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

POST-HEARING BRIEF OF JOINT INTERVENORS MOUNTAIN ASSOCIATION, KENTUCKIANS FOR THE COMMONWEALTH, APPALACHIAN CITIZENS' LAW CENTER, SIERRA CLUB, AND KENTUCKY RESOURCES COUNCIL, INC.

PUBLIC VERSION

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Dated: August 28, 2023

Come now Joint Intervenors Mountain Association, Kentuckians for the Commonwealth, Appalachian Citizens' Law Center, Sierra Club, and Kentucky Resources Council, Inc. ("Joint Intervenors"), and tender this post hearing brief in the above-captioned matter. For the reasons set forth below, the proposed special contract should be denied because Kentucky Power Company ("Kentucky Power" or "the Company") does not have sufficient generating capacity, because the proposed special contract (even as modified by the contract addendum) does not include sufficient provisions on security to fully protect the Company's other customers, and because the Company has failed to provide evidence that approval of the contract would create any new jobs or economic development.

I. Statement of the Case

This matter concerns whether the Commission should approve a proposed special contract under Kentucky Power's Tariff E.D.R. between the Company and Cyber Innovation Group, LLC ("CIG") for a 7 MW cryptocurrency mining facility at 379 Rockhouse Fork ("Rockhouse Facility") in Pike County, Kentucky.

In November 2022, Kentucky Power submitted the proposed 10-year special contract at issue in this case for approval under its Economic Development Rate and Demand Respond Service.[1] The Rockhouse Facility is a cryptocurrency mining facility in Pike County that was constructed and began operating in approximately July 2022 under standard rates, prior to the proposed special contract seeking the discounted

[1] *Kentucky Power Company – Contract For Electric Service Under Tariff E.D.R. And Rider D.R.S. With Cyber Innovation Group, LLC.,* ("Kentucky Power-CIG Proposed Contract"), Case No. TFS2022-00555 (Nov. 16, 2022).

EDR rate being submitted for approval.[2] This proposal comes at a time when Kentucky Power currently does not own sufficient generating capacity to serve its existing customers, let alone new customers, and thus is forced to contract for purchases of additional capacity each year.[3] The Company will be even more capacity short after divesting its interest in the Mitchell plant in 2028.[4]

On December 6, 2022, Joint Intervenors, along with Kentucky Conservation Committee, filed comments opposing the proposed special contract.[5] The Office of the Attorney General ("OAG") and Kentucky Industrial Utility Customers, Inc. ("KIUC") also submitted comments opposing the proposed special contract.[6]

On December 15, 2022, the Commission entered an Order establishing a procedural schedule to investigate the reasonableness of the proposed special contract and suspended the contract until May 15, 2023. The Commission stated the intent to "determine the reasonableness of the proposed Contract."[7] Discovery requests and responses were filed in this case, along with pre-filed direct testimony from Joint Intervenors' witness and rebuttal testimony from Kentucky Power's witnesses.[8] The Commission held a hearing in this case on July 25, 2023, where Kentucky Power's

[2] July 25, 2023, HVT at 9:23:00; *see also* Kentucky Power's Response to Commission Staff's Post Hearing Data Request 7 (Aug. 4, 2023).
[3] July 25, 2023, HVT at 10:12:00, 10:19:00, 13:31:00.
[4] Kentucky Power's Response to AG's Data Request 1.23 (Jan. 13, 2023).
[5] Comments of Mountain Association, Kentuckians for the Commonwealth, Appalachian Citizens' Law Center, Sierra Club, and Kentucky Resources Council RE: Kentucky Power Company's Special Contract for Electric Service and Rider D.R.S. Addendums with Cyber Innovation Group, LLC, Case No. TFS2022-00555 (Nov. 17, 2022); Order, Case No. 2022-00424 (Dec. 6, 2022), Appendix B.
[6] *Id.*
[7] Order, Case No. 2022-00424 (Dec. 15, 2023).
[8] *See* Joint Intervenors, Staff, and Attorney General's Data Requests filed Jan. 10, 2022, Jan. 13, 2022, Feb. 8-10, , 2023 and Post Hearing Data Requests filed Jul. 28, 2023, Company's Response to Data Requests filed, Jan. 27, 2022, Feb. 24, 2023, and Aug. 4, 2023; Testimony of Stacy Sherwood filed Mar. 3, 2023, and Rebuttal Testimony of Brian K. West and Amanda C. Clark filed Apr. 6, 2023.

witnesses Brian K. West, Amanda C. Clark and Lerah M. Kahn testified, along with Joint Intervenors' witness Stacy Sherwood. Post-hearing discovery requests were submitted following the hearing. An addendum to the special contract was also filed post-hearing.

