

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

REBUTTAL TESTIMONY OF
MICHAEL E. HORNUNG
MANAGER OF PRICING & TARIFFS
KENTUCKY UTILITIES COMPANY

Filed: February 21, 2023

1 **INTRODUCTION**

2 **Q. Please state your name, position, and business address.**

3 A. My name is Michael E. Hornung. I am a Manager of Pricing/Tariffs for Louisville Gas
4 and Electric Company (“LG&E”) and Kentucky Utilities Company (“KU”)
5 (collectively “Companies”) and an employee of LG&E and KU Services Company,
6 which provides services to the Companies. My business address is 220 West Main
7 Street, Louisville, Kentucky 40202.

8 **Q. Please describe your educational and professional background.**

9 A. I graduated from the University of Louisville in 1992 with a Bachelor of Science degree
10 in accounting. I have been employed by LG&E and KU Services for over 26 years,
11 serving in various roles including energy efficiency, billing and revenue integrity, and
12 since 2017, as Manager of Pricing/Tariffs. A complete statement of my work
13 experience and education is contained in Appendix A.

14 **Q. What are your primary job responsibilities for LG&E and KU?**

15 A. In my current position, I am responsible for the support, development, and maintenance
16 of all retail customer tariffed offerings. This includes, but is not limited to, the
17 development of tariffed and programmatic rate design and customer special contracts.

18 **Q. Have you testified before the Kentucky Public Service Commission before?**

19 A. Yes. I submitted written testimony, responded to the Commission’s request for
20 information and provided testimony at the public hearing in the Companies’ Demand
21 Side Management and Energy Efficiency Case Nos. 2011-00134 and 2014-00003. In
22 addition, I have submitted written testimony and responded to the Commission’s
23 request for information on behalf of LG&E and KU in the recent Pole and Structure
24 Attachment Tariff Review, Case No. 2022-00105.

1 **Q. What is the purpose of your direct testimony?**

2 A. The purpose of my testimony is to summarize the rebuttal testimony of John Bevington
3 and Stuart A. Wilson, both of whom demonstrate that the economic development rate
4 (“EDR”) contract between KU and Bitiki-KY, LLC (“Bitiki”) meets applicable
5 marginal cost, jobs, and investment criteria. I further demonstrate that the Bitiki EDR
6 contract is consistent with the Commission’s seminal EDR Order in Administrative
7 Case No. 327 and its recent Order approving an EDR contract for a smaller but similar
8 cryptocurrency mining operation, UMine LLC.¹ I conclude that the Commission
9 should approve the Bitiki EDR contract as soon as reasonably possible.

10 **SUMMARY OF REBUTTAL TESTIMONY**

11 **Q. Please summarize the rebuttal testimony of Messrs. Bevington and Wilson.**

12 A. Mr. Bevington addresses the testimony of Joint Intervenors’ witness Stacy L.
13 Sherwood regarding her assertions that KU presented inadequate evidence of jobs
14 resulting from the Bitiki EDR and presented inadequate evidence that EDR discounts
15 were necessary for Bitiki to invest in KU’s service territory. He explains that the
16 Kentucky Cabinet for Economic Development would have considered the potential for
17 new jobs before awarding Bitiki tax incentives under the Kentucky Enterprise Initiative
18 Act. He further shows that there is evidence in the record of this proceeding to
19 demonstrate that EDR discounts were important to Bitiki’s decision to invest in KU’s

¹ *An Investigation into the Implementation of Economic Development Rates by Electric and Gas Utilities*, Admin. Case No. 327, Order (Ky. PSC Sept. 24, 1990); *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).

1 service territory and that KU does not offer EDR discounts as an entitlement, but rather
2 only when they might influence economic development decisions.

3 Mr. Wilson addresses the assertions of Joint Intervenors' witness Chelsea
4 Hotaling concerning the Marginal Cost of Service Study supporting the Bitiki EDR
5 contract. He observes that Ms. Hotaling's recommended revisions to the study's
6 marginal production demand cost data are inconsistent with Ms. Sherwood's
7 recommendations on the same issue. Also, he shows that Bitiki's projected revenues
8 exceed Bitiki's marginal costs using the Marginal Cost of Service Study methodology
9 in all years of the EDR discount period even when accounting for Ms. Hotaling's
10 recommendations. He further notes that the marginal production demand cost of
11 serving Bitiki during the five-year EDR discount period is arguably zero because
12 adding Bitiki's load does not alter KU's generating portfolio plans.

