COMMENTS OF

HEARTLAND CONSUMERS POWER DISTRICT

TO THE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGARDING

PROPOSED RULE ON CARBON POLLUTION EMISSION GUIDELINES FOR EXISTING STATIONARY SOURCES: ELECTRIC UTILITY GENERATING UNITS

Submitted on December 1, 2014

Heartland Consumers Power District ("Heartland"), a public power utility and political subdivision of the state of South Dakota, located in Madison, South Dakota, respectfully submits the following comments in response to the proposed rulemaking issued on June 2, 2014 by the United States Environmental Protection Agency ("EPA") regarding its Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units ("Proposed Rule").[1] EPA issued its Proposed Rule under Section 111(d) of the Clean Air Act ("CAA")[2] with the stated goal of reducing carbon dioxide ("CO_2") emissions from fossil fuel-fired electric generating units ("EGUs") by 30 percent lower than 2005 levels, by the year 2030. As discussed below, Heartland believes EPA's proposal to broadly regulate carbon emissions under the auspices of Section 111(d) constitutes regulatory overreach, and therefore, EPA should withdraw the Proposed Rule. Further, the Proposed Rule fails to adequately consider the unique circumstances of states in general, and particularly in any of the five states in which Heartland operates, namely South Dakota, Iowa, Minnesota, Wyoming, and Nebraska. As a result, the Proposed Rule would create a regulatory scheme that is unlawful, unworkable, and unaffordable

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1 79 Fed. Red. 34,830 (June 18, 2014).

2 42 U.S.C. § 7411(d) (2013).

for the states and their electric consumers. Heartland believes the best outcome would be for EPA to withdraw the Proposed Rule in its entirety. In the alternative, Heartland requests that EPA issue a final rule that fundamentally revisits each of the proposed four "Building Blocks" and ensures that the final state-specific carbon emission reduction goals adequately reflect the unique circumstances of those states.

I. DESCRIPTION OF HEARTLAND

Heartland is a public corporation and political subdivision of the state of South Dakota established under South Dakota's Consumers Power District Law in 1969. Heartland provides reliable low-cost wholesale power to 28 municipalities in eastern South Dakota, southwest Minnesota and northwest Iowa, to six South Dakota state agencies, and to one electric cooperative in South Dakota. Heartland's 2014 peak customer demand is projected to be 140 megawatts ("MW") with annual energy consumption of approximately 900,000 MW-hours. Heartland's primary electric generating resources consist of (1) Heartland's 80 MW share of the coal-fired Whelan Energy Center Unit 2 located near Hastings, Nebraska, (2) Heartland's 51 MW share of the coal-fired Laramie River Station located near Wheatland, Wyoming, and (3) the 34 turbine, 51 MW Wessington Springs Wind Energy Center just outside Wessington Springs, South Dakota. Additionally, Heartland's customers receive a significant allocation of federal hydropower generation from the Western Area Power Administration, amounting to 84.8 MW.

Heartland jointly owns substantial high-voltage electric transmission facilities, which are all included in the Integrated System, a high-voltage transmission system in the Upper Great Plains region. These transmission facilities include an undivided ownership share of the transmission facilities of the Missouri Basin Power Project, the Groton Substation and the Irv Simmons Project. The Missouri Basin Power Project includes about 750 miles of 230 kilovolt

("kV") and 345 kV non-radial transmission lines and substations in eastern Wyoming and western Nebraska. The Groton Substation is a 345/115 kV substation in eastern South Dakota. The Irv Simmons Project consists of a 115 kV switching station and an 8-mile 115 kV transmission line in central South Dakota. All the foregoing Heartland transmission facilities are jointly owned with third parties.

The Integrated System is generally described as the backbone of the bulk electric transmission system in the Upper Great Plains region of the United States. The Integrated System includes approximately 9,500 miles of transmission lines rated 115 kV through 345 kV and stretches across a seven state region. The system is bounded on the north by the Canadian border and reaches into Nebraska in the south. From west to east, the IS spans from eastern Montana and Wyoming into western Minnesota and Iowa. The Integrated System is unique in that it spans the Eastern and Western Interconnections of the U.S. electric grid. The Integrated System includes the combined transmission facilities of the Western Area Power Administration-Upper Great Plains (a federal Power Marketing Administration), Basin Electric Power Cooperative, and Heartland.

