COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Electronic Tariff Filing Of Kentucky Power Company For Approval Of A Special Contract Under Its Economic Development Rider And Demand Response Service Tariffs With Cyber Innovation Group, LLC	)))))	Case No. 2022-00424

INITIAL POST-HEARING BRIEF OF KENTUCKY POWER COMPANY

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I. INTRODUCTION

Kentucky Power Company ("Kentucky Power" or the "Company") requests in this proceeding that the Public Service Commission of Kentucky ("Commission") approve the proposed contract between Kentucky Power and Cyber Innovation International, LLC ("Cyber Innovation") under the Company's Tariff E.D.R. (Economic Development Rider) ("EDR Contract").

By offering the proposed EDR Contract to Cyber Innovation, the Company is effecting and implementing the General Assembly's policy to induce the cryptocurrency industry to locate and operate in the Commonwealth of Kentucky. The evidence provided by the Company in this proceeding shows that the proposed EDR Contract with Cyber Innovation meets the standards for approval. The proposed EDR Contract clearly meets all requirements for approval under Tariff E.D.R. and the Order in Administrative Case No. 327. The rates offered within the proposed EDR Contract also are fair, just, and reasonable as demonstrated by the Company's marginal costs studies provided in this case. The intervenors in this case raise only hypothetical concerns unsupported by reasonable evidence in opposition to the EDR Contract. Further, the proposed EDR Contract provides additional reasonable protections for the Company and other customers that are not provided by Tariff E.D.R.

Put simply, the proposed EDR Contract as a whole meets all tariff and other requirements for approval and is reasonable; and the rates offered within it are fair, just, and reasonable. The Commission should approve the EDR Contract on these grounds.

II. BACKGROUND AND CASE OVERVIEW

A. Factual Background.

1. The Importance Of Economic Development To Kentucky Power's Service Territory.

Kentucky Power's service territory is located in Eastern Kentucky. Economic development is especially important to Kentucky Power's service territory and Eastern Kentucky as a whole. The region has been heavily impacted by the more than a decade-long precipitous decline of the coal industry across the Commonwealth, as well as the decline of large industrial operations.[1] This decline has resulted in devastating job losses.[2]

The job losses in Eastern Kentucky are coincident with population loss.[3] Overall, Kentucky Power's service territory has lost more than 10,000 customers over the last 10 years.[4] This population loss has caused the Company's fixed costs to be spread among fewer ratepayers, increasing the cost of power for everyone.[5]

In addition to significant job and population loss, Kentucky Power's service territory is also uniquely challenged in replacing those lost jobs through economic development as compared to other investor-owned utilities in Kentucky. There are certain limitations and challenges with respect to the service territory that the Company must overcome in its efforts to bring much-needed economic development to Eastern Kentucky. For example, economic development efforts generally in Eastern Kentucky lag behind those of other more populous

[1] See Rebuttal Testimony of Amanda C. Clark at R4.

[2] *Id.* at R3-R4.

[3] *See id.* at R3-R4.

[4] *Id.* at R3.

[5] *Id.* at R4.

cities and regions in Kentucky.[6] Greater Louisville, Inc., the regional chamber of commerce/economic development organization for the metro-Louisville area has been involved in economic development activities since 1987.[7] In comparison, One East Kentucky, the largest regional economic development organization in Eastern Kentucky, began operations in 2015.[8]

In addition, Eastern Kentucky faces a particular hardship because of its lack of economic diversity.[9] The decline of coal and the closure of major manufacturers across the region have left Eastern Kentucky in need.[10] It further is difficult for communities to allocate resources specifically to economic development purposes with an ever-declining tax base.[11]

Finally, Eastern Kentucky's terrain makes large, quality sites for economic development scarce.[12] Many of the sites without a significant slope are hindered by flood plain issues.[13] The regional industrial parks in the Company's service territory are reclaimed strip mine sites that face a unique set of challenges as well.[14]

Thus, Kentucky Power starts out at a disadvantage when it comes to economic development in its service territory, despite the greater importance and need for it than more populous areas of the Commonwealth. Importantly, being able to offer discounted rates is

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[6] *See* Clark Rebuttal Test. at R4.

[7] *Id.*

[8] *Id.*

[9] *Id.*

[10] *Id.*

[11] *Id.*.

[12] *Id.* at R4-R5.

[13] *Id.*

[14] *Id.*

essentially the only real tool Kentucky Power has to engage in economic development activity and to bring people and jobs to its service territory.[15]

B. The General Assembly's Push To Bring Cryptocurrency Companies To Kentucky.

In 2021, the Kentucky General Assembly indicated its intentions to attract and retain cryptocurrency mining companies to the Commonwealth.[16] It enacted laws to entice such companies to the Commonwealth by, among other things, providing for significant tax benefits and other incentives.[17] If not for these incentives, cryptocurrency companies would be looking to other states for places to locate.[18]

HB 230 (2021 RS) notes the importance of the cryptocurrency industry to the Commonwealth:

> [A]ccess to cost-effective energy is critical to the development and growth of blockchain technology, particularly in the commercial mining of cryptocurrency which requires a substantial and constant supply of energy…[t]he General Assembly has actively encouraged the use and growth of blockchain technology in the Commonwealth as evidenced by 2019 House Resolution 171 authorizing a comprehensive study on the growing use of blockchain technology and its economic development potential for a variety of businesses and industries, as well as the passage of 2020 Senate Bill 55 which enacted KRS 42.747 and created a Blockchain Technology Working Group to study the use of blockchain in various sectors…the Commonwealth has an opportunity to become a national leader in the emerging industry of the commercial mining of cryptocurrency given its abundant supply of electricity that can be provided at lower rates than most states, and its established infrastructure to provide such energy.[19]

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[15] Hearing Testimony of Company Witness Clark, Video Record ("VR") 07/25/2023 14:54:44.

