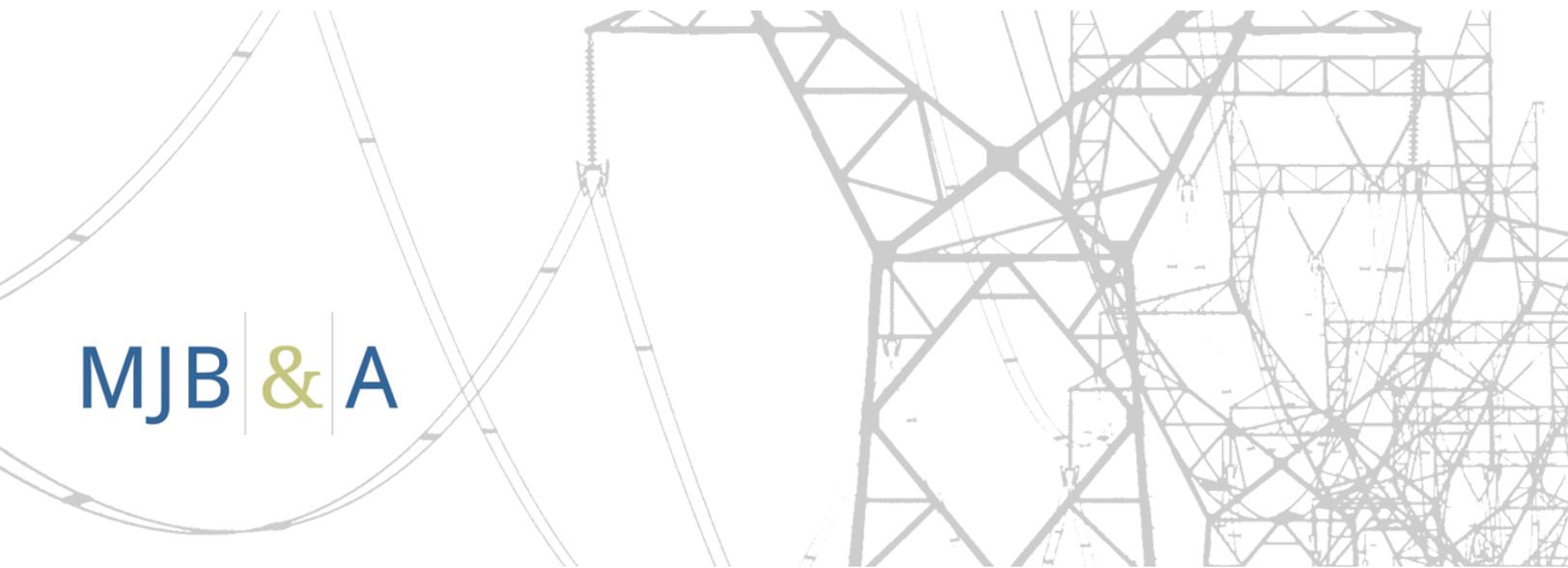


Designing Mass-Based Program Regulatory Language Under EPA's Clean Power Plan

JULY 2015



MJB & A

The background of the lower half of the page features a faint, stylized illustration of a power transmission system. It includes several high-voltage transmission towers connected by power lines, with some lines curving downwards on the left side. The illustration is rendered in a light gray color, providing a technical and industrial context for the document's title.

REPORT AUTHORS

Paul J. Allen, M.J. Bradley & Associates LLC
Gary S. Guzy, Covington & Burling LLP
Carrie F. Jenks, M.J. Bradley & Associates LLC
Grace Vermeer, M.J. Bradley & Associates LLC

For questions or comments about this report, please contact:

M.J. Bradley & Associates LLC
47 Junction Square Drive
Concord, MA 01742
Telephone: 978 369 5533
E-mail: cjenks@mjbradley.com

