DOCKET NUMBER AD22-10-000

Statement of
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November 10, 2022

Chairman Glick and Commissioners Danly, Clements, Christie and Phillips, thank you for the opportunity to participate in today's "2022 Reliability Technical Conference." I am Michelle Bloodworth, president and CEO of America's Power which is the only national trade organization whose sole mission is to advocate on behalf of coal-fired electricity and its supply chain. At the same time, we wholeheartedly support an all-the-above energy strategy. Every resource that can contribute to a healthy electricity grid – including coal – should play a role in our nation's energy future.

The meeting notice listed eight broad topics that Panel I speakers could address. My comments are directed primarily at this topic: *"Both NERC and individual RTOs have warned that the rapid pace of retirements of dispatchable resources may be leading to increased reliability risks in the future. As the resource mix changes, what actions should the Commission, NERC, states, industry, and other stakeholders consider to ensure the continued reliability of the grid?"*

First, I want to commend the Commission for convening this reliability conference. We all consider reliability to be essential. In fact, our recent polling indicates that reliability is the single most important attribute of the electricity supply, even more important than affordability.

Second, FERC must recognize that the retirement of generation with a high capacity value may be occurring at a pace faster than replacement generation with lower capacity values is coming online. MISO, for example, has projected 232,000 MW of *nameplate* capacity for its system in 2026 but only 176,000 MW of *accredited* capacity.[1] By 2031, the shortfall between accredited and nameplate capacity widens to 71,000 MW. Neither projection takes into account coal retirements that will be caused by EPA regulations. It is time to stop talking about the reliability trainwreck that we seem headed for and take meaningful and timely steps to avoid it. We cannot afford to have retirements outpace resource additions, especially at a time when electrification of the economy (e.g., automobiles and homes) is increasing electricity demand.

[1] MISO, "2022 Regional Resource Assessment (RRA)," August 24, 2022.

NERC provided subtle warnings seven years ago: "The North American Bulk Power System (BPS) is undergoing a significant change in the mix of generation resources and the subsequent transmission expansion … [T]he rate of this transformation in certain regions is impacting planning and operating of the BPS."[2] By last year, NERC's warnings had become more clear: " … the BPS has already seen a great deal of change and more is underway. Managing this pace of change presents the greatest challenge to reliability … Energy risks emerge when variable energy resources (VER) like wind and solar are not supported by flexible resources that include sufficient dispatchable, fuel-assured, and weatherized generation."[3] To prove NERC's point about the rapid transformation, almost 64,000 MW (nameplate) of dispatchable, fuel-secure coal-fired generation have retired and 220,000 MW of VER (wind and solar) nameplate capacity were added to the BPS between 2015 and this year.

Unless steps are taken, massive coal retirements are expected during the remainder of this decade.

The coal fleet is essential for a reliable grid because (1) its high capacity value (two times greater than solar and six times greater than wind) contributes to resource adequacy, and (2) it provides fuel security and essential reliability services (frequency support, voltage control, and ramping/balancing). Given these attributes, it should be deeply disturbing to the Commission, NERC, grid operators, utility commissioners and others that massive coal retirements are likely during the next 9 years, unless steps are taken to limit coal retirements. Limiting coal (and other thermal) retirements as well as valuing all reliability attributes would be straightforward steps to help mitigate reliability problems in the near future.

Besides the **110,000 MW** of coal that have retired since 2010 –

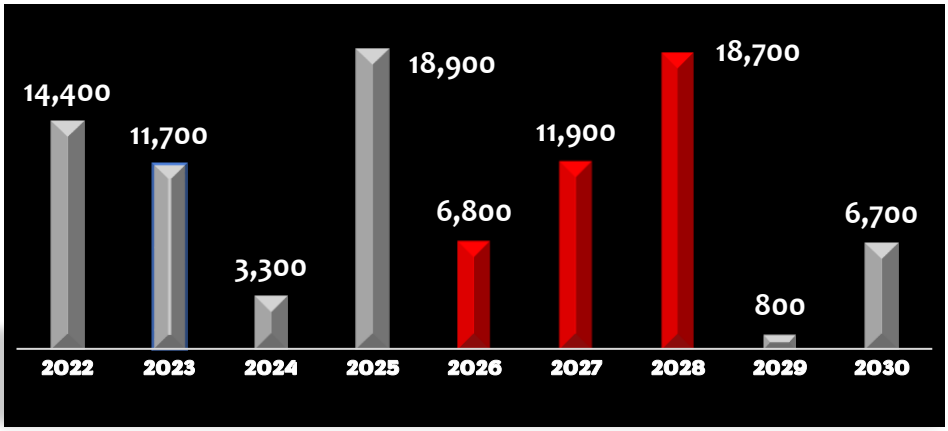
- **93,000 MW** of coal retirements have been announced for 2022-2030 that have not been incorporated into reliability planning. In particular, MISO's announced coal retirements total 29,100 MW, PJM totals 22,600 MW, SPP totals 5,400 MW and ERCOT totals 2,000 MW. MISO's announced coal retirements represent almost 60 percent of the MISO system's coal fleet, and PJM's announced retirements are approaching half the PJM coal fleet.
- Six EPA rules (discussed on the next page) are certain to cause even more retirements during the next 5 or so years. For example, EPA estimates that its proposed Transport Rule could cause **23,000 MW** of coal retirements by 2025.

The chart below shows announced retirements for each year during 2022-2030. Note that announced retirements total 37,400 MW during the 3-year period 2026-2028 (red bars). This period is highlighted because we estimate that coal retirements will increase considerably during that time due to EPA's likely compliance schedule for these 6 rules.

