COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the matter of:	:	
ELECTRONIC JOINT APPLICATION OF KENTUCKY UTILITIES COMPANY AND LOUISVILLE GAS AND ELECTRIC COMPANY FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY AND SITE COMPATIBILITY CERTIFICATES AND APPROVAL OF A DEMAND SIDE MANAGEMENT PLAN AND APPROVAL OF FOSSIL FUEL-FIRED GENERATING UNIT RETIREMENTS	: : : : : : :	CASE NO. 2022-00402

KENTUCKY COAL ASSOCIATION'S INITIAL BRIEF

The Kentucky Coal Association (KCA), as intervener in this action, submits the following as its initial brief in this matter:

Kentucky Utilities Company and Louisville Gas and Electric Company (the "Companies") filed this certificate of public convenience and necessity (CPCN) action on December 15, 2022. The central requests of the Companies are two-fold and interrelated. They seek to retire certain fossil-fuel fired generating plants on the one hand and to build or acquire certain other facilities on the other hand. Specifically, the facilities they seek approval to build or acquire include: (i) two (2) 621 MW natural gas combined cycle plants ("NGCC"); (ii) a 120 MW solar facility in Mercer County, (iii) a 125 MW solar facility in Marion County to built by a third party; and (iv) a 125 MW battery storage facility. The Companies' proposal also includes advancing previously proposed retirement dates for coal plants designated as Mill Creek Unit 1, Mill Creek Unit 2, E.W. Brown Unit 3 and Ghent Unit 2.

During the pendency of the CPCN case, the Kentucky Legislature passed Senate Bill 4 ("SB4") also known as KRS § 278.264. SB4 became effective March 29, 2023 and requires that the Companies obtain Commission approval before retiring fossil-fuel fired generating plants. Importantly, the Kentucky Legislature saw fit to create a rebuttable presumption *against* retiring fossil-fuel fired generating plants. KRS 278.264 directs the Commission to presume that the coal plants should not be retired in the absence of the Companies demonstrating that retirement of fossil-fuel fired plants satisfies <u>every one</u> of the stringent tests set forth therein.

Following the enactment of SB4, the Companies filed a separate case before the Commission on May 10, 2023 (Case No. 2023-00122) requesting approval to retire the above-mentioned coal units[1]. On May 16, 2023 the Commission consolidated Case No. 2023-00122 (the Companies' request to retire coal plants) into the CPCN case at bar. *See*, Order dated May 16, 2023 herein. A live hearing was held from August 22-29, 2023 (excluding non-business days) jointly addressing both cases simultaneously.

LEGAL STANDARD

To obtain a CPCN from the Public Service Commission for construction of any plant, equipment, property or facility, requires that the Companies must demonstrate a need for the proposed facility and the absence of wasteful duplication. *Citizens for Alternative Water Solutions v. Kentucky Public Service Commission, et. al*., 358 S.W.3d 488 (Ky.App.2011)(citing KRS § 278.020). However, as a matter of first impression, the Companies in this instance must also satisfy the stringent framework now required by SB4 to retire the coal plants at issue.

KRS § 278.264 creates a rebuttable presumption[2] *against* retiring coal fired plants unless the Companies can credibly demonstrate with sufficient evidence that the to-be-retired coal units will be replaced with new electric capacity that:

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[1] The Companies also sought approval to retire three (3) natural gas units identified as Haefling Units 1 and 2 and Paddy's Run Unit 12.

[2] In recent years, the Kentucky Legislature also created a legal sea change in terms of passing a rebuttable presumption with respect to parents of children having equal timesharing of their children. Such a law, and presumption associated with the law incorporated into KRS 403.270, was the first of its kind in the United States. When family court judges now evaluate timesharing decisions they start their decision-making process from the paradigm that both parents should

1. Is dispatchable[3];

2. maintains or improves the reliability and resilience of the electric grid; **<u>AND</u>**

3. maintains minimum reserve capacity requirements established by its reliability coordinator.

Id. at (2)(a)(1) – (3). If the Companies can satisfy the first three prongs of the statute (which they cannot), they must then also come forward with sufficient credible evidence that:

4. The proposed retirement of the coal plant(s) will not harm ratepayers by causing the Companies to incur any net incremental costs to be recovered from ratepayers that could be avoided by continuing to operate the coal units in compliance with applicable law; **<u>AND</u>**

5. The decision to retire the coal plant(s) must not be the result of any financial incentives or benefits offered by a federal agency.

Id. at (b) and (c). Finally, should the Companies be able to climb the steep edicts of each of the foregoing requirements, they must also provide the Commission with evidence of all known direct *<u>and indirect costs</u>* of shuttering each coal plant and then demonstrate that notwithstanding those expenses, cost savings will still result to customers. *Id.* at (3).

<u>SUMMARY OF ARGUMENT</u>

The Companies have failed to present sufficient credible evidence to defeat the rebuttable presumption to satisfy any, much less all, of the requirements established by the Kentucky Legislature with the enactment of KRS 278.264. When the Commission pulls back the curtain, the proposal is wrought with self-fulfilling assumptions that when seen for what they are demonstrate that the CPCN proposal is not justified and exposes the reliability and resiliency of the grid at the expense of ratepayers. The request to retire the coal plants is premature, fails to

have equal timesharing unless other conditions are met. Like the rebuttable presumption in KRS 403.270 addressing timesharing and custody, the Commissioners here must start from the presumption that the coal plants should not be retired unless the required conditions are met.

[3] As discussed herein, the definition of "dispatchable" is a point of contention that materially affects the Companies' self-serving retirement assessment.

comply with SB4 and should be wholly rejected. Consequently, the CPCN must be correspondingly denied.

ARGUMENT

I. THE CPCN REQUEST FAILS TO MEET THE REQUIREMENTS OF KRS § 278.264(2).

A. The Companies fail to demonstrate that the to-be-retired electric generating units will be replaced with sufficient new electric generating capacity that is "dispatchable".