The Integrated System is a jointly-owned and developed system that originally evolved from the need to deliver federal hydropower from the Pick-Sloan Missouri Basin Program – Eastern Division to preference power customers in the region. Heartland supplies power and energy to preference customers, *i.e.*, consumer-owned utilities. The system has been planned, expanded and operated to serve the transmission customers in the region on an integrated, single-system basis under a common open access transmission tariff.

II. COMMENTS

A. The Proposed Rule Represents an Overreach of EPA's Statutory Authority Under the CAA and Should Be Withdrawn

Heartland agrees with the numerous states, utilities, and like-minded entities that have requested EPA to withdraw the Proposed Rule because EPA lacks the legal authority to promulgate such extensive and onerous regulations under the narrow scope of Section 111(d).[3] In fact, as noted by the United States Supreme Court,[4] Section 111(d) *prohibits* EPA from regulating any air pollutant emitted from "any existing source" already regulated under the CAA Section 112 requirements for hazardous air pollutants ("HAP"). As described below, EPA's decision to regulate carbon emissions from existing power plants is based on a drafting error and cannot withstand judicial scrutiny. EPA has already imposed extensive regulations on existing coal-fired power plants under Section 112, and therefore EPA cannot impose additional requirements on these same sources under Section 111(d).

Pursuant to CAA Section 111(d), EPA must "prescribe regulations . . . under which each State shall submit to the Administrator a plan which . . . establishes standards of performance for any existing source for any air pollutant . . . for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or emitted from a source category which is regulated under section 7412 of this title."[5] The cross-references in

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[3] Heartland's comments on this issue are intentionally brief and are not intended to foreclose any future legal challenges to EPA's authority to finalize the Proposed Rule and promulgate it in its current or similar form. Heartland notes that several legal challenges to the Proposed Rule have already been filed, including a Petition for Review by the state of South Dakota and other states. *See* Petition for Review, *West Va. v. EPA*, Case No. 14-1146, U.S. Court of Appeals for the D.C. Circuit (filed Aug. 1, 2014), available at http://www.ago.wv.gov/publicresources/epa/Documents/File%20stamped%20copy%20-%20Petition%20for%20Review%20-%20WV%20v.%20EPA%2c%2014-1146.pdf.

[4] *Am. Elec. Power, Inc. v. Connecticut*, 131 S. Ct. 2527, 2537 n.7 (2011) ("EPA may not employ [Section 111(d)] if existing stationary sources of the pollutant in question are regulated under . . . the 'hazardous air pollutants' program, § 7411(d) [Section 112].").

[5] 42 U.S.C. § 7411(d).

Section 111(d) refer, respectively, to CAA Section 109, setting requirements for the national ambient air quality standards, and CAA Section 112, setting requirements for HAP. As a result of these statutory restrictions, EPA has regulated only four pollutants from five source categories over the last 40 years under Section 111(d),[6] a trend which underscores, and confirms, the narrow scope of that section.

Even more telling, EPA itself recognizes this statutory constraint to its legal authority. EPA stated that "a literal reading" of Section 111(d) would "mean that the EPA could not regulate any air pollutant from a source category regulated under section 112."[7] To overcome this obstacle, EPA relies on a clerical error from the 1990 Clean Air Act Amendments that EPA claims creates ambiguity in Section 111(d) that permits it the discretion to interpret the section in a manner permitting regulation as contemplated in the Proposed Rule.[8] The clerical error arises from two amendments to the CAA—one from the House of Representatives and one from the Senate—that EPA claims were never reconciled during the Conference Committee and thus both were enacted into law.[9] EPA claims that the conflict in these two versions permits EPA to reasonably construe the provision to authorize the regulation of greenhouse gases ("GHGs") under Section 111(d).

EPA previously addressed this inconsistency between the House and Senate amendments in a 2005 HAP decision in which it stated that, under the House amendment (which is the version codified in the United States Code), EPA "cannot establish a standard of performance under

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6 U.S. Environmental Protection Agency, Legal Memorandum for Proposed Carbon Pollution Emission Guidelines for Existing Electric Utility Generating Units, at 9 (June 2014) ("Legal Memo") (*i.e.*, phosphate fertilizer plants (fluorides), sulfuric acid plants (acid mist), primary aluminum plants (fluorides), Kraft pulp plants (total reduced sulfur), and municipal solid waste landfills (landfill gases)).

