WESTERN RESOURCE
ADVOCATES
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Washington, DC 20460
Attn: Docket ID No. EPA-HQ-OAR-2015-0199

Re: Docket ID No. EPA-HQ-OAR-2015-0199 – *Western Resource Advocates Comments on 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; Proposed Rule; 80 FR 64966, No. 205 (October 23, 2015)*

Founded in 1989, Western Resource Advocates (WRA) is a non-profit environmental law and policy organization working in the Interior Western United States. With offices in Colorado, Utah, Arizona, Nevada and New Mexico, we have developed strategic programs in three areas: water, energy and lands. Each of our programs is committed to curtailing climate change. WRA strongly supports the EPA for using its authority under the Clean Air Act Section 111 to promulgate rules to limit carbon dioxide emissions from power plants, the largest source of carbon dioxide emissions.

In these comments, we address four issues. These issues relate to the Model Rules EPA has proposed as part of its Clean Power Plan, EPA's proposed Clean Energy Incentive Program and several issues surrounding the trading platforms and market mechanisms EPA has promulgated in its final rule. We are specifically requesting that EPA consider broadening the trading options and platform available to states to implement EPA's Clean Power Plan. WRA believes that EPA's CPP can evolve into a single market, with a price on CO_2 across the full spectrum of mass-based and rate-based programs that EPA has identified. We also believe EPA can do this without compromising either rate-based or mass-based emission outcomes. As EPA has recognized, trading of credits and/or allowances reduces compliance cost and improves emission reduction outcomes.

The four specific issues we address in these comments are:

1. Proposing an alternative structure for EPA's Clean Energy Incentive Program (CEIP).

2. Recognizing that mass-based allowances and rate-based emission rate credits (ERCs) can be used for compliance in any program under protocols that result in either equivalent emission reductions, or over-compliance.

3. Permitting "gas-shift" ERCs to be used for compliance by any covered electric generating unit (EGU), not just steam plants.

4. Proposing a simplified allowance allocation methodology that states could use as part of an acceptable state plan.

1. Proposing an alternative structure for EPA's Clean Energy Incentive Program (CEIP).

> The EPA proposes the following framework to implement the CEIP in the rate-based federal plan….The EPA requests comment on the structure of this mechanism, which could include adjusting the stringency of the emission standards during the compliance periods to account for the issuance of early action ERCs for MWh generated or avoided in 2020 and/or 2021….
>
> The EPA requests comment on all aspects of implementing the CEIP under a mass-based federal plan approach….

FR 65000-01; 65026

EPA has included the Clean Energy Incentive Program as part of its Clean Power Plan. The CEIP allows states that opt into the program by September of 2016 to accumulate early, additional, allowances or ERCs that can be used for compliance after the CPP standards go into effect 2022.

Under EPA's proposal, during the years 2020 and 2021, solar and wind renewable energy producers, and energy efficiency programs directed towards low income users, can earn ERCs or allowances. The renewable energy must be from resources that go into service after the state's implementation plan is submitted or September of 2018, whichever is earlier. For every two MWh of renewable energy produced the state would provide one ERC, and EPA would provide one ERC or an equivalent, but as yet undetermined, number of allowances. For every two MWh of low income efficiency, EPA would provide two ERCs and the state would provide two ERCs – or equivalent allowances. The state ERCs or allowances must come from the amount available to the state for compliance in 2022 or later. EPA's matching ERCs or allowances are limited to a total of 300 million tons.

There are a number of issues that arise with the CEIP structure proposed by EPA, many of which EPA recognizes and seeks comment on. First, because ERCs are earned, rather than allocated like allowances, a state ERC contribution will not reduce future ERC creation, nor result in a higher stringency during the compliance period. Therefore, the 300 million ton limit of EPA contributed additional CO_2 tons will not really mean only 300 million additional tons are available. Second, requiring that the CEIP-eligible renewable energy be developed after the SIP is filed or 2018 may have the unintended consequence of delaying RE development to assure CEIP eligibility. Third, because EPA will allocate the 300 million tons to states pro-rata based upon EGU emissions, there will be locational incentives for RE development that may be sub-optimal. Solar resources, for example, should be developed where the resource is strongest and most economic, not where the greatest number of available ERCs or allowances reside. WRA believes there is a simpler way to allow for, and incentivize, early action without triggering these issues.