[2] NERC, "Essential Reliability Services Task Force Measures Framework Report," November 2015.
[3] NERC, "Long Term Reliability Assessment," December 2021.

After all, only one of these rules is projected to cause the retirement of more than 10 percent of the existing coal fleet by 2025. This fact alone implies that coal retirements could reach almost 42,000 MW (18,900 MW announced on the bar chart plus 23,000 MW due to the Ozone Transport Rule) in 2025.

Announced coal retirements (MW) 2022-2030.
These announcements do not include 6 new EPA rules.



Coal retirements on such a massive scale and over a relatively short time period will exacerbate reliability risks by depriving the grid of the attributes of coal-fired generation.

EPA rules will cause significantly more coal retirements unless the agency takes into account impacts on electric reliability.

EPA will continue implementing existing rules and promulgate new rules that directly impact the coal fleet. (Certain of these rules could also cause the retirement of gas- and oil-fired generation.) We estimate these 6 rules below, taken together, will cause coal retirements to rise sharply during 2026-2028 and, therefore, exacerbate resource adequacy challenges in certain regions of the country long before adequate replacement generation or new transmission can be added to the grid.

- **CCR Rule** EPA is determining whether to approve applications from coal plants to extend closure deadlines for CCR surface impoundments. If these deadlines are not extended by EPA, coal plants could be forced to either idle for several months or retire early.
- **ELG Rule** Besides setting limits for wastewater constituents, the current ELG rule provides incentives for coal plants to retire by 2028. In addition, EPA has begun to develop more stringent limits for other wastewaters, as well as to set limits for wastewaters not covered by the current rule.
- **Regional Haze Rule** Each state must submit an implementation plan for EPA approval that could require SO_2 and/or NO_x controls on coal plants whose

emissions are causing or contributing to visibility impairment in Class I Areas. Currently, 39 states have drafted implementation plans. However, we expect the agency will impose federal implementation plans on many states.

- **Transport Rule** EPA has proposed to increase the stringency of the existing Transport Rule for reducing NO_x emissions from coal and other fossil-fueled generation. EPA has projected that the proposed rule will cause 23,000 MW of coal retirements by 2025. In addition, EPA has proposed relief from certain requirements if coal plants commit to retire by the end of 2028.
- **ACE Replacement Rule** EPA is expected to issue a rule in 2024 to replace the invalidated ACE rule. Because the Supreme Court did not place any restrictions on EPA's authority to set CO_2 standards based on "inside the fence" measures, an ACE replacement rule could still have substantial impacts on the coal fleet.
- **Mercury and Air Toxics Standards (MATS)** EPA is soliciting information that could lead to more stringent limits on emissions of mercury and other hazardous air pollutants based on the agency's risk and technology review.

The Transport Rule, Regional Haze Rule, and a more stringent MATS Rule could require the installation of advanced emissions controls on most, if not all, coal capacity that does not already have advanced controls. We estimate that **92,000 MW** of coal-fired generation, even though already well-controlled, lack selective catalytic reduction and/or flue gas desulfurization systems. It is reasonable to expect that a significant number of coal plants would retire early rather than install these two types of controls. The retirement of coal due to EPA rules would add to retirements already announced. MISO, PJM, SPP and ERCOT have some 68,000 MW of coal that is at risk of being required to install advanced controls. Note that this at-risk coal generation does not include retirements (or idling) that are likely to result from the CCR or ELG rules.

FERC, NERC, EPA and others can take steps to avoid reliability problems.

Because of the massive coal retirements that could occur over the next 9 years, we offer the recommendations below, even though some are beyond the direct authority of FERC.

- NERC should assess the reliability impacts of a *realistic* number of future coal retirements. NERC's 2021 "Long Term Reliability Assessment" assumed 25,000 MW of coal retirements during 2022-2030, even though announced coal retirements are almost 4 times greater (more than 93,000 MW) over the same period. A realistic assessment by NERC would provide a better indication of future reliability problems and a baseline against which to gauge the impacts of additional retirements, such as those caused by EPA regulations.

- NERC should designate EPA regulations as an "emerging issue." This would bring more collective attention to these regulations and their reliability implications and promote more effective problem solving.
- FERC should ensure that markets are properly designed to maintain reliability. MISO, for example, has suggested a number of reliability attributes but at the same time indicated that "MISO, and the industry as a whole, are still defining attributes."[4] FERC should accelerate efforts to finalize reliability attributes and ensure these attributes are properly valued by electricity markets.
- Federal agencies should conduct a Reliability Assessment (RA) for rules and policies that could adversely impact grid reliability. The RA should identify all risks to grid reliability and describe measures an agency has adopted to prevent grid reliability problems. If a rule is projected to cause the retirement of dispatchable resources, the RA should show that adequate accredited replacement capacity will be placed in service by the time retirements are projected to occur.
- FERC should direct RTOs to determine whether their Reliability Must Run (RMR) or System Support Resource (SSR) Agreements can prevent reliability problems caused by widespread, not a few isolated, coal retirements. These typically short-term Agreements (one year or less) are a last resort measure, and we cannot afford the failure of a last resort. In addition, the reliability service might not be available unless longer-term Agreements are able to provide stability for fuel suppliers.
- Last, there are any number of actions EPA could take on its own to avoid causing reliability problems. These include paying careful attention to the concerns of FERC, NERC and grid operators, deferring to states about how to implement many of these regulations, and making regulations as flexible as possible, not prescriptive.

We hope this information is helpful to the Commission. For further information, please contact me at mbloodworth@americaspower.org or Paul Bailey at pbailey@americaspower.org.

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[4] "Mind the Gap," OMS Resource Adequacy Summit, August 8, 2022.