

South Carolina Office of Regulatory Staff Comments to the United States Environmental  
Protection Agency

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Proposed Rule Regarding New Source Performance Standards for Greenhouse Gas Emissions  
From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission  
Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating  
Units; and Repeal of the Affordable Clean Energy Rule

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Docket Nos. EPA-HQ-OAR-2023-0072 and FRL-8536-02-OAR

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88 Federal Register No. 99 (May 23, 2023)

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## Question Presented

On May 23, 2023, the United States Environmental Protection Agency (“EPA”) issued a proposed rule regarding “New Source Performance Standards for Greenhouse Gas emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units, Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule” (“Proposed Rule”)<sup>1</sup> and sought comments on the Proposed Rule within 60 days.<sup>2</sup> Subsequent to the issuance of the Proposed Rule, many parties, including the South Carolina Office of Regulatory Staff (“ORS”), sought an extension of the deadline to file comments.<sup>3</sup> Despite the request made by ORS on June 2, 2023, for an extension of 120 days, on June 12, 2023, the EPA granted an extension of only 10 business days. Comments are due August 8, 2023. On July 7, 2023, the EPA released additional modeling to supplement the record of the proposed Clean Air Act standards and guidelines to limit emissions of carbon dioxide (“CO<sub>2</sub>”) from fossil fuel-fired power plants, issued on May 23, 2023. The comments sought by the EPA pertained specifically to at least 323 questions spanning over 645 pages, not including the updates provided later by the EPA. To highlight the magnitude of the comments sought by the EPA and the unreasonable nature of the EPA’s deadlines, which significantly and unnecessarily restrict the public’s opportunity to file meaningful and responsive comments, attached is a document outlining the numerous topics on which the EPA requested.<sup>4</sup>

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<sup>1</sup> 88 Fed. Reg. No. 99 (May 23, 2023).

<sup>2</sup> 88 Fed. Reg. No. 99 (May 23, 2023), p. 33240, “[c]omments must be received on or before July 24, 2023.”

<sup>3</sup> The ORS sought an additional 120 days to file comments. *See* request attached as Exhibit B.

<sup>4</sup> *See* Exhibit C.

As discussed more fully below, the Proposed Rule is unworkable, unreasonably expensive, creates electrical reliability problems, and raises serious legal concerns. Accordingly, the ORS offers these comments for consideration and respectfully requests that the EPA (1) withdraw or reconsider its proposed rule and (2) request the Federal Energy Regulatory Commission (“FERC”) to have the North American Electric Reliability Corporation (“NERC”) perform a detailed reliability assessment to evaluate the impacts of the Proposed Rule, including any suggested modifications to add flexibility to ensure reliable, affordable electric generation while simultaneously encouraging further carbon reductions.

## Introduction

The ORS is the South Carolina state agency charged with the statutory duty to represent the public interest of South Carolina in utility regulation. Pursuant to S.C. Code Ann. § 58-4-10 (Supp. 2022), ORS must be considered a party of record in all filings, applications, or proceedings before the Public Service Commission of South Carolina (“PSC”) and must represent the public interest of South Carolina before the PSC. Additionally, it is the duty and responsibility of ORS, when considered necessary by the Executive Director and in the public interest, to provide legal representation of the public interest before federal regulatory agencies and federal courts in proceedings that could affect the rates or service of any public utility within our state. *See* S.C. Code Ann. § 58-4-50 (A)(8) (Supp. 2022). The public interest is defined by statute as the concerns of the using and consuming public with respect to public utility services, regardless of the class of customer, and preservation of continued investment in and maintenance of utility facilities so as to provide **reliable and high-quality utility services**. S.C. Code Ann. § 58-4-10 (Supp. 2022) (emphasis added).

Following publication of the Proposed Rule<sup>5</sup> on May 23, 2023, ORS participated in multiple work group meetings in South Carolina that analyzed the requirements of the Proposed Rule. The meetings, coordinated jointly by the South Carolina Department of Health and Environmental Control and ORS, included participants from South Carolina’s investor-owned, state-owned, and cooperative electric providers, natural gas utilities, the Office of the Governor, the South Carolina Attorney General’s Office, the South Carolina Department of Natural Resources, and representatives from other entities, including consumer advocates, conservation

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<sup>5</sup> 88 Fed. Reg. No. 99 (May 23, 2023).

groups, advocates for environmental justice, industrial groups and business organizations, among others.

Additionally, ORS retained the services of an outside consulting firm, J. Kennedy and Associates, Inc. (“Kennedy”), to conduct analyses to assist with the development of comments and/or recommendations related to the Proposed Rule. The analyses and conclusions of Kennedy are attached and included as Exhibit A.

ORS also sought information pursuant to the Federal Freedom of Information Act (“FOIA”) by issuing a single request on June 16, 2023, to the EPA, the United States Department of Energy (“DOE”) and the FERC for documentation and correspondence related to the Proposed Rule and consultation between the EPA and the two federal agencies.<sup>6</sup> The mission of the FERC is to “[A]ssist consumers in obtaining **reliable**, safe, secure, and economically efficient energy services at a **reasonable cost** through appropriate regulatory and market means, and collaborative efforts.”<sup>7</sup> (emphasis added).

ORS sought this information because the EPA states in its Proposed Rule that it “...carefully considered the importance of maintaining resource adequacy and grid reliability in developing these proposals and is confident that these proposed NSPS and emission guidelines [...] can be successfully implemented in a manner that preserves the ability of power companies and grid operators to maintain the reliability of the nation’s electric power system” and the EPA consulted with DOE and FERC in the development of the Proposed Rule.<sup>8</sup> Unfortunately, the EPA informed ORS on July 17, 2023, it could not respond to the FOIA request until November 3, 2023. The DOE has not responded. On August 1, 2023, FERC responded with six heavily redacted emails

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<sup>6</sup> See Exhibit E.

<sup>7</sup> <https://www.ferc.gov/what-ferc>.

<sup>8</sup> 88 Fed. Reg. No. 99 (May 23, 2023), pp. 33246-33247.

dated March 15, 2023, April 13, 2023, and April 18- 24, 2023. From this very limited production, ORS can ascertain that one conversation was held between FERC personnel and the EPA on Friday, **April 21, 2023**, regarding the Proposed Rule. The context of that conversation, including whether DOE and FERC fully share the EPA’s confidence that the Proposed Rule would maintain grid reliability, is unknown. The EPA’s unreasonable deadline,<sup>9</sup> lack of transparency, and unwillingness to support its claim that reliability was, in fact, carefully considered with input from FERC and the DOE, has significantly heightened ORS’s concerns that the Proposed Rule places the reliability of the nation’s grid at risk.<sup>10</sup>

When South Carolina’s power infrastructure is affected by hurricanes, extreme winter weather, and other threats, ORS’s staff is called upon to support Emergency Support Function – 12 (“ESF-12”) (Power Restoration). ESF – 12 helps coordinate resources to enable timely reestablishment of energy services following an incident. ORS’s mission includes the responsibility to ensure high quality reliable utility services, and we are the designated state resource for ESF – 12.<sup>11</sup>

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<sup>9</sup> The EPA is unreasonably fast tracking this Proposed Rule. The EPA refused to provide significant additional time for comments and is targeting finalization of this rule by April 2024 rather than June of 2024.

