



State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF THE SECRETARY

December 1, 2014

U.S. Environmental Protection Agency
EPA Docket Center (EPA/DC)
Mail code: 28221T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Attention: **Docket ID No. EPA-HQ-OAR-2013-0602**

Dear Sir or Madam:

Attached please find the Louisiana Department of Environmental Quality's (LDEQ's) **second** set of comments on the referenced rulemaking, commonly referred to as EPA's Clean Power Plan, published in the *Federal Register* on June 18, 2014. LDEQ's initial comments on the proposed rule were transmitted to EPA on September 12, 2014.¹ For EPA's convenience, a copy of this submittal is included as Attachment 1.

Administrator McCarthy has stated that EPA's proposal is "an investment opportunity" and "not about pollution control."² However, the Clean Air Act in general, and Section 111 of the Act in particular, is, on the contrary, solely about "pollution control." Quite simply, there is no provision in the Act – or in any other statute – that gives EPA the authority to fundamentally change the way electricity is dispatched in a state, to require investment in uneconomic (for Louisiana) renewable energy sources, or to mandate programs reducing the demand for electricity.

For the reasons identified herein, the proposed rule unequivocally exceeds the authority provided to EPA by Section 111 of the Act, violates Section 307 of the Act, jeopardizes the reliability of the electrical grid, unfairly imposes vastly different requirements on states, overestimates purported health benefits, attempts to supplant the sovereign authority of Louisiana by establishing a *de facto* renewable portfolio standard, and contains numerous other deficiencies.³ Consequently, it must be immediately withdrawn.

If you have any questions concerning this submittal, please contact me by phone at (225) 219-3950 or via e-mail at peggy.hatch@la.gov.

Sincerely,


Peggy M. Hatch
Secretary

PMH:BDJ

¹ Regulations.gov Tracking No. 1jy-8ebt-czmr

² Testimony of Administrator McCarthy before the U.S. Senate Committee on Environment & Public Works on July 23, 2014. The archived webcast can be viewed at <http://www.epw.senate.gov/public/index.cfm?FuseAction=Hearings.Home&CFID=125092420&CFTOKEN=12803561>.

³ LDEQ's comments advocating changes to EPA's proposal should not be viewed as a concession that the rule is legally valid or that the suggestions render the rule legally valid.

The Proposed Rule Exceeds the Authority Provided to EPA by Section 111(d) of the Clean Air Act

Section 111 of the Clean Air Act (Act) compels EPA to identify categories of stationary sources that the Administrator has judged to cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.⁴ Section 111(b) requires EPA to promulgate “standards of performance” for *new* sources within each listed category. Section 111(d) also allows EPA to impose “standards of performance” for *existing* sources within a listed category via federally enforceable plans developed by states.

Section 111(a) defines “standard of performance” as:

a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

The proposed rulemaking defines the “best system of emission reduction,” or BSER, for carbon dioxide (CO₂) emissions from existing electric utility generating units (EGUs) and the state-specific reductions EPA purports are achievable through application of the BSER. However, EPA’s proposed BSER does not simply reflect the application of one or more “adequately demonstrated” technologies to individual EGUs. Instead, EPA’s so-called Clean Power Plan entails four “building blocks” that encompass the generation, distribution, and even end-use of electrical power.

In brief, building block 1 requires coal-fired EGUs to improve their heat rates by 6 percent (on average). Building block 2 reflects an increase in the average utilization rate of natural gas combined cycle (NGCC) units to 70 percent, thereby displacing electricity that would have otherwise been generated by coal or less efficient natural gas-fired boilers. Building block 3 compels the increased use of existing or development of new renewable energy (RE) sources (e.g., wind, solar, biomass⁵); and building block 4 necessitates implementation of demand-side energy efficiency programs, thus reducing electrical demand.

By effectively mandating the aforementioned “beyond-the-unit” measures (i.e., building blocks 2, 3, and 4) needed to achieve its pre-selected CO₂ reduction goals, EPA has overstepped the authority provided to it by Section 111 itself.

The BSER Must Be Restricted to Those Technologies or Other Measures Which Can Be Applied Directly to EGUs

EPA ostensibly justifies its proposal by putting undue focus on the term “system.” In doing so, EPA ignores unambiguous language which constraints the application of the BSER to stationary sources which emit air pollutants. Section 111(d)(1) states, in relevant part:

⁴ CAA § 111(b)(1)(a)

⁵ See the later discussion on EPA’s contradictory positions regarding the combustion of biomass and its impact on the carbon cycle.

The Administrator shall prescribe regulations which shall establish a procedure ... under which each State shall submit to the Administrator a plan which

(A) establishes standards of performance for any existing source [emphasis added] for any air pollutant

(i) ...

(ii) to which a standard of performance under this section would apply if such existing source were a new source ...

Section 111(a) defines “existing source” as “any stationary source other than a new source.”⁶ “Stationary source” is, in turn, defined as “any building, structure, facility, or installation which emits or may emit any air pollutant.”⁷ Accordingly, the BSER must be restricted to those technologies or other measures which can be applied directly to the source of CO₂ emissions – existing EGUs in the instant case (i.e., the “building, structure, facility, or installation which emits or may emit any air pollutant”).

Other Provisions Reinforce that the BSER Must be Applied Directly to EGUs

Elsewhere, section 111(d) speaks to “the remaining useful life of the existing source to which [a] standard applies.”⁸ In addition, EPA’s implementing regulations at 40 CFR 60.24(f) allow states to consider the “cost of control resulting from plant age, location, or basic process design,” difficulties in “installing necessary control equipment,” and “other factors specific to the facility” in determining the appropriateness of emissions standards and compliance schedules.

Further, the Act’s use of term “system” in the context of emissions controls is not isolated to Section 111. In fact, this terminology is used in an analogous manner elsewhere in Title I, that being the definition of “best available control technology,” or BACT. Like a “standard of performance,” BACT is an “emission limitation” which the Administrator (or permitting authority), “taking into account energy, environmental, and economic impacts and other costs, determines is achievable ... through application of production processes and available methods, *systems*, and techniques.”⁹ Indeed, BACT and “standard of performance” are intrinsically linked by the Act, as the application of BACT cannot “result in emissions of any pollutants which will exceed the emissions allowed by any applicable standard established pursuant to section 7411” (i.e., Section 111).¹⁰ Until this point, EPA has consistently and correctly interpreted “systems” in the definition of BACT to refer only to control techniques that can be applied directly to “each individual new or modified affected emissions unit and pollutant emitting activity.”¹¹

⁶ CAA § 111(a)(6)

⁷ CAA § 111(a)(3)

⁸ CAA § 111(d)(1)(B)

⁹ CAA § 169(3) (emphasis added)

¹⁰ *Id.*

¹¹ “New Source Review Workshop Manual” (draft), October 1990 (p. B.4). See also 40 CFR 52.21(j).

Moreover, EPA does not consider the BACT requirement as a means to redefine the basic design of a source or change the fundamental scope of a project when considering available control alternatives. For example, EPA does not require applicants proposing to construct a coal-fired EGU to consider building a NGCC unit instead.¹² Yet, building blocks 2 and 3 essentially constitute a fundamental change to coal-fired EGUs by compelling states to shift generation to NGCC and renewable sources.

Collectively, these provisions only reinforce the fact that the Act limits the application of the BSER to individual EGUs, not to the non-pollutant-emitting participants in the power market. EPA's current interpretation and deviation from historical practices cannot be supported by the express language of the Act. In sum, EPA has no power to regulate entities that do not emit pollutants, such as distributors and consumers of electricity.

No Standards of Performance under Section 111(b) Exist

Section 111(d) further limits the types of existing sources for which a standard of performance can be established to those already regulated under section 111(b) (if the existing source was new).¹³ However, EPA does not currently regulate, nor has proposed to regulate, "beyond-the-unit" participants in the power market under section 111(b). Nor has EPA proposed to regulate CO₂ emissions from non-fossil fuel-fired EGUs under section 111(b). In fact, at the present time, EPA does not regulate CO₂ emissions from coal or natural gas-fired EGUs under section 111(b).

This Rulemaking Is Inconsistent with Prior EPA Actions Invoking Section 111(d)

The proposed rule also represents a vast departure from EPA's prior rulemakings invoking section 111(d). EPA has previously established emission guidelines for a handful of source types, including:

- large municipal waste combustors;
- municipal solid waste landfills;
- sulfuric acid production units;
- hospital/medical/infectious waste incinerators;
- small municipal waste combustion units;
- commercial and industrial solid waste incineration units;
- other solid waste incineration units; and
- sewage sludge incineration units.¹⁴

However, *none* of these rules regulate any parameter external to the emissions unit itself. If allowed to proceed unchecked, EPA could exert its "new-found" authority over areas of the economy never envisioned by Congress. For example, EPA could mandate new or expanded recycling programs in an attempt to minimize CO₂ emissions from municipal solid waste landfills. Because building block 4 abandons the "source category" concept completely by effectively regulating the demand for electricity, requirements aimed at curtailing energy use could be almost endless.¹⁵

¹² In re SEI Birchwood Inc, 5 E.A.D. 25 (1994); In re Old Dominion Electric Cooperative, 3 E.A.D. 779 (1992).

