

1. My name is Julie Fedorchak, and my business address is 600 E. Boulevard Ave. Dept 408, Bismarck, ND 58505. I am over the age of 18, have personal knowledge of the subject matter, and am competent to testify concerning the matters in this declaration.
2. I have served as one of three commissioners on the North Dakota Public Service Commission (NDPSC) since 2013. I am currently President of the National Association of Regulatory Utility Commissioners (NARUC), the state's liaison to the Midcontinent Independent System Operator (MISO), and on the advisory board of the Electric Power Research Institute. I have previously served in numerous leadership roles including President of the Organization of MISO States (OMS), vice-chair of the NARUC Gas Committee, and vice president of the Gas Technology Institute's advisory board.
3. The NDPSC is a state agency created under the Constitution of North Dakota and is vested with, among other things, jurisdiction for the economic regulation of electric and gas public utilities, telecommunications, the siting of energy plants and electric and natural gas transmission facilities, reclamation of active and abandoned mine lands, and railroad safety. The Commission also actively participates in the governance of MISO through OMS and Southwest Power Pool (SPP) through the Regional State Committee (RSC).
4. The NDPSC is responsible for ensuring safe, affordable, and reliable electric and gas services for North Dakota ratepayers. It oversees the orderly development of capital-intensive infrastructure of investor-owned utilities within the state, including generation resource planning. Furthermore, the NDPSC serves as the siting authority for energy generation, gas processing, and pipeline and electric transmission within the state.
5. I am submitting this declaration in support of Petitioners' Motion to Stay the Final Rule, published by the U.S. Environmental Protection Agency (EPA) on May 7, 2024, entitled

“National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review,” 89 Fed. Reg. 38508 (Final Rule).

6. The NDPSC has consistently highlighted risks associated with the transition from traditional thermal generation and has serious concerns that the Final Rule will further undermine the reliability of the power grids in North Dakota and around the country. I recently highlighted our concerns to Congress and FERC, expressing the critical need to extend the lives of existing thermal resources to allow time for new technology to “bridge the gap” between “reliability attributes of wind and solar megawatts versus thermal megawatts.”¹ Since then, trends and forecasts have called for considerable load growth, making it abundantly clear that this is not an energy transition at all. We are in a period of energy expansion heightening the risks to which I testified to.
7. The NDPSC has already expended significant amounts of staff time and resources trying to determine and mitigate the impacts that the Final Rule will have on the ability of the people of North Dakota to have access to reliable, affordable electricity. Absent a stay of the Final Rule while litigation challenging it is pending, NDPSC anticipates further dedicating thousands of hours of staff time and hundreds of thousands of dollars attempting to understand and mitigate the adverse effects the Final Rule will have on the power grids providing electricity to North Dakota’s citizens. Those costs will not be recoverable if the Final Rule is ultimately held unlawful. Staff time and resources that NDPSC must dedicate

¹ See *Pathways to Lowering Energy Prices: Hearing Before S. Comm. on Energy & Nat. Res.*, 117th Cong. (July 13, 2022) (testimony of Comm’r J. Fedorchak, Chair, N.D. Pub. Serv. Comm’n). AD23-9 Annual Reliability Technical Conference, Tr. at 239: 1 (Nov. 9, 2023) (Comm’r Fedorchak). <<https://www.energy.senate.gov/services/files/E565FF3C-3B1B-42CD-A4C0-68ED082CC280>>. See also AD23-9 Annual Reliability Technical Conference, Tr. at 239: 1 (Nov. 9, 2023) (Comm’r Fedorchak).

to understanding and trying to mitigate the effects of this Final Rule detract from the NDPSC's ability to fulfill its obligations to the people of the State.

8. The NDPSC has very serious concerns that the Final Rule will undermine the reliability of the power grids that provide electricity for the people of North Dakota. An unreliable power grid would cause the State to experience blackouts and would result in significantly higher prices for electricity in North Dakota. The seriousness of these concerns cannot be overstated.
9. The NDPSC is not alone in its reliability concerns. FERC, NERC, and other entities charged with overseeing the reliability of our power grids all around the country have in recent years been shouting warnings about the long-term reliability of our nation's power grids for anyone willing to listen. NERC recently stated that the bulk power system has reached an "inflection point" in which the risk profile to customers is steadily deteriorating due to the retirement of valuable generation resources outpacing the addition of new dispatchable generation.²
10. In its *2023 Long Term Reliability Assessment*, NERC identified that the SPP region will be at an "elevated risk" of shortfall in extreme conditions, such as the recent winter storms. This risk is more prevalent when high demand coincides with low wind or above normal generator outages.³ As recent as this past January, North Dakota experienced record-breaking cold temperatures during which SPP declared extended cold weather and conservation operation advisories. Concurrently, the weather prevented many generators from running. The combination resulted in multiple severe reliability emergencies.

