COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

O R D E R

On October 7, 2022, Kentucky Utilities Company (KU) filed with the Commission, using the Commission's electronic Tariff Filing System, an Economic Development Rider Special Contract (EDR Contract) with Bitiki-KY, LLC. The EDR Contract states that the effective date is to be determined by the Customer and subject to approval by the Public Service Commission. KRS 278.180(1) requires a utility to provide the Commission with 30 days' notice before making changes to any rate. Therefore, the earliest possible effective date for the EDR Contract is November 6, 2022, which is 30 days after the filing date.

On October 27, 2022, the Kentucky Resources Council submitted comments, which are attached as Appendix B to this Order, regarding the proposed EDR Contract and requested that the Commission open a formal proceeding to further investigate the reasonableness of the proposed EDR Contract. Specifically, Kentucky Resources Council stated that (1) KU's filing did not demonstrate that Economic Development would not have occurred in the absence of a discounted rate; (2) the proposed special contract only provides minimal economic development opportunities; (3) cryptocurrency mining operations are especially risky; (4) the Commission should require additional collateral and protections to ensure ratepayers are not forced to bear the costs associated with providing service to a cryptocurrency operation; and (5) the proposed special contract fails to adequately characterize KU's 2021 Integrated Resource Plan (IRP) and thus warrants closer scrutiny.

KRS 278.030 provides that a utility may collect fair, just and reasonable rates and that the service it provides must be adequate, efficient and reasonable. Having reviewed the proposed EDR Contract and being otherwise sufficiently advised, the Commission finds that an investigation is necessary to determine the reasonableness of the proposed EDR Contract and that such investigation cannot be completed by November 6, 2022. The Commission's investigation will primarily focus on the applicable level of demand for the economic development discount, given Finding 12 in Administrative Case No. 327,[1] and the issues addressed by Kentucky Resources Council's comments regarding collateral and security and whether the proposed special contract fails to adequately characterize KU's 2021 IRP. Pursuant to KRS 278.190(2), the Commission will, therefore, suspend the effective date of the proposed EDR Contract for five months, up to and including April 5, 2023.

The Commission directs KU to the Commission's July 22, 2021 Order in Case No. 2020-00085[2] in which the Commission mandated the use of electronic filing procedures listed in 807 KAR 5:001, Section 8. The Commission finds that electronic filing

[1] Administrative Case No. 327 (Docket No. 19000327), *An Investigation Into the Implementation of Economic Development Rates by Electric and Gas Utilities* (Ky. PSC Sept. 24, 1990), Order at 26–27, finding paragraph 12.

[2] Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID-19* (Ky. PSC July 22, 2021), Order (in which the Commission ordered that for case filings made on and after March 16, 2020, filers are NOT required to file the original physical copies of the filings required by 807 KAR 5:001, Section 8).

procedures should be used, consistent with the filing procedures set forth in Case No. 2020-00085. The Commission further finds that a procedural schedule is established to review the reasonableness of the proposed EDR Contract. The procedural schedule is attached as Appendix A to this Order and is incorporated herein.

IT IS THEREFORE ORDERED that:

1. This proceeding is established to investigate the reasonableness of the proposed EDR Contract.

2. KU's proposed EDR Contract is suspended for five months from November 6, 2022, up to and including April 5, 2023.

3. KU shall, by counsel, enter an appearance in this proceeding within seven days of the date of service of this Order. The entry of appearance shall include the name, address, telephone number, fax number, and electronic mail address of counsel.

4. Unless otherwise ordered by the Commission, the procedures set forth in 807 KAR 5:001, Section 8, related to service and electronic filing of papers shall be followed in this proceeding.

5. Pursuant to 807 KAR 5:001, Section 8(9), within seven days of service of this Order, KU shall file by electronic means a written statement that it waives any right to service of Commission Orders by United States mail and that it or its authorized agent possess the facilities to receive electronic submissions.

