## -Info-Public Service Commission

**From:** Tasha Altmann <tasha.altmann@mrenergy.com>
**Sent:** Monday, October 27, 2014 1:35 PM
**To:** -Info-Public Service Commission
**Cc:** Derek Bertsch
**Subject:** MRES 111(d) Comments to NDPSC
**Attachments:** MRES 111d Cmmnts to NDPSC 2014-1027.pdf

To Whom It May Concern,
Per the request of the NDPSC, attached are the Comments of Missouri River Energy Services on 111(d).

If you have any questions, please contact Derek Bertsch at derek.bertsch@mrenergy.com or by phone at 605.338.4042.

Sincerely,

Tasha L. Altmann, CP
Certified Paralegal/Records Administrator
Legal
Missouri River Energy Services
3724 W. Avera Drive
Sioux Falls, SD 57108
Direct Line: 605.330.6957
Direct Fax: 605.978.9375

MISSOURI RIVER ENERGY SERVICES®

3724 West Avera Drive
PO Box 88920
Sioux Falls, SD 57109-8920
Telephone: 605.338.4042
Fax: 605.978.9360
www.mrenergy.com

October 27, 2014

Darrell Nitschke, Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

RE: EPA Proposed 111(d) Regulations

Dear Mr. Nitschke:

Enclosed are the Comments of Missouri River Energy Services in response to the North Dakota Public Service Commission's request for comments regarding the Environmental Protection Agency's proposed $CO_2$ rules for existing power plants.

If you have any questions, please contact me at 800.678.4042 or tasha@mrenergy.com.

Sincerely,

/s/ Tasha Altmann

Tasha Altmann, CP
Certified Paralegal
Legal

# Comments of
# Missouri River Energy Services
# Regarding EPA's 111(d) Clean Power Plan Proposal

October 27, 2014

Missouri River Energy Services (MRES) welcomes this opportunity to provide comments relating to the Environmental Protection Agency's (EPA) Carbon Regulations for existing power plants. MRES is a municipal power agency which supplies power and energy, and energy services to 61 municipal utility members located throughout Iowa, Minnesota, North Dakota and South Dakota, including six municipal utilities in North Dakota. We were created by the member communities that own us, and are a non-profit, customer-owned public entity, like the municipalities we serve. We offer the following comments in response to the questions contained in the North Dakota Public Service Commission's "Order Directing Response to Certain Questions," issued October 8, 2014.

a. *Do you agree or disagree with the methodology EPA used to calculate North Dakota's proposed emissions reduction goal?*

MRES believes that the methodology used by EPA is defective. The EPA's methodology for setting North Dakota's state goal for $CO_2$ emissions is flawed and results in an unrealistic and unfair target that the state is mandated to achieve. The BSER scheme that EPA has developed imposes extreme $CO_2$ reduction mandates, far beyond what can be realistically achieved. It virtually forces states to shift to renewable generation to meet their electricity needs, without consideration of the specific circumstances of each individual state, the reliability of the electric grid or the cost of electricity to consumers.

As it explains in the preamble, EPA reaches the various state goals for $CO_2$ reduction by applying a series of building blocks to the 2012 generation mix in each state, using a series of assumptions, and reaching a computation that establishes the standard that each state much achieve by 2030. Flaws in the assumptions inherent in each building block necessarily affect that calculation, resulting in skewed goals. Further, EPA also suggests that the states use the building blocks as compliance mechanisms to achieve those same goals, based again on the flawed assumptions upon which they are based. EPA must address the problems identified in each of the building blocks if the goals are to be accurate and compliance is to be achieved.