² The Reliability and Resiliency of Electric Service in the United States in Light of Recent Reliability Assessments and Alerts: Hearing Before the Committee on Energy and Natural Resources (June 1, 2023) (Statement of James B. Robb, North American Electric Reliability Corporation).

³ *Id.* at 8.

11. NERC has identified even more risk in MISO, a regional transmission organization (RTO) serving parts of North Dakota, projecting a “high risk” level indicating insufficient resource adequacy for areas.⁴ This indicates that the electricity supply for these areas is more likely to be insufficient in the forecast period and more firm resources are needed. While MISO has trended up in installed capacity, accredited capacity that can be relied upon to meet peak system needs is moving in the opposite direction. MISO’s recent accreditation reforms have shown that this trend is likely to worsen.⁵
12. MISO released the following statement regarding long term grid reliability:

There are urgent and complex challenges to electric system reliability in the MISO region and elsewhere. This is not just MISO’s view; it is a well-documented conclusion throughout the electric industry. ...

Many dispatchable resources that provide critical reliability attributes are retiring prematurely due to environmental regulations and clean-energy policies. ...

The new weather-dependent resources that are being built, such as wind and solar, do not provide the same critical reliability attributes as the conventional dispatchable coal and natural gas resources that are being retired. While emerging technologies such as long duration battery storage, small modular reactors and hydrogen systems may someday offer solutions to this issue, they are not yet viable at grid scale.⁶

13. Warnings of this nature are not typical from RTOs like MISO, which are generally policy and politics neutral. However, they have a responsibility to ensure our country’s power grid remains reliable. This warning from MISO should be taken seriously.

⁴ *Id.*

⁵ Midcontinent Independent System Operator (MISO), *Managing Reliability Risk in the MISO Footprint* (June 16, 2022), available at <https://cdn.misoenergy.org/20220616%20Board%20of%20Directors%20Item%2008a%20Reliability%20Imperative625168.pdf>.

⁶ Midcontinent Independent System Operator, “MISO’s Response to the Reliability Imperative,” at 2 (Feb. 2024), available at <https://cdn.misoenergy.org/2024%20Reliability%20Imperative%20report%20Feb.%2021%20Final504018.pdf?v=20240221104216>.

14. To underscore our concerns, the loss of a single thermal plant could be the difference between a stable grid and load shedding or brownouts in North Dakota and the surrounding regions. During Winter Storms Uri and Elliott, Coal Creek Station, a unit capable of dispatching 1,150 MW of power into the MISO market, operated at maximum capacity during both winter storms. This resulted in a higher capacity rating due to Coal Creek's value in maintaining reliability. Any negative impact to this one generator's capacity for generating electricity for the grid has the potential for an immediate and significant impact on the MISO North Region and North Dakota customers.

Impact of the Final Rule on North Dakota's Power Plants and Power Grids

15. The Final Rule will require lignite-fired electric generation units (EGUs) in North Dakota to determine whether to spend an extraordinary amount of money to come into compliance with the Final Rule, or to close their units either because compliance with the new standards is not technologically feasible or compliance with the standards would render their operations no longer economically viable. The NDPSC's review of the State's EGUs has provided merit to our concerns that the economics and technical infeasibility created by the Final Rule makes power plant closures a likely reality. This will have a profound impact on the citizens of North Dakota. There will also be regional impacts across the MISO and SPP systems at times when people and communities are most vulnerable to life threatening weather events.
16. The forced, premature retirement of dispatchable fossil fuel generation in North Dakota will increase reliance on intermittent sources of power (e.g., wind and solar). An increased reliance on intermittent resources will result in a markedly lower accredited capacity value

for those resources in the future, signaling that such resources will increasingly have difficulty serving load during all hours.

17. Regional Transmission Organizations, Public Service Commissions, and similar entities across the country have been warning that projected increases in intermittent generation resources will be unable to resolve the reliability issues that result from the forced retirement of dispatchable generation resources.

18. MISO recently reiterated that warning in its “MISO Region Reliability Imperative” report:

Wind resources can experience “fuel” availability challenges in the form of highly variable wind speeds. Consequently, the energy output of wind can fluctuate significantly on a day-to-day and even an hour-by-hour basis — including multi-day periods when output drops far below average.

For example, over 60 consecutive days in January-February 2020, hourly wind output in MISO averaged more than 8,000 MW. However, ... for 40 consecutive hours in the middle of that 60-day block, average hourly wind output dropped to less than 47 MW, and only once exceeded 200 MW in any single hour.

An even longer and broader “wind drought” occurred during Winter Storm Uri in 2021 when the MISO, Southwest Power Pool, Electric Reliability Council of Texas and PJM regions all experienced 12 consecutive days of low wind output.⁷

19. The forced retirement of reliable, dispatchable power generation sources has already significantly threatened the reliability and resilience of the power grids even in states like North Dakota where we invest heavily in dispatchable resources — especially during severe weather events. High load growth magnifies this problem. Implementation of the Final Rule will foreseeably make an already precarious situation even worse.