To shut down an existing coal plant, the Companies must, amongst other things, replace the retired electric generating unit with new generating capacity that is dispatchable (e.g. coal, gas, nuclear) as opposed to new generating capacity that is non-dispatchable such as solar and wind. The new dispatchable electric generating capacity (the 2 NGCC plants) must maintain, or improve, reliability and resiliency of the electric grid as compared the fossil fueled assets sought to be retired. KRS § 278.264(2)(a)1 and 2.

Unlike "Reliability" and "Resilience", the Legislature did not define "dispatchable". When interpreting statutory language, all words and phrases in a statute should be construed according to their common meaning, unless otherwise defined. KRS 446.080(4). When not expressly defined, the common meaning of words is often determined by reference to dictionary definitions. *Jefferson Cnty. Bd. Of Educ. V. Fell*, 391 S.W.3d 713, 719 (Ky.2012).

The KCA contends that the common meaning of "dispatchable" means a source of electricity that is available for use on demand and that can be dispatched upon request of a power grid operator or that can have its power output adjusted, according to market needs.[4] In common

[4]*See, e.g*. Wyo. Stat. Ann § 37-18-101(a)(ii)("'Dispatchable' means a source of electricity that is available for use on demand and that can be dispatched upon request of a power grid operator or that can have its power output adjusted, according to market needs")*;* Tex. Util. Code Ann. § 39.159 ("(a) For the purposes of this section, a generation facility is considered to be non-

industry parlance, dispatchable means that the needed electricity is there when needed – the electric source can be turned up or down at will. *Id.*

The Legislature's intention that dispatchable resources be "on demand" finds further support in the definitions of "reliability" (reliability means having…electric…capacity…to…deliver…*at a time that the utility customers demand*) and "resiliency" (resiliency means having the ability to *quickly* and effectively respond to…events that compromise grid reliability). KRS § 278.262(2) & (3) (*emphasis added*).

Consistent with the common meaning of the term together with the clear intent of the statute, solar and wind power are not dispatchable "on demand" sources of power because neither can be "turned on" on demand. Simply put, the wind doesn't always blow and the sun doesn't always shine. They are by their nature inconsistent and intermittent. Similarly, demand

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dispatchable if the facility's output is controlled primarily by forces outside of human control."); Utah Code Ann. § 79-6-303 ("'Dispatchable' means available for use on demand and generally available to be delivered at a time and quantity of the operator's choosing."); https://energyeducation.ca/encyclopedia/Dispatchable_source_of_electricity ("A dispatchable source of electricity refers to an electrical power system, such as a power plant, that can be turned on or off; in other words they can adjust their power output supplied to the electrical grid on demand. Most conventional power sources such as coal or nuclear power plants are dispatchable in order to meet the always changing electricity demands of the population. In contrast, many renewable energy sources are intermittent and non-dispatchable, such as wind power or solar power which can only generate electricity while their primary energy flow is input on them."); https://www.nmppenergy.org/energy-education/understanding-term-dispatchable-regarding-electricity-generation ("Dispatchable fuel resources include nuclear, coal, and natural gas. These fuel sources are highly reliable because each fuel is a constant supply. These are known as baseload resources. Examples of non-dispatchable fuel resources include wind, solar and hydro-generated electricity (although some hydro generation can also be considered a baseload resource). These resources are environmentally beneficial because they produce no emissions, however, they are not always available — the wind doesn't always blow, the sun doesn't always shine…"); https://www.pcienergysolutions.com/2022/10/12/whats-a-dispatchable-energy-credit-and-what-does-it-accomplish/ ("Dispatchable energy can be programmed quickly on-demand by power grid operators. As a result, dispatchable energy is ready for use when the market is in need. In contrast, non-dispatchable energy refers to renewable energy sources, such as solar and wind, which can't be sourced when needed.")

side management programs are not "dispatchable" because they likewise cannot be controlled by the Companies. Under the rubric established by the Kentucky Legislature, these non-dispatchable resources are not properly included when analyzing the requirements of KRS 278.264(2)(a).

Instead, the Companies urge the Commission to adopt a self-serving definition of "dispatchable" to allow for the inclusion of resources universally considered "non-dispatchable" in the Commission's analysis of the reliability and resiliency of the proposal. The Companies suggest that if they can control the power when all conditions are ideal and the unit is generating available electricity it is "dispatchable". Their definitional trickery is wholly inconsistent with both industry norms and the Legislative purpose of the statute.

Likewise, DSM is not "dispatchable" because it does not generate power and is not controlled. The Companies have no control over the individual actions of the ratepayers from a DSM perspective. The Companies can attempt to incentivize capacity usage but they cannot control electrical usage by ratepayers. *See*, Witness Jones, 8/24/23 at 1:40p.m.

B. The Companies fail to demonstrate that its proposal for new "dispatchable" generating capacity is as reliable and resilient or more reliable and resilient than the coal powered plants they seek to retire.

KRS 278.264 requires that the proposed new electric generating capacity to replace the existing coal powered plants must be dispatchable **and** maintain or improve the reliability and resilience. The Legislature specifically defined both "reliability" and "resilience" as follows:

> (2) "Reliability" means having adequate electric generation capacity to safely deliver electric energy in the quantity, with the quality, and at a time that the utility customers demand;
>
> (3) "Resilience" means having the ability to quickly and effectively respond to and recover from events that compromise grid reliability;

KRS 278.262(2) & (3).

Importantly, a significant portion of the Companies' proposed new electric capacity is non-dispatchable or non-generating. *See*, Bellar Direct Testimony, Case No. 2023-00122, p. 9, dated May 10, 2023. The inclusion of such a significant amount of non-dispatchable and non-generating capacity in the proposed portfolio, fails to satisfy the reliability and resiliency requirements of SB4 necessary to overcome the presumption against retiring the four (4) coal fired plants at issue. Senator Stivers' comments provide clarity on the Legislature's intent when formulating SB4 and his concern about the proposed mix of less reliable electric generating assets. Hon. Robert Stivers poignantly wrote:

> In any event, I do not believe that substituting two (2) natural gas combined cycle units and solar energy for seven (7) fossil fuel-fired electric generating units maintains or improves the reliability and resilience of the electric transmission grid as required by KRS § 278.264 for the PSC's approval of the retirement of the fossil fuel-fired electric generating units." *See*, public comments dated August 18, 2023.