6. Unless a party granted leave to intervene states its objection to the use of electronic filing procedures in a motion for intervention, the party shall:

a. Be deemed to have consented to the use of electronic filing procedures and the service of all papers, including Orders of the Commission, by electronic means; and

b. Within seven days of the date of service of an order of the Commission, granting intervention, file with the Commission a written statement that:

(1) It or its authorized agent possesses the facilities to receive electronic transmissions; and

(2) Sets forth the electronic mail address to which all electronic notices and messages related to this proceeding shall be served.

7. If a party objects to the use of electronic filing procedures and the Commission determines that good cause exists to excuse that party from the use of electronic filing procedures, service of documents on that party and by that party shall be made in accordance with 807 KAR 5:001, Section 4(8).

8. The procedural schedule set forth in Appendix A to this Order shall be followed.

9. As set forth in 807 KAR 5:001, Section 4(11)(a), a person requesting permissive intervention in a Commission proceeding is required to demonstrate either (1) a special interest in the proceeding, which is not adequately represented in the case, or (2) that the person requesting permissive intervention is likely to present issues or develop facts that will assist the Commission in fully considering the matter without unduly complicating or disrupting the proceedings. Therefore, any person requesting to intervene in a Commission proceeding must state with specificity the person's special interest that is not otherwise adequately represented, or the issues and facts the person

will present that will assist the Commission in fully considering the matter. A mere recitation of the quantity of utility service consumed by the movant or a general statement regarding the potential impact of possible modification of rates will not be deemed sufficient to establish a special interest. In addition, any motion to intervene after the date established in the procedural schedule shall also show good cause for being untimely. If the untimely motion is granted, the movant shall accept and abide by the existing procedural schedule.

10. KU shall give notice of the hearing in accordance with the provisions set forth in 807 KAR 5:001, Section 9(2). In addition, the notice of the hearing shall include the following statements: “This hearing will be streamed live and may be viewed on the PSC website, psc.ky.gov”; and “Public comments may be made at the beginning of the hearing. Those wishing to make oral public comments may do so by following the instructions listed on the PSC website, psc.ky.gov.” At the time publication is requested, KU shall forward a duplicate of the notice and request to the Commission.

11. At any public hearing in this matter, neither opening statements nor summarization of direct testimonies shall be permitted.

12. Pursuant to KRS 278.360 and 807 KAR 5:001, Section 9(9), a digital video recording shall be made of the hearing.

13. The Commission does not look favorably upon motions to excuse witnesses from testifying at Commission hearings. Accordingly, motions to excuse a witness from testifying at a Commission hearing or from testifying in person at a Commission hearing shall be made in writing and will be granted only upon a showing of good cause.

14. The Commission does not look favorably upon motions for continuance. Accordingly, motions for extensions of times with respect to the schedule herein shall be made in writing and will be granted only upon a showing of good cause.

15. The Executive Director shall serve a copy of this Order on the Kentucky Resources Council.

16. Nothing contained herein shall prevent the Commission from entering further Orders in this matter.

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PUBLIC SERVICE COMMISSION

Chairman

Vice Chairman

Mary Pat Regan

Commissioner

ENTERED

NOV 04 2022

rcs

KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:

Linda C. Bridwell

Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2022-00371 DATED NOV 04 2022

Requests for intervention shall be filed no later than 11/10/2022

Initial requests for information to KU
shall be filed no later than 11/18/2022

KU shall file responses to
initial requests for information no later than………………………………………12/07/2022

All supplemental requests for information to KU
shall be filed no later than 12/21/2022

KU shall file responses to supplemental requests
for information no later than ....……………………………………… 01/09/2023

Intervenor testimony, if any, in verified prepared
form shall be filed no later than…. 01/17/2023

All requests for information to Intervenors shall
be filed no later than…. 01/31/2023

Intervenors shall file responses to requests for
information no later than…… 02/14/2023