¹³ CAA § 111(d)(1)(A)(ii)

¹⁴ See 40 CFR 60 Subparts Cb, Cc, Cd, Ce, BBBB, DDDD, FFFF, and MMMM, respectively.

¹⁵ CAA § 111 regulates "categories" of stationary sources.

EPA Actions Without Clear Congressional Authorization Are Invalid

The U.S. Supreme Court has rejected EPA's previous attempts to regulate a "significant portion of the American economy" without "clear congressional authorization."¹⁶ On June 23, 2014, the Supreme Court invalidated portions of EPA's "Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule."¹⁷ Per the court's opinion:

We reaffirm the core administrative-law principle that an agency may not rewrite clear statutory terms to suit its own sense of how the statute should operate.

* * *

When an agency claims to discover in a long-extant statute an unheralded power to regulate "a significant portion of the American economy," *Brown & Williamson*, 529 U.S., at 159, we typically greet its announcement with a measure of skepticism. We expect Congress to speak clearly if it wishes to assign to an agency decisions of vast "economic and political significance."

* * *

An agency has no power to "tailor" legislation to bureaucratic policy goals by rewriting unambiguous statutory terms. Agencies exercise discretion only in the interstices created by statutory silence or ambiguity; they must always "give effect to the unambiguously expressed intent of Congress." *National Assn. of Home Builders v. Defenders of Wildlife*, 551 U. S. 644, 665 (2007) (quoting *Chevron*, 467 U. S., at 843).

Section 111(d) of the Act is neither silent nor ambiguous with regard to its scope. Congress specifically defined seven terms in section 111(a) to clearly outline what sources can and can't be regulated and further restricted eligible source types to those already regulated under section 111(b). As explained above, only sources that emit pollutants can be regulated by a standard of performance. Further, EPA has not regulated "beyond-the-unit" participants in the power market under section 111(b). Consequently, building blocks 2, 3, and 4 are contrary to the Act and cannot serve as the basis for EPA's proposed BSER.

EPA's Attempts to Address the "Beyond-the-Unit" Dilemma Fail

In an attempt to dismiss its "beyond-the-unit" dilemma, EPA argues that the "distinction between at-the-unit and beyond-the-unit measures is largely artificial."

[N]either the addition of renewable generation nor the reduction of end-user demand directly reduces atmospheric emission of CO₂; rather these measures permit fossil EGUs to reduce their own output and emissions. It can be argued that all of the systems of emission reduction here contemplated—whether they involve end-use energy efficiency, displacing high-emission generation with lower emission generation, fuel-switching, heat-rate improvements, etc.—are effectively at-the-unit measures that ultimately reduce emissions solely from regulated EGUs.¹⁸

¹⁶ *Utility Air Regulatory Group v. EPA*, 573 U.S. ____ (2014)

¹⁷ 75 FR 31514 (June 3, 2010)

¹⁸ 79 FR 34889

While it is axiomatic that lowering the demand for electricity will reduce utilization of EGUs, it is not logical to assume that this measure will result in a proportional decrease in CO₂ emissions. Some of the electricity that would have otherwise been generated would certainly have been produced by “zero-emitting” EGUs (e.g., nuclear) or via the combustion of “carbon neutral” fuels (e.g., biomass). Nuclear and RE sources are responsible for about 18% of the power generated in Louisiana and for larger percentages in other states.¹⁹ Accordingly, such measures do not necessarily “reduce emissions solely from regulated [fossil-fuel fired] EGUs.” In fact, this means that the “real world” impacts of building block 4 are overstated by an amount roughly proportional to a state’s nuclear and RE generation.

EPA also argues that “the re-dispatch measures in building block 2 are limited to affected sources” and “affected sources may themselves implement the measures included in building blocks 2, 3, and 4, so that those measures are within their control with the result of their application being emission reductions at affected EGUs.”²⁰

These arguments also fail for multiple reasons. First, the re-dispatch measures in building block 2 are not “limited to affected sources” because owners or operators of affected EGUs do not dispatch electricity. As EPA is well aware, in the United States and Canada, Independent System Operators (ISOs) and Regional Transmission Organization (RTOs) coordinate, control, and monitor the electrical grid, including re-dispatch. In Louisiana, RTOs include the Southwest Power Pool (SPP) and Midcontinent Independent System Operator (MISO). These entities are not affected sources per the proposed rule.

Second, while regulated utilities may consider new or expanded RE resources, they do not have the unfettered authority to develop, construct, and operate such projects, charging their customers along the way as necessary to recoup their costs. Finally, while regulated utilities can and often do encourage demand-side efficiency measures, they generally have no license or capability to restrict any given end-user’s demand. Consequently, building blocks 2, 3, and 4 are plainly not “within [the] control” of affected sources.

States Must Adopt Illegitimate “Beyond-the-Unit” Measures to Meet EPA’s Proposed Goals or Otherwise Penalize Ratepayers

EPA is careful to clarify that each state may choose to meet its goal through whatever measures reflect its particular circumstances and policy objectives.

[E]ach state will have the flexibility to select the measure or combination of measures it prefers in order to achieve its CO₂ emission reduction goal. Thus, a state could choose to achieve more reductions from one measure encompassed by the BSER and less from another, or it could choose to include measures that were not part of the EPA’s BSER determination, as long as the state achieves the CO₂ reductions at affected EGUs necessary to meet the goal that the EPA has defined as representing the BSER.²¹

However, in order to comply with the rule, a state *must* look “beyond-the-unit.” In its proposal, EPA analyzed and rejected four additional strategies for reducing CO₂ emissions from EGUs:

¹⁹ <http://cleanpowerplanmaps.epa.gov/CleanPowerPlan>

²⁰ *Supra*, n. 18

²¹ 79 FR 34835

- fuel switching at individual EGUs;
- new NGCC capacity;
- carbon capture and storage (CCS); and
- heat rate improvements at affected EGUs other than coal-fired EGUs.

Fuel Switching at Individual Units

One technically feasible approach for reducing CO₂ emissions from a coal-fired EGU is to substitute natural gas for some or all of the coal. However, using the Energy Information Administration's (EIA's) projections of future coal and natural gas prices, doing so would more than double the EGU's fuel cost per megawatt hour (MWh) of generation. For this reason, EPA did not incorporate this option into the proposed state goals.²²

New NGCC Capacity

EPA notes that new NGCC units may be constructed to replace higher-emitting coal-fired EGUs. As before, EPA cites excessive costs – of the capital investment, of the requisite pipeline infrastructure, and that attributed to additional natural gas usage – as justification for excluding this option.²³

Carbon Capture and Storage

According to EPA, another possible approach to reduce CO₂ emissions from existing fossil fuel-fired EGUs is through the application of carbon capture and storage technology (CCS).²⁴ However, EPA dismissed CCS as a component of the BSER because “the costs of integrating a retrofit CCS system into an existing facility would be substantial.” Further, because there are a large number of existing fossil-fired EGUs, “requiring CCS would ... affect the nationwide cost and supply of electricity on a national basis.”²⁵

Heat Rate Improvements at Affected EGUs Other than Coal-Fired EGUs

Finally, EPA assessed opportunities to improve heat rates at affected EGUs other than coal-fired units (e.g., oil-fired EGUs, natural gas-fired EGUs, NGCC units, and simple-cycle combustion turbines). For non-coal-fired EGUs, EPA concluded that “the total additional potential CO₂ reductions achievable through heat rate improvements appear relatively small compared to the potential CO₂ reductions achievable through heat rate improvements at coal-fired steam EGUs.”²⁶

In conclusion, if fuel switching, new NGCC capacity, and CCS are cost prohibitive, and heat rate improvements at affected EGUs other than coal-fired EGUs result only in marginal benefits, states must either force ratepayers to unnecessarily shoulder a greater financial burden or acquiesce to EPA's unlawful “beyond-the-unit” strategies.

²² 79 FR 34875

²³ 79 FR 34876-7

²⁴ LDEQ disputes EPA's contention that “partial CCS” has been “adequately demonstrated,” is “technically feasible,” and “can be implemented at costs that are not unreasonable.” See LDEQ comments on EPA's proposed “Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units” (79 FR 1430, January 8, 2014). See Document ID 9327969 on LDEQ's Electronic Document Management System (EDMS) (<http://edms.deq.louisiana.gov/>).

²⁵ 79 FR 34876

²⁶ 79 FR 34877

The Proposed Rule Violates Section 307(d) of the Clean Air Act

By letter dated August 25, 2014, the Attorney General of Louisiana, along with the attorney generals of 12 other states, notified EPA that the proposed rule violates Section 307(d) of the Act and must be withdrawn and re-proposed. Selected passages from this correspondence follow,²⁷ and a copy of the original has been included as Attachment 2.