In a nutshell, WRA recommends that EPA's CEIP be simply that if a state wants early action credits, it should start its program early – meaning that in 2020 and 2021 there would be an allowance and ERC opportunity matched with a compliance obligation equivalent to the first compliance period. So, EGUs and BSER developers in a state that implements the 2022 compliance requirements early would be permitted to begin earning ERCs or receiving allowance distributions early. To the extent ERCs or allowances remained after the state's EGUs retired the requisite number need to establish compliance in 2020 and 2021, those instruments would be available for future compliance. Like the proposed CEIP, this approach advantages states that reduce emissions early, but does not diminish the emission outcomes during the 2022-2030 period. That is because the remaining instruments represent a level of early over-compliance. The WRA-recommended CEIP would have EPA provide an allowance budget to early implementation states in 2020 and 2021. For rate-based states, ERCs could start being earned in 2020 and 2021.

Under WRA's modification to the CEIP there is no need to limit the ERCs or allowances, because their issuance would be matched by a compliance obligation. Moreover, this program would allow EGUs to accomplish other emission reduction measures, such as plant retirements, in the early years and get credit for that. The program assures that in those states that implement early, the emission outcomes are at least as stringent as the first, 2022-

2024, compliance period. Over-achievement by EGUs provides excess ERCs or allowances to be used later. WRA agrees with EPA that early implementation is important and beneficial to reducing CO_2 loading in the atmosphere. Finally, this proposal would eliminate the locational incentives described above, associated with the allocation to states of 300 million tons of emission opportunities. We believe that, to assure that BSER resources in states that wait until 2022 do not flood the early-acting states with ERCs that are not matched with a compliance obligation, WRA would preserve the requirement that the RE or EE be physically located in the early acting state. However, WRA would suggest that any resource eligible for ERCs or allowances in 2022 be similarly eligible for these instruments in 2020 and 2021.

Overall, we think that allowing states to implement their programs early provides the benefits intended by EPA's CEIP, without the economic and outcome difficulties of the proposed CEIP. This alternative is simple and straightforward.

2. Recognizing that mass-based allowances and rate-based emission rate credits (ERCs) can be used for compliance in any program under protocols that result in either equivalent emission reductions, or over-compliance.

> We propose that an affected EGU in a state covered by a by the mass-based trading federal plan must use allowances for compliance (not ERCs). Similarly, an affected EGU in a state covered by a rate-based trading federal plan must use ERCs for compliance (not allowances)….
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> The EPA proposes to allow interstate trading between affected EGUs in states covered by the federal plans and affected EGUs in states covered by state plans (referred to as "linking" states, or "linkages") ….
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> The EPA believes that a broad trading region provides greater opportunities for cost-effective implementation of reductions compared to trading limited to a smaller region. The proposed approach to interstate trading is intended to strike a reasonable balance between providing the opportunity for a wide interstate trading system while maintaining the integrity of the linked programs. The agency requests comment on the proposed approach to interstate trading linkages in the federal plans….
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> The EPA solicits comment on other approaches to ensure market liquidity while continuing to meet the stringency of the final EGs [Emission Guidelines].

FR 64976-7; 64981.

Background

WRA believes EPA's Final Clean Power Plan includes significant improvements over the earlier, proposed rule. In particular, the Final Rule establishes trading mechanisms to reduce costs and improve carbon reduction outcomes, and simplifies and streamlines the stringency across states within a region. Among the compliance options available to states, EPA has identified both *mass-based* and *rate-based* options.

A *mass-based* program provides allowances[1] to states that must be matched, ton-for-ton, with emissions from covered power plants (electric generating units or EGUs). By constraining the annual supply of allowances, CO_2 emissions are necessarily reduced. EPA has given states the option to include new EGUs (sources) in their programs, and would provide additional allowances in that event. States which do not include new EGUs in their mass-based program are required to demonstrate that emissions reductions from existing plants are not offset by

[1] Each allowance entitles the holder to emit 1 short ton (2000 pounds) of CO_2.

shifting generation to new facilities, which EPA calls "leakage." Allowances can be sold or traded as part of a market-based system to assure that the cheapest reductions are achieved first.