[16] *See* Clark Rebuttal Test. at R5, R6.

[17] *Id.*

[18] *Id.* at R6.

[19] https://apps.legislature.ky.gov/law/acts/21RS/documents/0122.pdf.

HB 230 exempts the electricity used in the commercial mining of cryptocurrency from sales and utility gross receipts taxes.[20] SB 255 (2021 RS) provided amendments that would allow cryptocurrency mining companies to take advantage of other incentives for "energy-related" businesses.[21]

In response to this legislation, Kentucky Power fielded more than 100 cryptocurrency inquiries and Eastern Kentucky became a hotbed of activity in the cryptocurrency industry.[22]

C. Cyber Innovation Group, LLC.

Through its economic development efforts, the Company engaged with Cyber Innovation Group, LLC ("Cyber Innovation") beginning in 2021 to locate and operate two asset and data centers in the Company's service territory.[23] Cyber Innovation's first facility is a 20 MW asset and data center located at 7354 Long Branch Road, Belfry, Pike County, Kentucky (the "Long Fork Facility"). The Company submitted the EDR contract for the Long Fork Facility for Commission approval through the Commission's tariff filing system (TFS2022-73).[24] The Commission approved that EDR contract with an effective date of March 31, 2022.[25] The larger Long Fork Facility is currently operating pursuant to that EDR contract.[26]

At issue in this matter is the EDR contract for Cyber Innovation's 7,000 kW asset and data center located at 379 Rockhouse Fork, Hatfield, Pike County, Kentucky (the "Rockhouse

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[20] *See id.*

[21] https://apps.legislature.ky.gov/law/acts/21RS/documents/0141.pdf.

[22] Clark Rebuttal Test. at R6.

[23] *See* Company's response to Commission Staff's Post-Hearing Data Request No. 7 (August 4, 2023).

[24] *See* Company's response to AG 1-8 (January 27, 2023).

[25] *See* approved EDR contract at https://psc.ky.gov/tariffs/Electric/Kentucky%20Power%20Company/Contracts/Cyber%20Innovation%20Group/2022-03-22_Contract%20for%20Electric%20Service.pdf

[26] Rebuttal Testimony of Brian K. West at R5.

Facility"). Sites like the one chosen by Cyber Innovation for its Rockhouse Facility contain infrastructure put in place by former coal companies that have sat dormant since the decline of the coal industry—sites that otherwise would not have much practical use.[27] These sites are attractive to the cryptocurrency industry as they have the capacity and infrastructure to serve the industry and allow the companies to make minimal adaptations to begin mining cryptocurrencies.[28]

Cyber Innovation plans to invest $3.5 million in the Rockhouse Facility.[29] In addition, employees of Cyber Innovation go between Cyber Innovation's Long Fork and Rockhouse facilities according to the needs of the company.[30] Cyber Innovation has already hired 10 employees and plans on adding at least three more to serve the Rockhouse Facility.[31] All jobs are anticipated to be full time and hired locally.[32] Cyber Innovation completed the Company's Application for Economic Development Rider Discount and met all requirements of Tariff E.D.R.[33] The Company therefore entered into the EDR contract for Cyber Innovation's Rockhouse Facility proposed in this case ("EDR Contract").[34]

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[27] Clark Rebuttal Test. at R6-R7.

[28] *Id.* at R7.

[29] EDR Contract at Recital No. 4.

[30] *See* Company's response to KPSC 1-3(a) (January 27, 2023).

[31] *Id.*

[32] *See* Company's response to KPSC 1-3(b) and (c) (January 27, 2023).

[33] *Id.* at R4. Cyber Innovation is not eligible for, nor will it be receiving, the Supplemental Billing Demand Discount that is tied to job creation.

[34] *Id.* at R5.

D. The Proposed EDR Contract.

In an effort to implement the General Assembly's policy to bring cryptocurrency companies to Kentucky, Kentucky Power engaged with Cyber Innovation to secure them to the Company's service territory by offering the discounts provided in Tariff E.D.R. With Cyber Innovation's, the Company's, and the Company's customers' interests front of mind, the parties negotiated the EDR Contract proposed herein with rates and terms provided in Tariff E.D.R., which enabled Cyber Innovation to locate its Rockhouse Facility in the Company's service territory and bring needed load and jobs to the area. The proposed EDR Contract for the Rockhouse Facility is virtually identical to the EDR Contract for the Long Fork Facility previously approved by the Commission.[35]

The EDR Contract is for an initial term of 10 years.[36] It sets Cyber Innovation's total capacity reservation at 7,000 kW.[37] The EDR Contract is based on the Company's Tariff I.G.S. (Industrial General Service), Tariff E.D.R., and Rider D.R.S. (Demand Response Service).[38] Cyber Innovation will take service under Tariff I.G.S. and receive discounts as outlined in Tariff E.D.R. for the first five years of the EDR Contract, specifically the Incremental Billing Demand Discount ("IBDD").[39] To be eligible for Tariff E.D.R., a new customer must have at least a monthly maximum billing demand of 500 kW, and Cyber Innovation plans to operate its

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[35] *Id.* at R5.

[36] EDR Contract at Article 5.2.

