COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION OF THE FUEL ADJUSTMENT CLAUSE REGULATION 807 KAR 5:056, PURCHASED POWER COSTS, AND RELATED COST RECOVERY MECHANISMS	))))	CASE NO. 2022-00190

COMMENTS OF JOINT MOVANTS FOR JOINT INTERVENTION KENTUCKIANS FOR THE COMMONWEALTH, MOUNTAIN ASSOCIATION, METROPOLITAN HOUSING COALITION, AND EARTH TOOLS, INC.

Kentuckians for the Commonwealth (KFTC), Mountain Association (MA), Metropolitan Housing Coalition (MHC) and Earth Tools, Inc. (ETI) (collectively "Joint Proposed Intervenors") appreciate the opportunity to tender these comments in response to the Kentucky Public Service Commission's ("Commission" or "PSC") opening of the above-captioned *Electronic Investigation Of The Fuel Adjustment Clause Regulation 807 KAR 5:056, Purchased Power Costs, And Related Cost Recovery Mechanisms*. This investigation of the Fuel Adjustment Clause ("FAC") comes at a time when volatile and increasing electricity costs are a growing challenge, especially for the hundreds of thousands of Kentuckians in cities, towns, and rural areas across the state who are living near or below the poverty line. As the Commission noted in its November 2, 2022 *Order* (hereinafter "*Order*") opening this investigation, the FAC, through which the costs of the coal and gas burned by utilities in Kentucky are passed through to captive customers, is one significant source of such price volatility, making life even more difficult for individuals and families who are already struggling to cover their monthly living expenses. In these comments, the Joint Proposed Intervenors offer some initial thoughts on ways the Commission could reduce the cost volatility posed by the FAC.

I. Kentucky's Fuel Adjustment Clause and Volatile Fossil Fuel Costs

As detailed in the Commission's November 2 *Order*, in the late 1970s the PSC promulgated a single FAC regulation, codified at 807 KAR 5:056, and applicable to the jurisdictional electric utilities in the state. While each utility's base rates include an assumed baseline fuel cost, the FAC regulation enables utilities to regularly adjust customers' bills to reflect the actual cost of fuel and purchased power. In particular, 807 KAR 5:056 sets forth a formula for determining a FAC factor that is used to calculate either a fuel adjustment surcharge or credit on customers' monthly electric bills. The FAC factor is adjusted monthly and is designed to reflect the costs of fuel (and purchased power) from two months earlier. While utilities do not profit from their fuel costs, they are guaranteed to recover 100% of their fuel costs unless the Commission finds during a backward-looking review that the PSC undertakes every six months and two years that specific costs were imprudent and unreasonable.

As the Kentucky State Senate noted in its resolution that led to the opening of this investigation,[1] the past twelve to eighteen months have witnessed a "precipitous increase" in the cost of the fossil fuels, especially natural gas, that utilities burn to produce electricity. For example, while monthly Henry Hub gas prices ranged between $1.73/mmBtu and $4.09/mmBtu from January 2015 through December 2019, in 2021 the monthly price was as high as $5.51/mmBtu, and in 2022 the monthly Henry Hub price ranged from $4.38/mmBtu in January to $8.81/mmBtu in August.[2] These increases in gas prices have been accompanied by what the U.S. Energy Information Administration ("EIA") has determined was the highest gas price volatility in the past twenty years.[3]

[1] 2022 KY S.R. 316, 2022 Regular Session, attached as an Appendix to the Commission's November 2 *Order*.
[2] EIA, Henry Hub Natural Gas Spot Price, available at https://www.eia.gov/dnav/ng/hist/rngwhhdm.htm
[3] EIA, Today In Energy: U.S. Natural Gas Price Saw Record Volatility in the First Quarter of 2022 (Aug, 24, 2022), available at https://www.eia.gov/todayinenergy/detail.php?id=53579

Such fuel cost increases and accompanying cost volatility are showing up on Kentuckians' utility bills most directly through the monthly FAC charges. For example, the following table provides a comparison of Kentucky Power's monthly FAC surcharges and credits in 2019[4] to those in 2022.[5]