⁷ Midcontinent Independent System Operator, “MISO’s Response to the Reliability Imperative,” at 11 (Feb. 2024), available at <https://cdn.misoenergy.org/2024%20Reliability%20Imperative%20report%20Feb.%2021%20Final504018.pdf?v=20240221104216>.

20. The NDPSC has also determined that in North Dakota, intermittent generation resources like wind and solar, while providing value as energy and capacity resources, are energy limited and cannot replace attributes from coal-fired EGUs that will be affected by the Final Rule, including on-demand dispatchability. Coal-fired plants provide essential reliability services such as frequency support and spinning reserves, along with voltage regulation. The grid operators use these services to operate reliably under an array of system conditions, generally without the concern of having too few of these services available. Merely having capacity does not equate to having necessary reliability services or ramping capability to balance generation and load.
21. Furthermore, MISO has flagged that voltage instability challenges within the next five years are strongly correlated with today's aggressive pursuit of weather-dependent resources by many states.⁸ MISO's Renewable Integration Impact Assessment study determined that stability-related challenges are projected to reach a tipping point when a 30% renewable threshold is reached, which is projected to occur around 2027. The grid stability-related challenges from increased renewable integration will also drive mitigation capital cost.
22. A lack of voltage stability could result in loss of load in an area or protective system tripping of transmission lines or system components, leading to cascading outages. Voltage collapse, one potential result from voltage instability, has been identified as a contributing factor in large scale blackouts across the globe, including Scandinavia (2003), Northeastern U.S. (2003), Athens, Greece (2004), and Brazil (2009). During the Northeastern U.S. event in 2003, voltage stability resulted from multiple line tripping

⁸ Pg 36 of <https://cdn.misoenergy.org/2023%20Attributes%20Roadmap631174.pdf>.

contingencies, causing voltage fluctuations, reactive power deficiencies, and the tripping or malfunctioning of generators and transformers.

23. The State's lignite coal plants have the capability to respond to frequency and voltage changes and actively provide these services to the market.⁹ North Dakota's lignite resources also have fuel supply reserves in near proximity to the plant, and in many cases are mine-mouth, protecting them from supply chain disruption.
24. In short, the forced retirement of reliable, dispatchable power generation resources has already significantly threatened the reliability of the power grids that provide electricity to the people of North Dakota, especially during extreme weather events. Implementation of the Final Rule will foreseeably make an already precarious situation even worse.

Impact of the Final Rule on North Dakota's Electricity Pricing

25. EPA's claims that the Final Rule will not affect the price of electricity in the nation are not true for North Dakota. If a stay is not granted, North Dakota lignite EGUs will immediately incur significant investment cost to become compliant or be forced to begin winding down operations. The economic or technical infeasibility of complying with the Final Rule will inherently subject ratepayers to stranded costs pancaked with replacement generation and transmission infrastructure investment.
26. Using just one North Dakota coal-fired power plant as an example, if Coyote Station can successfully implement necessary technology for compliance with the Final Rule, that plant alone is anticipated to pass through over 2 million dollars of additional annual revenue requirements onto consumers, resulting in at least a 0.5 percent increase in rates to North Dakota customers. That is just the compliance costs associated with one plant.

⁹ NERC 2022 Long-Term Reliability Assessment, pg 19 *in document*. December 2022. https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2022.pdf.

Similar rate impacts are anticipated for Northern States Power customers for the state's jurisdictional allocation of costs for upgrades to their existing coal facilities. It is also worth noting that implementation of the necessary technology to meet compliance for Coyote Station is far from a sure thing. In the event that compliance cannot be met for that plant, NDPSC estimates that the cost for replacement generation will increase rates by 5-10 percent for many North Dakota ratepayers.

27. Replacement generation will likely require billions of dollars of investment in gas generation and transmission infrastructure.¹⁰ Firm service contracts will also be necessary. The increased reliance and demand for natural gas will put upward pressure on the commodity, increasing the price of the fuel supply for both electricity and natural gas utility service for ratepayers, and increase price volatility during times of extreme weather.¹¹
28. For example, during the 2021 Storm Uri, excess demand in our region created extreme competition that caused high spot pricing resulting in a total of 45.9 million dollars of under collection and notable rate impacts to North Dakota gas customers over amortization periods of 16 to 24 months.¹² During this period, the NDPSC received an abundance of calls from struggling residential customers and industrial customers having difficulty maintaining operations. And this was a far cry from the natural gas turmoil experienced in states like Oklahoma, where the Corporation Commission required securitization to

¹⁰ Basin Electric recently announced construction of a 1,400 MW gas-fired generation facility in North Dakota that will require billions of dollars of investment and would use about 7% of the natural gas currently produced in North Dakota. See <https://northdakotamonitor.com/2024/05/15/utility-plans-another-gas-fired-power-plant-for-north-dakota/>.