[37] *Id.* at Article 3.1.

[38] West Rebuttal Test. at R4.

[39] *Id.*; EDR Contract at Article 4.5.

Rockhouse Facility at approximately 7,000 kW.[40] In addition, Cyber Innovation agreed to participate in Rider D.R.S. for the full 10-year term of the EDR Contract.[41]

The EDR Contract sets Cyber Innovation's interruptible capacity reservation for purposes of Rider D.R.S. at 6,000 kW.[42] Cyber Innovation's firm capacity reservation is 1,000 kW.[43] Discretionary interruption events, by which the Company in its sole discretion calls upon Cyber Innovation to interrupt its usage, will be in increments of three hours and shall not total more than six hours per day.[44] In addition, interruptions are not to exceed an aggregate of 60 hours during any Interruption Year.[45] The Company will call for interruptions by providing at least 90 minutes' notice to Cyber Innovation.[46] Further, Cyber Innovation agreed to be interrupted without receiving D.R.S. credits for the first year of the Contract.[47]

The EDR Contract and the terms of Tariff E.D.R. include certain protections for the Company and other customers in the event that Cyber Innovation fails to curtail under the terms of Rider D.R.S., or in the event that Cyber Innovation terminates service under the EDR Contract prior to the end of the 10-year contract term. First, the EDR Contract provides, in accordance with Rider D.R.S., for the DRS Event Failure Charge, which requires Cyber Innovation to pay back a portion of its DRS credit in the event that Cyber Innovation fails to sufficiently curtail

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[40] West Rebuttal Test. at R4.

[41] *Id.*

[42] *See* Addendum to the Electric Service Contract Between Kentucky Power Company and Cyber Innovation Group, LLC ("DRS Addendum") at Article VI.

[43] *Id.* at Article V.

[44] *Id.* at Article XI.

[45] *Id.* at Article VII.

[46] *Id.* at Article IX.

[47] *Id.*

when called upon.[48] Second, the Company is requiring Cyber Innovation to provide a security deposit or letter of credit in the amount of 2/12ths of Cyber Innovation's estimated annual bill to secure payment of bills in accordance with the Company's terms and conditions of service.[49] Third, Tariff E.D.R. provides for a full claw back of all demand reduction discounts received by Cyber Innovation in the event that Cyber Innovation discontinues service under the EDR Contract prior to the end of the contract term.[50] The Addendum to Contract for Electric Service Between Kentucky Power Company and Cyber Innovation Group, LLC dated August 3, 2023 ("Security Addendum") implements this section of Tariff E.D.R. and provides additional protection in the form of requiring security that is not provided under Tariff E.D.R.[51] The Security Addendum contains provisions to secure such repayment by requiring Cyber Innovation to post an annual security in the amount of the total demand reduction credits received and estimated to be received.[52] Finally, outside of and in addition to the protections provided by the EDR Contract, all contract addenda, and Tariff E.D.R., the Company also may take advantage of protections provided by Kentucky law in the event that Cyber Innovation were to discontinue service under the EDR Contract prior to the end of the contract term, including, but not limited to, a breach of contract action.

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[48] *Id.* at Article XIII.

[49] *See* Company's response to JI 1-13 (January 27, 2023); Tariff Sheet No. 2-2 and 2-3.

[50] Tariff Sheet No. 37-5, Terms of Contract.

[51] *See* Security Addendum at Article 5.3.

[52] *Id.* at Article 5.4.

III. LEGAL STANDARDS

KRS 278.030 provides that a utility may demand, collect and receive fair, just and reasonable rates and that the service it provides must be adequate, efficient, and reasonable.[53] KRS 278.170(1) prohibits a utility from giving unreasonable preference or advantage to any person as to rates or subjecting any person to any unreasonable prejudice or disadvantage.[54] KRS 278.190 permits the Commission to investigate any schedule of new rates to determine its reasonableness.[55]

In the Commission's September 24, 1990 Order in Administrative Case No. 327[56] ("Administrative 327 Order") the Commission found that EDRs would provide important incentives to large commercial and industrial customers to either locate or expand their facilities in Kentucky, bringing jobs and capital investment into the Commonwealth.[57] In addition, the Commission also has "recognize[d] the importance of economic development efforts, especially given the economic needs of Kentucky Power's service area."[58]Administrative 327 Order contains 18 findings that refined the criteria on which the Commission would evaluate and approve an EDR.[59] In Administrative 327 Order, the Commission also directed that a

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[53] *See* Order at 2, *In The Matter Of: Electronic Tariff Filing Of Kentucky Utilities Company For Approval Of An Economic Development Rider Special Contract With Bitiki-KY, LLC*, Case No. 2022-00371 (Ky. P.S.C. August 7, 2023) ("Bitiki Order").

[54] *Id.*

[55] *Id.*

[56] *In The Matter Of: An Investigation Into The Implementation Of Economic Development Rates By Electric And Gas Utilities*, Admin. Case No. 327.

[57] Bitiki Order at 2 (*citing* Administrative 327 Order at 25).

[58] Order at 35, *In The Matter Of: Electronic Application Of Kentucky Power Company For (1) A General Adjustment Of Its Rates For Electric Service; (2) An Order Approving Its 2017 Environmental Compliance Plan; (3) An Order Approving Its Tariffs And Riders; (4) An Order Approving Accounting Practices To Establish Regulatory Assets And Liabilities; And (5) An Order Granting All Other Required Approvals And Relief*, Case No. 2017-00179 (Ky. P.S.C. January 18, 2018).