Billing Month	2022 FAC Factors ($/kWh)	2022 FAC Surcharge/ (Credit) in $[6]	2019 FAC Factors ($/kWh)	2019 FAC Surcharge/ (Credit) in $[7]
December	0.04194	54.522	-0.00063	(0.819)
November	0.04130	53.69	0.00053	0.689
October	0.02738	35.594	-0.00415	(5.395)
September	0.01528	19.864	0.00200	2.6
August	0.03193	41.509	-0.00021	(0.273)
July	0.03226	41.938	-0.00071	(0.923)
June	0.02990	38.87	-0.00054	(0.702)
May	0.01729	22.477	0.00101	1.313
April	0.01024	13.312	-0.00321	(4.173)
March	0.00213	2.769	0.00109	1.417
February	0.00080	1.04	-0.00016	(0.208)
January	0.03556	46.228	0.00825	10.725
TOTAL		**371.813**		**4.251**

What this comparison shows is that the average Kentucky Power customer using 1,300 kWh of electricity a month paid approximately $367 more in FAC surcharges in 2022 than in 2019. The monthly surcharges were also much more volatile in 2022, when they ranged between $1.04 and

[4] See Kentucky Power Company, 2019 Standard Fuel Adjustment Clause Filings, available at https://psc.ky.gov/PSCFAC/AEP-Kentucky%20Power%20Company/2019_KP.pdf

[5] See Kentucky Power Company, 2022 Standard Fuel Adjustment Clause Filings, available at https://psc.ky.gov/PSCFAC/AEP-Kentucky%20Power%20Company/2022_KP.pdf

[6] Calculated based on an assumed 1,300 kWh monthly energy usage. The 1,300 kWh monthly energy usage figure comes from Kentucky Power Company's March 21, 2022 Standard Fuel Adjustment Clause filing, available at pdf page 64 of the company's 2022 filings.

[7] Calculated based on an assumed 1,300 kWh monthly energy usage.

$54.52, than in 2019, when they ranged between a $10.72 surcharge and a $5.39 credit. Other jurisdictional utilities show similar patterns of increased cost and volatility.

II. Affordability Challenges Facing Kentuckians

The price volatility and increases identified by the Commission and the Kentucky Senate and reflected in the monthly FAC charges, are concerning on their own. But the importance of the Commission acting to address this issue is heightened by two other factors. First, this fossil fuel cost volatility comes on top of a steady increase in electric rates that residential customers have experienced over the past nearly twenty years. According to data collected by the EIA, from 1990 through 2003, the average residential electric rate in Kentucky ranged between 5.47 and 5.81 cents/kWh.[8] Since 2003, however, that rate has steadily increased to 11.50 cents/kWh in 2021, nearly double the 2003 rate.[9]

Second, a substantial proportion of Kentuckians live below or near the poverty line. While in 2020 the poverty rate in the U.S. as a whole was 11.6%, in Kentucky it was 16.5%,[10] which represents approximately 703,000 people living in poverty[11] (and multitudes more in only marginally better economic situations). The economic challenges facing many Kentuckians were described well by East Kentucky Power Cooperative ("EKPC"), which noted in 2021 that:

> The end users of electricity in EKPC's service territory live in rural areas with some of the lowest economic demographics in the United States. In these areas, families, literally, are faced with a regular choice between food, electricity, and medicine. Of the eastern Kentucky counties that EKPC's owner-member cooperatives serve, 40 counties experience persistent poverty, as reported by the USDA.
> . . . .

