup>lt;sup>8</sup> The 1993 Amendments, Section 1.1. See, Application, Exhibit – 2 at 22.

<sup>&</sup>lt;sup>9</sup> Berry Testimony at 5.

<sup>10</sup> Id.

<sup>&</sup>lt;sup>11</sup> The 1998 Amendments, Sect 1. See, Application, Exhibit – 3 at 4.

BREC contends that the parties to the Station Two Contracts recognized that, at some point, Station Two would no longer be capable of producing economically competitive energy and that the contracts would terminate at some point in time. BREC indicates that it has determined that Station Two units are no longer capable of normal, continuous, reliable operation for the economically competitive production of electricity. On May 1, 2018, BREC notified Henderson that the Station Two Contracts, except for the Joint Facilities Agreement, have terminated.

In assessing the economic viability of Station Two, BREC conducted an internal analysis of the generating station and retained the Brattle Group, Inc. (Brattle), to perform an independent evaluation of Station Two.<sup>13</sup> BREC's internal evaluation was comprised of a sensitivity analysis to its 15-year long-term financial plan<sup>14</sup> in which BREC modeled the impact resulting from BREC exiting the Station Two Contracts.<sup>15</sup> BREC noted that the base case scenario projected two base rate increases over the 15-year planning period.<sup>16</sup> The base case scenario also assumed Henderson keeping all the Station Two excess generation at its allocation amount while being responsible for the variable costs of this excess generation.<sup>17</sup> The sensitivity scenario assumed BREC's exit from the Station Two Contracts in January 2019, including all of BREC's allocated capacity,

<sup>&</sup>lt;sup>12</sup> Berry Testimony at 6.

<sup>13</sup> Id.

<sup>&</sup>lt;sup>14</sup> The 15-year period was 2017 through 2031.

<sup>15</sup> Id.

<sup>16</sup> Id.

<sup>&</sup>lt;sup>17</sup> Berry Testimony at 6–7. Henderson's current allocated amount is 115 MW.

energy, costs, and emissions associated with the Station Two Contracts. <sup>18</sup> The sensitivity scenario further assumed a regulatory asset for the remaining net book value of Station Two of \$91 million to be amortized over 15 years with recovery beginning in 2021. <sup>19</sup>

BREC's internal analysis compares the cost of operating Station Two to the revenue BREC would receive in the Midcontinent Independent System Operator, Inc. (MISO), market from its share of the Station Two capacity and energy over the 15-year analysis period.<sup>20</sup> BREC states that the results of the internal analysis show that the cost of producing power from Station Two exceeds the potential market revenues from that power.<sup>21</sup> According to BREC, the internal analysis establishes that both Station Two units are no longer capable of normal, continuous, reliable operation for the economically competitive production of electricity.<sup>22</sup>

BREC also retained Brattle to conduct an independent economic analysis of Station Two. The Brattle study evaluated the economic viability of Station Two by comparing the projected annual gross margin for both units in the MISO wholesale power markets under several market outlooks.<sup>23</sup> According to Brattle, the annual gross margins are the difference between avoidable costs of operating Station Two and the projected revenues that Station Two would receive from the MISO wholesale power markets.<sup>24</sup> The

<sup>&</sup>lt;sup>18</sup> Berry Testimony at 7.

<sup>19</sup> Id.

<sup>&</sup>lt;sup>20</sup> Berry Testimony at 8.

<sup>21</sup> Id.

<sup>22</sup> Id.

<sup>&</sup>lt;sup>23</sup> Celebi Testimony at 11. MISO's wholesale markets consist of a day-ahead energy market, a real-time energy market, and an annual planning resource auction capacity market.

projected avoidable costs include fuel, operating and maintenance, and capital expenditures that would be incurred unless Station Two is retired.<sup>25</sup> Brattle states that if future gross margins for Station Two are negative, then Station Two would not be capable of producing economically competitive electricity.<sup>26</sup> The Brattle analysis evaluated the future gross margins both on an annual basis and on a present value basis over a period beginning 2019 through 2025.<sup>27</sup> The independent study also compared the present value of future gross margins at different years of retiring one or both of the Station Two units, which took into account the change in present value of incurring plant decommissioning costs at different years of retirement.<sup>28</sup>

The Brattle analysis forecasted energy prices focused primarily on the MISO day ahead energy market. Because of the uncertainty inherent in projecting energy prices due to uncertainty in key market fundamentals such as natural gas and coal prices, the Brattle analysis developed a Base Case outlook for future energy prices as well as several scenarios to reflect a reasonable range of uncertainty in long-term market fundamentals.<sup>29</sup> The Base Case scenario utilizes recent market forwards for energy prices at the Indiana Hub with adjustments based on the basis differential in 2017 between the day-ahead locational marginal prices at the Station Two pricing location and the Indiana Hub and data from the Annual Energy Outlook 2018 developed by the U.S. Energy Information

<sup>&</sup>lt;sup>25</sup> Id.

<sup>26</sup> Id.

<sup>27</sup> Id.

<sup>&</sup>lt;sup>28</sup> Celebi Testimony at 11–12.

<sup>&</sup>lt;sup>29</sup> Celebi Testimony at 14.