KU shall file, in verified form, its rebuttal
testimony no later than……………………………………………………………….. 02/21/2023

KU or any Intervenor shall request either a
hearing or that the case be submitted for decision
based on the record no later than…………………………………….…………….. 02/28/2023

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2022-00371 DATED NOV 04 2022

SEVEN PAGES TO FOLLOW

KENTUCKY RESOURCES COUNCIL

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October 27, 2022

Linda C. Bridwell, P.E., Executive Director
Daniel Hinton, Tariff Branch Manager
Kentucky Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 406042
Submitted via email to dehinton@ky.gov

RE: Special Contract for Economic Development Rider between Kentucky Utilities Company and Bitiki KY, LLC, Case No. TFS2022-00495

Dear Executive Director Bridwell and Mr. Hinton:

The Kentucky Resources Council, Kentuckians for the Commonwealth, Kentucky Solar Energy Society, Kentucky Conservation Committee, and Mountain Association (collectively, "Joint Commenters") respectfully submit these comments on Kentucky Utilities Company's ("KU") proposed Economic Development Rider ("EDR") special contract with Bitiki KY, LLC ("Bitiki"), filed via the Commission's electronic tariff filing system on October 7, 2022. Joint Commenters respectfully request that the Commission open a formal proceeding to investigate whether the proposed special contract is reasonable and satisfies the requirements of KU's EDR tariff and the Commission's prior orders, because KU's filing fails to demonstrate the reasonableness and full impacts of the proposed special contract.

I. KU's Filing Does Not Demonstrate that Economic Development Would Not Occur in the Absence of a Discounted Rate.

The proposed KU-Bitiki special contract fails to establish one of the most basic requirements for EDR special contracts - that any economic development resulting from the contract would not occur *in the absence* of the utility providing a discounted rate. Bitiki entered into a non-discounted Standard Rate Schedule Retail Transmission Service agreement on 8/31/2022,[1] is already

[1] KU-Bikiti Proposed Contract, ¶ 2.

receiving $250,000 in tax credits under the Kentucky Enterprise Initiative Act,[2] and is now claiming an Economic Development new load of 13,000 kVa, which it plans to phase in through May 2023.[3] However, nowhere in its filing does KU demonstrate that Bitiki would not be locating or expanding facilities in KU's territory without the EDR discounts.

This is especially troubling given, as the Commission previously highlighted in Administrative Case No. 327, the potential for "revenue loss resulting from free riders taking advantage of rate discounts offered" because such free riding "is detrimental to the utility and all nonparticipating ratepayers."[4] In light of the failure to provide this evidence in support of the filing, the Commission should open a formal proceeding to determine whether the expansion of the Bitiki facility would not occur without the proposed EDR special contract.

I. The Commission Should Open a Formal Proceeding to Ensure the Proposed Special Contract Adequately Protects Ratepayers.

In Administrative Case No. 327, the Commission found that EDR agreements can provide important incentives to large commercial and industrial customers to either locate or expand their facilities in Kentucky, bringing jobs and capital investment to the Commonwealth. However, the proposed KU-Bitiki EDR special contract to support a new cryptocurrency mining facility differs in important ways from past EDR proposals that this Commission has approved. Not only are the proposed economic benefits and prospective jobs *de minimis*, cryptocurrency mining operations, such as the proposed Bitiki facility carry heightened risks that require further investigation into the reasonableness of the contract to ensure that ratepayers are adequately protected. As discussed below, KU's filing has failed to meet its burden to-date to show the reasonableness and to allow assessment of the full impact of the proposed EDR special contract.

A. KU and Bitiki's proposal provides minimal economic development opportunities.

The EDR special contract proposes to create 5 jobs with $25 million in capital investment. Moreover, KU claims to only "anticipate" these numbers and fails to describe in any detail the types of jobs that Bitiki plans to create or discuss its current capital investments or financial solvency. Thus, it is highly possible this proposal could create even less job opportunities than it anticipates.

