COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY)	
UTILITIES COMPANY AND LOUISVILLE GAS)	CASE NO.
AND ELECTRIC COMPANY FOR CERTIFICATES)	2025-00045
OF PUBLIC CONVENIENCE AND NECESSITY)	
AND SITE COMPATIBILITY CERTIFICATES)	

DIRECT TESTIMONY OF BENJAMIN W. SMITH ON BEHALF OF SOUTHERN RENEWABLE ENERGY ASSOCIATION

1 Introduction

2 **O**: MR. SMITH, PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND 3 **POSITION AT KILPATRICK TOWNSEND & STOCKTON LLP.**

4 My name is Ben Smith and my business address at Kilpatrick Townsend and Stockton LLP A: 5 ("Kilpatrick") is 4208 Six Forks Road, Suite 1400, Raleigh, North Carolina 27609. My 6 position is Counsel.

7 MR. SMITH, PLEASE BRIEFLY STATE YOUR EDUCATIONAL AND **Q**: 8 **PROFESSIONAL BACKGROUND, INCLUDING YOUR RESPONSIBILITIES AS** 9 THEY RELATE TO THE SUBJECT MATTER OF YOUR TESTIMONY

10 A: I am a 2009 graduate of Saint Louis University School of Law and a licensed attorney in Missouri¹, Illinois², and North Carolina. I am a North Carolina State Bar board-certified 11 12 specialist in Utilities Law in North Carolina and a member of the North Carolina State Bar's Utilities Law Specialization Committee and focus my practice on electricity and 13 14 energy policy, regulation, and energy transactions. I regularly represent clients in front of 15 state regulatory commissions related to electricity and energy matters. My clients include 16 and have included renewable energy developers, corporate energy off takers, energy project 17 financing entities, and national and state level energy policy advocacy associations.

Prior to my time at Kilpatrick, I was Associate General Counsel for the North Carolina 18 Sustainable Energy Association, a 501(c)(3) nonprofit organization, where my team led 19 20 energy policy matters including, but not limited to, advocating for policies to enable marketplaces and competition in North Carolina (and elsewhere) to allow for the least-cost

- 21
 - ¹ Currently inactive.

² Currently inactive.

1		energy generation mix in North Carolina's regulated utility territories. A copy of my resume
2		is attached hereto and incorporated as Exhibit A.
3	Q:	MR. SMITH, ON WHOSE BEHALF ARE YOU TESTIFYING?
4	A:	I am testifying on behalf of Southern Renewable Energy Association ("SREA"), an
5		intervenor in this proceeding.
6	Q:	MR. SMITH, HAVE YOU PREVIOUSLY TESTIFIED IN FRONT OF THE
7		KENTUCKY PUBLIC SERVICE COMMISSION?
8	A:	No.
9		I. <u>Summary</u>
10	Q:	MR. SMITH, WHAT IS THE PURPOSE OF YOUR TESTIMONY.
11	A:	The purpose of my testimony is to inform the Commission about the success stories and
12		opportunities available when private companies compete for the benefit of utilities and
13		their ratepayers. Specifically, I will show the Commission examples where utilities allowed
14		for the competitive procurement of resources and the outcome was beneficial to ratepayers.
15		Finally, I will show the Commission that a diverse, competitively procured generation
16		portfolio will provide the best outcome for ratepayers and an overreliance on commodity-
17		based energy generation – such as natural gas fired generation – risks unforeseen fuel price
18		changes and underappreciated operational concerns which risk cost and reliability to a
19		greater degree than broadly assumed.
20	Q:	MR. SMITH, WHAT ARE YOUR RECOMMENDATIONS TO THE
21		COMMISSION?
22	A:	I recommend the Commission issue an order requiring (1) that the Kentucky Utilities
23		Company and Louisville Gas and Electric Company (collectively "Companies") issue a

1 Request for Proposals ("RFP") for the proposed battery energy storage system ("BESS") 2 in this proceeding and (2) that the Commission require the Companies to study and 3 consider competitively procured resources as the Companies contend with increases in 4 demand and to further diversify the generation portfolio.

5

II. <u>Value of Standalone Storage</u>

6 Q: DO YOU AGREE WITH THE COMPANIES' WITNESS SCHRAM THAT 7 BATTERY ENERGY STORAGE SYSTEMS ("BESS") WILL PLAY AN 8 IMPORTANT ROLE IN SERVING CUSTOMERS FOR YEARS TO COME?

9 A: Yes. The Companies' Witness Charles R. (Chuck) Schram ("Witness Schram") was
10 generally correct that BESS will play an important role in serving the Companies'
11 customers for years to come. Witness Schram correctly identified that while BESS was
12 previously only considered as complimentary to increasing renewable energy generation
13 in the system, the BESS use case now also includes the pressing requirement to meet peak
14 demand.