The Companies attempt to persuade the Commission that their proposal satisfies the "reliability" and "resiliency" tests by whistling past the "dispatchability" requirement and focusing on an electric industry metric known as loss of load expectation ("LOLE")[5] inclusive of both the proposed dispatchable and non-dispatchable resources. Notwithstanding the fact that the Legislature did not utilize LOLE as a statutory metric for evaluating whether proposed new electric generating capacity maintains or improves reliability and resiliency of the electric grid, even using that self-selected metric, the Companies demonstrate that reliability and resiliency will ***<u>decline</u>*** as compared to the existing fossil fuel fired plants when the proposed non-dispatchable resources are properly excluded.

[5] LOLE denotes the expected average number of days per year during which the system is being on outages, i.e., load exceeds the available generating capacity; said another way, LOLE equals the expected number of loss-of-load days with events, regardless of event length, in a given year. 0.1 LOLE equates to "1 day with an event in 10 years.".

The Companies report that the LOLE for their existing portfolio of fossil fuel powered plants have a generating capacity of 0.45.[6] *See*, Bellar Direct Testimony, Case No. 2023-00122, May 10, 2023, p.14, "Table 4: 2028 Reliability Analysis". The Companies concede that following the proposed retirement of the Fossil Fuel plants, its LOLE will increase to 0.77 (less reliable and not consistent with SB4 requirements) even if it includes Company owned solar and DSM (demand side management). *Id*. (referred to as portfolio 6). Excluding Company owned solar and DSM which are not considered "dispatchable" in industry parlance, the LOLE would increase even further.

The Companies' "Table 4: 2028 Reliability Analysis" reports that if the Companies' also include non-generating BESS battery capacity together with non-dispatchable Company owned solar and DSM, the LOLE would total 0.45, which provides for an LOLE *equal* to the LOLE of the currently operating fossil-fuel fired plants sought to be retired. *Supra*. *Id*. (referred to as portfolio 7). The Companies report that in order to *improve* the reliability and resiliency of the Companies' proposed portfolio beyond the current LOLE of 0.45 they must include all of the CPCN generating resources, inclusive of non-owned solar which they concede is not dispatchable. In that instance, the LOLE for the proposed portfolio would equal 0.28. *Id*. (referred to as portfolio 8).

Conceptually, KRS § 278.264 requires the Companies to replace the coal capacity with a new generating resource that is "dispatchable" ("the utility will replace the (coal unit) *with new*

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[6] KCA notes that the Companies allege that any LOLE under 3.57 meets the reliability standard of KRS § 278.264. *See, e.g*. Companies response to the Commission Staff's Fourth Request for Information, Question No. 6 and 7, dated May 30, 2023. Despite the Companies' suggestion, their data also suggests that with their current portfolio of generating assets, and no retirements, the LOLE is 0.74 and if you include DSM the LOLE is 0.45. See, *Id*. and Bellar Direct Testimony, Case No. 2023-00122, May 10, 2023, p.14, "Table 4: 2028 Reliability Analysis".

electric generating capacity that is dispatchable")(emphasis added) KRS § 278.264(2)(a)1. DSM and "the Brown BESS" (battery project) must also be excluded because neither provides "new generating capacity" as required by KRS 278.264(a). The DSM proposal seeks to encourage energy savings (e.g., energy efficient light bulbs), but does not generate new capacity. The Companies acknowledge that neither the Brown BESS nor the DSM "will be a generating resource." *See*, Bellar Direct Testimony, p. 10, lines 18-19, Case No. 2023-00122, May 10, 2023.

In a nutshell, solar power is not dispatchable (owned or not owned) and DSM and batteries are not generating resources. Objectively, these non-dispatchable or non-generating resources should thus not be included for purposes of examining the reliability of the Companies' proposed replacement capacity under KRS § 278.264(2)(a)1 and 2. The Companies' own analysis fails to demonstrate that the current CPCN portfolio proposal maintains or improves reliability and resiliency of the electric grid as required by statute.

The Kentucky Legislature enacted KRS 278.264, in part, to require that utilities not compromise their ability to quickly and effectively respond to events that compromise the electric grid's reliability. The unreliability of non-dispatchable and non-generating assets in conjunction with gas fired plants is highlighted by the experience faced during Winter Storm Elliott. During the storm, the Companies' existing gas plants at Cane Run 7 and Trimble County received inadequate pipeline pressure from Texas Gas Transmission which contributed to rolling black outs. See, p. 17, lines 8-20, Direct Testimony of Witness Bellar, Case No. 2023-00122, May 10, 2023. Conversely, the operational coal plants operating during Winter Storm Elliott ran at an extremely high-capacity factor and on-site fuel storage of coal eliminated the same inability

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KCA believes KRS § 278.264 means what it says, with new dispatchable generation capacity that "maintains or improves reliability".

of the natural gas plants to effectively respond to the events that compromise the electric grid's reliability.

During the live hearing in this matter, Witness Bellar alluded to the fact that the Companies had investigated on-site dual fuel (distillate oil) with the NGCCs. However, he could not identify: (i) the price of the fuel oil (other than to say there is a margin built into the NGCC estimate for unknowns); (ii) the cost to store the fuel on site; (iii) the attenuating infrastructure costs; or (iv) any analysis performed by the Companies addressing how much on-site fuel and attenuating costs would be required to reduce or eliminate this resiliency concern. *See*, Witness Bellar, 8/22/2023; 1:10-15.[7] Instead, with respect to this reliability concern, the Companies largely point to a letter from Texas Gas listing proposed "system improvements" to avoid gas delivery issues that could lead to load shedding events like the one experienced during Winter Storm Elliott.