II. Legal Background

The Commission has plenary authority to review special contracts to ensure their proposed rates are fair, just, and reasonable.[9] Both KRS 278.030 and KRS 278.040 require that the Commission act to ensure that rates are "fair, just and reasonable."[10] KRS 278.030 states "[e]very utility may demand, collect and receive fair, just and reasonable rates for the services rendered or to be rendered by it to any person."[11] KRS 278.040 gives the Commission authority to "regulate utilities and enforce" these provisions.[12]

In Administrative Case No. 327, the Commission created guidelines for how an EDR should be structured along with delineating the circumstances under which an offering of such rates could be found to be reasonable. The Commission states that an EDR:

> is considered to be a gas or electric rate discount, offered to large commercial and industrial customers, which is intended to stimulate the creation of new jobs and capital investment both by encouraging existing customers to expand their

[9] *See Pub. Serv. Comm'n of Ky. v. Commonwealth of Ky.*, 320 S.W.3d 660, 668 (Ky. 2010) (finding that "a particular EDR is sustainable provided the PSC determines that the rate is reasonable and that determination withstands the appropriate scrutiny on judicial review"); *see also Ky. Pub. Serv. Comm'n v. Com. ex rel. Conway*, 324 S.W.3d 373, 380–83 (Ky. 2010) (discussing the Commission's plenary authority to investigate and determine fair, just, and reasonable rates).
[10] *Ky. Pub. Serv. Comm'n v. Com. ex rel. Conway*, 324 S.W.3d 373, 380–81 (Ky. 2010).
[11] KRS 278.030.
[12] KRS 278.040.

> operations and by improving the likelihood that new large commercial and industrial customers will locate in Kentucky.[13]

The Order created the requirement that "EDRs should only be offered during periods of excess capacity and that each utility should demonstrate, upon submission of each EDR contract, that the load expected to be served during each year of the contract period will not cause the utility to fall below a reserve margin that is considered essential for system reliability. Such a reserve margin should be identified and justified with each EDR contract filing."[14]

In Finding 5 of the Administrative Case No. 327 Order, the Commission found that "EDRs should only be offered during periods of excess capacity. Utilities should demonstrate, upon submission of each EDR contract, that the load expected to be served during each year of the contract period will not cause them to fall below a reserve margin that is considered essential for system reliability. Such a reserve margin should be identified and justified with each EDR contract filing."[15] The Commission also found in the Order that that "during rate proceedings, utilities with EDR customers should demonstrate through detailed cost-of-service analysis that nonparticipating ratepayers are not adversely affected by these EDR customers."[16]

Finally, the Administrative Case No. 327 Order provides that while there is no minimum requirement, "increased economic activity is the *major objective* of EDRs" and

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[13] Order, *In re: An Investigation into the Implementation of Economic Development Rates by Electric and Gas Utilities*, Admin. Case No. 327, at 1 (Sept. 24, 1990).
[14] *Id.* at 5–6.
[15] *Id.*
[16] *Id.* at 8.

that "[t]wo key indicators of economic activity are job creation and capital investment."[17] "EDRs are expected to promote growth in both of these areas."[18] The Commission further found that it "seeks to minimize the number of free riders taking advantage of discounted utility rates in Kentucky" that are not needed to incentivize job creation and economic development, to avoid the resulting "revenue loss . . . [that would be] detrimental to the utility and all nonparticipating ratepayers."[19] Defining this "free ridership" concern more specifically, the Commission found that "[c]ustomers who would have decided to locate in Kentucky or expand existing operations even in the absence of rate discounts, but who would take advantage of EDRs that are offered to aid new or expanding customers, in effect, become 'free riders' on the utility system at the expense of all other ratepayers."[20]

III. Argument

1. Kentucky Power Lacks Sufficient Generating Capacity to Serve CIG, and the Proposed Special Contract Does Not Require CIG to Bear the Costs of Additional Capacity Purchases.

