

January 21, 2016

Environmental Protection Agency
Attn: Docket ID No. EPA-HQ-OAR-2015-0199
A-and-R-Docket@epa.gov

Re: Docket ID No. EPA-HQ-OAR-2015-0199: Joint Comments on Energy Efficiency in EPA's Proposed Mass-Based Federal Plan and Model Trading Rule

Dear Administrator McCarthy:

The signatories of this document are pleased to submit a set of recommendations regarding the distribution of allowances under a mass-based approach for compliance with the Clean Power Plan (CPP).¹ These joint comments are provided to the U.S. Environmental Protection Agency (EPA) in response to EPA's request for comments on the proposed Federal Plan requirements and Model Trading Rules (MTR). Our intent is to describe ways that energy efficiency projects could receive value for carbon emissions reductions delivered within a mass-based system in the hopes that EPA will include them in the model trading rules and federal plan.

These comments are signed by the following organizations:

Alliance to Save Energy (ASE)
American Council for an Energy Efficiency Economy (ACEEE)
The Climate Registry
E4theFuture
Natural Resources Defense Council (NRDC)
Southeast Energy Efficiency Alliance (SEEA)
South-central Partnership for Energy Efficiency as a Resource (SPEER)
Third Party Delivered Energy Efficiency Coalition

Introduction

One of EPA's primary objectives in designing the allowance allocation system for the federal plan and model trading rule will be to ensure equivalence between the rate- and mass-based emission limits, mitigating leakage to new plants. However, providing options to states to provide allowance value to energy efficiency should also be a priority, once this primary objective and EPA's minimum standards for allowance allocation are met. The proposed federal plan and model trading rules allow states to determine allowance allocation systems, but default to 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 that have organized markets (i.e., with "restructured" or "deregulated" utilities) where regulators have little or no authority over generation prices.

¹ These comments reflect the views of the signatories of this document and not necessarily the views of any one co-signing organization's members or individual entities represented on its board of directors.

But there are at least five alternative approaches to allowance distribution (described below) which we feel strongly should at the very least be included in the model trading rules as alternatives for states to consider. We recognize states could still consider alternative approaches that aren't in the model rules, but inclusion therein would increase the likelihood that states would consider these options. Further, inclusion in the model rules 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.

We see five main alternatives to grandfathering allowances, which can be employed individually or in combination with one another. We are not advocating one option over the other but rather proposing a list of options that would provide a clearer path to efficiency and potentially help to reduce generation leakage from existing power plants to new natural gas plants. These alternatives should be included as acceptable paths in the model trading rules:

- Auction allowances to affected electric generating units (EGUs) and use some or all of the revenue to fund increased energy efficiency and renewable energy (EE/RE) efforts.
- 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 megawatt-hours (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 addition of energy efficiency as an eligible resource for set-asides.
- Allocate allowances to regulated distribution utilities so that state regulators (particularly in restructured markets) have oversight and can, similarly to an auction, assure revenues from the sale of the allowances are used for energy efficiency.

All of these methods are preferable from both economic and environmental viewpoints than simply giving all of the allowances to emitters. We think they should be referenced in the model trading rules and, in cases where revenues would not be collected by the federal government, in the federal plan as well. Each is described below, followed by a description of a national energy efficiency registry which could help certify energy efficiency delivered under any of these approaches in state or federal plans, providing greater certainty and liquidity to facilitate states' and industry's compliance efforts.

Auction Allowances

In a mass-based framework, a state may choose to distribute allowances by auction, administered either through the environmental agency or an independent party. On a set schedule (e.g., annually or quarterly), a fixed number of allowances would be offered for bid. In the Regional Greenhouse Gas Initiative (RGGI) auction example, allowances are sold directly to the generators of fossil fuel power plants connected to the grid and 25 MW or larger. Selling allowances at auction to affected EGUs would provide a direct and transparent economic signal for generators to choose between the expected auction price and the cost of reducing their own emissions. The cost of compliance is built into the

generators' electricity price, wholesale (in an organized market) or retail (in a vertically integrated market).

The price of the allowances is determined by stacked offer price. In other words, the bids are "stacked" from highest to lowest (descending order) bid until the volume offered is met. The lowest ("marginal") bid which falls within the volume offered for sale sets the market clearing price for all allowances sold.