At this juncture, the Companies have not provided adequate analysis of the costs associated with the NGCCs, e.g., bids were not due until after the hearings or whether the dual-fuel options would address these reliability and resiliency concerns and should not be considered. Instead, the Companies basically asking the Commission to approve the NGCCs based on proposals to address reliability and resiliency problems rather than analysis (e.g. Texas Gas is *developing* system improvements, the Companies are *working* to install software updates, and the Companies are *evaluating* if there are additional prudent actions to take, including the possibility of adding gas compression equipment). *See*, (emphasis added) p. 17, lines 8-20, and fn.41, Direct Testimony of Witness Bellar, Case No. 2023-00122, May 10, 2023. While these future

[7] Nor was there any discussion as to the impact of dual fuel capability on the permitting process as dual fuel capability was not part of the design represented in the Filing. Said another way, these permits have already been requested, the Companies may likely need to amend or file anew for their permit request based on this new dual fuel addition to the NGCCs.

platitudes are likely well-intentioned they do not provide an objective basis for the Commission to currently evaluate the statutory reliability and resiliency requirements for purposes of proposed replacement capacity under KRS § 278.264. And moreover, all that can be gleaned objectively is that NGCCs have a potential Achilles heel in obtaining fuel in extreme cold, and therefore providing electricity as needed, as compared to coal (with coal stocks available on site) when evaluating whether NGCCs would be as reliable and resilient as coal fired power plants in terms of being available quickly and effectively to responding to events that compromise the electric grid such as Winter Storm Elliott. KRS § 278.262. At this time, the conclusion must be that replacing coal fired plants with NGCCs fails to improve resiliency or reliability as required by KRS § 278.264(2).

C. The Companies have failed to produce any evidence that proposed new electric generating capacity will maintain the minimum reserve capacity requirement established by its reliability coordinator.

KRS § 278.264(2)(a)3 requires the Companies to demonstrate that the proposed new electric generating capacity will maintain the minimum reserve capacity requirement established by the utility's reliability coordinator. The Companies have contracted with TVA (Tennessee Valley Authority) to be their reliability coordinator; however, they failed to provide any evidence of the minimum reserve capacity established by the TVA. *See, e.g.*, Attachment to Response to SC-3, Question No. 4(a). Consequently there is insufficient evidence to ascertain whether the 3rd prong of KRS §278.264(2)(a) can be satisfied by the proposal.

Likewise, given the proposed retirement of the coal plant at Mill Creek 1 in 2024, if approved as proposed without any replacement generating capacity, such retirement could create a scenario by which the Companies fall below the minimum reserve capacity determined by TVA.

II. THE CPCN REQUEST DEMONSTRATES HARM TO THE UTILITIES' RATEPAYERS CAUSING THEM TO NEEDLESSLY INCUR INCREASED UTILITY RATES VIOLATING SB 4.

A. The Companies' Request Harms The Ratepayers In Violation Of KRS § 278.264(2)(b).

KRS § 278.264(2)(b) mandates that the Commission not approve the retirement of coal fired plants unless the Companies can provide sufficient evidence to demonstrate that:

> The retirement will not harm ratepayers by causing the utility to incur any net incremental costs to be recovered from ratepayers that could be avoided by continuing to operate the electric generating unit proposed for retirement in compliance with applicable law.

Incremental cost means the extra cost of making or dealing with one more unit of something.[8] In this case, it means the extra cost of providing electric power to the ratepayers that could be avoided by continuing to operate the coal plants in compliance with appliable law. At a minimum, the net incremental costs include stranded or sunk costs associated with early retirement of the coal plants. In data request responses, the Companies concede (i) that there are no undisclosed obstacles for SCR retrofits to the coal plants currently requested to be retired early; (ii) that undepreciated capital for these coal plants would be approximately $693 million dollars at the accelerated time of retirement(s); and (iii) these incremental costs will be incurred and paid by the ratepayers as a result of their request. See, Companies responses to KCA 3-15, 3-23 and 3-26. The Companies however predictably gloss over the "no harm to the ratepayers" requirement in their testimony by conflating subjections (2)(b) and (3). KRS 278.264(3) separately requires the Companies:

> commission with evidence of all known direct and indirect costs of retiring the electric generating unit and demonstrate that cost savings will result to customers as a result of the retirement of the electric generating unit.

[8] https://dictionary.cambridge.org/us/dictionary/english/incremental-cost

For example, Witness Bellar addresses that the Companies meet the "no harm to the ratepayers" standard by suggesting that at some point ratepayers will arguably incur cost savings a decade after approval. *See*, p. 19-21, Direct Testimony of Witness Bellar, Case No. 2023-00122, May 10, 2023. Specifically, the Companies argue that their:

> analysis compares the present value of revenue requirements ("PVRR") of continuing to operate the existing generation fleet in compliance with applicable law, including environmental requirements, to various unit retirement and replacement configurations. Any retirement and replacement configuration that results in a lower PVRR than the current resource portfolio would not harm the Companies' ratepayers and would therefore meet this Senate Bill 4 requirement.

See, Direct testimony of Stuart Wilson, Case No. 2023-00122, Ex. SB4-1, p. 18, May 10, 2023. However, as the Companies well know, and acknowledged in their data request responses above, ratepayers will be paying for both the remaining undepreciated capital associated with the closed plants as well as the new capital costs of the new plants conflicting with KRS § 278.264(2)(b). While there may be some nuances in rate design, the bottom line is the Companies will request a significant increase for new capital recovery and other related costs such as Firm Transportation costs for the plants which will require significant increases in rates. *See, e.g.* Companies response to KCA 3-23; 3-29.

In data requests, the KCA asked the Companies how they comply with KRS § 278.264(2)(b) while retiring coal plants that could currently continue to run pursuant to applicable law and in light of the fact that the Companies will incur stranded and additional costs to be passed on to the ratepayers. In response, the Companies conceded that in the first ten (10) years if the CPCN is approved ratepayers would incur *at least* $150,000,000 in additional net incremental costs reflecting that the Companies' request does not comply with SB4. *See*, response to KCA 3-29. Further, the Companies admitted they would seek recovery for the aforementioned stranded and additional costs from the ratepayers as well. *See*, response to KCA 3-30. The Companies try to sidestep the issue and instead claim that ratepayers will inevitably receive significant cost savings from a PVRR standard (riddled with biased and highly variable assumptions) more than a decade after the potential approval of the Companies' CPCN.