Section 307(d) of the CAA imposes certain mandatory requirements for all proposed rules, which reflect Congress's judgment that information on which a proposed rule is based must be made available to the public at the time of proposal to ensure meaningful comment and sound rulemaking. Upon publication, a proposal must include "a statement of basis and purpose ... [which] shall include a summary of ... the factual data on which the proposed rule is based[,] ... the methodology used in obtaining the data and in analyzing the data[,] and ... the major legal interpretations and policy considerations underlying the proposed rule." 42 U.S.C. § 7607(d). Section 307(d) further requires that "[a]ll data, information, and documents ... on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule." *Id.* (emphasis added). These docketing requirements are nondiscretionary.

* * *

In the Existing Source Rule, EPA omitted from the docket 84% of the modeling runs on which it relied in crafting the proposed Rule, without which the States and the public cannot comment meaningfully on the proposal. Specifically, the docket does not include 21 out of 25 of the Integrated Planning Model modeling runs that the agency used to justify the standards imposed by the Rule. The missing modeling runs cover projections for 2016, 2018, 2020, 2025 and 2030. This information is critical to assessing EPA's claims that States and industry will be able to comply with the four "building blocks" in the proposed Existing Source Rule. The States need the modeling run data for sufficient analysis of what that data shows on a unit by unit and state by state basis.

Similarly, EPA failed to include in the Existing Source Rule's docket vital net heat rate and emissions data, which are central to EPA's assertion that existing power plants are able to achieve a four to six percent heat rate improvement under EPA's first "building block." For example, EPA claims in the proposed Existing Source Rule to have reviewed its database of existing coal-fired units and found 16 facilities that have achieved heat rate improvements of three to eight percent "year-by-year," but it does not include any supporting data. Without the "year-to-year" data showing that facilities can comply with the four to six percent heat rate improvement, the States and the public cannot meaningfully comment on the achievability of EPA's heat rate projections.

* * *

All told, the missing information unquestionably constitutes "data, information, and documents," and likely contains "policy considerations underlying the proposed rule" that should have been in the rulemaking documents from the beginning, according to Section 307(d). Deprived of this missing information, the notices of proposed rulemaking published on June 18 "fail[ed] to provide an accurate picture of the reasoning that has led [EPA] to the proposed rule."

²⁷ Internal citations omitted.

Review of IPM assumptions is vitally important for Louisiana. In correspondence pertaining to EPA's Cross-State Air Pollution Rule (CSAPR),²⁸ Louisiana's Public Service Commission (LPSC) noted that prior IPM modeling failed to, among other things:

- “capture the reality of a number of significant transmission constraints throughout Louisiana, but especially in South Louisiana”;
- recognize the need to utilize older, less efficient EGUs located within transmission-constrained “load pockets” to meet the electricity demands of both industrial and residential ratepayers; and
- consider power generators in the state (i.e., qualifying facilities) that, by federal mandate, have the right to sell power into the grid and the corresponding requirement on host utilities to purchase such power.²⁹

Regional Transmission Organizations Have Concluded that the Proposed Rule Will Detrimentially Impact Louisiana

RTOs are mandated by the Federal Energy Regulatory Commission (FERC) to ensure reliable supplies of power, adequate transmission infrastructure, and a competitive wholesale electricity marketplace. As previously discussed, Louisiana is serviced by the Southwest Power Pool (SPP) and Midcontinent Independent System Operator (MISO).

SPP³⁰



MISO³¹



²⁸ “Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals” (76 FR 48208, August 8, 2011)

²⁹ LPSC’s “Petition for Reconsideration and Request for Immediate Stay of the Cross-State Air Pollution Rule,” October 6, 2011. This document can be accessed by searching for Tracking Number “F11-04528” at <http://lpscstar.louisiana.gov/star/portal/lpsc/page/Documents/portal.aspx>.

³⁰ Map obtained from 2014 SPP Strategic Plan, July 2014 (<http://www.spp.org/section.asp?pageID=83>).

³¹ Map obtained from <https://www.misoenergy.org/WhatWeDo/StrategicInitiatives/SouthernRegionIntegration/Pages/SouthernRegionIntegration.aspx>.

In comments to EPA dated October 9, 2014, SPP relayed the results of its assessment of the impacts that the Clean Power Plan (CPP) will have on reliability in the SPP region.³² In sum, SPP concluded that “unless the proposed [CPP] is modified significantly, SPP’s transmission system impact evaluation indicates serious, detrimental impacts on the reliable operation of the bulk electric system in the SPP region, introducing the very real possibility of rolling blackouts or cascading outages that will have significant impacts on human health, public safety and economic activity within the region.”³³ More specifically, SPP concluded:

[I]f the assumed EGU retirements were to occur absent requisite transmission and generation infrastructure improvements, the power grid would suffer extreme reactive deficiencies ... that would expose it to widespread reliability risks resulting in significant loss of load and violations of [North American Electric Reliability Corporation (NERC)] reliability standards.³⁴

* * *

[E]ven with generation capacity added to replace the assumed EGU retirements, additional transmission infrastructure will be needed to maintain reliable operation of the grid. This assessment revealed 38 overloaded elements that SPP would be required to mitigate with transmission planning solutions. These overloaded elements were identified in the portions of six states – Arkansas, Kansas, **Louisiana**, Missouri, Oklahoma, and Texas – that operate within the SPP region. Portions of the system in the Texas panhandle, western Kansas, and northern Arkansas were so severely overloaded that cascading outages and voltage collapse would occur and would result in violations of NERC reliability standards.³⁵

* * *

The proposed CPP will change the market dispatch of generating units by reducing the availability of the most economic generating resources. Such a shift will cause higher market clearing prices in the SPP region resulting in material adverse economic impacts on SPP customers.³⁶

* * *

The changes being proposed by the EPA in the proposed timeframe will dramatically change use of the current system and will need to be thoroughly evaluated, modified as necessary, and implemented in a timely and responsible manner to avoid imposition of unnecessarily high costs and reliability risks to customers.³⁷

³² “SPP Comments in Response to EPA’s Clean Power Plan Proposed Rule.” This document can be accessed by searching for Docket No. “EPA-HQ-OAR-2013-0602” at <http://www.spp.org/section.asp?pageID=27>.

³³ *Id.* (p. 6)

³⁴ *Id.* (p. 4)

³⁵ *Id.* (pp. 5-6) (emphasis added)

³⁶ *Id.* (p. 9)

³⁷ *Id.*

To address these areas of concern, SPP provided the following four recommendations to EPA:

1. a series of technical conferences jointly sponsored by the EPA and FERC;
2. completion of a detailed, comprehensive and independent analysis of the impacts the proposed CPP will have on the reliability of the nation's electric system;
3. extension of the proposed schedule for compliance in order for the necessary electric and gas infrastructure to be identified and constructed; and
4. adoption of a "reliability safety valve."

From MISO's vantage point:

[T]he long-term resource adequacy picture changes dramatically as the landscape changes in response to new and proposed emission regulations. This assessment on the potential impact of current and proposed air regulations shows the potential for a 3-to-7-GW capacity shortfall as early as planning years 2015 and 2016.

The uncertainty increases with the potential for carbon emission limitations. While the specifics of any carbon proposal are unclear, it is clear that any carbon emission limitations will negatively impact MISO's coal generation fleet and further increase the resource deficiency.³⁸

MISO's assessment further highlights the need for a detailed, comprehensive, and independent analysis of the impacts the proposed CPP will have on the reliability of the nation's electric system. This analysis must be completed before the rule is finalized.

The Proposed Rule Overestimates Health Benefits

In calculating the health benefits of the proposed rule, EPA employed a "benefit-per-ton" approach for PM_{2.5}.³⁹ EPA justified its analysis via the conclusions of the agency's "Integrated Science Assessment for Particulate Matter."⁴⁰ In short, EPA concluded there is a linear, no-threshold relationship between concentration and risk for adverse health effects. This assumption implies that any increment of exposure beyond background conveys some risk to health and that a threshold concentration below which health effects do not occur cannot be identified.

However, EPA's current position is seemingly irreconcilable with its recently-promulgated rule reducing the annual PM_{2.5} national ambient air quality standard (NAAQS) to 12.0 µg/m³.⁴¹ Therein, EPA concluded:

In the Administrator's judgment, this suite of primary PM_{2.5} standards [24-hour standard at 35 µg/m³ in conjunction with a revised annual standard of 12.0 µg/m³] is sufficient but not more protective than necessary to protect the public health, including at-risk populations, with an adequate margin of safety from effects associated with long and short-term exposures to fine particles. This suite of standards will provide significant protection from serious health

³⁸ NERC 2013 Long-Term Reliability Assessment, December 2013 (p. 67)
([http://www.nerc.com/pa/rapa/ra/reliability assessments dl/2013_ltra_final.pdf](http://www.nerc.com/pa/rapa/ra/reliability%20assessments%20dl/2013_ltra_final.pdf))

³⁹ 79 FR 34941

⁴⁰ "Integrated Science Assessment for Particulate Matter," EPA/600/R-08/139F, December 2009. This document is available at <http://cfpub.epa.gov/ncea/cfm/recorddisplay.cfm?deid=216546>.

