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January 21, 2016

Honorable Gina McCarthy  
Administrator  
U.S. Environmental Protection Agency  
Attention Docket ID No. EPA-HQ-OAR-2015-0199  
Via <http://www.regulations.gov>

**Re: Comments on the Proposed Federal Plan and Model Trading Rules for the Clean Power Plan (Docket ID No. EPA-HQ-OAR-2015-0199)**

Dear Administrator McCarthy:

The Alliance to Save Energy (Alliance) appreciates the opportunity to comment on the proposed Federal Plan and Model Trading Rules, which the U.S. Environmental Protection Agency (EPA) has designed to aid in the implementation of the Clean Power Plan (CPP).

The Alliance is a nonprofit coalition of bipartisan lawmakers, businesses, and environmental and consumer thought leaders, supporting energy efficiency (EE) as a cost-effective energy resource to achieve a healthier economy, a cleaner environment, and greater energy security. The Alliance works with energy utilities, commercial and industrial organizations, public agencies, consumer and environmental organizations and others to promote EE as a least-cost energy resource and a means to mitigate the environmental impacts of energy use.

The Alliance welcomes the proposed plan and rules as they will help to advance EE deployment, and we hope that the comments that follow will aid EPA in the development of even more robust procedures for incorporating EE into the CPP efforts of all affected jurisdictions.

**I. Federal Plan**

The Alliance believes that **EE should be encouraged equivalently under all CPP approaches.** Whether a state develops its own plan using a rate-based structure or a mass-based structure, or whether a state is assigned a federal plan, maximum recognition and crediting of cost-effective EE can help ensure that emission reductions are achieved quickly and with significant net economic benefits. No other energy resource can compete with EE at the low

end of its cost curve. Even at the high end of its cost curve, EE competes favorably with traditional and renewable resources, challenged only by the cheapest land-based wind.<sup>1</sup>

### ***I.A. Rate-Based Federal Plan***

#### EE in the Federal Plan

The proposed rate-based ***Federal Plan excludes EE from eligibility to create Emission Rate Credits (ERCs)*** even though the rate-based ***Model Trading Rule contains a clear path for awarding ERCs to EE***, provided their impacts have satisfied evaluation, measurement and verification (EM&V) requirements. The disadvantage EE currently has under the Federal Plan is in sharp contrast to the treatment of renewables, whose metered output will be eligible to generate ERCs under the proposed Federal Plan and the Model Trading Rule.<sup>2</sup> Unless this adverse treatment is removed from the Federal Plan, states that rely on EPA for CPP implementation will be relatively deprived of the benefits of EE, be they from combined heat and power (CHP) installations that can deliver efficiency and resiliency to hospitals and factories; transmission and distribution (T&D) upgrades that can improve efficiency of delivered energy and enhance grid reliability; or demand-side EE projects and programs of proven cost-effectiveness, such as state building codes and appliance standards.

The Alliance observes that since all states that come under the Federal Plan will be required to participate in the Clean Energy Incentive Program (CEIP),<sup>3</sup> the affected states already will have access to EM&V procedures designed to assess the impacts of demand-side EE in low-income communities. Therefore, it ***seems incongruous that EE -- which will be allowed in the CEIP of a Federal Plan -- should be excluded as an option during the normal compliance period.*** EPA has greatly eased the task of developing suitable EM&V methods by laying forth clear and comprehensive guidance in the CPP as well as through various other resources, above all the draft EM&V guidance.<sup>4</sup> It may be the case that some states choosing to develop their own CPP approaches will not develop EM&V methods adequate for awarding ERCs to some types of projects drawn from the full portfolio of EE measures, but by incorporating only some EE approaches, they can confidently expect to lower the cost of compliance.

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<sup>1</sup> Lazard, "Lazard's Levelized Cost of Energy Analysis, Version 8.0," (September 2014), 2.

<sup>2</sup> "Proposed Rule: Federal Plan Requirements for Greenhouse Gas Emissions From Electric Utility Generating Units Constructed on or Before January 8, 2014; Model Trading Rules; Amendments to Framework Regulations" 80 *Fed. Reg.* 64990-64991 (October 23, 2015).

<sup>3</sup> *Ibid.*, 64970.

<sup>4</sup> EPA, "Evaluation Measurement and Verification (EM&V) Guidance for Demand-Side Energy Efficiency (EE)," draft for public input (August 3, 2015), available at [http://www.epa.gov/sites/production/files/2015-08/documents/cpp\\_emv\\_guidance\\_for\\_demand-side\\_ee\\_-\\_080315.pdf](http://www.epa.gov/sites/production/files/2015-08/documents/cpp_emv_guidance_for_demand-side_ee_-_080315.pdf).

By definition, EM&V is a process that connects theory with practice, and unless that circuit is successfully completed, energy savings may not be recognized. Rather than disadvantaging EE by excluding it from the rate-based Federal Plan, ***EPA should incorporate EE as a potential source of ERCs subject to measurement and verification of actual performance.*** In this way, EPA can ensure the integrity of ERCs without resorting to a blanket exclusion of EE from the rate-based Federal Plan.

