



December 1, 2014

To: Environmental Protection Agency

From: Keith Reopelle, Senior Policy Director, Clean Wisconsin; Tyson Cook, Director of Science and Research, Clean Wisconsin; Matthew Landi, Science and Policy Associate, Clean Wisconsin

Subject: Public Comment on Docket ID: EPA-HQ-OAR-2013-0602; Standards of Performance for Greenhouse Gas Emissions from Existing Sources: Electric Utility Generating Units

Clean Wisconsin thanks the Environmental Protection Agency for its historic effort to regulate carbon pollution in the United States through proposing new CAA §111(d) rules, also known as the Clean Power Plan (“CPP”). We also thank EPA for this opportunity to comment on the CPP in order to create a stronger, more informed, and ultimately, a more successful carbon pollution mitigation regulatory regime.

Clean Wisconsin strongly supports the EPA in strengthening the CPP. Clean Wisconsin urges completion of final rules on or before June 1, 2015, in order to best protect the public health of the citizens of the United States and of Wisconsin.

Clean Wisconsin’s comments have been informed in part by our involvement in a collaborative stakeholder process whose aim is to help the EPA devise guidelines and state plans under §111(d). This Midwestern Power Sector Collaborative has drafted a series of consensus recommendations to the EPA regarding how best to alter the CPP to mitigate regulatory burdens, assist Midwestern states with compliance, and generally achieve the emission reduction goals in an equitable and fair manner.

While Clean Wisconsin has made significant progress with the Midwest Power Sector Collaborative, we believe that there are areas of the CPP that can and should be strengthened to achieve greater environmental and public health benefits. The regulatory regime EPA is proposing in the CPP provides achievable and lasting emissions reductions while also providing states with significant flexibility in their ability to comply. Clean

Wisconsin believes the greatest strength of the CPP is the flexibility that it affords states, enabling them to pursue a least-cost compliance strategy.

Clean Wisconsin's comments will attempt to address concerns that we have heard from our stakeholder process, and build on areas of agreement, and argue that the CPP could be strengthened in some critical areas relevant to protecting the public health and welfare in the spirit of the Clean Air Act's overall purpose.

## **I. SETTING STATE GOALS**

We are supportive of an implementation plan that recognizes and rewards early action; early action that has occurred in the past and early action as defined as action that can be taken between now and the time when state implementation plans are submitted and approved. It's important to distinguish the setting of a baseline for the purposes of setting a reduction target as opposed to setting a baseline for the purpose of compliance budgets. EPA set the reduction targets for each state based on calculations of emission reduction opportunities between the time they wrote the rule (most recent reliable data – 2012) and a flexible target date in the future. They also calculated what the emission reductions would be between 2005 and 2030. Neither of these exercises has any impact on whether or not utilities receive “credit” for early reductions.

The concept of credit for early reductions only makes sense in the context of compliance requirements. EPA has not proposed ANY compliance requirement limitations, so their proposal is silent on the issue of credit for early reductions and would therefore presumably allow states to attribute credit for early actions in their implementation plans. To the extent that the baseline is set to reward early action for the purpose of compliance, the threshold question is whether you want that baseline set by EPA (which would mean EPA dictates some of the compliance/implementation plan) or, as EPA is proposing in its draft rule, to leave it to the states to determine the best way to reward early action in the compliance requirements (implementation plan).

If EPA were to set the baseline for compliance and dictate how much credit is given for early action, states would be losing control and flexibility relative to EPA's proposed rule. We think that states should have maximum flexibility and we would support a state implementation plan that which rewards utilities for early action and incentives more early action.

Clean Wisconsin feels that EPA should consider how to encourage early actions during the 2012 – 2020 period to reduce cumulative emissions and improve emissions performance. EPA should also clarify that retirements occurring after the base year and before 2020 count toward compliance, regardless of the reason why the specific EGU is being retired. The focus should appropriately be on the fact that the specific EGU will no longer be emitting pollution.

Many stakeholders have highlighted a desire to receive credit for actions that reduced carbon dioxide emissions prior to 2012. Clean Wisconsin feels that this is an issue that should be left to the states to settle, but at least require that any credit given for actions prior to 2012 do not result in an emission goal that is less stringent than what EPA requires.