Contents

Introduction..... 1

Mass-Based Programs Preamble Considerations 4

Presumptive Mass-Based Plan Regulatory Text..... 7

 1. GENERAL PROVISIONS FOR ESTABLISHMENT OF PRESUMPTIVE MASS-BASED CO₂ ALLOWANCE PROGRAMS..... 7

 2. WHAT ARE AFFECTED EGU OBLIGATIONS UNDER THIS PART? 9

 3. HOW DO I OBTAIN CO₂ ALLOWANCES?..... 14

 4. WHAT ARE THE REQUIREMENTS FOR DESIGNATED REPRESENTATIVES? 17

 5. WHAT ARE THE REQUIREMENTS FOR MONITORING & REPORTING?..... 19

Appendix A: Options for Disposition of Allowances..... 22

 Auction Regulatory Language 22

 Allocation Regulatory Considerations 23

Introduction

The U.S. Environmental Protection Agency's (EPA's) Clean Power Plan will, for the first time, establish nationwide standards for emissions of carbon dioxide (CO₂) from existing power plants. EPA has proposed setting the CO₂ standards as an emissions rate for affected power plants on a pounds of CO₂ emitted per megawatt hour basis. Each state would have significant flexibility in establishing its plan for meeting the standard, including translating the pounds per megawatt hour target into an annual mass-based limit of tons of CO₂.

One of the common themes discussed by a wide variety of stakeholders and in many public comments to the Agency on the proposed rule is that mass-based compliance can provide a simple compliance approach relative to rate-based compliance given that the investments in clean energy resources are accounted for under a mass-based approach by lowering overall emissions, making various crediting system unnecessary. Many have noted that a mass-based approach is a familiar one that state and federal regulators and the electric generating industry have utilized in the past as a means to cost-effectively reduce emissions from power plants.

As part of M.J. Bradley & Associates' set of publicly available tools to support stakeholders' evaluation of compliance options for the Clean Power Plan, we worked with Gary S. Guzy, former General Counsel of EPA, now Senior Of Counsel at Covington and Burling LLP, to develop regulatory language as a starting point for the design of a mass-based compliance approach, and to provide states an easily adoptable model regulatory framework. As stakeholder discussions continue, EPA finalizes the rule, and states consider compliance options, we would welcome feedback and suggested amendments. We will look to update this set of resources to provide a regulatory framework that reflects the final rule's requirements.

In designing this regulatory language and process, we endeavored to leverage existing programs where possible. In some instances, this document incorporates language from existing and ongoing CO₂-related programs with which affected EGUs are likely already complying, such as EPA's greenhouse gas reporting program. We also based the structure of other sections on existing Clean Air Act programs familiar to industry, state regulators, grid operators, and other stakeholders, such as EPA's Cross-State Air Pollution Rule (CSAPR) and the Acid Rain Program. Our goal was to develop a familiar starting point of common features that states could use to design their compliance plan based on existing state-specific programs, requirements, and policy objectives. However, we anticipate that states will also have the ability to utilize language or processes from state-specific existing programs to incorporate CO₂ requirements associated with the Clean Power Plan.

In developing this document, which includes preamble and regulatory text, we made some key assumptions that are important to highlight. Some of these assumptions will need to be confirmed or

revisited once EPA finalizes the Clean Power Plan this summer. Additionally, some assumptions represent choices that states will need to evaluate as they design their compliance plans and consider their state-specific situations and policy objectives.

First, in thinking about how to offer this starting point for mass-based compliance, we have tried to incorporate stakeholder perspectives that have highlighted the advantages of market-based mechanisms for determining least-cost options and optimizing the inherent interconnectedness of the electric grid. Some stakeholders have noted that a broad market can create clearer market signals and capture the lowest-cost reduction opportunities, which can reduce overall compliance costs. We have, therefore, assumed that states will look to develop a compliance approach that allows affected electric generating units (EGUs) in a mass-based program to utilize interstate trading of allowances. One way to achieve interstate trading is by adopting certain consistent elements in state plans, which would assure states of compatibility among state programs so that allowances can be used for compliance in any other jurisdiction that has adopted compatible features. Consistency of certain key elements also ensures the integrity of those states' programs. Thus, states that meet such compatibility criteria would have the ability to allow their EGUs to submit allowances from other states that meet the minimum compatibility criteria. While this document focuses on how states could facilitate interstate trading with limited administrative effort and coordination, some stakeholders have discussed how a group of states could elect to work more closely with a limited number of other states to address certain environmental integrity concerns. Thus, some states may also want to explore additional design options that require enhanced coordination.