7 Legal Memo at 26.

8 Proposed Rule at 34,853; *see also* Legal Memorandum at 26.

9 Proposed Rule at 34,853.

CAA section 111(d) for any 'air pollutant'—including both HAP and non-HAP—that is emitted from a particular source category regulated under section 112."[10] EPA noted that the House amendment was a "substantive" revision to Section 111(d) that sought to change the focus of that provision by "seeking to preclude regulation of those pollutants that are emitted from a particular source category that is actually regulated under section 112."[11] On the other hand, EPA noted that the Senate version is a "non-substantive" or conforming amendment to Section 111(d),[12] which according to the Senate's Legislative Drafting Manual, is an "amendment of a provision of law that is necessitated by the substantive amendments or provisions of the bill."[13] Although EPA conceded that the Senate amendment is "a drafting error and therefore should not be considered," EPA then incorrectly decided that it "must attempt to give effect to both the House and Senate amendments, as they are both part of the current law."[14]

EPA's determination in the Proposed Rule that "it is not reasonable to give full effect"[15] to the House amendment is disingenuous, self-serving, and legally indefensible. EPA's new determination is simply at odds with its prior decision, discussed above, that it must attempt to give effect to both the House and Senate Amendments. EPA cannot justify basing its legal authority to regulate carbon emissions from existing power plants on what EPA concedes is "a drafting error." Rather, EPA should rely on its recognition in 2005 that the clear intent of Congress was to prohibit EPA from regulating under Section 111(d) any air pollutant emitted

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10 70 Fed. Reg. 15,994, 16,031 (Mar. 29, 2005).

11 *Id.*

12 *Id.*

13 Senate Legislative Drafting Manual § 126(b)(2)(A) (Feb. 1997), *available at* http://www.law.yale.edu/documents/pdf/Faculty/SenateOfficeoftheLegislativeCounsel_LegislativeDraftingManual(1997).pdf.

14 70 Fed. Reg. at 16,031.

15 Legal Memo at 26.

from "any existing source" already regulated under Section 112, which regulation EPA has undeniably already imposed under Section 112. First, in 2000, EPA categorized coal-fired power plants as part of a "source category,"[16] and EPA's subsequent attempt to withdraw that finding in 2008 was rejected.[17] Next, in 2012, EPA imposed restrictions on coal-fired power plants pursuant to Section 112,[18] which were recently upheld by the D.C. Circuit.[19] Having first issued regulations for existing power plants under Section 112, EPA is prohibited from regulating these same sources under Section 111(d), as it improperly seeks to do in the Proposed Rule.

Therefore, Heartland respectfully requests that EPA recognize its lack of statutory authority to promulgate regulations on carbon emissions from existing power plants pursuant to Section 111(d) and withdraw its Proposed Rule.

B. In the Alternative, EPA Should Significantly Revise its Proposed Rule to Make it More Workable and Affordable for States and Utilities

Although Heartland prefers that EPA withdraw its Proposed Rule altogether, in the alternative, Heartland believes that, should EPA decide not to withdraw, numerous revisions to the Proposed Rule are warranted to make the rule workable and affordable for states and utilities and their customers. In general, Heartland believes EPA relied heavily on unreasonably optimistic assumptions in the development of its four "Building Block" approach to develop the "best system of emission reduction," or BSER. There are significant flaws in each of the four Building Blocks.

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16 65 Fed. Reg. 79,825, 79,826 (Dec. 20, 2000).

17 *New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008).

18 77 Fed. Reg. 9,304 (Feb. 16, 2012); 40 C.F.R. Part 63, subpart UUUUU.

19 *White Stallion Energy Ctr., LLC v. EPA*, __ F.3d __, 2014 WL 1420294 (D.C. Cir. Apr. 15, 2014).