[8] The relevant EIA data for 1990 through 2009 can be found here - https://www.eia.gov/electricity/data/state/xls/861/HS861%201990-2009.xlsx

[9] The relevant EIA data for 2010 through 2021 can be found here - https://www.eia.gov/electricity/data/state/xls/861/HS861%202010-%20.xlsx

[10] https://www.census.gov/quickfacts/fact/table/louisvillejeffersoncountymetrogovernmentbalancekentucky,KY,US/PST045221

[11] https://talkpoverty.org/state-year-report/kentucky-2020-report/

> Thirty to 54% of total income in most Eastern Kentucky counties comes from government assistance. Forty-two percent of these electricity users are elderly (65 years or older). Many are on fixed incomes and live in energy-leaking mobile homes.[12]

While EKPC's comments were focused on the economic status of its largely rural service territory, similar economic challenges are found in Kentucky's cities, both big and small. For example, as of 2020, the Louisville/Jefferson County metropolitan area had a poverty rate of 15.2%,[13] while the city of Paducah's poverty rate was 21.8%.[14]

The combined result of increasing electricity costs and above-average poverty rates is that large number of Kentuckians face high energy burdens – i.e., they spend a higher percentage of their income on electricity costs than is considered economically sustainable. It is generally accepted that a household is energy burdened if it spends more than 6% of its income on energy bills, and such burden is considered severe if the household spends more than 10%.[15] Both nationally and in Kentucky, the average energy burden is approximately 3%. But that average mask the significant energy burdens facing many low-income Kentuckians. For example, the median energy burden for low-income households in Louisville is 7.6%, and a quarter of such households have energy burdens greater than 12.7%.[16] Similarly, an April 2022 analysis found an average energy burden of 16% for Kentucky households that are between 50% and 100% of

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[12] EKPC, Comments on Federal Implementation Plan Addressing Regional Ozone Transport for the 2015 Ozone NAAQS Proposed Rule, Docket ID No. EPA-HQ-OAR-2021-0668 (June 21, 2022), at pp. 2-3, available at https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0668-0372

[13] https://www.census.gov/quickfacts/fact/table/louisvillejeffersoncountymetrogovernmentbalancekentucky,KY,US/PST045221

[14] https://www.census.gov/quickfacts/fact/table/paducahcitykentucky,KY,US/PST045221

[15] ACEEE, How High Are Household Energy Burdens? (Sept. 2020), at p. ii, available at https://www.aceee.org/energy-burden (hereinafter "ACEEE Energy Burden Report"). The 6% energy burden threshold is based on the affordability metrics that housing costs should be no more than 30% of household income, and energy costs should be no more than 20% of such housing costs. *Id*.

[16] ACEEE Energy Burden Report at p. 5, Figure ES1.

the poverty line, and a staggering 30% for households below 50% of the poverty line.[17] It is not until one considers households at 185%-200% of the federal poverty line that the average energy burden drops to the 6% threshold.[18]

III. Increased Use of Coal Would Not Be Economically Prudent for Ratepayers

The Commission's Nov. 2 *Order* identifies "Changes in Generator Fuel Mix" as one of the causes of the increased fuel cost volatility being experienced by ratepayers. In particular, the *Order* notes that Kentucky has gone from coal being the fuel source for 95% of energy production in 1977 to 75% in 2020, while gas went from 1.9% in 1977 to 17.3% in 2020.[19] As the Commission notes, gas is generally purchased on the spot market while most coal for power generation is purchased through long-term contracts that have fixed prices for several years. And it certainly follows that spot market purchases are significantly more prone than long-term contracts to the type of month-to-month price volatility that ratepayers are currently experiencing through the FAC.

That being said, we would urge the Commission to reject any contention that a return to more coal burning would somehow be in the best interest of ratepayers. Such argument would fail because, as with gas, coal prices have also dramatically increased over the past twelve to eighteen months. As Kentucky Power explained in testimony filed with the Commission a couple months ago:

> [A] comparison of prices for the coal markets from the beginning of 2021 through the first half of 2022 demonstrates the drastic price increases in all of the basins. Coal specifications are generally defined through heat content in British Thermal Units (Btu) and sulfur content defined as sulfur dioxide (SO2) per pound of coal. Low-sulfur CAPP barge coal (12,000 Btu per lb., 1.67 lbs. SO2) began 2021 with a price of $51.30 per ton and is currently at a price of $200.00 per ton. High-

[17] Fisher, Sheehan, & Colton, The Home Energy Affordability Gap 2021 (April 2022) at 1, available at http://www.homeenergyaffordabilitygap.com/03a_affordabilityData.html
[18] Id.
[19] Nov. 2 *Order* at 3-4.