To be sure, rigorous EM&V of energy savings requires funding and resources, and we recognize that EPA may not be equipped to undertake this for states operating under a rate-based Federal Plan. But even if EPA cannot collect funds directly from states to pay for EM&V services under a Federal Plan, ***EPA could allow states to manage these EM&V processes on their own through a partial delegation of authority,*** as EPA proposes to allow in other contexts (e.g., allocation methods for allowances in the proposed mass-based Federal Plan).<sup>5</sup> Even if operating under a Federal Plan, states should be given the opportunity to bring direct and substantial benefits to consumers through low-cost energy efficiency programs. States could administer their own EM&V through their public service commissions, many of which already are engaged in some level of energy efficiency programs.

Beyond demand-side EE measures, more efficient use and delivery of energy reduces the amount of fuel required to provide energy services and, thus, the emissions and other negative environmental impacts associated with fuel use. EE measures taken throughout the electrical system, including in ***transmission and distribution (T&D) as well as at the point of end-use, can provide cost-effective emissions reduction and should be eligible for ERCs*** under the rate-based Federal Plan.

#### Combined Heat & Power (CHP) and Waste Heat Power (WHP)

EPA has also sought comment on whether non-affected CHP and WHP units should be able to generate ERCs under a rate-based Federal Plan,<sup>6</sup> which is not the case with the proposed rule. ***The Alliance supports the inclusion of these highly efficient, low-emitting resources as compliance tools, and endorses the comments of the Alliance for Industrial Efficiency, which were prepared with our collaboration.*** We also believe that the EPA's proposed approach for measuring emissions avoided by CHP projects should be revised, as the current design undercounts benefits. (This issue is addressed in the section below on the Model Trading Rules.)

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<sup>5</sup> 80 Fed. Reg. 65029

<sup>6</sup> *Ibid.*, 64994, 64996.

## ***I.B. Mass-Based Federal Plan***

### Allocating Allowances

The proposed mass-based Federal Plan foresees allowing states flexibility to allocate allowances according to state policy; however, the method put forth by EPA is likely to be the guiding model for all states, not just those operating under the Federal Plan. For this reason, the Alliance finds it especially important to comment on proposed and potential allocation methodologies.

The allocation method proposed by EPA awards a state's allowances on the basis of historical generation (not historical emissions) to CPP-affected EGUs represented in the baseline performance period (2010-2012). Historically determined allocations would be made for each compliance period, with the pool size reducing in line with increasingly stringent emissions targets. EPA also has detailed provisions for re-allocating allowances from retiring units to make them available to renewable projects, although it appears designed to allow fossil fuel-fired EGUs to receive allocations even years after they cease operations.

Adjusting this primary allocation to existing emitters, EPA also proposes to create three "set-asides" to be carved out of the pool of allowances. One of these set-asides addresses the need to reserve allowances for the CEIP. A second set-aside is designed to address "leakage" to new NGCC units not covered by the CPP<sup>7</sup> by setting aside additional allowances to incent increased generation by existing NGCC units. Under a system of updating output-based allocations, as written, it appears that marginal generation is only incented over the 50 percent capacity factor level, regardless of an individual EGU's historical generation, thus diminishing the incentive effect at the plant level. It is not clear whether EPA intends to incent only an individual EGU that reaches 50 percent or more capacity factor, or rather to incent any increase in capacity factor over the marginal existing NGCC generation. The Alliance suggests EPA give clarification on this point. A third set-aside foresees reserving up to 5 percent of a state's total pool of allowances for renewable energy projects.

The very term "set-aside" suggests that resources eligible for these reserved pools of allowances cannot compete with the resources for which no set-aside is envisioned. In reality, however, the historically based allocation method is a set-aside that entrenches existing generation, which seems to the Alliance to be contrary to the vision of the CPP, namely, a lower carbon electricity system that unlocks the cost-effective potential of innovative technologies and business practices. Rather than the set-aside methodology EPA has framed, the Alliance suggests ***that allowances be distributed by states -- from the outset***

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<sup>7</sup> Except for states that choose to adopt the New Source Complement approach and apply the CPP emission standards to new (111(b)) facilities under state law, an option not available under the Federal Plan.

**-- to all generation and EE resources, with allocation amounts determined by the resource's ability to reduce CO<sub>2</sub> emissions.**

As to how such allowances might be distributed within a state for a mass-based Federal Plan or Model Trading Rule plan, the Alliance endorses the comments of a group of efficiency advocates led by the South-Central Partnership for Energy Efficiency as a Resource (SPEER et al).<sup>8</sup> We agree that one of EPA's primary objectives in designing the allowance allocation system for the Federal Plan and Model Trading Rule should be to ensure equivalence between the rate- and mass-based emission limits. In doing so, **EPA should enable a transparent and direct allowance value for energy efficiency in both a mass- and rate-based system, which in turn will enable trading of allowances between states as generated by efficiency and renewable energy providers, as well as by EGUs.** As proposed, the Federal Plan and Model Trading Rule allow states to determine allowance allocation systems, but the default is a grandfathering approach for the vast majority of allowances, giving allowances for free to emitters based on historical generation. This can result in windfall profits for generators, particularly in regions with restructured markets, where regulators have no authority over generators.

**If EPA should continue in the vein of a specified amount of allowances for RE, the Alliance recommends that EE be similarly treated and receive at least 5 percent of the allowances of each state under the Federal Plan before any excess allowances are distributed to affected EGUs.** This percentage is equal to the set-aside for renewable energy, and reflects modeling conducted by the Alliance indicating these two resource categories have similar potential to reduce CO<sub>2</sub> emissions.<sup>9</sup> We also suggest that, going forward through the CPP compliance years, allowances made available by affected EGU retirements should be distributed to EE and renewables on a parity basis.