Second, one additional consistent element we have included is limiting the program to actions within the interconnected electricity sector. For the purposes of this regulatory design starting point, we have chosen not to include potential pricing mechanisms, such as offsets or safety valves, that create new allowances above the target but could compromise a state's final mass-based target and likely constrain the ability of a state to trade with others.

Third, we have assumed that states will choose to include new fossil fuel-fired sources in the mass-based program and use EPA's final mass-based targets that reflect economic growth including expected generation from new sources. Some stakeholders have raised concerns about the potential market distortions in competitive markets if some units are subject to Clean Power Plan obligations while other units face different obligations due their initial date of operation; others have raised the concern of potential emission leakage to new fossil units; and others have raised concerns about the means to account for economic growth. Additionally, stakeholders have noted that interstate trading would be problematic between states that treat new sources differently. To address these concerns, we have assumed that EPA's final rule translates the final target rates for each state into mass-based targets using a methodology that accounts for economic growth and includes emissions from new sources. In November 2014, EPA released a Technical Support Document (TSD) that provided a calculation that included generation from new fossil fuel-fired sources. The TSD noted that the

proposed Clean Power Plan had taken comment on the inclusion of new, fossil fuel-fired sources as a component of state plans.¹

Fourth, states will have the option to distribute allowances however they choose—whether through auction or allocation. An overall objective of the Clean Power Plan is to ensure state flexibility in compliance design, and the proposal was thus structured so that states can allow trading with other states that implement different distribution approaches. In deciding how to distribute allowances, each state will need to evaluate a variety of policy objectives, including whether to distribute allowances as a means to generate revenue that can be used to meet state-specific policy objectives. These objectives may include reducing consumer energy bills, encouraging further investment in energy efficiency or zero-emitting generation resources, or supporting demand response programs. States will also be able to choose to allocate the allowances at no cost to entities, including affected EGUs or to other entities such as local distribution companies (LDCs).

For the regulatory language, we have indicated the section where states would insert the regulatory auction or allocation language, and in Appendix A, we have outlined the regulatory language for auctioning allowances and included a discussion about some of the critical decisions that a state will need to consider in evaluating how to allocate allowances if it elects to provide all or a portion of the allowances to entities without charge. Relative to an auction, there are more policy decisions associated with an allocation approach, and, for purposes of this document, we did not want to presume any of those judgments for states or EPA. Therefore, we have not included specific regulatory language for allocating allowances. However, this should not be interpreted as a limit on states' choices in designing their own state plans. Rather, we wanted to ensure states saw this choice as a critical one with significant flexibility as discussed in Appendix A.

In sum, this document is designed to highlight key components of a mass-based compliance approach under the Clean Power Plan. For states that want to implement a mass-based program, it will be helpful for them to understand from EPA which components could be presumed to be approvable as part of a state plan, which components can facilitate interstate trading, and which components are ones for which states will need to consider state-specific policy objectives in evaluating state design choices. This document is also aimed at facilitating discussions among stakeholders on each group of decisions by framing the document as preamble and regulatory text that could be used as a model mass-based compliance approach.

¹ EPA, "Translation of the Clean Power Plan Emission Rate-Based CO₂ Goals to Mass-Based Equivalents" (November 2014). Available at: <http://www2.epa.gov/sites/production/files/2014-11/documents/20141106tsd-rate-to-mass.pdf>.

Mass-Based Programs Preamble Considerations

The following is a starting point for some of the considerations for preamble language for mass-based regulations and provides a framework for developing preamble language. The introduction of this document provides an overview of policy assumptions we have made that inform this text.

1. Endorsement of a Mass-Based Approach. In the proposed rule, EPA recognized that each implementing authority should have the ability and flexibility to translate the form of the emission rate-based goal to a mass-based form (i.e., with a goal expressed in terms of total short tons of CO₂ per year from affected EGUs), as long as the translated goal achieves the equivalent measure of stringency. Each implementing authority may demonstrate achievement of the goal using this mass-based metric, as proposed at 40 CFR §60.5740(a)(3)(B)(ii)(B). EPA could recognize that such an approach may: allow for superior alignment with intrastate and interstate emissions allowance trading mechanisms that help to reduce compliance costs by broadening the pool of low-cost compliance opportunities; enhance compliance flexibilities for sources; create market-based compliance mechanisms that leave fundamental business decisions in the hands of businesses; and readily align with existing electric generating industry and regulatory structures. Such an approach allows each EGU, which is the regulated source under the Clean Power Plan, to determine how it may best comply with its target, whether that be through enhanced plant efficiency, reduced utilization, or the purchase of emissions allowances.