With respect to the PVRR standard, while it can be an important tool, it uses levelized costs as opposed to straight-line depreciation which serves to underestimate near term costs. Importantly in this situation a PVRR standard ignores the cost of stranded coal plants suggesting that those costs are recovered under all scenarios. *See*, response to KCA 3-29 and 3-30. Conversely, a rate analysis provides an affordability analysis looking at the actual impact on customer rates and provides important information needed to address the standard in KRS § 278.264(2)(b).

The Companies' proposal seeks to put the entirety of the risk of this $2 billion dollar plus request on the backs of the ratepayers with no real risk to the Companies. As they indicate in response to KCA 3-30, "[t]he Companies have and will continue to seek recovery of all prudent costs…" from the ratepayers. The Companies meanwhile could continue to operate these coal units at Mill Creek 1 and 2, Brown 3 and Ghent 2 – with or without scrubbers (SCRs) – which are a largely known quantity and expense.

In fact, Commissioner Chandler questioned Witness Bellar on this concern. The Companies previously proposed base depreciation schedules in recent Commission cases continuing to run the coal plants they now seek to retire for decades into the future. Likewise, the Companies indicated, as recently as 2017, that they would not envision the need for new generating capacity until after 2047. (*See*, Witness Bellar, 8/22/23, beginning approximately at

7:40 p.m.). The point being that the Companies have the ability to continue to run these coal plants despite their requests to advance their retirements – which is evidence of the biases underpinning every aspect of their analysis.

Additionally, as will be addressed in more depth later in this brief, proposed federal regulations (Greenhouse Gas – GHG) and promulgated and stayed federal regulations (the Good Neighbor Rule) create significant uncertainty as it pertains to the Companies NGCC requests from a permitting standpoint and from an operating capacity allowance standpoint (pertaining to GHG) and delay of the proposed retirements would help defray the stranded costs.

B. By Failing To Perform A Rate Impact Analysis On The Rate Classes The Companies Failed To Meet Their Burden Of Proof Under SB4.

KCA asked multiple times for the Companies to perform a rate analysis on the different classes affected by the CPCN request. (See, Companies data request response to KCA 2-46, 1-68 and 1-69). The Companies refused, summarily concluding that a CPCN proceeding does not require a residential rate analysis or rate impact analysis and that such study only needs to incur in a later rate adjustment case. The Companies' refusal ignores that this is a consolidated case wherein they must satisfy the CPCN requirements (Case No. 2022-00402) and must also overcome the rebuttable presumption against the retirement of coal plants by satisfying each of the requirements in SB4. (Case No. 2023-00122). KRS 278.264(2)(b) necessarily implicates a residential rate analysis and/or rate impact analysis. KRS § 278.264(2)(b) creates a demonstrable need to determine the impact on ratepayer classes, specifically, that to determine the proposed retirement of coal units will not harm the utility ratepayers by incurring stranded and additional costs. From the failure to oblige the KCA's request and the SB4 mandate, suggests the analysis which was surely performed by the Companies produced a significant increase that the Companies did not want to share. Therefore, given the Companies rebuttable presumption obligation, the request must be denied.

Even in the absence of a rate analysis, the Companies admit that the rates for customers will increase for the 10 years after approval of the CPCN and customers will incur stranded and additional capital costs which could be avoided by continuing to operate the coal plants in question. *See*, responses to KCA 3-23, 3-29, 3-30. This does not include the additional costs, such as Firm Transportation costs, that are material but the Companies continue to claim they do not know what they will be. *See*, Companies response to KCA 2-38 and 2-44; *See e.g.,* Witness Schram, 8/24/23 at 4:21-22. While all of these incremental costs will not be in rate base, the Companies will recover them in rates and, hence, be a cost ratepayers will bear. Based on KRS § 278.264(2)(b), Kentucky law clearly directs that Commission should not approve this CPCN where ratepayers will suffer increased electricity rates with these stranded costs that can be avoided. Also of note, given the timeline suggested by the Companies, if the CPCN is approved by the Commission, for at least the next ten (10) years, elderly persons may also never see the benefit of the Companies' investments (assuming there is any financial benefit), creating a generational bias, as the Companies concede that the ratepayers will incur increased costs for the next ten (10) years. Further, if history repeats, there will be additional capital expenditures related to these plants after 10 years which will more than offset any hypothetical savings.

III. THE CPCN REQUEST DEMONSTRATES RELIANCE ON FEDERAL FINANCIAL INCENTIVES OR BENEFITS VIOLATING SB 4.

The CPCN request must be denied or modified to comply with KRS 278.264(2)I. KRS § 278.264(2)(c) expressly provides that: "[t]he decision to retire the fossil fuel-fired electric generating unit is not the result of any financial incentives or benefits offered by any federal agency." The plain text of the statute expresses that the Legislature believed that incentives for renewable generation being provided by the federal government sends the wrong pricing signals to the energy market and is disadvantaging fossil fuel-fire generation – an important part of the state's economy and proven to be more reliable and resilient than intermittent and inconsistent renewable resources.

Here, it is undisputed that the Companies' proposed CPCN-DSM portfolio includes renewable generation resources, such as solar power, that benefit from federal tax credits. Likewise, the Companies acknowledge that the federal tax credits are included in their financial modeling. *See e.g.*, Witness Bellar, Direct Testimony, Case No. 2023-00122, p. 22, lines 7-12, May 10, 2023. The exclusion of the federal incentives from the PVRR analysis materially impacts the viability of the CPCN proposal and the Companies' ability to satisfy the SB4 requirements. Rather than conforming their proposal to comply with KRS § 278.264, the Companies instead ask the Commission to again ignore the plain language of the statute.

