

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the matter of: :

ELECTRONIC 2024 JOINT INTEGRATED : CASE NO. 2024-00326
RESOURCE PLAN OF LOUISVILLE GAS :
AND ELECTRIC COMPANY AND :
KENTUCKY UTILITIES COMPANY :

KENTUCKY COAL ASSOCIATION’S INITIAL COMMENTS

The Kentucky Coal Association (KCA), intervener in this action, respectfully submits the following initial comments in this matter:

On October 18, 2024, Louisville Gas & Electric (LGE) and Kentucky Utilities (KU) (collectively the “Companies”) filed their 2024 Joint Integrated Resource Plan (IRP) as required to be performed every three years by Administrative Regulation 807 KAR 5:058. The Kentucky Coal Association (KCA) requested intervention in this case on November 8, 2024. Intervention was granted on November 21, 2024. KCA issued discovery requests on November 22, 2024 and January 22, 2025. A combination of Public and Confidential responses were subsequently made to KCA.

The Companies stated their objective for the IRP was to “(d)velop a resource plan that will enable the Companies to serve all customers safely, reliably and **at the lowest reasonable costs at all times, day or night, and in all seasons and weather conditions.**” (emphasis added)

The Companies believe they have a “well-established annual planning process that has enabled them to reliably meet their customers’ around-the-clock energy needs both in the short-term and long-term at the lowest reasonable cost.”

The most important statement in the introduction to the IRP is as follows:

This IRP represents **a snapshot** of this planning process using current business assumptions and assessments of risks.... Even though the IRP represents the Companies’ analysis of the best options to meet customer needs **at this point in time**, this plan is

reviewed, re-evaluated, and assessed against other market **available alternatives prior to commitment and implementation.**¹ (emphasis added)

Despite this statement, the Companies filed a CPCN request on February 28, 2025 prior to receiving any comments on the filed IRP.

Unfortunately for the IRP timing, numerous changes have or are expected to occur as a result of the change in Administration in January 2025. Therefore, the IRP largely does not reflect current expectations. KCA asked specifically whether the Companies have given any thought to the expected changes and was repeatedly informed that because the changes occurred after the filing of the IRP, the Companies had no obligation to reconsider/revise any conclusions.² As a result, KCA finds that by and large the analyses and conclusions included in the IRP should not be the basis of any decisions made by the Commission at this time. Further, any requests for new generation must rely upon updated analyses.

Changes under the Trump Administration

One of the day one acts of the new Trump Administration was a declaration of a National Energy Emergency (NEE) under the National Emergencies Act (50 U.S.C 1601 et. seq.) and section 301 of Title 3 U.S.C. 3(a).³ While the full consequences of the declaration are not known at this time, the new Administration has made clear it is looking to revamp the regulatory landscape, foster growth in new fossil generation to support expected load growth and expand the production of fossil fuels for both domestic and international markets. Further, it appears that the Administration may use the Declaration to allow operating coal plants to continue to run.

The Administration has made clear that its energy policy will focus on the following:

- National and economic security not decarbonization⁴,
- Supporting the present fleet of firm, dispatchable generation using NEE authorities,

¹ Page 5-6, Volume 1.

² See responses to KCA 2-1 and 2-2.

³ <https://www.whitehouse.gov/presidential-actions/2025/01/declaring-a-national-energy-emergency/>

⁴ This includes withdrawing from the Paris Climate Accords.

- Providing EPA flexibility to waive 2020 ELG Rule notification and compliance requirements,
- Revoking, remanding or otherwise making the Clean Air Act Sections 111(b) and 111(d) rules (often referred to as the GHG rules) non-enforceable,
- Revoking, remanding or otherwise making the new mercury and air toxic standards (MATS), new coal combustion residual (CCR) and new effluent limitation guidelines (ELG) Rules non-enforceable,
- Permitting previously shuttered coal plants to re-energize without re-initiating the interconnection process,
- Reversing the Endangerment Finding,
- Eliminating the electric vehicle fifty (50) percent target by 2030, and
- Revising EPA emission targets and fuel economy requirements from the National Highway Traffic Safety Administration.

