

**Chris Parker, Director, Utah Division of Public Utilities, Testimony before
the House Environment, Manufacturing, and Critical Minerals Subcommittee,
November 14, 2023**

Summary of Testimony

- Our nation's electrical grid is under increasing strain as large generators retire and are replaced by significant amounts of variable energy resources, like wind and solar
- Federally-designated reliability entities, like the North American Electrical Reliability Corporation and the Western Electricity Coordinating Council have warned that current federal and state energy policies threaten grid stability because of their pressures on large generators and the proliferation of variable resources
- The EPA's proposed greenhouse gas rules for electrical generators threaten to further exacerbate the challenges NERC and WECC warn are jeopardizing the electrical grid's adequacy
- Existing federal regulatory processes make compliance with the EPA's proposal on its timelines virtually impossible because of the long lead time needed for many projects, either in approvals for the generating technology or permitting for transmission facilities needed to adapt to changed or new resources
- Supply chain challenges threaten the EPA's timelines
- Even if utilities can comply with the EPA's timelines, the cost of compliances will put significant pressure on customer rates because rates are likely to include undepreciated plant balances for closed plants, inflationary pressures continue, and the cost of utility debt issuances is rising
- If utility companies are given space to prudently plan resource retirements and additions, our nation's energy supply will continue to get cleaner, but it will do so in a way that minimizes disruptions and allows utilities to provide safe, adequate, and reliable service at reasonable rates

Good morning, Chair Johnson, Ranking Member Tonko, Chair Rodgers and Ranking Member Pallone and members of the Subcommittee. My name is Chris Parker. I am the Director of the Utah Division of Public Utilities, which advocates the public interest before the Public Service Commission of Utah and other forums as appropriate. While environmental regulators can provide more sophisticated testimony about the EPA's proposal for regulating greenhouse gas emissions from electrical generators, I hope providing a utility regulator's perspective can give the Subcommittee a fuller picture of the challenges the EPA's proposal would place on an already strained electrical grid.

For electrical utilities and regulators, our current moment calls for great care. In utility regulation we speak often of prudence and a utility's ongoing duty to act prudently. Given warnings about the resource adequacy challenges our nation's grid faces, regulators like the EPA must consider how to apply the prudence standard to themselves.

Reliability Risks

The North American Electric Reliability Corporation (NERC) and the Western Electricity Coordinating Council (WECC) have both recently identified increasing risks of unreliability due to the increase of variable resources and early retirements of large resources that provide firm, high-quality power.¹ Into this period of increased risk, the

¹ 2022 Long-Term Reliability Assessment, North American Electric Reliability Corporation (December 2022); Western Assessment of Resource Adequacy, Western Electricity Coordinating Council (December 2022).

EPA's proposed greenhouse gas rule would inject additional cost and uncertainty. While federal reliability monitors urge caution in retiring existing generation, the federal environmental regulator proposes a policy that will shutter many of those key facilities. The proposal does this by assuming the availability and affordability of unproven technologies and judging existing facilities against those standards. If the rules are adopted, consumers will pay more for a less reliable system. Given increasing signs of trouble in the grid, regulators should help stabilize the system, not exacerbate its problems.

The Utah Division of Public Utilities has a statutory mandate to advocate for the public interest in safe, adequate, and reliable power at reasonable rates. The Division is encountering increasing pressures from the federal government that threaten our state's position as a leader in affordable and reliable power. While some critics contend that bold policies are needed to effectuate a speedy transition away from fossil-fueled resources, Utah's example shows the opposite.

Utah has relatively mild policy prescriptions, with a renewable standard that is contingent on cost-effectiveness.² We have regulatory structures that police prudence while also letting the utility innovate within those parameters. Our largest electrical utility, Rocky Mountain Power has worked closely with regulators to create voluntary subscription programs, allow commercial clean energy options that insulate other ratepayers from increased costs, and procure cost-effective resources as markets and tax policy permits. Utah's net utility-scale renewable generation is above national

² Utah Code, Title 54, Chapter 17, Part 6, Carbon Emission Reductions for Electrical Corporations.

averages.³ Utah has been able to make these shifts because our utilities have been given space to plan them as they fit with other resource decisions and timelines. While hastening retirements by just a few years might seem like only modest policy pressure, it has much more dramatic effects on costs and reliability because it significantly constrains the planning environment. Now is a dangerous time to put these additional pressures on the system because even mild changes in plant availability can increase reliability risks.

