COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC TARIFF FILING OF	)	
KENTUCKY UTILITIES COMPANY FOR	)	**CASE NO. 2022-00371**
APPROVAL OF AN ECONOMIC	)	
DEVELOPMENT RIDER SPECIAL	)	
CONTRACT WITH BITIKI-KY, LLC	)	

POST-HEARING BRIEF OF KENTUCKY UTILITIES COMPANY

Dated: June 29, 2023

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INTRODUCTION

The Kentucky Public Service Commission ("Commission") should approve the proposed Economic Development Rider ("EDR") special contract between Kentucky Utilities Company ("KU") and Bitiki-KY, LLC ("Bitiki") because (1) it satisfies all of KU's Commission-approved EDR tariff provisions and the requirements the Commission articulated in Administrative Case No. 327, (2) it is fully consistent with a similar contract the Commission approved for another cryptocurrency mining customer (UMine, LLC, "UMine") less than eight months ago,[1] and (3) it is uniquely beneficial for existing KU customers. Bitiki required no new capital investment to serve, has already made significant capital investments in anticipation of receiving EDR discounts, has posted deposit collateral of $1.275 million, and has demonstrated its ability to pay KU's bills, including bills that equal or exceed its likely bills during the first year of the EDR special contract. Moreover, incentivized by the EDR special contract, Bitiki has already begun making significant capital investments in Kentucky, and it will make millions of dollars of fixed-cost contribution over the EDR discount period.

In addition, Kentucky has unambiguously stated its policy goals of supporting cryptocurrency mining operations and locating such operations in the Commonwealth. Just two years ago the General Assembly passed—and the sitting Governor signed—a bill explicitly stating an intention to "encourage the location and expansion of such [cryptocurrency mining] operations in the Commonwealth, rather than in other states likewise competing for such businesses[.]"[2]

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[1] *Electronic Tariff Filing of East Kentucky Power Cooperative, Inc. for Approval of a Special Contract Pursuant to Its Interruptible Service Tariff and Economic Development Rider between It, Jackson Energy Cooperative Corp., and UMine, LLC*, Case No. 2022-00355, Order (Ky. PSC Oct. 31, 2022).

[2] 2021 Ky. Acts 122.

Thus, contrary to the Joint Intervenors' assertions,[3] there is good reason to look positively rather than negatively upon EDR applicants like Bitiki.

ARGUMENT

I. KU Will Have Adequate Capacity to Serve Bitiki, and Adding Bitiki's Load Will Have No Impact on KU's Resource Portfolio During the EDR Discount Period, Including Proposed Unit Retirements, Satisfying the Excess Capacity Requirement of Administrative Case No. 327.

KU and Louisville Gas and Electric Company ("LG&E"; collectively, "Companies"), have more than adequate capacity to serve Bitiki's 13 MVA load without accelerating any future capacity acquisitions within the five-year EDR discount period, fully satisfying the capacity-related requirements of Administrative Case No. 327 and KU's Commission-approved EDR tariff provisions. As the Commission stated in Administrative Case No. 327, "The Commission finds 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."[4] KU's EDR tariff provisions include a related requirement: "Company may offer EDR to qualifying new load only when Company has generating capacity available and the new load will not accelerate Company's plans for additional generating capacity over the life of the EDR contract."[5] As demonstrated by KU's initial Bitiki EDR special contract filing,[6] rebuttal testimony,[7] testimony at hearing,[8] and responses to data

[3] *See, e.g.,* Testimony of Stacy L. Sherwood ("Sherwood Testimony") at 10-15.
[4] *An Investigation into the Implementation of Economic Development Rates by Electric and Gas Utilities*, Admin. Case No. 327, Order at 5 (Ky. PSC Sept. 24, 1990).
[5] Kentucky Utilities Company P.S.C. No. 20, Original Sheet No. 71.2.
[6] EDR Special Contract Appendix A; Marginal Cost of Service Study at 7 ("The Prime Group considered the case wherein new load additions by 2027 would equal 100 MWs, which would require the Companies to build or purchase new capacity to maintain the desired 17% Reserve Margin Requirement (RMR).").
[7] Hornung Rebuttal at 6; Wilson Rebuttal at 19-20.
[8] *See, e.g.,* H.V.T. 09:40:00-09:40:15; H.V.T. 09:55:41-09:56:24.

requests,[9] the record is unambiguous: Bitiki's load will have *no impact at all* on the Companies' resource plans in the five-year EDR discount period.