## **II. BEST SYSTEM OF EMISSIONS REDUCTION**

Section 111 of the CAA requires that the EPA set a “standard of performance” for emissions of air pollutants like carbon dioxide through the application of the “best system of emissions reduction...adequately demonstrated.”<sup>1</sup> Traditionally, CAA regulations consider the best system of emissions reduction (“BSER”) to be limited to systems that directly emit the air pollutant that is being regulated. The CPP expands the scope of traditional CAA regulations scope to other, non-source units and practices that nevertheless have a quantifiable impact on the carbon pollution emanating from existing fossil fuel-fired electrical generating units (“EGUs”). The CPP achieves this through the designation of “Building Blocks” as the BSER.

The BSER Building Blocks proposed by the EPA include:

- (1) Improving the efficiency of existing coal-fired EGUs
- (2) Increasing the use of existing natural gas combined cycle (“NGCC”) EGUs
- (3) Increasing generation from renewable and nuclear resources
- (4) Increasing demand-side energy efficiency resources

The Building Blocks are measures that combine direct actions on the specific, carbon pollution-emitting EGUs (Building Block 1) with indirect actions that have an impact on those specific, carbon-emitting EGUs (Building Blocks 2, 3, and 4) that result in a reduction of carbon pollution. The Building Blocks approach is the ‘best’ system of emission

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<sup>1</sup> 42 U.S.C. §7411(a)(1)

reduction because they achieve significant reductions of the pollutant, incentivize the deployment and further development of technology and practices that reduce the pollutant, are largely consistent with practices that have led to the general, historical trend of ‘decarbonization’ of the energy sector, and, lastly, achieve significant reductions at appropriate costs consistent with existing electric sector practices, standards, and technologies. This determination is in line with both the judicial authority granted to the EPA to regulate carbon pollution under the CAA as well as other administrative rulemaking proceedings where the EPA has determined BSER. Therefore, Clean Wisconsin believes that EPA’s determination of BSER in the CPP is entitled to Chevron Deference.

Allowing for “outside the fence” measures to comprise the “best system of emission reduction” is appropriate and necessary given the interdependent and integrated nature of our electric system. All of these measures result in the reduction of carbon dioxide emissions, as generation is either shifted away from coal-fired EGUs to natural gas-fired EGUs, generated from carbon-free nuclear energy, renewable energy, and avoids generation as a result of demand-side energy efficiency resources.

Further, this system of emissions reduction allows for the maximum amount of compliance flexibility options for states, as the electric system already utilizes all of these measures in order to meet system demand. The real-time operation of the electric system already incorporates these “outside the fence” measures and has extensive history in managing them while also maintaining the reliability of the electric system.

Many of the stakeholders that we have met with are concerned about the reliability of the electric system if the Building Blocks are utilized for compliance. Electric reliability is always a concern for all stakeholders. There is no reason to think that the reduction schedule that EPA has proposed will pose a threat to system reliability. Integration of renewable resources, increased dispatch of natural gas, and managing demand-side energy efficiency resources are long-standing functions of grid operators in Wisconsin, throughout the Midwest, and around the country. Clean Wisconsin argues that the long compliance horizon in the CPP provides all stakeholders with sufficient time to take thoughtful, informed, and deliberate actions to manage any reliability concerns. We submit that the currently envisioned ten year compliance period between 2020 and 2029 provides states with a sufficient amount of time to anticipate any adverse impacts that the CPP may have on electric reliability and subsequently address them in coordination with regional grid operators and other states.

Toward that end, there are meaningful steps that states can take in preparation for any electric reliability concerns. One example of a policy addressing electric reliability has already been used by the ISO/RTO Council. The ISO/RTO Council suggests that, similar to

an enforcement policy related to the MATS rule, states work with their respective ISO/RTO organization to create a “Reliability Safety Valve’ that provides for reliability assessments and solutions, as well as the requisite compliance and/or enforcement flexibility to implement the reliability solutions” and “allows for implementation of [the Reliability Safety Valve] by incorporating a reliability review conducted by the relevant system operator, working with the states and relevant reliability regulators, prior to finalization and approval of the SIP.”<sup>2</sup> EPA can and should provide guidance on assessing any electric reliability issues and subsequently address them through a mechanism such as the Reliability Safety Valve. At this time, Clean Wisconsin argues that there is no reason to believe that the CPP will unduly impact electric reliability.