Although job creation is not a formal eligibility requirement, the notably small and uncertain job benefits of Bitiki's operation should be considered in evaluating the reasonableness of the contracted rate. As a Berkeley Haas professor observed: "These are warehouses full of

[2] *Id.* ¶ 7.

[3] *Id.* ¶ 2.

[4] Order, *In re: An Investigation into the Implementation of Economic Development Rates by Electric and Gas Utilities*, at 10 (Ky. P.S.C. Sept. 24, 1990).

computers and they only require one or two IT people to run the whole operation, so it's unlikely that it brings jobs or stimulates the economy."[5]

The Commission should ensure that Bitiki will in fact provide some worthwhile benefit to the economic development of the Commonwealth before approving any discounted rates.

B. Cryptocurrency mining operations are especially risky.

As the Attorney General warns in their comments, cryptocurrency mining operations represent a high risk to other customers because operations can be moved easily and the potential for default places other ratepayers at risk of being forced to pay for energy, capacity, or other purchases made for the benefit of the special contract customer.

Cryptocurrency mining operations are not tethered to any particular geography, but rather seek cheap energy, speed to market, and flexibility. For example, multiple companies offer mining equipment in shipping containers to chase the best prices,[6] and when prices fluctuate, mining facilities can migrate quickly. Cryptocurrency operations prioritize seeking out utilities where industrial electricity rates are low or discounted as in the present proposal.

The impacts on other ratepayers from discounted electricity rates provided to cryptocurrency operations can be significant. Cryptocurrency mining operations both increase the total quantity of electricity needed on the grid and introduce specific risks that are attributable to the intensity, portability, and extreme time-sensitivity of cryptocurrency mining operations. Cryptocurrency operations frequently demand the construction of transmission and distribution lines, substation upgrades, or other infrastructure to facilitate the delivery of electricity to energy intensive mining rigs.[7] Ratepayers may be left on the hook for these investments if and when a cryptocurrency operation abruptly leaves (as they are generally

[5] Laura Counts, *Power-hungry cryptocurrency miners push up electricity costs for locals*, Berkeley Haas (Aug. 3, 2021), https://newsroom.haas.berkeley.edu/research/power-hungry-cryptominers-push-up-electricity-costs-for-locals/ (quoting Assistant Professor Giovanni Compiani, one of the co-authors of Matteo Benetton *et al.*, *When Cryptocurrency Comes to Town: High Electricity-Use Spillovers to the Local Economy*, SSRN, at 3 (Aug. 2022), https://papers.ssrn.com/sol3/papers. cfm?abstract_id=3779720).

[6] *See, e.g.*, EZ blockchain, *EZ Smartbox Mobile Mining Container* (last visited Oct. 24, 2022). https://ezblockchain.net/ smartbox/.

[7] For example, in Idaho, investor-owned utility Idaho Power requested that cryptocurrency miners prepay for required infrastructure upgrades to prevent stranded assets on remaining ratepayers when the economics of cryptocurrency mining change. Idaho Pub. Utils. Comm'n, *Application of Idaho Power Co. for Authority to Establish a New Schedule to Serve Speculative High-Density Load Customers*, at 13-14, Case No. IPC-E-21-27 (Nov. 4, 2021), https://puc.idaho.gov/Fileroom/PublicFiles/ELEC/IPC/IPCE2137/CaseFiles/20211104Application.pdf; *see also* Justine Calma, *Texas' Fragile Grid Isn't Ready for Crypto Mining's Explosive Growth*, The Verge (July 14, 2022), https://www.theverge.com/2022/7/14/23206795/bitcoin-crypto-mining-electricity-texas-grid-energy-bills-emissions ("Unfortunately, the costs for building out all this infrastructure are often passed on to consumers — particularly if it's done at a huge scale under a rushed timeline as crypto mining might demand.").

