June 2, 2020

James B. Robb
President and Chief Executive Officer
North American Electric Reliability Corporation
3353 Peachtree Road NE
Atlanta, GA 30326

Dear Mr. Robb:

We are writing to encourage NERC to update its "Generation Retirement Scenario – Special Reliability Assessment" (SRA) that was published approximately 18 months ago.[i] The SRA evaluated the reliability implications of accelerated (sooner than expected) retirements of coal-fueled and nuclear electric generating capacity. Updating the SRA would enable NERC to evaluate the implications of changes that have occurred since 2018. We believe these changes are a compelling reason for NERC to revisit certain assumptions and conclusions that may have been valid 18 months ago but should be reconsidered in light of developments since then. Highlighted below are three reasons why NERC should update its assessment.

Coal retirements have increased substantially.

Coal retirements have been much greater than NERC assumed in the SRA. The SRA was based on NERC's 2017 Long-Term Reliability Assessment (LTRA) whose reference-case coal retirements totaled 18,000 megawatts (MW) from 2017 through 2022.[ii] However, expected coal retirements for the same period now total 49,700 MW according to our analysis.[iii] This substantial increase in retirements shows why NERC should consider increasing its coal retirement assumptions in an updated stress test.

Before the economic fallout from Covid-19, demand and prices for natural gas and power were lower than historical levels. The decline in power demand due to Covid-19 increases the possibility of even more coal retirements. During March-April, coal-fired generation in PJM, MISO and SPP (collectively, 60% of the nation's coal fleet) fell by 45% across the three regions compared to the same 2-month period in prior years. Low capacity factors mean the fixed costs of operating coal-fueled units are spread over fewer megawatt-hours, making it even more challenging for coal units to recover their costs in the electricity markets and continue operating.

Analysis by Energy Ventures Analysis (EVA) estimates that 38,500 to 83,000 MW of coal-fueled generating capacity could be at risk of retirement over the 2020-2022 period because of low capacity factors and other challenges.[iv] (Most of this at-risk coal capacity is located in PJM and MISO.) By comparison, expected coal retirements totaled 14,800 MW over the same period before fallout from Covid-19 began affecting the electricity sector.[v] The table below compares EVA's estimates of expected coal retirements with at-risk retirements over the 3-year period.

	Expected (MW)	At-Risk (MW)
2020	8,700	10,100 to 25,600
2021	1,400	8,200 to 22,200
2022	4,700	20,200 to 35,200
TOTAL	14,800	38,500 to 83,000

Dependence on natural gas continues to increase.

The bulk power system has become even more dependent on gas-fueled and variable energy resources (wind and solar) since the LTRA. The share of electricity generation supplied by coal dropped from 31% in 2017 to 24% in 2019, while the share from natural gas increased from 31% in 2017 to 37% in 2019.[vi] Generation from wind and solar also increased from slightly less than 8% to almost 9.5%.[vii] The share of electricity supplied by coal is likely to fall even more during 2020 to be replaced primarily by natural gas.

This trend has left the grid even more vulnerable to problems associated with natural gas than it was during the 2014 Polar Vortex and the 2017-18 Bomb Cyclone, when coal was called on to meet increased load and replace power from natural gas units that experienced fuel shortages. (Coal provided more than 60% of the increased demand for power during the Bomb Cyclone.[viii]) The natural gas system is unlikely to be significantly more reliable now than it was when the SRA expressed concerns about electric sector dependence on natural gas.

Fuel diversity continues to decline.

According to the SRA, fuel diversity provides resilience because it reduces the vulnerability of the grid to fuel supply disruptions.[ix] However, the fuel diversity of the grid continues to decline. Over the past decade, coal-fueled electric generating capacity declined from 31% to 21% of total U.S. generating capacity, and AEO 2020 projects that coal-fueled capacity will represent only 10% by 2030.[x] Even worse, this drop does not take into account coal-fueled generation that is at risk of retirement. For example, coal-fueled generating capacity would comprise only 11% of U.S. electric generating capacity by 2023 if 83,000 MW of at-risk coal were to retire.[xi] Under an accelerated retirements scenario, coal and nuclear—the grid's two most fuel-secure

resources—together could comprise less than 20% of the nation's electric generating capacity within the next 3 years.[xii] This troubling decline in fuel-secure sources of electricity is why we also believe it is important that NERC establish a standard for fuel security, just as NERC has standards in place for other services that are essential to grid reliability.

Conclusion

We believe that updating the retirement assumptions that were the foundation for the SRA's conclusions would enable NERC to better "assure the effective and efficient reduction of risks to the reliability and security of the grid." Thank you for considering our request and please let us know if we can provide any additional information that would be helpful to NERC.

Sincerely,
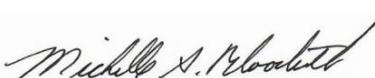
Michelle Bloodworth
President & CEO
America's Power

Rich Nolan
President & CEO
National Mining Association

Jason Bohrer
President & CEO
Lignite Energy Council

Copy to:
Mark Lauby
Senior Vice President and Chief Engineer
NERC

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[i] "Generation Retirement Scenario – Special Reliability Assessment," North American Electric Reliability Corporation (NERC), December 18, 2018.
[ii] "2017 Long-Term Reliability Assessment," NERC, March 2018.
[iii] Retirement data provided by Energy Ventures Analysis.
[iv] "Assessment of Coal Capacity Retirements," Energy Ventures Analysis, April 2020. EVA based at-risk coal-fueled capacity on a combination of factors including dispatch cost, capacity factors, ownership (merchant or utility), and IRP retirement scenarios.
[v] Ibid.
[vi] "Annual Energy Outlook 2020," U.S. Energy Information Administration.
[vii] Ibid.
[viii] "Reliability, Resilience and the Oncoming Wave of Retiring Baseload Units Volume 1: The Critical Role of Thermal Units During Extreme Weather Events," March 13, 2018, DOE/NETL-2018/1881. Coal provided an average of 63% of the increased demand for electricity caused by cold weather across six RTOs.
[ix] See SRA page vii.
[x] "Annual Energy Outlook 2020," U.S. Energy Information Administration.
[xi] According to AEO 2020, total electric power sector generating capacity in 2023 is projected to be 1,163 GW. Of this total, coal comprises 209.8 GW and nuclear 95.1 GW.
[xii] In addition to at-risk coal-fueled generation, "7 GW of US nuclear capacity could close in next 5 years," according to S&P Global Market Intelligence, May 29, 2020.