> sulfur NAPP coal (12,500 Btu per lb., 6 lbs. SO2) markets also increased during the same period from $36.50 per ton to $200.00 per ton. Illinois Basin (ILB) coal (11,500 Btu per lb., 5.00 lbs. SO2) increased from $34.50 per ton to $110.50 per ton, and Powder River Basin (PRB) coal (8,800 Btu per lb., .80 lbs. SO2), increased from $11.60 per ton to $16.80 per ton over the same period. High demand and limited coal availability in the remainder of 2022 and 2023 are projected to keep coal prices at elevated levels.
> . . . .
> It is anticipated that coal prices will remain generally high through about 2024, though prices may decline slightly from the uncommonly high current levels. However, it is extremely unlikely that we will see coal prices decrease to the low levels we have seen in the last several years of approximately $60 per ton for CAPP coal and $45 per ton for NAPP coal.[20]

Similarly, Duke Energy recently explained in testimony filed with the Commission that:

> Coal markets continue to be distressed, and there has been increased market volatility due to a number of factors, including: (1) deteriorated financial health of coal suppliers following the past several years of steep declines in coal generation demand, which has impacted the ability of producers to respond to changes in demand during 2021 and the first half of 2022; (2) natural gas price volatility; (3) continued uncertainty regarding proposed and imposed U.S. Environmental Protection Agency regulations for power plants; (4) increased demand in global markets for both steam and metallurgical coal; (5) uncertainty surrounding regulations for mining operations; (6) tightening access to investor financing, coupled with deteriorating credit quality is increasing the overall costs of financing for coal producers; (7) continued shifts in production from thermal to metallurgical coal as producers move away from supplying declining electric generation to take advantage of increasing demand from industry; and (8) continued labor and resource constraints due to structural changes in the coal industry further limiting suppliers' operational flexibility
> . . . .
> These factors combined to drive both domestic and export coal prices in 2021 and the first half of 2022 to record levels. Despite current market conditions, coal producers are seeing the inflationary impacts of rising costs associated with mining operations including, but not limited to, labor and equipment costs putting additional pressure on their ability to respond to market demand.[21]

The simple reality is that replacing one expensive fossil fuel (gas) with another (coal) would not be a prudent or reasonable path towards addressing the fuel cost volatility issue that Kentucky ratepayers confront. Instead, as discussed further in Section VI below, the best way to minimize

[20] Kentucky Power FAC Examination, Case No. 2022-00263, Direct Testimony of Kimberly K. Chilcote, at pp. 5-7.
[21] Duke Energy FAC Examination, Case No. 2022-00267, Direct Testimony of Kimberly Hughes, at p. 8

the impacts of the increasing cost and volatility of fossil fuels is to reduce reliance on those fuels by ramping up energy efficiency, and expeditiously transitioning to zero-fuel-cost energy sources and strategies like solar, wind, and storage.

IV. The Commission Should Carefully Evaluate Averaging FAC Costs Over Multiple Months or An Annual Period

While the high cost of gas and coal ultimately has a larger adverse impact on ratepayers than does the increased month-to-month volatility in such costs, short-term volatility in the fuel cost surcharges can be especially challenging for people who are living paycheck-to-paycheck or otherwise struggling to budget and make ends meet. This is because even a small, unexpected increase in expenses can create havoc for people who do not have the luxury of flexibility in their monthly budget. Fortunately, there appears to be a straightforward way to reduce such short-term volatility and provide ratepayers more certainty about FAC costs. Increased certainty can be achieved by averaging FAC costs over multiple months, as some states already do. In Michigan, fuel and other variable costs are recovered through a power supply cost recovery ("PSCR") clause that is set annually, with any over- or under- recovery addressed through an annual PSCR reconciliation docket. In Indiana, fuel adjustment charges are set for three-month periods. Joint Proposed Intervenors urge the Commission to evaluate modifying the FAC process so that the FAC factor is based on average fuel costs over multiple months or annually.[22]