capable of doing) or collapses.[8] For example, one cryptocurrency mining operation in Washington that declared bankruptcy in 2018 left more than $700,000 in unpaid utility and electricity bills.[9] Mining operations may leave solely because they can get a better deal on electricity somewhere else.[10] Entergy Arkansas describes an incident in 2019 where a new cryptocurrency mining customer requiring significant facility upgrades opted to pay a monthly minimum for those upgrades—only to move its shipping containers "virtually overnight" "shortly after taking service . . . effectively disappearing" and leaving the utility unable to even reach the customer to recoup their upfront costs, forcing existing customers to pick up the bill.[11]

The Commission should ensure that ratepayers and community members are not forced to bear the costs of grid and infrastructure upgrades required to service the Bitiki facility unless they benefit existing ordinary customers as well. For example, the Commission recently approved $12.7 million in transmission upgrades for Big Rivers Electric Corporation to service new cryptocurrency operations in Paducah, the costs of which will be allocated across a broader pool of Big Rivers' customers.[12] The Commission here should formally investigate whether the proposed special contract would result in increased costs for transmission upgrades being passed on to existing customers. The Commission should also ensure these investments in cryptocurrency mining operations are not made in lieu of long-overdue transmission upgrades that would benefit ordinary ratepayers.

And lastly, cryptocurrency mining operations pose other significant climate, public health, and damaging impacts on local communities that the Commission should consider. The Commission should approach proposals for new cryptocurrency mining facilities, such as this one, with an eye toward whether they truly create stable, good-paying jobs, what grid and infrastructure upgrades are needed, fire and safety risks, as well as increases in local air, water, and solid waste pollution.

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[8] Naureen S. Malik & Michael Smith, *Crypto Mania in Texas Risks New Costs and Strains on Shaky Grid*, Bloomberg (Mar. 15, 2022), https://www.bloomberg.com/news/ articles/2022-03-15/crypto-mania-in-texas-risks-new-costs-and-strains-on-shaky-grid.

[9] U.S. House Committee on Energy & Commerce Staff, *Memorandum re: Hearing on Cleaning Up Cryptocurrency: The Energy Impacts of Blockchains*, at 9 (Jan. 17, 2022), https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Briefing%20Memo_OI%20 Hearing_2022.01.20.pdf.

[10] For example, after the New York Municipal Power Authority increased rates for supplemental electricity used by high-density load customers in Plattsburgh because the rates for local residents there skyrocketed, many cryptocurrency miners moved west to Massena, increasing electricity costs in Massena. McKenzie Delisle, *Mining operation moves out of city for winter*, Press-Republican (Nov. 11, 2019), https://www.pressrepublican.com/news/local_news/mining-operation-moves-out-of-city-for-winter/article_4c86c044-4e1e-5ad6-8e6d-0ad19b875e35.html.

[11] In the Matter of the Application of Entergy Arkansas, LLC for a Proposed Tariff Regarding Large Power High-Load Density ", Direct Testimony of D. Andrew Owens, at 13 (Jul. 28, 2022), Ark. Pub. Serv. Comm'n, Docket No. 22-032-TF, http://www.apscservices.info/pdf/22/22-032-TF_16_1.pdf.

[12] Order, *In re: Elec. App'n of Big Rivers Elec. Corp. for a Certificate of Pub. Convenience & Necessity to Construct a 161 kV Transmission Line in McKracken Cty.*, Ky., Case No. 2021-00275, at 7 (Ky. P.S.C. Jan. 14, 2022) (noting that the construction costs for transmissions upgrades "will be included in the rates for transmission service under BREC's Open Access Transmission Tariff").

C. The Commission should require additional collateral and protections to ensure ratepayers are not forced to bear the costs associated with providing service to a cryptocurrency operation.

The Commission should require EDR special contract customers to secure their participation with appropriate collateral and, in the event of default, should require companies to provide security for benefits they receive through discounted rates.