Other actions expected to affect the Companies IRP assumptions including:

- The imposition of higher tariffs this week are expected to increase prices for renewables, new gas generation, and batteries.⁵
- The halt on leasing offshore wind and halt on permitting both onshore and offshore wind on Federal lands is likely reduce wind development, and
- Restructuring/eliminating the Infrastructure Bill and the Inflation Reduction Act (IRA) Grant Programs.⁶

Specific Issues with the IRP

Load Growth

The Companies like many utilities have increased expectations regarding load growth. As noted by the Companies, their mid-load forecast for load growth in the 2024 IRP calls for a compound average annual growth rate of 1.67 percent as compared to an average annual negative 0.17 percent decline in its 2021 IRP and an average annual 0.29 percent increase in the 2022 CPCN.

⁵ [FirstEnergy 10-K filed February 27, 2025](#): “New or increased tariffs could also negatively affect U.S. national or regional economies, which also could negatively impact our business and results of operations.”

⁶ There is considerable debate as to the extent to which already allocated funds can be redirected.

According to the Companies, the higher growth rates is due to “new economic development loads, which include data centers, and the first phase of BlueOval SK (BOSK)”.⁷

While not addressed by the Companies, there are concerns within the industry as to whether the new expected growth will materialize. Specific concerns relate to:

- Whether the expected data center growth is over-stated as potential developers are talking to multiple utilities about the same demand,
- Whether new technologies, such as DeepSeek⁸, will slow the rate of data center expansion by allowing more processing to be done with less hardware,
- The cost estimates for the capacity additions in the CPCN are likely understated and would require a review to determine their reasonableness, and
- Whether the U.S. economy is headed for a significant recession as a result aggressive spending cuts and tariffs.⁹

The question of whether ratepayers are sufficiently protected from investments in data centers is an issue many Commissions are addressing.¹⁰ Providing electrical service to high demand customer developments such as data centers often require significant investment by the utility in generation and transmission. This is true for the Companies.¹¹ While the growth in electricity demand provides many benefits economically and otherwise, the risk of such large investments must be managed, and the investment cannot be made on speculation. The Commission should require the Companies to ensure all data center contracts properly address the cost of service, provide financial assurances in case of a default by the customer, and will not result in any increased electricity rates to existing ratepayers.

Environmental Assumptions

As discussed above, there is a general belief that the new Administration will work towards relaxing or removing many of the rules that had been expected to go into effect. To the extent this happens, it affects the need to retrofit new pollution control technologies and/or replace existing generation. It is worth noting that the Companies requested, and the Commission approved the retirement of Mill Creek 2 based predominately on stagnant load growth and the

⁷ BlueOval SK is a joint venture formed by Ford and SK On for electric vehicle batteries.

⁸ <https://deep-seek.chat/news/deepseeks-ai-breakthrough-a-challenge-and-opportunity-for-uk-startups/>

⁹ <https://www.nytimes.com/2025/02/27/business/trump-tariffs-spending-cuts-economy.html>

¹⁰ See, e.g. In the Matter of the Application for Ohio Power Company for New Tariffs Related to Data Centers and Mobile Data Centers, Case No. 24-508-EL-ATA, <https://dis.puc.state.oh.us/ViewImage.aspx?CMID=A1001001A24E13B43247C00950>

cost to comply with environmental regulations in Case 2022-00402.¹² The key environmental regulation, the Good Neighbor Plan, used to justify the retirement of Mill Creek 2 has been stayed by the SCOTUS and will likely be overturned.¹³ If the same assumptions used in this IRP had been used in Case 2022-00402, the continued operation of Mill Creek 2 would have been part of the least-cost option generation portfolio, providing an example of the importance of regulatory certainty.

Potential Loss of Renewable Subsidies

If the investment tax credits (ITC) and production tax credits (PTC) associated with renewables are no longer available, the Commission should require the Companies to reassess the proposed generation portfolio.

Fuel Prices

In the prior IRP and the CPCN, the Companies adopted a pricing model that linked coal and natural gas prices, referred to as C-T-G. the Companies utilized this methodology in the 2024 IRP justifying their approach based upon the Kentucky PSC's approval of this methodology in the prior cases citing the Commission's statement that the Companies' evidence "is credible."