Kentucky Power's proposed special contract with CIG is inconsistent with both the Company's own Tariff E.D.R. and the Administrative Case No. 327 requirements for EDRs. The Company's Tariff E.D.R. provides that

> 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

[17] *Id.* (emphasis added).
[18] *Id.*
[19] *Id.* at 14–15.
[20] *Id.* at 14.

> a dollar-for-dollar basis the customer's [Incremental Billing Demand Discount] and [Supplemental Billing Demand Discount].[21]

Tariff E.D.R. further provides that "[t]he new or increased load cannot accelerate the Company's plans for additional generating capacity during the period for which the customer receives a demand discount."[22] Clearly, these tariff provisions were designed to implement and be consistent with Finding 5 of Administrative Case No. 327 (quoted above), which requires that utilities only offer EDR contracts during periods where they have excess capacity.[23]

Kentucky Power's request here for approval of a special contract with a new EDR customer at a time when it is capacity short should be denied as contrary to both its own tariff requirements and those of Administrative Case No. 327.[24] The Commission should further reject Kentucky Power's claim that it does currently have "sufficient generating capacity" within the meaning of Tariff E.D.R. because it has been annually making bilateral capacity purchases to make up its capacity shortfall while the Company reassesses its future resource needs.[25] Kentucky Power's new position on the meaning of this Tariff E.D.R. is plainly inconsistent with the original intent behind the tariff, which capped Kentucky Power's ability to offer EDR contracts at 250 MW based on the amount of excess capacity it already had in hand under the Rockport UPA.[26] Kentucky

[21] Kentucky Power's Tariff E.D.R., at 37-1 (emphasis added), https://psc.ky.gov/tariffs/Electric/Kentucky%20Power%20Company/Tariff.pdf.
[22] *Id.*; *see also* Order, Case No. 2020-00174 (Jan. 13, 2021).
[23] Order, *In re: An Investigation into the Implementation of Economic Development Rates by Electric and Gas Utilities*, Admin. Case No. 327, at 5–6 (Sept. 24, 1990).
[24] Sherwood Testimony at 16–17.
[25] *See, e.g.*, July 25, 2023, HVT at 9:29:00 to 09:32:00, 09:55:00 to 09:57:00, 11:38:00 to 11:40:00; Kentucky Power's Response to AG's Data Request 1.23 (Jan. 13, 2023).
[26] *See, e.g.*, July 25, 2023, HVT at 09:55:00 to 09:57:00.

Power's proposed reinterpretation of this language as allowing the Company to procure year by year whatever additional capacity it might need, at whatever price it might be available, creates an unreasonable risk to the Company's other customers (who may be forced to subsidize any new EDR customers) of exposure to both the capacity and energy markets.[27] Contrary to the tariff language quoted above, the proposed special contract does not include a provision that reduces CIG's discounts on a dollar-for-dollar basis to cover Kentucky Power's costs of purchasing additional capacity to serve the Rockhouse Facility. For this reason alone, the Commission should deny approval of this special contract. Alternatively, if the Commission chooses to approve the special contract, it should do so only on the condition that CIG's discounts be reduced dollar-for-dollar by the cost of Kentucky Power's capacity purchases to serve the Rockhouse Facility each year.

2. Kentucky Power Has Failed to Demonstrate that CIG will Provide a Surety Bond Sufficient to Protect Against the Risk of Default or Bankruptcy.

The Commission should also deny the proposed special contract because it fails to require sufficient security to protect Kentucky Power's other customers from the risk that CIG will default or declare bankruptcy and be unable to pay back the amount of any demand discounts received for terminating the contract as required by the Company's Tariff E.D.R. As reviewed during cross-examination of Witness Kahn at the hearing, the marginal cost analysis submitted by the Company shows negative net revenues through

[27] *See, e.g.*, July 25, 2023, HVT at 11:38:00 to 11:40:00.

year four of the contract, particularly when capacity costs are included in the analysis.[28] This still holds true in the analysis that the Company submitted in post-hearing discovery responses using different assumptions, with years two and three holding negative values.[29] Under all assumptions that Kentucky Power analyzed, the proposed special contract only has a positive net revenue if the Rockhouse Facility continues to operate past the first few years of the contract. If CIG defaults or goes bankrupt before this occurs, Kentucky Power will be left with negative net revenue from serving the Rockhouse Facility under the contract and may seek to recoup some or all of those shortfalls from other customers.