Moreover, the Companies' proposals to retire existing coal-fired units and replace them with new NGCC capacity result from the need to meet applicable environmental requirements cost-effectively, not due to increasing load. The Companies would build the proposed new resources regardless of whether Bitiki took service from KU. Indeed, KU would have more than adequate capacity to serve Bitiki without any capacity additions absent the proposed unit retirements.[10] Notably, the Joint Intervenors' testimony in this proceeding does not contest this issue. The record clearly demonstrates that the proposed Bitiki EDR special contract is consistent with Administrative Case 327's capacity-related requirement and the applicable capacity-related requirement in KU's EDR tariff provisions because Bitiki's load will have *no impact at all* on the Companies' resource plans in the five-year EDR discount period, regardless of whether any of the Companies' existing units are ultimately retired and replaced.

II. The Unrebutted Evidence in this Proceeding Demonstrates that Bitiki's Revenues Will Exceed Its Marginal Costs of Service by Millions of Dollars During the EDR Discount Period and Beyond, Which Is Beneficial for Existing KU Customers.

The Commission's primary concern regarding EDR discounts has been clear for over 30 years: such discounts must not burden other customers; rather, during the EDR discount period, EDR customers must provide revenues that cover all of their variable (or marginal) costs and make some contribution to fixed costs.[11] All of the evidence in this proceeding shows that Bitiki's

[9] KU Response to JI 1-13(b) and (c); KU Response to PSC PHDR 4.

[10] *See* EDR Special Contract Appendix A; Marginal Cost of Service Study at 7 ("The Prime Group considered the case wherein new load additions by 2027 would equal 100 MWs, which would require the Companies to build or purchase new capacity to maintain the desired 17% Reserve Margin Requirement (RMR)."); Hornung Rebuttal at 6; Wilson Rebuttal at 19-20; KU Response to JI 1-13(b) and (c); KU Response to PSC PHDR 4; H.V.T. 09:40:00-09:40:15; H.V.T. 09:55:41-09:56:24.

[11] Admin. Case No. 327, Order at 8 (Ky. PSC Sept. 24, 1990).

revenues during the EDR discount period will exceed its marginal costs by millions of dollars, easily satisfying this paramount EDR requirement.

This is a point the Joint Intervenors have not directly contested. Their witnesses' testimony offered recommendations concerning KU's marginal cost calculations, but never directly asserted or challenged that Bitiki's revenues would be insufficient to cover its marginal costs.[12] Moreover, KU incorporated the Joint Intervenors' recommendations into the Bitiki marginal cost calculations and demonstrated that across four different marginal production demand cost scenarios—using 2020 NREL NGCC data, 2021 NREL NGCC data, the Companies' CPCN data for the proposed Brown NGCC, and PJM's 2026-2027 CONE NGCC data—Bitiki's revenues will exceed its marginal costs over the EDR discount period by $3.3 million to $5 million.[13] Further, over the ten-year electric service contract commitment required to receive five years of EDR discounts, Bitiki's revenues will exceed marginal costs by $10.9 million to $14.4 million.[14]

Importantly, those calculations of revenues in excess of marginal costs are almost certainly too conservative. As Mr. Wilson testified, because Bitiki's load will have no effect on KU's resource plans during the EDR discount period, its marginal cost of production demand is arguably zero over that period.[15] Also, Bitiki is already paying and will continue to pay ECR charges, the vast majority of which recover fixed costs for environmental compliance facilities entirely unrelated to the NGCC unit that set the marginal cost of production demand.[16] And because Bitiki located at a site with existing transmission facilities that required no additional capital expenditure by KU to provide service, there was no incremental transmission or distribution capital cost to

[12] *See, e.g.,* Hotaling Rebuttal at 12-13.
[13] Wilson Rebuttal at 11-17.
[14] *Id.*
[15] *Id.* at 19-20; H.V.T. 09:40:00-09:40:15; H.V.T. 09:55:41-09:56:24.
[16] Wilson Rebuttal at 18-19.

serve Bitiki. Therefore, KU's projections of Bitiki's revenues in excess of marginal costs are likely understated, not overstated.

Finally, in a post-hearing data request Commission Staff requested capital costs for an NGCC unit with carbon capture and sequestration ("CCS").[17] As KU explained in that response, there is no reason to use the cost of such a unit to calculate marginal cost for Bitiki.[18] The U.S. Environmental Protection Agency's ("EPA") recently proposed carbon-emission restrictions significantly reduce the guesswork previously associated with projected carbon compliance methods and costs.[19] EPA has now effectively put an end to such speculation; its proposed rules would not require CCS per se at any time for NGCC units, and the earliest any carbon-related compliance cost would arise for the Companies' proposed NGCC units would be well after the end of the Bitiki EDR period.[20] Thus, there is now no rational basis to use a hypothetical NGCC unit with CCS to calculate marginal costs for serving Bitiki during the EDR discount period.

III. The Joint Intervenors Agree that KU's Existing Customers Are Adequately Protected from Any Potential Bitiki Business Failure.