<sup>10</sup> ORS is also charged with broadband infrastructure deployment. Without reliable affordable power, the billions of dollars spent on broadband deployment will be meaningless if power is either unavailable and/or is so expensive, consumers choose to spend their monthly income on powering their homes, food, and medication.

<sup>11</sup> South Carolina Governor Henry McMaster requested a comprehensive review of South Carolina’s public and private power grid after the February 2021 winter storm that left large parts of Texas without power and running water. *See* <https://ors.sc.gov/regulated-utilities/electric-natural-gas/potential-threats-safe-and-reliable-utility-service>.

Following the outages in the Southeast on Christmas Eve, December 24, 2022, leaving a portion of South Carolina without power for a duration of up to eight hours, the Public Service Commission of South Carolina requested ORS to conduct an inspection and examination. <https://dms.psc.sc.gov/Web/Ndi/Detail/561>.

ORS staff also has responsibility for natural gas pipeline safety.<sup>12</sup> Additionally, the State of South Carolina has an agreement with the Pipeline and Hazardous Materials Safety Administration (“PHMSA”), which requires that all operators in the State must comply with PHMSA Regulations. The ORS Pipeline Safety department undergoes annual re-certification by PHMSA.

ORS has heightened concerns regarding reliability due to plant closures that have occurred and are currently planned to occur during a period in which the State is experiencing significant economic growth, population growth, and the electrification of the transportation sector.<sup>13</sup> Since 2005, ORS understands that 14 of coal fired generation units have been retired or shuttered in South Carolina representing approximately 1,754 MW.<sup>14</sup> This is particularly important in view of where we are today in terms of the current grid.

The ORS participated in webinars and presentations by FERC regarding grid reliability. In its “2023 Summer Energy Market and Electric Reliability Assessment” webinar, held June 14, 2023, the third identified factor for “New and Continuing Reliability Concerns,” was the “EPA Actions and Regulations.” (Slide 11 – **Electric Risks**).<sup>15</sup> It is unclear to ORS what position, if any,

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<sup>12</sup> ORS has safety oversight for operators of natural gas distribution and transmission pipeline systems, liquefied natural gas facilities, certain liquefied propane systems, landfill gas systems, and lateral pipelines from interstate pipeline systems in South Carolina. The ORS inspects facilities, performs incident investigations, and conducts various types of operator training. <https://ors.sc.gov/safety/pipeline-safety>

<sup>13</sup> See South Carolina Executive Order No. 2023-18, <https://www.governor.sc.gov/sites/governor/files/Documents/Executive-Orders/2023-06-09%20FILED%20Executive%20Order%20No.%202023-18%20-%20Establishing%20powerSC%20Energy%20Resources%20Economic%20Development%20Working%20Group.pdf>

<sup>14</sup> ORS understands that for South Carolina and North Carolina combined, 45 coal fired generation units have been retired or shuttered representing approximately 5,493 MW.

<sup>15</sup> See Exhibit G. The full slide presentation is included as Exhibit G.

FERC is taking with regard to the Proposed Rule, which is why ORS submitted the FOIA request,<sup>16</sup> but it is clear that the FERC identifies the EPA’s actions and the rules as one of the top three risk factors for “New and Continuing Reliability Concerns.”

The SERC Reliability Corporation (“SERC”) is one of six companies across North America working under FERC through approved delegation agreements with NERC. The SERC’s mission is to assure effective and efficient reduction of risks to the reliability and security of the bulk power system.<sup>17</sup> Numerous webinars and reports issued by SERC as to grid reliability warn of the 9 gigawatts of intended electric generating unit (“EGU”) retirements soon to impact the Southeastern region and efforts to accelerate EGU retirements such as the Proposed Rule absent sufficient replacement generation is a dangerous threat to grid reliability in South Carolina.<sup>18</sup>

Turning to the Proposed Rule and the EPA’s confidence that carbon or hydrogen pipelines are the Best System of Emission Reduction (“BSER”). Given ORS’s experience with the shared safety oversight of natural gas pipelines, ORS is keenly aware that the siting and construction of any type of pipeline is frequently delayed due to litigation. As a result, new pipeline construction often takes longer and is much more expensive than originally estimated. Cancellations of large pipeline expansions have occurred.<sup>19</sup> Therefore, a BSER that relies on technology development and pipeline expansion in South Carolina subjects South Carolina to extreme risk and litigation for years to come. Moreover, there are currently no South Carolina state laws or regulations regarding

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<sup>16</sup> See Section 2(b), *infra*.

<sup>17</sup> See <https://www.serc1.org/about-serc>.

<sup>18</sup>The entire presentation and related reports are available at the following link: <https://dms.psc.sc.gov/Web/Ndi/Detail/593>. Additionally, the livestream is available at: <https://www.sctv.org/live/public-service-commission>.

<sup>19</sup>“Atlantic Coast Pipeline Canceled as Delays and Costs Mount,” <https://www.nytimes.com/2020/07/05/business/atlantic-coast-pipeline-cancel-dominion-energy-berkshire-hathaway.html>.

carbon or hydrogen pipelines, but the South Carolina General Assembly has been considering law changes related to petroleum pipelines. That process spans nearly seven<sup>20</sup> years and is still not finalized.<sup>21</sup>

Based on the information and technology currently available, the Proposed Rule is unfeasible, and any attempt to meet the requirements of the Proposed Rule would result in unreasonable costs borne by South Carolinians and a less reliable electric grid at a time in South Carolina's history when additional, reliable, generation is necessary. As a result, the Proposed Rule must be withdrawn, amended to allow South Carolina the necessary flexibility to maintain affordable electric rates and critical reliability, or the timelines prescribed must be extended by at least 15 to 20 years to allow for the technological development required to support the Proposed Rule's requirements. ORS also recommends the EPA seek a reliability assessment from NERC related to the Proposed Rule.

### **1. Impacts of the Proposed Rule Specific to South Carolina**

The Proposed Rule has wide ranging impacts. The table below summarizes the Proposed Rule's requirements for newly constructed stationary combustion turbines ("CTs"):<sup>22</sup>

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<sup>20</sup> The initial meeting for the Petroleum Pipeline Study Committee occurred on September 28, 2016.

<sup>21</sup> Legislation is currently pending at the South Carolina General Assembly. See H.3155, [https://www.scstatehouse.gov/sess125\\_2023-2024/bills/3155.htm](https://www.scstatehouse.gov/sess125_2023-2024/bills/3155.htm).

<sup>22</sup> These requirements are found throughout the Proposed Rule, but this table can be found in a presentation created and given by the EPA, which is available at [https://www.epa.gov/system/files/documents/2023-05/111%20Power%20Plants%20Stakeholder%20Presentation2\\_4.pdf](https://www.epa.gov/system/files/documents/2023-05/111%20Power%20Plants%20Stakeholder%20Presentation2_4.pdf).