[59] Bitiki Order at 2 (*citing* Administrative 327 Order at 24-28).

jurisdictional utility filing an EDR contract must comply with Findings 3-17.[60] The findings of Administrative 327 Order that are applicable to this proceeding, and therefore comprise the legal standard by which this proposed contract should be evaluated are the following:[61]

> Finding 3: EDRs should be implemented by special contract negotiated between the utilities and their large commercial and industrial customers.
>
> Finding 4: An EDR contract should specify all terms and conditions, including the rate discount and related provisions, jobs and capital investment created, customer-specific fixed costs, minimum bill, estimated load and load factor, and length of contract.
>
> Finding 5: An EDR contract should only be offered during periods of excess capacity for the utility, and the utility must demonstrate that the EDR contract will not cause it to fall below a reserve margin essential for system reliability.
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> Finding 6: A utility should demonstrate that the EDR exceeds the marginal cost associated with serving the customer.
>
> Finding 7: A utility should file an annual report with the Commission detailing revenues received and the marginal costs from EDRs.
>
> Finding 8: A utility should demonstrate that nonparticipating ratepayers are not adversely affected by the EDR through a cost-of-service analysis.
>
> Finding 9: The EDR contract should include a provision providing for the recovery of EDR customer-specific fixed costs over the life of the contract.
>
> Finding 10: The major objectives of EDRs are job creation and capital investment. However, specific job creation and capital investment requirements should not be imposed on EDR customers.
>
> Finding 11: All utilities with active EDR contracts should file an annual report with the Commission providing information as shown in Appendix A, to Administrative 327 Order.
>
> Finding 12: For new industrial customers, an EDR should apply only to load which exceeds a minimum base level. For existing industrial customers, the EDR should apply only to load which exceeds a minimum base level, for new industrial customers, and the EDR contract should identify and justify the minimum usage level required for a new customer.

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[60] *Id.* (*citing* Administrative 327 Order at 28, ordering paragraph 1).

[61] *Id.* at 3-4 (*citing* Administrative 327 Order at 25-27).

> Finding 14: The term of an EDR contract should be for a period twice the length of the discount period, with the discount period not exceeding five years.

In addition, Kentucky Power's Commission-approved Tariff E.D.R. contains the following provisions as part of its terms and conditions of service that vary from the requirements of Administrative 327 Order, which allows the Company to offer EDR contracts to qualifying customers also during times when the Company is capacity sufficient and capacity short:[62]

> The Company will offer the EDR to qualifying customers with new or increased load when the Company has sufficient generating capacity available. When sufficient generating capacity is not available, the Company will procure the additional capacity on the customer's behalf. The cost of capacity procured on behalf of the customer shall reduce on a dollar-for-dollar basis the customer's IBDD and SBDD. Such reduction shall be capped so that the customer's maximum demand charge shall be the nondiscounted tariff demand charge. The reduction will be applied in reverse chronological order beginning with the most recent customer to receive discounted service under this tariff. The last customer to sign up for the EDR tariff would be the first customer responsible for paying the cost of incremental capacity purchases. In any year during the discount period in which the customer pays the full tariff demand charge for all twelve months, the Company will reduce the term of the contract by one year.[63]

IV. ARGUMENT

A. The Terms Of The Proposed EDR Contract Are Fair, Just, And Reasonable And Meet The Requirements Of Tariff E.D.R. And Administrative 327 Order.

The proposed EDR Contract with Cyber Innovation clearly meets all requirements for approval under Tariff E.D.R. and Administrative 327 Order. The rates offered within the proposed EDR Contract also are fair, just, and reasonable.

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[62] *See* the Company's response to AG 2-2 (February 24, 2023).

[63] *See* Tariff Sheet No. 37-1 at Terms and Conditions, Section (1). Article 4.9 of the proposed EDR Contract expressly acknowledges and incorporates these provisions.

1. The Proposed EDR Contract Meets All Requirements Of Tariff E.D.R.

The proposed EDR Contract is consistent with all provisions of Tariff E.D.R. and even provides additional protections not required by Tariff E.D.R. First, the Company's evidence shows that Cyber Innovation's "operations, by their nature, will promote sustained economic development based on plant and facilities investment and job creation."[64] Cyber Innovation plans to make a $3.5 million investment, and plans to bring at least 10 jobs between its Long Fork and Rockhouse facilities. Cyber Innovation's estimated demand during the term of the EDR Contract (7,000 kW) substantially exceeds the "monthly maximum billing demand" required by Tariff E.D.R. (which is 500 kW).[65] Finally, Cyber Innovation has sufficiently demonstrated that absent the discounts provided by the EDR Contract, Cyber Innovation would locate outside the service territory or its facility would not be placed into service.[66] In addition, the August 3, 2023 Security Addendum incorporates the demand discount clawback provisions of Tariff E.D.R., which require Cyber Innovation to pay back any such discounts received if it discontinues service prior to the end of the contract term.[67] The Security Addendum secures such repayment by requiring Cyber Innovation to post an annual security in the amount of the total demand reduction credits received and estimated to be received.[68]

The proposed EDR Contract plainly meet <u>every</u> minimum requirement to take service under Tariff E.D.R., and it is consistent with other contracts previously filed pursuant to Tariff

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[64] *See* Kentucky Power Company Tariff Sheet No. 37-1.

[65] *Id.,* Availability of Service, Section (1).

[66] *Id.*, Section (3); *see also* Initial EDR Contract Filing at Attachment 2 (Kentucky Power Co. Application for Economic Development Rider Discount) at Section 5.