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<sup>8</sup> SPEER et al., "Final Model Trading Rule comments," (January 21, 2016).

<sup>9</sup> Modeling conducted using the *State and Utility Pollution Reduction (SUPR) Calculator* developed by the American Council for an Energy-Efficient Economy. See the Alliance's "Written Responses submitted to the Non-Regulatory Docket established for the "Clean Energy Incentive Program: Questions and related issues about which EPA is seeking input and ideas," 7, as submitted to EPA under Docket ID No. EPA-HQ-OAR-2015-0734 on December 15, 2015, and included below as Appendix A. EPA has estimated renewables potential in for the CEIP at 80 *Fed. Reg.* 64830.

## II. Model Trading Rules

### II.A. Rate-based Model Trading Rule

#### Building Codes

Building codes are a valuable tool for advancing energy efficiency.<sup>10</sup> The Alliance is concerned that the role for **building codes under the CPP could be limited by the draft EM&V guidance.**<sup>11</sup> Footnote 58 on page 41 of the draft guidance states that “adopting codes that the federal government has already determined to be cost-effective cannot be used for compliance with EPA’s emissions guidelines.” Under current law, the U.S. Department of Energy (DOE) is charged with reviewing model energy codes for energy savings and cost-effectiveness. This DOE determination of cost-effectiveness does not necessarily translate to adoption or enforcement by states or local governments, however. Rather, **the restriction in footnote 58 should only be applied to energy efficiency policies or measures that are explicitly mandated by federal law**, such as through new federal appliance or equipment minimum energy efficiency standards. This is not the case with building energy codes. Indeed, many states do not adopt the newest codes, and in others “home rule” laws -- which DOE acknowledges -- prohibit adoption of a mandatory code at the state level. **Permitting states to create ERCs in connection with building codes already deemed cost-effective by DOE would spur adoption and enforcement.** Similarly, allowing ERCs to be issued in connection with code advocacy and education efforts could greatly improve code compliance. The Alliance believes that cost-effective programs and projects should be the preferred tools for CPP compliance. Excluding measures such as building codes precisely because they have demonstrated cost-effectiveness seems contrary to economic good sense.

The Alliance endorses the comments of the Southwest Energy Efficiency Project (SWEET) specific to this issue, which call on EPA to **provide guidance on how states can receive CPP credit for savings achieved by moving beyond the code previously adopted by the state or its localities.** SWEET recommends that the “energy code a state or local jurisdiction had in place as of the date of publication of the CPP Final Rule in the Federal Register be used as the baseline. If a state or local jurisdiction had no energy code in place, then common practice as of this date would need to be documented... [while] for subsequent code revisions, the baseline for the new code would be the prior code.”<sup>12</sup>

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<sup>10</sup> Many resources are available from the Building Codes Assistance Project (BCAP), at <http://bcap-energy.org/>.

<sup>11</sup> EPA, “Evaluation Measurement and Verification (EM&V) Guidance for Demand-Side Energy Efficiency (EE)”

<sup>12</sup> SWEET, “Comments on the EPA’s Proposed Federal Plan and Model Trading Rules,” (January 21, 2016).

## CHP

The Alliance endorses the comments of the Alliance for Industrial Efficiency (AIE) that address the treatment of CHP in the proposed rate-based Model Trading Rule.<sup>13</sup> AIE has analyzed the accounting method developed by EPA to award ERCs to non-affected CHP units and agrees with EPA that CHP, a low-emission resource, should be credited for only its incremental benefit. However, AIE suggests that “the proposed approach significantly undervalues CHP’s emission benefits,”<sup>14</sup> because it measures the benefit of CHP (net of the energy saved through avoidance of a separate boiler) against the target emission rates of CPP-affected natural gas turbines rather than the actual emission rates of the resources displaced by CHP generation in real-world operations. Instead, AIE has proposed several alternatives. ***The Alliance particularly is persuaded by the strength of the option that measures CHP benefits against the average affected EGU emission rate for the eGRID subregion in which the CHP project is located.*** The Alliance finds this would more accurately credit the incremental emission benefits.

## ***II.B. Mass-based Model Trading Rule***

The Alliance especially welcomes the opportunity to comment on the need for improved mechanisms for distributing allowances within the mass-based Model Trading Rule.<sup>15</sup> Although the Model Trading Rule is not binding on states, by offering presumptive approval contingent upon adoption, it will provide much needed clarity for states. As such, ***it is critical that the rule illustrate examples for states on how to distribute allowances so as to promote deployment of low or zero carbon generation and energy efficiency resources that can achieve CPP compliance at the lowest cost.*** The currently proposed Model Trading Rule -- which relies on free distribution of allowances to affected EGUs on the basis of historical generation, minus several set-asides -- is inadequate in this regard. EE resources are particularly neglected in the rule’s treatment of allowance allocation, as they are incorporated only in the set-aside for the CEIP, a voluntary program whose allowance impacts will be restricted to the first compliance period (2022-24).

***There are at least five alternative approaches to allowance distribution*** (as described below and detailed by SPEER et al.) ***that the Alliance recommends be included in the Model Trading Rule as alternatives for states to consider; further, one of the options should be***

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<sup>13</sup> Alliance for Industrial Efficiency, “Comments on Model Trading Rules: Federal Plan Requirements for Greenhouse Gas Emissions From Electric Generating Units Constructed on or Before January 8, 2014,” (January 21, 2016).