Revenue projections are vital to evaluating EDR contracts and ensuring existing customers will be protected if a utility provides discounted rates, but KU's arrangements and experience with Bitiki provide additional and concrete assurances that KU's existing customers will only benefit from the Bitiki EDR special contract. First, Bitiki has posted $1,275,000 of collateral in the form of a surety bond to secure payment for its service—an amount equivalent to two months of service at full projected load at undiscounted RTS rates, which is consistent with the maximum deposit set forth in 807 KAR 5:006, Section 8.[21] Second, the Bitiki EDR special contract includes claw-

[17] PSC PHDR 7.
[18] KU Response to PSC PHDR 7.
[19] *See, e.g., id.*; Wilson Rebuttal at 8.
[20] KU Response to PSC PHDR 7.
[21] KU Response to PSC 1-1(c).

back provisions allowing KU to recoup significant portions of the EDR discounts if Bitiki terminates service prior to the end of the ten-year term.[22] Third and finally, Bitiki's ability to invest in its facilities and still pay its KU bills is not hypothetical or speculative: Bitiki has paid its bills in full and on time since it began taking service from KU in September 2022, and its most recent bills are close to (or even exceed) the amounts Bitiki will pay on a monthly basis at full 13 MVA load during the first year of the EDR discount period.[23] Thus, KU's existing customers have more than adequate protections under the Bitiki EDR special contract.

Notably, this is a point on which the Joint Intervenors have expressly and affirmatively agreed with KU:

> **Q. In this proceeding, are you concerned about increased costs for existing customers if the EDR is offered to Bitiki?**
>
> A. After reviewing the evidence in this case, including KU's responses to data requests, I am not concerned. First, there are no required investments by KU, as Bitiki is utilizing existing grid infrastructure from prior land mining operations at the location. The lack of required investment by KU to bring the expanding Bitiki operation online eliminates the need for any grid infrastructure related safeguards. Second, KU is requiring a surety bond, in the amount of $1,275,000, which is equivalent to 2/12 of the annual bill anticipated for Bitiki. This is equivalent to the deposit required of customers served under similar tariffs as Bitiki and should be sufficient for recovering costs related to

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[22] Bitiki EDR special contract at 2:

> In the event that Customer (a) ceases operations at the EDR Location before the Initial Contract Term expires, (b) stops taking service for the EDR Location from Company during the Initial Contract Term, or (c) terminates the EDR Contract before the Initial Contract Term expires (with each of the foregoing being a " Customer Termination Event"), the Customer shall reimburse Company for a portion of the EDR Credits received from the Company by Customer (the "Reimbursement Amount") as set forth hereafter. If a Customer Termination Event occurs during the first two years of the Initial Contract Term, the Customer shall reimburse the Company for 90% of the total EDR Credits received by the Customer. If a Customer Termination Event occurs during the third, fourth or fifth years of the Initial Contract Term, the Customer shall reimburse the Company for 75% of the total EDR Credits received by the Customer. If a Customer Termination Event occurs at any time during the final five years of the Initial Contract Term, the Customer shall reimburse the Company for 50% of the total EDR Credits received by the Customer. The Reimbursement Amount shall be paid to Company by Customer within 30 days of the Customer Termination Event.

[23] KU Response to JI PHDR 3.1(b).

> billing delinquencies unless proven otherwise through experience. Because these two factors are addressed, the Special Contract meets the minimum safeguards noted above to limit financial liabilities on existing companies from the cryptocurrency mining operation.[24]

This testimony is also notable because it entirely undermines concerns the same witness raises about the claimed volatility of cryptocurrency markets (a subject about which the witness conceded she has no expertise).[25] Either existing customers are adequately protected from an EDR customer's potential business failure or they are not. The Joint Intervenors have unequivocally stated—correctly—that KU's existing customers will be adequately protected, obviating the need to discuss the asserted volatility of a particular market.

In addition, customers have at least two additional benefits under the Bitiki EDR special contract that would not exist absent the contract. First, the Bitiki EDR special contract obligates Bitiki to take service from KU for ten years, five of which will be at full, tariffed RTS rates; typical Rate RTS contracts are for only one year. Second, because Bitiki located at a site with existing transmission facilities, it is making productive use of—and providing revenues for—KU's previous investments at the site, the cost of which KU's customers would otherwise have to bear as the facilities went unused. These are important supplemental benefits of the Bitiki EDR special contract, and they provide additional protection to KU's existing customers.

IV. The Commission's Final Order in Administrative Case No. 327 Explicitly Did Not Create a Jobs Requirement for EDR; Nonetheless, Bitiki Has Provided Documentary

[24] Sherwood Testimony at 14-15.
[25] H.V.T. 13:11:31-13:11:47.