Administration.<sup>30</sup> The sensitivity analysis include the following scenarios: 1) Low Gas Price; 2) High Gas Price; 3) Carbon Pricing, and; 4) Additional Revenues for Baseload Plants.<sup>31</sup>

The Brattle analysis concluded that the Station Two units, either individually or in combination, were incapable of normal, continuous, reliable operation for the economically competitive production of electricity.<sup>32</sup> Specifically, the analysis found that in every year of the study period, and under every scenario, Station Two's projected annual costs will exceed its potential revenues.<sup>33</sup> The analysis further found that every year the retirement of Station Two is delayed will result in a greater financial loss.<sup>34</sup>

### DISCUSSION

Having reviewed the record and being otherwise sufficiently advised, the Commission finds that there is substantial evidence to support a determination that the Station Two units are no longer economically viable. BREC's internal study compared a business as usual case with the exit of the Station Two Contracts. All of the key metrics evaluated in the internal study, i.e., net margins, cash balance, and the Times Interest Earned Ratio, revealed that Station Two was not economically competitive over the 15-year long-term financial planning period and that exiting the Station Two Contracts was favorable as compared to the business as usual scenario. Likewise, the independent study performed by Brattle also conclusively demonstrated that in every year of the study

<sup>30</sup> Id.

<sup>31</sup> Celebi Testimony at 16-17.

<sup>32</sup> Celebi Testimony at 6.

<sup>33</sup> Id.

<sup>34</sup> Id.

period, and under every scenario considered, the cost of producing power from Station

Two exceeded the potential market revenue from that power.

BREC also provided evidence showing that Henderson retained a third-party consulting firm to perform an integrated resource plan (Henderson IRP) in 2018. The Henderson IRP, performed by GDS Associates, Inc., evaluated potential supply-side resource alternatives and compared those alternatives to Henderson's power supply options involving Station Two, including a scenario in which the Station Two Contracts remain in place.<sup>35</sup> The Henderson IRP covered a 20-year period from 2019 through 2038. As stated in the Henderson IRP report, the core issue that the IRP process was designed to address was whether continued investment should be made to operate and maintain Station Two or whether the generation facility should be retired and replaced with another power supply arrangement.<sup>36</sup> The Henderson IRP recommended that Station Two should be retired and Henderson should begin the process of identifying alternative power supply arrangements. The alternative power supply alternatives evaluated in the Henderson IRP included purchase power agreements (i.e., third-party suppliers or bilateral agreements), MISO market purchases, reciprocating engines, small gas-fired generation (both peaking and intermediate), and renewables (wind and solar).37 The alternatives were considered individually or in combination with each other. The Henderson IRP evaluated these alternatives under a number of scenarios, including base capacity price, high capacity price, base gas prices, high gas prices, and political gas prices.<sup>38</sup> Under either a base

<sup>&</sup>lt;sup>35</sup> Berry Testimony, Exhibit Berry – 3 at 1.

<sup>36</sup> Id.

<sup>&</sup>lt;sup>37</sup> Berry Testimony, Exhibit Berry – 3 at 10.

capacity price or a high capacity price scenario in combination with base gas prices or high gas prices, all alternative resources, excluding the modular nuclear option, have a lower projected cost than continuing with the Station Two scenario.<sup>39</sup>

In total, the evidence presented in this matter leads the Commission to determine that the Station Two units are no longer capable of "normal, continuous, reliable operation for the economically competitive production of electricity," as that phrase is used in the context of the Station Two Contracts. Because the terms of the Station Two Contracts contemplate the termination of the agreement based upon the economic viability of Station Two, and in light of our finding that the Station Two units are no longer economically competitive, the Commission confirms that the Station Two Contracts have terminated, pursuant to their own terms, with the exception of the Joint Facilities Agreement. The Commission further finds reasonable BREC's request to continue its operation of Station Two under the terms of the Station Two Contracts until May 31, 2019, in order to allow the city of Henderson adequate time to make alternate arrangements for the operation of Station Two and for the city's power needs.

#### IT IS THEREFORE ORDERED that:

 BREC's request for a declaration finding that Station Two is no longer economically viable and confirming the termination of the Station Two Contracts, except for the Joint Facilities Agreement, is granted.

<sup>&</sup>lt;sup>38</sup> Berry Testimony, Exhibit Berry – 3 at 16, 18. The political gas prices scenario was developed to reflect the potential for extreme increases in gas prices due to unforeseen geopolitical events, changes in legislation or regulations that create additional environmental or technical gas production requirements and/or market externalities that change the underlying fundamentals for natural gas or coal.

<sup>&</sup>lt;sup>39</sup> Berry Testimony, Exhibit Berry – 3 at 34.

- 2. BREC's request to continue operation of Station Two under the terms of the Station Two Contracts for a period up to May 31, 2019, unless BREC and the city of Henderson reach a mutually acceptable agreement regarding the ongoing operation of Station Two prior to May 31, 2019, or the Commission directs BREC to cease operation of Station Two prior to May 31, 2019, is granted.
- 3. The Commission will reserve ruling on BREC's request for authorization to establish a regulatory asset until a later date.

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## By the Commission

**ENTERED** 

AUG 29 2018

KENTUCKY PUBLIC SERVICE COMMISSION

ATTEST:

**Executive Director** 

Lewer R. Purson

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