### **III. BUILDING BLOCK 1: IMPROVING THE EFFICIENCY OF COAL-FIRED EGUS**

For the sake of calculating the state goals, the application of a uniform increase in the improvement of the heat rate of affected EGUs is appropriate. It is in no way construed by the EPA to be a legally binding compliance measure. While some EGUs in Wisconsin may not be able to achieve a 4% improvement in the heat rate or a 2% improvement through equipment upgrades, compliance options for Wisconsin are not limited to a general heat rate improvement. An overall six percent increase in the heat rate of coal-fired EGUs is actually a conservative estimate. Analysis of carbon dioxide emissions at coal-fired EGUs shows that even greater reductions can be achieved if coal-fired EGUs simply matched the lowest emission rate achieved by the specific coal-fired EGU over the last decade.

Clean Wisconsin also feels that EPA should allow states to demonstrate pre-base-year heat rate improvements secured through specific plant upgrades, technologies, or new plant construction, and provide data on other plant changes that have affected net heat rates, so that EPA can use this information in determining improvement potential for that state. Some coal-fired EGUs may not be able to achieve the estimated six percent increase in heat rate given their past, pre-base-year heat rate improvements. If states can demonstrate this on an EGU-by-EGU basis, those EGUs should not have to be required to marginally improve their heat rates by six percent, as they would likely be very costly for that specific EGU.

EPA has invited comment on whether they should consider re-dispatch to new NGCC resources (as opposed to existing, under-utilized NGCC resources), or converting coal to

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<sup>2</sup> ISO/RTO Council Report, “EPA CO2 Rule – ISO/RTO Council Reliability Safety Valve and Regional Compliance Measurement and Proposals”. January 28, 2014. Accessed at: [http://www.isorto.org/Documents/Report/20140128\\_IRCProposal-ReliabilitySafetyValve-RegionalComplianceMeasurement\\_EPA-CO2Rule.pdf](http://www.isorto.org/Documents/Report/20140128_IRCProposal-ReliabilitySafetyValve-RegionalComplianceMeasurement_EPA-CO2Rule.pdf)

natural gas at existing coal-fired EGUs. Clean Wisconsin feels that the existing proposal allows states to easily pursue these compliance measures as options, and EPA should emphasize compliance flexibility in the final rule.

Clean Wisconsin's own analysis has shown that an 'efficiency-based re-dispatch', that is, the re-dispatch of generation from less-efficient to more efficient coal-fired EGUs, could alone account for a 5% improvement in Wisconsin overall emissions per unit output for coal-fired EGUs in Wisconsin. There is no reason to believe that this strategy is unique to Wisconsin and could easily be replicated by other states.

Re-dispatching from less efficient EGUs (presumably older) to more efficient EGUs (presumably newer) would also result in less emissions of other pollutants, as the newer units are likely to have greater and more effective pollution controls. Any reduction in the use of coal-fired EGUs or improvement in the efficiency of coal-fired EGUs have significant and quantifiable impacts on environmental and public health.

#### **IV. BUILDING BLOCK 2: INCREASING THE USE OF EXISTING NGCC INFRASTRUCTURE**

According to a report by the Massachusetts Institute of Technology, natural gas combined cycle power generators are able to operate at capacities as high as 85%.<sup>3</sup> While there are a variety of factors that determine dispatch, there is no technical limitation for NGCC to ramp up their capacity to factor to at least 70%, as assumed by the EPA. An analysis conducted by Synapse Energy Economics, Inc. concluded that in the eGRID subregions that Wisconsin is in, there is a combined potential to increase generation from NGCC to 54 TWh assuming an 80% capacity factor.<sup>4</sup> Nationwide potential is far greater. This report also concludes that there is "ample, existing, unused potential that would require no additional plant construction costs to displace the generation from existing coal capacity."<sup>5</sup>

Clean Wisconsin's own analysis of NGCC EGUs in Wisconsin provides evidence both that those units could operate at higher capacity factors, and that there is significant room for increases in operation. In particular, we found that half of the fleet was operating at

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<sup>3</sup> Rachakonda, Anil, "Potentially available natural gas combined cycle capacity: opportunities for substantial CO<sub>2</sub> emissions reductions." 2010. Accessed at: <http://dspace.mit.edu/handle/1721.1/62774>.