A *rate-based* program establishes maximum emission rates that power plants must achieve over time. An emission rate is measured as pounds per megawatt-hour, and EPA has allowed states to choose either a *facilities* standard[2] or a *statewide* standard. A facilities standard establishes two emission rates, one for steam generators (coal-fired power plants) and a second for combustion turbines (gas-fired power plants). A statewide standard provides a single, uniform, rate for both steam generators and combustion turbines within a state based upon the mix of steam generators and combustion turbine output in the state. Both the facilities and statewide emission rate standards decline over time.

A trading instrument, called an "emission rate credit" or "ERC" is used to demonstrate compliance in rate-based programs. Each ERC represents the equivalent of one MWh of zero-emission generation. ERCs can be earned by generators that emit at a rate lower than required, or by renewable energy or energy efficiency programs. The rationale behind ERC use is that, by re-dispatching electricity production away from higher emitting plants towards lower or zero emission resources which earn ERCs, a facility can demonstrate that across a blend of resources it has achieved the required emission rate.

EPA's CPP, and the model rules EPA has proposed for mass-based and rate-based programs, include various restrictions on the use of ERCs and allowances to achieve compliance. In particular, EPA proposes to not allow ERCs to be traded into or used in mass-based programs, and would likewise preclude the use of allowances in rate-based programs. In addition, ERCs earned from combustion turbines ("gas-switch ERCs") could only be used for steam generator compliance.

In this section of our comments we address our view that the restriction on trading between mass-based and rate-based programs could, and should, be lifted with specific protections and protocols. In the next section, we address our view that EPA should eliminate restrictions on the use of Gas-shift ERCs.

Protocols to Expand Trading Opportunities between Rate-Base and Mass-Based Programs

WRA completely agrees with the benefits of robust trading platforms that EPA has identified throughout the final rule and in the proposed model state rule. Both renewable energy developers and energy efficiency providers benefit to the extent that the emission reduction attributes of their products are broadly available, and not restricted in their use to only a select group of states. Renewable providers in particular see the value of a single currency that can be traded across a broad market. Furthermore, utilities with facilities in multiple states want the capability to deploy their entire system as part of a compliance strategy, unconstrained by trade barriers, and in a way that minimizes compliance cost to their customers. A uniform market that rewards emission reductions equally throughout its footprint can also provide transparency and mitigate the opportunities for gaming and arbitrage across different compliance programs. That said, the benefits of a robust and broad market must be balanced against any compromise of outcomes that moving to a broad market structure might entail.

In this vein, WRA believes that a broader trading platform than EPA has proposed, and one that includes both rate-based and mass-based programs, can be achieved without compromising either the stringency or outcomes that EPA anticipates. While WRA is not requesting that EPA determine at this juncture that this type of broad trading platform should be presumptively approved, we do ask that EPA keep an open mind and allow states the opportunity to demonstrate that broad trading platforms *could* be approved as part of a multi-state program.[3] The benefits of a robust and transparent market for CO_2 reductions are substantial and, we believe, achievable across the rate-based and mass-based program designs EPA has identified.

[2] EPA has also referred to this as "subcategorized" rates

[3] §60.5745(a)(5)(ii) and (iv) of the final rule could provide an opportunity for otherwise under-compliant EGUs to demonstrate compliance and equivalence through the use of both allowances and ERCs.

We believe that State compliance programs should, with accepted and approved practices, be able to evolve into a single national market for CO_2 trading, with emission rate credits and allowances freely exchanged regardless of the type of program (mass-based or rate-based) that a state adopts. This paper provides a protocol that we believe states could adopt, with EPA approval, to allow the broadness, transparency, resiliency and consistency under which markets can operate most effectively. We also believe that, with the protocols we identify, states can mathematically demonstrate to EPA that they will achieve equivalent emission outcomes as would be achieved with the EPA trading restrictions.

Specific Trading Protocols

Putting aside the fact that there are two types of rate-based (facilities and statewide standards) and two types of mass-based programs (existing sources and existing plus new source complement) identified by EPA, there are four general scenarios of trading direction for compliance instruments between rate-based and mass-based programs:

1) ERCs from rate-based programs used in other rate-based programs;
2) Allowances from mass-based programs used in other mass-based programs;
3) Allowances from mass-based used in rate-based programs; and
4) ERCs from rate-based programs used in mass-based programs.