Building Block 1

For North Dakota, the majority of the emission reductions derived from EPA's methodology are achieved from building blocks 1 and 3. The EPA's fundamental assumption in block 1 is that every fossil power plant – especially every coal plant – is capable of achieving an additional 4%-6% heat rate improvement. Indeed, its calculations on which it imposes the goals established by the Clean Power Plan assume that across the board, all fossil-fueled power plants will achieve a

4%-6% heat rate reduction. This assumption is wrong. Discussions with states and utilities in the region indicate that it appears EPA's best practices have already been implemented by a majority of coal-fired power plants in North Dakota and other states within EPA Region 8, providing proof that this building block is unrealistic.

MRES does not have an affected unit in North Dakota. However, as a co-owner of the Laramie River Station (LRS), located near Wheatland, Wyoming, we believe the ability to gain the emission reductions predicted under building block 1 is severely limited, if not impossible. LRS is consistently operated as efficiently as possible. As consumer-owned utilities, the co-owners of LRS are motivated to optimize efficiency as a matter of sound economic business principles, and are not required to wait on approval from a state regulatory commission to undertake such projects. In recent years, the owners of LRS have taken significant steps to improve the heat rate. Taken together, these efforts have improved the overall efficiency about three percent (3%). They also demonstrate an ongoing effort to operate LRS as efficiently as economically possible, a practice that is undertaken consistently by the entire industry in general.

Attempts to reduce the heat rate further are contrary to sound engineering and other principles. Existing coal-fired power plants that undertake efforts suggested by EPA to further reduce their heat rate could experience a loss of efficiency, which would be counterproductive and increase operating costs. In addition, any potential project could subject a plant to the lengthy, costly and uncertain regulatory process of New Source Review (NSR) (whether for $CO_2$, $SO_2$ or other criteria pollutants) or cause exposure to modified or reconstructed plant issues, depending on the nature of the improvement. The Clean Power Plan does not include an exemption from NSR requirements for improvements designed to achieve the alleged available heat rate improvements that EPA touts in building block 1. Finally, the reductions required in building block 1 are at cross purposes with the objectives of building block 2, which increases the dispatch of natural gas combined cycle units by reducing the generation from coal plants. Reducing the operation of coal plants has the effect of reducing the efficiency of the operation of the plant, the opposite of the overall EPA objective.

Building Block 3

As to building block 3, EPA's goal setting methodology does not take into account the time to implement any state policy to create incentives or mandates, or the construction that pertain to the build out of renewable energy generation, which represents the largest reduction the EPA plan assumes in setting North Dakota's state goal. Although North Dakota has been a leader in wind development, that leadership role has largely been a product of the availability of abundant wind resources in the geographic region, as well as well-priced generation equipment and transmission capacity. As more renewables are added, the transmission and the distribution grid will need to be expanded, as well as updated, to reliably serve demand and to keep the grid robust. The rigid EPA glide path fails to provide for sufficient time to plan, finance, permit and construct sufficient renewable generation, as well as natural gas combined cycle (NGCC) generation to support such intermittent resources (like wind and solar), electric transmission, and natural gas infrastructure.

Finally, the proposed rules offer no indication on how the reduction goals or the four blocks are to be implemented in order to accommodate growth in electric use. As the North Dakota Public Service Commission is well aware of, North Dakota is experiencing tremendous growth in energy usage related to the development of the Bakken. This industrial growth cannot rely on intermittent power—instead plans must be made to have sufficient reactive and reliable power to support the current and projected large power usage.

The flaws in EPA's goal-setting methodology necessitate that EPA recalculate the goals of states with affected EGUs to accurately reflect the lack of availability of heat rate enhancements and the time required to construct new renewable resources. It is irresponsible to assign mandates that are based on impossibilities of engineering and unattainable emission reductions.

b. *Do you agree or disagree that the statewide "goal" established by EPA for North Dakota is really an enforceable requirement, if finalized?*