Evidence of Its Intent to Create Jobs, and Its Site Development and Activity Demonstrate Job-Related Activity Already.

Because the Commission's previous EDR orders clearly demonstrate that there is not *and should not be* a minimum jobs requirement for EDR special contracts,[26] and because the Commission approved the UMine EDR contract with less anticipated job creation than Bitiki anticipates,[27] there is no valid job-related obstacle to approving the Bitiki EDR special contract. Rather, because Bitiki has already engaged in significant economic activity that necessarily involved human engagement, it is clear that Bitiki's creation of jobs, or at least support for existing jobs, is real, not merely hypothetical.

In both pre-filed and live testimony, the Joint Intervenors attempted to argue that the Commission should reject the Bitiki EDR special contract on the grounds of a minimum jobs requirement that they could not articulate and *does not exist*.[28] Indeed, the only jobs-related requirement the Commission has articulated concerning EDR contracts is a requirement *not to require a minimum number of jobs*. In its Order approving the UMine, LLC EDR contract—where UMine had committed to create fewer jobs than Bitiki—the Commission stated that Finding 10 of the final order in Administrative Case 327 was, "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."[29] The Commission further stated:

> The Commission finds that the proposed special contract complies with the Administrative Case 327 Order, Finding 10. *This is because*

[26] Admin. Case No. 327, Order at 10-12 (Ky. PSC Sept. 24, 1990) ("The Commission finds that, while 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 instances, impede rather than promote economic activity. … Furthermore, specific job creation and capital investment levels would be arbitrary and would not recognize the needs and characteristics of individual service areas and of new and expanding customers."; "The Commission finds that a uniform job creation and capital investment requirement for each EDR contract is inappropriate."); Case No. 2022-00355, Order at 11-12 (Ky. PSC Oct. 31, 2022).
[27] Case No. 2022-00355, Order (Ky. PSC Oct. 31, 2022).
[28] *See, e.g.,* Sherwood Testimony at 9 lines 3-6; H.V.T. 13:09:18-13:10:26.
[29] Case No. 2022-00355, Order at 3 (Ky. PSC Oct. 31, 2022).

> *EKPC stated that neither it or Jackson Energy established minimum requirements for new jobs and capital investment in order for UMine to be eligible for the EDR*.[30]

The Commission's UMine Order affirms the Commission's reasoning contained in Administrative Case No. 327 on this subject, namely that establishing minimum job or investment requirements would be arbitrary and could *impede* rather than promote economic development:

> The Commission finds that, while 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 instances, 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. Furthermore, specific job creation and capital investment levels would be arbitrary and would not recognize the needs and characteristics of individual service areas and of new and expanding customers.
>
> …
>
> The Commission finds that a uniform job creation and capital investment requirement for each EDR contract is inappropriate.[31]

The Commission's orders on this point could not be clearer: there is no minimum jobs requirement for EDR special contracts. Therefore, the Commission must reject the Joint Intervenors' attempt to interpose such a requirement where one neither exists *nor should exist* on the Commission's longstanding reasoning.

But there is also no doubt that Bitiki has already had a positive effect on employment. It has made capital investments in anticipation of receiving EDR discounts;[32] photos of the facilities already installed are in the record of this proceeding.[33] People had to deliver and install them. Additionally, someone must maintain, update, and repair Bitiki's computers and related equipment

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[30] *Id.* at 11-12 (emphasis added).
[31] Admin. Case No. 327, Order at 10-12 (Ky. PSC Sept. 24, 1990) (emphases added).
[32] KU Response to JI PHDR 3-1(a), Attachment 1, pages 2-3.
[33] KU Response to JI 1-4, Attachment 3.

and facilities, and someone must manage Bitiki's business affairs; indeed, the names of at least two such people are in the record of this proceeding: Cliff Ford and Kirk Tholen.[34] In short, Bitiki has already had and will continue to have some effect on employment. Further, Bitiki has represented in a signed contract presented to this Commission that it anticipates five jobs resulting from its operations.[35] Notably, Bitiki has demonstrated more job-related activity than UMine had when the Commission approved the EDR contract for UMine's cryptocurrency mining operation less than eight months ago.[36]

V. Bitiki Is Not a Free Rider Because There Is Unambiguous Evidence in the Record that Bitiki Chose and Invested in KU's Service Territory on the Reasonable Expectation of Receiving EDR Discounts.

In contrast to the Joint Intervenors' assertion that Bitiki's EDR special contract is free ridership,[37] the record shows exactly the opposite *and* meets the criteria the Joint Intervenors' witness created in real time during the hearing for demonstrating a lack of free ridership.