Each of these trade options will be discussed.

1) Rate-based ERCs in other rate-based programs, and
2) Mass-based allowances in other mass-based programs

These first two trade scenarios are straightforward, and EPA has already recognized that ERCs can trade within rate-based states, and that allowances can trade within mass-based states.

3) Mass-based allowances in rate-based programs

We also believe that, in this third scenario, a rate-based state should be able to use an allowance to demonstrate compliance in a relatively straightforward manner – without compromising the emission result. An allowance represents a firm authorization to emit 2000 pounds of CO_2. If an allowance is used in a rate-based state, that means 2000 pounds of CO_2 will not be emitted in a mass-based state, i.e. emissions in the mass-based states will be reduced 2000 pounds. So, when a rate-based EGU calculates its emission rate for compliance purposes, it should be able to subtract 2000 pounds from its emissions in the numerator for each allowance it acquires and retires. Mathematically, emissions across the two systems will not be increased as a result of this transaction. And for this reason, we think it makes sense to permit allowances from mass-based programs to be used for compliance in rate-based states – provided each allowance reduces the numerator in an EGU's emission rate calculation by no more than 2000 pounds.

As an example, assume that a coal plant generates 1000 MWh, and emits 2,000,000 pounds of CO_2. Also assume that the coal generator must achieve a compliance emission rate of 1500 lb/MWh. The initial emission rate of the coal plant would be calculated pursuant to the CPP formula as: 2,000,000 lb/1000 MWh = 2000 lb/MWh.

If that EGU purchases 250 allowances, it should be able to subtract 500,000 pounds from the numerator of its calculation, and show compliance: (2,000,000 lb – 500,000 lb)/1000 MWh = 1500 lb/MWh. At the same time, emissions in the mass-based states are reduced by 500,000 pounds, which we believe means that the emission outcome across the two states is not compromised as a result of the allowance use in the rate-based state.

4) Rate-based ERCs in mass-based programs

In the fourth scenario, mass-based states seeking to use ERCs, the situation is more complex. Some have expressed concern that, if ERCs are allowed in a mass-based program, this would compromise the outcome of the

mass-based program.[4] We do not believe that to be the case. However, we also recognize that, because an ERC represents one zero-emission MWh rather than a specific tonnage of emissions, its value depends on the stringency at the time and place it is used (which can also vary depending on whether the state has adopted a statewide standard or a facilities standard). The two protocols we are presenting would likely result in either equivalent emission outcomes, or over-compliance, as between using ERCs in mass-based programs versus not using ERCs. Acceptance by EPA of either of these options would, in our view, greatly enhance the benefits of trading programs that EPA has identified and explained in its rule. Moreover, removing the complexity of segregating different compliance instruments for use in different programs will create a much more transparent regulatory system, making it easier to detect and address leakage issues as they arise.

Equivalent Option

The *equivalent* option recognizes that EPA has already determined an equivalency between each state's rate-based standard and its mass-based standard, for each compliance period. To preserve equivalence, an ERC tendered for use in a mass-based state should be valued in the mass-based state in the year that the ERC is to be used. We believe this avoids a potential mismatch by having ERCs created and provided excess value in an early year, and then used in a later and more stringent year. It also recognizes that an ERC will have a different emission value depending on where it is used - because of the different state stringencies. In other word, the value of an ERC in a mass-based state must be determined where and when it is to be used, *not* where and when it is created.

This protocol recognizes that ERCs, like allowances, will enable emissions of a certain amount at a certain time. This specific protocol would allow an EGU in a mass-based state to accept an ERC, with the conversion to pounds of CO_2 occurring in the mass-based state, and equal to the statewide rate EPA established for the mass-based state (*FR 64824, Table 12*) in the year the ERC is used. As mentioned, it is important that the emissions that an ERC would allow be determined when and where the ERC is used, not when and where it is created.

So, as an example, let us assume that Utah has a mass-based program. Had Utah instead chosen a statewide rate program, in the first compliance period EPA established a statewide rate of 1483 lb. That statewide rate is what EPA has determined to be an equivalent outcome to the mass-based alternative in that same period. And it also means that an ERC used in Utah in 2022 should have a value of 1483/2000 allowances. An ERC used in Utah in 2030, when the stringency has tightened, would have a value of 1179/2000 allowances.