⁴¹ "National Ambient Air Quality Standards for Particulate Matter," (78 FR 3086, January 15, 2013)

effects including premature mortality and cardiovascular and respiratory morbidity effects that are causally or likely causally related to long- and short-term PM_{2.5} exposures. These standards will also provide an appropriate degree of protection against other health effects for which there is more limited evidence of effects and causality, such as reproductive and developmental effects.⁴²

* * *

On balance, the Administrator finds that the available evidence interpreted in light of the remaining uncertainties does not justify a standard level set below 12 µg/m³ as necessary to protect public health with an adequate margin of safety.⁴³

Importantly, the aforementioned Integrated Science Assessment was available to EPA when the annual and 24-hour PM_{2.5} NAAQS were reevaluated, as it was cited in the final rule.⁴⁴ Therefore, EPA must coherently reconcile how reductions in PM_{2.5} in areas that meet the PM_{2.5} NAAQS result in health benefits, given EPA's findings that the current PM_{2.5} standards "protect the public health, including at-risk populations, with an adequate margin of safety" and that lower standards cannot be justified based on available evidence. Alternatively, EPA must reassess the health benefits of the proposed rule.

EPA's Strategy Unfairly Imposes Vastly Different Percent Reduction Obligations on States

In addition to the concerns about the legality of the proposed rule, LDEQ also has concerns about the equity of the proposed rule. Ironically, further highlighting EPA's flawed "beyond-the-unit" approach is that states with *less* than 5% coal-fired generation⁴⁵ have an average percent reduction obligation (35.6%) significantly higher than those with *more* than 70% coal-fired generation (20.3%).^{46,47}

In fact, as evidenced by the table below (sorted by percent coal), 24 states with more coal-fired generation than Louisiana (on a percent basis) have lower percent reduction goals. Per EPA's data, Louisiana's 2012 CO₂ emission rate was 1466 pounds per megawatt hour (lb/MWh). Therefore, Louisiana's goal of 883 lb CO₂/MWh represents a 40% reduction. Arizona, Arkansas, Georgia, Minnesota, and South Carolina are the only states with more coal-fired generation than Louisiana for which EPA's proposal imposes more stringent obligations (on a percent reduction basis).⁴⁸

Per section 111(d) of the Act, the BSER must reflect the "degree of emission limitation achievable" by an existing EGU and cannot be dependent on any other unrelated aspect of a state's generation profile, including its existing NGCC fleet or its perceived potential to develop new RE resources. Further, proposing a unique goal for each state does not comport with how the electrical grid is operated. As discussed in prior comments, the "movement" of electricity is coordinated by regional transmission organizations, most of which service multiple states and dispatch *without* regard to political boundaries.⁴⁹

⁴² 78 FR 3164

⁴³ 78 FR 3162

⁴⁴ 78 FR 3275

⁴⁵ CA, CT, ID, ME, NJ, NY, OR, RI, & WA

⁴⁶ IN, KY, MO, NE, ND, UT, WV, & WY

⁴⁷ All data derived from <http://cleanpowerplanmaps.epa.gov/CleanPowerPlan>.

⁴⁸ North Carolina has an equivalent percentage (40%).

⁴⁹ SPP, MISO, ISO New England, and PJM Interconnection have multi-state service areas.

State	2012 Baseline	2030 Goal	% Reduction	Percent Coal
Louisiana	1466	883	40	21
South Dakota	1135	741	35	24
Alabama	1444	1059	27	30
Texas	1298	791	39	32
Oklahoma	1387	895	35	38
Pennsylvania	1540	1052	32	39
Illinois	1895	1271	33	41
Maryland	1870	1187	37	43
Tennessee	1903	1163	39	46
Michigan	1696	1161	32	49
Montana	2245	1771	21	50
Wisconsin	1827	1203	34	51
Iowa	1552	1301	16	62
Kansas	1940	1499	23	63
Ohio	1850	1338	28	66
Colorado	1714	1108	35	66
New Mexico	1586	1048	34	68
Nebraska	2009	1479	26	73
North Dakota	1994	1783	11	78
Utah	1813	1322	27	78
Missouri	1963	1544	21	79
Indiana	1923	1531	20	81
Wyoming	2115	1714	19	88
Kentucky	2158	1763	18	92
West Virginia	2019	1620	20	96

The GIS Analysis Cited by the Proposed Rule Does Not Support EPA's Renewable Energy Goal for Louisiana

To account for the varied availability of renewable resources across regions of the United States, EPA used state renewable portfolio standard (RPS) data, obtained from the Database for State Incentives for Renewables and Efficiency (DSIRE), to establish regional (RE) targets.⁵⁰ Each region's RE target was calculated by assuming all states in the region could, by 2030, achieve the average of the calendar year 2020 RPS requirements of the states in that region. Louisiana is included in the South Central region, along with Arkansas, Kansas, Nebraska, Oklahoma, and Texas. According to EPA, "[s]tates within each region exhibit similar profiles of RE potential or have similar levels of renewable resources. The regional similarities can be inferred from the state-level technical potential reported in an NREL GIS-based analysis."⁵¹

⁵⁰ EPA's methodology is described in Chapter 4 of the "GHG Abatement Measures" Technical Support Document, available at <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-technical-documents>.

⁵¹ *Id.* (pp. 4-12 – 4-13)

The analysis to which EPA refers is a technical report prepared by the U.S. Department of Energy's (DOE's) National Renewable Energy Laboratory (NREL) entitled "U.S. Renewable Energy Technical Potentials: A GIS-Based Analysis."⁵² A careful review of this report reveals that Louisiana's "renewable energy technical potential" differs substantially from that of Kansas, Nebraska, Oklahoma, and Texas, a result that's not surprising given the geographical differences in this region of the country. According to the NREL's estimates, Nebraska and Oklahoma have approximately 3 times the RE potential of Louisiana, Kansas has 4.5 times more, and Texas has 12.2 times more. Discounting offshore wind power, which cannot be deployed in a timeframe needed for it to facilitate compliance with the proposed rule,⁵³ Oklahoma has 3.6 times the RE potential of Louisiana, Nebraska has 3.9 times more, Kansas has 5.7 times more, and Texas has 15.1 times more.

In sum, EPA's conclusion that "[s]tates within each region exhibit similar profiles of RE potential or have similar levels of renewable resources" is patently false. Consequently, EPA's assumption that Louisiana can meet the RPS of Kansas, which, per EPA's own data, has almost 6 times the "renewable energy technical potential," also fails.

The technical report also acknowledges that:

The estimates do not consider (in most cases) economic or market constraints, and therefore do not represent a level of renewable generation that might actually be deployed.⁵⁴

Thus, even in cases where states have similar potentials, the NREL recognizes that there may be other factors which inhibit the development of the same RE sources in one area and not another. EPA conducted no such state-specific analysis.

A Renewable Portfolio Standard Is Not Appropriate for Louisiana at This Time

EPA's assumption that Louisiana has the potential to increase renewable resources in a cost-effective manner (again, based in part on what Kansas' legislature determined was appropriate for Kansas) is contrary to two comprehensive Louisiana-specific RPS feasibility studies undertaken by the LPSC.⁵⁵

In 2005, J. Kennedy and Associates, Inc. was engaged to assist the LPSC in conducting a feasibility study of implementing an RPS requirement in Louisiana. The 2005 report concluded that "due to the lack of availability of renewable resources in Louisiana and the current energy production capabilities, an RPS was not feasible."⁵⁶

⁵² www.nrel.gov/docs/fy12osti/51946.pdf

⁵³ According to the U.S. DOE, "there are presently no offshore wind turbines installed in U.S. waters. Major barriers include the high costs of offshore wind facilities; technical challenges surrounding installation, operation, maintenance, and grid interconnection; and the long and uncertain permitting processes governing deployment. In addition, there are specific challenges associated with installing offshore wind farms in deep water off the coast of the United States that will require unique designs and solutions." See "U.S. Department of Energy Wind and Water Power Technologies Office Funding in the United States: Offshore Winds Projects, Fiscal Years 2006 - 2014," DOE/EE-1094, July 2014 (<http://energy.gov/eere/wind/downloads/offshore-wind-projects>).

⁵⁴ *Supra*, n. 52 (p. iv)

⁵⁵ See "Commission Staff's 2013 Annual Report on the LPSC Renewable Energy Pilot Program," June 19, 2013. This document can be accessed by searching for Tracking Number "F13-10747" at <http://lpscstar.louisiana.gov/star/portal/lpsc/page/Documents/portal.aspx>.

⁵⁶ *Id.* (p. 1)

Accordingly, the LPSC decided not to establish an RPS. However, the LPSC did move to create a voluntary “green pricing tariff” on a trial basis. For the trial, Entergy Gulf States Louisiana, LLC (EGSL) agreed to implement a pilot program known as “Geaux Green.” The program began in 2008 and offered customers the opportunity to voluntarily purchase 100 kilowatt hour (kWh) blocks of RE at an additional cost of \$2.25 per block. In turn, EGSL used the premiums to acquire RE to meet the customer demand. The Geaux Green program had limited success in attracting customers and was eventually terminated.