The "free ridership" concern Ms. Sherwood raised in her testimony is not new to the Commission;[38] indeed, the Commission addressed those concerns explicitly in its Final Order in Administrative Case No. 327.[39] The Commission expressed concern that EDR tariffs that essentially provided automatic discounts created free ridership. The Commission's solution was to require that all subsequent EDRs be the product of discretionary contract negotiations, just as

[34] Cliff Ford is Bitiki's primary point of contact with KU. *See, e.g.,* KU Response to JI PHDR 3-1(a), Attachments 1 and 2. Kirk Tholen signed the amended Bitiki contract for electric service. *See* KU Response to JI PHDR 3-1(c), Attachment at page 2.
[35] Bitiki EDR Special Contract at 2.
[36] *See* Case No. 2022-00355, Order (Ky. PSC Oct. 31, 2022); EKPC Contract Filing (Sept. 30, 2022).
[37] *See* Sherwood Testimony at 6-10.
[38] *See id.*
[39] *See* Admin. Case No. 327, Order at 14-15 (Ky. PSC Sept. 24, 1990).

KU negotiated its EDR special contract with Bitiki.[40] In other words, under the Commission's existing criteria, the Bitiki EDR special contract is evidence *against* free ridership, not for it.

Moreover, when asked by the Vice Chair at hearing what evidence would suffice to show that an EDR applicant would not be a free rider, the Joint Intervenors' witness first suggested an affidavit and then stated, "We're just looking for some sort of supporting evidence to conclude in this case that they [Bitiki] would have not located elsewhere. So, whether or not that would also include communications between the companies or include communications of them seeking to locate elsewhere. But I don't believe that that evidence has been provided in this proceeding."[41] When the Chairman followed up on the witness's response and asked how KU could possibly have communications between a prospective EDR customer and other utilities, the witness responded, "I think for one it had been communications between Bitiki and the company itself. They could have included something along those lines."[42] Fortunately, such evidence was already in the record when the witness made this suggestion. In an email from Cliff Ford, Bitiki's primary point of contact for KU, Mr. Ford stated: "We have struggled with determining the best location for our data center expansion."[43] In response to post-hearing data requests, KU provided additional email communications from Bitiki that further demonstrated that EDR discounts were a crucial part of Bitiki's choice to locate in KU's service territory and to Bitiki's overall business model:

- From April 1, 2023 email from Cliff Ford to KU representative Scott McElmurray:[44]

[40] *Id.* ("The Commission seeks to minimize the number of free riders taking advantage of discounted utility rates in Kentucky. Therefore, the Commission finds that utilities should have the ability to negotiate discounted rates with individual customers through the use of special contracts. This flexibility should enable the utilities to limit the number of EDRs they offer, thereby reducing the amount of foregone revenues resulting from discounted rates. Consequently, full contributions to system fixed costs would be made by some industrial customers that, under general EDR tariff provisions, would have automatically received rate discounts.").
[41] H.V.T. at 13:32:39-13:33:02.
[42] H.V.T. at 13:33:57-13:34:05.
[43] KU Response to JI 1-4, Attachment 3, page 3.
[44] KU Response to JI PHDR 3-1(a), Attachment 1, page 3.

> Without the EDR being in place as we expected, we've paused our growth plans. It's not a significant amount, but we were billed for an additional 631.3 kVA on base. I don't want this to get out of hand over the next few months. Once the EDR is approved, it will take a few months to get back on track.

- From April 21, 2023 email from Mr. Ford to Mr. McElmurray (responding to questions from Mr. McElmurray; Ford opening text is black; McElmurray questions in blue; Ford responses in red):[45]

> Things are in limbo without knowing the EDR status as it was in our base case/budget. Not having the EDR approved in early 2023 has caused significant concern – I don't think we understood that we could be in this situation given the KEIA approval process we went through in March of 2022. If possible, I would like to discuss potential modifications based on the two different outcomes – let me know your availability.
>
> …
>
> - What is your plan/expectations following a decision on the EDR? Our business plan/model was based on moving forward with additional machine orders after our last expected delivery in January 2023. Based on when the EDR was submitted to the PSC for review, and given the KEIA approval, we were under the impression this would time very well with the 2023 Q2-Q3 Bitmain order window. As we both know, the EDR review/delay has made this plan invalid.
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> - If approved, purchase more equipment to gain the 13,000 kva as originally planned? I feel confident our load would grow to fill the available capacity. To be clear, I currently have no approval to order additional machines given we couldn't execute on our initial approved plan (because the EDR wasn't approved when required).
>
> - When would this begin (purchasing of additional equipment)? Since we missed the Q2-Q2 order window, we'll have to submit our model/request once the EDR is approved. I can't give an estimated time at this point.
>
> - If not approved, stop increase of site? We are waiting for the EDR to make a decision. I don't want to speak for senior management. Not expanding would be a possibility.

[45] *Id.* at 2-3.