KU should include provisions to ensure Bitiki will complete the full 10-year contract term. Cryptocurrency mining is an inherently volatile endeavor, and Bitiki has made no assurances of capital or debt positions. In this circumstance, a 10-year contract term that provides for a 5-year discounted term is intrinsically risky and ill-advised. Additionally, in its KEIA agreement, Bitiki commits to a minimum investment of $500,000 on its economic development project (while receiving a $250,000 tax credit), which differs significantly from its "anticipated" $25 million in capital investment. The proposed special contract does not include other financial assurances or any explanation for these differences.

The proposed special contract includes an early termination clause that allows KU to recover through reimbursements of ninety (90) percent of the total EDR credits received by Bitiki if the contract is terminated within the first two years, seventy-five (75) percent if terminated within three to five years, and fifty (50) percent if terminated after five years.

While the requirement of reimbursement aides in accountability, the Commission should also ensure that KU also requires collateral upfront, potentially through a security deposit to be held in escrow, to protect against the possibility of future insolvency, especially given the volatility of the cryptocurrency industry and Bitiki's financial inconsistencies within its application.

Further, given the heightened risks associated with cryptocurrency mining operations, the Commission should initiate a process to thoroughly vet whether the provisions in the proposed agreement adequately provide for sufficient collateral to mitigate the risk of default. The Commission can take actions to ensure that cryptocurrency mining does not adversely impact ratepayers. For example, to protect customers from a disappearing miner, Entergy Arkansas proposes the following safeguards: new cryptocurrency mining customers should be required to pay a security deposit; contribute to any construction upfront; and post a surety bond or letter of credit.[13] The Commission here should require similar safeguards with upfront deposits, guarantees or cost coverage for infrastructure investments, and interruptible rates designed to avoid the need for new capacity buildout.

II. The Proposed Special Contract Fails to Adequately Characterize KU's 2021 Integrated Resource Plan and Warrants Closer Scrutiny.

The Marginal Cost of Service Study ("Marginal Cost Study") included in the proposed special contract application mischaracterizes KU's and Louisville Gas and Electric Company's

[13] *Id.*

("LG&E") joint 2021 Integrated Resource Plan ("IRP") and does not represent a full-picture analysis of KU's need for new load and fails to meet the requirements for an EDR special contract.

In Administrative Case No. 327, the Commission stated that: "[u]pon submission of each EDR contract, a utility should demonstrate that the discounted rate exceeds the marginal cost associated with serving the customer."[14] KU has not done this. For the reasons mentioned below, KU's faulty reliance on and multiple misrepresentations of its IRP do not give an accurate marginal demand cost to compare to the proposed discounted rates. The Commission should require an accurate analysis of KU's IRP and marginal demand rates to fully consider this proposed special contract.

The Marginal Cost Study relies on a "base case" derived from the 2021 IRP to claim that KU "will need new capacity in 2028 due to the retirement of the Brown 3 and Mill Creek 2 units" and after accounting for the addition of a 320MW electric vehicle battery Ford Motor Company facility in KU's service territory.[15] The Marginal Cost Analysis fails to mention, however, that the 2021 IRP did not evaluate economically optimal retirements for the Brown 3 and Mill Creek 2 units—or any other supply-side resource.[16] Because the IRP modeling did not evaluate retirements, "[t]he lack of capacity need until 2028 is entirely a product of the Companies' discretion."[17] Staff's Report identified the failure to evaluate economically optimal retirement dates as one of the ways that the 2021 IRP failed to adequately evaluate least-cost options.[18] Unless and until the Companies perform resource optimization modeling examining the potential to accelerate retirement of uneconomic coal units, there is inadequate evidence to determine the specific year of KU's capacity's need.

