



August 8, 2023

The Honorable Michael S. Regan
Administrator, the Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RE: Docket ID No. EPA-HQ-OAR-2023-0072,
via <https://www.regulations.gov>

Dear Administrator Regan:

The Wyoming Energy Authority's (WEA) mission is to advocate for, facilitate and advance Wyoming's energy economy to grow a secure and prosperous future for Wyoming's energy and natural resources. Focusing on an "all-of-the-above" energy mix, the WEA's strategy includes products from our legacy fossil industries, along with the newer players of renewable energy and emerging opportunities in hydrogen, advanced nuclear, geothermal, and rare earth elements.

The State of Wyoming has been working for decades to advance carbon capture and storage (CCS) technologies that will reduce emissions in the electricity sector, and it is our goal to see these technologies move forward. Unfortunately, the Environmental Protection Agency (EPA)'s proposed rule fails to meet a myriad of thresholds necessary for implementation.

As they are currently written, the EPA's proposed regulations have significant issues that we believe would cause harm to both Wyoming and the Nation if implemented. Firstly, the proposed rules attempt to regulate infrastructure and industry outside the



fence line of the electric generating units (EGU), going beyond the statutory and regulatory authority of the Clean Air Act.

Secondly, The proposed rule contains unproven performance standards. While carbon capture systems are considered commercial and available for deployment, a capture rate of 90% has not been demonstrated at scale for all types and scales of EGU's. The EPA should conduct a more in-depth analysis to consider the real-world operation of the steam EGU's as they provide both baseload power and serve as load following to support the integration of renewable energy resources on the grid. Carbon capture technologies have not been deployed at scale to demonstrate their ability to load follow and maintain performance. The EPA must consider reducing the BSER for EGUs with CCS to achieve this performance consistently.

Thirdly, the EPA's proposed rule makes several unrealistic and flawed cost assumptions. We feel that the assumptions in the rule and technical support documents would meaningfully change the conclusions of what is considered the BSER and regulatory impact. We urge the EPA to reconsider the analyses and the BSER findings and to subsequently re-open a comment period for stakeholders to review.

Fourthly, the proposed rule does not adequately address uncertainties regarding CCS readiness levels and availability. While CCS is a proven commercial technology, it continues to require substantial infrastructure investments to be made outside of the boundaries of existing and planned EGU's before it can be considered a national strategy for GHG reductions. Given this large degree of uncertainty, the EPA compliance timelines for CCS are too aggressive to be realistically achieved.

Wyoming has dedicated considerable resources and efforts to the development of a viable hydrogen economy. However, the EPA's proposed rule and aggressive timelines present multiple challenges to the hydrogen system. The current state of the hydrogen market offers concerns about whether the deployment of hydrogen as a commercial-scale power system can be available within the timeframe indicated by the EPA. The elements of a



nascent hydrogen economy that require more time to develop than given by the proposed rule changes are production capacity for low GHG hydrogen, building up adequate supply chains, workforce availability, availability of cheap power-generating capacities, standardization, third-party verification organizations, and the lack of pipeline infrastructure for hydrogen transport.

Additionally, while Wyoming is supportive of efforts to develop hydrogen-fired turbines (the WEA is currently funding a project led by Black Hills Energy and GE to advance this effort), the EPA's analysis lacks rigor on whether these systems and associated infrastructure will be available with the compliance deadlines. There are currently no original equipment manufacturers (OEMs) that have demonstrated a 96% fired hydrogen-fired combined cycle turbine for extended periods of time, and there are no OEMs providing performance guarantees for hydrogen-fired turbines. There are significant R&D issues that need to be resolved before this technology is ready for large-scale energy delivery. Other outstanding issues surround the cost of analyses of hydrogen production and hydrogen systems, which have not been supported with sufficient detail and may result in a much higher cost to consumers.

Given Wyoming's appreciable fossil fuel resources we would also like to address several concerns we have specific to the role of fossil fuels in a carbon constrained future. The proposed regulations do not consider the construction of new natural gas or coal-fired steam generating units with CCS or units that are based on advanced combustion technologies that include inherent CO₂ capture as part of the combustion process. This is a glaring oversight of the EPA's regulatory analysis considering the errors found regarding the economics and optimistic assumptions regarding hydrogen and natural gas availability. If CCS is required on all EGUs, it is clear that coal EGUs with CCS will provide the lowest cost power and achieve GHG emission reduction comparable to other power systems while also providing reliable, clean electricity required to support renewable energy generation.

The EPA states it "has designed these proposed standards and emission guidelines in a way that is compatible with the nation's



overall need for a reliable supply of affordable electricity.” Without considering the impacts of this proposed rule, 55,834 MWs of existing coal is scheduled for retirement prior to 2032 (Energy Information Administration). Hundreds of additional MWs are at serious risk of retirement due to other proposed EPA rules, such as the Coal Combustion Residual Rule, the Ozone Transport Rule and the Mercury and Air Toxics Rule. It is difficult to see how additional regulations resulting in more coal units being prematurely retired is “compatible” with “the nation’s overall need for a reliable supply” of electricity. The North American Electric Reliability Corporation (NERC), PJM, ERCOT, SPP and the Midcontinent Independent System Operator (MISO) all are sounding the alarm about resource adequacy concerns threatening the reliability of the grid. These proposed regulations will only exacerbate these concerns and could threaten the wellbeing of millions of americans.

Finally, the proposed rule would have profound negative impacts on the communities that host and work at the fossil fuel EGU’s. The proposed BSER strategies for the existing units would have significant economic impacts on both the communities and the state education and other infrastructure. While engagement with communities is an interest Wyoming shares with the EPA, we vary greatly on the assumptions made about what residents desire in terms of the future of energy. The EPA erroneously concludes that residents feel “burdened” by current energy production and fear additional negative impacts from new technologies, such as CCUS. In Wyoming, quite the opposite is true. In a recent survey, a sample of Wyoming residents showed that 75% are in favor of, or are neutral with respect to CCUS technologies.

The “disproportionate burden” felt by Wyoming citizens continues to come in the form of regulations and unrealistic permitting timelines that impose seemingly unattainable standards – negatively impacting the fossil fuel industry and the generation of coal-fired electricity. Wyoming’s economy has suffered greatly at the hands of agenda driven environmental regulations that have reduced good paying jobs and damaged the very communities they seek to protect. Wyoming residents are painfully aware of

these devastating impacts and only wish their concerns about their communities were actually heard by and mattered to the EPA. We urge the EPA to consider ALL community engagement and reverse its automatic assumption of “energy burden.”

In summary, not only does Wyoming and its communities have a pragmatic grasp on the technologies that will reduce emissions in the electricity sector, it is actively funding and advancing these technologies. Through extensive public and private partnerships, Wyoming aims to see these technologies move forward – ensuring that the Nation continues to produce reliable, dispatchable, affordable electricity. Unfortunately, the EPA’s proposed rule fails to meet the most basic technical and legal thresholds necessary for productive implementation. We urge the EPA to withdraw the proposed Section 111 rule. We encourage the EPA to work with Wyoming and other energy-producing states to find an attainable, realistic, and ultimately successful path forward.

Sincerely,



Rob Creager

Executive Director