15 Q: ARE THERE MORE BENEFITS TO BESS?

A: Yes. BESS is a dynamic technology with a long list of grid and customer benefits. The U.S.
 Energy Information Agency defined many of those known benefits³:

Balancing grid supply and demand and improving quality and reliability—Energy
 storage can help balance electricity supply and demand on many time scales (by the
 second, minute, or hour). Fast ramping BESS is well suited to provide ancillary services
 for the Companies and the grid operator to help maintain electric grid frequency on a

³ <u>https://www.eia.gov/energyexplained/electricity/energy-storage-for-electricity-generation.php</u> (Last Checked 5/21/2025).

second-to-second basis. Power quality is an important attribute of grid electricity
 because momentary spikes, surges, sags, or outages can harm electric equipment,
 appliances, and other devices powered by electricity. Power quality is also an integral
 concern for large load users with a constant demand, such as data center load.

- Peak electricity demand shaving and price arbitrage opportunities—Charging BESS
 during low demand periods and discharging and using or selling the electricity during
 higher demand periods can help to flatten daily load or net load shapes. Shifting
 electricity use from peak demand periods can reduce the need for reserve generation
 capacity. If possible, the stored and discharged electricity may be sold at a premium
 (arbitrage) above the price or cost of the charging electricity or, if necessary, it can be
 used to avoid using or purchasing higher-cost electricity.
- Storing and smoothing renewable electricity generation—As mentioned above, BESS
 can supplement and smooth intermittent renewable generation to allow for dispatch
 calls and can help solar and wind power plants avoid reducing or curtailing generation
 when the availability of those resources exceeds electricity demand or power
 transmission line capacity or as required by grid operators.
- Deferring electricity infrastructure investments—Installing BESS at strategic locations,
 such as in this proceeding, can help the Companies to manage growing electricity
 demand at lower cost than upgrading or expanding electric grid infrastructure.
- Integration with microgrids—BESSs are being integrated into microgrids that supply a
 relatively small geographic area or customer base to provide some or all of the uses and
 benefits of electricity storage listed above. A microgrid BESS may be isolated from a

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1		larger grid, or it may be connected to a larger grid with automatic isolation (disconnect)
2		from the larger grid during grid supply interruptions.
3		While the Companies are not using all the above-listed advantages of BESS as a component
4		of its "need" argument, it should be noted and the Commission should consider that BESS
5		systems are, unlike typical generation systems considered during certification proceedings,
6		grid assets that provide the potential for a host of services.
7		III. <u>BESS should be Competitively Procured</u>
8	Q:	IN THE CONTEXT OF REGULATED UTILITIES, WHAT IS A COMPETITIVE
9		PROCUREMENT?
10	A:	Competitive procurement is the procurement of generation resources or grid assets (like
11		BESS) through a competitive solicitation of bids. This allows for competition to keep costs
12		low based on market dynamics. It also allows a utility who may not have the requisite
13		experience to self-build a new type of asset (like BESS) to review bids from experienced
14		developers and develop partnerships and a base of knowledge of the asset it has not
15		previously built or has not built that many times.
16	Q:	DO RATEPAYERS IN REGULATED UTILITY TERRITORIES BENEFIT FROM
17		COMPETITIVE PROCUREMENT?

18 A: Yes. It has long been the case that the ratepayers benefit from regulated utilities
19 competitively procuring utility capital assets.

20 The purpose of competition in the electricity sector is to provide retail consumers lower cost, greater reliability, and more environmentally 21 22 responsible electric power service than they would have in the absence of 23 such competition. While the economics of power generation will differ in 24 different regions around the country, competitive markets tend to select the 25 efficient supplier, and the supplier that is able to bring new state-of-the-art generation resources to the market "cheaper, faster, better" will create 26 27 significant reductions in the costs, risks, and environmental impacts of

1 2 3		generation as these new facilities displace or replace older, less efficient, and environmentally costly units. ⁴
4		While there may be certain advantages and disadvantages involved in retail choice for
5		ratepayers, for instance, there are no ratepayer disadvantages to utility procurement.
6		Ratepayers benefit from competitively procured capital investments.
7	Q:	HOW DO THE COMPANIES PROPOSE TO PROCURE THE CANE RUN BESS
8		PROJECT?
9	A:	The Companies propose to self-build the BESS Project. ⁵ The Companies state that they
10		will select "one or more engineering firms". The Companies estimate the cost of Cane Run
11		BESS will be approximately \$775 million.
12	Q:	DO THE COMPANIES KNOW THE COST ESTIMATE FOR THE CANE RUN
13		BESS IS REFLECTIVE OF THE COMPETITIVE MARKETPLACE?
14	A:	No. The Companies estimate the cost of the Cane Run BESS based on the Companies'
15		most recent estimates for the Brown BESS. ⁶ While a past BESS system cost (or cost
16		estimate) can provide some context and data to a new build, it does not reflect a competitive
17		market.
18	Q:	DO YOU THINK THE CANE RUN BESS COST ESTIMATE IS ACCURATE IN
19		TERMS OF APPROXIMATING A COMPETITIVE MARKETPLACE?
20	A:	That's unlikely. A competitive procurement would result in a market price that would likely
21		beat the proposal made by the Companies. And, even if it didn't, you would know that the

⁴ Alexandre B. Makler, Steven S. Schleimer, "Preserving the Benefits of Competition through Effective Competitive Bidding Rules for Utility Resource Procurement", <u>The Electricity Journal</u>, Volume 16, Issue 6, 2003, Pages 27-36,

https://doi.org/10.1016/S1040-6190(03)00078-2.(Last Checked June 9, 2025).