Revenues from the auction of allowances may be used to fund complementary state administered, utility administered, or other approved energy programs that further reduce carbon dioxide, such as energy efficiency and renewable energy programs. This creates a virtuous cycle of emissions reductions that limits the cost of compliance for consumers. An independent study of the net impact on retail electricity costs to RGGI consumers was less than 1%, while reductions of CO2 emissions reached 45%.²

Allow EE/RE Providers to Earn Allowances First

States could elect to enable all certified energy efficiency and renewable energy to receive allowances first.³ Energy efficiency reduces carbon dioxide emissions but unless there is a trading system where efficiency can be monetized, generators don't have a direct financial incentive to pursue it as a compliance strategy. Energy efficiency reduces overall demand and would not necessarily reduce emissions from a particular generating unit. Absent an allowance that allows efficiency to receive value for the emissions reductions it causes, an investment made by a generator in efficiency would benefit all generators and not reduce its individual responsibility.

To fix this, EPA should stipulate in the model trading rule that states can issue allowances to EE/RE providers first if they so choose. Energy efficiency providers could earn allowances for the amount of carbon reduced and for projects certified in an approved state or national registry which makes sure that proper evaluation, measurement, and verification (EM&V) has occurred. This approach could require a conversion of MWh savings to avoided CO2 emissions. The conversion methodology can be specified in the Federal plan or left up to states in states that adopt a state plan. For example, the EPA could indicate that the conversion should be based on up-to-date average emissions rates at the regional level in the eGRID database.

States should be allowed to distribute allowances to energy efficiency projects that earn a share proportional to the emissions reduced. Then generators could purchase them knowing that the allowance purchased would meet their specific obligation, and energy efficiency providers would receive value for the emissions reductions delivered.

Updating Output-Based Allocation

² Hibbard, Paul J., et. Al. (2015). *The Economic Impacts of the Regional Greenhouse Gas Initiative on Nine Northeast and Mid-Atlantic States*.

http://www.analysisgroup.com/uploadedfiles/content/insights/publishing/analysis_group_rggi_report_july_2015.pdf

³ AJW, Inc. (2015). *Simplifying Energy Efficiency for States: Utilizing and Incentivizing Energy Efficiency-Related Greenhouse Gas Reductions Under the Clean Power Plan's Mass Based Approach*. <http://ajw-inc.com/mass-based-paper/>

An allowance allocation system that distributes allowances to low-emitting and/or non-emitting technologies based on their electricity output or savings could provide revenue and a competitive advantage to energy efficiency programs and projects. Called “output-based allocation,” these allocation systems award allowances on the basis of electrical output. This creates an incentive for electric generators to reduce emissions per unit of electrical output.

Output-based allocation systems distribute allowances to resources proportionately based on their share of total electricity generation (MWh). If eligible resources together produced 500 MWh of electricity, and there were 100 allowances, for each MWh of production, a project owner would earn 1/5 of an allowance. To provide an incentive for eligible low-emitting and non-emitting technologies to continue to increase production, it is important that the allocation adjust over time based on recent generation data. This is termed “updating output-based allocation.”

Under an updating output-based allocation system that included energy efficiency, verified energy savings would be eligible to receive an appropriate share of the allowances allocated by the regulator. Energy efficiency providers would receive allowances based on the contribution of their energy efficiency efforts to meeting electricity demand during the covered time period (i.e., if the measures installed from 2013 to the covered time period saved 100 MWh in the covered time period, and total electricity generation was 400 MWh during the covered time period (meaning the combination of generation and energy savings was 500 MWh), the energy efficiency providers would collectively receive 1/5 of the available allowances). In subsequent time periods, the contribution of energy efficiency would be adjusted based on the impact of new efforts and the degradation of past savings.

Energy efficiency providers could then earn revenue by selling these allowances to CPP compliance entities, or they could retire the allowances, further reducing emissions. Energy efficiency as well as CHP projects, as non-emitting or low-emitting resources, should be included in an output-based allocation system.