Therefore, the evidence of record demonstrates that EDR discounts drove Bitiki's location and investments; there is simply no evidence of free ridership in this case.

Finally, as discussed at the hearing, it would be contrary to KU's economic interest for Bitiki to pay discounted demand charges if Bitiki would have been willing to locate in KU's service territory and pay full demand charges without an EDR contract.[46] KU has committed not to place new base rates into effect prior to July 1, 2025.[47] Thus, there is no way in which it would be in KU's financial interest to allow Bitiki to be an EDR free rider, and the record of this case demonstrates that Bitiki is not a free rider.

VI. The Bitiki EDR Special Contract Satisfies All Requirements of Administrative Case No. 327, and Approving It Would Be Fully Consistent with the Commission's Approval of the UMine EDR Contract Less than Eight Months Ago.

The Rebuttal Testimony of Michael E. Hornung provides a thorough account of how, contrary to the Joint Intervenors' assertions, the Bitiki EDR special contract satisfies each and every requirement the Commission has articulated for approving an EDR contract under the longstanding precedent of Administrative Case No. 327.[48] Also, it satisfies all of the applicable requirements of KU's EDR tariff provisions, which the Commission explicitly approved as consistent with the terms of its final order in Administrative Case No. 327.[49] Specifically, in addition to the Administrative Case No. 327 requirements addressed in Mr. Hornung's testimony,

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[46] *See, e.g.,* H.V.T. 11:26:07-11:27:22.

[47] *See id.*; *Electronic Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates, a Certificate of Public Convenience and Necessity to Deploy Advanced Metering Infrastructure, Approval of Certain Regulatory and Accounting Treatments, and Establishment of a One-Year Surcredit*, Case No. 2020-00349, Order (Ky. PSC June 30, 2021); *Electronic Application of Louisville Gas and Electric Company for an Adjustment of Its Electric and Gas Rates, a Certificate of Public Convenience and Necessity to Deploy Advanced Meter Infrastructure, Approval of Certain Regulatory and Accounting Treatments, and Establishment of a One-Year Surcredit*, Case No. 2020-00350, Order (Ky. PSC June 30, 2021).

[48] Hornung Rebuttal at 3-14.

[49] *Application of Louisville Gas and Electric Company and Kentucky Utilities Company to Modify and Rename the Brownfield Development Rider as the Economic Development Rider*, Case No. 2011-00103, Order at 6 (Ky. PSC Aug. 8, 2011) ("The Commission further finds that the terms of the Applicants' proposed EDR tariffs are consistent with the guidelines set forth in Administrative Case No. 327 ….").

KU's EDR tariff provisions include two additional applicable requirements or clarifications, which the Bitiki EDR satisfies:

- "Service under EDR for Economic Development is available to … new Customers contracting for a minimum monthly billing load of 1,000 kVA, and at least a 50% load factor."[50]
    - Bitiki has at all times had and will have a contract load of more than 1,000 kVA and has an anticipated and actual load factor close to 90%.[51]
- "A Customer desiring service under EDR for Economic Development must submit an application for service that includes: … a certification that Customer has been qualified by the Commonwealth of Kentucky for benefits under programs reviewed and approved by the Kentucky Economic Development Finance Authority ["KEDFA"], or any successor entity authorized by the Commonwealth of Kentucky."[52]
    - Bitiki obtained tax incentives from KEDFA, satisfying this requirement.[53]

The Bitiki EDR special contract therefore meets all applicable requirements for Commission approval.

Moreover, approving the Bitiki EDR special contract would be entirely consistent with the Commission's approval of the UMine, LLC EDR contract less than eight months ago;[54] indeed, the Bitiki EDR special contract and its surrounding circumstances are superior to the UMine contract in material ways:

- Bitiki has received approval for incentives from KEDFA, supporting the legitimacy of its economic development prospects.[55] The UMine record shows no comparable state approval.[56]

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[50] Kentucky Utilities Company P.S.C. No. 20, Original Sheet No. 71.
[51] *See* Bitiki Contract for Electric Service; KU Response to JI PHDR 3.1(c), Attachment (amendment to Bitiki Contract for Electric Service); KU Response to JI PHDR 3.1(b), Attachment (all of KU's bills to Bitiki).
[52] Kentucky Utilities Company P.S.C. No. 20, Original Sheet No. 71.1.
[53] *See* KEDFA Letter dated March 31, 2022 included in KU's initial Bitiki EDR special contract filing (Oct. 7, 2022).
[54] Case No. 2022-00355, Order (Ky. PSC Oct. 31, 2022).
[55] *See* KEDFA Letter dated March 31, 2022 included in KU's initial Bitiki EDR special contract filing (Oct. 7, 2022).
[56] Bevington Rebuttal at 4.