<sup>14</sup> Ibid. 5.

<sup>15</sup> 80 Fed. Reg. 65018-65023.

***chosen for the Federal Plan.*** We recognize that states could still consider additional alternative approaches, but inclusion of the five approaches in the Model Trading Rule would increase the likelihood that states would consider these options. Further, inclusion of the approaches in the Model Trading Rule would make them presumptively approvable, again increasing the likelihood that states would consider and perhaps adopt more effective approaches to allowance allocation that could spur energy efficiency, and prevent generation leakage to new power plants.

#### Allowance Distribution Approaches

- Auction allowances to affected electric generating units (EGUs) and use some or all of the revenue to fund increased renewable energy and EE efforts.
- Allocate allowances to regulated distribution utilities so that state regulators have oversight and can, similarly to an auction, assure revenues from the sale of the allowances are used for energy efficiency.
- Allow EE/RE providers to earn allowances first, allocating the remaining allowances based on another rule, like output-based allocation.
- Create an updating output-based allocation system in which all MWh generated by any source, plus MWh reduced from certified EE projects, would receive a share of allowances.
- Allow for expansion of the default renewable energy set-aside, and the addition of EE as an eligible resource for set-asides.

#### Auctioning of Allowances

By auctioning some or all allowances, states can generate financial resources with which to incentivize energy efficiency and other zero-carbon resources that may otherwise face market barriers, in particular the barrier faced by EE in the power marketplace where increased financial returns are customarily achievable only on the basis of increased energy consumption. There is compelling evidence for the practicality and efficacy of this approach in the history of the Regional Greenhouse Gas Initiative (RGGI). RGGI, which operates a mass-based CO<sub>2</sub> emissions reduction program affecting existing and new resources, auctions allowances to entities that require them for compliance. These auction costs are incorporated into the operating costs of EGUs, adjusting the relative competitive position in the dispatch order by accounting for emissions intensity. The revenues from the auctions follow a different path, funding a variety of programs and incentive mechanisms that further reduce CO<sub>2</sub> emissions.<sup>16</sup> The Alliance believes that the ***mass-based Model Trading Rule would be strengthened by inclusion of a detailed guidance for the management by states or their designees of allowance auction regimes.***

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<sup>16</sup> Paul J. Hibbard et al., The Economic Impacts of the Regional Greenhouse Gas Initiative on Nine Northeast and Mid-Atlantic States: Review of RGGI's Second Three-Year Compliance Period (2012-2014)," (July 14, 2015), <http://j.mp/1IA5RdK>



### Direct Allocation to All Resources

As an alternative to auctioning, there are various approaches that EPA could illuminate, differing chiefly in how closely they link allocation quantities to cost-effectiveness at providing energy generation/savings and, as well, CO<sub>2</sub> reductions. Regardless of the precise method chosen, states will need to be able to reliably identify the quantity of CO<sub>2</sub> emissions displaced by specific savings measures, where they occur, and at what rate. In all likelihood, EE projects will displace generation both within a state and outside of a state. Unless a state is party to a multi-state mass-based CPP plan, it can only allocate allowances from its own allowance pool. If a state allocates allowances based on the assumption that all CO<sub>2</sub> is displaced *in state*, it will be rewarding projects for avoided emissions that are in most cases reducing the mass output in a different state.

Through its eGRID data resource, EPA provides [non-baseload output emissions rates for twenty-six subregions](#) of the country (twenty-two if excluding Alaska and Hawaii, states not covered by the CPP). These subregions have been demarcated to align with actual power dispatch patterns rather than individual state borders. For determining actual displaced CO<sub>2</sub> emissions, the eGRID non-baseload rates are superior to state-level total fossil rates, but, as an annual average, they are still a relatively rough tool. And, of course, they do not help allocate emissions to individual states.

EPA has also developed the [Avoided Emission and generation Tool \(AVERT\)](#), a software application that provides an hourly marginal emissions rate for every hour in the year for each of ten regions covering the continental United States. While AVERT works best when the load impacts of multiple projects are aggregated (and indeed requires certain minimum impacts to deliver statistically significant results), the tool has the potential to return results for displaced CO<sub>2</sub> on a county level, which would in turn allow states to allocate allowances for in-state impacts. The tool also has the potential to reveal how the timing of load impacts affects the rate of CO<sub>2</sub> displacement; thus, ***AVERT could be used to reward projects differentially, with allowances based on when they achieved savings.***

The difference between an average annual avoided emissions approach and an hourly marginal avoided emission approach is often significant. Marginal emission rates tend to be substantially higher than annual average emission rates due to the large quantity of nuclear energy producing baseload energy that will not be displaced by energy efficiency on the margin. In fact, both the peak and off-peak marginal emissions in the PJM region for 2014 were about 50 percent higher than the system average annual emissions.<sup>17</sup> Based on the PJM example, ***by failing to use marginal emissions data to determine impacts, the CO<sub>2</sub> reductions of EE would be substantially understated in the Model Trading Rule.***

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<sup>17</sup> PJM Marginal Carbon Emission Report, <https://www.pjm.com/~media/committees-groups/committees/mic/20150311/20150311-informational-marginal-carbon-emissions-report.ashx>

The Alliance also recognizes that for the private sector to invest in EE, additional incentives not directly included in the mass-based CPP approach are needed. Many state-based and utility-based EE programs already are evaluated for cost-effectiveness on the basis of variety of incentives, not all of which are linked to emission compliance. ***The Alliance believes states would benefit from guidance on these issues.***

#### Energy Efficiency Registry

Under any allowance distribution method, it will be necessary to ensure that savings from energy efficiency are properly evaluated and verified and rewarded only once.<sup>18</sup> ***A robust and transparent national or regional registry would serve these goals, facilitate trading of allowances within and between states, and reduce redundant administrative and verification costs.*** An example of such a proposed registry is the National Energy Efficiency Registry (NEER) project, funded by a Department of Energy 2015 State Energy Program Competitive Award.