This is especially concerning given the uniquely risky nature and volatile business of cryptocurrency mining. As Witness Sherwood testified:

> The value of crypto, in its short history, has fluctuated significantly regardless of the type. […] The value of crypto influences the level of mining activity, as miners need the value of the currency to outweigh the mining costs to create profit. The variance in price, particularly over the past five years determines the level of mining, and subsequently, the level of energy usage.[30]

Witness Sherwood further notes that, "unlike traditional facilities, which have invested significant capital in permanent structures, crypto mining operations are typically housed in temporary building structures and can be easily relocated."[31] The combination of these two factors – that the profitability of crypto mining facilities depends on a highly

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[28] *See* Kentucky Power's Response to Commission Staff's Initial Data Request 1.1, public attachment 1 (Jan 27, 2023), summary tab, lines 21 & 43; July 25, 2023, HVT at 15:40:00; *see also* July 25, 2023, HVT at 11:42:00.
[29] Kentucky Power's Response to Commission Staff's Post Hearing Data Request 11, public attachment 1 (Jul. 28, 2023), summary tab, lines 21 & 43.
[30] Sherwood Testimony at 7.
[31] *Id.* at 8.

volatile market, and that the facilities themselves tend to be temporary in nature, with little to no permanent infrastructure – makes a crypto mining facility such as Rockhouse at a uniquely high risk for default (and companies like CIG at uniquely high risk for bankruptcy).[32]

One way to address this concern would be to require that CIG post a surety bond to cover the full amount of any EDR discounts that it would receive under the contract. A surety bond can offset the risk of a customer leaving before the end of a contract term and protect other customers from the potentially bearing any unrecovered costs associated with the contract in the event of a default.[33]

At the hearing, Witness West stated that Kentucky Power had discussed with CIG the possibility of CIG agreeing to pose a surety bond but had not yet concluded those discussions.[34] The following week, Kentucky Power filed an addendum to the proposed special contract, which purports to require CIG to post the following amounts in security 30 days before each new contract year:[35]

Contract Year(s)	Yearly Additional Security Amount Required	Total Security Required per year
1	$847,980	$847,980
2	$685,440	$1,533,420
3	$519,901	$2,053,321
4	$350,869	$2,404,190
5	$177,783	$2,581,973
6–10	$0	$2,581,973

[32] *Id.* at 8–9.
[33] *Id.* at 5, 9.
[34] July 25, 2023, HVT at 09:32:00 to 09:34:30.
[35] Addendum to Contract for Firm Electric Service Between Kentucky Power Company and Cyber Innovation Group LLC (“Addendum”), at Section 5.4 (Aug. 3, 2023).

Although these amounts appear to be intended to represent estimates of the amount that CIG would receive in EDR discounts each year for the Rockhouse Facility, Kentucky Power has not provided any workbook or other supporting information to allow for ready verification of the bases for these amounts. Further, although the contract addendum states that "[e]ach amount may be adjusted yearly to reflect the actual demand reduction credits already received or estimated to be received," the addendum does not specify a process by which these adjustments might take place.[36]

In addition, the addendum states that in the event CIG fails to post its security within 30 days after the beginning of the contract year – i.e., 60 days after the security is due – this "will be deemed a default under this Contract and the Company shall be entitled to pursue all remedies available under this Contract and under Kentucky law."[37] The contract addendum does not identify any specific remedies or Kentucky laws, but presumably this language intends to incorporate breach-of-contract remedies (including civil litigation). Such remedies, however, would be difficult for Kentucky Power to enforce successfully against CIG in the event that it defaults, and particularly if it goes bankrupt.

Because of these uncertainties in the amount of security to be provided and its enforceability, the contract addendum filed by Kentucky Power post-hearing fails to ensure that other customers are fully protected from the risk that CIG will default or declare bankruptcy. Accordingly, the Commission should deny approval of the proposed

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[36] *Id.*

[37] *Id.* The contract addendum further provides that "[f]ailure to timely post security will result in the total estimated security amount (the total security amount required per year beginning in Contract year six) being required for the remainder of the Contract term." *Id.*

special contract for this additional reason. Alternatively, if the Commission chooses to approve the special contract, it should do so only on the conditions that (1) Kentucky Power be required to file additional supporting information demonstrating that the amounts of security in the contract addendum are sufficient; and (2) adequate security be provided for each year of the contract earlier than 30 days prior to each contract year, to reduce the risk that a default or bankruptcy might occur without adequate security in place.