For example, under Building Blocks 3 and 4, EPA does not count renewable energy projects or energy efficiency programs developed prior to 2012 for a state's compliance purposes under the Proposed Rule. This is a major shortcoming of the Proposed Rule, as it unfairly penalizes entities, such as Heartland, that undertook major pro-environmental initiatives to "get ahead of the curve" by implementing carbon-reducing measures prior to 2012 in anticipation of carbon-related regulations. The Proposed Rule, if finalized in its current form, would send precisely the wrong signal to the regulated community, *i.e.*, that those who voluntarily chose to be proactive and elected to reduce their overall carbon footprint before being required to do so, will receive no credit for such beneficial action. Moreover, that result would, in turn, create unfortunate incentives for the regulated community *not* to be similarly proactive in the future, as it would lead many entities to delay such proactive, beneficial measures by perhaps several years in order to wait until EPA promulgates a new regulation that enables those entities to get credit for their actions.

Further, EPA overestimated the rate at which new energy efficiency programs can be implemented but underestimated other critical factors such as the likelihood of stranded costs and economic value due to the forced early retirement of many coal-fired units. Heartland believes that the end result of the Proposed Rule will be increased costs to utilities, which for public power entities such as Heartland means significant increases to consumers' bills for years into the future.

1. Heartland has taken significant actions over time to reduce its overall carbon footprint, and yet such actions will not be considered using EPA's proposed 2012 baseline

In its Proposed Rule, EPA proposes to use 2012 as the baseline year to develop the state-specific carbon emission reduction goals based on the BSER.[20] Each of the Building Blocks is a separate component to the BSER, developed using a distinct proposed methodological approach based on a cost-benefit analysis for each GHG abatement measure. For example, for Building Block 3, EPA applied a regional annual growth rate to each state's 2012 level of renewable energy generation to derive the future renewable energy generation in that state from 2017 to 2029.[21] For Building Block 4, EPA used a "best practices scenario" by determining each state's incremental annual savings as a percent of retail sales for the most recent year of data (2012) and then applying a series of other inputs to arrive at a level of sustainable performance.[22] However, EPA's proposed baseline of 2012 for Building Blocks 3 and 4 does not provide full credit for investments already made that offset CO_2 emissions, including numerous efforts over the last decade by Heartland and Heartland's customers to proactively and responsibly reduce their carbon footprint. Of perhaps greater concern is the Proposed Rule's failure to credit states and utilities that use hydropower (a carbon-free generation source) in their energy portfolios. That failure is not only inexplicably inconsistent with EPA's overall environmental mission, it also severely disadvantages those entities, such as Heartland, that rely heavily on hydropower.

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[20] *See, e.g.*, Proposed Rule at 34,863 ("For purposes of establishing state goals, historical (2012) electric generation data are used to apply each building block and develop each state's goal . . . .").

[21] *See* U.S. Environmental Protection Agency, "GHG Abatement Measures - Technical Support Document (TSD) for Carbon Pollution Guidelines for Existing Power Plants: Emission Guidelines for Greenhouse Gas Emissions from Existing Stationary Sources: Electric Utility Generating Units Docket ID No. EPA-HQ-OAR-2013-0602", at 4-1 to 4-2 (June 10, 2014) ("GHG Abatement Measures TSD").

[22] *Id.* at 5-31 to 5-39.

Therefore, Heartland requests that EPA push back the 2012 baseline in the Proposed Rule to 2005 for Building Blocks 3 and 4. Using 2005 as the baseline year for Building Blocks 3 and 4 would appropriately enable entities to be credited with measures they have taken in the last decade to reduce their carbon footprint through the increased use of renewable energy and energy efficiency. EPA should recognize the efforts by Heartland and other entities that were forward-thinking on renewable energy and energy efficiency measures over the past decade, and it should not use a baseline in its Building Blocks that essentially penalizes states that have already invested in these areas by not counting their past measures toward their carbon emission reduction targets. In addition, use of a 2005 baseline year for these two Building Blocks would be more consistent with the Proposed Rule's selection of 2005 as the year against which the goal of 30 percent reduction in carbon emissions from EGUs by 2030 will be compared.

Heartland's current mix of generation resources demonstrates Heartland's high level of commitment to renewable energy. As of the date of this filing, Heartland procures over 50% of its power supply from hydro and wind generating resources. Very few other electric utilities have such a high percentage of renewables in their power supply portfolio. Heartland's customers receive an 84.8 MW allocation of federal hydropower from the federal Western Area Power Administration[23] and Heartland purchases 51 MW (the entire output) from the Wessington Springs Wind Energy Center. The energy procured from the Wessington wind farm is enough to power over 17,000 residential homes and alone surpasses South Dakota's voluntary renewable energy standard of 10% by 2015. However, the project became operational in 2009, and therefore, its no-carbon generating capacity would not be considered in the calculation of

[23] Some of these MWs of hydro power are allocated to Heartland's customers, which give that allocation over to Heartland.