MRES disagrees that the EPA-established "goal" is enforceable, if finalized. The proposed rules require that each state must submit a plan to EPA that includes a mix of enforceable regulations and policies that will ensure that the state will meet its specific goal. Once a state plan is approved by EPA, it then becomes federally-enforceable, according to the proposal. *See* 42 U.S. Code 7411 (d)(2)(B). This entire scheme disregards the fact that EPA has no legal authority to impose federally-enforceable requirements or impose a Federal Implementation Plan to reduce pollution on non-EGUs (*e.g.,* by setting state goals based partially on renewable generation and energy savings); it can only regulate the source of pollution. 42 U.S. Code 7411(d). In its proposal, EPA mandates $CO_2$ reductions for individual states (which it refers to as "goals" even though they are actually "binding," not optional as the word "goal" implies) based on four building blocks, only one of which involves reduction of emissions at the source. 79 F.R. 34,892. The majority of the reductions are achieved from building blocks that are beyond the source of the $CO_2$ emissions. Further, EPA also employs these same building blocks as the compliance mechanisms upon which states are to rely for developing compliance plans. Unlike previous EPA rulemakings under the Clean Air Act (CAA), EPA's proposal sets the compliance mandates based on actions taken by entities other than the affected electric generating units (EGUs). It compounds that statutory overreach by creating compliance mechanisms for states that mirror the same statutory overreach for state compliance plans. *Id.* at 34862 et seq.

c. *Do you agree or disagree EPA's Proposed Rule is not consistent with Section 111(d) of the federal Clean Air Act and North Dakota statutes because it would take away the state's primary authority for setting the emission standard?*

We agree that states have the primary authority for setting emission standards under the CAA; therefore, the proposed rule is not consistent with Section 111(d) of the CAA. EPA cannot set $CO_2$ emission goals under Section 111(d). Its statutory role is specifically limited to developing "*procedures;*" Congress clearly gave states the duty to "establish standards of performance[.]" 42 U.S. Code at 7411(d)(1)(A). The section of the CAA upon which EPA relies for this proposed rule, sets up a structure where EPA establishes *procedures* but it is only the state that sets the emission *standard.* The plain language of section 111(d)(1) limits EPA's authority to prescribing "regulations which shall establish a procedure similar to that provided by section

7410" under which states set standards of performance for existing sources. In other words, EPA is required to set up procedures, but the states are given the authority and responsibility to establish the actual, substantive standards of performance. In contrast, Section 111(d)(2)(A) which authorizes EPA to set standards of performance, allows it to act (to impose a Federal Implementation Plan) only in situations where a state has failed to submit an acceptable plan. Under Section 111(a)(1) and EPA's Subpart B rules, EPA is authorized only to set "*emission guidelines*" addressing factors relevant to the states' determination of the best system of emission reduction ("BSER") that has been "adequately demonstrated" and is "achievable" for each source type. *Id.* at 7411(a)(1), (d)1); 40 C.F.R. § 60.22, 60.24(c). Importantly, EPA's *guidelines* are neither legally binding nor directly enforceable on sources — they simply set out considerations for states to address in adopting their own standards for existing sources based on long-standing principles of cooperative federalism upon with the Clean Air Act is based. *See* 40 C.F.R. §60.22. Accordingly, EPA's approach to determining BSER for limiting $CO_2$ emissions from EGUs may inform the content of EPA's emissions guidelines and the considerations states take into account in setting standards achievable by each source, but it does not give EPA authority to determine the resulting standards; the standard is to be established by the state. 42 U.S. Code 7411(d)(1)(A). What the Administrator determines to be BSER is merely one of the many factors states must consider in determining the level and form of any existing source performance standard as applied to a specific EGU.