[67] Security Addendum at Article 5.3.

[68] *Id.* at Article 5.4.

E.D.R. and approved by the Commission. Notably, the Commission previously approved the EDR contract between the Company and Cyber Innovation for its Long Fork Facility, which is virtually identical to the proposed EDR Contract for the Rockhouse Facility. The proposed EDR Contract even contains additional protections for the Company and other customers that are not provided in Tariff E.D.R. in the form of requiring additional security to secure the repayment of EDR discounts received over the contract term.

2. The Proposed EDR Contract Meets All Requirements Of Administrative 327 Order.

The proposed EDR Contract also meets all of the applicable requirements of Administrative 327 Order as identified by the Commission in the Bitiki Order. Below is a brief discussion of each applicable requirement:

- Finding 3: EDRs should be implemented by special contract negotiated between the utilities and their large commercial and industrial customers.

Cyber Innovation is a large industrial customer. The Company negotiated the terms of the proposed EDR Contract at arm's length with Cyber Innovation and the parties' agreement is memorialized in the proposed EDR Contract, which is a special contract.

- Finding 4: An EDR contract should specify all terms and conditions, including the rate discount and related provisions, jobs and capital investment created, customer-specific fixed costs, minimum bill, estimated load and load factor, and length of contract.

The proposed EDR Contract as a whole, which includes the DRS Addendum and the Security Addendum, specifies all terms and conditions agreed upon by the Company and Cyber Innovation for the Rockhouse Facility. The rate discount is specified in Article 4.5 and the other sections of Article 4. The jobs and capital investment expected to be created at the Rockhouse Facility are detailed in Recital No. 4, as updated by the Company's response to KPSC 1-3. Kentucky Power has not identified any customer-specific fixed costs associated exclusively with serving Cyber Innovation.[69] Article 4.8 details that the Company will recover from Cyber Innovation any fixed costs associated with upgrading its distribution facilities to serve Cyber Innovation over the life of the Contract. The minimum bill provisions are specified in Article 4.6. The estimated load and load factor are specified in Article 3.1 and Article 4.4, respectively. The length of the EDR Contract is specified in Article 5.

- Finding 5: An EDR contract should only be offered during periods of excess capacity for the utility, and the utility must demonstrate that the EDR contract will not cause it to fall below a reserve margin essential for system reliability.

The terms of Commission-approved Tariff E.D.R. permit Kentucky Power to offer EDR contracts to customers when it is capacity-sufficient or capacity-short.[70] In instances when the Company is capacity-sufficient, Tariff E.D.R. provides no additional requirements for offering demand discounts.[71] In instances when sufficient generating capacity is not available, Tariff E.D.R. specifies that the Company will procure the additional capacity to serve the customer on the customer's behalf.[72] In that instance, the customer's EDR discount(s) will be reduced commensurately with the cost of the capacity procured.[73]

Because of the expiration of the Rockport UPA in December 2022, the Company is required to purchase excess capacity to serve all customers, not just Cyber Innovation.[74] Thus, the provision of Tariff E.D.R. reducing credits in the event capacity purchases are required to serve the EDR customer are inapplicable because the Company will not be purchasing excess

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[69] *See* Initial Contract Filing, November 16, 2022 Cover Letter at 4.

[70] Tariff Sheet No. 37-1, Terms and Conditions, Section (1); Company's response to AG 1-8(b); Company's response to AG 2-2.

[71] Company's response to AG 1-8(b).

[72] *Id.*

[73] *Id.*

[74] *Id.*

capacity solely to serve Cyber Innovation.[75] Moreover, Cyber Innovation has designated 1,000 kW of Firm Capacity beginning in year one of the Contract, while the remaining 6,000 kW of Cyber Innovation's load remains interruptible under Rider D.R.S.[76] Thus, only 1,000 kW of the Cyber Innovation load will be counted toward the Company's PJM capacity requirements; little additional capacity would need to be purchased to serve Cyber Innovation.[77]

The Company included in the cover letter of its Initial Contract Filing a request for the Commission to confirm the Company's interpretation of Finding Number 5 of Administrative 327 Order, the provisions of Tariff E.D.R., and the Company's application of the same to the proposed EDR Contract.[78] The Company further requested that, to the extent the Commission did not confirm the Company's interpretation, the Commission grant a deviation from Finding Number 5 in order to effectuate the ultimate purpose of Tariff E.D.R. and encourage economic development through such contracts in the Company's service territory.[79]

The Company previously submitted two EDR contracts for the Commission's approval through the Commission's Tariff Filing System (TFS2022-73 and TFS2022-249) prior to this contract being submitted.[80] One of them is the EDR contract for Cyber Innovation's Long Fork Facility.[81] Within the transmittal letters accompanying those filings, the Company included the same request for the Commission to either "confirm Kentucky Power's interpretation of Finding Number 5 of the Administrative Case No. 327, the provisions of Tariff EDR, and the Company's

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[75] *Id.*

[76] *Id.*

[77] *Id.*

[78] Initial Contract Filing, November 16, 2022 Cover Letter at 3.

[79] *Id.*

[80] Company's response to AG 1-8(a).