Table 1: Requirements for Newly Constructed Stationary CTs

Phase I (By date of promulgation or upon initial startup)	Phase II Beginning in 2032-2035	Phase III Beginning in 2038
<b>Low Load (or “peaking” turbines) Subcategory (Capacity Factor &lt;20%</b>		
<b>BSER:</b> Use of low emitting fuels (e.g., natural gas and distillate oil) <u>Standard:</u> From 120 lb CO <sub>2</sub> /MMBtu to 160 lb CO <sub>2</sub> /MMBtu, depending on fuel type	No proposed Phase II or Phase III BSER component or standard of performance	
<b>Intermediate Load Subcategory (Capacity Factor 20% to ~50%*)</b> <b>*Upper bound limit based on EGU design efficiency and site-specific factors</b>		
<b>BSER:</b> Highly efficient simple cycle generation <u>Standard:</u> 1,150 lb CO <sub>2</sub> /MWh-gross	<b>BSER:</b> Continued highly efficient simple cycle generation with 30% (by volume) low-GHG hydrogen co-firing beginning in 2032 <u>Standard:</u> 1,000 lb CO <sub>2</sub> /MWh-gross	No proposed Phase III BSER component or standard of performance
<b>Base Load Subcategory (Capacity Factor &gt; 50%*) *Limit</b>		
<b>BSER:</b> Highly efficient combined cycle generation  Standard: 770 lb CO <sub>2</sub> /MWh-gross (EGUs with a base load rating of 2,000 MMBtu/h or more)  <u>Standard</u> 770 lb-900lb CO <sub>2</sub> /MWh-gross (EGUs with a base load rating of less than 2,000 MMBtu/h)	<b>Low-GHG Hydrogen Pathway BSER:</b> Continued highly efficient combined cycle generation with 30% (by volume) low-GHG hydrogen co-firing beginning in 2032 <u>Standard:</u> 680 lb CO <sub>2</sub> /MWh-gross <b>CCS Pathway BSER:</b> Continued highly efficient combined cycle generation with 90% CCS beginning in 2035 <u>Standard:</u> 90 lb CO <sub>2</sub> /MWh gross	<b>Low-GHG Hydrogen Pathway BSER:</b> Co-firing 96% (by volume) low-GHG hydrogen beginning in 2038 <u>Standard:</u> 90 lb. CO <sub>2</sub> /MWh-gross  <b>CCS Pathway:</b> No Phase III BSER component or standard of performance
The proposed definition of low-GHG hydrogen is hydrogen produced with less than 0.45kgCO <sub>2</sub> e/kgH <sub>2</sub> overall well to gate emissions, consistent with IRC section 45V(b)(2)(D).		

The table below summarizes the requirements for *existing* and frequently used stationary CTs:<sup>23</sup>

Table 2: Requirements for Existing and Frequently Used Stationary CTs

Coal-Fired Boilers	Natural Gas and Oil-Fired Boilers	Natural Gas Combustion Turbines
For units operating past December 31, 2039, <b>BSER:</b> CCS with 90% capture of CO <sub>2</sub> an (88.4% reduction)	<b>BSER:</b> routine methods of operation and maintenance with an associated degree of emission limitation of no increase in emission rate (lb CO <sub>2</sub> /MWh-gross).	For turbines >300MW, >50% capacity factor <b>CCS Pathway BSER:</b> By 2035: highly efficient generation coupled with CCS with 90% capture of CO <sub>2</sub> (90 lb CO <sub>2</sub> /MWh)
For units that cease operations before January 1, 2040 and are not in other subcategories, <b>BSER:</b> co-firing 40% (by volume) natural gas with emission limitation of a 16% reduction in emission rate (lb CO <sub>2</sub> /MWh-gross basis)		<b>Low-GHG Hydrogen Pathway BSER:</b> By 2032: highly efficient generation coupled with co-firing 30% (by volume) low-GHG hydrogen (680 lb CO <sub>2</sub> /MWh) By 2038: highly efficient generation coupled with co-firing 96% low-GHG hydrogen (90 lb CO <sub>2</sub> /MWh)
For units that cease operations before January 1, 2032, and units that cease operations after January 1, 2035, that adopt enforceable annual capacity factor limit of 20%, <b>BSER:</b> routine methods of operation and maintenance with associated degrees of emission limitation of no increase in emission rate		
The proposed definition of low-GHG hydrogen is hydrogen produced with less than 0.45kgCO <sub>2</sub> e/kgH <sub>2</sub> overall well to gate emissions, consistent with IRC section 45V(b)(2)(D).		

Based on the requirements outlined above, 24 out of the 62 electrical generation plants in South Carolina would be impacted by the Proposed Rule, and any newly constructed base-load

<sup>23</sup> These requirements are found throughout the Proposed Rule, but this table can be found in a presentation created and given by the EPA. [https://www.epa.gov/system/files/documents/2023-05/111%20Power%20Plants%20Stakeholder%20Presentation2\\_4.pdf](https://www.epa.gov/system/files/documents/2023-05/111%20Power%20Plants%20Stakeholder%20Presentation2_4.pdf).

plants would have to operate with low-GHG hydrogen gas within 9 years.<sup>24</sup> The goal of reducing health impacts of carbon emissions is being pursued in numerous avenues, including but not limited to the closure of 14 coal plants in South Carolina since 2005; the implementation of the provisions of the Inflation Reduction Act (“IRA”), which is intended to reduce carbon emissions; and the electrification of the transportation sector. Ironically, the Proposed Rule would actually undermine its stated purpose to decrease carbon-based emissions released into the atmosphere. It is not feasible and attempting to implement it would threaten reliable service and harm the public in South Carolina. Moreover, the Proposed Rule does not consider the unique attributes of South Carolina as discussed in greater detail below. For the reasons stated below, the Proposed Rule must be withdrawn altogether or significantly altered to be reasonable to implement, be cost effective for customers and be feasible.

**a. The Proposed Rule Dangerously Undermines the Reliability of the Grid**

As discussed above, reliability is essential to the continued economic success in South Carolina. Moreover, reliability is crucial to the health of South Carolinians and when the electricity is unavailable, the health impacts can be grave.<sup>25</sup> While the Proposed Rule purports to address the importance of reliability to the electric grid, its proposed BSER is Carbon Capture and Sequestration/Storage (“CCS”) or hydrogen co-firing using hydrogen produced on-site with electrolysis. Neither option is commercially available nor has been proven successfully at the scale necessary even to be considered viable. For years, NERC has referred to natural gas as a bridge to

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<sup>24</sup> Attached Exhibit D includes a list of all generation plants in South Carolina and whether the Proposed Rule would impact the operation of the plant.