In 2009, the LPSC recognized that the recent volatility in natural gas prices (natural gas spiked to \$14/1000 Btu in mid-2008) warranted the re-evaluation of an RPS for Louisiana. Therefore, at the direction of the Commission, LPSC staff held task force meetings, received comments from interested parties, and performed a detailed review of the best practices of other states that had established RPS requirements. In December 2009, LPSC staff issued a broad report on RPS policies. The report detailed various RE technologies that would be suitable for Louisiana – generation from rice hulls; wood, mill, and forest residue biomass; municipal solid waste; bagasse; cogeneration; energy efficiency; and wood co-firing in coal-fired boilers – and contained a cost impact evaluation.

Following its evaluation of this report, the LPSC decided to implement a 3-year renewable energy pilot program (REPP) to more thoroughly investigate the viability of an RPS. The REPP required Louisiana's utilities (Entergy, Cleco, and SWEPCO) to evaluate and implement RE resources. The REPP included both a research component and a request for proposals (RFP) component for larger new renewable resources. The program was designed to allow the LPSC “to accomplish its stated policy goals of providing additional resources that result in reliable and economical long-term electric supply; diversification of Louisiana's fuel mix, greater energy security through the use of indigenous resources, encouraging private investment; improving air quality; developing additional in-state renewable resources; and encouraging job creation and job retention, while avoiding the uncertainty associated with the cost impacts of a long term policy decision in an uncertain economic and political climate.”⁵⁷

At the end of the 3-year REPP period, LPSC staff concluded:

[B]ased on the information filed by the utilities, as well as Staff's participation throughout the process, a mandatory RPS is not warranted at this time. The data provided by Cleco, Entergy, and SWEPCO indicate that the levelized cost of renewable technologies exceeds the costs of conventional resources. For example, the levelized cost of a combined cycle gas turbine is below the cost of any of the major renewable technologies (wind, solar, biomass). Current prices for natural gas have put renewable technologies at a cost disadvantage.⁵⁸

Although Louisiana does not have an RPS, Louisiana *has* proactively incentivized programs that promote the wise use of the state's natural energy resources to enhance both conservation efforts and economic development. In fact, the Louisiana legislature has declared that:

- increasing the consumption of RE resources promotes the wise use of Louisiana's natural energy resources to meet a growing energy demand, increases Louisiana's use of indigenous energy fuels, and fosters investment in emerging renewable technologies to stimulate economic development and job creation in the state; and

⁵⁷ *Id.* (p. 4)

⁵⁸ *Id.* (pp. 66-67)

- Louisiana should actively encourage the manufacture of new technologies through promotion of emerging energy technologies.⁵⁹

Several such programs are described below.

Tax Credits

Louisiana provides a tax credit for the purchase and installation of new solar and wind energy systems installed at either a residence or a residential rental apartment complex. The tax credit can be applied to both solar electric systems (PV) and solar thermal systems where the energy is used for space heating, space cooling, or water heating. The amount of the credit is equal to 50% of the first \$25,000 of the cost of the system, including installation costs. Any excess credit which exceeds the taxpayer's liabilities for that year shall be treated as an overpayment, and the Department of Revenue will issue a refund for the remaining amount. This tax credit may be combined with any federal tax incentive.⁶⁰

Property Tax Exemptions

Solar energy systems attached to any owner-occupied residential building or swimming pool are considered personal property and are exempt from ad valorem taxation, and assessors may not consider the value of such equipment in assessing the value of such buildings or swimming pools.⁶¹

Net Metering

The LPSC requires publicly owned utilities and rural electric cooperatives to offer net metering to customers with systems that generate electricity using solar, wind, hydropower, geothermal, or biomass resources. Utilities must provide customer-generators with a meter capable of measuring the flow of electricity in both directions and pay for meter itself. Net excess generation (NEG) is credited to the customer's next bill indefinitely. For the final month in which the customer takes service from the utility, the utility must pay the customer for the balance of any credit at the utility's avoided-cost rate.

Home Energy Loan Program

Through the Home Energy Loan Program (HELP) administered by the Department of Natural Resources (DNR), a homeowner can obtain a five year loan to improve the energy efficiency of an existing home. Under the program, DNR subsidizes one half of the financing, up to \$6000, for the energy efficiency improvements at a low interest rate to participating lenders. Residential photovoltaic systems, residential solar hot water systems, and residential solar cooling and dehumidification systems are eligible for financing under the program.⁶²

⁵⁹ Louisiana Renewable Energy Development Act, R.S. 51:3061

⁶⁰ R.S. 47:6030

⁶¹ R.S. 47:1706

⁶² <http://dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=40&pnid=103&nid=105>

Green Jobs Tax Credit

Louisiana offers a corporate or income tax credit for qualified capital infrastructure projects that are directly related to “green” industries, including the renewable electric power industry. The tax credit is for 10% to 25% of the project costs, calculated based on the investment costs, up to \$1 million per state-certified green project. The portion of the base investment expended on payroll for Louisiana residents employed in connection with the construction of the project may also be eligible for an additional 10% tax credit on the payroll.⁶³

As evidenced above, Louisiana has instituted a number of programs and tax credit offerings that encourage the development and use of RE and implementation of demand-side energy efficiency measures. EPA should not be so presumptuous to assume its simplified analysis supplants the expertise and experience of Louisiana’s PSC and electric utilities. Aside from the legality of the matter, imposing a *de facto* RPS on Louisiana’s citizens is neither economical nor necessary.

EPA’s Mandate to Expand Renewable Energy Resources Is Premature

Should EPA choose to disregard the information provided herein and move to include RE goals in the final rule, EPA must finalize beforehand its position on the combustion of biomass and its impact on the carbon cycle.

EPA anticipates that “states likely will consider biomass-derived fuels in energy production as a way to mitigate the CO₂ emissions attributed to the energy sector and include them as part of their plans to meet the emission reduction requirements of this rule.”⁶⁴ Consistent with EPA’s supposition, biomass represents one of the most abundant and easily accessible renewable resources that can be relied upon for energy production in Louisiana. Consider, for example, that approximately 96% of the electrical demand of Louisiana’s sugarcane mills is met by combusting bagasse, the fibrous residue remaining after sugarcane stalks are crushed to extract their juice.⁶⁵

However, though some EPA resources suggest fuels derived from organic matter “are subject to the natural carbon cycle and, therefore, do not contribute to global warming,”⁶⁶ others indicate that “it is not safe to assume biomass power plants are carbon neutral.”⁶⁷ In fact, EPA’s so-called Deferral Rule⁶⁸ acknowledges that the agency “received information supporting the position that ... the use of certain types of biomass as fuel could *increase* atmospheric CO₂ levels.”⁶⁹ EPA also concedes that “the possibility ... remains that more detailed examination of the science of biogenic CO₂ will demonstrate that the utilization of some biomass feedstocks for bioenergy production will have a *significant* impact on the net carbon cycle.”⁷⁰

⁶³ R.S. 47:6037

⁶⁴ 79 FR 34924

⁶⁵ “Re-Study of the Feasibility of a Renewable Portfolio Standard for the State of Louisiana,” J. Kennedy and Associates, Inc., December 15, 2009

⁶⁶ The Emissions & Generation Resource Integrated Database, Technical Support Document for the 9th Edition of eGRID with Year 2010 Data, p. 13 (<http://epa.gov/cleanenergy/energy-resources/egrid/index.html>)

⁶⁷ <http://www.epa.gov/cleanenergy/energy-and-you/affect/air-emissions.html>

⁶⁸ “Deferral for CO₂ Emissions From Bioenergy and Other Biogenic Sources Under the Prevention of Significant Deterioration (PSD) and Title V Programs,” 76 FR 43490 (July 20, 2011)

⁶⁹ 76 FR 43492 (emphasis added)

⁷⁰ 76 FR 43498 (emphasis added)

On July 12, 2013, the Deferral Rule was vacated by the U.S. Court of Appeals for the D.C. Circuit. In reaching its decision, the court found that the “atmosphere makes no distinction between carbon dioxide emitted by biogenic and fossil-fuel sources.”⁷¹

In the proposed rule, EPA addresses the present circumstances as follows:

To better understand the impacts of using different types of biomass-derived fuels, the EPA is assessing the use of biomass feedstocks for energy recovery by stationary sources and has developed a draft accounting framework that the EPA's Science Advisory Board (SAB) has reviewed. The draft framework concluded that while biomass and other biogenic feedstocks have the potential to reduce the overall level of CO₂ emissions resulting from electricity generation, the contribution of biomass derived fuels to atmospheric CO₂ is sensitive to the type of biomass feedstock used, and the way in which the feedstock is grown, processed, and ultimately combusted as a fuel for energy production. The SAB in its review similarly found that there are circumstances in which biomass is grown, harvested and combusted in a carbon neutral fashion but commented that additional considerations are warranted.

The EPA is in the process of revising the draft framework and considering next steps, taking into account both the comments provided by the SAB and feedback from stakeholders. The EPA's biogenic CO₂ accounting framework is expected to provide important information regarding the scientific basis for assessing these biomass-derived fuels and their net atmospheric contribution of CO₂ related to the growth, harvest and use of these fuels. This information should assist both states and the EPA in assessing the impact of the use of biomass fuels in reaching emission reduction goals in the energy sector under state plans to comply with the requirements in the emission guidelines.⁷²

Given the uncertainty as to how EPA will ultimately view the combustion of biomass with respect to the carbon cycle, Louisiana is not able to meaningfully consider whether the proposed renewable generation targets are even achievable. Unfortunately, at present, the possibility remains that EPA will determine that certain RE sources actually increase atmospheric CO₂ concentrations. Consequently, until such time as EPA's “draft accounting framework” has been properly vetted and an opportunity for public comment has been provided, the renewable component of building block 3 is premature.