For reasons explained below this methodology is not standard in the industry and the Commission should be skeptical of the Companies' sole reliance on C-T-G when developing fuel price forecasts. The PSC should make it clear to the Companies that any future IRPs or CPCNs must justify any price forecasting methodology whether it has been used in the past or not and alternative forecasting methods should be used at a minimum for comparative purposes.

There are fundamental reasons why this methodology is inappropriate.

1. Coal and natural gas have different markets.

As shown below, the primary domestic market for coal is the power market. Between 2020 and 2024, coal accounted for ninety (90) percent of demand. Unlike natural gas, coal inventories are part of the coal demand story as inventories allow for there to be a swing between production and consumption.

¹¹ <https://lge-ku.com/newsroom/press-releases/2025/02/28/lge-and-ku-power-kentuckys-growth-plans-new-generation-and>

¹² <https://psc.ky.gov/Case/ViewCaseFilings/2022-00402>

¹³ <https://eelp.law.harvard.edu/the-supreme-court-pauses-the-good-neighbor-plan/#:~:text=July%202%2C%202024,3%5D>

SUMMARY COAL SUPPLY, DEMAND AND PRICES							
	2020	Actual			Est.	Forecast	
		2021	2022	2023	2024	2025	2030
Demand (Million Tons)							
Electric Power Receipts	428.2	449.3	455.3	418.0	356.8	368.7	279.3
<i>Electric Burn</i>	429.3	494.2	463.5	378.4	366.1	381.4	280.3
<i>Stockpile Change</i>	(1.1)	(44.9)	(8.2)	39.6	(9.3)	(12.7)	(1.0)
Domestic Met	16.7	20.5	18.5	18.5	18.3	18.4	15.7
Commercial/Industrial	25.1	25.4	26.2	22.6	21.2	20.9	18.3
Domestic Consumption	470.0	495.3	500.0	459.1	396.3	408.0	313.3
Export Metallurgical	42.8	45.9	46.1	52.6	57.0	59.0	62.5
Export Steam	31.9	45.4	44.8	53.5	56.5	54.0	52.5
Total Exports	75.0	91.7	91.4	106.9	114.1	113.6	115.6

Power Burn Percent of Domestic Market	91%	100%	93%	82%	92%	93%	89%
Power Burn Percent of Total Market	79%	84%	78%	67%	72%	73%	65%

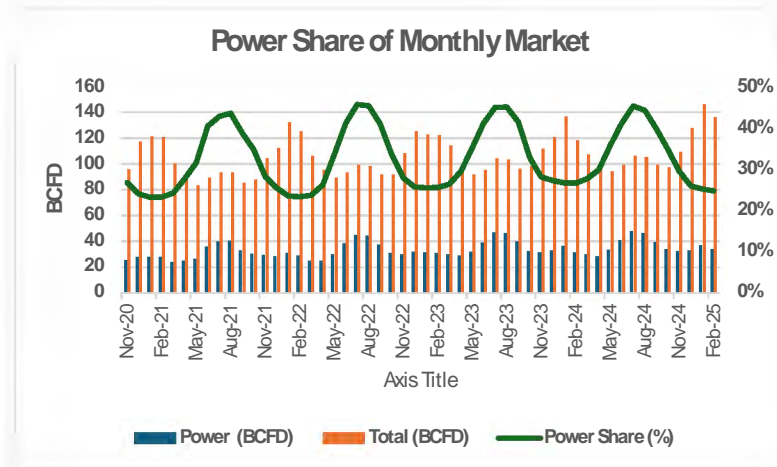
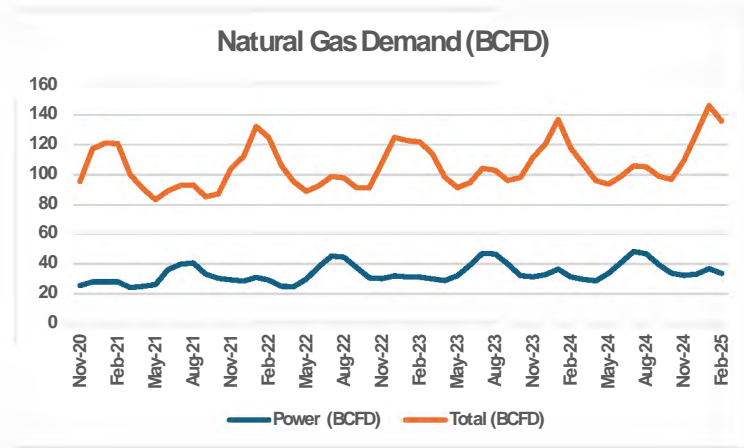
Source: EIA, EVA Forecast