While the Companies may believe it would be unreasonable and unfair to customers to have such benefits eliminated from consideration when evaluating generation units[9], the Legislature determined otherwise. The Legislature clearly believed in drafting SB4 that there are valuable attributes associated with fossil fuel-fire generation that make it reasonable to exclude federal financial incentives associated with retiring those assets. The statute is clear; it is not discretionary or permissive. Because the Companies CPCN request is reliant on federal incentives for renewable energy sources, the request runs afoul of SB4 and must be denied at this time.

[9] See, Witness Bellar, Direct Testimony, Case No. 2023-00122, p. 22, lines 7-12, May 10, 2023.

IV. THE CPCN REQUEST FAILS TO PROVIDE EVIDENCE OF INDIRECT COSTS & COST SAVINGS IN RETIRING COAL PLANTS VIOLATING SB4.

A. The Companies Fail To Provide Evidence Of Indirect Costs Associated With Retiring The Coal Fired Plants.

In addition to all of the previously described hurdles faced by the Companies to overcome the rebuttable presumption against retiring the coal plants at issue, KRS § 278.264(3) mandates that the Companies:

> shall at a minimum [1] provide the commission with evidence of all known direct and indirect costs of retiring the electric generating unit and [2] demonstrate that cost savings will result to customers as a result of the retirement of the electric generating unit.

Once again the Companies adopt a self-serving, narrow interpretation of SB4 in this matter of first impression. In so doing, the Companies' presentation of costs is limited to costs that affect customer rates (e.g. capital costs, environmental compliance) and nothing else. *See*, Direct Testimony of Stuart Wilson, Exhibit SB4-1, p. 21, filed May 10, 2023 in Case No. 2023-00122.

KCA believes the Legislature intended "indirect costs" in the context of retiring fossil fuel fired plants to include, in addition to the items listed on Table 9 page 22 of Exhibit SB-4 2023 Fossil Fuel-Fired Electric Generating Unit Retirement report, the loss of tax base, jobs (at the retired plants and the plants suppliers), and other local and State economic losses.

Coal-fired power plants are major employers in Kentucky, and shutting them down can lead to significant job losses in the communities where they are located. These "indirect costs" are important to the Commission's retirement analysis. By way of example, the closure of the Big Sandy Power Plant in 2015 resulted in the loss of more than 150 jobs.[10] In the testimony in this case the Companies acknowledge there will be similar job loss as the result of the coal plant

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[10] https://www.thetimestribune.com/news/psc-decision-on-big-sandy-plant-devastating/article_999cf9a1-9aa6-5160-8e26-f24580dab293.html

retirements but provided no details on the number of jobs lost. They suggest the job loss impact will be minimal because of workers retiring and attrition they speculate would happen should the plants be allowed to continue operating, however, this is not the point of the "indirect cost" assessment. The Companies should demonstrate that the existing generation portfolio requires X number of workers and the proposed generation portfolio requires Y number of employees with Y – X = the jobs lost or gained.

Similarly, indirect costs should include lost tax revenue as coal-fired power plants pay significant property taxes to local governments and shutting them down can reduce tax revenue for schools, roads and other public services. The loss of jobs will also negatively affect the tax base in the communities where the plants are located. Coal-fired power plants purchase goods and services from the local businesses, so removing them from the local economy as a consumer together with the lost jobs and tax revenue are likely to have a devastating ripple effect on the local economies.

Indirect costs of retiring the fossil fuel fired plants may or may not impact customers but remain part of the overall analysis for the Commission to consider in determining compliance with SB4. The Companies' failure to provide sufficient evidence of those indirect costs further contributes to their failure to overcome the rebuttable presumption against retirement of the coal fired plants.

B. The Companies Fail To Clearly Demonstrate Cost Savings Associated With Retiring The Coal Plants.

KRS § 278.264(3) requires the Companies to demonstrate that "cost savings" will result to customers by retiring coal plants. While the Companies wish to tout their PVRR analysis as a virtual certainty, EPA regulations cut against that belief. As alluded to above, currently the EPA has proposed new source performance standards (NSPS) a/k/a Greenhouse Gas (GHG) rules that arose during this proceeding after the filing and request for this CPCN that all parties recognize would include the proposed NGCCs. As currently proposed, the GHG rules will require carbon capture or switching to low GHG hydrogen to continue to operate as baseload units. The Companies argue they can comply with the new rule by switching to be an intermediate load plan which would not increase the capital cost. (*See*, Witness Crockett, 8/22/23, 11:37-8). The Companies argue that the new rules once published will not be enforced due to expected years of litigation upon their promulgation. (*See*, Witness Crockett, 8/22/23, 11:38). As the parties are well aware, any delay in enforcing a new regulation would require a stay which is far from automatic. Notwithstanding their predictions, if the proposed rule stands, the Companies will not have sufficient capacity to meet the needs of ratepayers if all of the coal fired plants are retired.

Prior to filing this CPCN request, the EPA proposed a different regulation known as the Good Neighbor Rule.[11] In a nutshell, the Good Neighbor Rule requires, among many other things, that each state implementation plan (SIP) include provisions to sufficiently ensure that it is not contributing to an air quality concern in another state. The Companies contend that the Good Neighbor Rule is supportive of their request for the CPCN in this proceeding. However, during this proceeding the Commonwealth of Kentucky, by and through the Attorney General's Office, along with several other Attorney General's Offices in other states, sought a stay of the Good Neighbor Rule in the Sixth Circuit Court of Appeals. The Companies elected not to support this motion for stay, despite outreach from the Kentucky Attorney General's Office

[11] The CPCN here was filed to comply with a "proposed rule"'. Now the companies are saying the Commission should ignore their non-compliance with another proposed rule (GHG) because in their opinion it will not be promulgated. Also, important to note is that the final GNR rule was different than that proposed with respect to deadlines and it has subsequently been stayed further making a hasty retirement decision unnecessary.

requesting their support, although other utilities in the Commonwealth did support same (*e.g.* East Kentucky Power Company and Big Rivers Electric Corporation). (*See*, Witness Imber, 8/25/23, at 1:09/9:27 a.m.). The Sixth Circuit Court of Appeals ultimately granted the joint motion for a stay of the Good Neighbor Rule and, "a stay will maintain the status quo while EPA and KDAQ (Kentucky Department of Air Quality) can collaborate on an approvable SIP." (*See*, ESM-2, filed July 14, 2023, p. 51 of 150.).