*d. Do you agree or disagree that the Proposed Rule conflicts with the Commission's statutorily-defined rate-setting and resource planning objectives?*

The Clean Power Plan is an attempt by EPA to exercise federal jurisdiction over the most fundamental elements of the electric industry including basic generating resource decisions from constructing new resources to closing existing plants (and everything in between), as well as matters specific to retail issues. A fundamental tenet of the Federal Power Act (FPA) is the express division of authority between the state and federal governments over issues of generation, transmission, distribution, and sale of electricity. 16 U.S.C. §§ 824 et seq. (2012). The FPA acknowledges that "Federal regulation … extend[s] only to those matters which are not subject to regulation by the States[,]" thus preserving the traditional role of the states. *Id.* at 824(a); The FPA, FERC and the U.S. Supreme Court collectively establish that there is a "bright line" that places these issues squarely within state authority, and deny the federal government or its agencies the power to regulate in these arenas. *See Fed. Power Comm'n v. S. Cal. Edison Co.*, 376 U.S. 205, 215 (1964) ("*FPC v. SCE*"). Thus, local service issues, including reliability of local service, authority over integrated resource planning, the need for additional generating capacity, the type of generating facilities to be permitted, and demand-side management, as well as the power to impose retail stranded cost charges, ratemaking, and even matters of retail transmission are all within the exclusive province of the states. *Id.*; *New York v. FERC*, 535 U.S. 1, _ (2002) (citing Order No. 888, at 31,782, n.543 and n. 544); *Pacific Gas & Electric Co. v. State Energy Resources Conservation & Development Comm'n*, 461 U.S. 190, 212 (1983); *see also, e.g., Electric Power Supply Ass'n v. FERC*, 753 F.3d 216, 224 (D.C. Cir. 2014) ("the Federal Power Act unambiguously restricts FERC from regulating the retail market"). Most — if not all — of the programs in building blocks 2-4 are within the exclusive purview of state regulators, including rate making and resource planning. See N.D.C.C. 49-02 et. seq. These programs have been developed pursuant to well-established state sovereign powers over matters

relating to electricity regulation, including determining the appropriate mix of generating resources within a state consistent with state energy policies. *See New York v. FERC*, 535 U.S. at _ . The Clean Power Plan and its building block approach completely disregard not only the historic role of the states, but the plain language of the FPA and Supreme Court rulings defining the line between state and federal regulation of the electric industry.

*e. Do you agree or disagree that the Proposed Rule would override the resource planning authority and discretion of the Commission?*

MRES believes that the EPA proposal oversteps the bounds of state resource planning authority. The Proposed Rule would impact the resource planning authority and discretion of the Commission by making it more difficult to focus on the traditional goals of balancing the costs of electricity with the obligation to provide reliable service. Once final, the 111(d) rules will have to be taken into account in the resource planning process. The resource planning process will have to contend with any impacts caused by compliance with the proposed rule including impacts on cost-effectiveness, quality of power, and reliability.

*f. Do you agree or disagree that the Proposed Rule raises concerns about electric reliability in North Dakota?*

The Proposed Rule raises concerns about electric reliability in North Dakota and throughout the region and the country. As drafted, the proposal requires wholesale shifts in the way electricity is generated in this country and does so without regard to the need for expanded electric and natural gas transmission infrastructure. The failure of EPA to consult with the North American Electric Reliability Corporation (NERC) in a meaningful way to ensure that the Clean Power Plan can be implemented without grave threats to reliability requires that the proposal be withdrawn.

Section 215 of the FPA authorizes FERC to approve and enforce reliability standards developed by NERC and various regional reliability entities. 16 U.S.C. § 824o. The Proposed Rule acknowledges that reliability is an issue of concern but ultimately rests on a conclusion that it provides sufficient flexibility to avoid reliability concerns. 79 Fed. Reg. at 34,836. The Technical Support Documents do include one entitled "Resource Adequacy and Reliability Analysis." Unfortunately, the report was prepared without substantive consultation with and input from either FERC or NERC.