13 Both Mr. Bevington and Mr. Wilson conclude by recommending that the
14 Commission approve the Bitiki EDR contract.

15 **THE BITIKI EDR CONTRACT IS CONSISTENT WITH ADMINISTRATIVE CASE**
16 **NO. 327 REQUIREMENTS AND THE COMMISSION'S RECENT APPROVAL OF**
17 **THE UMINI, LLC EDR CONTRACT**

18 **Q. Ms. Sherwood's testimony states, "I find that KU has not met the requirements**
19 **under the Commission's Order in Administrative Case No. 327 for demonstrating**
20 **that an economic development rate is appropriate."² Do you agree?**

21 **A. No. As the Commission stated in its recent Order approving an EDR contract among**
22 **UMine, LLC, East Kentucky Power Cooperative, Inc. ("EKPC"), and Jackson Energy**
23 **Cooperative Corporation ("Jackson Energy"), "[A] jurisdictional utility filing an EDR**

² Sherwood Testimony at 15 lines 11-13.

1 contract must comply with Findings 3–17 [of the Final Order in Administrative Case
2 No. 327],”³ of which the Commission determined that Findings 3-12, 14, and 17 were
3 applicable.⁴ As I show below, KU’s proposed EDR contract with Bitiki meets all of
4 those requirements consistent with the EDR tariff provisions the Commission has
5 approved for KU for over 10 years.⁵

6 **Q. How does the Bitiki EDR contract meet the requirements of Finding 3, “EDRs
7 should be implemented by special contract negotiated between the utilities and
8 their large commercial and industrial customers”?**⁶

9 A. The Bitiki EDR contract meets this requirement; it is a contract negotiated between and
10 executed by KU and Bitiki, just as the UMine EDR contract was negotiated among and
11 executed by EKPC, Jackson Energy, and UMine, LLC.⁷

12 Moreover, this requirement addresses the “free ridership” concern Ms.
13 Sherwood raised in her testimony.⁸ The Commission was well aware of free ridership
14 concerns and addressed them explicitly in its Final Order in Administrative Case No.
15 327.⁹ But the concern the Commission raised was that EDR tariffs that provided for
16 EDR discounts essentially automatically was what created the free ridership concern;
17 the Commission’s solution was to require that all EDRs thereafter be the product of
18 discretionary contract negotiations, just as KU negotiated its EDR contract with

³ Case No. 2022-00355, Order at 2 (Ky. PSC Oct. 31, 2022).

⁴ *Id.* at 2-4.

⁵ *See* KU Response to PSC 1-7.

⁶ Case No. 2022-00355, Order at 3 (Ky. PSC Oct. 31, 2022).

⁷ *Id.* at 7.

⁸ *See* Sherwood Testimony at 6-10.

⁹ *See* Admin. Case No. 327, Order at 14-15 (Ky. PSC Sept. 24, 1990).

1 Bitiki.¹⁰ In other words, the Bitiki EDR contract is evidence *against* free ridership, not
2 for it. Moreover, as Mr. Bevington shows in his testimony, there is evidence that EDR
3 was important to adding the Bitiki load, and KU does not offer EDR discounts as an
4 entitlement. Therefore, the Bitiki EDR contract both meets the explicit requirements
5 of Finding 3 and satisfies its underlying rationale.

6 **Q. How does the Bitiki EDR contract meet the requirements of Finding 4, “An EDR**
7 **contract should specify all terms and conditions, including the rate discount and**
8 **related provisions, jobs and capital investment created, customer-specific fixed**
9 **costs, minimum bill, estimated load and load factor, and length of contract”?**¹¹

10 A. The Bitiki EDR contract meets the requirements of Finding 4 as follows, consistent
11 with the Commission’s UMine, LLC Order:¹²

- 12 • Consistent with KU’s EDR tariff provisions, the Bitiki EDR contract provides
13 demand charge discounts over five years, with a 50 percent discount of the demand
14 charge in the first year and a discount that declines by 10 percent in each subsequent
15 year;
- 16 • Bitiki estimates it will have a capital investment of approximately \$25 million and
17 that it will create five jobs as a result of the proposed EDR contract, both of which
18 exceed the projected \$2 million capital investment and estimated three jobs
19 associated with the UMine, LLC EDR contract;¹³

¹⁰ *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.”).

¹¹ Case No. 2022-00355, Order at 3 (Ky. PSC Oct. 31, 2022).