⁷¹ *Center for Biological Diversity v. EPA* (No. 11-1101), Opinion, p. 7

⁷² 79 FR 34924-5

EPA’s Renewable Energy Goal for the South Central Region is Calculated Incorrectly

As before, should EPA choose to disregard the information provided herein and move to include RE goals in the final rule, EPA should be aware that the goal for the South Central region is calculated incorrectly. As previously discussed, EPA used state RPS data to establish regional RE targets, and each region’s RE target was calculated by assuming all states in the region could, by 2030, achieve the average of the calendar year 2020 RPS requirements of the states in that region. Importantly, in deriving regional targets, EPA “did not include [RPS] targets that were capacity-based.”⁷³

EPA derived the RE target for the South Central region (Louisiana, Arkansas, Kansas, Nebraska, Oklahoma, and Texas) based on the RPS of a single state – Kansas. However, Kansas’ RPS is based on gross generation capacity rather than total retail sales.⁷⁴ Consequently, it should have been discounted per EPA’s stated protocol. Texas also has a RPS, but like that of Kansas, it is also based on capacity.^{75,76}

Given the lack of a germane RPS standard within the South Central region, EPA must establish the regional RE generation target at 10%, consistent with its treatment of Alaska and Hawaii (and equivalent to that for the Southeast region). Accordingly, the South Central region’s goal should be calculated as follows:

	RE Generation ⁷⁷ (MWh)	Total Generation ⁷⁸ (MWh)
Arkansas	1,660,370	65,005,678
Kansas	5,252,653	44,424,691
Louisiana	2,430,042	103,407,706
Nebraska	1,346,762	34,217,293
Oklahoma	8,520,724	77,896,588
Texas	34,016,697	429,812,510
	53,227,248	754,764,466

$(754,764,466 \text{ MWh} * 0.10) - 53,227,248 \text{ MWh} = 22,249,199 \text{ MWh}$

In order to increase the South Central region’s RE generation by 22,249,199 MWh by 2030, the annual RE growth factor for the region should be set at 2.7 percent.⁷⁹

⁷³ *Supra*, n. 50 (p. 4-9, n. 108)

⁷⁴ See the Renewable Energy Standards Act (K.S.A 66-1258) and its implementing regulations (K.A.R. 82-16), accessible at <http://kcc.ks.gov/energy/res.htm>.

⁷⁵ See the Public Utility Regulatory Act (PURA) §39.904 and the Public Utility Commission of Texas Substantive Rule §25.173, accessible at <http://www.dsireusa.org/incentives/index.cfm?re=0&ee=0&spv=0&st=0&srp=1&state=TX>.

⁷⁶ Oklahoma has a renewable energy “goal” under 17 O.S. §§ 801.1-7 (i.e., the Oklahoma Energy Security Act).

⁷⁷ *Supra*, n. 50 (Table 4-1)

⁷⁸ *Id.*

⁷⁹ More precisely, 2.7229528 percent.

Year	South Central Region (MWh)	Louisiana (MWh)
2012	53,227,248	2,430,042
2017	54,676,601	2,496,211
2018	56,165,419	2,564,182
2019	57,694,777	2,634,003
2020	59,265,778	2,705,726
2021	60,879,557	2,779,401
2022	62,537,279	2,855,083
2023	64,240,140	2,932,826
2024	65,989,368	3,012,685
2025	67,786,228	3,094,719
2026	69,632,015	3,178,987
2027	71,528,062	3,265,549
2028	73,475,737	3,354,469
2029	75,476,447	3,445,809

Accordingly, following the correction of a number of discrepancies in EPA's data identified in LDEQ's initial comments on the proposed rule, and the revised RE target described above, Louisiana's final goal should be set at 1131 lb CO₂/MWh, with an alternate goal of 1270 lb CO₂/MWh.

Act 726

EPA should be aware that any plan developed by LDEQ or the state of Louisiana must be consistent with and will be constrained by Act 726 of the 2014 Regular Legislative Session. A copy of Act 726 has been provided as Attachment 3.

EPA Should Provide States with More Time to Develop Plans

According to the proposed rule, state plans will be due to EPA by June 30, 2016, though a one-year extension to June 30, 2017, may be granted if justified. A two-year extension is possible if Louisiana was to collaborate with one or more additional states.⁸⁰

Development of Louisiana's plan will necessarily entail extensive coordination with the LPSC, SPP, MISO, owners/operators of affected EGUs, and other governmental entities. While Act 726 allows LDEQ to set CO₂ standards for existing EGUs based on "[r]eductions in emissions of carbon dioxide that can reasonably be achieved through measures undertaken at each fossil fuel-fired electric generating unit," it does not provide the department with the authority to establish or enforce RE standards or set energy efficiency goals. Such authority resides with the Louisiana legislature and LPSC. As such, development of the state plan may prompt or necessitate additional legislation. In any event, given that the proposed rule will, by EPA's own admission, increase retail electricity prices, the entire process will be subject to heightened scrutiny and oversight.⁸¹ Once a viable plan has been developed, rulemaking will require an additional 6 months to complete. For these reasons, state plans should be due, at a minimum, 3 years following promulgation of the rule.

⁸⁰ Proposed 40 CFR 60.5755 & 5760

⁸¹ 79 FR 34934

EPA Should Eliminate the Proposed Interim Goals

EPA's proposed interim goals are structured such that the majority of the reductions have to occur very early in the compliance period. A recurring concern raised by affected EGUs is their ability to design, procure, and install the necessary control equipment; develop new RE sources; and implement demand-side energy efficiency programs in a timeframe that will allow for compliance with the rule.⁸² Others have noted the protracted timespan needed to construct new transmission pathways. For example, SPP notes:

EPA has considered neither the cost nor the time required to plan and construct electric transmission facilities. In the SPP region, as much as eight and a half years to study, plan for and construct new transmission facilities has been required. Compliance with the proposed CPP is impossible due to the transmission expansion that will be required and the time it takes to complete the required transmission expansion.⁸³

Accordingly, in order to ensure reliable operation of the transmission grid and compliance with NERC reliability standards, EPA should eliminate the proposed interim goals applicable during the 2020-2029 phase-in period in favor of a single 2030 goal. Alternatively, EPA should reconfigure the interim goals such the majority of the requisite reductions can occur 5 to 7 years following EPA's approval of the state plan.

⁸² LDEQ conducted six formal meetings with stakeholders.

⁸³ "SPP Comments in Response to EPA's Clean Power Plan Proposed Rule" (p. 8)

Attachment 1

BOBBY JINDAL
GOVERNOR



PEGGY M. HATCH
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF THE SECRETARY

September 12, 2014

U.S. Environmental Protection Agency
EPA Docket Center (EPA/DC)
Mail code: 28221T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Attention: **Docket ID No. EPA-HQ-OAR-2013-0602**

RE: Proposed 40 CFR 60 Subpart UUUU – Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (79 FR 34830)

Dear Sir or Madam:

Attached please find the Louisiana Department of Environmental Quality's (LDEQ's) **initial** comments on the referenced rulemaking, published in the *Federal Register* on June 18, 2014.

As an initial matter, LDEQ opposes EPA's proposed rule because it unequivocally exceeds the authority provided to EPA by Section 111(d) of the Clean Air Act, and risks undermining our state's economic development while providing questionable and unsubstantiated environmental benefit. This submittal is solely to inform EPA of errors and omissions in the data used to calculate Louisiana's state goal.

The proposed rule sets Louisiana's final goal at 883 pounds of CO₂ per net megawatt hour (lb CO₂/MWh) and specifies the state's "alternate goal" as 1025 lb CO₂/MWh. After accounting for the discrepancies identified herein, Louisiana's final goal should be 1078 lb CO₂/MWh, with an alternate goal of 1239 lb CO₂/MWh. While we believe EPA's use of this incorrect data calls into question the rule in its entirety and warrants its abandonment, at the very least EPA should revise Louisiana's goals. However, even if these numbers are revised by EPA – the results would still cripple our state's economy.

In our state, we work diligently to balance the needs of our citizens with those of the environment, and the EPA's plan will prevent us from doing that. This unprecedented rule essentially tells Louisiana the type of electricity we have to use. This is gravely concerning, and LDEQ intends to provide additional comments that detail compliance issues, question EPA's legal authority, and identify other major concerns.

If you have any questions concerning this submittal, please contact me at (225) 219-3950 or via e-mail at peggy.hatch@la.gov.

Sincerely,


Peggy M. Hatch
Secretary

Introduction

LDEQ's initial comments will focus on "Building Block 2" (i.e., using lower-emitting power plants more frequently to meet demand). In short, this component of EPA's plan involves re-dispatching to existing and under-construction natural gas combined cycle (NGCC) units up to a 70% utilization rate, thereby displacing electricity that would have otherwise been generated by coal-fired units.