We can demonstrate that this use of ERCs in a mass-based state will have an equivalent outcome within the compliance state to the outcome that would have been achieved if Utah had instead selected EPA's presumably equivalent statewide rate-based standard. Assume again that Utah has selected a mass-based program and is in compliance in 2022. That means that it has an equivalent emissions outcome as the statewide emission rate standard for that year of 1483 pounds per MWh. If Utah added one ERC to its compliance portfolio, then so long as the emissions that accompanied the ERC equaled 1483 pounds or less, Utah would continue to be in compliance. And what this also means is that the ERC enables 1483 pounds of emissions. We believe it therefore

[4] Some stakeholders have expressed a concern that permitting ERCs to be used in mass-based programs would result in unlimited compliance instruments undermining mass-based outcomes. We do not believe that concern is valid for several reasons. First, the fundamental nature of electricity markets today is that supply equals demand. This means that there is a limit to how much renewable energy or energy efficiency can be produced. And it also means that when one MWh of renewable energy is produced, a corresponding MWh from, typically, conventional resources is displaced. Second are the economics of electricity production. While theoretically it is possible that a trading opportunity might create an added incentive to displace older RE with newer RE resources that are eligible to earn ERCs, it is hard to imagine that the economics of electricity and ERC pricing would support that opportunity. Assuming an ERC is valued at 0.5 tons, this translates into a price in the range of mils per KWh. Electricity sells in a range of cents per KWh, an order of magnitude higher. It will be rare, if ever, that an added value of mils per KWh will swing a RE curtailment decision. And while it is true that market situations have and may cause renewables to be curtailed, and those renewables might be the ones that do not earn ERCs, this will be the situation with or without trading. So, we think it is very unlikely that the fact that an ERC might be assigned value in a mass-based system is going to compromise of an emission outcome that would otherwise be achieved.

makes sense to allow an ERC used in Utah in 2022 to be valued at 1483/2000 allowances – which are the emissions that would have been allowed by that ERC retirement had Utah opted for the equivalent statewide standard.

Over-compliance Option

This method of preserving equivalence would, we believe, actually result in a better emission outcome with trading than with stand-alone compliance. The protocol presumes there is some question as to where and when the equivalency should be determined. For example, WRA believes equivalency must be demonstrated in the compliance mass-based state using the ERC. Some might argue the equivalency should be established in the rate-based state that might otherwise have used the ERC. Unfortunately, this second equivalency requires an assumption about a compliance situation with a place and time that is speculative and indeterminable. In other words, we cannot know where an ERC that has been used in a mass-based state would have otherwise been used if restricted to a rate-based state. There is a simple, albeit conservative, solution if this is the equivalency EPA determines must be shown. However, WRA would caution that if this solution results in a significant under-valuing of ERCs, then that is not necessarily the best long-term strategy to advance clean energy.

Our solution recognizes that in any rate-based state, at any time, ERCs will never be valued at less than the final facilities standard for combustion turbines: or 771 lb/MWh. So, if a mass-based state simply indicated that it would allow ERCs to be converted at a value of 771/2000 allowances, EPA can be assured that under no circumstances would this ERC have been used to allow emissions less than this most stringent rate-based standard for any rate-based EGU at any time.

In sum, WRA recognizes that leakage and arbitrage opportunities are inherent in the fact that states have the flexibility to implement EPA's CPP rule in different ways. The challenge is to minimize leakage while preserving the economic and outcome benefits of a robust market and trading opportunities. WRA believes that creation of a broad trading platform that includes both rate-based and mass-based programs, with transparent and simple program designs where leakage can be easily detected and addressed as needed going forward, would mark a substantial improvement to EPA's rule. We are asking EPA to recognize that, if a state can mathematically demonstrate that it can use either allowances or ERCs in its program, and very likely maintain the same or greater stringency and emission reductions as would occur without this capability, then EPA should accept those program provisions.

3. Permitting "gas-shift" ERCs to be used for compliance by any covered electric generating unit (EGU), not just steam plants.