2. Presumptive Recognition of Mass-Based Goals that Account for Economic Growth. Assuming that EPA provides each implementing authority with a presumptive mass-based performance target, the target could reflect historical generation as well as generation needed to serve projected future electric demand, given that states have the option to include new fossil fuel-fired sources as a component of state plans and to accommodate for systemic growth in a way that is equivalent to a rate-based standard. See Notice of Data Availability at 79 Fed. Reg. 67406, 67408. The mass-based target could also account for new facilities by committing to periodic updates of these state targets, which would provide a consistent market dynamic for electricity generated by existing and new sources. Also, states may seek to justify a different translation outcome and approach.

3. Acknowledgment of Interstate Compliance Mechanisms through the Creation of Presumptive Common Plan Metrics. EPA could provide clear guidance on the minimum required elements of a mass-based plan for implementing authorities who seek to secure the benefits of intrastate and interstate trading. While EPA may permit such interstate trading, it is not a mandatory feature of state plan submissions. Rather, it may be a cost-effective option that some implementing authorities choose to facilitate. Through the adoption of each element of the Presumptive Mass-Based Plan contained in this rulemaking, each implementing authority would be assured of the creation of fungible interstate allowance compliance instruments. These instruments would reflect consistency between state

programs and would be presumed to be approved for use for compliance in any jurisdiction that has adopted these features. These allowances may be exchanged among states that choose to allow compliance instruments from out-of-state to satisfy in-state obligations, regardless of whether states formally “link” their plans or adopt a joint plan, provided that states have adopted the common elements of the Presumptive Mass-Based Plan or have otherwise demonstrated equivalence with its elements. While implementing authorities do not necessarily have to link their plans in a formal manner, they may still choose to do so, including, for example, where linkage fosters a greater alignment with regional electricity markets. Designing a program in this way may, in many cases, reduce the administrative burden for states and can create options for cost-effective and efficient program operation.

4. Key Features of the Mass-Based Plan. In order to secure this consistency, each implementing authority must limit the emissions allowances it has in circulation to the mass-based cap in its goal. It must demonstrate that its compliance plan features a means for distributing each ton of allowable emissions as an emissions allowance. However, states have the choice on the distribution methodology, which could include auction or allowance allocation. It must oversee and enforce the established emissions monitoring and reporting mechanisms as well as an emissions accounting system, or rely upon EPA's centralized Emissions Allowance and Tracking System. Implementing authorities also may authorize the affected EGUs in a state to comply through the submission of traded allowances, whether from intrastate or interstate sources. Implementing authorities must ensure that affected EGUs retire emission allowances equivalent to their actual reported emissions for each compliance period.

5. Optional Features of State Mass-Based Plans. Assuming the final rule provides implementing authorities with flexibility to develop their compliance approaches to the rulemaking, implementing authorities may seek to promote other policies as elements of their plans, so long as these do not interfere with the attainment of their overall compliance requirements. For example, states can choose how best to distribute allowances whether through auction or allocation. While the Appendix provides regulatory language for an auction as an example, states may decide to allocate all of the allowances to a variety of entities, such as to local distribution companies or to affected EGUs, and through a variety of methodologies such as an output or emissions basis. States may also elect to include set-asides of allowances to promote state-specific policy objectives, including renewable energy, energy efficiency, or demand response. States may also seek to develop certain flexibility mechanisms, such as those that control costs in some manner for complying sources, so long as they assure integrity of their overall cap. For states distributing allowances through an auction, states may decide to deploy emissions allowance auction revenues however they see fit, including by assisting ratepayers or by promoting renewable energy and energy efficiency projects.

6. Features of Centralized Emissions Trading Infrastructure for States Adopting Mass-Based Approaches. In order to facilitate the development of mass-based compliance approaches, implementing authorities may rely on certain centralized features that could be established by EPA.