V. The Commission Should Evaluate Modifying the FAC to Provide for Some Level of Cost Sharing.

In its November 2 *Order*, the Commission noted that one of the intended purposes of the FAC regulation was to "introduce incentives for management to hold down fuel costs."[23] The

[22] This proposal is responsive to question 1 found at page 11 of the November 2 *Order*.
[23] November 2 *Order* at p. 2, citing Administrative Case No. 309, *An Investigation of the Fuel Adjustment Clause Regulation* 807 KAR 5:056 (Ky. PSC Sept. 3, 1986), Order at 2.

Order then proceeds to ask for comment on whether "the current FAC regulation provide[s] sufficient incentives to ensure efficient and prudent fuel procurement practices"[24] and whether "the current FAC appropriately balances the risk accompanying the incurrence and recovery of fuel and purchased power costs between customers and the utility."[25] The answer to these questions is plainly no because, as the November 2 *Order* notes, the "current FAC makes utilities economically indifferent to the cost and recovery of fuel."[26] By providing for 100% pass-through to captive ratepayers of fuel and purchased power costs, subject only to an after-the-fact review in which FAC charges are presumed to be reasonable in the absence of evidence to the contrary, the FAC creates an almost textbook example of a moral hazard. Utilities have no economic incentive to guard against the risk of higher-than-expected costs, or to work aggressively to hold fuel costs down because all of the risk of higher and unpredictable costs are borne by ratepayers.

The Commission asks in the November 2 *Order* whether the burden of demonstrating the reasonableness of FAC charges should be on the utilities and seeks comment on "whether utilities should be required to file additional evidence relating to the reasonableness of their FAC charges and purchased power expense."[27] The answer to those questions is clearly yes, as it is a fundamental tenet of public utility law that a utility should have the burden of demonstrating that its actions are reasonable and prudent if it wants to make captive ratepayers foot the bill for such actions. That being said, a backward-looking review in which the Commission and interested parties still have the "onerous burden" every six months of reviewing thousands of pages of information plus whatever post hoc justifications the utilities might provide is unlikely to be an

[24] Nov. 2 *Order* at p. 12, question 4.
[25] Nov. 2 *Order* at p. 12, question 7.
[26] Nov. 2 *Order* at p. 12, question 6.
[27] Nov. 2 *Order* at p. 10.

efficient or effective way to ensure prudence. Nor does such a process provide any incentive for the utilities to not just avoid imprudence but to proactively work to hold fuel and purchase power costs down as much as possible.

Commissions in some other states evaluating fuel adjustment clauses have determined that a good way to incentivize utilities to engage in efficient and prudent fuel procurement practices is to use a "sharing" formula that splits the risk of fuel cost changes between the utility and its consumers, usually with 90% to 98% falling to customers and the rest to the utility.[28] For example, in 2009, the Missouri Public Service Commission authorized a fuel adjustment charge for AmerenUE that included an "incentive clause" under which 95% of any deviation in fuel and purchased power costs from the base level is to be passed to ratepayers while the remaining 5% is borne by the utility. In doing so, that Commission found that such a sharing mechanism would give AmerenUE "a sufficient opportunity to earn a fair return on equity" while protecting the utility's customers "by giving the company an incentive to be prudent in its decisions by not allowing all costs to simply be passed through to customers." The Missouri Commission further found that:

> … an after-the-fact prudence review is not a substitute for an appropriate financial incentive, nor is an incentive provision intended to be a penalty against the company. Rather, a financial incentive recognizes that fuel and purchased power activities are very complex and there are actions AmerenUE can take that will affect the cost-effectiveness of those activities.[29]

The Missouri Commission established similar 95%/5% sharing mechanisms for Kansas City Power & Light,[30] and Empire District Electric.[31] Commissions in others states such as the Idaho

[28] Albert Lin and Joe Daniel, Electricity Customers are Getting Burnt by Soaring Fossil Fuel Prices (June 23, 2022), available at https://rmi.org/electricity-customers-are-getting-burnt-by-soaring-fossil-fuel-prices/
[29] Missouri Public Service Commission, Case ER-2008-0318, Report and Order at pp 72-73.
[30] Missouri PSC Case ER-2014-0370, Report and Order issued 9/2/2015 at p. 31
[31] Missouri PSC Case ER-2008-0093, Report and Order issued 7/30/2008 at p. 44.