¹¹ See *Great Plains Natural Gas Co.*, Cost of Gas 2021, Application for Variance, Case No. PU-21-10, available at <https://www.psc.nd.gov/database/documents/21-0010/028-020.pdf>; *Montana-Dakota Utilities Co.*, Cost of Gas 2021, Application for Variance, Case No. PU-21-8, available at <https://www.psc.nd.gov/database/documents/21-0008/029-020.pdf>; and *Northern States Power Company*, Cost of Gas 2021, Application for Variance, Case No. PU-21-9, available at <https://www.psc.nd.gov/database/documents/21-0009/055-020.pdf>.

¹² Montana-Dakota 12.8 million; Great Plains Natural Gas 593k, and Northern States Power Company 32.5 million.

amortize \$675 million in fuel costs over 20 years to reduce what would have been an estimated \$476 residential charge per month per customer to a more manageable rate.¹³

29. Furthermore, closure of the thermal generation and the replacement with intermittent renewable resources will drive down accredited capacity values of current renewable generation units owned by our regulated utilities — driving down the value of existing renewable generation and requiring additional investment in resources with capacity value to meet reserve margin requirements. The foreseeable cascading cost impacts and grid reliability risks associated with the Final Rule are unacceptable if ensuring access to reliable and affordable power is one of the most important imperatives of government.
30. The closure of thermal generation units in North Dakota would also foreseeably have immediate and negative impacts on the price of energy to electricity customers in the region. The existing transmission system was designed and built to ensure delivery of power from all North Dakota generation units primarily to customers within the state, with approximately 35% of energy generated within the state currently exported outside of our borders.
31. Our neighboring states have relied upon the energy generated in North Dakota for many decades, and do not currently have available resources to serve both their own needs and North Dakota's needs if North Dakota's coal-fired plants are forced into early retirement by the Final Rule. This scenario would result in significant congestion across the transmission system of both MISO and SPP, which would significantly drive up energy prices for customers in both RTOs.

¹³ See <https://oklahoma.gov/occ/news/news-feed/2022/commission-approves-order-on-pso-february-2021-storm-costs.html>. Final Financing Order, Order No. 723434, <https://imaging.occ.ok.gov/AP/Orders/occ30453173.pdf>.

32. One very recent example of how dramatic the cost of congestion can be is a very localized transmission constraint in northwest North Dakota. Due to a relatively small (200MW) load addition in the area, the congestion pricing in the region over the course of six months totaled up to \$18 million to customers of Montana-Dakota Utilities Co. alone.¹⁴ Comparing the impact of that event to the Final Rule potentially removing nearly four thousand megawatts of thermal generation, the pricing impacts on North Dakota electricity consumers can foreseeably be anticipated to be severe.
33. In short, the Final Rule will have a clear and dramatic impact on rates and risks to North Dakota ratepayers, even if all North Dakota power plants are able to comply with the Rule and remain economically viable in the long-term, which is far from a certainty. As with all rate impacts, the most significant impact will be on low-income North Dakotans, as high energy prices operate like a regressive tax. But the impact will be felt by all North Dakotans, who will have no choice but to retain service at higher rates. For people and businesses, electricity and natural gas heating is a requirement, it is not a luxury that can be set aside if the Federal Rule causes energy prices to increase dramatically.
34. The Final Rule also recklessly interjects the EPA into areas traditionally reserved for States, FERC, and RTOs. State utility commissions have traditionally had a reserved authority to establish their own energy and environmental policies, including the authority to determine their own preferred generation mixes, as long as they do not interfere with wholesale markets.¹⁵ This rule mutes the NDPSC's careful consideration of rates, utility

¹⁴ See *Montana-Dakota Utilities Co. v. Midcontinent Independent System Operator, Inc. and Southwest Power Pool*, Docket No. EL-24-61-000 (Jan. 23, 2024).

¹⁵ See, e.g., *Hughes v. Talen Energy Mktg., LLC*, 570 U.S. 150, 154 (2016) (“The States’ reserved authority includes control over in-state ‘facilities used for the generation of electric energy.’” (quoting 16 U.S.C. § 824(b)(1)) (citing *Pac. Gas & Elec. Co. v. State Energy Res. Conserv. & Dev. Comm’n*, 461 U.S. 190, 205 (1983) (“Need for new power facilities, their economic feasibility, and rates and services, are areas that have been characteristically governed by the States.”)); *id.* at 166 (“Nothing in this opinion should be read to foreclose Maryland and other

investments, and its vested role in ensuring the orderly development of generation and transmission infrastructure within North Dakota.¹⁶

35. Indeed, to the extent that the Final Rule creates disruptions in electricity reliability—brownouts or blackouts—the Final Rule will have far reaching direct, indirect, and tertiary impacts throughout the State.
36. Any changes to the electricity generation portfolio caused by implementation of the Final Rule will be immediate, irreversible, and will likely impact North Dakotans for decades, even if the Final Rule is overturned in litigation.