<sup>4</sup> Synapse Energy Economics, "Displacing Coal: An Analysis of Natural Gas Potential in the 2012 Electric System Dispatch," at 6. August 2013. Accessed at: <http://www.synapse-energy.com/Downloads/SynapseReport.2013-09.EF.Displacing-Coal.13-020.pdf>

<sup>5</sup> *Id.*, at 1.

capacity factors between 45% and 55% in 2012, with an overall system average of just under 40%. These capacity factors are significantly higher than those of so-called “peaking plants,” which have an average capacity factor of less than 10% in the Midwest Reliability Organization’s territory, according to the EIA,<sup>6</sup> suggesting that they could easily ramp up in the short-term, even before 2020, without a significant impact on their existing operation. Again, there is no technical reason why all other NGCC EGUs in Wisconsin and around the country could not ramp up dispatch to 70%.

Clean Wisconsin is concerned that this building block will act as an incentive to increase the production of natural gas through technique known as ‘hydraulic fracturing.’ There is ample reason to believe that this technique has significant and widespread impacts on groundwater contamination and methane leakage, both of which have significant impacts on the public health and welfare of the United States. Ironically, increasing reliance on natural gas may lead to even larger climate change impacts, since methane is also a greenhouse gas that the EPA has recognized as having a far greater global warming potential than carbon dioxide, up to 20 times greater over a 100-year period.<sup>7</sup> In the absence of greater regulation of natural gas production techniques that lead to substantial increases in methane leakage, Clean Wisconsin feels that the EPA should also address this growing and alarming problem—either within the CPP itself or in a separate regulatory action.

## **V. BUILDING BLOCK 3: INCREASING GENERATION FROM RENEWABLE AND NUCLEAR RESOURCES**

The method employed by the EPA to calculate the renewable energy goal for each state is based on a regional average of existing state renewable energy portfolio standards (RPS). RPS are a widely used and understood policy mechanism used by states to meaningfully develop renewable energy resources in their respective states. Clean Wisconsin feels that a technical potential analysis would be more appropriate in setting the renewable energy goal for each state, as it does a better job at accounting for the specific circumstances for each state and better illustrates the enormous potential that Wisconsin and states have to develop their own renewable energy resources.

There is significant technical potential in Wisconsin to greatly expand our use of renewable energy. In July 2012, NREL published a report that performed a technology-by-technology

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<sup>6</sup> Accessed online at: <http://www.eia.gov/todayinenergy/detail.cfm?id=13191>

<sup>7</sup> Accessed online at: <http://epa.gov/climatechange/ghgemissions/gases/ch4.html>

analysis on the renewable energy potential in the U.S. Broadly, the results of the report represents the “achievable energy generation of a particular technology given system performance, topographic limitations, environmental, and land-use constraints.” This report analyzed the technical potential of several renewable energy technologies in every state in the U.S. The report found that Wisconsin has enormous technical potential for renewable energy: the potential for approximately 3,523 GW of installed capacity and upwards of 6,347 TWh of generation capacity. Contrast this with our current installed RE capacity of 1.684 GW and only 4.75 TWh of generation. It is therefore entirely possible, on a purely technical basis, for Wisconsin to expand renewable generation to 11% of total generation by relying only on in-state resources.

Clean Wisconsin, as a baseline, endorses the Union of Concerned Scientists’ “Demonstrated Growth Approach” to the renewable energy aspect of Building Block 3. This entails: (1) setting a national renewable energy growth rate benchmark based on demonstrated growth in the states from 2009 to 2013; (2) full compliance with existing RPS standards; and (3) accounting for actual and expected renewable energy growth between 2013 and 2017.<sup>8</sup> This approach is stronger than the EPA’s proposal, but is still easily achievable by the states. Clean Wisconsin would at least like to see this approach adopted by EPA in setting Building Block 3.

Clean Wisconsin argues, however, that renewable energy growth greater than the Union of Concerned Scientists “Demonstrated Growth Approach” can be achieved. By calculating the average incremental growth in renewable energy generation between 2009 and 2013. From 2009 to 2013, Wisconsin achieved a growth in renewable energy generation of 10.85%.<sup>9</sup> By maintaining this growth rate, starting in 2020, we can achieve renewable energy generation levels of 9,873,881 MWh by 2029. This is 3,014,580 MWh more renewable energy generation calculated by EPA in setting Wisconsin’s Adjusted Emission Rate (“AER”) Final Goal.<sup>10</sup> As this average growth rate is based on historical, demonstrated practice, Clean Wisconsin argues that this growth rate can be continued into the future.