### **III. Clean Energy Incentive Program (CEIP)**

EPA has requested comment on some aspects of the CEIP as they pertain to the Federal Plan and Model Trading Rule proposal.<sup>19</sup> The Alliance has addressed these items in comments submitted to Docket ID No. EPA-HQ-OAR-2015-0734 on December 15, 2015. These are included, without amendment, as Appendix A below.

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The Alliance sincerely appreciates this opportunity to comment on the proposed Federal Plan and Model Trading Rules, and applauds EPA for holding an open stakeholder engagement process. This process of stakeholder input and recognition has been unprecedented. Finally, we commend EPA for its recognition and encouragement of EE as an important and

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<sup>18</sup> For more information, see National Association of State Energy Officials (July 2015). *Energy Efficiency Strategies for Clean Power Plan Compliance: Approaches and Selected Case Studies*. Pgs. 19-22. [http://111d.naseo.org/Data/Sites/5/naseo-ee-for-cpp-2015-working-draft\\_7-30-15.pdf](http://111d.naseo.org/Data/Sites/5/naseo-ee-for-cpp-2015-working-draft_7-30-15.pdf)

<sup>19</sup> 80 *Fed. Reg.* 65001, 65026.

extremely cost-effective emissions reduction strategy that can make significant contributions to economic prosperity and environmental justice. Should there be any questions about these comments, please contact the undersigned at 202.530.2205 or [ksbackman@ase.org](mailto:ksbackman@ase.org).

Sincerely,

A handwritten signature in blue ink, appearing to read "Kelly Speakes-Backman". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

**Kelly Speakes-Backman**  
Senior Vice President, Policy & Research  
Alliance to Save Energy

Appendix A



Using less. Doing more.

HONORARY CHAIR  
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December 15, 2015

Honorable Gina McCarthy  
Administrator  
U.S. Environmental Protection Agency  
Attention Docket ID No. EPA-HQ-OAR-2015-0734

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Attention Docket ID No. EPA-HQ-OAR-2015-0734

**Re: Written Responses submitted to the Non-Regulatory Docket established for the “Clean Energy Incentive Program: Questions and related issues about which EPA is seeking input and ideas.”**

Dear Administrator McCarthy:

The Alliance to Save Energy (Alliance) appreciates the opportunity to comment on the proposed Clean Energy Incentive Program (CEIP), a voluntary complement to the Clean Power Plan (CPP) described in the CPP Final Rule<sup>1</sup>, as well as in the proposed federal plan for implementing the CPP.<sup>2</sup> Further, we thank the U.S. Environmental Protection Agency (EPA) for continuing to engage in an open stakeholder process that includes, and extends well beyond, the establishment of the CEIP non-regulatory docket.

The Alliance is a nonprofit coalition of bipartisan lawmakers, businesses, and environmental and consumer thought leaders that supports energy efficiency (EE) as a cost-effective energy resource to achieve a healthier economy, a cleaner environment, and greater energy security. The Alliance works with energy utilities, commercial and industrial organizations, public agencies, consumer and environmental organizations and others to promote EE as a least-cost energy resource and a means to mitigate the environmental impacts of energy use and achieve other benefits.

**The Alliance asserts that EE should be encouraged *equivalently* under all CPP approaches.** Whether a state develops its own plan using a rate-based structure or a mass-based structure, or whether a state is assigned a federal plan, maximum recognition and crediting of cost-effective EE can help ensure that emission reductions are achieved quickly and with unsurpassed net economic benefits. More efficient use of energy reduces the

<sup>1</sup> 80 Fed. Reg. 64662-64964 (October 23, 2015), amending 40 C.F.R. §§ 60.5700-60.5880, effective December 22, 2015).

<sup>2</sup> 80 Fed. Reg. 64966-65116 (October 23, 2015).

amount of fuel required to provide energy services and, thus, the emissions and other negative environmental impacts associated with fuel use. EE measures taken throughout the electrical system—at electric generating units (EGUs) and in transmission and distribution (T&D) as well as at the point of end-use—can provide cost-effective emissions reduction and avoidance. On both the demand side and the supply side, EE can deliver value, and measures from across this spectrum should be eligible for incentives under the CEIP.

EE is the easiest, fastest, and least-cost way to reduce overall greenhouse gas emissions from power plants.

- **Easy:** As of 2013, all states covered by the CPP had efficiency programs in place.<sup>3</sup> Familiarity with EE can clear the path to CPP compliance.
- **Fast:** EE programs can be up and running within 12-14 months, long before the typical new power plant has run the course from approval to construction.<sup>4</sup>
- **Least-cost:** No other energy source can compete with EE. Even at the high end of its cost curve, EE is cheaper than every other energy source save for the cheapest land-based wind generation.<sup>5</sup> And in addition to lowering investment costs for energy providers, EE also creates cost mitigation opportunities for residential, commercial, and limited-income customers.