These include EPA's Emissions Collection and Monitoring Plan System (ECMPS). EPA could amend 40 CFR §§75.1(a) and 75.2(c)² to apply to CO₂-based emissions and to be available to track emissions under a CO₂ mass emission reduction program, retaining all of that regulation's other provisions, including monitoring, measurement, and reporting. Likewise, EPA's existing continuous emissions monitoring requirements under 40 CFR §75.13³ could be extended to these actions. Additionally, EPA's Allowance Tracking System under 40 CFR §73, Subparts C and D⁴ could be extended to include the establishment and maintenance of accounts for CO₂ mass-based emissions allowances for affected EGUs and for the transfer and tracking of those allowances.

7. State Obligations under a Mass-Based Approach. States opting to establish a mass-based CO₂ emissions allowance program and secure presumptive approval are required to establish and maintain individual CO₂ allowance accounts or link to an EPA registry and tracking system to facilitate trading. States could distribute emissions allowances on a quarterly basis to affected EGUs (and/or other parties) by auction or other basis in a manner designed to satisfy each State's CO₂ Mass Emission Performance Goal for each compliance period. To ensure compliance, states must also oversee and enforce an annual reporting mechanism, including measurement and continuous emissions monitoring, for EGUs, which could include utilizing an amended ECMPS or using an existing state program to track CO₂ emissions. Finally, states must retire reported amounts in each account equivalent to the reported emissions for each compliance period and sufficient to satisfy each state's CO₂ mass emission performance target or, to the extent those reported emissions exceed the available allowances, impose appropriate penalties and secure sufficient additional allowances from those affected EGUs.

² 40 CFR §75 presents regulatory requirements for EPA's Continuous Emissions Monitoring Program. Specifically, sections 75.1(a) and 75.2(c) cover the regulation's purpose and applicability.

³ 40 CFR §75.13 presents "specific provisions for monitoring CO₂ emissions" under the Emissions Monitoring Program.

⁴ 40 CFR §73, Subparts C and D currently present regulatory requirements for the allowance tracking system and allowances transfers under the SO₂ Allowance System.

Presumptive Mass-Based Plan Regulatory Text

The following is regulatory language that EPA and states could use as a starting point in designing a mass-based compliance approach. The introduction of this document provides an overview of policy assumptions we have made that inform this text.

1. GENERAL PROVISIONS FOR ESTABLISHMENT OF PRESUMPTIVE MASS-BASED CO₂ ALLOWANCE PROGRAMS

1. Purpose and Scope of this Part.
 - (a) This Part establishes a mass-based allowance and trading system to achieve the CO₂ Emission Performance Goal established in 40 CFR §60, Subpart UUUU for EGUs subject to the jurisdiction of those states that have opted into a mass-based system. This system is referred to as the CO₂ Allowance System.
 - (b) After the effective date of this Part, it shall be unlawful for any owner or operator of any affected EGU within that jurisdiction to operate such EGU, except in compliance with this Part.
 - (c) Adoption of this CO₂ Allowance System, through each of its provisions, provides a presumptive basis for approval of state plans to establish Standards of Performance for EGUs.
2. Definitions.
 - (a) "Agency" means the [*State Environmental Agency*] or any agent operating under the authority of that agency.
 - (b) "Affected EGU" means any existing EGU and any new EGU⁵ that is subject to the jurisdiction of [*State*] and faces CO₂ control obligations under this Part.
 - (c) "Business Day" means any day except a Saturday, Sunday, the Friday after the United States Thanksgiving holiday, or a Federal Reserve Bank holiday.
 - (d) "CO₂ Allowance" means a limited authorization by the Agency to emit up to one short ton of CO₂ without incurring liability under this Part, or, as provided in subsection 3, a limited authorization to emit up to one ton of CO₂ issued by another State. No provision of this Part, any permit issued under this Part, or any other action taken by the Agency or EPA under this Part, shall be construed to limit the authority of the Agency or EPA to

⁵ As previously indicated, we have assumed that states will choose to use EPA's final mass-based targets that include expected future generation from new fossil fuel-fired sources and include new sources in the mass-based program.

terminate or limit such authorization. A CO₂ allowance does not constitute a property right.