Natural gas, on the other hand, moves into multiple markets. Its market share of total demand averaged above thirty (30) percent for the last five (5) years but is expected to decline over time due to increased exports.

U.S. NATURAL GAS DEMAND							
	HISTORICAL-->				FORECAST-->		
	2020	2021	2022	2023	2024	2025	2030
Primary Consumption (BCFD)							
Residential	12.6	12.7	13.5	12.1	12.2	13.8	14.2
Commercial	8.5	8.9	9.5	8.9	9.0	9.5	9.7
Industrial	22.4	22.8	23.2	23.1	22.9	23.4	23.9
Power	31.0	30.1	32.6	34.5	36.1	34.6	30.5
Vehicle	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total Primary	74.6	74.7	79.0	78.8	80.3	81.6	78.5
Secondary Consumption (BCFD)							
Lease & Plant Fuel	3.9	4.0	4.1	4.3	4.3	3.4	2.5
Pipeline & Distribution Fuel	3.4	3.8	4.2	4.4	4.4	4.8	6.6
Total Secondary	7.3	7.8	8.3	8.7	8.7	8.2	9.1
Exports (BCFD)							
LNG Exports	7.1	10.6	11.5	12.6	12.5	15.8	27.7
Exports to Mexico	5.1	5.5	5.3	6.0	6.4	6.5	7.9
Total Exports	12.2	16.0	16.8	18.6	18.8	22.3	35.6
Total Demand (BCFD)	94.1	98.5	104.1	106.1	107.8	112.1	123.2
Power Sector Share of Domestic Market	41.6%	40.2%	41.3%	43.8%	45.0%	42.5%	38.8%
Power Sector Share of Total Demand	33.0%	30.5%	31.3%	32.5%	33.5%	30.9%	24.7%

Source: EVA

- Natural gas demand from the power sector has varied over the last four (4) years between 20 and 40 BCFD. Due to lower natural gas demand from the residential/commercial sectors in the summer, the power sector accounts for a higher share of demand during this period.



- Utility procurement of coal and natural gas are typically handled in different ways.

For coal, most utilities including the Companies maintain a contract portfolio for their coal purchases and have a physical inventory on site that can manage variations between burn forecasts and demand. The contract portfolios typically have some combination of short, medium, and long-term contracts. Contracts can be supplemented with spot purchases as necessary. The contracts typically contain some volume flexibility. e.g., plus or minus twenty (20) percent. Pricing in the contracts is typically fixed by year for the term of the contracts although the contracts usually contain provisions related to government impositions. The net result is that the coal pricing is not tied exclusively to

the prompt market. The transportation of coal to the power plant is typically (but not always) the responsibility of the utility.

For natural gas, utilities typically have a procurement strategy that includes a hedging program for their gas purchase. Typical hedging programs use approved trading instruments. Positions are generally transacted using fixed floating swaps with delivery in a specified future delivery month. As that delivery month approaches, the financial positions settle at the index price associated with the location and delivery period. After settlement of the financial hedging transaction, the utility purchases physical gas for the prompt month at current market prices that should reflect the index prices received for the financial hedge. Utilities use a range of hedging periods with a greater percentage in the prompt year and declining percentages thereafter.