⁵ Application, page 11.

⁶ Wilson Testimony, page 15.

1 Companies can self-build the Cane Run BESS at the least cost market rate, and they would 2 have "won" the procurement they should have conducted in the first place. A self-building utility can provide a best response to a resource solicitation – the best practice is to conduct 3 that solicitation in such a way to receive competitive bids. 4

5 HOW WOULD YOU RESPOND TO THE NEGATIVE COMMENTS WITNESS **O**: 6 SCHRAM MAKES BEGINNING AT PAGE 8 OF HIS TESTIMONY?

7 A: First, Witness Schram conflates the execution risk in a solar PPA with an RFP for a 8 standalone storage system. While it is of course disappointing that a solar PPA RFP did not 9 result in a diverse set of competitive bids, that RFP has no impact on a BESS RFP. As an 10 initial matter, a solar PPA-arrangement is wholly different than a best practice for 11 standalone storage in a competitive marketplace. In standalone storage, the "buyer" buys 12 the grid benefits of the storage, and the "seller" can be compensated in a number of ways. Or, to simplify matters for the Companies, they could simply seek a build-own-transfer 13 14 procurement where a BESS developer builds and holds a storage facility until it is 15 operational and then sells it to the Companies. There are still other alternatives to 16 ownership structure to consider but the bottom line is allowing the market to provide the 17 Companies with the best options to pick to receive the benefits of the BESS system at the 18 lowest rate is the best option.

19

Q: HOW WOULD YOU CHARACTERIZE THE COMPANIES' POSITION ON THE 20 **CANE RUN BESS PROCUREMENT?**

21 Rigid and unpersuasive. In responding to SREA's Initial Request for Information, Question A: 22 4 regarding decision-making in whether to owning or contracting for resources to serve, 23 the Companies point out that the Commission's Order (cited in Mr. Conroy's testimony)

does not *require* the Companies consider ownership versus contracting.⁷ As noted above,
 the Companies continue to explain how they did not receive sufficient responses to past
 requests for procurement which I view as unrelated to the current matter.

4 Q: ARE PRIOR OUTCOMES NECESSARILY INDICATIVE OF CURRENT 5 MARKETPLACE OPTIONS?

6 No. Marketplaces can change substantially in a span of three years (or less), and the market A: 7 for BESS is no exception. Therefore, prior outcomes from the Companies' June 2022 RFP should not stop what should be considered a best practice for the Companies as they seek 8 9 to build least cost grid resources for the benefit of their ratepayers: a competitive bid 10 solicitation that at best will allow for a competitive process and lower prices with considerable risk shifting (to the third-party developers) from the rate base. The 11 12 requirement that the Companies should be seeking to fulfill is the requirement to seek the 13 least-cost path to serve its ratepayers, and issuing an RFP for BESS is the best way to fulfill 14 this requirement.

15 Q: EVEN IF THE COMMISSION WERE TO AGREE WITH YOU, IS THERE STILL 16 TIME TO CONDUCT AN RFP AND MAINTAIN THE TIMELINE THE 17 COMPANIES SEEK?

18 A: Yes. Other utilities regularly hold annual procurements of new resources. The Companies
19 here do not expect to "complete equipment and installation contacting" until the "first or

⁷ Companies' Response to SREA's Initial Request for Information, Question No. 4, A-4 (March 28, 2025).

second quarter" of 2026.⁸ There is plenty of time to provide the opportunity for a
 competitive procurement with a timely Commission order.

3 Q: DO YOU THINK THE COMPANIES COULD CONDUCT A REPEATABLE 4 SUCCESSFUL BESS RFP PROCESS THAT WOULD RESULT IN COST SAVINGS 5 TO THEIR CUSTOMERS?

A: Yes. There are currently 3 projects in the Companies' interconnection queue. Evaluating
these projects and any other recent or soon-entering projects in the queue would be quick
work for an efficient utility. Moreover, the existence of this queue foretells that additional
BESS projects may come online soon, too. A standardized procurement process with a
potentially forecasted schedule (i.e., a new RFP in 2026, 2028, 2030) as necessary, would
encourage the growth of the BESS market.

12 Q: DOES THE SELF-BUILD PROCESS SIMILARLY ENCOURAGE A ROBUST 13 BESS MARKETPLACE?

A: No. There is no clear path to market for the battery developers in this market without competitive procurement. Without a clear path to market, third-party investment in the technology will be discouraged and the BESS developers will do business elsewhere.