¹² *Id.* at 7-8.

¹³ *Id.* at 7.

- 1 • There will be no customer-specific fixed costs because the site at which Bitiki has
- 2 located its facilities was already fully equipped to serve Bitiki’s load;
- 3 • Bitiki’s minimum bill will be determined in accordance with KU’s Standard Rate
- 4 RTS – Retail Transmission Service, which includes billing under KU’s Fuel
- 5 Adjustment Clause and environmental surcharge mechanisms;
- 6 • The contract demand will initially be 2,000 kVA and will climb to 13,000 kVA
- 7 with an expected load factor of 95 percent; and
- 8 • the total term of the proposed EDR contract is ten years.

9 **Q. How does the Bitiki EDR contract meet the requirements of Finding 5, “An EDR**
10 **contract should only be offered during periods of excess capacity for the utility,**
11 **and the utility must demonstrate that the EDR contract will not cause it to fall**
12 **below a reserve margin essential for system reliability”?**¹⁴

13 A. As stated in Appendix A to the EDR Contract:

14 The combined Louisville Gas and Electric Company and Kentucky
15 Utilities Company current, 2022, capacity reserve margin is 1,348 MW,
16 which is 290 MW in excess of a reserve margin considered essential for
17 a system reliability of 1,058 MW. For each year in which Customer will
18 receive demand charge discounts under the EDR Contract, the
19 Company’s projected reserve margins are expected to be: Year 1 1,452
20 MW, Year 2 1,472 MW, Year 3 1,418 MW, Year 4 1,332 MW, and
21 Year 5 1,340 MW.

22 The Marginal Cost of Service Study,¹⁵ KU’s discovery responses,¹⁶ and Mr. Wilson’s
23 rebuttal testimony further support the adequacy of KU’s capacity during the EDR
24 discount period.

¹⁴ *Id.* at 3.

¹⁵ 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).”).

¹⁶ *See, e.g.*, KU Response to JI 1-13(b) and (c).

1 **Q. How does the Bitiki EDR contract meet the requirements of Finding 6, “A utility**
2 **should demonstrate that the EDR exceeds the marginal cost associated with**
3 **servicing the customer”?**¹⁷

4 A. The Marginal Cost of Service Study KU filed with the Bitiki EDR contract and the
5 revised marginal production demand cost calculations provided with Mr. Wilson’s
6 rebuttal testimony demonstrate that projected revenues from Bitiki will exceed its
7 marginal costs in each year of the EDR discount period.

8 Furthermore, it is important to note that the relevant full text of the Final Order
9 in Administrative Case No. 327 states:

10 The Commission finds that *variable* cost recovery is a fundamental
11 requirement of EDRs. Therefore, each time an EDR contract is
12 submitted for approval, utilities should demonstrate that the discounted
13 rate exceeds the total short-run marginal (*variable*) costs associated with
14 servicing that customer for each year of the discount period. Short-run
15 marginal costs will include both marginal capacity costs and marginal
16 energy costs. Demonstration of marginal cost recovery should be
17 accomplished through the use of a current marginal cost-of-service
18 study. A current study is one conducted no more than one year prior to
19 the date of the contract.¹⁸

20 As Mr. Wilson’s rebuttal testimony shows, there is no doubt that projected Bitiki
21 revenues over the five-year EDR discount period will exceed both marginal cost and
22 truly *variable* cost, the latter of which is significantly less than the marginal cost
23 calculated in accordance with the Marginal Cost of Service Study methodology.
24 Indeed, Mr. Wilson demonstrates that projected Bitiki revenues will exceed marginal
25 costs by more than \$3.3 million over the five-year EDR discount period.

¹⁷ Case No. 2022-00355, Order at 3 (Ky. PSC Oct. 31, 2022).

¹⁸ Admin. Case No. 327, Order at 8 (Ky. PSC Sept. 24, 1990) (emphases added).

1 **Q. How does the Bitiki EDR contract meet the requirements of Finding 7, “A utility**
2 **should file an annual report with the Commission detailing revenues received and**
3 **marginal costs from EDRs”?**¹⁹

4 A. KU already files such an annual report, and it commits to include Bitiki in its annual
5 EDR report after the Commission approves the Bitiki EDR contract.