South Dakota's carbon emission reduction goal due to the 2012 cut-off in EPA's Proposed Rule for Building Block 3.

Heartland has implemented numerous energy efficiency measures since 2009 that lower carbon emissions within Heartland's footprint but would not be credited under the Proposed Rule. Under the Power Forward program, Heartland has taken a comprehensive approach to energy efficiency, providing various incentives and educational tools to our customers. Heartland provides energy efficiency grants to its customers for improvements at their city facilities that optimize energy use, such as installing efficient lighting or Energy Star-rated HVAC systems. Similarly, in collaboration with its participating customers, Heartland provides rebates and incentives to residential, business and industrial customers for purchasing Energy Star-rated appliances, heating and cooling systems, and energy efficient lighting. Heartland also makes other investments in energy efficiency, such as its "Extreme Energy Makeovers" for residential homes and public buildings, Energy Auditor Training, and Marathon water heater incentives. From 2009 through 2013, Heartland invested nearly $300,000 in energy efficiency in the communities it serves, which equates to 0.11% of customer revenue over that same time period. Heartland has invested another $50,000 in energy efficiency thus far in 2014, equating to 0.11% of customer revenue. Heartland has plans in place to expand its energy efficiency programs in 2015, including rebates for lifetime warranty electric water heaters, LED bulbs for residential applications and Energy Star-related commercial refrigeration.

Heartland's headquarters complex was constructed as a green facility to save energy, minimize its impact on the environment, and provide a cleaner, healthier work environment. Heartland's headquarters is the first newly-constructed building in South Dakota

to earn LEED Platinum Certification,[24] the highest honor in green building design. Heartland's building earned 54 credits; 52 are required for Platinum certification. Heartland's facility uses at least 46% less energy than a similar building would, using standard construction, and includes features such as extra thick insulation, high efficiency windows, and occupancy sensors to contribute to the savings. The building also includes a 15-panel, roof-mounted solar array. Heartland's headquarters was awarded its LEED certification in 2010, so it unfortunately would not be counted toward South Dakota's energy efficiency measures that satisfy its state carbon emission reduction goal under Building Block 4 in the Proposed Rule.

Accordingly, Heartland respectfully requests EPA revisit its 2012 baseline for Building Blocks 3 and 4, and instead allow states to capture the benefits of any renewable energy and energy efficiency projects and programs that have the effect of reducing carbon emissions. In particular, Heartland requests that EPA push back the 2012 baseline for those Building Blocks in the Proposed Rule to 2005. As discussed above, using 2005 as the baseline year would enable entities to be credited with voluntary, proactive measures they have taken in the last decade to reduce their carbon footprint. In addition, use of a 2005 baseline year for Building Blocks 3 and 4 would be more consistent with the Proposed Rule's selection of 2005 as the year against which the goal of 30 percent reduction in carbon emissions from EGUs by 2030 will be compared.

2. EPA's proposed heat rate reductions at coal-fired power plants fail to take into account pollution control technology and efficiency measures at individual generating stations

In addition to the numerous steps voluntarily undertaken by Heartland to promote renewable energy and energy efficiency measures, both of the coal-fired power plants from which Heartland procures energy have taken measures to maximize their efficiency levels.

[24] Leadership in Energy and Environmental Design (LEED) is administered by the U.S. Green Building Council and is the nationally accepted benchmark for the design, construction and operation of high performance green buildings.