<sup>25</sup> “[E]xperts concluded that more than 700 people died as a result of the Texas power failure.” See <https://thehill.com/changing-america/opinion/560540-texas-power-outage-deaths-is-cruelty-and-neglect-our-new-energy/>.

retiring coal fired generation.<sup>26</sup> Yet, under the Proposed Rule, natural gas will not be available as a bridge resource, which undermines the opportunity to further increase non-dispatchable renewable resources and delays coal retirements.<sup>27</sup>

Moreover, in the previous Clean Power Plan proposal, the EPA coordinated with the NERC to assess and examine the potential risks to reliability that may have arisen from the Clean Power Plan.<sup>28</sup> In publishing this Proposed Rule, the EPA failed to take similar steps to evaluate and ensure reliability. While the EPA purports to emphasize the importance of reliability, the requirements of the Proposed Rule demonstrate the EPA values reliability less than it did in the past. Not only did the EPA fail to consult with NERC on the impacts to reliability of the Proposed Rule, but ORS is unaware of any commentary from other federal agencies on the reliability impacts of the Proposed Rule. While ORS issued a FOIA Request to multiple federal agencies in an effort to determine whether the impact of the Proposed Rule to reliability had been investigated, ORS did not receive confirmation and the only response ORS received raised more questions than answers.<sup>29</sup>

**b. The Proposed Rule Places an Unreasonable Financial Burden Upon Utility Customers and Particularly Those Who Can Least Afford It**

Prudent costs incurred by utilities may be passed onto utility customers for recovery. There are a number of approaches a utility could take in an effort to comply with the Proposed Rule;

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<sup>26</sup> See “‘Batteries aren’t going to do it’: FERC’s Moura calls for gas investment to maintain reliability,” <https://www.utilitydive.com/news/nerc-2022-reliability-report-gas-solar/627784>. See also Testimony of James B. Robb, President and Chief Executive Officer of NERC, “Traditional baseload generation plants are retiring, while significant amounts of new natural gas and variable generation resources are being developed. During this transition, natural gas-fired generation is becoming more critical to provide both ‘bulk energy’ and ‘balancing energy’ to support the integration of variable resources.”

<sup>27</sup><https://thehill.com/opinion/congress-blog/4029743-with-summer-power-grid-reliability-in-question-epa-rule-could-intensify-challenges/>.

<sup>28</sup> Potential Reliability Impacts of EPA’s Proposed Clean Power Plan Phase I April 2015, at p. v.

<sup>29</sup> See Section 2(b), *infra*.

however, each approach would result in the need for increased generation in the short-term and costly conversions in the long-term, all of which would necessarily result in cost increases to utility customers through higher electricity rates. For investor-owned utilities operating in South Carolina, given the short time frame to review the Proposed Rule, the EPA’s lack of transparency, and the lack of any commercially available data scalable to that required by the Proposed Rule, ORS is unable to provide an “all in” quantification of the costs to comply. Kennedy concluded the EPA grossly underestimated the costs to comply with the Proposed Rule.<sup>30</sup>

Moreover, the laws of supply and demand indicate the costs to comply with the Proposed Rule would actually be greater than the costs as calculated by the EPA. Because the Proposed Rule will impact all regions and utilities simultaneously, an already strained supply-chain (utilities already have a difficult time finding certain necessary transformers and other equipment in today’s tight supply chain<sup>31</sup>) would become further strained by the heightened demands triggered by the Proposed Rule. Accordingly, low-supply and high-demand may result in cost escalation to add to the burden faced by utilities and their customers alike.

This scenario is particularly concerning in South Carolina, which is a state with a relatively high incidence of poverty. According to the latest U.S. Census data, 14.6% of the State’s population lives below the poverty line.<sup>32</sup> Additionally, based on U.S. Census data, “more than 400,000 households in North and South Carolina live at 50% of the poverty line, and face average energy burdens of 30% (NC) and 37% (SC).”<sup>33</sup> Meanwhile, “509,000 households in North and

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<sup>30</sup> See Exhibit A, pp. 7, 8, 14, 22, 24, 25, 26, 28, 33, 41, 47.

<sup>31</sup> See Exhibit A, pp. 8, 25, 40.

<sup>32</sup> Center on Budget and Policy Priorities, 2/13/23;  
[https://www.cbpp.org/sites/default/files/atoms/files/snap\\_factsheet\\_south\\_carolina.pdf](https://www.cbpp.org/sites/default/files/atoms/files/snap_factsheet_south_carolina.pdf).

<sup>33</sup> University of North Carolina Convergence of Climate-Health-Vulnerabilities, *Fisher, Sheehan & Colton, 2019*.

South Carolina live at 50% to 100% of the poverty line and face 16% (NC) and 20% (SC) average energy burdens.”<sup>34</sup> As a result, “more than 909,000 households in the Carolinas spend at least an average of 16% of their household income on energy costs, significantly above the affordable energy threshold of 6%.”<sup>35</sup> A recent study conducted by Fisher, Sheehan, & Colton concluded that “South Carolina households with incomes of below 50% of the Federal Poverty Level pay 31% of their annual income simply for their home energy bills.”<sup>36</sup> The added expense of the Proposed Rule would only exacerbate energy poverty and burdens in South Carolina. Imposing these additional expenses imposed on all South Carolinians, and particularly on those that can least afford it, would be equal parts unsustainable and unreasonable.

Moreover, while the EPA calculated savings, those savings are at best inaccurate and rampantly speculative in nature.<sup>37</sup> Also, the EPA failed to consider certain costs that would result from the Proposed Rule (i.e., economic downturn, lack of reliability). The costs in terms of capital investments from the utilities are discussed in greater depth below; however, the economic hardship that would result to South Carolina’s economy and utility customers is substantial, immediate, irreversible, and unlikely to be compensable in monetary form.

### **c. The Proposed Rule Undermines South Carolina’s Future Economic Development**

While many states have experienced recent economic growth, South Carolina is in a unique position due to the speed of growth and the sectors in which that growth has occurred. Since 2017, South Carolina announced over 700 economic development projects, totaling more than \$32.8 billion in new investment and over 81,000 new jobs.<sup>38</sup> According to the United States Census

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<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> Fisher, Sheehan, & Colton, “The Home Energy Affordability Gap 2022.”

<sup>37</sup> *See* Exhibit A, p. 7, 16, 41.

<sup>38</sup> *See* Executive Order No. 2023-18, *supra*, p. 6.

Bureau, South Carolina is the third fastest-growing state in the nation.<sup>39</sup> Manufacturing is the State's third largest contributor of jobs and has experienced 1.3% annual growth over the past five years, more than double the national average.

Moreover, much of the growth has been in the Electric Vehicle ("EV") sector. A snapshot is shown below:

- Scout Motors – EV truck and SUV plant in Blythewood – \$2 billion investment, 4,000 new jobs;
- Redwood Materials – EV battery recycling and production plant near Charleston – \$3.5 billion investment, 1,500 new jobs;
- AESC – EV battery cell gigafactory in Florence – \$810 million investment, 1,170 new jobs;
- Cirba Solutions – EV battery recycling facility in Columbia – \$300 million investment, 300 new jobs;
- Albermarle Corporation – Lithium hydroxide processing facility in Chester County – \$1.3 billion, 300 new jobs;
- Volvo - EV production at its Ridgeville plant, including the Polestar 3 and a fully electric SUV - 1,500 jobs;
- BMW – Planning an EV manufacturing plant in Spartanburg and an EV battery facility in Woodruff – \$1.7 billion investment, 300 new jobs;
- Mercedes-Benz – Manufacturing eSprinter vans in Ladson – \$60 million expansion
- BorgWarner – Expansion of EV battery production in Oconee County – \$42.7 million investment, 122 new jobs; and
- Kontrolmatik Technologies – EV battery factory in Colleton County – \$279 million investment, 575 jobs.