- (e) “CO₂ Allowance Transfer Deadline” for a compliance period is the deadline by which CO₂ allowances must be submitted for recordation in an affected source’s compliance account in order to establish compliance with section 2.2 for that compliance period. The deadline shall be midnight Eastern Standard Time on March 1st of the subsequent year, or, if that March 1st is not a business day, the midnight of the next business day.
- (f) “CO₂ Mass Emission Performance Goal” means the emission target established for a State pursuant to 40 CFR §60.5770. The CO₂ Mass Emission Performance Goal for [State] provides that the aggregate emissions from affected EGUs in [State] shall not exceed [number] tons of CO₂ between 2020 and 2030.
- (g) “Commercial Operation” means producing steam, gas, or other heated medium at an EGU that is used to generate electricity for sale or use, including test generation.
- (h) “Compliance Period” means [insert].
- (i) “Effective date” means [insert effective date of State rule].
- (j) “EGU” means an entity that is:
 - (i) [insert definition from final Clean Power Plan rule].
- (k) “Existing EGU” means an EGU that commenced construction on or before the later of:
 - (i) January 8, 2014; or
 - (ii) the date of proposal for any subsequent new source performance standards covering EGUs’ CO₂ emissions.
- (l) “Emission” or “emissions,” when used without a qualifier, means an emission of CO₂.
- (m) “New EGU” means any EGU that commenced construction after the later of:
 - (i) January 8, 2014; or
 - (ii) the date of proposal for any subsequent new source performance standards covering EGUs’ CO₂ emissions.
- (n) “Owner and Operator” or “Owner or Operator” means any person who leases, operates, controls, or supervises an affected EGU. Each person who owns or leases an interest in the affected EGU, and each person who controls or supervises the source, is jointly and severally liable for compliance with the obligations of this Part. For purposes of this definition, the term “person” has the same meaning as in 42 USC 7602(e).
- (o) “Reportable annual emissions” means the total mass of CO₂ emitted from an affected EGU during a calendar year.

3. Interstate Cooperation. For purposes of this Part, the term “CO₂ allowance” may include an allowance issued by another State where:
 - (a) The plan has been approved by the U.S. EPA under 40 CFR §60, Subpart UUUU or meets the requirements of this Part for presumptive approvability;
 - (b) The plan takes the form of a mass-based allowance system, in which each allowance constitutes a limited authorization to emit up to one ton of CO₂, and the total number of allowances issued is no greater than the State's CO₂ Mass Emission Performance Goal; and
 - (c) The plan applies to existing and new EGUs.
4. Rules of Construction.
 - (a) *Other requirements preserved.* No provision of this Part, any CO₂ permit issued under section 2.3, or any action by the Agency in implementing this Part shall be construed to exempt the owner or operator of an affected EGU from compliance with any provision of federal, state, or local law.
 - (b) *Severability.* If any provision of this Part, or its application to any person or circumstance, is held invalid, the remainder of this Part, and the application thereof to other persons or circumstances, shall not be affected thereby.

2. WHAT ARE AFFECTED EGU OBLIGATIONS UNDER THIS PART?

1. Certificate of Representation Requirement.⁶
 - (a) If you are the owner or operator of an affected EGU, you must submit a certificate of representation for that source pursuant to section 4.1. The certificate must be submitted prior to the effective date of this Part, or 12 months before the date your affected EGU will commence operation, whichever is later. You must submit amendments to the certificate whenever required by sections 4.1 and 4.4, or as necessary to ensure the continued accuracy of the certificate.
2. Allowance Requirement.
 - (a) *In general.* If you are the owner and operator of an affected EGU, you must hold in your compliance account, as of the CO₂ allowance transfer deadline for each compliance period, at least a sufficient quantity of compliance-eligible allowances sufficient to cover the reportable annual emissions for that source for that compliance period.

⁶ As appropriate, states could also supplement or replace this language by leveraging their existing programs and citing current designated representative requirements.