New NGCC Units under Construction

EPA's calculations do not consider several new NGCC units which are currently under construction.

On August 16, 2011, LDEQ issued Title V and PSD permits¹ allowing Entergy Louisiana to construct and operate two new NGCC units, along with a new steam turbine generator, at its Ninemile Point Electric Generating Plant, located in Westwego, Jefferson Parish. The new NGCC units, identified as 6A and 6B, have a nameplate capacity of 640 MW and a projected net summer capacity of 559 MW. These figures account for the steam turbine generator.

In addition, on September 26, 2013, LDEQ issued Title V and PSD permits² allowing Louisiana Energy and Power Authority (LEPA) to construct and operate a new NGCC unit, along with a new steam turbine generator, at its Morgan City Power Plant, located in Morgan City, St. Mary Parish. The new NGCC unit, identified as 14-01, has a nameplate capacity of 84 MW and a projected net summer capacity of 64.5 MW. As before, these figures account for the steam turbine generator.

Perryville Power Station

EPA's calculations classify each of the three gas turbines at Entergy Louisiana's Perryville Power Station as NGCC units. However, one of the three is not equipped with a heat recovery steam generator (HRSG) and operates in simple cycle mode.³ Relevant pages from Permit No. 2160-00112-V4 are included as Attachment 1.

Louisiana Station 1

EPA's calculations classify the five electric generating units (EGUs) at Entergy Gulf States Louisiana's Louisiana Station No. 1 Electrical Generating Plant as NGCC turbines. However, three of these units (1A, 2A, and 3A) are actually boilers, not turbines. Relevant pages from Permit No. 0840-00181-V3 are included as Attachment 2.

Moreover, a large portion of the power generated at Louisiana Station 1 is dedicated exclusively to the adjacent ExxonMobil refinery and chemical plant. Based on input from ExxonMobil and Entergy, none of the units at Louisiana Station 1 will meet the definition of "affected electric generating unit" because no unit supplies "one-third or more of its potential electric output and more than 219,000 MWh net-electric output to a utility distribution system."⁴

¹ Permit Nos. 1340-00006-V1 and PSD-LA-752

² Permit Nos. 2660-00319-V0 and PSD-LA-767

³ This turbine is identified by the permit as Emission Point 2-1 (EQT 0003) and appears to correlate to Generator ID 2-CT in EPA's documentation.

⁴ 40 CFR 60.5795(b)

Washington Parish Energy Center

Washington Parish Energy Center was first permitted on June 25, 2000. However, construction of the facility was never completed. On June 19, 2009, at the request of Calpine Corporation, LDEQ withdrew the facility's application for a Title V renewal, effectively rendering the existing permits for the facility null and void. The facility remains unpermitted as of today. Therefore, Washington Parish Energy Center should be removed from EPA's computations. Relevant documentation is provided as Attachment 3.

EPA Should Use the Capacity Provided in NEEDS v.5.13 for Each NGCC Unit

EPA used the Integrated Planning Model (IPM) to estimate the compliance cost and economic and energy impacts associated with the proposed rule, as well as likely future electricity market conditions with and without the proposed rule.

The EPA notes that the assessments ... regarding the ability of the electricity and natural gas industries to achieve the levels of performance indicated for building block 2 in the state goal computations are supported by analysis that has been conducted using the Integrated Planning Model (IPM).

* * *

To fulfill its purpose of producing projections related to the electric power sector and its related markets – including least cost capacity expansion and electricity dispatch projections – that reflect industry conditions in as realistic a manner as possible, IPM incorporates representations of constraints related to fuel supply, transmission, and unit dispatch.

* * *

At the EGU level, IPM includes detailed representations of key operational limitations such as turn-down constraints, which are designed to account for the cycling capabilities of EGUs to ensure that the model properly reflects the distinct operating characteristics of peaking, cycling, and base load units.⁵

Inputs to IPM for all existing EGUs and those under construction are based on data contained in the National Electric Energy Data System (NEEDS). In developing the proposed rule, this data served as the starting point against which policy scenarios were compared.⁶ Unit capacity values in NEEDS reflect an EGU's net summer dependable capacity, not its nameplate capacity. As used here, net summer dependable capacity is the

net capability of a generating unit in megawatts (MW) for daily planning and operation purposes during the summer peak season, after accounting for station or auxiliary services.⁷

Consistent with the agency's use of NEEDS data for IPM analyses, EPA should not rely on MW ratings in excess of those listed in the NEEDS database in determining Louisiana's NGCC capacity, especially given that electrical demand is usually highest during the hot summer months. NEEDS v.5.13 data for affected NGCC units is provided as Attachment 4.⁸

⁵ 79 FR 34864

⁶ "Documentation for EPA Base Case v.5.13 Using the Integrated Planning Model" (pp. 1-1 & 4-1), available at <http://www.epa.gov/airmarkets/progsregs/epa-ipm/BaseCasev513.html>

⁷ *Id.* (p. 4-4)

⁸ Data obtained from the NEEDS v.5.13 database, available at <http://www.epa.gov/airmarkets/progsregs/epa->

Conclusion

The net effect of the aforementioned changes raises Louisiana's final goal to 1078 lb CO₂/MWh and its alternate goal to 1239 lb CO₂/MWh. The spreadsheets included as Attachment 5 were created by EPA and titled "Data File: Goal Computation - Appendix 1 and 2 (XLS)"⁹ on EPA's "Clean Power Plan Proposed Rule Technical Documents" webpage. In each worksheet, LDEQ modified the following columns to derive the revised figures:

- NGCC Rate (lb/MWh);
- Other Emissions (lbs);
- Hist NGCC Gen. (MWh);
- Other Gen (MWh);
- NGCC Capacity (MW); and
- Under Construction NGCC Capacity (MW).

ipm/BaseCasev513.html. Note that the file downloads as "NEEDS_v513.xlsx."

⁹ The file downloads as "20140602tsd-state-goal-data-computation_1.xlsx" from <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-technical-documents>.

Attachment 2

OFFICE OF ATTORNEY GENERAL
STATE OF OKLAHOMA



E. SCOTT PRUITT
ATTORNEY GENERAL

OFFICE OF ATTORNEY GENERAL
STATE OF WEST VIRGINIA



PATRICK MORRISSEY
ATTORNEY GENERAL

OFFICE OF ATTORNEY GENERAL
STATE OF NEBRASKA



JON BRUNING
ATTORNEY GENERAL

August 25, 2014

Via Certified Mail and Regulations.gov

The Honorable Gina McCarthy
Administrator
U.S. Environment Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Ave., N.W.
Washington, DC 20460

**Re: Request for Withdrawal (EPA-HQ-OAR-2013-0602 and
EPA-HQ-OAR-2013-0603)**

Dear Administrator McCarthy:

This letter concerns the failure of the Environmental Protection Agency ("EPA") to include required and critical information in the regulatory dockets of two recent proposed rules: the *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units* ("Existing Source Rule")¹ and the *Carbon Pollution Standards for Modified and Reconstructed Stationary Sources: Electric Utility Generating Units* ("Modified Sources Rule")² (together, "Proposed Rules"). By failing to include in the dockets key materials on which the agency relies as support for the Proposed Rules, EPA has violated Section 307(d) of the Clean Air Act ("CAA") (codified at 42 U.S.C. § 7607(d)). Both the Existing Source Rule and the Modified Sources Rule must thus be withdrawn.

Section 307(d) of the CAA imposes certain mandatory requirements for all proposed rules, which reflect Congress's judgment that information on which a proposed rule is based must be made available to the public at the time of proposal to ensure meaningful comment and sound rulemaking. Upon publication, a proposal must include a "statement of basis and purpose . . . [which] shall include a summary of . . . the factual data on which the proposed rule is based[,] . . . the methodology used in obtaining the data and in analyzing the data[,] and . . . the major legal interpretations and policy considerations underlying the proposed rule." 42 U.S.C. § 7607(d). Section 307(d) further requires that "[a]ll data, information, and documents . . . on

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

² 79 Fed. Reg. 34,960 (June 18, 2014).

which the proposed rule relies shall be included in the docket *on the date of publication* of the proposed rule.” *Id.* (emphases added). These docketing requirements are nondiscretionary. *See Union Oil Co. v. EPA*, 821 F.2d 678, 681-82 (D.C. Cir. 1987). Finalizing a rule without providing parties with the technical information necessary for meaningful comment renders the final rule unlawful. *See Conn. Light & Power Co. v. Nuclear Regulatory Comm’n*, 673 F.2d 525, 530-31 (D.C. Cir. 1982). Nor can the problem be cured by late docketing of the required data, as such late docketing does not permit the public with sufficient time for meaningful review and comment. *See Small Refiner Lead Phase-Down Task Force v. U.S.E.P.A.*, 705 F.2d 506, 540 (D.C. Cir. 1983); *Sierra Club v. Costle*, 657 F.2d 298, 398 (D.C. Cir. 1981).