- UMine proposed $2 million in capital investment.[57] Bitiki has proposed $25 million in capital investment and has already deployed much of it on the reasonable expectation that EDR discounts would be approved.[58]

- UMine proposed to create three jobs, supported only by its assertion it would do so.[59] Bitiki has proposed to create five—supported by a signed writing from its management—and demonstrably has had some effect on employment due its large capital deployment and equipment installed and running on site.[60]

- Whereas East Kentucky Power Cooperative, Inc. "indicated that based on current conditions, it does not believe it will be necessary to make a specific market purchase to cover the new UMine demand during the contract term"—but included a contract provision to address market purchases to accommodate UMine if necessary—KU has demonstrated conclusively that Bitiki will have no impact at all on KU's resource plans during the EDR discount period.[61]

- The Bitiki EDR special contract has more aggressive discount claw-back provisions than the UMine contract.[62]

- There is no evidence in the UMine record that UMine had even considered locating elsewhere or that EDR discounts were necessary for UMine to locate and invest there.[63] There is documentary evidence in the record of this proceeding showing Bitiki had considered other sites and made investments at its current site explicitly anticipating EDR discount approval.[64]

To be clear, the Commission was entirely correct in approving the UMine EDR contract; it was consistent with all relevant EDR tariff requirements for the utilities at issue and the requirements

57 Case No. 2022-00355, Order at 7 (Ky. PSC Oct. 31, 2022).
58 *See, e.g.,* Hornung at 5; KU Response to JI 1-4, Attachment 3; KU Response to JI PHDR 3-1(a), Attachment 1, pages 2-3.
59 Case No. 2022-00355, Order at 7 (Ky. PSC Oct. 31, 2022).
60 *See, e.g.,* Hornung at 5; KU Response to JI 1-4, Attachment 3; KU Response to JI PHDR 3-1(a), Attachment 1, pages 2-3.
61 Case No. 2022-00355, Order at 8-9 (Ky. PSC Oct. 31, 2022); EDR Special Contract Appendix A; Marginal Cost of Service Study at 7 ("The Prime Group considered the case wherein new load additions by 2027 would equal 100 MWs, which would require the Companies to build or purchase new capacity to maintain the desired 17% Reserve Margin Requirement (RMR)."); Hornung Rebuttal at 6; Wilson Rebuttal at 19-20; KU Response to JI 1-13(b) and (c); KU Response to PSC PHDR 4; H.V.T. 09:40:00-09:40:15; H.V.T. 09:55:41-09:56:24.
62 Compare Case No. 2022-00355, EKPC Contract Filing, UMine contract at 11-12 (Sept. 30, 2022) to the Bitiki EDR special contract at 2.
63 *See* Case No. 2022-00355, Order (Ky. PSC Oct. 31, 2022); Case No. 2022-00355, EKPC Contract Filing (Sept. 30, 2022).
64 KU Response to JI 1-4, Attachment 3, page 3; KU Response to JI PHDR 3-1(a), Attachment 1, pages 2-3.

of Administrative Case No. 327. For the very same reasons, the Commission should approve the Bitiki EDR special contract.

VII. Denying Approval for the Bitiki EDR Special Contract Would Harm Existing Customers in the Short Term and the Long Term.

The record in this case is clear: Bitiki's revenues during the EDR discount period will exceed its marginal costs *by millions of dollars*,[65] and its revenues will exceed its marginal costs *even more* over the other five years it would be obligated to take service from KU at full, tariffed RTS rates.[66] The Joint Intervenors have not disputed this.[67] Moreover, they have explicitly agreed that existing customers are adequately protected if Bitiki's business fails.[68] Therefore, not approving the Bitiki EDR special contract would harm KU's existing customers in the short term by denying them the benefit of millions of dollars of net revenue that could help relatively reduce rates in the future.

But the greater harm could be to economic development in the long term. This EDR special contract is uniquely beneficial due to the lack of a need for additional capital investment to serve Bitiki and Bitiki's demonstration of its ability to pay significant KU bills already, as well as its posting of $1,275,000 of deposit collateral. Denying this customer EDR discounts could harm future economic development for the Commonwealth because prospective EDR customers—perhaps especially those as obviously qualifying and beneficial as Bitiki—might choose to avoid the uncertainty and delay associated with litigating EDR special contracts in Kentucky in favor of quicker and more certain discounts elsewhere. Economic development representatives from other states will take note of the decision and act accordingly.

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65 Wilson Rebuttal at 11-17.
66 *Id.*
67 *See, e.g.,* Hotaling Rebuttal at 12-13.
68 Sherwood Testimony at 14-15.