- (i) For any CO₂ emission from an affected EGU, a “compliance-eligible allowance” is a CO₂ allowance with a vintage year during, or prior to, the compliance period in which the CO₂ emission occurred, acquired either directly or through trading.
 - (ii) For purposes of this section, “reportable annual emissions” means the total mass of CO₂ emitted from an affected EGU during a calendar year of a compliance period as reported pursuant to section 2.4, except if the Agency or EPA determines under section 2.4(e) that the reported number is inaccurate, in which case the Agency or EPA shall specify the source’s reportable annual emissions.
- (b) *Compliance deduction.* Following the allowance transfer deadline for a compliance period, the Agency will deduct from your compliance account, or instruct EPA to deduct from a centralized compliance account, the CO₂ allowances you have designated to cover the allowance requirement of this subsection.
 - (i) In the case of units sharing a common stack and having emissions that are not separately monitored or apportioned, the CO₂ authorized account representative of the units may identify the percentage of CO₂ allowances to be deducted from each unit’s compliance account to cover the unit’s share of CO₂ emissions from the common stack for a compliance period. Such identification shall be made in the compliance certification report submitted in accordance with this Part.
- (c) *Excess Emissions.* If you do not have enough CO₂ allowances in your account to satisfy the allowance requirement of this subsection, the Agency or EPA will deduct all of the compliance-eligible allowances in your account. Each ton of CO₂ for which you cannot satisfy the allowance requirement of this subsection will be considered an excess emission. Each excess emission will constitute a separate violation of this Part and applicable state law, and will subject you to penalties under subsections (d) and (e).
- (d) *Forfeiture Penalty.* If you have reported emissions for a compliance period in excess of those in your account, you must forfeit three additional CO₂ allowances to the Agency for each excess emission. Within three months of the allowance transfer deadline for that compliance period, the Agency will deduct this penalty from allowances in the account, including allowances from years that occur after the compliance period in which you have excess emissions, or will instruct EPA to do so in the event the Agency has relied upon a centralized accounting capability. In the event that you do not have sufficient CO₂ allowances to cover the forfeiture penalty, you must transfer sufficient allowances into your compliance account immediately.
- (e) *Additional Penalties.* In addition to satisfying the forfeiture penalty of subsection (c), you must pay any fine, penalty, or assessment, and comply with any other remedy for the same violation imposed under applicable federal, state, or local law. The following guidelines will be followed in assessing penalties and other obligations:

- (i) Where the affected EGU has excess emissions for a compliance period, each day in the compliance period shall constitute a day of violation unless the owner and operator of the source demonstrate that a lesser number of days is appropriate.
 - (ii) Each ton of excess emissions is a separate violation of this Part and applicable state law.
 - (f) *Challenge to Agency's Determination.* You may challenge the Agency's determination that your affected EGU had excess emissions in the context of the initial administrative enforcement or any civil or criminal judicial action arising from or encompassing that excess emissions violation. The commencement or pendency of any administrative enforcement or civil or criminal judicial action arising from or encompassing that excess emissions violation will not prevent the Agency or EPA from deducting the CO₂ allowances resulting from the Agency's original determination that your relevant source had excess emissions for a compliance period. If the Agency's determination of the existence or extent of the affected EGU's excess emissions is revised either by a settlement or final conclusion of any administrative or judicial action, the Agency will take the following action:
 - (i) Where the Agency's determination of the extent of excess emissions was too low, the Agency will take further action under this Part to address the expanded violation.
 - (ii) Where the Agency's determination of the extent of excess emissions was too high, the Agency or EPA will restore to your compliance account a number of CO₂ allowances equaling the number of CO₂ allowances that were improperly deducted. If your compliance account no longer exists, the Agency or EPA will distribute the CO₂ allowances to another account that you select.
3. Permit Requirement.⁷
- (a) *In general.* If you are the owner or operator of an affected EGU, you must have a CO₂ permit for the source, and operate the source in compliance with such permit at all times. The CO₂ permit shall incorporate the allowance requirement of section 2.2 and all other applicable requirements of this Part. If you have a Title V permit under 40 CFR Part 70 for the affected EGU, you must update that permit to ensure that the CO₂ permit is a complete and distinguishable portion of the Title V permit.
 - (b) *Permit application.* To obtain a permit for an affected EGU, you must ensure that your designated representative submits a complete CO₂ permit application by the application deadline. A complete CO₂ permit application must identify the affected EGU (including

⁷ Each state will likely need to customize this section based on its own permitting requirements. This section is illustrative of key components.

plant name and the Office of Regulatory Information Systems or facility code assigned to the source by the Energy Information Administration of the United States Department of Energy, if applicable) and each unit at the affected EGU.