South Carolina's economy is thriving and intertwined with the ability of electric utilities to offer reliable electricity at reasonable rates. Moreover, much of the State's economic development occurred in industries geared towards the electrification of the Nation's transportation sector, which has the potential to reduce carbon emissions. However, the State's economy must continue to grow, and electricity must be provided at reasonable rates if these industries are to continue to thrive. In order to power a growing transportation sector, South Carolina will require additional

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<sup>39</sup>“Growth in U.S. Population Shows Early Indication of Recovery Amid COVID-19 Pandemic.” <https://www.census.gov/newsroom/press-releases/2022/2022-population-estimates.html>.

electrical generation. However, under the Proposed Rule, electric utilities will be required to either: a) decrease the capacity of currently operating units, thereby decreasing the efficiency of those units and increasing the necessity to construct additional load or procure additional load; b) construct more efficient generating units, which have fewer carbon emissions, in addition to the generation units currently in utilities' rate base; c) speculate that CCS will be viable in South Carolina and plan to utilize CCS in the near future; or d) speculate that hydrogen infrastructure will be viable in South Carolina in the near future and begin to modify plants or construct new plants to utilize low-GHG hydrogen as a fuel source. While the Proposed Rule relies largely on speculation, one guarantee is that it would result in an increase in generation and thereby an increase in costs passed onto customers.<sup>40</sup> Moreover, in an effort to meet the additional generation requirements, utilities would likely be forced to turn to non-dispatchable generating resources,<sup>41</sup> which would further increase the cost to manage diverse resources in order to ensure reliability.

Each industry considering locating or re-locating to South Carolina has a unique approach to what it will pay for energy costs and how much clean energy it requires; however, one thing is certain, businesses watch the bottom-line and if costs for electricity are too high, those costs may deter them from locating to a specific state. The Proposed Rule fails to give due consideration or flexibility to South Carolina's economic circumstances to ensure the State's economic growth continues. In contrast, the Proposed Rule requires a marked decrease in generating unit efficiencies, the procurement of additional generation, and a substantial increase in costs for businesses that may seek to locate in South Carolina. Due to the inescapable link between reasonably priced electricity, reliability,<sup>42</sup> and South Carolina's continued success in economic

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<sup>40</sup> See Exhibit A, pp. 7, 29, 42; see also Exhibit A, pp. 7, 8, 14, 22, 24, 25, 26, 28, 33, 41, 47.

<sup>41</sup> See Exhibit A, p. 11.

<sup>42</sup> See Section 1(c), *supra*.

development, the Proposed Rule would stunt South Carolina’s economic development at best or cause it to completely stall out at worst.

**d. The Proposed Rule Creates Unreasonable Uncertainty in a Capital-Intensive Industry that Relies Upon Certainty**

In South Carolina utilities have already filed and received PSC approval for Integrated Resource Plans (“IRP”) that established plans for a 15-year planning horizon. Because the Proposed Rule would require utilities to utilize technologies that are not technically feasible,<sup>43</sup> no utility’s IRP sets a course that would comply with the Proposed Rule. Accordingly, if the Proposed Rule is adopted as written, each utility’s IRP, which has been approved by the PSC, would become obsolete, and a capital-intensive industry, in which certainty is prioritized, would instantly face years of uncertainty.<sup>44</sup> Whether it be through future proceedings to cope with this new rule, stranded generation assets, or the construction of otherwise unnecessary generation assets (due to the Proposed Rule’s required inefficiencies), the Proposed Rule’s uncertainty *will* increase costs ultimately borne by South Carolina utility customers and the resulting uncertainty could delay procurement of needed generation leading to reliability problems.

**e. The Uncertainty Created by the Proposed Rule Actually Incentivizes Utilities to Keep High Carbon Emitting Sources Online**

In South Carolina, each regulated utility is required to submit to the PSC, for approval, a comprehensive IRP every three years and annual updates to the IRPs. Each IRP is intended to present to the PSC a 15-year planning horizon and includes, among other items, capital expenditures on generation assets. The utilities in South Carolina that submitted IRPs each indicated they would retire many of their coal generation assets in the near future to be replaced

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<sup>43</sup> See Section 1(f), *infra*.

<sup>44</sup> While the EPA has proposed this rule, it is not certain what will become final, or exactly when.

by lower carbon emitting assets; however, in order to maintain sufficient generation, when one baseload generation resource is retired, additional capacity must be readily available. Accordingly, many utilities currently plan to use natural gas facilities as a bridge from coal generation units to future technologies. However, the Proposed Rule casts uncertainty on the long-term viability of utilities to construct natural gas facilities.<sup>45</sup> The uncertainty creates an environment in which a risk-averse utility simply may not proceed with construction of a natural gas fueled electric generation facility. Accordingly, in order to meet generation demand, the utilities will have to turn to coal plants for a period longer than previously contemplated by the utilities' IRPs. Essentially, this means that if the Proposed Rule is adopted, it will actually create an incentive to keep coal plants online longer than currently planned, in direct contravention to the proposal's stated intent of reducing carbon emissions.

**f. The Proposed Rule Requires the Use of an Unproven Best System of Emission Reduction.**

The EPA in its Proposed Rule sets forth the BSER; however, the BSER required by the Proposed Rule is not actually the *best* system of emission reduction. "Under section 111(d) of the Clean Air Act, EPA determines the best system of emissions reduction (BSER) that has been demonstrated for a particular pollutant *and a particular group of sources by examining technologies and measures already being used.*"<sup>46</sup> (emphasis added). Moreover, according to the Proposed Rule, the proposed emissions guidelines reflect the application of the BSER that, "taking

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<sup>45</sup> As discussed above the Proposed Rule costs are unreasonable, creates substantial risk for utilities, and destabilizes the regulatory environment thereby hindering the ability of utilities to receive regulatory approval to construct natural gas plants. *See* Sections 1(a)-1(e), *supra*.

<sup>46</sup> An EPA Fact Sheet on the Clean Power Plan states, "Under section 111(d) of the Clean Air Act, EPA determines the best system of emissions reduction (BSER) that has been demonstrated for a particular pollutant and a particular group of sources by examining technologies and measures already being used." <https://archive.epa.gov/epa/cleanpowerplan/fact-sheet-overview-clean-power-plan.html>.

into account costs, energy requirements, and other statutory factors, is adequately demonstrated.”<sup>47</sup> However, the EPA failed to reasonably account for the costs, energy requirements, and the fact the BSER proposed has not been adequately demonstrated by any generation plant in the United States on the magnitude required by the Proposed Rule.