17 Q: DO THE COMPANIES GENERALLY RECOGNIZE THE BENEFITS OF

18 CONDUCTING COMPETITIVE PROCUREMENT VIA AN RFP,

19 NOTWITHSTANDING ITS DECISION TO FORGOE UTILIZING AN RFP

- 20 COMPETITIVE PROCURMENT PROCESS FOR BESS?
- 21 A: Yes. In their Application, the Companies state that the following:

⁸ Companies' Response to SREA's Initial Request for Information, Question No. 3, A-3 (March 28, 2025).

1 2 3 4 5		To meet customers' projected demand and energy requirements shown above reliably and economically, the Companies gathered and developed cost and performance estimates for resources to be considered in the near term in addition to their existing and approved resources. The Companies accomplished this through a May 2024 request for proposals for renewable energy options" ⁹
6		Thus, the Companies recognize that issuing an RFP is a process that allows the utility to
7		"economically" meet customer's energy requirements, even though it declined to utilize
8		this process for the proposed BESS in this proceeding.
9		
10		IV. <u>North Carolina's Procurement Success Story</u>
11	Q:	CAN YOU PROVIDE AN EXAMPLE OF A REGULATED UTILITY
12		CONDUCTING A COMPETITIVE PROCUREMENT THAT RESULTED IN
13		TANGIBLE LOWER COSTS TO RATEPAYERS?
14	A:	North Carolina is the example I am most familiar with and one of the best examples.
15	Q:	WHAT IS THE BACKGROUND FOR THE NORTH CAROLINA
16		PROCUREMENT SUCCESS?
17	A:	In the early 2010s, North Carolina became a haven for independent power producers. This
18		is because through the North Carolina implementation of the Public Utilities Regulatory
19		Policies Act ("PURPA"), independent power producers thrived through mandatory offtake
20		mid to long term contracts for solar-powered PURPA Qualifying Facilities ("QFs") for both
21		energy and capacity. However, the market was inefficient. This was because the
22		independent power producers were siting these must-take projects in areas, often times on
23		the distribution grid, which required network upgrades and long wait times in the serial

⁹ Application, page 9.

interconnection queue which required projects and accommodating network upgrade issues
 be solved in a one-at-a-time, first come, first served basis.

In addition to network engineering issues, the PURPA QF paradigm created contractual issues for the local utilities. This is because the long-term power purchase agreements ("PPAs"), while often "standard offer" with brightline terms, were subject to the prevailing "avoided cost" rate at the time the PPA was executed. Avoided cost in North Carolina is determined, in part, by examining the cost of building a new "peaker" natural gas facility and basing the avoided costs from *not* having to build that peaker to determine how much QF energy and capacity is worth.¹⁰

10 Q: HOW DID NORTH CAROLINA SOLVE THE ISSUE OF A GLUT OF PPA

11 **PROJECTS WITH INEFFICIENT INTERCONNECTION AND CONTRACTING?**

12 A: By allowing a competitive procurement model to flourish. In 2017, the North Carolina

13 legislature passed House Bill 589 which mandated the competitive procurement of solar.¹¹

14 The Competitive Procurement of Renewable Energy ("CPRE") section required, by statute,

15 that Duke "shall procure, energy and capacity from renewable energy facilities in the 16 aggregate amount of 2,660 megawatts (MW), and the total amount shall be reasonably 17 allocated over a term of 45 months beginning when the Commission approves the 18 program."¹² The CPRE statute and the related portions of the remainder of House Bill 589

¹⁰ North Carolina is a regulated utility state with three investor-owned utilities ("IOUs") subject to North Carolina Utilities Commission ("NCUC") regulation: Duke Energy Carolinas, LLC ("DEC"), Duke Energy Progress, LLC ("DEP") (DEC and DEP, collectively, "Duke"), and Dominion North Carolina Power ("Dominion"). These three IOUs serve roughly two-thirds of North Carolina rate payers. The remaining one-third of North Carolina rate payers are served by cooperatives and municipal utilities which are not subject to the same level of regulatory oversight by the NCUC.

¹¹ https://www.ncleg.net/Sessions/2017/Bills/House/PDF/H589v6.pdf

¹² N.C. Gen. Stat. § 62-110.8 (a).

reflected changing times: the PURPA QF PPAs pro forma contracts were reduced in length and the CPRE program was offset by the legacy PURPA QFs that came online during the same time period. However, the CPRE program provided beneficial terms for independent power producers including CPRE 20-year pro forma contracts and a tranched, repeated procurement process. Further, the CPRE Statute mandated that the competitive procurement be conducted by an independent administrator.¹³

7 Q: WAS THE CPRE PROGRAM A SUCCESSFUL COMPETITIVE 8 PROCUREMENT?

9 A: The CPRE was a success. The Independent Administrator estimated Duke saved ratepayers 10 saved nearly \$375 million when compared to the avoided cost over the terms of the PPAs in Tranche 1 alone.¹⁴¹⁵ In the remaining Tranches 2 and 3, the CPRE program saved nearly 11 \$100 million additional dollars compared to the expected avoided cost.¹⁶ The additional 12 \$100 million saved during Tranches 2 and 3 are particularly notable as those procurement 13 processes occurred over the Covid-19 pandemic and attendant global supply chain issues. 14 15 WHAT IS THE LEGACY OF COMPETITIVE PROCUREMENT IN NORTH **Q**: 16 **CAROLINA?**

¹³ N.C. Gen. Stat. § 62-110.8 (c).