[81] *Id.*

application of the same to the Contract" or to grant "a deviation from Finding 5 in order to effectuate the ultimate purpose of Tariff EDR and encourage economic development through such contracts in the Company's service territory."[82] The Commission approved both of those contracts, which became effective March 31, 2022 and June 10, 2022, respectively.[83] The Company understood the Commission's approval of the contracts as either confirming the Company's interpretation of Finding Number 5, or granting any required deviation, as the EDR contracts would not have been approved otherwise.[84]

In any event, if the Commission does not confirm the Company's interpretation that the demand discount reduction provisions of Tariff E.D.R. do not apply in connection with the proposed EDR Contract, then the Commission still may approve the contract subject to those demand discount reduction provisions.[85] In that instance, the Company would implement those provisions as stated in the Company's response to Commission Staff's Post-Hearing Data Request No. 5.

Article 4.9 of the proposed EDR Contract expressly recognizes this possibility. It is important to note that the Company would only need to account for Cyber Innovation's 1 MW of firm capacity, plus a required reserve margin, under PJM's Fixed Resource Requirement construct.[86] When purchasing capacity, the Company purchases capacity in tranches and Cyber Innovation's 1 MW of firm capacity would be a "rounding error" already accounted for in the Company's purchase of a tranche of capacity.[87] Thus, it is unlikely that the Company would have

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[82] *Id.*

[83] *Id.*

[84] *Id.*

[85] Hearing Testimony of Company Witness West, VR 07/25/2023 13:24:30.

[86] West Hearing Test., VR 07/25/2023 10:58:51.

[87] *Id.* at VR 07/25/2023 10:59:21; 11:35:28; 13:33:27.

to make a true incremental capacity purchase to serve Cyber Innovation's Rockhouse Facility because the 1 MW of firm capacity needed to serve Cyber Innovation would be included in what is purchased to serve all customers.[88]

- Finding 6: A utility should demonstrate that the EDR exceeds the marginal cost associated with serving the customer.

The Company submitted a marginal cost study that demonstrates that the EDR exceeds the marginal cost associated with serving Cyber Innovation at the Rockhouse Facility over the contract term.[89] The marginal cost study is discussed in further detail *infra.*

- Finding 7: A utility should file an annual report with the Commission detailing revenues received and the marginal costs from EDRs.

- Finding 11: All utilities with active EDR contracts should file an annual report with the Commission providing information as shown in Appendix A, to Administrative 327 Order.

The Company currently files with the Commission an annual report on or before March 31 of each year in Case No. 2014-00336[90] detailing revenues received and the marginal costs from EDRs, and will continue to do so.

- Finding 8: A utility should demonstrate that nonparticipating ratepayers are not adversely affected by the EDR through a cost-of-service analysis.

In a past special contract case ("the 2020 case"), the Commission found that the Company's marginal cost study provided therein represented "credible evidence in support of its assertion that the rates … will not adversely impact the rates of other customers."[91] Importantly, although

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[88] *Id.*; 13:33:45.

[89] *See* Errata Attachment 3 to Initial Contract Filing (January 10, 2023).

[90] *In The Matter Of: Application Of Kentucky Power Company For (1) Approval Of An Economic Development Rider; (2) For Any Required Deviation From The Commission's Order In Administrative Case No. 327; And (3) All Other Required Approvals And Relief*, Case No. 2014-00336.

[91] *See* Order, *In The Matter Of: Electronic Application Of Kentucky Power Company For Approval Of A Contract For Electric Service With Air Products And Chemicals, Inc.,* Case No. 2020-00019 (Ky. P.S.C. April 23, 2020).

still reliable, the marginal cost study presented the 2020 case did not take into account energy, generation capacity, or transmission costs for the additional load. The marginal cost study provided by the Company in this case (Errata Attachment 3) was, in fact, more detailed than the marginal cost study provided in the 2020 case. Here, the Company's marginal cost study (Errata Attachment 3) does consider energy, generation capacity (included at the request of Commission Staff),[92] and transmission costs. The Company's most recent marginal cost study (KPCO_R_KPSC_PHDR_11_Attachment1) also considers escalated transmission costs and revenues, also included at the request of Commission Staff. Both demonstrate that the expected revenues exceed the cost to serve Cyber Innovation over the contract term. Thus, by the same standards, the Company's marginal cost study presented in this case (either Errata Attachment 3 or KPCO_R_KPSC_PHDR_11_Attachment1) likewise represents credible evidence that the rates established in the proposed EDR Contract will not adversely impact the rates of other customers.

- Finding 9: The EDR contract should include a provision providing for the recovery of EDR customer-specific fixed costs over the life of the contract.

Kentucky Power has not identified any customer-specific fixed costs associated exclusively with serving Cyber Innovation.[93] In any event, Article 4.8 of the proposed EDR Contract specifies, "The Parties agree that the charges the Company collects from the Customer during the term of this Contract will recover all of the Company's fixed costs associated with upgrading its distribution facilities to serve the Customer." The Company's marginal cost studies also

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[92] The Company maintains that after the expiration of the Rockport UPA in December 2022, the Company is required to purchase capacity to serve all customers. Thus, the Company does not assign capacity purchases to individual customers during times when it is purchasing capacity to serve all customers, and the marginal cost study that does not include generation capacity costs, *see* Errata Attachment 3, is reasonable.

[93] *See* Initial Contract Filing, November 16, 2022 Cover Letter at 4.

demonstrate that the Company will recover customer-specific fixed costs from Cyber Innovation over the life of the EDR Contract.

- Finding 10: The major objectives of EDRs are job creation and capital investment. However, specific job creation and capital investment requirements should not be imposed on EDR customers.