* * * * *

37. In summary, NDPSA has significant concerns with implementation of the Final Rule that cannot be overstated. The Final Rule will likely have lasting and severe impacts with no discernable benefit. If the Final Rule is not stayed while the legal challenges against it proceed, there will foreseeably be serious and irreparable harm to the State and people of North Dakota. North Dakota power plants will likely be forced to retire, North Dakota ratepayers will pay more for electricity, and the reliability of the grids servicing North Dakota will be significantly threatened.
38. NDPSA strongly encourages the Court to stay implementation of the Final Rule.

States from encouraging production of new or clean generation through measures “untethered to a generator’s wholesale market participation.” ... So long as a State does not condition payment of funds on capacity clearing the auction, the State's program would not suffer from the fatal defect that renders Maryland's program unacceptable.”).

¹⁶ See, e.g., *Hughes*, 578 U.S. at 166; accord, e.g., *PPL EnergyPlus, LLC v. Solomon*, 766 F.3d 241, 255 (3d Cir. 2014) (“The states may select the type of generation to be built—wind or solar, gas or coal—and where to build the facility[,] [o]r states may elect to build no electric generation facilities at all.”); *PPL EnergyPlus, LLC v. Nazarian*, 753 F.3d 467, 478-80 (2014); *N.J. Bd. of Pub. Utils. v. FERC*, 744 F.3d 74, 97 (3d Cir. 2014)

Executed in Bismarck, North Dakota, on May 28, 2024.



Julie Fedorchak
Commissioner
North Dakota Public Service Commission

DECLARATION OF CHRISTOPHER D. FRIEZ

I, Christopher D. Friez, declare as follows:

1. My name is Christopher D. Friez, and I am the Vice President-Land, Associate General Counsel and Assistant Secretary of NACCO Natural Resources Corporation (“NACCO NR”).
2. NACCO NR, a subsidiary of NACCO Industries, Inc., through its subsidiary North American Coal, LLC, mines and markets lignite coal primarily as fuel for power generation and provides selected value-added mining services for other natural resources companies. Its corporate headquarters is located in Plano, Texas near Dallas. NACCO NR operates surface lignite coal mines in North Dakota, Mississippi, and Louisiana.
3. NACCO NR is one of the United States’ largest miners of lignite coal and among the largest coal producers in the country, producing approximately 23.9 million tons of lignite in 2023.
4. Because lignite has a higher moisture content and a lower heat content than other types of coal, and therefore cannot be transported long distances in a cost-effective manner, most lignite is sold to power plants adjacent or near to the producing mine. If a power plant served by a lignite mine closes, I am not aware of any reasonably viable new market opportunities for the lignite coal.
5. EPA’s MATS rule (“MATS”) will cause immediate, irreparable injury to NACCO NR, its workers, and the communities in which it mines coal in several ways. According to modeling analysis conducted by the North Dakota Transmission Authority (“NDTA”), dated April 3, 2024, a true and correct copy of which is attached as Attachment A, the changes required by MATS are likely not technologically feasible for lignite-based power generation facilities. The MATS rule eliminates the “units designed for low rank virgin

coal” subcategory established for lignite-powered facilities by causing these facilities to comply with the same mercury emission limitation that currently apply to electric generating units combusting bituminous and subbituminous coals. Numerous comments in the administrative record provide that the new emission standards are not technologically feasible and will impose crippling compliance costs that may require facility retirement. Even if compliance is technologically feasible, the added cost to comply, and unknown long term operational issues caused by the increased use of materials needed to comply, may cause plant retirements and mine closures. The EPA itself indicates, within the MATS rule, that the following plants, among others, will potentially be impacted by filterable particulate matter (fPM) and the mercury standard: Red Hills Generating Facility (MS; lignite); Antelope Valley Station (ND; lignite); Coal Creek Station (ND; lignite); Coyote Station (ND; lignite); Leland Olds (ND; lignite); and Spiritwood Station (ND; lignite). NACCO NR sells nearly all of its lignite coal production to these facilities. The retirement of these facilities would cause NACCO NR to close the coal mines which currently supply these facilities, resulting in the write off of tens of millions of dollars of investment by NACCO NR. These closures would result in hundreds of millions of dollars of stranded investment at these facilities and mines, much of which would likely be passed through to North Dakota and Minnesota ratepayers, cooperative members, and small municipalities. The closure of the Red Hills Mine would result in the loss of over \$50 million of direct investment made by NACCO NR to date. In addition, early closure of these plants would result in the loss of over a thousand jobs and the loss of revenue which NACCO NR is contracted to receive well into the future. NACCO NR believes that all of these injuries are preventable if the court stays and ultimately overturns the rule.