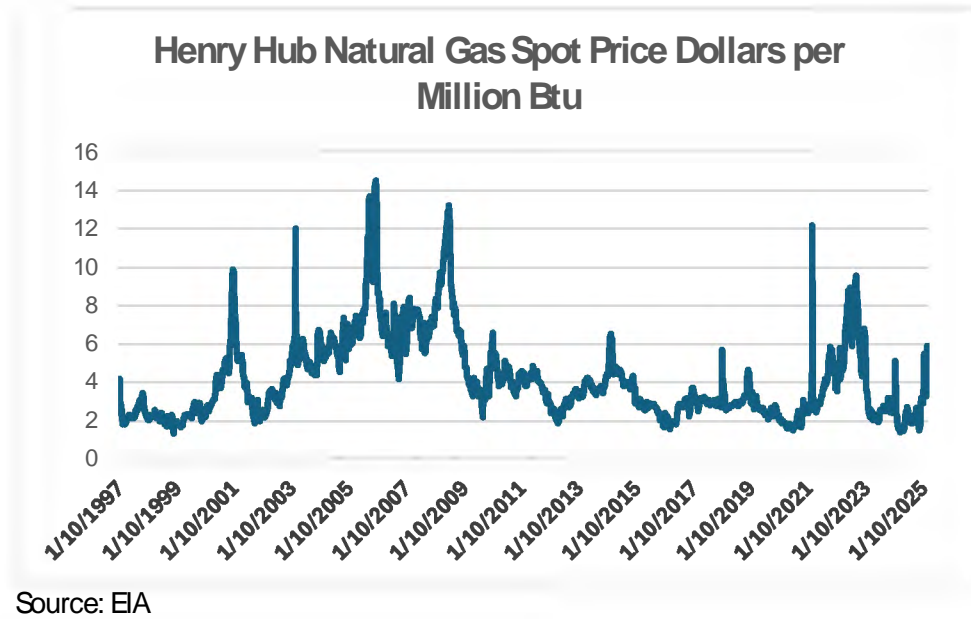
4. The reported delivered prices of coal and natural gas to the Companies over the years 2021 through 2024 are poorly correlated despite the representation that pricing is highly correlated. More importantly, the coal prices are more stable during the four-year period and a fraction of the delivered natural gas prices. This is, in part, a result of the Companies well planned and implemented coal procurement strategy.

Gas Price	Cane Run				Paddy's Run			
	2021	2022	2023	2024	2021	2022	2023	2024
	334.71	499.60	344.65	370.05	1211.84	942.66	1296.28	335.73
Coal Price	Ghent				Mill Creek			
	2021	2022	2023	2024	2021	2022	2023	2024
	190.22	226.07	220.01	248.36	198.41	219.44	219.80	222.04

Correlation	Between Cane Run and Ghent is 0.32	Between Paddy's Run and Mill Creek is -0.49
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Source: EIA Form 923

5. Natural gas prices are considerably more volatile than coal prices. The volatility is not captured in the utilized forecasts. As shown below, Henry Hub spot prices ranged between \$12 per MMBtu and less than \$2 per MMBtu in the last four (4) years.



CONCLUSIONS

1. With changes pending in regulations, tax incentives, and other energy policies at the State and Federal level and the legality of many regulations used in the Companies assumptions and analysis in question, the Commission should require the Companies to provide an updated IRP incorporating the best available information prior to the Commission considering any request from the Companies impacting its generation sources.
2. KCA feels strongly that the Companies should reevaluate the coal and gas pricing assumptions used in their analyses.
3. The Commission should require the Companies to ensure all data center contracts properly address the cost of service, provide financial assurances in case of a default by the customer, and will not result in any increased electricity rates for existing ratepayers.
4. The Companies should require firm financial commitments from new customers who request for service would result in the Companies having to build new generation.

Respectfully submitted,

/s/Matt Malone

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CERTIFICATE OF SERVICE

I hereby certify that KCA's March 7, 2025 electronic filing is a true and accurate copy of KCA's pleading and Read 1st Document to be filed in paper medium; that the electronic filing has been transmitted to the Commission on March 7, 2025; that an original and one copy of the filing will not be delivered to the Commission based on pandemic orders; that there are currently no parties excused from participation by electronic service; and that, on March 7, 2025 electronic mail notification of the electronic filing is provided to all parties of record:

/s/Matt Malone

ATTORNEY FOR KCA