Cyber Innovation plans to invest $3.5 million in the Rockhouse Facility.[94] In addition, employees of Cyber Innovation go between Cyber Innovation's Long Fork and Rockhouse facilities according to the needs of the company.[95] Cyber Innovation has already hired 10 employees and plans on adding at least three more to serve the Rockhouse Facility.[96] All jobs are anticipated to be full time and hired locally.[97]

Administrative 327 Order does not set fixed minimum demand requirements, capital investment levels, or minimum job creation requirements, and the Commission recognizes that there are other benefits that may be realized through EDRs:

> [W]hile job creation and increases in capital investment are the desired outcome of EDRs, requiring specific levels of job creation and capital investment for EDR eligibility might, in some instance, impede rather than promote economic activity. For instance, such a requirement might prevent a customer from participating in an EDR program even if tangible economic benefits unrelated to job creation or capital investment would have been realized.[98]

The Commission further found that such rigid requirements would "be arbitrary and would not recognize the needs and characteristics of individual service areas…"[99]

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[94] EDR Contract at Recital No. 4.

[95] *See* Company's response to KPSC 1-3(a) (January 27, 2023).

[96] *Id.*

[97] *See* Company's response to KPSC 1-3(b) and (c) (January 27, 2023).

[98] *Id.* at 10-11.

[99] *Id.* at 11.

The jobs and investment proposed by Cyber Innovation are valuable within the context of Eastern Kentucky's economic reality. There also are other tangible economic benefits that will result. For example, the addition of a 7,000 kW customer to Kentucky Power's load base during a time when the Company's load base has been shrinking for more than 10 years, <u>will</u> reduce the amount of fixed costs currently borne by residential customers, and all other customers. Those costs will be lower than they otherwise would be absent Cyber Innovation being a customer of Kentucky Power. In addition, the Attorney General and KIUC advocate for Kentucky Power to build new generation and rely less, or not at all, on market energy purchases. That new generation comes at substantial cost to build. Utilities must attract load in order to further spread the costs of building that generation or other capital projects, which makes that investment more affordable for customers than it otherwise would be. The addition of a new 7,000 kW load will also reduce residential and other customers' share of those costs.

- Finding 12: For new industrial customers, an EDR should apply only to load which exceeds a minimum base level. For existing industrial customers, the EDR should apply only to load which exceeds a minimum base level, for new industrial customers, and the EDR contract should identify and justify the minimum usage level required for a new customer.

Tariff E.D.R. provides that the tariff is available only to those new customers whose monthly maximum billing demand exceeds a minimum base level, which the Company determined, and the Commission approved, to be 500 kW.[100] Cyber Innovation's monthly maximum billing demand of 7,000 kW will exceed that threshold.

- Finding 14: The term of an EDR contract should be for a period twice the length of the discount period, with the discount period not exceeding five years.

[100] *See* Tariff Sheet 37-1, Availability of Service, Section (1).

Article 4.5 and Article 5.2 of the proposed EDR Contract demonstrate that the term of the contract is 10 years and that the demand discounts will be offered to Cyber Innovation only during the first five years of the contract.

B. The Company's Marginal Cost Study Is Reasonable.

Marginal cost studies are helpful tools to demonstrate at a high level whether the rates in a special contract will result in a net cost or benefit to serve that customer. There is no one right way to perform a marginal cost study. However, in order for the marginal cost study to be reasonable and reliable, the inputs and assumptions used must be reasonable. These studies must be based on information and assumptions known at the time of the development of the study. Marginal cost studies are not intended to predict the future or the actual cost to serve a customer and cannot reasonably include every possible real-world circumstance that may occur in serving the customer over the special contract term.

The Company submitted its marginal cost study (Errata Attachment 3 or KPCO_R_KPSC_PHDR_11_Attachment1) using reasonable inputs and assumptions. The Company also updated its marginal cost study by adding generation capacity costs and escalated transmission costs at the request of Commission Staff.[101] In each iteration of the marginal cost study, whether including generation capacity costs and/or escalated transmission costs or not, the Company has demonstrated, based on the rates offered, that revenues expected to be received from Cyber Innovation exceed the marginal cost associated with serving the customer. Notably, there is no evidence in the record that demonstrates the Company's marginal cost studies are not reasonable or credible.

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[101] The Company maintains that capacity costs should not be assigned to individual customers. The Company must secure capacity to serve all of its customers after the expiration of the Rockport UPA, not just Cyber Innovation.

In addition, marginal cost studies similar to those provided here[102] have been accepted recently by the Commission in past EDR contract filings, including for the EDR contract for Cyber Innovation's Long Fork Facility (TFS2022-73) and for the facility of another cryptocurrency customer (TFS2022-249). As such, the Commission should likewise find the Company's marginal cost studies provided here to be reasonable and reliable evidence that the expected revenues exceed the marginal cost to serve Cyber Innovation.

C. The Intervenors Raise Only Hypothetical Concerns About The Proposed EDR Contract.

The intervenors raise concerns about hypothetical possibilities when it comes to serving Cyber Innovation, when the reality is that the proposed EDR Contract sufficiently protects the Company and other customers against reasonable potential risks. The intervenors raise concerns based on Cyber Innovation's involvement in the cryptocurrency mining industry and Cyber Innovation's ability to interrupt when called upon.