In the Existing Source Rule and the Modified Sources Rule, EPA has repeatedly violated Section 307’s unambiguous requirements:

In the Existing Source Rule, EPA omitted from the docket 84% of the modeling runs on which it relied in crafting the proposed Rule, without which the States and the public cannot comment meaningfully on the proposal. Specifically, the docket does not include 21 out of 25 of the Integrated Planning Model modeling runs that the agency used to justify the standards imposed by the Rule. The missing modeling runs cover projections for 2016, 2018, 2020, 2025 and 2030. This information is critical to assessing EPA’s claims that States and industry will be able to comply with the four “building blocks” in the proposed Existing Source Rule. The States need the modeling run data for sufficient analysis of what that data shows on a unit by unit and state by state basis.

Similarly, EPA failed to include in the Existing Source Rule’s docket vital net heat rate and emissions data, which are central to EPA’s assertion that existing power plants are able to achieve a four to six percent heat rate improvement under EPA’s first “building block.” For example, EPA claims in the proposed Existing Source Rule to have reviewed its database of existing coal-fired units and found 16 facilities that have achieved heat rate improvements of three to eight percent “year-to-year,”³ but it does not include any supporting data. Without the “year-to-year” data showing that facilities can comply with the four to six percent heat rate improvement, the States and the public cannot meaningfully comment on the achievability of EPA’s heat rate projections.

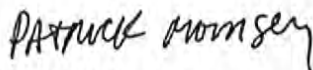
In the Modified Sources Rule, EPA has completely failed to include *any technical information to support its proposed standard* for modified Subpart Da units or for the proposed standards for either modified or reconstructed Subpart KKKK units. For instance, the preamble to the Modified Source Rule references a technical support document, “Standard of Performance of Natural Gas-Fired Combustion Turbines,” which it says is available in the docket. *See* 79 Fed. Reg. at 34,990 n.94. But that document is not available on the docket. Without such missing data and related materials, States and the public cannot properly determine the basis on which EPA claims that these emission standards are achievable and reasonable.

³ EPA, 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 Generating Units*, at 2-32 (EPA-HQ-2013-0602) (June 10, 2014).

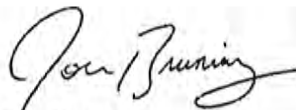
All told, the missing information unquestionably constitutes “data, information and documents,” and likely contains “policy considerations underlying the proposed rule” that should have been in the rulemaking dockets from the beginning, according to Section 307(d). Deprived of this missing information, the notices of proposed rulemaking published on June 18 “fail[ed] to provide an accurate picture of the reasoning that has led [EPA] to the proposed rule.” *Conn. Light*, 673 F.2d at 530. This is particularly problematic where, as here, the proposals seek to overhaul the existing electric generating sector on an unprecedented scale. *See Maryland v. E.P.A.*, 530 F.2d 215, 222 (4th Cir. 1975) (vacating rule due to EPA’s failure to comply with notice and comment requirements, emphasizing the “drastic impact” that compliance with rule would have), *vacated on other grounds*, 431 U.S. 99 (1977).

In light of these clear violations of Section 307, EPA should withdraw the Existing Source Rule and the Modified Sources Rule immediately. With regard to the proposed Existing Source Rule, that Rule is wholly unlawful on other grounds and therefore may not be re-proposed at all, even if EPA were to compile the data and documents required by Section 307. *See* Letter from Patrick Morrissey, Attorney General of West Virginia, to Gina McCarthy, Administrator, EPA (June 6, 2014); *State of West Virginia, et al. v. EPA*, No. 14-1146 (D.C. Cir.); *In re Murray Energy Corporation*, No. 14-1112 (D.C. Cir.). As to the proposed Modified Sources Rule, the comment deadline on that rule is October 16, 2014 and is thus fast approaching. The undersigned States therefore request that if EPA wishes to press forward with the Modified Sources Rule, EPA should withdraw that Rule and re-propose it with all the supporting documents and data required by Section 307. EPA should then provide 120 days from the re-proposal date to provide sufficient time for States and the public to review and comment. Alternatively, EPA should—at a minimum—publish the missing data immediately and then extend the comment period 120 days from the date of such publication.

Sincerely,



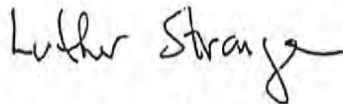
Patrick Morrissey
West Virginia Attorney General



Jon Bruning
Nebraska Attorney General



E. Scott Pruitt
Oklahoma Attorney General

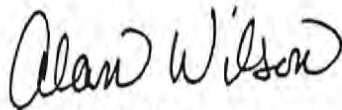


Luther Strange
Alabama Attorney General

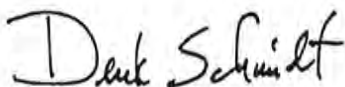
The Honorable Gina McCarthy
August 25, 2014
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Gregory F. Zoeller
Indiana Attorney General



Alan Wilson
South Carolina Attorney General



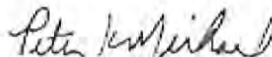
Derek Schmidt
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Peter K. Michael
Wyoming Attorney General



Tim Fox
Montana Attorney General



Wayne Stenehjem
North Dakota Attorney General



Mike DeWine
Ohio Attorney General

Attachment 3

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AN ACT

To enact R.S. 30:2060.1, relative to air control standards; to create a carbon dioxide emissions program; to measure carbon dioxide emissions from existing fossil fuel-fired electric generating units; to provide criteria for the standards of performance; to provide terms, conditions, and requirements; and to provide for related matters.

Be it enacted by the Legislature of Louisiana:

Section 1. R.S. 30:2060.1 is hereby enacted to read as follows:

**§2060.1. The Louisiana Carbon Dioxide Emission Fossil Fuel-Fired Electrical
Generating Units Control Act**

A. In developing a plan for the implementation of any guidelines for greenhouse gas emissions that the United States Environmental Protection Agency may issue under Section 111(d) of the Clean Air Act, the Department of Environmental Quality, in collaboration with and input from the Public Service Commission, may establish standards of performance for carbon dioxide emissions from existing fossil fuel-fired electric generating units. Each standard of performance shall be:

(1) Set for each category of existing fossil fuel-fired electric generating units based on the type of fuel burned by those generating units as provided in Subsection B of this Section.

(2) Adjusted on a case-by-case basis as provided in Subsection C of this Section.

(3) Implemented as provided in Subsection D of this Section.

B. Except as provided for in Subsection C of this Section, the standards of performance established for existing fossil fuel-fired electric generating units shall be based on the following:

(1) The best system of emission reduction that, taking into account the

1 cost of achieving such reduction and any non-air quality health and
2 environmental impact and energy requirements, has been adequately
3 demonstrated for fossil fuel-fired electric generating units that are subject to the
4 standards of performance.

5 (2) Reductions in emissions of carbon dioxide that can reasonably be
6 achieved through measures undertaken at each fossil fuel-fired electric
7 generating unit.

8 (3) Efficiency improvements and other measures that can be undertaken
9 at each fossil fuel-fired electric generating unit to reduce carbon dioxide
10 emissions from the unit without switching to other fuels, co-firing with other
11 fuels, or limiting the utilization of the unit.

12 C. In establishing standards of performance for each category of
13 existing fossil fuel-fired electric generating units, the department shall consider
14 in all cases whether to adopt less stringent standards or longer compliance
15 schedules for such individual units than those provided for in the applicable
16 federal rules or guidelines based on the following:

17 (1) Consumer impacts, including any disproportionate impacts of energy
18 price increases on lower income populations.

19 (2) Unreasonable cost of reducing emissions resulting from plant age,
20 location, or basic process design.

21 (3) Physical difficulties with or impossibility of implementing emission
22 reduction measures.

23 (4) The absolute cost of applying the performance standard to the unit.

24 (5) The expected remaining useful life of the unit.

25 (6) The economic impacts of closing the unit, including expected job
26 losses, if the unit is unable to comply with the performance standard.

27 (7) The need to maintain the reliability of the electric grid.

28 (8) Any other factors specific to the unit that should be considered by
29 the department in establishing reasonable performance standards or reasonable
30 compliance schedules.

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D.(1) The department may implement, to the maximum extent permissible, the standards of performance authorized by Subsection A of this Section through the regulatory mechanisms that provide flexibility in complying with such standards, including the averaging of emissions, emissions trading, or other alternative implementation measures that are determined to further the interests of Louisiana and its citizens.

(2) The department's plan for establishing and implementing standards of performance for existing fossil fuel-fired electric generating units shall be consistent with the provisions of this Section and may include alternative compliance options for meeting such standards to the extent that those compliance options:

(a) Comply with a guidance document promulgated by the United States Environmental Protection Agency pursuant to Section 111(d) of the Clean Air Act and 40 CFR Part 60, Subpart B.

(b) Are based on measures that can be implemented by the owners or operators of existing fossil fuel-fired electric generating units.

(c) Are authorized by and consistent with all applicable provisions of state law.

E. This Section shall be known and may be cited as the "Louisiana Carbon Dioxide Emission Fossil Fuel-Fired Electrical Generating Units Control Act".

PRESIDENT OF THE SENATE

SPEAKER OF THE HOUSE OF REPRESENTATIVES

GOVERNOR OF THE STATE OF LOUISIANA

APPROVED: _____