Under the authority delegated by the FPA and FERC, NERC governs the reliability and security of the grid, and utilities throughout the country are subject to mandatory reliability standards, with substantial penalties for violations of those standards of up to $1,000,000 per day per violation. "Sanction Guidelines of the North American Electric Reliability Corporation," Appendix 4B, section 2.16.[1] The Clean Power Plan will force the premature closure of base load plants around the country, jeopardizing reliable power supply for millions of Americans. It is

[1] Available at: http://www.nerc.com/FilingsOrders/us/RuleOfProcedureDL/Appendix_4B_SanctionGuidelines_20121220.pdf (last accessed on September 24, 2014).

not clear whether NERC could order the operation of an otherwise closed unit to support system reliability in the event of a crisis and, if so, whether the NERC order would provide a compliance exception under the Clean Power Plan. As drafted, there is no reliability safety valve. Even if we assume that energy efficiency will reduce demand by 1.5% nationwide (an assumption with which MRES does not agree), that will be inadequate to fill the major void caused when hundreds of gigawatts of coal-fired power plants close. Even if retired coal plants are replaced with NGCC or renewable resources, those resources and the necessary transmission to support them cannot be permitted, sited and constructed in time to avoid a major shortfall in resources around the country. What is left is a system that lacks inertia to provide voltage support necessary to the most basic operation of the grid in entire regions of the country, such as the Southwest Power Pool (SPP), as described more fully below.

In addition, to add significant amounts of renewable resources to the grid will push it to the limits of safe operation. Wind and solar, the predominant renewables being deployed currently, are both intermittent resources which strain the system and require redundant resources to back up when they are not available. In 2008, Texas faced a near catastrophic event when it unexpectedly experienced a loss of all of its wind capacity at once when a major weather system moved through the state. Dramatic events like that will only become more common with the massive deployment of renewables contemplated by the Clean Power Plan. In such a case, fossil resources will need to be called upon to try to pick up the load and avoid a voltage collapse, causing a widespread black out.

One of the underlying assumptions of the proposed rule is that natural gas, renewables, and energy efficiency can each replace coal-fired generation and that each are interchangeable with the other. When it comes to reliability, electric generation is not fungible. Utilities are required by law to supply all of the power customers want at the exact time they want it; this is the obligation to serve which is at the heart of the regulatory compact. Utilities cannot deny power because the proposed customer usage is wasteful, or does not occur at the optimal time of day. In order for a robust grid and to provide power at all times at varying increments, utilities need sufficient base load power to provide voltage control, reactive power and inertia. Intermittent renewable energy cannot provide voltage control or dispatchable (reactive) power. In 2008, when the ERCOT system came dangerously close to experiencing a black out, the grid frequency dropped suddenly when wind production fell from more than 1,700 megawatts to 300 MW and a system emergency was declared.[2] Also, multiple power suppliers fell below the amount of power they were scheduled to produce. *Id.* This created problems moving power to the west from North Texas, leading to the emergency. *Id.*

Likewise, an increasing reliance on natural gas poses reliability concerns when, for example, extreme weather strains demand. At its open meeting held on October 16, 2014, FERC reviewed both Commission and industry actions relevant to Winter 2013-14 weather events. NERC reported that there were over 35,000 MW of outages due to cold weather and fuel issues; 17,700 MW of those outages were caused by frozen equipment, controls, and frozen coal. In general, firm fuel supply and transportation contracts were honored, enabling certain generator units to

[2] "Loss of wind causes Texas power grid emergency," Reuters (Feb. 27, 2008) available at: http://www.reuters.com/article/2008/02/28/us-utilities-ercot-wind-idUSN2749522920080228 (last accessed on October 7, 2014).

perform as scheduled. However, a number of generators were exposed to extremely high fuel prices and interruptible gas transportation was often unavailable. As a result, uplift costs in organized electricity markets for the month of January 2014 rivaled the total uplift incurred by the RTOs for an entire year. (PJM reported energy uplift costs greater than $500 million for January 2014.) In addition, record high natural gas price spikes drove up prices to electric end use customers—both in real-time and over the past year—as higher wholesale electric prices were passed through in retail electric rates.