Public Utilities Commission,[32] and the Hawai'i Public Utilities Commission,[33] have also adopted fuel cost sharing mechanisms. The Joint Proposed Intervenors urge the PSC to consider doing the same with regards to the FAC regulation for Kentucky's utilities.

We anticipate that the utilities may contend that such a cost sharing mechanism would threaten their financial health. But as the attached analysis carried out by Pearl Street Finance Lab shows, the estimated impact to the operating cash flows of the Kentucky investor-owned utilities is quite minimal at a 2%, 5%, or even 10% sharing level. Such small impacts should encourage the Commission to carefully evaluate this commonsense reform that could help ensure that both the utilities and their captive ratepayers have an interest and incentive to keep fuel and purchased power costs as low as possible.

VI. The Commission Should Ensure that the Full Benefits of Zero-Fuel Resources Are Being Evaluated in Utilities' Resource Planning

After noting that the current FAC makes utilities "economically indifferent" to fuel costs, the Commission poses the question of whether it should:

> leave the FAC as is, and take this fact into account when reviewing applications for certificates of public convenience and necessity and financing and integrated resource plans, or should it amend the current FAC to provide for less economic indifference by the utility to the cost and recovery of fuel and purchased power?[34]

The answer to this question is that the Commission should do both. As discussed in Sections IV and V above, there are steps that the Commission should evaluate – such as averaging and cost-sharing – that could make utilities less economically indifferent to fuel costs and reduce the impacts to ratepayers of fossil fuel cost increases and volatility. But ultimately the amount of risk of increasing and volatile fuel costs that ratepayers are exposed to is dictated in large part by

[32] Idaho PUC Case No. IPC-08-19, Order No. 30715 , issued 1/9/2009; Idaho PUC Case No. AVU-E-01-1, Order No. 28775, issued 7/12/2001; Idaho PUC Case No. PAC-08-08, Order No. 30904, issued 9/29/2009.
[33] Hawai'i PUC, FINAL DECISION AND ORDER NO. 35545, Docket No. 2016-0328, available at https://puc.hawaii.gov/wp-content/uploads/2018/06/DO-No.-35545.pdf
[34] Nov. 2 *Order* at p. 12, question 6.

resource decisions that the utility makes. If a utility decides to pursue primarily large fossil-fueled generation resources, it is locking itself and its captive customers into a significant level of fuel cost volatility risks for decades that can only be modestly reduced by FAC cost sharing and averaging. But if a utility decides to pursue significant amounts of zero-fuel resources such as wind, solar, storage, and energy efficiency, it is embarking on a path towards lower fuel use and, therefore, lower fuel cost volatility risk. To help ensure that optimal amounts of such zero-fuel resources are pursued, it is critical that their avoidance of fuel cost volatility risks is robustly factored into the resource decisions that are made and reviewed in the Integrated Resource Plan, Certificates of Public Convenience and Necessity, Demand Side Management and Energy Efficiency, and other Commission proceedings.