North Dakota—Coyote Creek Mine

6. Through a wholly-owned subsidiary, Coyote Creek Mining Company, L.L.C. (“CCMC”), NACCO NR developed the Coyote Creek Mine in Mercer County, North Dakota, located about 70 miles northwest of Bismarck. The Coyote Creek Mine began making lignite deliveries to the 427-megawatt (MW) Coyote Station in 2016.
7. If Coyote Station cannot meet the requirements of the MATS rule, it will be required to close. The purpose of the Coyote Creek Mine is to support, and to provide a fuel source for, Coyote Station. Thus, if Coyote Station closes, Coyote Creek Mine would close as well. Mine closure would result in a layoff of the 90-person workforce, CCMC would go out of business, and the local community and the State of North Dakota would be deprived of the valuable attendant benefits and taxes and royalties described below in paragraphs 13 and 14.
8. To develop the mine and comply with its contractual obligations, CCMC permitted an area large enough to supply coal for the 25-year life of the contract with Coyote Station. CCMC spent over \$6 million to permit the acreage needed for 25 years. If the power plant and mine must close in 2027, less than half of the acreage permitted will have been mined and CCMC will lose over \$3 million in permitting costs spent to permit lands that will never be mined. In addition, \$30 million of mine development costs are being amortized over the life of the mine. If that life is cut in half due to implementation of the MATS rule, another \$15 million in such costs are lost.
9. In addition to permitting and mine development costs, CCMC incurred equipment costs of around \$80 million to support mine startup and operation through the life of the mine. Again, these costs are being amortized over the life of the mine, and if the mine is forced to close early, nearly \$40 million of those costs are lost because full amortization cannot

be realized. And the equipment will likely have a very low resale value because of the closure of other mines at the same time. Finally, if Coyote Station shuts down and the mine closes in 2027, the contractual arrangement between CCMC and the power plant owners requires CCMC to purchase the dragline and rolling stock for approximately \$30 million, due to the early closure of the mine.

10. Due to the cost-plus nature of the contract under which CCMC supplies fuel to Coyote Station, many of CCMC's costs and obligations are passed through to the public utilities that jointly own Coyote Station—Otter Tail Power Company, Northern Municipal Power Agency, Montana-Dakota Utilities Company, and NorthWestern Corporation. In the end, the utilities, and more specifically their ratepayers and members, will pay these costs. In return, the ratepayers and members to whom the costs of Coyote Station are passed on will not have received the benefit of the low-cost and reliable power that otherwise would be delivered by Coyote Station. Their stranded investment in the Coyote Creek Mine will be lost.

North Dakota—Falkirk Mine

11. NACCO NR, through its wholly-owned subsidiary, The Falkirk Mining Company (“Falkirk”), operates the Falkirk Mine near Underwood, North Dakota, about 50 miles north of Bismarck. The Falkirk Mine annually produces between 7 million and 9 million tons of lignite for Coal Creek Station, a two-unit 1100-megawatt power plant owned by Rainbow Energy Center.
12. Coal Creek Station is impacted by the MATS rule.
13. A layoff at Falkirk Mine will be acute on numerous levels. According to an economic report prepared by North Dakota State University, a true and correct copy of which is

attached as Attachment B, in 2021, the latest year for which actual data is currently available, “The combination of coal mining, coal conversion, coal-fired electricity generation, and electricity transmission and distribution was estimated to have 3,300 direct jobs in North Dakota in 2021.” “The lignite industry also generated over \$1 billion in labor income, which represents wages, salaries, benefits, and sole proprietor’s income.” For the five hundred plus employees that stand to lose their jobs if Coal Creek Station closes, their lives, and their families’ lives, may be drastically impacted.

14. Also, a shutdown would have a substantial impact across several counties and cities in North Dakota. Like all mining companies, Falkirk pays a coal severance tax of 37.5 cents on each ton of lignite mined. In 2023, Falkirk paid approximately \$2,500,000 in coal severance taxes. NACCO NR’s neighboring Freedom Mine paid approximately \$4,500,000 in coal severance taxes. Under North Dakota law, 30% of revenue from the 37.5 cent tax is used to fund a Constitutional Trust Fund administered by the Board of University and School Lands. The other 70% is shared among the coal producing counties in the State, which is further apportioned as follows: 40% to the county general fund; 30% to the cities within the county, and 30% to the school districts. Absent a stay of the MATS rule, if these mines are forced to shut down, this will impact education, law enforcement, and social services throughout the State.

15. Even if the parties prevail in litigation efforts and the MATS rule does not ultimately go into effect, the MATS rule is already immediately impacting the operation of the mine to the detriment of the local community. At the Falkirk Mine, hiring decisions must be made with a long term vision in mind, and the decision to fill open positions or hire for new positions cannot be made with the current uncertainty the MATS rule creates. In addition, the uncertainty created by the MATS rule makes it difficult to attract and retain employees

who know they may not have a job in a few years. These difficulties are real and locations like the Falkirk Mine are experiencing them right now and will continue to experience them during the litigation of the MATS rule if a stay is not granted.