¹⁴ Competitive Procurement of Renewable Energy Independent Administrator's Report, page 1 filed in NCUC Docket Nos. E-2 Sub 1159 & E-7 Sub 1156 (April 9, 2019).

¹⁵ <u>https://news.duke-energy.com/releases/competitive-process-yields-carolinas-biggest-one-day-collection-of-solar-projects-ever-significant-savings-for-duke-energy-customers</u> ["'As solar energy expands in the Carolinas, the competitive bidding process will lead to better prices and more geographic diversity of projects,' said Rob Caldwell, senior vice president and president of Duke Energy Renewables & Business Development. 'This will enhance Duke Energy's efforts to promote a cleaner energy mix at lower prices for customers.'"].

¹⁶ CPRE Tranche 2 Final Independent Administrator Report, page 1 filed in NCUC Docket Nos. E-2 Sub 1159 & E-7 Sub 1156 (February 12, 2021); CPRE Tranche 3 Final Report of the Independent Administrator, p. 1, filed in NCUC Docket Nos. E-2 Sub 1159 & E-7 Sub 1156 (April 17, 2023).

1 A: Duke continues to conduct competitive procurements of solar and solar+storage but now 2 without statutory mandate to do so. This has allowed Duke to push towards statutorily required decarbonization while also maintaining least cost ratemaking principles. 3 The competitive procurement in North Carolina has moved to offshore wind, too, as the 4 5 Commission ordered an information gathering exercise and, if the information gathered 6 points to a least cost outcome, a competitive procurement (or joint venture) for one or more 7 of the three offshore wind projects. Duke maintains its monopoly, developers have a pathway to market, and ratepayers benefit from the least cost market-based outcome. 8 9 V. **Other Competitive Procurements** 10 **O**: ARE YOU AWARE OF OTHER COMPETITIVE PROCUREMENTS, INCLUDING 11 **THOSE FOR BESS?** 12 A: Yes. I am generally aware of a number of other competitive procurements which would be a relevant comparison for the Companies and the Commission to consider. 13 ARE THE PRINCIPALS OF COMPETITIVE PROCUREMENT AND THE 14 **Q**: 15 **RELATED** CONSUMER BENEFITS LIMITED TO REGULATED 16 MARKETPLACES LIKE NORTH CAROLINA OR DO THEY STRETCH 17 ACROSS DIFFERENT MARKETS AND REGULATORY REGIMES? 18 These fundamentals stretch beyond regulated utilities without competition, though A: 19 competitive procurements like the North Carolina example above can bring competition 20 advantages that would not otherwise exist in a regulated market.

21 Q: WHAT ARE SOME COMPETITIVE PROCUREMENTS OF BESS THAT YOU 22 ARE GENERALLY AWARE OF?

14

1	A:	While I have not participated in the regulatory proceedings and do not know all the details
2		of the individual competitive procurements, I am generally aware of BESS competitive
3		procurements in:
4		- Georgia (seeking 500 MW of competitively procured BESS additions which "should
5		benefit customers" ¹⁷);
6		- Massachusetts (a long-term goal of procuring 5,000 MW of aggregate nameplate
7		capacity by July 31, 2030 ¹⁸); Maryland (seeking to competitively procure the
8		deployment of up to 750 MW of cumulative energy storage capacity by May 31, 2028;
9		1,500 MW of cumulative energy storage capacity by May 31, 2031; and 3,000 MW of
10		cumulative energy storage capacity by May 31, 2034 ¹⁹);
11		- Michigan (new standalone energy storage projects totaling about 450 MW, per the
12		recent DTE CleanVision Integrated Resource Plan, which is part of DTE's longer
13		term plan for 2,950 MW of BESS in its portfolio ²⁰); and,
14		- New York ("The Energy Storage Order, among other things, outlined a framework of
15		programs intended to spur the development and deployment of 3 gigawatts (GW) of

¹⁷ "Georgia Power will conduct an RFP for 500 MW of its originally proposed 1,000 MW of BESS additions. This competitive process should benefit customers." <u>In Re: Georgia Power Company's</u> 2023 Integrated Resource Plan Update., 55378, 2024 WL 2045687, at *7 (Apr. 26, 2024).

¹⁸ 2023 Massachusetts Senate Bill No. 2967, The 193rd General Court of the Commonwealth of Massachusetts, 2023 Massachusetts Senate Bill No. 2967, The 193rd General Court of the Commonwealth of Massachusetts

¹⁹ Order No. 91495, Maryland PSC Case No. 9715 (January 22, 2025).