These zero-fuel resources are widely recognized as important tools for reducing exposure to price volatility. For example, a 2018 study from the American Council for an Energy Efficient Economy explained that in addition to often being the lowest-cost resource available, energy efficiency:

> provides utilities and retail electric providers an additional strategy to reduce exposure to price volatility. Efficiency can serve as a type of long-term supply contract that provides energy resources at a fixed price. . . . Resource planning should consider this value of reduced risk when making long-term decisions on how to meet anticipated electricity demand.[35]

In addition to these significant macro-level benefits, energy efficiency also provides an invaluable tool for ratepayers to limit their exposure to price volatility by reducing their energy use. This is especially true with regards to low-income customers, for many of whom the availability or lack of utility-funded programs is the determinant of whether energy saving

[35] ACEEE, Estimating the Value of Energy Efficiency to Reduce Wholesale Energy Price Volatility (April 2018), at iii, available at https://www.aceee.org/research-report/u1803; see also David Hoppock and Dalia Patino Echeverri, Using Energy Efficiency to Hedge Against Natural Gas Price Uncertainty (Jan. 2013), available at https://nicholasinstitute.duke.edu/sites/default/files/publications/ni_wp_13-02.pdf.

weatherization and home efficiency upgrades occur.[36] With Kentucky ranking 33rd in the most recent state energy efficiency scorecard,[37] there is clearly a lot of potential for increased energy efficiency as a tool for reducing Kentuckians exposure to fuel price and volatility risks. The reduction in exposure to fuel price and volatility risks is also recognized as an important benefit for other zero-fuel resources, such as renewable resources[38] and distributed energy resources[39] (i.e. distributed generation, distributed storage, demand response, etc.). Requiring a robust evaluation in IRP, CPCN, DSM/EE, and other dockets of these resources in a way that fully accounts for their significant benefits in reducing ratepayer exposures to increasing fuel cost and volatility risks should be a core element of any Commission effort to address such risks.

VII. Conclusion

The Joint Proposed Intervenors appreciate this opportunity to provide comments and recommendations regarding the Commission's investigation of the FAC regulation, purchased power costs, and other cost recovery mechanisms. As set out in our comments above, this investigation is very timely given the increased fuel price volatility that is being charged to ratepayers through the FAC, and the substantial affordability and energy burden challenges faced by hundreds of thousands of Kentuckians. We urge the Commission to work to alleviate these

[36] ACEEE, Meeting the Challenge: A Review of Energy Efficiency Program Offerings for Low-Income Households (Nov. 2022), available at https://www.aceee.org/research-report/u2205

[37] ACEEE, 2020 State Energy Efficiency Scorecard (Dec. 2020), at xi, available at https://www.aceee.org/state-policy/scorecard

[38] National Renewable Energy Laboratory, The Use of Solar and Wind as a Physical Hedge Against Price Variability Within a Generation Portfolio (Aug. 2013) at vii (finding that "solar and wind generation significantly reduce the exposure of electricity costs to natural gas price uncertainty in fossil-based generation portfolios on a multi-year to multi-decade time horizon."), available at https://www.nrel.gov/docs/fy13osti/59065.pdf; Commission for Environmental Cooperation, Renewable Energy as a Hedge Against Fuel Price Fluctuation: How to Capture the Benefits (2008), available at http://www.cec.org/files/documents/publications/2360-renewable-energy-hedge-against-fuel-price-fluctuation-en.pdf

[39] National Energy Screening Project, National Standard Practice Manual For Benefit-Cost Analysis of Distributed Energy Resources (Aug. 2020) at p. 4-9 (finding that "DERs can reduce utility system risk in several ways" including by "reduc[ing] exposure to potential future fuel price volatility associated with other resource types (particularly natural gas, oil, and/or coal-fired generation."), available at https://www.nationalenergyscreeningproject.org/wp-content/uploads/2020/08/NSPM-DERs_08-24-2020.pdf

challenges by evaluating whether the FAC charge should be averaged over a period of months or even annually, considering a mechanism through which utilities would "share" (i.e. remain responsible for) between 2% and 10% of the fuel cost rather than ratepayers paying 100% of the costs, and ensuring that the different levels of fuel price risk facing different potential resource options are fully evaluated and taken into consideration during CPCN, IRP, and DSM/EE dockets.

Respectfully submitted,

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CERTIFICATE OF SERVICE

In accordance with the Commission's July 22, 2021 Order in Case No. 2020-00085, Electronic Emergency Docket Related to the Novel Coronavirus COVID-19, this is to certify that the electronic filing was submitted to the Commission on December 2, 2022; that the documents in this electronic filing are a true representations of the materials prepared for the filing; that no hard copy of this filing will be made; and that the Commission has not excused any party from electronic filing procedures for this case at this time.