These measures improve the heat rates at these plants. In the Proposed Rule, Building Block 1 addresses heat rate reductions at coal-fired steam EGUs. The Proposed Rule assumes that a 6% improvement in heat rate is possible for coal-fired power plants industry-wide at an average capital cost of $100/kW.[25] In the Technical Support Document for the Proposed Rule, EPA estimated that 4% of the 6% heat rate improvement is achievable through no or low cost "best practices" and the remaining 2% heat rate improvement is achievable through investment in heat rate improvements.[26]

However, EPA adopted a top-down, statistical approach to Building Block 1 that does not consider the unique aspects of individual generating facilities. For example, EPA's analysis did not consider technical achievements and improvements that result in reduced GHG emissions, including whether a facility was retrofitted with low-NOx burners, selective catalytic reduction devices, scrubbers, or new burner and furnace management systems. Similarly, EPA did not consider changes to a facility's fuel supply, such as switching to coal supplies with a higher energy density that emit less carbon. Overall, EPA's methodology failed to compare individual generating units or do any sort of subcategorization. Additionally, it is unclear whether EPA considered newer units that were built with the latest and most efficient technology and therefore could not feasibly improve heat rates. As a result of these shortcomings in EPA's statistical approach, the specific pollution control and efficiency improvements at the coal-fired power plants from which Heartland procures energy will not be properly credited to the plants' respective home states' specific carbon emission reduction goals.

Whelan Energy Center Unit 2 ("WEC2"), of which Heartland owns an 80 MW share, was built with the highest achievable efficiencies available at the time of construction (2006 to 2011).

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25 Proposed Rule at 34,861.

26 GHG Abatement Measures TSD at 2-34.

WEC2, located in Nebraska, is owned by five public power utilities, including Heartland, which formed the Public Power Generation Agency ("PPGA"), an inter-local agency established in Nebraska for the sole purpose of constructing and operating WEC2. WEC2 burns low-sulfur coal from the Powder River Basin. It boasts dual rail access for delivery of coal and the use of groundwater for cooling. The plant also meets all of the latest pollution control standards with an air quality control system that includes an electrostatic precipitator to remove fly ash, a scrubber to remove sulfur dioxide, selective catalytic reduction to reduce nitrous oxides ("NOx"), and a baghouse for additional particulate removal, as well as mercury removal controls.

At this time, Heartland is not aware of any new technologies in the areas of boiler and/or turbine efficiency that would be available to improve upon the current WEC2 design. Furthermore, in the areas of turbine cycle and boiler cycle efficiencies, any improvements that could be made in the future will not be practical to implement due to the inability to change steam pressures and temperatures without a wholesale reconstruction of the facility. In addition to steam cycle efficiencies, PPGA chose to install low NOx burners at additional cost to reduce excess air level needs, thus improving boiler efficiency. From an environmental perspective, WEC2 was designed with best available technologies at the time of construction.

The coal-fired Laramie River Station ("LRS") has also made numerous efficiency upgrades in the past 5 to 6 years (and thus largely pre-dating the Proposed Rule's 2012 baseline cut-off) through periodic turbine overhauls. Specifically, LRS made the following upgrades/updates to plant facilities to improve boiler efficiency:

a. High pressure/intermediate pressure turbine upgrades, which provide higher operating efficiencies.

b. Combustion optimizer software, which reduces NOx while attempting to control carbon monoxide emissions.

c. Air heater basket replacement, which creates less differential pressure to reduce fan power consumption.

d. Hydrojet cleaning system, which cleans boiler walls to reduce boiler exit gas temperature to improve boiler efficiency, and helps to lower superheater attemperation spray flow (which reduces boiler efficiency).

e. Intelligent Sootblowing Controls, which clean dirty areas of the boiler without inefficient overblowing.

f. Steam temperature control system enhancement, which is an advanced control system that provides more precise steam temperature control to improve turbine cycle heat rates, and reduces attemperation spray flow to improve cycle efficiency.

g. Pulverizer throat redesign, which improves pulverizer fineness to reduce unburned carbon losses.

As described above, these measures were not taken into account by EPA when developing Building Block 1. In any event, because Building Block 1 was developed using an industry-wide approach, the Heartland EGU plants' home states of Nebraska and Wyoming will not receive any additional benefit from these efficiency measures from a compliance perspective. This concern is further compounded by the threat that these plants may be subject to future emission reductions or unit closures, which could result in stranded costs for the plants' owners and customers for the costs of the pollution control technology and efficiency measures. Accordingly, Heartland respectfully requests that EPA recalculate its Building Block 1 to

account for technical aspects of individual facilities and to pass along the compliance benefits of those carbon-reducing technologies to those facilities' home states.