Some states are better positioned technically, economically, and politically to develop their renewable energy resources than others. Clean Wisconsin argues that EPA should emphasize that it is not necessary that states derive all of their renewable energy generation from in-state sources. The CPP makes it explicitly clear that out-of-state renewable generation can be counted as a state’s compliance measure, and Clean Wisconsin argues that the EPA should retain this in the final rule. There is already a

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<sup>8</sup> Union of Concerned Scientists, “Strengthening the EPA’s Clean Power Plan.” October 2014.

<sup>9</sup> Derived from EIA Form 861 data.

<sup>10</sup> See TSD ‘Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants’, Table 3-3 at 3-16 and 3-17

sufficient system to track renewable energy credits (RECs) and it wouldn't likely need any major modifications in order to be used to account for and verify out-of-state purchases of renewable energy.

Additionally, Clean Wisconsin argues that EPA is undervaluing the potential of renewable energy as a compliance measure. EPA's technical-economic analysis of renewable energy potential does not use the most recently available data, which suggests that the costs of renewable energy are decreasing and are less than the estimates used in EPA's analysis. By using the most recent cost and economic data, the value of renewable energy as a compliance measure will increase and greater emissions reductions can be achieved.

## **VI. BUILDING BLOCK 4: INCREASING DEMAND-SIDE ENERGY EFFICIENCY RESOURCES**

Energy efficiency is the most cost-effective compliance measure available to states. According to the American Council for an Energy-Efficient Economy, on a levelized cost of energy (LCOE) basis, energy efficiency is the least cost resource—with an average cost of 2.8 cents per kWh.<sup>11</sup> Even more compelling, energy efficiency had a cost of only 1.5 cents per kWh in Wisconsin in 2012.<sup>12</sup> Not only is energy efficiency a “no regrets” policy for Wisconsin's overall energy policy based on its cost alone, it has enormous potential to be an effective compliance measure in Wisconsin.

Focus on Energy has a proven track record of success. It provides almost \$3 in primary economic benefits for every \$1 spent on its energy efficiency programs. Furthermore, when secondary economic benefits such as jobs and spending are considered, Focus on Energy provides over \$7 in benefits for every \$1 in cost.<sup>13</sup>

The Focus on Energy program should remain the centerpiece of Wisconsin's energy efficiency strategy, and serve as the compliance vehicle for Building Block 4 of the CPP. In 2009, the Energy Center of Wisconsin (“ECW”) determined that by 2012, Wisconsin could obtain annual energy savings equivalent to 1.6% of total electricity sales.<sup>14</sup> Contrasted with EPA's assumption that Wisconsin will achieve energy savings equal to 1.5% of total electricity sales by 2020, we have an enormous opportunity to make energy efficiency a

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<sup>11</sup> Maggie Molina, ACEEE, “The Best Value for America's Energy Dollar: A National Review of the Cost of Utility Energy Efficiency Programs,” at iii. March 2014. Accessed at: <http://www.aceee.org/research-report/u1402>

<sup>12</sup> *Id.*, at 19. See Table 3.

<sup>13</sup> [The Cadmus Group, Inc. "Focus on Energy Calendar Year 2012 Economic Impacts Report." Public Service Commission of Wisconsin \(November, 2013\).](#)

<sup>14</sup> Energy Center of Wisconsin, “Energy Efficiency and Customer-Sited Renewable Resource Potential in Wisconsin,” at EE-2. Accessed at: <http://psc.wi.gov/reports/documents/wipotentialfinal.pdf>

central compliance strategy in Wisconsin. In this same report, ECW found that Wisconsin could achieve cumulative energy efficiency savings of 13.0% of total electricity sales by 2018.<sup>15</sup> This stands in stark contrast to EPA's assumption that Wisconsin can achieve cumulative energy efficiency savings of 12.17% by 2030. By expanding the Focus on Energy program that provides funding for qualifying energy efficiency projects around our state, Wisconsin can relatively easily achieve the goal EPA set for our state under the CPP.