> All affected NGCC generation will be credited, with ERCs, by a factor that represents the described emission reductions from incremental generation; ERCs credited in this way will be designated as Gas Shift ERCs (GS-ERCs) for clarity.[55]
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> 55. A GS-ERC is treated and represents the same value as an ERC, *but has a compliance restriction that it can only be used by steam generating units and not by stationary combustion turbines for compliance obligations*….
>
> The EPA requests comment on the proposed approach and requests comment and suggestion on other approaches for existing NGCC units to generate GS-ERCs at all times.

FR 64991; 64993, emphases added.

WRA believes that EPA's proposal to restrict the ability to use Gas-Shift ERC for compliance purposes to steam generators creates an unnecessary complication to the rate-based trading proposal. If the proposal is adopted, it will simply create a reshuffling of ERC use without any attendant emission reduction benefit. This is because

holders of GS-ERCs will assure that they are deployed to steam generators, and the broader-use ERCs would be preserved for combustion turbine compliance. In other words, EPA's proposed restriction would create accounting, tracking and bureaucratic obligations, but no difference in emissions. This makes little sense.

In addition, we are concerned that EPA's restriction on GS-ERC use creates an undue preference for states to adopt a statewide emission rate standard, rather than the subcategorized, facilities standards that EPA has identified in its proposed model "trading ready" rule. The reason for this preference is that the statewide standard provides a much greater opportunity to use NGCC re-dispatch strategies for compliance than does the facilities standard.[5] The restriction on GS-ERC use exacerbates this preference.

EPA has created GS-ERCs as an incentive for shifting generation from steam units to existing NGCC units in states that adopt a facilities rate-based approach. WRA supports the ability for gas turbines to earn ERCs in recognition of the ability to drive emission reductions. It is hard to imagine that, in an effective ERC market, the demand for ERCs by coal units would not greatly exceed the supply of GS-ERCs, ensuring that virtually all GS-ERCs created can be used for compliance by coal units, even in the absence of the proposed restriction to use by coal plants. The result is, therefore, just a reshuffling of ERC use, with no gain to the emission outcome.

The EPA proposal states that the restriction is needed because GS-ERCs "are generated to reflect incremental NGCC generation replacing a SGU's generation", as reflected in the calculation of these ERCs. The proposal also states that "If a GS-ERC were to be used for compliance for an NGCC unit it would represent a shift from one NGCC unit to another, which serves little purpose in achieving emission reductions."[6]

We think this analysis and justification is flawed because it does not recognize that in an ERC trading system there is no requirement for a direct causal relationship between reductions in generation at the unit using the ERC for compliance and increased generation at the unit earning the ERC. In a trading system, the GS-ERCs function simply as an instrument that represents the equivalent of one MWh of zero-emission energy. It makes no difference where it comes from, or where it is used for compliance. The theoretical basis for the calculation of the GS-ERC has no bearing on its actual function in the market.

In the end, a restriction on GS-ERC means that two types of ERCs will be in circulation, which will reduce the fluidity of the market, and introduce distortions and complicated accounting that serves no emission-reduction purpose. For that reason WRA urges EPA to eliminate the restriction on GS-ERC use.

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[5] A simple example can illustrate this preference.

Assume that: coal facilities standard = 1333 lb/MWh
gas facilities standard = 771lb/MWh
coal emission rate = 2200 lb/MWh
gas emission rate = 900 lb/MWh

If in 2012 you had only 6 MWh of coal generation, then the statewide standard would be 1333 lb/MWh.

So, if you have a statewide standard of 1333 lb/MWh, and shift 4 MWh to gas, your emissions rate is (4400 + 3600)/6 = 1333 and you are compliant.

But, if you have a facilities standard and shift 4 MWh to gas, you are still non-compliant at all your facilities: (2200 vs. 1330 and 900 vs. 771).

In other words, the statewide standard provides an opportunity to use re-dispatch for compliance, and the facilities standard does not.

[6] *FR 64993*.

4. Proposing a simplified allowance allocation methodology that states could use as part an acceptable state plan.

> The following sections discuss and request comment on the EPA's proposed approach to allocate allowances to affected EGUs based on shares of historical generation, the proposed timing of allowance recordation, three proposed allowance set-asides, allocations to units that change status, and the proposed approach for states to replace federal plan allocation provisions with their own allowance –distribution approaches. In addition, we request comment on alternative distribution approaches – such as auctioning or allocations to load-serving entities – that the EPA or states might adopt. The EPA requests comment on all of these aspects of allowance distribution.