3. If a utility, such as Heartland, obtains 50% or more of its energy supply from renewable energy resources, including, but not limited to, hydroelectric power, it should be exempt from EPA's final rule under 111(d)

As noted above, Heartland procures over 50% of its power supply from renewable energy resources, including hydropower (32%) and wind power (19%). This is a far greater percentage of clean renewable energy than that relied upon by the vast majority of utilities. Heartland's power supply mix demonstrates its continuous efforts to provide clean, reliable energy to its customers in furtherance of EPA's carbon emission reduction goals in the Proposed Rule. In fact, Heartland was supporting renewable energy long before EPA decided it had the power to regulate carbon under the CAA. Carbon-emitting generating resources are a significant, but only minority, part of Heartland's power supply mix. Accordingly, Heartland believes it is part of the solution, not part of the problem. However, EPA's Proposed Rule treats all utilities equally under the umbrella of its state-centric approach, without regard to the efforts of those individual utilities to reduce their carbon footprint. As a result, Heartland and other similarly-situated utilities could be penalized alongside utilities that have taken no (or minimal) efforts to reduce their reliance on coal-fired generation. This outcome would be patently unfair. EPA must therefore revisit its Proposed Rule to exempt utilities such as Heartland that already obtain near or more than 50% of their energy supply from renewable energy resources. Heartland also requests that EPA recognize hydro as a renewable resource and credit states that consume hydropower generation in the calculation of those states' carbon emission reduction goals.

4. Natural gas infrastructure is severely limited in the Heartland footprint, making a build-out of those resources cost-prohibitive

The Proposed Rule relies heavily on achieving carbon emission reductions by replacing coal-fired generation with generation from natural gas combined cycle ("NGCC") plants. Under proposed Building Block 2, EPA assumed that states can facilitate re-dispatch to achieve a 70% target utilization rate for existing NGCC facilities as of 2012.[27] EPA stated in its Proposed Rule that "pipeline and transmission planners have repeatedly demonstrated the ability to methodically relieve bottlenecks and expand capacity."[28] However, this is highly problematic in South Dakota because South Dakota has only a single natural gas generation plant – the Deer Creek Station, which is owned by Basin Electric Power Cooperative. The Deer Creek Station would need to operate at greater than 70% capacity, a level it was not designed for, to offset the loss of power from reductions at coal-fired power plants. The redispatch of Deer Creek Station to a level of 70% capacity would in turn result in a dispatch of South Dakota's lone coal-fired EGU to a level of 23%, a wholly unreasonable and uneconomic level for a baseload coal unit. Additionally, there is far too little existing natural gas infrastructure in South Dakota to make the development of additional natural gas-fired power plants feasible in the time allowed under the Proposed Rule. Despite EPA's conclusion that "the natural gas pipeline system can reliably deliver sufficient natural gas supplies, and the electric transmission system can reliability accommodate changed generation patterns,"[29] the build-out of such pipelines and transmission lines is still extremely slow and expensive. There are numerous obstacles to such development, including obtaining proper rights-of-way, clearing state and local permitting hurdles, overcoming local opposition, etc. For a state such as South Dakota, which currently has little in the way of

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27 Proposed Rule at 34,863.

28 Proposed Rule at 34.864.

29 Proposed Rule at 34,864.

natural gas infrastructure, EPA's unfounded assumptions regarding the future primacy of natural gas in the energy sector's fuel supply mix are very alarming.

Additionally, EPA's Proposed Rule fails to consider basic geography. The regions in which Heartland's customers are located—including portions of eastern South Dakota, southwestern Minnesota, and Iowa—are very rural. These regions are sparsely populated and feature enormous distances between service territories. Cooperative and municipal electric utilities were created in these regions partially because of these geographic challenges. Investor-owned utilities did not want to serve in areas with such small potential to earn a profit, *i.e.*, that had few potential customers and long distances between them. These very same geographic challenges are the reasons why natural gas infrastructure has not been built out in these parts of the country. To now penalize our region because of the simple facts of geography and large distances between customers is unreasonable and discriminatory.