Finally, the Commission should not accept the Joint Intervenors' invitation to move the goal posts regarding jobs and investment for EDR. Both in written testimony and at hearing, the Joint Intervenors espoused the theme that any jobs and investment Bitiki might add should be measured from the date the Commission might approve the EDR special contract. This is a fallacious and dangerous argument; it would be a bait-and-switch that could cause real harm to future economic development in Kentucky and the current Administration's economic development efforts. As Bitiki clearly and repeatedly communicated to KU, it began investing to deploy facilities there (which necessarily supported jobs) on the expectation that the Commission would accept the EDR special contract shortly after filing.[69] That was a reasonable belief because the Commission had accepted all other KU EDR special contracts for more than a decade.[70] To suggest that there is little EDR-related investment and job creation left to do at this point ignores the large investments and job activity Bitiki created on the well-founded assumption that EDR discounts would be approved. Accepting the Joint Intervenors' theory would communicate to the economic development community that prospective EDR customers must engage in potentially protracted litigation to obtain EDR discounts and that they must not begin creating jobs or making EDR-incentivized investments prior to obtaining Commission approval or they risk not obtaining the very discounts driving their investment.

VIII. Approving the Bitiki EDR Special Contract Would Advance the Stated Policy Goals of Kentucky to Support Cryptocurrency Mining and Locate Cryptocurrency Mining Operations in the Commonwealth.

Contrary to the Joint Intervenors' arguments that cryptocurrency mining operations should be less deserving of EDR contract approval due to cryptocurrency asserted "volatility,"[71] the

[69] KU Response to JI PHDR 3-1(a), Attachment 1 at 2-3.
[70] KU Response to JI PHDR 3-1(d).
[71] Sherwood Testimony at 10-15.

Commonwealth has stated a clear policy to *promote* locating cryptocurrency mining operations in Kentucky. Just two years ago, the General Assembly passed (by large margins) and the current Governor signed 2021 House Bill 230,[72] the preamble of which stated:

> WHEREAS, access 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;
>
> …
>
> WHEREAS, 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 through the Tennessee Valley Authority and other electricity providers; and
>
> WHEREAS, it is necessary to clarify the General Assembly's original intention that Kentucky's tax code must and does recognize that the continuing development of new and advanced manufacturing and industrial processing technologies has led to new industrial processes, such as blockchain used for commercial mining of cryptocurrency, which should and must be taxed in a manner similar to historical forms of manufacturing or industrial processing, *in order to continue to encourage the location and expansion of such operations in the Commonwealth, rather than in other states likewise competing for such businesses*[.][73]

This explicit, unambiguous policy statement by the Kentucky General Assembly and the sitting Governor just two years ago is not the sole reason to approve the Bitiki EDR special contract, but it is a compelling reason to reject the Joint Intervenors' assertions that the Commission should look askance at cryptocurrency mining operations and to support offering EDR discounts to such operations when all other requirements are met. That is precisely the case here: KU offered Bitiki EDR discounts to locate its cryptocurrency mining operation in KU's service territory so KU could

[72] Now 2021 Ky. Acts 122.
[73] 2021 Ky. Acts 122 (emphasis added).

provide it an "abundant supply of electricity … at lower rates than most states," all in accordance with the stated policy of the Commonwealth. Therefore, the Commission should approve the Bitiki EDR special contract with the confidence that it both meets all applicable EDR-related requirements and will further the policy goals of Kentucky.

CONCLUSION

Approving the Bitiki EDR special contract would be fully consistent with KU's tariff and the Commission's EDR precedents, it would allow other KU customers to benefit from the millions of dollars of fixed-cost contributions Bitiki will make, and it would advance the stated policy goals of the Commonwealth. The Companies therefore respectfully ask the Commission to approve the Bitiki EDR special contract as soon as possible.

Dated: June 29, 2023

Respectfully submitted,

Kendrick R. Riggs
W. Duncan Crosby III
Stoll Keenon Ogden PLLC
500 West Jefferson Street, Suite 2000
Louisville, Kentucky 40202-2828
Telephone: (502) 333-6000
Fax: (502) 627-8722
kendrick.riggs@skofirm.com
duncan.crosby@skofirm.com

Allyson K. Sturgeon
Vice President and Deputy General Counsel
Sara V. Judd
Senior Counsel
PPL Services Corporation
220 West Main Street
Louisville, Kentucky 40202
Telephone: (502) 627-2088
Fax: (502) 627-3367
ASturgeon@pplweb.com
SVJudd@pplweb.com

Counsel for Kentucky Utilities Company

CERTIFICATE OF COMPLIANCE

In accordance with the Commission's Order of July 22, 2021 in Case No. 2020-00085 (Electronic Emergency Docket Related to the Novel Coronavirus COVID-19), this is to certify that the electronic filing has been transmitted to the Commission on June 29, 2023; and that there are currently no parties in this proceeding that the Commission has excused from participation by electronic means.

Counsel for Kentucky Utilities Company