²⁰ <u>https://pv-magazine-usa.com/2025/03/14/rfp-michigan-utility-dte-energy-seeks-450-mw-of-standalone-energy-</u>

storage/?utm_campaign=Newsletter&utm_medium=email&_hsenc=p2ANqtzcT8WLLEZKtnTrCyJEMWOIBR-

Z rZ9lrFaesWUSkeH2cC5mUqo862uY_g9zZVrO9tSLee5hXXVdKmILtAAun0XbG0-_A&_hsmi=352215594&utm_content=352215594&utm_source=hs_email (Last Checked June 9, 2025).

1		energy storage projects in New York through the creation of competitive solicitations
2		by each of the State's investor-owned utilities." ²¹).
3	Q:	DO YOU HAVE ANY CONCLUSIONS ABOUT COMPETITIVE
4		PROCUREMENTS ESPECIALLY AS THEY RELATE TO BESS?
5	A:	Competitive procurements of BESS are becoming the norm. This is true in different
6		regions, different markets and regulatory environments, and different political strongholds.
7		A marketplace solution for a least cost BESS asset is clearly in the best interests of the
8		Companies' ratepayers and the Commission should order a competitive procurement take
9		place.
10		VI. <u>Natural Gas</u>
11	Q:	DO YOU HAVE ANY CONCERNS ABOUT HEAVY RELIANCE ON NATURAL
12		GAS GENERATION?
13	A:	I do. I recognize that natural gas is a dispatchable and generally "firm" resource when
14		deployed correctly during ideal weather and economic conditions. In the energy transition
15		from centralized and heavily fossil based generation paradigm to a more distributed and
16		diverse generation resource mix, natural gas generation resources can add needed firmness,
17		dispatchability, and a cheaper alternative to both legacy fossil generation and renewables
18		mix that can reach consistent hourly firm generation output.
19		That said, natural gas is economically dependent on the fuel marketplace. Renewables have
20		very low operating expenses; natural gas requires regular fuel purchases along with the

²¹ Order Establishing Updated Energy Storage Goal and Deployment Policy, New York Public Service Commission Case No.:18-E-0130 (June 20, 2024).

upkeep necessary for both the turbines but also the gas and electric infrastructure
 surrounding the gas facility.

3 Indeed, gas is a necessary component of most utility profiles, but the value of gas has 4 diminishing returns as the more dependent on the gas, the higher dependency the 5 Companies will have on third-party delivery of fuel. Going back to my home state of North 6 Carolina – some analyses showed that natural gas was the biggest driver for recent increases in customer's monthly electric bill.²² Further, the failures of the natural gas 7 system in Duke's Carolina territories contributed to the Christmas Eve 2022 Winter Storm 8 Elliott overnight rolling blackouts.²³ These failures included engineering failures, dispatch 9 10 failures, and purchased power contracts not being honored – but one thing they all had in 11 common were their relation to the natural gas facilities.

12 While I did not live in Kentucky and experience the rolling blackouts here, my 13 understanding is that the Companies had a similar load shedding event during the same 14 Winter Storm Elliott event. My understanding from reviewing the narrative explanation 15 was that the Companies explained that they experienced "significant challenges including interstate gas pipeline pressure limitations, mechanical and other cold weather issues."24 16 17 The Companies issues during Winter Storm Elliott sound very similar to Duke's and highlight an acute danger in overreliance on natural gas generation. Put simply, there are 18 19 third parties who can impact the delivery of natural gas and engineering issues that can 20 impact natural gas transport and turbine systems in manners unique to the resource type.

²² <u>https://www.edf.org/media/new-analysis-shows-reliance-gas-primary-driver-rise-duke-energy-power-bills</u> (Last Checked June 9, 2025).

²³ <u>https://ncnewsline.com/2023/01/04/several-crises-malfunctions-at-duke-energy-led-to-rolling-blackouts-on-christmas-eve-utility-officials-tell-state-regulators/</u>

²⁴ Kentucky PSC Case No. 2022-00492, Attachment 1 to Response to AG-1 Question No. 13(I).

1Q:COULD YOU SUM YOUR POSITION ON NATURAL GAS AND THE2COMPANIES' RELIANCE ON IT AS A GENERATION BACKBONE?

A: No generation type is perfect but rhetoric these days often paints natural gas as the lone
economic, dependable, and dispatchable resource. As shown in the 2022 Carolinas rolling
blackouts (and elsewhere), natural gas systems have shortcomings. Engineers often bristle
at the idea of redundancies, but the power system, particularly with the distributed load and
diverse resource set available now, requires some redundancy. It also requires diversity.

8 Furthermore, fuel contracts must be firm, particularly with regard to fuel delivery during 9 times where the Companies are heavily reliant on natural gas generation or where 10 damaging weather events are more likely. I would encourage the Commission to require 11 the Companies have firm contracts with fuel providers with particular concern for times of 12 the year when the gas system is most exposed to potential issues.