FR 65015-6.

WRA requests that EPA modify its mass-based allowance allocation methodology in the final model rule and, to the extent applicable, federal plan. WRA is concerned that the proposed allocation method is overly complex and may create unintended outcomes. A simpler methodology can achieve EPA's intended goals – incentivizing renewable energy and energy efficiency, and minimizing "leakage" from existing facilities to new, uncovered sources. Specifically, an annually updated output-based allocation, that includes renewable energy and energy efficiency, can provide similar results in a simpler and more transparent way. This, in turn will make the model rule more attractive to states and more likely to be adopted. Below, we identify potential issues with the existing proposed allocation mechanism and describe the proposed alternative allocation method.

Concerns with Proposed Allowance Distribution

For the initial interim compliance period, EPA's proposed allocation would distribute the majority of allowances to EGUs based on historic generation. A key component of the proposed allocation is the re-distribution of allowances from retired units. As proposed, EPA would end distribution of allowances to these units following two full years of non-operation, and re-distribute those allowances to a renewable energy set-aside. This appears to be an overly complex distribution with potentially unpredictable incentives and consequences – such as keeping a power plant idled rather than closing it.

New Mexico provides one example of difficult issues that can arise from EPA's allocation. In 2017, two of the four units at the coal-fired San Juan Generating Station will close in order to address regional haze. Several utilities have ownership shares in San Juan, including an in-state utility and several California and Arizona-based owners that are relinquishing their shares to allow for the closure. A redistribution of allowances to in-state entities that hold renewables, or to load-serving entities, could be viewed as penalizing out-of-state owners that have closed their share, and may unjustifiably reward entities that continue to participate in the coal plant. It is also conceivable that allocations favoring local over out-of-state suppliers could invite retaliation from states whose utilities were denied an allowance-benefit of a closure or curtailment.

Recommendation

WRA recommends that EPA modify the allowance distribution method in its model program and, if applicable, federal implementation plan. Various allocation methods may provide incentives for generators to invest in clean energy resources and reduce emissions. WRA is hopeful that, with EPA's endorsement, a single allocation method might be adopted by most or all states using a mass-based program – which could help mitigate difficult equity issues.

An allocation scheme that is consistent across states has the additional benefit of providing uniform incentives and price signals for all resources – EGUs and clean energy resources alike. For example, if State A provides allowances to load serving entities, rather than EGUs, an EGU that is located in State A but serves customers in State B would receive no allowances from State A, where it must demonstrate compliance. If State B – where the

EGU does serve customers – does not provide allowances to load serving entities, the EGU could face relatively higher costs of compliance than a comparable EGU that is located in and serves load in State A. Likewise, if one state distributes allowances to renewables but an adjacent state does not, it may incentivize utilities to develop renewables in or for the state that provides renewable allowances, regardless of whether that represents the best, most cost-effective clean energy resource. In short, a consistent allocation method[7] across states can provide a more workable and less contentious system across multiple states and jurisdictions.

We recommend an annually updated output-based allocation that distributes allowances based upon historic MWh output to all resources, including EGUs and renewable energy constructed after 2012 or verified energy efficiency measures that generate savings during the compliance periods. This type of model program would provide states with a simplified allocation structure that could overcome difficult and contentious allocation schemes. As an example of how WRA envisions this would work, if a state's allowance budget is 100 tons, and EGUs, renewables, and efficiency generate (or save) 200 MWh of electricity in a year, each resource would receive allowances equal to 0.5 tons/MWh. Allowances should be distributed annually to reward utilities as they shift to cleaner energy resources, but should be based on the most recent rolling three year period, in order to avoid significant year to year fluctuations in allocations, which could result from maintenance outages or unusually high or low hydro years. Specifically, EPA could structure an allocation as follows:

Schedule for Awarding Allowances Based on Annually Updated Output
Using a Rolling Three-Year Average

Compliance year	2025	2026
Allowances distributed	July 1, 2024	July 1, 2025
Period of electricity generation used to determine allowance distribution	Jan. 1, 2021 – Dec.31, 2023	Jan.1, 2022 – Dec. 31, 2024

For resources that operate for only one or two of the years in the three-year period, EPA or the state could adjust their 3-year average to exclude the zero-generation years, similar to EPA's proposal for the initial distribution based on the historic (2010 – 2012) period.