In evaluating costs to South Carolina, the EPA focused exclusively on the potential of hydrogen for the State and alleges that hydrogen has a “reasonable cost” and has been “adequately demonstrated.” However, the available data indicates that utilizing hydrogen in South Carolina would be unreasonably expensive and take many years to realize.<sup>48</sup> Kennedy stated:

A requirement to use low-GHG hydrogen means that hydrogen primarily would have to be produced in an electrolysis process using renewable energy as the source of electricity, and it could take many years before a low-GHG version of hydrogen could become available at a utility scale to be able to meet the EPA’s targets.<sup>49</sup>

Additionally, low-GHG hydrogen that is expected by the Proposed Rule to be widely used in 2032 is not in use today—and the infrastructure needed nationally to implement its use does not exist.

Moreover, while CCS has been attempted previously, the Proposed Rule is premised on it being implemented on an *unprecedented scale*. The EPA labeled CCS as the BSER, even though it has not been demonstrated to actually be the best system of emission reduction and is not currently commercially available. Even the engineering firm on which the EPA relied, Sargent &

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<sup>47</sup> 88 Fed. Reg. No. 99 (May 23, 2023), p. 33243.

<sup>48</sup> See Exhibit A, p. 38, “[t]he EPA expressed confidence that “distribution and storage will not present a barrier to access for new combustion turbines opting to co-fire 30 percent low-GHG hydrogen by volume in 2032 and co-fire 96 percent low-GHG hydrogen by volume in 2038.” To achieve the necessary amounts of distribution and storage of hydrogen, the EPA assumed the cost of hydrogen is \$1/kg 2019\$ up to 2035 and then the cost will drop to \$0.5/kg (2019\$). Even with the IRA production tax credits (“PTCs”) available, there is simply no assurance hydrogen will achieve the low level of pricing assumed by the EPA.”

<sup>49</sup> See Exhibit A, p. 35.

Lundy, acknowledged the uncertainty of CCS costs due to the lack of actual data on CCS when it stated:

Due to the limited availability of actual as-spent costs for CO<sub>2</sub> capture projects, the cost estimation tool could not be benchmarked against recently executed projects to confirm how accurately it reflects current market conditions.<sup>50</sup>

Additionally, based upon the data currently available, South Carolina is unable to safely store CO<sub>2</sub> underground. A study commissioned by the Southern States Energy Board concluded “[t]he lack of deep wells and seismic data in the Georgia and South Carolina Coastal Plain strongly limits the comprehensive understanding of the porosity and permeability distribution in the RbH, as well as the cap rock integrity to prevent vertical CO<sub>2</sub> migration into the shallower groundwater aquifers during injection. In addition, the geologic origin of the intraplate 1886 magnitude 7 Charleston earthquake remains debatable, *thus the zones of weakness in the upper crust in the southeastern U.S. persists as a risk for the safety of long-term storage.*”<sup>51</sup> (emphasis added).

Accordingly, after taking into account the costs, energy requirements, and commercial availability of CCS and low-GHG hydrogen in South Carolina neither of these technologies can be considered the *best* system of emission reduction.

#### **g. The Proposed Rule Mandates Untenable Timelines**

The aggressive timelines the EPA requires in the Proposed Rule are impossible to meet for South Carolina. South Carolina lacks state regulation on hydrogen and carbon pipeline infrastructure. Moreover, aside from regulatory hurdles, the physical creation and installation of hydrogen and CO<sub>2</sub> pipeline infrastructure would take an estimated 15 to 20 years to complete.

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<sup>50</sup> IPM Model - Updates to Cost and Performance for APC Technologies CO<sub>2</sub> Reduction Retrofit Cost Development Methodology Final March 2023 [https://downloads.regulations.gov/EPA-HQ-OAR-2023-0072-0056/attachment\\_13.pdf](https://downloads.regulations.gov/EPA-HQ-OAR-2023-0072-0056/attachment_13.pdf), p. 1.

<sup>51</sup> A Sub-Basin Framework for Future CO<sub>2</sub> Infrastructure Development, October 30, 2020, p. 124.

Accordingly, it would be impossible to meet the timelines required in the Proposed Rule.<sup>52</sup> After consultation with the South Carolina Department of Natural Resources, ORS understands only one single well has been drilled in South Carolina for the study of CCS and the results of that study indicate the well site is non-conducive for CCS. While the results do not dispositively rule out CCS in South Carolina, additional studies necessary to make this determination would take at least 15 to 20 years to conduct and complete. This conservative timetable allows for exploration, engineering, and production; however, an additional barrier could be regulatory in nature. Because South Carolina lacks the regulatory framework for CCS, it could even take longer than 15 to 20 years for the implementation of CCS in South Carolina, if it is shown to be viable at all. Accordingly, the aggressive timetable set by the EPA remains unworkable.

Similarly, utilities informed ORS that 15-to-20-year timelines would likely apply to efforts by South Carolina to utilize low-GHG hydrogen as a fuel source. There is currently no pipeline infrastructure in South Carolina designed to transport hydrogen, and a blending of hydrogen into natural gas pipelines would create significant safety concerns. “If the hydrogen level in natural gas is increased beyond 20%, the overall risk in service lines would significantly increase, absent additional risk management measures. Construction of new pipelines, either natural gas pipelines that will be used for a blended gas or hydrogen dedicated lines, will require consideration of the challenges that hydrogen poses during transportation by pipeline.”<sup>53</sup> At bottom, the Proposed Rule’s BSER is based upon speculation. In fact, the only certainty surrounding the Proposed Rule is that CCS is unproven, and it would conservatively take 15 to 20 years to even determine its

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<sup>52</sup> The Proposed Rule requires full compliance with both the CCS and Hydrogen portion by 2038. See Tables 1 and 2, *supra*.

<sup>53</sup> United States Department of Energy: Hydrogen Strategy: Enabling a Low-Carbon Economy.

viability in South Carolina. Similarly, it would take 15 to 20 years to safely implement the infrastructure necessary to utilize hydrogen as a generation fuel in South Carolina.

Accordingly, as discussed more below, if the Proposed Rule is not withdrawn, ORS would propose that the EPA extend the deadlines by which compliance must occur by 15 to 20 years.

**h. The Proposed Rule May Conflict with Proposed South Carolina Legislation and Would Require Passage of State Legislation to Comply**

As indicated above, it would be impossible to continue to generate the load required in South Carolina and comply with the Proposed Rule without simultaneously investing in additional generation resources. Moreover, because the Proposed Rule creates an environment in which siting carbon-based resources is more expensive and difficult, combined with the fact that CCS is not viable in South Carolina, and hydrogen is still 15 to 20 years away from being a viable fuel source, the most likely alternative generation source in South Carolina is currently solar generation. Yet the amount of solar the EPA assumes will be required to be integrated onto the grid is unreasonable. According to Kennedy,

It is also arguable whether 17,000 MWs of solar capacity could be integrated into the South Carolina grid in the Proposed Rule case over the study period. Even more questionable is that the EPA assumes that between 2037 and 2038, 16,000 MW of solar resources would be added to the South Carolina grid in that year alone. Furthermore, the availability of land to site 17,000 MW of solar resources in South Carolina is an issue as well. If a MW of solar capacity were assumed to require six acres of land, building 17,000 MW of solar in South Carolina would require about 160 square miles.<sup>54</sup>

For context, the total land area of Washington D.C. is a little over 61 square miles. The South Carolina General Assembly recently introduced a bill to preserve land for the needed agricultural economy in South Carolina in the face of South Carolina's rapid solar development.<sup>55</sup>

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<sup>54</sup> Exhibit A, p. 43.