However, the FOE program is just one delivery system for energy efficiency achievement and we should take advantage of others. Some EE programs, such as certain behavior programs, lend themselves better to being run by the utilities themselves and we will work with the PSC and utilities to determine the most appropriate role for utility-run programs in Wisconsin. In addition, there are a number of opportunities for the state to increase electric efficiency that are currently being missed. A great example is the state building codes which have not been updated in many years. Wisconsin's current codes are similar to the 2009 vintage of the International Energy Conservation Code. Most states have adopted the 2012 version of that code and the 2015 version is, or will soon be, available. Wisconsin, once a building code leader, has fallen way behind. While types of efficiency improvements are allowed and can assist in meeting the overall emissions reduction goals as laid out in the CPP, it will be up to Wisconsin to determine the precise method of providing credit to utilities in the state compliance plan. We would like to be part of a discussion about how Wisconsin utilities can receive credit for efficiency gains through building codes and other efficiency measures by helping with stronger code adoption and compliance. This has been done in several other states.

Other energy efficiency improvements that EPA has not considered include demand management, voltage optimization, combined heat and power ("CHP"), and the emerging potential of energy efficiency technologies such as smart meters. This potential, and existing state practices, suggests that the 1.5% annual incremental savings goal is conservative. Clean Wisconsin endorses a 2% annual incremental savings goal, and urges EPA to adopt this higher goal.

Lastly, the rule needs to account for and encourage private sector ESCO efficiency projects such as performance contracting conducted by Johnson Controls and others. This is only one example of countless ways the CPP can be viewed as an opportunity for states rather than a burden. EPA should give significantly more guidance in their final rule on EM&V procedures and how to track and credit these commercial and industrial projects financed in the private sector. Unlocking more pathways for energy efficiency to play a role in Wisconsin's compliance strategy can lead to significant economic benefits.

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<sup>15</sup> *Id.*

## **VII. OTHER ISSUES**

### ***A. ALTERNATIVE APPROACH***

There are many aspects of the CPP that are conservative projections of what states can achieve. Clean Wisconsin believes that our state is well positioned to far exceed the requirements that the EPA is proposing, and so an even less stringent approach will only limit our potential for greater carbon pollution reductions and public health benefits. Further, a shorter compliance window as outlined in the alternative approach provides less time for states in implementing their plans and may prove to be a burden for overall compliance.

### ***B. COMPLIANCE FLEXIBILITY***

The flexibility in the rule is extremely robust. That's a good thing. EPA is basically giving the states 100% latitude in deciding how to reduce its emissions. The only sidebar on how reductions can be made is requiring that they be made within the source category – the electric sector. This is a critical distinction for many reasons including legal reasons. Given that EPA is required to set a BSER for each major source of stationary emissions it is important that they not require or allow one source to count reductions in another source that is yet to be regulated. There may be limited exceptions to this general rule and you have noted one in your question which is CHP. The proposed rule is somewhat vague on the treatment of CHP and we would argue that the emission reductions achieved by reducing fossil heating that is replaced with the waste heat from a CHP unit is integral to the EGU. In the case of CHP units owned by utilities this rule seems to clearly be the best opportunity to capture those emission reductions but even in the case of an industrial self-generator, we view this rule as an opportunity that such potential projects do not fall between the regulatory cracks.

EPA is also affording states tremendous flexibility in giving states a timeline with two compliance dates, one of 2030 which is 15 years from now and 12 years after EPA is likely to approve state plans, and an interim goal which an average over 10 years (from 2020 to 2030). States need to show progress towards the average reduction (they can't wait until the last minutes) but this is still very flexible. This gives states ample time to enact any necessary legislation and undergo the long-term planning necessary to ultimately implement compliance plans in an informed, deliberative, and comprehensive way.

### ***C. RESPONSIBLE PARTIES***

Clean Wisconsin argues that EPA should give more guidance in the final rule on the treatment of entities such as ESCOs that will be delivering EE achievement through performance contracting directly with large commercial and industrial customers.

### ***D. MASS-BASED STANDARD***

Clean Wisconsin strongly supports EPA's guidance on how to convert emission-based standards to mass-based standards, as this provides stakeholders with a clear and more environmentally certain goal. EPA should provide clear guidance to states with how a mass-based standard affects compliance options, particularly with respect to any interstate impacts on emission reductions, if any.

### ***E. INTERSTATE EFFECTS OF ENERGY EFFICIENCY***

Clean Wisconsin argues that the credit for emissions savings that result from energy efficiency measures should be assigned to the states in which those measures are implemented. We recognize that there are potential complications associated with cross-border effects due to the interconnectedness of the electricity system, however we don't think that net importers of electricity like Wisconsin should be effectively penalized at the point of energy efficiency for a lack of immediate control over electricity sources. These types of interactions are instead related to dispatch and more appropriately and effectively handled in that context.