The Companies seek to diminish the significance of the stay of the Good Neighbor Rule treating it as a merely a pyrrhic victory on procedural grounds. But Witness Imber, on behalf of the Companies, conceded that the Good Neighbor Rule and its requirements will ultimately be subject to debate consistent with the comment of Michael Kennedy *supra*. (*See,* Witness Imber, 8/25/23, at 22:52/8:39 a.m.). The point here is that there is significant environmental regulation uncertainty based on the proposed GHG regulation limiting the ability to run the proposed NGCCs and the final version of the Good Neighbor Plan. Inasmuch, it is likely that the Companies would lack sufficient capacity if the GHG rules remain as proposed requiring additional generating assets, eliminating any proposed cost savings suggested by the Companies, to meet the capacity needs of ratepayers. Simply, the CPCN is premature.

The Companies filed this CPCN proceeding in December 2022. Since the filing of the CPCN, the Kentucky Legislature passed SB4 which includes KRS § 278.264(2)(b) (the ratepayers should not incur costs to shut down coal plants when the coal plants can continue to operate), the Good Neighbor Rule has been stayed by the Sixth Circuit Court of Appeals, and the EPA proposed new GHG/NSPS rules that may limit the ability of the Companies to run the

NGCCs at full capacity. While the Companies want to speculate[12] as to the outcome of the Good Neighbor Rule and EPA's proposed GHG/NSPS rules, the only certainty is there is a cloud of uncertainty over both and both have a material impact on the Commissions' analysis of, and the viability of, the proposal under KRS 278.264.[13] Given the size of the investment at issue and the surrounding uncertainty, the Companies' CPCN is premature and should, at a minimum, be revisited when there is sufficient legal clarity to analyze the proposal's compliance with KRS 278.264. Under the circumstances, it is in everyone's best interest, namely the ratepayers, for the Commission to deny or delay its decision on the CPCN as factual and legal certainty increases over time with respect to these proposed and stayed environmental regulations.

V. ADDITIONAL FLAWS WITH THE COMPANIES' CPCN REQUEST

A. The Companies and their executives are financially incentivized to close coal plants creating a bias that permeates the assumptions utilized in their CPCN and retirement analysis.

The evidence in this case shows that executives of the Companies' parent company, PPL Corporation, are financially incentivized to close coal plants through environmental and social goals (ESG incentives) and to invest more capital in the rate base of its regulated utility to create earnings growth (EG incentives). The PPL Corporation 2023 Proxy Statement, p. 43, it reports:

> …Changes to the Compensation Program for 2022…[t]he Compensation Committee evaluated PPL's LTI (long-term incentive) mix for 2022 and considered how to further link

[12] (*See, e.g.*, Witness Crockett, 8/22/23, at approximately 11:38 indicating that he was confident that the GHG rules will look very different than proposed based on his independent opinion and those of colleagues.)

[13] Of note as well, the Companies contend that the promulgation of the Good Neighbor Rule is the precipitating event requiring the retirement of Mill Creek Unit 2 and Ghent Unit 2. However, this rule has been stayed by the United States Court of Appeals for the Sixth Circuit and the Companies agree that no one knows exactly what requirements will stem from the Good Neighbor Rule. (*See*, Witness Imber, 8/25/23, at 22:52/8:39 a.m.). Once again, the Companies' request is premature.

> executive compensation to PPL's strategy. While keeping the overall mix of 20% time-based and 80% performance based, the Committee added EG (earnings growth) and ESG metrics to the LTI mix at 20% each, replacing the 40% ROE-based performance units. ESG metrics are tied to climate related matters…for the first time in 2022, our long-term incentives included awards based on EG and ESG metrics…

Furthermore, on p. 4 of the PPL Corporation 2023 Proxy Statement, it indicates that, "closure of Mill Creek Unit 1, a coal-fired generating facility in Kentucky" will get PPL executives increased compensation. See, KCA exhibits 2, 3, and 4. PPL does not have generating assets outside of Kentucky, so the bias is exacerbated by pressures from the Companies' parent company in Allentown, Pennsylvania. In fact, PPL is predicting 6% to 8% earnings and dividend growth through at least 2026. See, p. 14, 2nd Quarter Investor Update.

Here, executives of the PPL are directing the Companies' employees that conducted the analysis, evaluations, the requests for proposals, permitting applications, and strategies that resulted in an outcome that if approved by the commission will benefit said executives personally. A natural consequence of compensation that incentivizes a particular action, is a corresponding targeted effort to pursue those goals, often at the expense of or without appropriate regard for other obligations, goals or statutory edicts. Those incentives create biases that permeate the assumptions that underpin every aspect of the decision to pursue the CPCN, the analysis that led to the conclusions reached by the Company, and then the post hoc attempts to squeeze the CPCN proposal into the rubric of SB4 – the proverbial square peg in a round hole.

Evidence of the Companies' biases is present in nearly every facet of this case, including but not limited to:

First, the strained assumption that forecasted demand will be effectively stagnant from 2027 through 2050 helps support the closure of coal units in the Companies' analysis. Stated differently, assumed stagnant growth suggests that the proposed new portfolio of assets appear sufficient to meet ratepayers needs.

Second, the Companies' strained attempt to re-define "dispatchability" strains credulity. They urge a definition that is inconsistent with industry norms in an effort to include non-dispatchable assets in its reliability and resiliency analysis contrary to the Legislative intent of SB4.