Early deployment of EE is essential for maximizing benefits during the actual CPP compliance period (2022-30). The proposed CEIP provides mechanisms to incent new EE projects deployed by rewarding them for performance during 2020 and 2021. The Alliance encourages EPA, as it finalizes the CEIP, to clarify structures and definitions so as to facilitate the maximum early deployment of cost-effective EE benefitting the broadest population.

In particular, the Alliance urges EPA to clarify how it envisions that EE could be encouraged financially in mass-based CPP approaches. Under rate-based approaches—where EE projects and programs are eligible for Emission Rate Credits (ERCs) that can help affected EGUs satisfy their emission reduction requirements by lowering their CO<sub>2</sub> emission rate—there is an unambiguous path for the monetization of EE benefits, with rewards going to those who invest in them. In contrast, in mass-based approaches, EE's benefits are factored into CPP compliance indirectly; they reduce demand for electricity generation at affected EGUs, which in turn reduces the number of CO<sub>2</sub> allowances these EGUs must surrender to meet their CPP obligations. Under this structure, although affected EGUs benefit from EE contributions, they need not be directly (i.e., contractually) involved with potential EE programs and projects. To properly incent EE—a resource that benefits affected sources as well as end-users—the Alliance recommends that EPA more fully and

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<sup>3</sup> American Council for an Energy-Efficient Economy (ACEEE), “The 2015 State Energy Efficiency Scorecard” (October 2015), 109; see <http://aceee.org/sites/default/files/publications/researchreports/u1509.pdf>.

<sup>4</sup> Southeast Energy Efficiency Alliance (SEEA), “Energy Efficiency Quick Start Programs: A Guide To Best Practices (April 2014).

<sup>5</sup> Lazard, “Lazard’s Levelized Cost of Energy Analysis, Version 8.0” (September 2014), 2.

clearly articulate the options available to states to provide a path to monetization similar to a rate-based structure, such as:

1. distribution of allowances directly to load serving entities (LSEs) or third-party EE providers based on emissions abated from EE projects and programs, which then can be monetized in subsequent transactions by selling them to affected EGUs; and/or
2. auction of allowances for emissions to affected EGUs with distribution of the proceeds through incentives to utility-run or third-party EE projects and programs. (The auction approach has been used to this end by states party to the Regional Greenhouse Gas Initiative (RGGI), generating nearly \$2 billion to support energy efficiency through measures such as rebates.<sup>6</sup>)

Either of these structures can be reinforced by complementary measures such as Energy Efficiency Resource Standards (EERS), already adopted by 24 states, which require reductions in end-use electricity consumption.<sup>7</sup>

In an economically efficient system for mass-based compliance, allowances are distributed according to the amount of CO<sub>2</sub> abated. For EE and renewable energy (RE) efforts that do not emit CO<sub>2</sub> (or for low-carbon generation technologies such as CHP), a reference rate reflecting the emissions intensity of avoided fossil-fired generation can be used; the historical marginal emissions profile available for each eGRID subregion, from RTO/ISO tracking systems such as [PJM GATS and ISO New England's Emissions Reports](#), or the [California Environmental Protection Agency Air Resources Board](#) are potential sources of such information.

In the remainder of this submission, the Alliance will focus on providing responses to the following questions specifically posed by EPA for comment within the non-regulatory docket of the CEIP:

1. What definition(s) of 'low-income community' should be required for eligible energy efficiency (EE) projects?
2. What criteria should be used to define eligible wind and solar projects, as well as eligible EE projects implemented in low-income communities? (e.g., by sector (residential, commercial, etc.) or by geography (where a project takes place and who benefits from it)?)
3. What should be the evaluation, measurement and & verification (EM&V) requirements for eligible projects; the requirements for M&V reports of quantified megawatt-hour (MWh); and the requirements for verification reports from an independent verifier?
4. How should the 300 million short ton matching pool be split between the two reserves: one for wind/solar, one for low-income EE?<sup>8</sup>

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<sup>6</sup> Paul Hibbard et al., "The Economic Impacts of the Regional Greenhouse Gas Initiative on Nine Northeast and Mid-Atlantic States: Review of RGGI's Second Three-Year Compliance Period (2012-2014)," (July 14, 2015), 2.

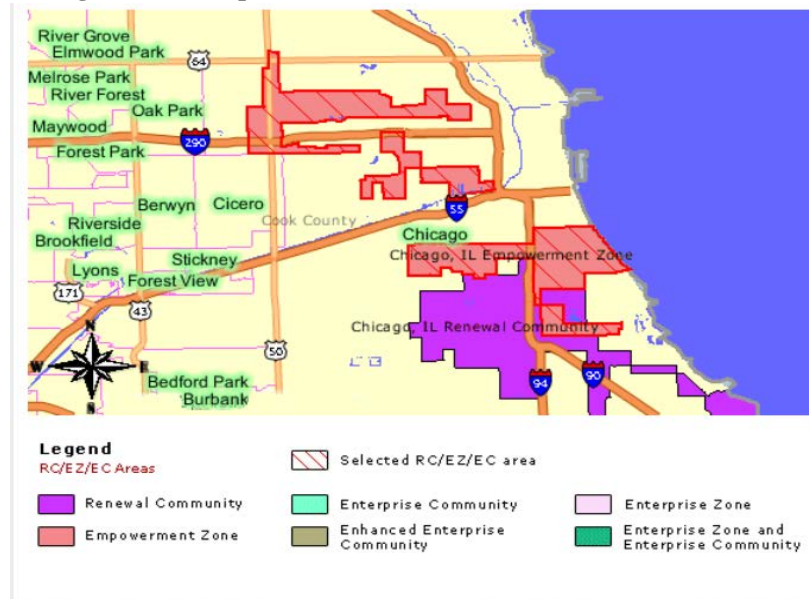
<sup>7</sup> ACEEE, "State Energy Efficiency Resources Standards," April 2015.