<sup>55</sup> See House Bill 3989, introduced on 2/16/23.

Additionally, at least one county in South Carolina has passed a moratorium on construction of solar farms.<sup>56</sup> Accordingly, the Proposed Rule creates a potential conflict with existing County ordinance and potential State law intended to protect land necessary for agricultural use.

If the Proposed Rule is finalized, the South Carolina General Assembly would have to pass laws and regulations for the overview and safety of pipelines built in South Carolina to carry CO<sub>2</sub> and/or hydrogen, both of which can be potentially hazardous.

## **2. Legal Concerns with the Proposed Rule**

In addition to the practical and technical concerns noted above, ORS has multiple legal concerns with the Proposed Rule. While the EPA may have broad authority to promulgate a variety of rules, in its haste to promulgate this Proposed Rule, it diverted from its legal obligation to allow for meaningful input from the public and those impacted. That defect, and the others discussed more fully below, invalidate the Proposed Rule and the process by which the EPA seeks to promulgate this rule. To be clear, there may be other legal concerns raised by this Proposed Rule and the concerns raised below are not intended to be an exhaustive list. As a result, the Proposed Rule must be altered or withdrawn.

### **a. The EPA’s Process for Considering the Proposed Rule Failed to Provide a Reasonable and Sufficient Opportunity to Participate**

The process required by the EPA for a rule of this magnitude runs counter to the spirit of the federal Administrative Procedures Act (“APA”).<sup>57</sup> “[T]he APA generally requires the agency

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<sup>56</sup> See Ordinance No. 2023-5, “[a]n ordinance establishing a temporary moratorium on applications and administrative processing for approval of solar projects or farms of more than one acre sought outside of industrial areas and within the unincorporated areas of Calhoun county; and invoking application of the pending ordinance doctrine.”

<sup>57</sup> “[B]oth the letter and the spirit of the APA, [...] demands ‘openness, explanation, and participatory democracy’ in the rulemaking process.” *National Treasury Employees Union v. Newman*, 768 F.Supp. 8, 12 (D.C. Cir. 1978).

to first publish a notice of proposed rulemaking and provide interested parties with a meaningful opportunity to comment on the proposal.”<sup>58</sup> *See also* Executive Order 12866, Regulatory Planning and Review (Sept. 30, 1993), 58 Fed. Reg. 51735 (Oct. 4, 1993) (“[E]ach agency should afford the public a meaningful opportunity to comment on any proposed regulation, which in most cases should include a comment period of not less than 60 days”).

The EPA required procedure for submitting comments and participating in the comment period on the Proposed Rule distorted public participation. The Proposed Rule, including exhibits and subparts, is over 645 pages yet the public was given only 75 days in which to review, analyze, conduct any necessary discovery or research, and provide comments.<sup>59</sup> Moreover, the EPA denied ORS the ability to provide public testimony, and upon viewing the EPA’s public hearing it appeared the overwhelming majority of speakers were partisan and failed to represent a diverse set of viewpoints. Empirically, it appears the EPA did not seek a diverse set of viewpoints from which to inform the crafting and drafting of the Proposed Rule; rather, the EPA sought only to ensure the Proposed Rule, as currently drafted, conformed to a pre-set agenda—regardless of the costs to customers<sup>60</sup> and impacts to reliability.<sup>61</sup>

While the EPA did allow parties 60 days (plus an additional 10 business days that were granted after a 120-day extension was sought) to comment on the Proposed Rule, that allowance is hardly meaningful in this instance. The analysis commensurate with a rule as significant and voluminous as the Proposed Rule warrants and requires a significant amount of time—certainly greater than 60 days plus 10 business days. Instead of allowing parties a meaningful opportunity

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<sup>58</sup> *Craker v. U.S. Drug Enforcement Admin.*, 44 F.4<sup>th</sup> 48, 55 (2022).

<sup>59</sup> Initially, the EPA only allotted 60 days for review and comment, but upon request an additional 10 business days was added.

<sup>60</sup> The cost of the Proposed Rule is discussed in greater depth in Sections 1(b) and 1(c), *supra*.

<sup>61</sup> The impact to reliability of the Proposed Rule is discussed in greater depth in Section 1(a), *supra*.

to comment and conduct a thorough analysis of the Proposed Rule, its impacts, and potential workable alternatives, the EPA forced parties to scramble to cobble together comments and conduct analyses in a relatively short period of time. The Proposed Rule is intended to set the electrical generation policy for the United States for the foreseeable future and will have far-reaching impacts on costs to customers, carbon emissions, economic policy, economic development and growth, and environmental justice. No party disputes the scope or magnitude of the Proposed Rule, yet the EPA sought to allow the bare minimum of time for public comments. This process mandated by the EPA violates the spirit of the APA.<sup>62</sup>

Finally, the EPA's own analysis of the Proposed Rule contains inconsistencies that made an independent evaluation of the Proposed Rule impossible, and the level of detail provided is inadequate. Kennedy found inconsistencies. According to Exhibit A:

Kennedy cannot validate the EPA's Initial or Revised results because the results the EPA provided in specific tables in the report (e.g., Table 3-7) do not match with the results found in IPM output files. The EPA should provide stakeholders additional workpaper support and ensure that workpapers are consistent with results in reports it provides.<sup>63</sup>

One glaring example of a logical inconsistency in the EPA's model is the indication that hydrogen will be used in 21 states in the year 2035, but five years later, in 2040, the model indicates hydrogen is only used in three states.<sup>64</sup>

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<sup>62</sup> The EPA, in carrying out its "essentially legislative task," is expected to conduct its administrative process with a degree of openness, explanation, and participatory democracy required by the APA. *Weyerhauser Co. v. Costle*, 590 F.2d 1011, 1027 (D.C.Cir. 1978).

<sup>63</sup> See Exhibit A, p. 15.

<sup>64</sup> See Exhibit A, p. 29.

Beyond that, however, the level of detail provided by the EPA was so deficient that Kennedy was unable to determine the specific assumptions made by the EPA in its modeling.<sup>65</sup>

**b. The EPA Failed to Comply with the Federal Freedom of Information Act Requirements Resulting in Limited Public Participation**

On June 16, 2023, ORS issued three separate, but identical, FOIA Requests regarding the Proposed Rule<sup>66</sup>—one request went to the EPA, one to the DOE, and one to the FERC. Despite the fact the FOIA Requests each consisted of one simple question and the FOIA requirement to respond to the request within 20 working days, ORS has yet to receive a response from the EPA or DOE.<sup>67</sup>

The FERC did respond to the FOIA Request on August 1; however, the response was filled with redactions and excluded relevant communications.<sup>68</sup> Accordingly, it provided limited insight to the process the EPA followed in evaluating the impacts of the Proposed Rule.