Third, the Companies created their own methodology establishing an artificial relationship between coal and gas prices – referred to as coal-to-gas (CTG). The Companies had never significantly used the manufactured coal-to-gas pricing relationship before. The effect of the assumptions used by the Companies in its analysis resulted in the cost of natural gas generation almost always being cheaper than coal generation. The Companies admit they created their fuel pricing methodology internally. They admit that they looked at the historical relationship of coal and gas prices and assumed they will continue to follow similar pricing patterns for approximately the next thirty (30) years. See, Direct Testimony of Stuart Wilson, Exhibit SAW-1, p.18-20, December 15, 2022. The assumption flies in the face of common sense and the recent trends. See, Direct Testimony of Emily Medine, p. 37-49, filed July 14, 2023. Many coal fired power plants have closed in the last decade[14] reducing demand.

The Companies also cite an aversion to coal fired power plants by the EPA as a motivating factor (together with ESG and EG incentives) to shutter the coal fired plants and to build natural gas plants. Given the environmental regulations cited by the Companies (e.g. the Good Neighbor Rule) in favor of their CPCN request and retiring the coal plants, the suggestion that coal and gas prices will continue to follow their historical trend is illogical. There is

[14] www.eia.gov/todayinenergy/detail.php?id=55439

evidence that the costs of gas are rising or will rise in the near future as more coal plants are retired. For example, a justification forwarded by the Companies for the proposed NGCCs is that the time is now so that they can obtain firm transportation services from Texas and Tennessee Gas as soon as practical. They speculate that if they don't act to build the proposed NGCCs now, they risk an inability to obtain firm transportation of natural gas because of rapidly increasing demand.

Additionally, as it pertains to firm transportation costs, KCA requested on numerous occasion for the Companies to produce a contract or information regarding the predicted cost of firm transportation. The Companies declined to do so, only pointing to possibilities. *See*, Companies response to KCA 2-44 and 2-38. During the hearing, KCA pointed out that the firm transportation costs associated with a failed gas plant CPCN in Indiana on a *smaller scale* were approximately $400 million dollars. *See*, *e.g.*, Witness Schram, 8/24/23, at 4:21-22. Undoubtedly, the Commission has a need to know this information before passing judgment on the appropriateness of this CPCN request where transportation costs potentially represent 20% plus of the proposed $2.1 billion project.

Given the forgoing, it is little wonder why the self-serving assumptions and projections about CTG prices were not tested with any independent third parties consistent with the Companies past practices and industry standard. See, Response to KCA 1-58; Direct Testimony of Stuart Wilson, Exhibit SAW-1, p. 18-20, Dated December 15, 2022.

Fourth, the Companies' biases are further highlighted by their decision to come forward with a $2.1 billion CPCN-DSM request when they could have instead come forward with an Environmental Control Rider request for $236 million for the installation of the SCRs at Mill Creek Unit 2 and Ghent Unit 2.

B. Rate payers bear all the risk of this premature CPCN proposal that fails to satisfy SB4.

The scale of the proposed CPCN is enormous and unclear. The Companies failed to obtain updated bids prior the hearings and their CPCN estimated did not include Firm Gas Transportation costs for the NGCCs which could alone cost hundreds of millions of dollars more. Further, the Companies acknowledge that in order to be compliant with the corporate 2050 Net Zero commitment they will need to "find" a solution to offset the emissions associated with NGCCs but had no named or costed solution at this time. Should the Companies' biased assumptions and analysis in this case prove to be wrong, the Companies bear no financial risk or impact. Meanwhile, if those biased assumptions and desires prove to be inadequate and the Commission approves the CPCN, the consequence is a future CPCN for additional capital to be invested and passed on to rate payers. The impact to the Companies of a such a miscalculation is that the Parent Company and its executives benefit doubly in the current regulated utility capital recovery regime.

The typical model of a regulated utility receiving a reasonable rate of return on its investment and operation worked well until the recession of 2008 when electricity demand became more stagnant. This stagnant demand prevented capital investment demand by investor-owned utilities such as the Companies limiting their earnings growth (EG). However, the proposed energy transition, principally from coal to natural gas, is creating opportunity for these investor-owned utilities to benefit by advancing and prematurely closing the coal units and replacing them with natural gas which, if approved, will materially grow PPL earnings, financially benefit their executives, and their stockholders. But, the KU and LG&E ratepayers will be the ones paying for all of these unnecessary CPCN.

C. The Commission should not sanction an experimental battery project on the backs of ratepayers.

The Companies are seeking approximately $270 million dollars (or $135 million assuming the benefit of a federal subsidy) from ratepayers to build a battery project (Brown BESS). The battery is not a generating resource and the Companies acknowledge that they are merely requesting the money for purposes of gaining operational knowledge that will benefit the Companies in the future in its ability to serve its customers. *See*, SAW-1, p. 38. This enormous financial request to experiment with a battery exceeds the cost of almost two SCRs that could allow existing coal plants (such as Ghent 2) to operate in non-ozone season. *See*, Companies' response to PSC 2-52. KCA believes this example further highlights financial motivations of the Companies to promote shareholder and executive compensation over pragmatic decisions to utilize existing coal powers plants. If the Commission approves the battery project, the Companies' cost of equity should be excluded from any returns on investment earnings on this experiment.

CONCLUSION

The evidence and timing of this case reflect that the Companies filed the CPCN in an attempt to comply with environmental regulations that have since been stayed. Meanwhile, other environmental regulations were proposed which would severely limit the generating capacity of the NGCCs. On top of all the regulatory uncertainty, the Legislature enacted SB4 which creates a rebuttable presumption against retiring coal fired plants that the Companies have failed to satisfy. SB4 is clear – the fossil-fuel fired plants must not be retired because the Companies are unable to credibly demonstrate that they satisfy each and every requirement set forth by the Legislature at this time. The inability to satisfy the SB4 is highlighted by the biased assumptions which flow through the Companies' analysis. The KCA respectfully requests that the

Commission should deny the Companies' CPCN request as it is premature in the current regulatory environment, fails to satisfy SB4 and does more harm than benefit for ratepayers.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that KCA's September 22, 2023 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 September 22, 2023; 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 September 22, 2023, electronic mail notification of the electronic filing is provided to all parties of record:

/s/Matt Malone
ATTORNEY FOR KCA