### ***F. MULTI-STATE COMPLIANCE AND EMISSION TRADING PROGRAMS***

Emissions averaging and trading are important tools to ensure a more efficient implementation of the emissions reductions required under the Clean Power Plan. However, the manner in which averaging and trading are conducted is both a challenging and important issue for implementation, and can have a significant impact on their ultimate effectiveness. As a result, the EPA should provide both guidance for states or regions wishing to implement their own programs, and a default national trading program for states wishing to opt-in to such a program. In order to maintain flexibility, the guidance and national program provided should allow for the participation of states that are using either a rate-based or mass-based compliance plans.

In accordance with best emissions tracking and accounting practices to ensure appropriate crediting and to avoid double counting, clarify that states can cooperate without blending state goals into a multi-state goal. Indeed, multi-state cooperation is most likely to arise among states that have individual state plans that recognize reductions or credits from other states. This approach should qualify as a multi-state approach eligible for an additional year extension.

Provide the necessary assistance and infrastructure for states to accomplish multistate approaches. For example, EPA should provide or approve the use of credit tracking systems for states that wish to implement trading programs and accept reductions or credits from other states as valid compliance currency. EPA already has such systems in place for other pollutants.

For rate-based trading between states, EPA would need to assist states on Evaluation, Measurement and Verification (“EM&V”), tracking and minimum requirements for crediting to enable a tradable credit system, and clarify how states could take advantage of emissions reductions driven by shifts in utilization that occur across state lines. EPA could use existing REC tracking systems.

### ***G. TREATMENT OF BIOMASS***

Due to Wisconsin’s recognized history and knowledge of using biomass for energy, the state could play a significant role in helping EPA determine how to treat biomass in the rules. When properly conducted, there is no doubt that replacing fossil fuels with biomass for electricity generation can have environmental benefits. In formulating comments to the EPA however, it is important to note that the basis of the rules is the endangerment finding for carbon vis-à-vis public health and welfare.

In this context, EPA should not assume that all biomass generation is carbon neutral. While the carbon emissions from biomass are part of what is called “biogenic carbon cycle” as opposed to the “geologic carbon cycle,” they still result in net increases in the levels of greenhouse gases in the atmosphere – particularly in short- to medium- time horizons. Indeed, the carbon emissions from some biomass plants are greater than those from coal plants. EPA should differentiate between different biomass feedstocks a way that matches the reality and life-cycle nature of biomass carbon emissions. This would give more carbon reduction credit to those that use waste streams, and would likely result in some biomass energy applications being net positive, some net neutral, and some net negative with regard to carbon emissions. One example of particular interest in Wisconsin is that of anaerobic digesters, which should get credit both for fossil-fuel displacement and for

methane destruction. Those methane reductions would not likely be addressed in a separate rule on methane sources.

#### ***H. FEDERAL PLAN***

Clean Wisconsin agrees that EPA should provide more clarity to states regarding what a federal plan will entail if a state fails to produce a state plan that complies with the final rule, or fails to produce any state plan. Clean Wisconsin anticipates significant political opposition from states, and in the event that this opposition leads to a failure of those states producing an acceptable state plan, a federal plan will be needed to ensure that the public health and welfare will be adequately protected. EPA should issue guidance on what a federal plan may look like, including the legal basis for imposing legal obligations on third-parties in the absence of a state plan.

#### ***I. EPA GUIDANCE AND SUPPORT***

EPA can and should provide guidance and support to states in developing their state plans, so as to minimize delays and maximize efficacy of compliance. Clean Wisconsin argues that EPA can serve an important role in facilitating multi-state compliance by providing detailed examples of elements of compliance pathways, such as trading programs, EM&V protocols and program, REC trading, corrective measures, and other items.

#### ***J. TECHNICAL CORRECTIONS***

Clean Wisconsin argues that EPA should include a mechanism for making technical corrections based on a review of the data and assumptions used in calculating state AER goals. EPA should be cognizant that errors may occur, and likely have occurred, in the formulation of the CPP. Toward that end, Clean Wisconsin is supportive of a formal process that allows states and other stakeholders to identify errors that requires EPA to respond substantively, especially if any error(s) has an impact on compliance costs.

Thank you for the opportunity to comment.