6 **Q. How does the Bitiki EDR contract meet the requirements of Finding 8, “During**
7 **rate proceedings, utilities with active EDR contracts should demonstrate through**
8 **detailed cost-of-service analysis that nonparticipating ratepayers are not**
9 **adversely affected by these EDR customers”?**²⁰

10 A. KU commits that in future rate proceedings it will demonstrate through detailed cost-
11 of-service analysis that nonparticipating ratepayers are not adversely affected by its
12 EDR customers, including Bitiki. Notably, KU has committed not to implement new
13 base rates any sooner than July 1, 2025,²¹ which is a point the Joint Intervenors have
14 acknowledged.²² Therefore, the very earliest the Bitiki EDR discounts could affect
15 other customers would be July 1, 2025, when Bitiki’s EDR demand-charge discounts
16 will be at their third-year, 30% level.²³ As Mr. Wilson shows in his rebuttal testimony
17 and exhibits, projected Bitiki revenues exceed marginal costs by over \$91,000 in the
18 first year of the EDR contract alone (i.e., at a 50% demand charge discount). Therefore,

¹⁹ Case No. 2022-00355, Order at 3 (Ky. PSC Oct. 31, 2022).

²⁰ *Id.* at 10.

²¹ *See 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 at 11-12 (Ky. PSC June 30, 2021).

²² Joint Intervenors’ Response to KU 1-3(c).

²³ The Joint Intervenors appear to acknowledge this, as well. *See* Joint Intervenors’ Response to KU 1-3(b).

1 it is reasonable to expect that revenues from Bitiki will exceed its marginal costs in the
2 third year of the EDR discount period at a 30% demand-charge discount.

3 **Q. How does the Bitiki EDR contract meet the requirements of Finding 9, “The EDR**
4 **should include a provision providing for the recovery of EDR customer-specific**
5 **fixed costs over the life of the contract”?**²⁴

6 A. As I noted above, there will be no customer-specific fixed costs because the site at
7 which Bitiki has located its facilities was already fully equipped to serve Bitiki’s load.

8 **Q. How does the Bitiki EDR contract meet the requirements of Finding 10, “The**
9 **major objectives of EDRs are job creation and capital investment. However,**
10 **specific job creation and capital investment requirements should not be imposed**
11 **on EDR customers”?**²⁵

12 A. In its Order approving the UMine, LLC EDR contract, the Commission stated
13 regarding this requirement:

14 The Commission finds that the proposed special contract complies with
15 the Administrative Case 327 Order, Finding 10. This is because EKPC
16 stated that neither it or Jackson Energy established minimum
17 requirements for new jobs and capital investment in order for UMine to
18 be eligible for the EDR.²⁶

19 For the same reasons, the Bitiki EDR contract also satisfies this requirement: KU did
20 not establish minimum requirements for new jobs and capital investment for Bitiki to
21 be eligible for an EDR contract.

22 Notably, the Commission’s Orders in both Administrative Case No. 327 and
23 Case No. 2022-00355 (concerning UMine, LLC) are opposed to the letter and spirit of

²⁴ Case No. 2022-00355, Order at 3 (Ky. PSC Oct. 31, 2022).

²⁵ *Id.*

²⁶ *Id.* at 11-12.

1 Ms. Sherwood’s testimony on this issue. Though Ms. Sherwood’s testimony
2 acknowledges the Commission’s explicit determination *not* to establish a minimum
3 jobs requirement,²⁷ it nonetheless asserts, “If the purpose of the EDR discount is to
4 provide economic development to the Commonwealth of Kentucky, then there should
5 be new local jobs that will be created by the facility receiving the discount.”²⁸ Ms.
6 Sherwood’s testimony is clearly at odds with the Commission’s reasoning and position
7 stated in Administrative Case No. 327 on this subject, which is that job and investment
8 levels are to be monitored, not required, and that establishing minimum requirements
9 for either would be arbitrary and could *impede* economic development:

10 Increased economic activity is the major objective of EDRs. Two key
11 *indicators* of economic activity are job creation and capital investment.
12 ...

13 The Commission finds that, while job creation and increases in capital
14 investment are the desired outcome of EDRs, *requiring specific levels*
15 *of job creation and capital investment for EDR eligibility might, in some*
16 *instances, impede rather than promote economic activity*. For instance,
17 such a requirement might prevent a customer from participating in an
18 EDR program even if tangible economic benefits unrelated to job
19 creation or capital investment would have been realized. Furthermore,
20 specific job creation and capital investment levels would be arbitrary
21 and would not recognize the needs and characteristics of individual
22 service areas and of new and expanding customers.