16. Decisions regarding large capital expenditures for equipment must be made years in advance due to the amount of time it takes to finance, acquire, transport, assemble and test equipment. A decision must be made now as to whether to acquire an additional dragline for the Falkirk Mine to meet customer demands and contractual obligations. A used dragline would need to be acquired now—at a cost of approximately \$30 million—so the dragline can be purchased, transported, reconstructed and placed into service by late 2026 to meet these customer demands and contractual obligations. Due to their enormous size and complexity, it takes years for a used dragline to become operational at a new location. Draglines weigh millions of pounds and must be disassembled for transport (by rail and truck) to their new location. The parts and equipment constituting the dragline are transported in dozens of modular units to the new location. Upon arrival, the equipment is refurbished, re-assembled, erected, and tested. This work is done by private contractors, including truckers, welders, electricians, mechanical and electrical engineers, and software programmers.

17. Because of this extensive and time-consuming process, Falkirk must make a decision acquire to the \$30 million dragline now, in order for the dragline to become operational by late 2026 to meet customer demand. If Falkirk makes this necessary decision and then is obligated to close the mine in 2027, it would lose almost all of its substantial investment in this piece of equipment, which will be worth only scrap value if the mine is shut down. Given the lead time required and the uncertainty created by the MATS rule, it is difficult to make an informed decision on such a large capital expenditure.

North Dakota – Coteau Freedom Mine

18. NACCO NR, through its wholly-owned subsidiary, The Coteau Properties Company (“Coteau”), operates the Freedom Mine near Beulah, North Dakota, about 75 miles northwest of Bismarck. The Freedom Mine annually produces between 12 million and 14 million tons of lignite for Antelope Valley Station (“AVS”), a two-unit 900-megawatt power plant, Leland Olds Station (“LOS”), a 660-megawatt power plant, and Dakota Gasification Company (“DGC”), a Synfuels plant, all owned by Basin Electric Power Cooperative.
19. AVS and LOS are both impacted by the MATS rule.
20. Similar to Falkirk, a layoff at Freedom Mine would be devastating to the local community. The combination of over 400 high paying jobs at the Freedom Mine alone, along with approximately 600 more at the combined facilities of AVS, LOS, and DGC are the backbone of a 100 mile radius of families’ livelihoods and economic activity for central North Dakota, including the neighboring towns of Beulah and Hazen. Without the employment provided by these facilities, the towns of Beulah and Hazen could vanish, along with any economic activity in the region.
21. A shut down or curtailment of coal usage at AVS or LOS also affect the economics and operating costs of DGC. DGC enjoys a lower price for its lignite coal input based upon sharing in the volume of coal needed to operate AVS and LOS. Because of economies of scale and shared costs over a larger number of tons, if AVS and LOS are shut down, the coal costs for DGC increase exponentially, causing the economics of that facility to be strained as well.

22. NACCO NR, at its Freedom Mine, currently has about \$130 million worth of property, plant, and equipment which would require accelerated depreciation if the mine is closed early because of the MATS rule. In addition to that, there is another \$70 million in lease depreciation that would be unrealized, along with approximately \$37 million in warehouse inventory that would have little to no value if the mine were closed early. Finally, a shut down of the Freedom Mine would result in a lost payroll of over \$60 million annually.
23. Beyond the impacts of a shut down, the MATS rule is creating an immediate impact on the operation of the mine to the detriment of Coteau. At the Freedom Mine, as with Falkirk, decisions regarding large capital expenditures must be made years in advance due to the amount of time it takes to finance, acquire, transport, assemble and test equipment, and to determine how much and which types of equipment are necessary for different mine plans. There are numerous decisions relating to equipment purchases, repairs, mine plans and other capital requirements that must be delayed or decisions altered for short term requirements rather than long term decision-making, creating higher future costs and less efficient operations. Equipment purchases, or equipment maintenance, that are delayed pending the outcome of the MATS rule will add additional cost in the future. Additionally, Coteau is currently facing major mine plan decisions that depend on the length of time the mine will be in operation, but the uncertainty of the MATS rule (especially when coupled with the additional announced rules) causes great difficulty in making these decisions.

Mississippi

24. NACCO NR has owned and operated the Red Hills Mine near Ackerman, Mississippi, since 2002. On an annual basis, the Red Hills Mine produces approximately 2.4-2.8 million tons of lignite. Lignite from the Red Hills Mine is used as a fuel supply at the adjacent Red

Hills Generating Facility, a 440-megawatt power plant that provides electricity to the Tennessee Valley Authority.