The magnitude of the Proposed Rule and sheer volume of the Proposed Rule make the brevity of the comment period required by the EPA unreasonable and the failure by the EPA and DOE to comply with FOIA, and the limited information provided by FERC, compound the other existing defects so as to effectively prohibit any meaningful public participation.

**c. The Proposed Rule Fails to Reasonably Examine Relevant Data and the Requirements Imposed are Impossible.**

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<sup>65</sup> See Exhibit A, p. 19, “...the EPA did not provide unit-level summary reports as part of the workpapers, which made the review of the modeling logic and assumptions difficult.” See also Exhibit A, Appendix B.

<sup>66</sup> The request consisted of one simple question and is attached as Exhibit E.

<sup>67</sup> The response received from FERC is discussed further below. The EPA informed counsel for ORS on July 17, 2023, that it would not be responding until November 3, 2023. See Exhibit F. The DOE has not yet stated a date by which it will respond.

<sup>68</sup> See Exhibit H.

The Proposed Rule by its nature is arbitrary and capricious. Pursuant to the APA, a reviewing court shall “hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.”<sup>69</sup> The EPA action is arbitrary and capricious when it fails to “examine the relevant data and articulate a satisfactory explanation for its action” or when it has “entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.”<sup>70</sup>

In this instance, the EPA failed to reasonably examine an important aspect of the problem the Proposed Rule seeks to address, and the explanation offered by the EPA runs counter to the evidence before it.<sup>71</sup> As detailed above, the EPA concluded CCS and co-firing hydrogen are the BSER. However, no industry in the United States has implemented CCS or hydrogen co-firing on the scale required by the Proposed Rule and numerous experts, including Kennedy concluded that 1) CCS is not proven to be viable in South Carolina; and 2) hydrogen co-firing as required by the Proposed Rule is not yet viable in South Carolina and will not be viable for another 15 years—at the earliest.<sup>72</sup> Accordingly, the quantitative and qualitative evidence indicates that the EPA could not have reasonably examined the relevant data and its conclusion is incorrect.

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<sup>69</sup> 5 U.S.C. § 706(2)(A).

<sup>70</sup> *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43-44 (1983)

<sup>71</sup> “Congressional legislation is not a blank check upon which each succeeding administration can write its policy preferences without regard to the evidence before the agency, the factual findings upon which the agency based its prior policy, or the dictates of reason.” *Rural & Migrant Ministry v. U.S. Env'tl. Prot. Agency*, 510 F.Supp3d 138.

<sup>72</sup> See Sections 1(f) and 1(g), *supra*.

Moreover, the Proposed Rule and the process followed thus far indicates the EPA considered certain alleged facts that support one viewpoint<sup>73</sup> but failed to consider other relevant facts. “[I]t is not sufficient for an agency in adopting a regulation simply to mouth the views of one or another of the affected parties—whether an entity that will be regulated or a beneficiary of the regulation.”<sup>74</sup> That is exactly what the EPA has done in this process. As demonstrated in part by the public hearings, the EPA proposed a rule that only parrots the policy preferences and priorities of the select few, while ignoring the practical realities and facts offered by others. Numerous parties, including Kennedy, have made plain the risks to reliability that would result from the Proposed Rule.<sup>75</sup> The requirements set forth in the Proposed Rule are so implausible that they cannot be ascribed to a difference in view between the EPA and widely accepted expertise. Because the EPA failed to consider all relevant facts and its requirements are so drastically implausible, the Proposed Rule by its nature is arbitrary and capricious and must be withdrawn or altered.

**d. The Proposed Rule Causes Immediate and Irreparable Harm to South Carolina’s Utility Consumers and its Economy**

As discussed above, South Carolina has experienced unprecedented economic growth over the last few years and both the existing economic activity in South Carolina and the State’s future economic growth are intrinsically tied to sustained and increased electric generation. However, the Proposed Rule would have the impact of preventing additional low-cost generation from coming online in the near-term.<sup>76</sup> The inability to generate additional low-cost electricity in the near-term

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<sup>73</sup> See Section 2(a), *supra*.

<sup>74</sup> *Rural & Migrant Ministry v. U.S. Env’tl Protection Agency*, 510 F.Supp3d 138, 158 (2020).

<sup>75</sup> See 1(a), *supra*.

<sup>76</sup> See Sections 1(e) and 1(h), *supra*.

would prevent industry from locating and growing in South Carolina.<sup>77</sup> Accordingly, the Proposed Rule would effectively stunt near-term increases in electrical generation and, importantly, irreparably harm South Carolina’s growing economy.

### **3. Proposed Alternatives to the Proposed Rule**

As indicated above, the EPA’s Proposed Rule is not plausible, will result in more harm than good to South Carolina, and should be withdrawn. If the Proposed Rule is not withdrawn, ORS recommends the following modifications be considered to aid South Carolina:

#### **a. Flexible State Plan**

First and foremost, each state is best positioned to determine how the utilities operating within the state may meet carbon emission reduction goals. Accordingly, ORS recommends the EPA allow the state entity required to submit to the EPA the state’s carbon emission reduction plan with the flexibility to determine how best to meet a carbon emission reduction goal.

#### **b. Putting in Place a Reliability Safety Valve**

The final version of the Proposed Rule that the EPA publishes must include a reliability “safety valve” to afford utilities the ability to veer from the Proposed Rule in the event it is required in order to maintain reliability.<sup>78</sup>

#### **c. Extend the Deadlines of the Proposed Rule**

Analyses indicated that CCS is not currently proven to be viable in South Carolina and any hydrogen infrastructure necessary to comply with the Proposed Rule is another 15 to 20 years away. Moreover, as time passes, coal plants are likely to become less economical and utilities will elect to retire them absent a requirement from the EPA. This natural cessation of coal fired

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<sup>77</sup> See Section 1(c), *supra*.

<sup>78</sup> See Exhibit A, pp. 43, 45.

generation would alleviate the concern of customers paying for stranded coal generation assets, and will simultaneously achieve much of what the Proposed Rule sets out to accomplish—shuttering coal plants. Accordingly, by simply extending the deadlines for compliance with the Proposed Rule, its goals could be realized in a more reasonable, and economical fashion. Additionally, the added time and natural cessation of coal generation would allow utilities to put into place generation assets that will enable load to continue to grow and adopt rates necessary to accommodate economic growth while mitigating reliability concerns.

Additionally, ORS also recommends the EPA seek a reliability assessment from NERC related to the Proposed Rule.<sup>79</sup>

## CONCLUSION

The Proposed Rule spells disaster for South Carolina. It is unworkable, unreasonably expensive, and creates electrical reliability problems. Moreover, the EPA pushed the Proposed Rule through the regulatory process in contravention of the APA, and the substance of the Proposed Rule raises serious legal concerns as industry and experts cast doubts as to its feasibility. Simply put, the EPA's Proposed Rule cannot be effectuated and attempting to implement it would do more harm than good. Accordingly, the Proposed Rule must be withdrawn or significantly altered.

Respectfully submitted,



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<sup>79</sup> See Section 1(a), *supra*.