As noted, reliability organizations have recognized this. About the Western Interconnection, WECC has said:

Resource adequacy risks increase over the next decade. After 2025, each subregion shows an increase in [demand at risk], due to retirements throughout the next decade. In addition, the [planning reserve margin indicator] continues to increase. This is primarily due to increasing variability from the addition of large amounts of variable energy resources (VER) and increasing demand variability with record levels of peak demand.⁴

WECC is warning that the continued reliability of the western electric grid is already in jeopardy, even assuming all currently planned additions are implemented without delay. Despite the delay of some planned plant retirements, WECC indicates that “If nothing is done to mitigate the long-term risks within the Western Interconnection, by 2025 we anticipate severe risks to the reliability and security of the interconnection.”⁵

This conclusion comes from its Western Assessment of Resource Adequacy, which already assumes planned additions from utilities. Among its other conclusions:

³ State Energy Profile, Energy Information Administration, <https://www.eia.gov/state/data.php?sid=UT>.

⁴ Western Assessment of Resource Adequacy at 4.

⁵ *Id.* at 4.

- “Not only is resource adequacy risk growing, but it is spreading throughout the year beyond the peak load seasons”⁶
- “[A]ny delays in building planned resources could pose serious risks to reliability.”⁷
- “[E]ach subregion’s DRI [demand-at-risk indicator] increases over the next 10 years, even with additional planned resources and imports.”⁸
- “While entities plan to add a significant amount of capacity over the next decade, that capacity is largely VERs, which add additional variability to the system. This lowers the DRI since energy is being added to the system; however, the additional variability from the added VERs actually increases the risk, as measured with the Planning Reserve Margin Indicator (PRMI).”⁹
- “Compared to last year’s Western Assessment, the number of hours at risk under the [fixed planning reserve margin indicator] has increased substantially in magnitude and number (Figure 19). In addition, there are more hours at risk during the winter than in the 2021 assessment. This indicates that the risk to the system is growing and spreading across more of the year.”¹⁰
- “Over the next 10 years, demand and resource variability will increase, which means resource adequacy risks will increase. Based on current projections, by 2025, each subregion, and the interconnection, will be unable to meet the 99.98%—one-day-in-10-year—reliability threshold.”¹¹

⁶ Id.

⁷ Id. at 5.

⁸ Id. at 23.

⁹ Id.

¹⁰ Id. at 34.

¹¹ Id. at 42-43.

- “Considering that the results of this assessment indicate that the number of planned resources may not keep pace with the increases in variability over the next 10 years, any delays in building planned resources could pose a serious resource adequacy risk.”¹²

The North American Electric Reliability Corporation (NERC), which is the nation’s electric reliability organization under the Energy Policy Act of 2005, also warns of similar concerns in its 2022 Long-Term Reliability Assessment.¹³ Among the recommendations it makes is to “manage the pace of generator retirements until solutions are in place” and to evaluate “the impact of electrification of transportation, space heating, and other sectors may have on future electricity demand and infrastructure.”¹⁴ We are a hopeful people, but we should heed these warnings.

The EPA’s rules rely on as-yet unproven and subsidized technologies

Instead, the EPA has chosen to adopt a “best system of emission reduction” based on subsidized technologies deployed at experimental scales. Contrary to law, this establishes a standard that has not been “adequately demonstrated.” Carbon capture and sequestration, natural gas co-firing, and green hydrogen blending have not been proven to be commercial at scale. Even ambitious projects like the hydrogen repowering of Utah’s Intermountain Power Project’s coal plants anticipate decades before being able to rely solely on hydrogen.

¹² *Id.* at 43.

¹³ 2022 Long-Term Reliability Assessment, at 5-7; 95-97.

¹⁴ *Id.* at 7.