23 ...

24 The Commission finds that a uniform job creation and capital
25 investment requirement for each EDR contract is inappropriate.
26 However, the Commission has determined that *monitoring* the job
27 creation and capital investment performance of EDRs would provide it
28 with important information with which to measure the effectiveness of
29 its EDR program.²⁹

²⁷ Sherwood Testimony at 8 lines 2-3.

²⁸ *Id.* at 9 lines 3-6.

²⁹ Admin. Case No. 327, Order at 10-12 (Ky. PSC Sept. 24, 1990) (emphases added).

1 Here, consistent with the Commission’s Orders in Administrative Case No. 327 and
2 Case No. 2022-00355, KU did not establish minimum job or investment requirements
3 for Bitiki. But there is no doubt that Bitiki has already made capital investments in
4 anticipation of receiving EDR discounts; photos of the facilities already installed are in
5 the record of this proceeding.³⁰ There is equally no doubt that *someone* must install,
6 maintain, update, and repair Bitiki’s computers and related equipment and facilities,
7 and *someone* must manage Bitiki’s business affairs. In short, Bitiki will have some
8 effect on employment, and Bitiki has represented in a signed contract presented to this
9 Commission that it anticipates five jobs resulting from its operations. It is true that
10 cryptocurrency mining appears not to have the labor intensity relative to capital
11 investment that some other businesses and industries have, but it also shows the
12 wisdom of not establishing minimum jobs requirements for EDR contracts: such a
13 requirement might have “impede[d] rather than promote[d] economic activity” by
14 Bitiki.

15 **Q. How does the Bitiki EDR contract meet the requirements of Finding 11, “All**
16 **utilities with active EDR contracts should file an annual report with the**
17 **Commission providing information shown in Appendix A, which is attached to the**
18 **Administrative Case 327 Order”?**³¹

19 A. KU already files such an annual report, and it commits to include Bitiki in its annual
20 EDR report after the Commission approves the Bitiki EDR contract.

21 A related issue in Ms. Sherwood’s testimony that is appropriate to address here
22 is the following assertion:

³⁰ KU Response to JI 1-4, Attachment 3.

³¹ Case No. 2022-00355, Order at 4 (Ky. PSC Oct. 31, 2022).

1 As indicated in the Company’s response to Joint Intervenor’s Question
2 2-8, KU does not possess any information concerning the projected
3 number of jobs, let alone the type of jobs created and economic
4 development activity associated therewith, to be created as result of the
5 increased load but that have not already been created by Bitiki, as the
6 facility is currently receiving electric service without the Special
7 Contract.³²

8 This statement is erroneous in at least two relevant ways. First, it suggests that KU has
9 neglected to obtain information it should have regarding the jobs Bitiki has created to
10 date. But as Finding 11 demonstrates, KU’s data gathering and reporting obligation
11 regarding jobs actually created pertains only to “active EDR contracts,” which the
12 Bitiki EDR contract plainly is not until the Commission approves it or otherwise
13 permits it to go into effect. Second, it suggests that the appropriate baseline for
14 measuring jobs growth is from the date the EDR contract takes effect, which is also
15 incorrect. As Mr. Bevington explains in his testimony and KU’s discovery responses
16 show, Bitiki began making investments and deploying assets at its site anticipating the
17 approval of the proposed EDR contract. It has already deployed significant capital and
18 installed considerable load at its site,³³ and presumably some or all of the job growth
19 the resulting from the proposed EDR contract has already occurred precisely because
20 KU and Bitiki anticipated its approval. Thus, the appropriate measurement for job
21 creation related to the Bitiki EDR contract is not the number of jobs created after the
22 date on which the Commission approves the contract to take effect, but rather the total
23 number of Bitiki-created jobs related to activity and investment at the site.

24 **Q. How does the Bitiki EDR contract meet the requirements of Finding 12, “For new**
25 **industrial customers, an EDR should apply only to load which exceeds a minimum**

³² Sherwood Testimony at 8 lines 10-14.

³³ See, e.g., KU’s Responseto JI 2-7(a).