Q: WOULD YOU SUPPORT THE COMPANIES' DECISION TO ADD BESS TO THEIR RESOURCE PORTFOLIO IF THEY ADDRESSED YOUR CONCERNS REGARDING THE LACK OF COMPETITIVE PROCUREMENT?

16 A: Yes. I applaud the Companies' move towards procuring BESS grid assets. The ratepayers in these Companies' footprint will benefit greatly from these. I would encourage the 17 Commission and the Companies to continue to diversify their resource mix and add clean 18 19 energy resources with low operating costs where sensible. Natural gas units require third-20 party delivery of fuel, an economic uncertainty with respect to fuel pricing, and have 21 complex engineering systems that, in recent years, have failed under harsh conditions. 22 Therefore, adding BESS mitigates this risk and provides great value to the Companies' 23 customers.

Q: DO YOU HAVE ANY OPINIONS ON CURRENT GAS TECHNOLOGIES AND THE MID TO LONG TERM PROSPECTS FOR NEW FACILITIES?

3 A: There are two common natural gas turbines used that I am aware of: combustion turbines 4 ("CTs") and Combined-Cycle Combustion Turbines ("CCs"). CTs are generally a better 5 match with intermittent renewable resources since they have better ramp rates and help to 6 provide rapid and flexible power during times of peak electricity demand, in addition to 7 being less expensive than CCs. CTs add capacity value where renewables add energy value, and thus these resources are complementary. By contrast, CCs are a more expensive unit 8 9 with slower ramp rates when compared to CTs and thus are not an ideal solution for meeting 10 peak electricity demand.

11 Q: PLEASE SUMMARIZE YOUR RECOMMENDATIONS REGARDING BEST 12 UTILITY PLANNING PRACTICES.

- A: Best utility planning requires resource diversity and resources that play complementary
 roles. My suggestion would be that the Commission require the Companies compare the
 costs, benefits, and potential risks when developing new gas assets against viable
 renewable alternatives, including solar or wind + storage and vice versa.
- 17

VII. <u>Conclusion</u>

18 Q: MR. SMITH, WHAT ARE YOUR FINAL RECOMMENDATIONS TO THE 19 COMMISSION?

- 20 The Commission should:
- Issue an Order requiring that the Companies conduct a public-facing competitive
 procurement of the Cane Run BESS system with transparency as to the process,
 evaluations, and outcomes to the Commission and stakeholders.

- Require the Companies to execute firm gas supply contracts to meet their entire gas 1 • 2 fleet needs. • Require in future planning and certification dockets for the Companies to run a 3 cost/benefit analysis against a solar + storage marker with the comparison including 4 price, facility optimization and modeling considerations, and total risk of facility failure 5 including the acts of fuel suppliers and major weather events. 6 7 **DOES THIS CONCLUDE YOUR TESTIMONY?** Q:
- 8 A: Yes.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY UTILITIES COMPANY AND LOUISVILLE GAS AND ELECTRIC COMPANY FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY AND SITE COMPATIBILITY CERTIFICATES

CASE NO. 2025-00045

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VERIFICATION BY

AFFIDAVIT

Comes the affiant, Benjamin W. Smith, and being duly sworn states that the foregoing testimony and attached exhibits were prepared by him and are, to the best of his information and belief, true and correct.

State of North Carolina

County of Wake

Subscribed and sworn to me by the Affiant Benjamin W. Smith this 13th day of June, 2025.



Nicole Matthews, Notary Public

My commission expires 1/12/2030

Benjamin W. Smith

601 New Road, Raleigh, North Carolina 27608 -

EXPERIENCE

Kilpatrick Townsend & Stockton LLP ("Kilpatrick") (Am Law Top 100 Law Firm) Counsel, 2022 – Current

- Develop policy goals, positions, and desired outcomes, including implementing initiatives, campaign plans, and strategies to achieve policy goals and desired outcomes related to the future of energy in North Carolina on behalf of several clients.
- Represent a multinational energy developer related to the development of the Kitty Hawk South Wind Energy Area, the largest offshore wind energy project off the coast of North Carolina.
- Represent a multinational nonprofit organization seeking to implement best practices for reducing emissions in electricity generation and in decarbonizing the transportation sector.
- Lead contract development for an international telecom company seeking to decarbonize its energy use, which includes developing and drafting power purchase agreements, site leases, virtual power purchase agreements, and battery energy storage system grid services contracts.
- Develop and negotiate contract terms and conditions on behalf of a tribal client seeking financially optimized clean energy options for a tribal casino.
- Successfully litigate on behalf of the largest homebuilder in North Carolina's Rebuild NC program in response to repeated attacks from several parties seeking to cast blame for Rebuild NC shortcomings against my client.

North Carolina Sustainable Energy Association ("NCSEA")Raleigh, N.C.Associate General Counsel, 2020 - 2022Raleigh, N.C.