With heavy reliance on intermittent renewable generation coupled with heavy reliance on natural gas, which has a limited infrastructure, the proposed rule sets up a scenario similar to what ERCOT experienced. Therefore, before taking affect, the proposed rule and the final rule should be modeled by NERC, the RTOs, and by state utility boards to determine the impact on reliability. The modeling should include recommendations and cost estimates for infrastructure and upgrades needed to maintain high reliability and power quality, including transmission and distribution equipment upgrades and build-out, plans to meet incremental and large load growth, and build-out of transmission and natural gas infrastructure.

It is important to consider assessments conducted by Regional Transmission Organizations/ Independent System Operators (hereafter referred to as RTOs). SPP has initiated its consideration of the reliability impacts of 111(d). In its SPP "CPP Impact Assessment" dated October 8, 2014, the RTO reported on its ongoing analysis of the impact of the proposed rule.[3] Its preliminary work indicates an expected increase in thermal overloads and low voltages due to EPA's assumed retirements, and that its summer peak modeling runs were not solving under a single contingency due to an extreme lack of reactive support. *Id.* It is also concerned that under the Clean Power Plan, its minimum required reserve margin of 13.6% cannot be maintained and that the reserve margin will fall to a -4.0% by 2024, as it experiences a capacity deficit of approximately 10,100 MW. *Id.* While these findings are only preliminary, SPP will continue to study the reliability impacts of this rule as it becomes finalized. As stated previously, to date, MISO has limited its review to an economic-only analysis[4], and will undertake the issues of reliability and transmission security in the next phase of its analysis.[5]

g. *Do you agree or disagree that the Proposed Rule has a significant impact on North Dakota's ability to continue to use lignite and other coals as a low cost electricity generation option?*

The overall intent of the Proposed Rule is to force significant shifts in generating capacity away from carbon-intensive EGUs to less carbon-intensive EGUs and zero-carbon generation. This negatively impacts North Dakota's ability to continue to use lignite and other coals as a low cost electricity generation option. However, the degree that North Dakota is impacted will depend

---

[3] This report can be found at: http://www.spp.org/publications/2014-10-09_SPP%20Comments_EPA-HQ-OAR-2013-0602.pdf (last accessed on October 25, 2014).

[4] MISO's "GHG Regulation Impact Analysis – Initial Study Results," September 17, 2014, can be found at: https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/PAC/2014/20140917/20140917%20PAC%20Item%2002%20GHG%20Regulation%20Impact%20Analysis%20-%20Study%20Results.pdf (last accessed on September 18, 2014).

[5] See Regional State Committee meeting agenda and Clean Power Plan report at: http://www.spp.org/publications/RSC%20Agenda%20&%20Background%20082514.pdf (last accessed on September 19, 2014).

largely on whether any new NGCC generation that is constructed in North Dakota can be credited for purposes of reducing the state's carbon intensity under the Clean Power Plan. Currently, North Dakota is experiencing double-digit load growth in the western portion of the state due to the development of the Bakken oil reserves. Given that North Dakota's final 2030 goal is 1,783 lbs $CO_2$/MWh, the state might be able to reduce its $CO_2$ emission rate through the addition of new NGCC, assuming that new NGCC can be used under the Clean Power Plan.

Conclusion

MRES appreciates the opportunity to provide these comments regarding the EPA's proposed rules to regulate $CO_2$ from existing power plants. As written, EPA's proposal goes beyond what is permissible under Section 111(d) of the Clean Air Act. The role of the EPA is limited by statute to establishing guidelines, and States are the authorized entities to implement standards to achieve reductions. Ultimately, the overarching concern must be to maintain a reliable and affordable energy supply to our nation that protects both consumers and the economy.

Respectfully submitted this 27th day of October, 2014.

MISSOURI BASIN MUNICIPAL POWER AGENCY
d/b/a MISSOURI RIVER ENERGY SERVICES

By: */s/ Derek Bertsch*

Derek Bertsch
Staff Attorney, Legal
Missouri River Energy Services
P.O. Box 88920
Sioux Falls, SD 57109-8920
605-338-4042