1 **base level. ... At the time an EDR contract is filed, a utility should identify and**
2 **justify ... the minimum usage level required for a new customer”?**³⁴

3 A. The Bitiki EDR contract applies EDR discounts to all new Bitiki load, which is
4 consistent with KU’s Commission-approved EDR tariff provisions for such contracts.³⁵
5 This is an approach the Commission has approved for KU for over a decade,³⁶ and it is
6 consistent with the Commission’s recent approval of EDR discounts for the entirety of
7 UMine, LLC’s load.³⁷

8 **Q. How does the Bitiki EDR contract meet the requirements of Finding 14, “The term**
9 **of an EDR contract should be for a period twice the length of the discount period,**
10 **with the discount period not exceeding five years”?**³⁸

11 A. The Bitiki EDR contract provides a five-year discount period, and the total contract
12 term is ten years. During the last five years, Bitiki will pay the full, undiscounted
13 demand charges (and all other applicable rates and charges) under KU’s Rate RTS.
14 Thus, the Bitiki EDR meets the requirements of Finding 14.

15 **Q. How does the Bitiki EDR contract meet the requirements of Finding 17,**
16 **“Comments submitted by the Kentucky Cabinet for Economic Development ... or**
17 **other interested parties pertaining to EDR contracts should be filed with the**
18 **Commission no more than 20 days following the filing of an EDR contract by a**
19 **utility”?**³⁹

³⁴ Case No. 2022-00355, Order at 4 (Ky. PSC Oct. 31, 2022).

³⁵ *Id.*

³⁶ *See* KU’s Response to PSC 1-7.

³⁷ Case No. 2022-00355, Order at 12-13 (Ky. PSC Oct. 31, 2022).

³⁸ *Id.* at 4.

³⁹ *Id.*

1 A. This is not a requirement applicable to an EDR contract per se, but the only comments
2 filed in this proceeding concerning the Bitiki EDR contract were by the Joint
3 Intervenors, which they filed within 20 days of KU’s Bitiki EDR contract filing. Also,
4 a letter from the Kentucky Cabinet for Economic Development offering sales tax
5 incentives to Bitiki under the Kentucky Enterprise Initiative Act was part of KU’s
6 initial EDR contract filing.

7 **Q. What do you conclude from your testimony above?**

8 A. I conclude that, contrary to Ms. Sherwood’s assertion, the Bitiki EDR clearly meets all
9 of the requirements for EDR contract approval under Administrative Case No. 327. I
10 further conclude that approving the Bitiki EDR contract would be fully consistent with
11 the Commission’s approval less than four months ago of a smaller (i.e., fewer jobs and
12 less capital investment) but otherwise substantially similar EDR contract for the
13 cryptocurrency miner UMine, LLC—an EDR to which one of the Joint Intervenors (the
14 Kentucky Resources Council) also objected on nearly identical grounds to those
15 asserted by the Joint Intervenors in this proceeding.⁴⁰

16 **THE COMMISSION SHOULD REFRAIN FROM CREATING NEW OR**
17 **ADDITIONAL CRYPTOCURRENCY-SPECIFIC EDR CONTRACT**
18 **REQUIREMENTS IN THIS PROCEEDING**

19 **Q. Ms. Sherwood’s testimony addresses cryptocurrency market volatility at some**
20 **length and recommends the Commission create additional contract or evidentiary**
21 **requirements for EDR contracts for cryptocurrency mining operations.⁴¹ How do**
22 **you respond?**

⁴⁰ *Id.* at Appx. B, Letter from Kentucky Resources Council Director and Counsel Ashley Wilmes to Commission Executive Director Linda C. Bridwell and Daniel Hinton, dated Oct. 27, 2022.

⁴¹ Sherwood Testimony at 15 lines 11-13.

1 A. Although Ms. Sherwood devoted several pages of her testimony to expressing concerns
2 about the volatility of cryptocurrency markets and potential impacts on customers, she
3 conceded in a discovery response that she “does not have prior experience or education
4 specifically related to cryptocurrency mining.”⁴² Her testimony later concluded—
5 correctly—that there is no cause for concern in this case due to the lack of investment
6 required to serve Bitiki and the surety bond KU required of Bitiki for the equivalent of
7 2/12 of Bitiki’s annual billing at full load and undiscounted rates.⁴³ Also, when asked
8 by Commission Staff to “[d]escribe possible regulations that could impact
9 cryptocurrency mining and how these potential regulations might affect Bitiki’s electric
10 usage,” Ms. Sherwood provided an extended quote from a White House report
11 recommending that various federal agencies look into possible regulations, but she
12 provided no concrete descriptions of possible regulations and certainly no account of
13 how potential regulations might affect Bitiki’s electric usage.⁴⁴ I conclude from this
14 that the Joint Intervenors have neither provided a basis for concern regarding the Bitiki
15 EDR contract due to Bitiki’s being a cryptocurrency mining operation nor sufficient
16 reason for the Commission to create additional requirements for EDR contracts for
17 cryptocurrency mining operations.