- Led regulatory work for NCSEA, including matters litigated at the North Carolina Utilities Commission, FERC, and other venues, seeking to achieve NCSEA's policy goals and desired outcomes.
- Managed dozens of litigated dockets at the North Carolina Utilities Commission and other venues.
- Headed appellate work for NCSEA.
- Assisted General Counsel and Director of Policy in government affairs leadership work for the organization, including research, drafting legislative language, and completing compliance work related to lobbying.
- Communicated and advocated policy and legal positions to partners, members, and other stakeholders in North Carolina, the Southeast, and across the country.

Regulatory Counsel, 2017 - 2020

- Litigated clean energy-related issues in front of the North Carolina Utilities Commission.
- Drafted comments, motions, pleadings, and briefs filed in the North Carolina Utilities Commission, FERC, and in other state and federal appellate courts and agencies.
- Headed appellate work for NCSEA.
- Participated as lead or co-lead attorney in rate cases, avoided cost proceedings, rulemakings, integrated resource plan proceedings, clean energy and energy efficiency related rider proceedings, and various other clean energy dockets in front of the North Carolina Utilities Commission.

The Law Office of John T. Benjamin, Jr., P.A. (Ranked in U.S. News Best Law Firms) Raleigh, N.C.

Benjamin W. Smith

601 New Road, Raleigh, North Carolina 27608 -

<u>Attorney</u>, 2015 – 2017

- Practiced bank litigation, real estate law, commercial litigation, adversary litigation in bankruptcy, creditors' rights litigation, construction litigation, and consumer services litigation.
- Accumulated significant appellate practice experience at both the federal and state level, including an undefeated record as lead or co-counsel in cases decided by the North Carolina Court of Appeals.
- Achieved favorable results for a variety of clients through dispute resolution and negotiated numerous high-dollar settlements while satisfying client needs.

McCarthy, Leonard & Kaemmerer, L.C. (Ranked in U.S. News Best Law Firms) Chesterfield, MO Associate Attorney, 2012 – 2015

- Practiced commercial litigation, insurance defense litigation, construction litigation and trust and estate litigation on behalf of both plaintiffs and defendants.
- Awarded federal bench judgment in insurance coverage dispute case for client hotel in federal bench trial where a minor was statutorily raped on hotel property and insurer sought to exclude the hotel from policy with limits of \$5,000,000.00.
- Granted summary judgment in breach of contract case on behalf of Defendant, where Plaintiff's alleged damages exceeded \$50,000.00.

Pitzer Snodgrass, P.C. (Ranked in U.S. News Best Law Firms)St. Louis, MOAssociate Attorney, 2011–2012St. Louis, MO

- Successfully litigated high volume, insurance defense caseload including more than 50 cases in premises liability, trucking, automobile, and insurance coverage.
- Succeeded in motion practice in numerous state and federal venues throughout Missouri and Illinois and including both procedural and dispositive motions.

Fox Galvin, LLC (Ranked in U.S. News Best Law Firms)St. Louis, MOAssociate Attorney, 2009-2011; Law Clerk, 2007-2009St. Louis, MO

- Performed significant discovery, motion and trial preparation work in complex litigation cases in pharmaceutical and environmental regulation.
- Worked 20 hours a week during law school semesters and full-time over summers.
- First entry-level hire by firm, whose practice was to hire experienced laterals.

ACHIEVEMENTS AND NOTABLE MEMBERSHIPS

- Favorable published appellate opinion: *In re Foreclosure of Real Prop. under Deed of Trust from Ballard*, 246 N.C. App. 241, 782 S.E.2d 922, 2016 N.C. App. LEXIS 287.
- Favorable unpublished (but available on Lexis) appellate opinion: *In re Foreclosure of a Deed of Trust Executed by Lindsey*, 2018 N.C. App. LEXIS 69, 809 S.E.2d 374.
- Member, North Carolina State Bar Utilities Law Specialization Committee.
- "Band 2: Energy & Natural Resources North Carolina", Chambers and Partners (2025).
- "Up and Coming: Energy & Natural Resources North Carolina", Chambers and Partners (2024).
- Legal Elite (Environmental), Business North Carolina (2024).

Benjamin W. Smith

601 New Road, Raleigh, North Carolina 27608 -

SPECIALIZATION AND LICENSURE

- North Carolina State Bar Board-certified Specialist in Utilities Law.
- Licensed to practice law in the states of North Carolina, Missouri (inactive), and Illinois (inactive).
- Licensed to practice law in the federal venues of the U.S. Court of Appeals for the Fourth Circuit, the Eastern, Middle, and Western District Courts and Bankruptcy Courts of North Carolina, the Eastern District of Missouri, and the Southern District of Illinois.

EDUCATION

Saint Louis University School of Law, <u>Juris Doctorate</u>, 2006 – 2009 Indiana University, <u>Bachelor of Arts in Journalism</u> and <u>Bachelor of Arts in English</u>, 2002 – 2006