<sup>8</sup> U.S. Environmental Protection Agency, "Clean Energy Incentive Program: Questions and related issues about which EPA is seeking input and ideas," (November 2015), last accessed on December 2, 2016, at <http://www2.epa.gov/sites/production/files/2015-11/documents/ceip-stakeholdercalls-attachment-november2015.pdf>.

1. What definition(s) of ‘low-income community’ should be required for eligible energy-efficiency (EE) projects?

EPA has indicated that it will likely adopt a geographic definition of “low-income community” and that EE projects will be eligible for CEIP credit if they are located within the boundaries of such communities. The Alliance welcomes this approach since it recognizes that low-income communities—like other communities—incorporate businesses, institutions and households of various income levels. Restricting eligibility on the basis of income alone would limit EE investments in these communities, investments that can provide benefits well beyond the direct benefits that accrue to those who install EE measures (for example, in the form of local jobs, expansion of local services, and other economic improvements). In defining a low-income community, EPA may wish to consider the community income standards that already have been adopted by states to identify “Enterprise” and “Empowerment” zones. These zonal approaches facilitate public-private cooperation, using tax incentives and grants to create frameworks for economic opportunity over broad geographic areas.

#### Chicago Area Enterprise Communities, Renewal Communities, and Empowerment Zones



Source: U.S. Department of Housing and Urban Development<sup>9</sup>

For more information on Empowerment Zones and similar efforts in Illinois and other states, visit the website of the U.S. Department of Housing and Urban Development [here](http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/economicdevelopment/programs/rc/tour/il/chicagoEZ).<sup>10</sup>

Just as low-income communities may be home to residents who would not be classified as low-income, impoverished individuals for whom the CEIP energy efficiency credits are designed may not reside in a low-income community. Ensuring that low-income residents

<sup>9</sup>[http://portal.hud.gov/hudportal/HUD?src=/program\\_offices/comm\\_planning/economicdevelopment/programs/rc/tour/il/chicagoEZ](http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/economicdevelopment/programs/rc/tour/il/chicagoEZ).



receive substantial direct benefits from the CEIP even if they do not live in a designated low-income community may require EPA to supplement the geographic definition with additional eligibility requirements directly tied to household income. Numerous federal programs, notably the Weatherization Assistance Program (WAP) under the U.S. Department of Energy and the Low Income Home Energy Assistance Program (LIHEAP) under the U.S. Department of Health & Human Services, are implemented already by states in a manner reflecting how living costs and anti-poverty resources vary from state to state. These programs already have established eligibility procedures, and could be incorporated into the CEIP to augment—not vitiate—the geographic definition. Finally, allowing additional bonus crediting for projects and programs that satisfy both the geographic and income criteria for eligibility could help ensure targeted delivery of benefits to especially vulnerable populations.

2. What criteria should be used to define eligible wind and solar projects, as well as eligible EE projects implemented in low-income communities? (e.g., by sector (residential, commercial, etc.) or by geography (where a project takes place and who benefits from it)?

There are often multiple beneficiaries of EE projects that extend beyond the recipient of the project itself. In the case of transmission and distribution EE projects implemented by electric distribution companies, such as conservation voltage reduction, the measure may not be located within a low-income community, but may instead be situated on a feeder directly upstream and yet still benefit that downstream low-income community. More broadly, as energy efficiency penetration levels increase within a community, distribution line congestion may be alleviated, which could contribute to lower wholesale prices in organized ISO markets. This would translate into lower retail prices for the entire community.

Commercial projects implemented in a low-income community may provide significant value to individual low-income residents and households by improving a company's energy productivity, for reinvestment of those savings back into the community. Residential EE projects that lower energy costs may benefit community commercial activities by raising levels of disposable income available for non-energy expenditures.

Because the benefits of EE readily cross geographic, user profile, and recipient/non-recipient borders, the Alliance encourages EPA to adopt a flexible approach in determining what constitutes an eligible project. As proposed, the CEIP allows eligibility for “demand-side energy efficiency (EE) projects implemented in low-income communities.”<sup>11</sup> In the CPP, Demand-Side Management (DSM) and Transmission & Distribution (T&D) measures such as Volt/VAR optimization are discussed separately from demand-side EE.<sup>12</sup> For its part, demand-side EE is defined as “an installed piece of equipment or system, a modification of an existing piece of equipment or system, or a strategy intended to affect consumer electricity-use behavior, that results in a reduction in electricity use (in MWh) at an end-use facility, premises, or equipment connected to the electricity grid.”<sup>13</sup> By this definition,

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<sup>11</sup> 80 Fed. Reg. 64970 (October 23, 2015).

<sup>12</sup> 80 Fed. Reg. 64900-01 (October 23, 2015).

<sup>13</sup> 80 Fed. Reg. 64959 (October 23, 2015).

demand-side EE could be interpreted to include both DSM and Volt/VAR optimization measures.