1. The Proposed EDR Contract Contains Sufficient Protections For The Company And Other Customers.

The intervenors raise concerns about the protections for other customers in the event that Cyber Innovation discontinues service prior to the end of the EDR Contract. The Company likewise considered these issues and provided for them when negotiating the proposed EDR Contract with Cyber Innovation. The EDR Contract provides, in accordance with Rider D.R.S., for the DRS Event Failure Charge, which requires Cyber Innovation to pay back a portion of its

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[102] The marginal cost studies provided by the Company and accepted by the Commission in the past, while still meaningful evidence, were less detailed than that provided in the Company's most recent marginal cost study (KPCO_R_KPSC_PHDR_11_Attachment1) because it also considers escalated transmission costs and revenues, included at the request of Commission Staff. Each marginal cost study presented in this case demonstrates that the expected revenues exceed the cost to serve Cyber Innovation over the contract term.

DRS credit in the event that Cyber Innovation fails to sufficiently curtail when called upon.[103] Tariff E.D.R. provides for a full claw back of all demand reduction discounts received by Cyber Innovation in the event that Cyber Innovation discontinues service under the EDR Contract prior to the end of the contract term.[104] The August 3, 2023 Security Addendum incorporates the demand discount clawback provisions of Tariff E.D.R.[105] The Security Addendum secures such repayment by requiring Cyber Innovation to post an annual security in the amount of the total demand reduction credits received and estimated to be received.[106] The Company also is requiring Cyber Innovation to provide a security deposit or letter of credit in the amount of 2/12ths of Cyber Innovation's estimated annual bill (without discounts) to secure payment of bills in accordance with the Company's terms and conditions of service.[107] Finally, outside of and in addition to the protections provided by the EDR Contract, the Company also may take advantage of protections provided by Kentucky law in the event that Cyber Innovation were to discontinue service under the EDR Contract prior to the end of the contract term, including, but not limited to, a breach of contract action.

All of these things provide meaningful protection for the Company and its other customers in the event that Cyber Innovation fails to curtail under Rider D.R.S. or discontinues service under the EDR Contract.

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[103] It also would be against Cyber Innovation's own interests to fail to curtail when called upon, because it could have the effect of significantly raising Cyber Innovation's own costs in the event that the Company may be required to procure additional capacity in the future due to Cyber Innovation's failure to curtail.

[104] Tariff Sheet 37-5, Terms of Contract.

[105] Security Addendum at Article 5.3.

[106] *Id.* at Article 5.4.

[107] *See* Company's response to JI 1-13 (January 27, 2023); Tariff Sheet No. 2-2 and 2-3.

D. Cyber Innovation Must Not Be Unreasonably Discriminated Against Based On Its Industry.

KRS 278.170(1) proscribes unreasonable discrimination by prohibiting utilities from granting an "unreasonable preference or advantage" or maintaining an "unreasonable difference" between classes of service "for doing a like and contemporaneous service under the same or substantially the same conditions."[108] Cyber Innovation cannot be unreasonably discriminated againt here, as suggested by the intervenors, based on its business model or the industry in which it operates.

In any event, none of the perceived risks of Cyber Innovation's business model asserted by the intervenors are supported by evidence. Nor is Cyber Innovation being given unreasonable preference or advantage. The Company has offered to Cyber Innovation the same discounts that otherwise would be available under its Tariff E.D.R. The Company also included the Security Addendum, which secures repayment of all demand discounts received by Cyber Innovation if it discontinues service under the EDR Contract prior to the end of the contract term. This additional protection was reasonable under the particular circumstances. Moreover, Cyber Innovation is still exposed to the same price risks that other large industrial customers are, including fuel costs and purchase power costs. Simply put, taken holistically, the EDR Contract provides Cyber Innovation with reasonable discounts provided by Tariff E.D.R. and the Company and its other customers with meaningful protections in the event of a default, while also providing economic benefits to the local economy and all of the Company's other customers.

[108] *Riverside Generating Appellant Company, L.L.C. v. Kentucky Public Service Commission*, 2020-CA-0678-MR, 2021 WL 527705, at *4 (Ky. App. Feb. 12, 2021), review denied (Aug. 18, 2021).

In addition, by offering the EDR Contract and the discounts provided therein, which induces Cyber Innovation to locate in the Commonwealth of Kentucky, the Company is effecting and implementing the General Assembly's policy to attract these kinds of cryptocurrency companies to Kentucky. Indeed, as part of legislation implemented that provides tax breaks and other incentives for cryptocurrency-related industry in order to induce their location to Kentucky, the General Assembly declared that:

> it is in the best interest of the Commonwealth to induce the location of innovative energy-related businesses in the Commonwealth in order to advance the public purposes of achieving energy independence, creating new and advanced technologies, creating new jobs and new investment, and creating new sources of tax revenues that but for the inducements to be offered by the authority to approved companies would not exist.[109]

Therefore, because the EDR Contract meets each applicable requirement of Tariff E.D.R. and Administrative 327 Order, because the EDR Contract contains reasonable protections for the Company and other customers in the event of a default, and because the EDR Contract ultimately implements the policy adopted by the General Assembly, the EDR Contract should be approved.

V. CONCLUSION

For the reasons set forth above, the Company has demonstrated that the proposed EDR Contract with Cyber Innovation contains rates that are fair, just, and reasonable. The proposed EDR Contract meets all requirements of Tariff E.D.R. and all applicable requirements of Administrative 327 Order. In addition, the EDR Contract allows the Company to secure Cyber Innovation to the Company's service territory, which will bring desperately needed economic development and other benefits to all customers and local residents. This includes increased load, which will have the effect of spreading the Company's fixed costs over a greater load, reducing

[109] KRS 154.27-020(2).

the amount of those costs currently paid by all other customers. The Commission should approve the proposed EDR Contract for these reasons.

Respectfully submitted,

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