25. Based on current projections, NACCO NR believes the Red Hills Generating Facility is particularly vulnerable to meeting the filterable particulate matter standard required by the MATS rule.
26. NACCO NR provides lignite to the Red Hills Generating Facility pursuant to a supply agreement that runs through 2032. The agreement, however, also includes two ten-year extension options that, if exercised, would extend the agreement to 2052.
27. Based on NACCO NR's geological data, there are enough proven lignite reserves in the vicinity of the Red Hills Mine to support mining until at least 2052. The most efficient way to mine the reserves would have been to shift approximately 6 miles of Mississippi Highway 9, which bisects the Red Hills Mine area in a north-south direction, about 2 miles to the east. However, because of previous regulatory uncertainty (much like the uncertainty that would result if the MATS rule is not stayed) the decision was made to cross Mississippi Highway 9 by constructing an underpass, rather than moving the highway. Similar operational decisions are made on a regular basis and, without a stay here, inefficient and shorter term decisions will be required. These decisions will collectively add up to significant and unnecessary financial harm.
28. NACCO NR currently has assets valued at over \$50 million at the Red Hills Mine that will likely be lost as stranded investments if the MATS rule is implemented.
29. The effects of the MATS rule cannot be considered in a vacuum. EPA promulgated revisions to the New Source Performance Standards rule (greenhouse gas emissions requirements) on May 9, 2024 that require significant reductions in emissions from coal-fired power plants, including requirements for carbon capture and storage or co-firing on

alternative fuel sources, or shut down by January 1, 2032. Unfortunately, in addition to numerous other issues, the compliance dates for the two rules are misaligned. To comply with the fPM and/or mercury standards, power plants need to decide whether to spend the significant capital required to attempt to comply with MATS, if compliance is even possible, while at the same time weighing whether they can even operate past January 1, 2032 anyway. If facilities must presume they are required to shut down before January 1, 2032 anyway, it is unlikely they will invest capital to comply with the MATS rule.

30. Finally, absent a stay of the MATS rule and facing significant compliance costs over a very short implementation timeframe (if compliance is even technologically feasible), coupled with the effect of the other rules as mentioned above, a number of facilities are expected to elect not to install additional control equipment and emission monitors. If the rule is not stayed, facility owners may decide to shut down or curtail output rather than spend significant dollars with such an uncertain outcome, and NACCO NR will suffer tremendous immediate harm.

31. I, Christopher D. Friez, declare under penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge.



Christopher D. Friez
NACCO Natural Resources Corporation

Dated: May 30, 2024

Attachment A
to the Declaration of Christopher D. Friez



INDUSTRIAL COMMISSION OF NORTH DAKOTA
NORTH DAKOTA TRANSMISSION AUTHORITY

Analysis of

Proposed EPA MATS Residual Risk and Technology Review and
Potential Effects on Grid Reliability in North Dakota

Claire Vigesaa, Director
North Dakota Transmission Authority

April 3, 2024

Assisted by:

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Center of the American Experiment

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Executive Summary

On behalf of the North Dakota Transmission Authority (NDTA), the Center of the American Experiment prepared this study to analyze the potential impacts of EPA's proposed revisions to the Mercury and Air Toxics Standards (MATS) Rule on North Dakota's power generation and power grid reliability.

Our primary finding, which is drawn substantially from the Rule's administrative record, is that the proposed changes are likely not technologically feasible for lignite-based power generation facilities, will foreseeably result in the retirement of lignite power generation units, and will negatively impact consumers of electricity in the Midcontinent Independent Systems Operator (MISO) system by reducing the reliability of the electric grid and increasing costs for ratepayers.

Our analysis builds upon grid reliability data and forecasts from the Federal Energy Regulatory Commission (FERC) and the North American Electric Reliability Corporation (NERC), and it assesses what is likely to happen to grid reliability if the MATS Rule forces some or all of North Dakota's lignite power generation units to retire. We determined that the closure of lignite-fired powered power plants in the MISO footprint would increase the severity of projected future capacity shortfalls, i.e. rolling blackouts, in the MISO system even if these resources are replaced with wind, solar, battery storage, and natural gas plants. In reaching that determination, we have accepted EPA's estimates for capacity values of intermittent and thermal resources.

Moreover, building such replacement resources would come at a great cost to MISO ratepayers. The existing lignite facilities are largely depreciated assets that generate large quantities of dispatchable, low-cost electricity. Replacing these lignite facilities with new wind, solar, natural gas, and battery storage facilities would cost an additional \$1.9 billion to \$3.8 billion through 2035, compared to operating the current lignite facilities under status quo conditions.

MISO residents would also suffer economic damages from the increased severity of rolling blackouts. Accounting for projected increases in demand for electricity, we assess that if the MATS Rule goes into effect in the near future, by 2035, the MISO grid will experience up to an additional 73,699 megawatt hours (MWh) of unserved load, with an economic cost of up to \$1.05 billion based on the Value of Lost Load (VoLL) criteria, which can be thought of as the Social Cost of Blackouts.