For the first year of the Interim Compliance period (2022), we recommend that EPA distribute allowances based on the average annual output of the years 2010 – 2012 and 2018 – 2020, i.e. a six-year average. This would provide a reward to EGU owners that have retired EGUs (particularly coal-fired units) since 2012, but would also provide a partial reward to utilities' investments in renewable energy and energy efficiency that have taken place since 2012.

A key goal of EPA's proposed allocation method is to mitigate leakage by providing sufficient incentives for investment in renewable energy, rather than new natural gas plants. According to EPA's TSD on the renewable energy set-aside and the accompanying data appendix[8], EPA's modeling analysis indicates that in 2030 the levelized cost of energy from onshore wind is expected to be $2.72/MWh higher than the price of energy from a new combined cycle gas plant. EPA's proposed set-aside would provide enough allowances to create a $2.72/MWh price incentive to renewable energy, if allowances cost $13/short ton[9]. Under the proposed output based allocation, the price incentive to renewables (and efficiency) would likely be even greater than $2.72/MWh.

For example, based on WRA's modeling of compliance in Colorado, under the proposed allocation method, allowances would be distributed to EGUs, renewables, and efficiency providers at a rate of approximately 1,300 lb/MWh in 2022, and 1,000 lb/MWh in 2030, or rates comparable to EPA's rate-based standard for Colorado. At a cost of $13/ton, renewables or efficiency providers would see an additional value of approximately $6.50/MWh

[7] As many have noted, a broad, multi-state auction could provide a consistent and workable allocation process, but WRA recognizes that states may not choose to auction their allowances.
[8] TSD: Renewable Energy (RE) Set-aside and accompanying data file: Appendix 1: Renewable Energy Set-Aside Analysis; available at http://www.epa.gov/cleanpowerplan/proposed-federal-plan-clean-power-plan-technical-documents
[9] The value of an allowance in 2030, according to EPA's modeling using IPM.

in 2030.[10] This would provide significant value to renewable energy, and an incentive to mitigate leakage to new combined cycle gas units.

It is important to note that WRA has not independently confirmed the specific level of incentive that would be needed to avoid significant leakage to new sources, and urges EPA to assure that any state mass-based program not allow any significant leakage.

WRA also requests that EPA allow, as part of its model rule, that measured and verified energy efficiency savings be eligible for the output-based allocation. Such an allocation would provide a significant incentive to invest in efficiency. That incentive would likely be greatest in states with the highest rate-based standards because the relative emissions per MWh, and therefore the allowances allotted per MWh, are greatest. Providing this additional incentive for utilities or EGU owners to pursue efficiency could help those states achieve their emission reduction goals using what is often considered the cheapest, environmentally preferred resource available.

A final issue WRA has considered in EPA's proposed allocation method is the output-based set-aside which allocates a portion of a state's allowances in the second and third interim compliance periods and the final compliance period to existing gas plants. This allocation is intended to provide an incentive for existing natural gas plants to increase their generation, rather than shift generation to uncovered, new natural gas plants. WRA's proposed annually updated output-based allocation would provide allowances to natural gas generators based entirely on their production, without the need for set-asides. Assuming that a state's output-based allocation rate is 1000 lb/MWh (0.5 tons/MWh), and an existing gas plant emits at a rate of 1,000 lb/MWh, there would be no need for those generators to acquire additional allowances to support their increased generation.

In sum, WRA recommends EPA include an annually updated output-based allocation method in the mass-based model trading rules, and the federal plan if that is a mass-based program. This recommendation is conditioned on a determination that leakage is adequately addressed. This proposed allocation method is simple and transparent, and provides a meaningful incentive for utilities to invest in renewables and efficiency, rather than new NGCCs. Including allocations to renewables and efficiency is critical in order to address potential leakage from existing to new sources. And by distributing allowances on an annual basis, rather than tri- or bi-annual, it rewards continued change in the electricity sector, and the ongoing shift to cleaner, more efficient resources.

Thank you for considering these comments and for all your good work developing the Clean Power Plan.

Respectfully submitted,

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[10] ($13/ton x 1000 lb/MWh) ÷ 2000 lb/ton = $6.50/MWh