Furthermore, in the discussion of CEIP in the proposed mass-based federal plan, EPA notes that “eligible RE projects...and eligible EE projects...must be **implemented in or benefit the state** that submitted the final state plan to the EPA, and may receive awards for the zero-emitting MWh they generate or the end-use energy savings they achieve during 2020 and/or 2021.”<sup>14</sup> If EPA is referring solely to RE projects that benefit the state that submitted the final state plan to EPA, it would be helpful to clarify such. If EPA is referring to EE projects eligible under the CEIP benefitting a state other than the one in which they are implemented (“implemented in or benefit”), EPA should clarify whether the benefits must inure directly to a low-income community in the beneficiary state.

3. What should be the evaluation, measurement and & verification (EM&V) requirements for eligible projects; the requirements for M&V reports of quantified megawatt-hour (MWh); and the requirements for verification reports from an independent verifier?

In states adopting mass-based approaches, CPP compliance is tracked directly and exclusively through the measurement of emissions from the affected EGUs. As a result, these states are not required to include EM&V criteria in their state plans, unless they opt to participate in the CEIP. For purposes of the CEIP, projects must “be evaluated, monitored, and verified, and that resulting ERCs or allowances be issued, per applicable requirements of the State plan approved by the EPA as meeting § 60.5805 through § 60.5835” (80 FR 64943). § 60.5830 indicates that a “set-aside allowance” will be required to “meet the EM&V criteria approved as part of your State plan.”<sup>15</sup>

The Alliance appreciates that need for rigorous EM&V in conjunction with EE policies, programs and measures. These controls provide the firm evidence of actual EE savings. Forty-nine states plus the District of Columbia already implement utility ratepayer-funded EE programs under public utility commission (PUC) jurisdiction,<sup>16</sup> and have existing EM&V protocols and procedures in place. For those states adopting a mass-based approach and which would therefore not be required to revise their EM&V protocol for the purposes of the CPP, the Alliance is concerned that the burden of replacing or amending established local procedures may dissuade states from early action in the CEIP. These procedures have been vetted and approved under regulatory oversight, and have been implemented over multiple-year processes. A two-year change to the procedure would upend the capability of regulators to compare the successes and opportunities for improvement from one year to the next. As these existing EM&V programs are paid through ratepayer funds, the added cost to revise procedures may outweigh the benefits of a limited opportunity.

By requiring mass-based states to alter their EM&V procedures and submit them for federal approval to participate in the voluntary CEIP, EPA risks substantially discouraging early-action EE investments that could otherwise facilitate highly cost-effective CPP compliance.

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<sup>14</sup> 80 Fed. Reg. 65025 (October 23, 2015), emphasis added.

<sup>15</sup> 80 Fed. Reg. 64592 (October 23, 2015).

<sup>16</sup> ACEEE, “2015 State Energy Efficiency Scorecard, Appendix A.

The Alliance recommends that EPA permit mass-based states that already rely in practice on EM&V protocols, such as established Technical Reference Manuals (TRMs), to submit those existing protocols for presumptive approval in order to participate in the CEIP.

4. How should the 300 million short ton matching pool be split between the two reserves: one for wind/solar, one for low-income EE?

The Alliance has expressed above its desire for EPA to articulate in more detail how EE projects can be incented in mass-based CPP approaches, specifically mentioning direct allocations and auctions as particularly viable strategies. In the context of the CEIP, EPA has sought comment on the size of the fixed pool of federal matching credits that will be paired with early-action mass-based allowances and rate-based ERCs assigned by states to CEIP-eligible projects. The Alliance asserts that a CEIP incorporating a specific allocation for federal matching credits should divide the total equally between RE and EE projects. In its analysis in the CPP, EPA indicates that continued deployment of renewables at recent historical rates could readily account for 50 percent of the pool of CEIP matching credits that is to be capped at the equivalent of 300 million short tons of CO<sub>2</sub>, leaving “the remaining half of the pool of matching federal allowances available for EE projects implemented in low-income communities, and additional growth in RE deployment beyond these historic maximums as potentially enabled by reductions in cost and improvements in performance.”<sup>17</sup>

The range of EE projects eligible for CEIP through suitably broad definitions of low-income community and eligible technologies (including T&D projects that can demonstrate benefit to low-income communities) can be expected to account for 50 percent of the federal CEIP matching pool. Using the [State and Utility Pollution Reduction \(SUPR\) Calculator](#) developed by the American Council for an Energy-Efficient Economy, the Alliance estimates that if states covered by the CPP were to implement projects to save one percent of annual consumption in 2016, or to gradually ramp up toward that rate of savings in states that have not historically achieved that savings level, annual avoided CO<sub>2</sub> in 2020 would exceed 134 million short tons. With more projects added to the savings portfolio in 2021, the savings would be greater.

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The Alliance sincerely appreciates the opportunity to comment on the CEIP, and applauds EPA for holding an open stakeholder engagement process. This process of stakeholder input and recognition has been unprecedented. And, we commend EPA for its recognition and encouragement of EE as an important and extremely cost-effective emissions reduction strategy that can make significant contributions to environmental justice. Should there be

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<sup>17</sup> 80 Fed. Reg. 64830 (October 23, 2015).

any questions about these comments, please contact the undersigned at 202.530.2205 or [kbackman@ase.org](mailto:kbackman@ase.org).

Sincerely,

A handwritten signature in blue ink, appearing to read "Kelly Speakes-Backman". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

**Kelly Speakes-Backman**  
Senior Vice President, Policy & Research  
Alliance to Save Energy