Compliance with the rules is impossible on the rules' timeline

One of the key hurdles to the reliability of the bulk electrical system is the inability of entities to construct additional resources on reasonable timelines and at reasonable costs. While the federal EPA makes aggressive demands, other agencies' processes make satisfying the EPA virtually impossible. Long experience in the West indicates that permitting new facilities in time to replace any retiring ones is likely to be nearly impossible, especially on the timeframes the EPA contemplates. With vast stretches of public land, nearly every one of these decisions for Utah plants, and many throughout the region, will require an environmental assessment (EA) or an environmental impact statement (EIS). Either could add years and expense to new generation facilities or the transmission facilities necessary to serve them. Further EAs or EISs might also be required to stabilize the grid in the areas where large generators are removed, as voltage and frequency variations from the loss of large generators are likely to occur when they are removed. These effects are not likely to be fully known until replacement resources and their locations are identified. Additional facilities to stabilize the grid could require EAs or EISs. Given competitive bidding and other required regulatory processes, knowledge about replacement resources and costs will trail the decisions on shuttering existing facilities. NEPA and other federal processes result in decade-plus lead times for transmission assets across federal land, which predominates in Utah. If nuclear resources are chosen, as some utilities have indicated Nuclear Regulatory Commission processes will proceed only marginally faster than the radioactive material they regulate decays.

The EPA's proposal requires compliance on timelines that cannot be met in light of these regulatory delays. This is especially so when supply chains remain strained for many commodities electrical utilities rely on. Delays in substation equipment deliveries have become years-long in many instances. Uncertainty about international supplies of critical minerals also calls into question the ability to construct enough resources fast enough to maintain a reliable system.

A Utah example of one potential challenge concerns PacifiCorp's plans for nuclear facilities to replace retiring coal plants. PacifiCorp's most recent Integrated Resource Plan,¹⁵ which remains under consideration at commissions, calls for retirement of Utah coal plants in 2032 and new Sodium nuclear plants as their replacement. The EPA's proposal would likely make continued operation of those plants impossible after 2030. The start of Russia's war against Ukraine in 2022 ended hopes for the planned-for supply of the needed fuel. While PacifiCorp and TerraPower have been engaged in identifying and securing alternate supplies, meeting the 2032 seems very unlikely. However, even PacifiCorp's overly optimistic 2032 target date will leave a large capacity gap between 2030 and 2032.

Compliance with the EPA rules will be expensive

Even if a large set of new resources across the country can be built in time to replace retiring plants, rate increases would be punishing for consumers. When a plant retires early, cost recovery from ratepayers has especially acute effects. This is because

¹⁵ Available at https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/integrated-resource-plan/2023-irp/2023_IRP_Volume_I.pdf.

remaining plant balances need to be recovered from ratepayers at the same time a new plant is added.

If a plant scheduled to go offline in 2039 goes offline in 2030, regulators will likely authorize recovery of the dozens or hundreds of millions of dollars in remaining plant balances over some period during which the facility no longer provides any generation. Furthermore, ratepayers must also pay for the new resources to replace the retired capacity. Thus, for a significant period, ratepayers will be effectively paying double for the capacity used to serve them. This leads to intergenerational inequities as then-current ratepayers effectively pay for past ratepayers' usage of a now-defunct plant. It is expensive and unfair, even if potentially lower energy costs offset some of the added and remaining capital costs in rates. The more remaining life an existing plant has, the more expensive it will be to close.

The EPA's proposal is imprudent and threatens grid stability

While it is not immediately clear which resources might close under the EPA's proposal or how much their replacements will cost, the electrical grid is under strain. It is under strain in some large measure because of policies aggressively mandating shifts away from fossil fuel plants to variable renewable resources. These variable resources have a place in today's and tomorrow's electrical system. Their growth will continue with or without the EPA's proposal. The nation's electrical grid will look far different in ten years than it does today. And it is already far different than was a decade ago. The EPA can comply with the Clean Air Act in a more judicious manner, recognizing real risks, applying best systems of emission reduction that are based on proven technologies. If it does that, utilities will have the space to plan effectively, transition prudently, and

provide safe, adequate, and reliable service at reasonable rates. If the EPA adopts its current proposal without significant modification, utilities will be forced to make significant resource decisions with little lead time to plan, with fewer options to comply, and with supply chain constraints and inflationary pressures.

As a utility regulator, I am accustomed to applying a standard of prudence to utility actions. If I apply that same standard of prudence to the EPA's proposed rule, I find it wanting. Reliability organizations operating under federal law are warning that large plant retirements and the proliferation of variable energy resources are threatening grid stability and resource adequacy. They have noted that in some regions only a series of delayed retirements have helped near-term grid conditions remain satisfactory. They have cautioned that aggressively adding new variable resources can worsen the problems. It is simply not prudent in these conditions to adopt new rules based on an aspirational view of available commercial technologies with the knowledge that applying such a standard to existing facilities will cause many of them to close. No matter how well-intended the EPA may be, its proposed rules are imprudent and jeopardize bulk electrical system reliability.