18 I would also note that in addition to KU’s standard deposit requirement, the
19 Bitiki EDR contract contains provisions to recoup part of the demand-charge discounts
20 KU will provide to Bitiki if Bitiki terminates its service prior to the end of its ten-year
21 obligation.⁴⁵ This “claw back” provision of the Bitki EDR contract is consistent with,

⁴² Joint Intervenors’ Response to KU 1-2(c).

⁴³ Sherwood Testimony at 10-15. *See also* Joint Intervenors’ Response to KU 1-3(a).

⁴⁴ Joint Intervenors’ Response to PSC 1-2.

⁴⁵ Bitiki EDR Contract at 2.

1 but more aggressive than, the similar claw-back provision in the UMine EDR contract;
2 the Bitiki EDR contract provides for a 90% EDR discount repayment obligation in the
3 first two years, a 75% repayment in the next three years, and a 50% repayment in the
4 remaining five years, whereas the UMine EDR contract provided for a 75% repayment
5 in the first five years and a 50% repayment in the remaining five years.⁴⁶

6 Given Ms. Sherwood's apparent view that her cryptocurrency volatility
7 concerns can be allayed by ensuring that customer-specific facility costs are recovered
8 and that a standard 2/12 of annual revenues deposit be posted, it seems unnecessary to
9 create new or additional contract or evidentiary requirements for future EDR contracts
10 with cryptocurrency mining operations; rather, a utility's demonstration that a proposed
11 EDR meeting existing Commission requirements would suffice. Moreover, this
12 proceeding concerns only the Bitiki EDR contract. If the Commission desired to amend
13 its existing, longstanding EDR requirements, a notice-and-comment rulemaking
14 proceeding or an administrative case would be a more appropriate forum for revising
15 generally applicable EDR contract requirements.

16 CONCLUSION

17 **Q. What is your recommendation for the Commission?**

18 A. As KU has demonstrated, the Bitiki EDR contract meets all of the Commission's
19 Administrative Case No. 327 requirements and approving the Bitiki EDR contract
20 would be consistent with the Commission's approval less than four months ago of the
21 smaller but substantially similar UMine, LLC EDR contract with EKPC and Jackson
22 Energy. Importantly, KU has demonstrated that Bitiki's projected revenues will exceed

⁴⁶ Case No. 2022-00355, UMine EDR Contract at 12 (Sept. 30, 2022).

1 its marginal costs in each and every year of the five-year EDR discount period, making
2 contributions to fixed cost recovery from day one. Therefore, I recommend the
3 Commission issue an Order approving the Bitiki EDR contract as soon as reasonably
4 possible.

5 **Q. Does this conclude your testimony?**

6 **A. Yes.**

APPENDIX A

Michael E. Hornung

Manager, Pricing & Tariffs
LG&E and KU Services Company
220 West Main Street
Louisville, Kentucky 40202
Telephone: (502) 627-4671

Professional Experience

Louisville Gas and Electric Company and Kentucky Utilities Company

Manager, Pricing & Tariffs	Jan. 2018 – Present
Acting Director, Revenue Integrity	Jan. 2017 - July 2017
Manager, Billing Integrity	Jan. 2016 - Dec. 2016
	Jul. 2017 - Dec. 2017
Manager, Energy Efficiency Planning & Development	Aug. 2008 - Dec. 2015
Senior Rate & Regulatory Analyst	Aug. 2006 - Aug. 2008
Senior Market Policy Analyst	Feb. 2000 - Aug. 2006
Senior Financial Analyst	
Risk Management/Trading Controls	June 1999 - Feb. 2000
Senior Accountant at LG&E Energy Marketing	1997 - 1999
Venture Accountant at LG&E Power, Inc.	1996 - 1997
General Labor, LG&E Construction	Summer 1988 & 1989

Professional Memberships

Electric Edison Institute (EEI)	Jan. 2018 - Present
Southeastern Electric Exchange (SEE)	Jan. 2018 - Present

Education

Bachelor of Science in Business Administration – Accounting
University of Louisville, August 1992

Strategic Business Integration: Generation & Energy Marketing, August 2009