Misplaced reliance on the 2021 IRP unfortunately continues beyond the arbitrary selection of a capacity need arising in 2028, to include further inaccurate representations of the IRP modeling and conclusions. The Marginal Cost Study states that: "increasing the total system demand by 100 MW, requires that the resource acquisition plan in the IRP be revised in order to meet the incremental demand obligations. The acquisition of a Combined Cycle gas combustion turbine must be advanced from 2028 to 2027 in order to meet the incremental 100 MW obligation."[19] There are two misstatements here needing correction. First, LG&E/KU plainly explained that their IRP did not present a portfolio that the Companies intended to pursue: KU is

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[14] Order, *In re: An Investigation into the Implementation of Economic Development Rates by Electric and Gas Utilities*, at 15 (Ky. P.S.C. Sept. 24, 1990).

[15] LG&E/KU Marginal Cost Analysis at 7.

[16] Staff's Report on LG&E/KU 2021 IRP at 54, Case No. 2021-00393 (Sept. 16, 2022) ("Further, the model was not permitted to select the economic retirement of any of LG&E/KU's existing supply-side resources.").

[17] Joint Intervenors' Initial Comment, EFG Report at 15, Case No. 2021-00393 (April 22, 2022), https://psc.ky.gov/pscecf/2021-00393/fitzkrc%40aol.com/04222022103406/Comments_Of_Joint_Intervenors_2021-00393-merged.pdf.

[18] Staff's Report on LG&E/KU 2021 IRP at 53–55.

[19] LG&E & KU Marginal Cost Analysis at 7.

mistaken in herein representing that the IRP determined an acquisition plan.[20] As the Companies explained, the IRP was not undertaken to identify a resource plan, but rather "to demonstrate how the least-cost generation portfolio varies with load and fuel prices."[21]

Second, none of the portfolios identified in the 2021 IRP modeling selected a Combined Cycle gas turbine as part of a least cost portfolio.[22] In fact, combined cycle units without carbon capture and storage—as assumed in the marginal cost analysis—were screened out of the IRP's resource analysis and not included in the resource optimization modeling.[23] LG&E/KU may have the aim of developing a combined cycle gas unit in 2028, but the selection of that resource and timing of that capacity need are not based on any integrated resource planning presented to the Commission, and certainly were not the result of analysis in the 2021 IRP.

The Marginal Cost Analysis' misplaced reliance on and mischaracterizations of the 2021 IRP must be corrected.

Before acting on the proposed special contract, the Commission should require submission of a more accurate and complete marginal cost analysis fully addressing the contract rates, and a thorough evaluation of earlier retirements of coal units and integrated modeling of all potentially cost-effective supply- and demand-side resources. Without that foundation, KU cannot empirically determine its capacity and generation needs and cannot offer a credible marginal cost analysis.

Respectfully submitted,

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[20] Responsive Comments of Louisville Gas and Electric Company and Kentucky Utilities Company ("LG&E/KU Response Comment") at 13, Case No. 2021-00393 (May 20, 2022) ("Relatedly, perhaps because other jurisdictions have IRP-like proceedings that result in resource plans that formally and necessarily affect utilities' subsequent resource decisions, certain commenters appear to argue that the economically optimal portfolio the Companies included in their IRP for the base-load, base-fuel scenario is the resource plan the Companies intend to pursue, and it therefore requires significantly more rigorous analysis. But any such view is mistaken."); *see also* Staff Report at 66–67 ("In fact, there does not appear to be a single party to this review—LG&E/KU included—who is likely to support implementing the optimal, base case plan at this point. Thus, LG&E/KU did not establish that the 2021 IRP produced a least cost plan to reliably serve its projected load.").

[21] LG&E/KU Response Comment at 37, Case No. 2021-00393 (May 20, 2022).

[22] 2021 IRP Vol. I at 5-43, tbl. 5-19 (summarizing resources selected in nine scenarios, all limited to various combinations of simple cycle gas, solar, wind, and battery storage resources)

[23] Commission Staff's Report on LG&E/KU's 2021 IRP at 25, Case No. 2021-00393 (Sept. 16, 2022), https://psc.ky.gov/pscscf/2021%20Cases/2021-00393//20220916_PSC_ORDER.pdf.

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