3. The Rockhouse Facility is Already Constructed and Operating Without an EDR, and Kentucky Power Has Failed to Provide Evidence that Approval of the EDR Will Create Any New Jobs or Economic Development.

Another, further reason that the proposed special contract should be denied is that the Company has failed to provide evidence that approval of an EDR for the Rockhouse Facility would create any new jobs or economic development. The Rockhouse Facility was fully constructed and began operating in approximately July 2022, without a special contract in place.[38] As of January 2023, the Rockhouse Facility was operating at 4 MW,[39] and [BEGIN CONFIDENTIAL [redacted] END CONFIDENTIAL].[40]

[38] July 25, 2023, HVT at 09:23:00; *see also* Kentucky Power's Response to Commission Staff's Post Hearing Data Request 7 (Aug. 4, 2023).
[39] July 25, 2023, HVT at 09:23:00.
[40] Kentucky Power's Response to JI Post-Hearing Data Request 1.1 [confidential] (Aug. 4, 2023).

While there is no minimum job creation requirement to be eligible for an EDR under Administrative Case No. 327, increased economic development (as measured in particular by job creation) is the major objective of EDR contracts.[41] It is Kentucky Power's burden of proof to show that at least *some* job creation or economic development would result from approval of the EDR that has not already occurred through CIG's construction and operation of the Rockhouse Facility without a discounted rate in place.

Kentucky Power has not met this burden. The only evidence in the record as to job creation at the site is an unsupported statement by CIG from before the Rockhouse Facility was constructed that it expected to create an additional 2–3 jobs at the Facility.[42] The Company conceded that it has done nothing to verify this claim and does not know how many new jobs might have actually been created at the Facility, as opposed to the Facility sharing staff with CIG's nearby 20 MW Long Fork facility.[43]

Nor is there any evidence in the record that any of these jobs (or any other economic development) would result from the Commission approving a discounted rate for the Rockhouse Facility now, over a year after it was constructed and began operating without an EDR in place. Company Witness West conceded at the hearing that he is not aware of any evidence that CIG would not continue to operate its Facility if the EDR is not approved.[44]

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[41] Order, *In re: An Investigation into the Implementation of Economic Development Rates by Electric and Gas Utilities*, Admin. Case No. 327, at 8 (Sept. 24, 1990); *see also* Sherwood Testimony at 11.
[42] July 25, 2023, HVT at 14:23:00 to 14:25:00.
[43] *Id.* at 14:25:00.
[44] July 25, 2023, HVT at 9:25:00.

Because there is no evidence in the record that the Rockhouse Facility actually created any new jobs or that approval of an EDR for the Facility now would result in any additional jobs or economic development, the Commission should deny the proposed special contract for this separate and additional reason. Kentucky Power has not demonstrated that the Rockhouse Facility actually needs an EDR discount to operate or that any additional jobs would be created at the Facility as a result of the Commission's approval of an EDR discount, as required to address the Administrative Case No. 327 requirement that EDR discounts not be provided to "free riders" who may seek discounts that do not actually stimulate new economic development.[45]

IV. Conclusion

WHEREFORE, for the reasons stated above and on the basis of the written and verbal testimony adduced at hearing, Joint Intervenors respectfully urge the Commission to deny Kentucky Power's request for approval of the proposed special contract.

[45] Order, *In re: An Investigation into the Implementation of Economic Development Rates by Electric and Gas Utilities*, Admin. Case No. 327, at 14–15 (Sept. 24, 1990).

Respectfully submitted,

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CERTIFICATE OF SERVICE

In accordance with the Commission's July 22, 2021 Order in Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID*-19, this is to certify that the electronic filing was submitted to the Commission on August 28, 2023; that the documents in this electronic filing are a true representations of the materials prepared for the filing; and that the Commission has not excused any party from electronic filing procedures for this case at this time.

Byron Gary