5. Cross-state renewable energy transfers are currently not allowed

As currently drafted, the Proposed Rule is fundamentally flawed because it fails to expressly allow states to coordinate on a resource-specific level across state lines in furtherance of their compliance efforts under Section 111(d). Although the Proposed Rule would permit states to enter into multi-state plans for the purposes of Section 111(d), such an approach is insufficient by itself because it would force states to enter into potentially costly and unnecessary plans to obtain the level of coordination that they have long enjoyed prior to the EPA's carbon regulation efforts. States must have the ability to coordinate resources across state lines for the purposes of section 111(d) compliance *without* entering into a multi-state or multi-jurisdictional plan. Coordination across state lines is decidedly a federal responsibility, and accordingly, the EPA must take the lead in clarifying that such efforts will be sufficient to satisfy the EPA's own

carbon emission guidelines. In any event, the EPA should not undertake any measures that unduly burden interstate energy transactions and commerce.

To illustrate this concern, if one state is able to meet its CO_2 emission goal through application of Building Blocks 1, 2, and 4, but still has several renewable energy generating resources under development, that state would have the opportunity to produce excess carbon credits. Ordinarily, that state could sell output to a neighboring state by entering into a power purchase agreement, which could include the sale of renewable energy credits produced by that facility. However, under the Proposed Rule, it is unclear whether the transfer of those renewable energy credits will count toward the recipient state's 111(d) compliance efforts in the absence of a formal multi-state plan between those two states. Thus, if the selling state decides not to enter into a multi-state plan, those renewable energy credits may become worthless because they will not count toward any other state's CAA section 111(d) plan. In that case, the renewable developers would face the dilemma of either developing their projects in a state where the carbon credits would be worthless, or abandoning the projects and building them elsewhere.

There are many conceivable reasons why a state may not wish to enter into a multi-state plan. The state may determine that entering into a multi-state plan is overly burdensome or unnecessary to achieve a particular state's CO_2 emission goal, or that the costs exceed the benefits of a multi-state approach. Further, the uncertainty surrounding the multi-state approach is a major area of concern. The EPA provided some details on this approach in its Proposed Rule,[30] but fell far short of mitigating the many doubts as to the benefits of entering into such plans. These doubts and concerns provide many reasons why the EPA should not condition such an important effort as interstate coordination of energy resources on entering into a potentially

[30] For example, the EPA stated that multi-state plans would "reflect the regional structure of electricity operating systems that exists in most parts of the country and is critical to ensuring a reliable supply of affordable energy." Fed. Reg. Proposed Rule at 34,834.

costly and burdensome multi-state compliance plan. Accordingly, EPA should clarify that it did not intend to state that coordination between states hinges on participation in a multi-state or multi-jurisdictional plan, but that states may coordinate on a resource-specific level for the purposes of Section 111(d).

6. Additional shortcomings of the rule

Finally, Heartland notes numerous additional shortcomings of EPA's Proposed Rule. These issues are covered in the American Public Power Association's ("APPA") comments to the Proposed Rule. Heartland is a member of APPA and has reviewed and fully supports APPA's comments, and especially so on these issues stated below:

- Reliability concerns over fossil retirements have not been adequately taken into consideration.
- The proposed timetable to implement the state plans approved by EPA is not achievable.
- The need for transmission upgrades with large shifts in resource mix has not been adequately considered.
- Load reductions due to energy efficiency improvements are not achievable or realistic.
- States face challenges to maximize efficiencies at fossil-fuel power plants in areas where a Regional Transmission Organization ("RTO") or Independent System Operator ("ISO") – rather than the power plant owner – is in charge of dispatch. Heartland, along with its joint owners of the Integrated System described above (*i.e.*, Western-UGP and Basin Electric) recently became members of the Southwest Power Pool RTO, thereby transferring to SPP control over dispatch

across the Integrated System. Moreover, there are ongoing disputes between SPP and the Midcontinent ISO ("MISO") concerning charges for use of each other's transmission system. Part of Heartland's service extends into the MISO territory, and so the SPP-MISO disputes have created additional costs and uncertainties for Heartland and our customers. If the Proposed Rule is not withdrawn or modified consistent with these comments, that would pose even greater challenges for Heartland and our customers.

III. CONCLUSION

In conclusion, Heartland respectfully requests that EPA withdraw its Proposed Rule due to the lack of statutory authority to implement such action under Section 111(d) of the Clean Air Act. In the alternative, Heartland requests that EPA revise its Proposed Rule in accordance with these comments and with the comments of the APPA.

Respectfully submitted,

Russell Olson
Chief Executive Officer
Heartland Consumers Power District