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Tom FitzGerald

KY PSC FAC Investigation

Cost Sharing Financial Impacts to IOUs

PSS Finance Lab: December 2022

If KY Shared Fuel Cost With Customers

PEARL ST TATION
FINANCE LAB

Utilities used to pay 100% of the fuel cost

Since 1973, utilities pay almost 0% of the fuel cost

What if a share were to be implemented in KY?

- Simple program using absolute cost (as reported to FERC using existing accounting data)
- Impact to the shareholder is minimal with KY sharing rates between 2% to 10%
- Program may be adjusted if other states adopt similar sharing policies

Fuel Cost Sharing Impact to Operating Cash Flow of KY IOUs

Fuel Cost Sharing Impact to IOU Cash Flow from Continued Operations	2020 PPL	2020 AEP	2020 DUK	2021 PPL	2021 AEP	2021 DUK
Dollar Impact ($ Millions)						
2% absolute fuel cost share	$9.42	$1.81	$1.28	$9.75	$1.87	$1.32
5% absolute fuel cost share	$23.54	$4.52	$3.20	$24.38	$4.68	$3.31
10% absolute fuel cost share	$47.09	$9.05	$6.39	$48.77	$9.37	$6.62
Percentage of Cash Flow						
2% absolute fuel cost share	0.50%	0.05%	0.01%	0.63%	0.05%	0.02%
5% absolute fuel cost share	1.26%	0.12%	0.04%	1.58%	0.12%	0.04%
10% absolute fuel cost share	2.52%	0.24%	0.07%	3.16%	0.24%	0.08%

The Calculation

1: Obtain total fuel cost paid in 2020 and 2021 for fuel

EIA Data from FERC Form 923 filings		
State of Kentucky Nat Gas and Coal Fuel Spend	2020	2021
Total State Nat Gas MCF (Million Cubic Feet)	96,489	101,583
Average Cost per MMBtu for Natural Gas	$2.86	$4.16
Total Delivered Nat Gas Spend $ Millions	$276	$423
Total State Coal (1000s Tons)	25,233	22,666
Millions of Btu per US Ton	19	19
Avg Cost per MMBtu for Coal	$1.88	$1.85
Total Delivered Coal Spend $ Millions	$901	$797
Total Natural Gas and Coal Fuel Spend $ Millions	**$1,177**	**$1,219**

2: Find percentage of sale of IOUs

GWh Sales (KY Energy Profile)	2018	2018 Pct of State
LG&E and KU (NYSE: PPL)	30432	40.0%
EKPC	30432	40.0%
Big Rivers	6564	8.6%
TVA	8145	10.7%
Municipalities	6184	8.1%
KP (NYSE: AEP)	5847	7.7%
Duke (NYSE: DUK)	4133	5.4%
Total	76089	
Publicly Traded IOUs % of Total		53.1%

3: Find Cash Flow from Operations for each IOU

IOU Cash Flow from Continued Operations	2020	2021
PPL ($ Millions)	$1,872	$1,544
AEP ($ Millions)	$3,833	$3,840
DUK ($ Millions)	$8,856	$8,290

Data Sources and methodology

- Limited to Natural Gas and Coal Cost Impact
- Used 2021 and 2020 data (2022 data is not available at the time of this analysis)
- Kentucky Energy Energy Profile (www.eec.ky.gov) 2019 7th edition (latest available) for allocation of IOU v. other generation
- Sources for data are EIA reports from Electric Power Annual report released Nov 7, 2022 Tables 5.2 and 7.20
- Public company SEC filings and company reported earnings data
    - Duke Energies (NYSE: DUK) for Duke Energy KY, Inc.
    - PPL Corp (NYSE: PPL) for Kentucky Utilities Company and Louisville Gas and Electric Company
    - American Electric Power (NYSE: AEP) for Kentucky Power Company