Use of Energy Efficiency Set-Asides

Energy efficiency set-asides are pools of allowances that could be awarded to energy efficiency projects that reduce emissions. Set-asides can serve as useful tools for incentivizing energy efficiency within a mass-based compliance strategy. Among the advantages of set-asides is their relative simplicity, as well as the certainty driven by the presence of a target amount. However, it should be noted that unlike the options previously mentioned, the number of allowances that can be provided to energy efficiency programs and projects from set-asides are decided by the states rather than market forces. Despite this, set-asides are a viable option that should be made available as an acceptable allocation option for states and thus should be included within the model trading rules.

Grant Allowances to Regulated Distribution Utilities

In competitive electric markets, generators' prices and costs are not regulated. There is a risk that allowances given for free to generators will become windfall profits. One way to ensure that end-use consumers receive some of the value from carbon is to apportion the allowances to regulated

distribution utilities where regulators will have oversight over revenues and expenditures. No electric markets have competitive transmission and distribution, but most states' regulators oversee rates for distribution and can ensure that carbon revenues either benefit consumers directly through lower rates or through increased demand-side management programs. The latter approach helps to reduce carbon emissions further, ensuring lower carbon costs.

Energy Efficiency in the Federal Plan

Energy efficiency should be named as a compliance strategy in the federal plan. While allowance fee or auction approaches in a federal plan might not work because revenues must go to US Treasury, other alternative allowance distribution approaches would work. Including energy efficiency using one of these alternative approaches will help to reduce compliance costs. Priority crediting of EE/RE, output-based allocation, and the use of set-asides are all better methods to mitigate compliance costs than giving allowances freely to generators. Thus, we urge the EPA to include energy efficiency as a core compliance strategy in the federal plan by indicating that it is acceptable for states to use any of these (non-auction) alternative allowance distribution mechanisms. We understand that EPA would prefer not to be in the role of evaluating and verifying energy efficiency, however a state with a Federal Implementation Plan could agree to take on EM&V responsibilities, perhaps with the help of a national registry as described below.

Energy Efficiency Registry

Under any of these allowance distribution methods, whether within state or federal plans, it will be necessary to ensure that savings from energy efficiency are properly evaluated and verified. In order to do this, states should have the option to create a registry, or participate in a national energy efficiency registry. A registry would certify energy savings and convert MWh saved to tons of carbon reduced. It would also ensure that ownership of the allowance is clear, that a serial number is created to prevent any duplicate allowances, and that allowances can be easily traded or retired.⁴

An energy efficiency registry will allow states to easily ascertain all of the certified efficiency-related CO₂ reductions that have occurred in the state during the applicable compliance timeframe. This tool will allow states to view the sum total of registered energy efficiency projects as they make annual allocations. A reliable energy efficiency registry can catalog verified CO₂ reductions for state and federal officials and is essential to any effort to simplify and encourage the use of efficiency-related CO₂ reductions for CPP compliance.

In the model rule, EPA has indicated the need for tracking systems to assure resources are only counted once and to facilitate inter- and intra-state trading. EPA has proposed that it might support or contribute to the development of an energy efficiency project registry. Although a broad, national energy efficiency registry does not exist today, many of the fundamental elements for such a registry are

⁴ 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

already in place as a result of states' experience with renewable portfolio standards and renewable energy certificates (RECs) tracking.

The National Energy Efficiency Registry (NEER) project, funded by a Department of Energy 2015 State Energy Program Competitive Award will develop a roadmap to create such a registry. The NEER project is lead by the State of Tennessee and its project partners: Georgia, Michigan, Minnesota, Oregon, Pennsylvania, The Climate Registry, and the National Association of State Energy Officials.

Conclusion

In a mass-based compliance regime, allocating emissions allowances to existing units based on historical generation would provide little or no benefit to consumers in the form of increased support for energy efficiency and renewable energy and could result in windfall profits to electric generators. Distributing allowances according to one of the alternatives outlined in this letter would increase the ability of energy efficiency and renewable energy to lower carbon emissions while increasing economic benefits for consumers and mitigating the costs of compliance.

We urge EPA to add these alternatives in the model trading rules and federal plan so that states have a clear and unambiguous message that these allowance distribution methods are acceptable to the Agency and can be used by states.

Thank you for your consideration of these comments.

Signed,

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