- (c) *Application deadline.* The Agency, or EPA where it is administering such permits, must receive a CO₂ permit application from an affected EGU by the later of the effective date of this Part, or 12 months before the date the affected EGU commences operation.
- (d) *Duty to Supplement.* If you are the designated representative for an affected EGU, you must submit any supplemental information requested by the Agency or EPA for the purpose of reviewing the permit application or for any other purpose related to the implementation of this Part. In the event that you discover that the information included in the CO₂ permit application submitted to the Agency or EPA is incomplete or inaccurate, you must immediately submit an update or correction.

4. Reporting Requirements.⁸

(a) Quarterly reports.

- (i) *Report.* If you were the owner or operator of an affected EGU for a quarter of any calendar year, you must ensure that your designated representative submits a quarterly report for that quarter. Each quarterly report must report the mass of CO₂ emissions from each affected EGU during the quarter, as recorded by a monitoring system that has been certified under section 5.1(a), or as estimated using the missing data procedures referred to in section 5.1(a)(i)(2). Each quarterly report shall be submitted to the Agency and to EPA.
- (ii) *Format of quarterly report.* Each quarterly report shall be submitted in a manner specified in Subpart H of 40 CFR §75 and 40 CFR §75.64.⁹ Emissions data included in a quarterly report shall be submitted in an electronic format prescribed by EPA (unless another format is prescribed by the Agency). Quarterly reports shall be submitted for each affected EGU using a common stack, and shall include all of the data and information required in Subpart G and Appendix G of 40 CFR §75 except for opacity, heat input, NO_x, and SO₂ provisions.

(b) Annual reports.

- (i) *Report.* If you were the owner or operator of an affected EGU for any portion of a year within a compliance period, you must ensure that your designated representative submits an annual report for that calendar year to the Agency and

⁸ As appropriate, states could also supplement or replace this language by leveraging their existing programs and citing current reporting requirements.

⁹ 40 CFR §75 Subpart H contains the NO_x Mass Emissions Provisions of the Continuous Emissions Monitoring regulations. 40 CFR §75.64 contains requirements for the Continuous Emissions Monitoring Quarterly Reports.

to EPA. Each annual report must report the reportable annual emissions for your affected EGU.

- (ii) *Format of annual report.* Each annual report shall be submitted in a manner consistent with subsection 4(a)(ii).
- (c) *Compliance certificate.* You must ensure that your designated representative submits a compliance certificate in support of each quarterly and annual report. 40 CFR §97.30¹⁰ is hereby amended to include CO₂ in the compliance certification report and certification requirements for affected EGUs.
- (d) *Consistency of reports.* If the reportable annual emissions included in the annual report for your affected EGU do not equal the sum of the CO₂ emissions reported in each of the four quarterly reports submitted to the Agency during the calendar year, you must explain this discrepancy in your annual report. Specifically, you must identify the quarterly report that included an inaccurate estimate of the quarterly CO₂ emissions, and explain why this report included inaccurate information, when the inaccuracy came to your attention, and what steps, if any, you plan to take to assure accuracy in future quarterly reports.
- (e) *Independent audit authority.* The Agency or EPA may conduct an independent audit of any report or compliance certification submitted under this section or any other submission under this Part, and may make appropriate adjustments to the information included in these submissions. The Agency or EPA may deduct CO₂ allowances from or transfer CO₂ allowances to an affected EGU's compliance account based on the information included in, or obtained through an independent audit of, the reports or compliance certificates submitted under this section or any other submission under this Part. The Agency or EPA may require you hold allowances for a greater number of emissions where it determines (based on the information included in, or obtained through an independent audit of, the reports or compliance certificates submitted under this section) that you have underestimated your reportable annual emissions.

5. Recordkeeping Requirements.

- (a) If you are the owner or operator of an affected EGU, you must maintain each of the following documents for as long as you own or operate the affected EGU:
 - (i) The certificate of representation issued pursuant to section 4.1 for the current designated representative and the current alternative representative of the affected EGU, and any document required to demonstrate the truth of the statements included in the certificate of representation; and

¹⁰ 40 CFR §97.30 contains the Compliance Certification requirements of the Federal NO_x Budget Trading Program and CAIR NO_x and SO₂ Trading Programs (Federal NO_x and CAIR programs).

- (ii) The CO₂ permit issued pursuant to section 2.3.
- (b) You must maintain each of the following documents for 10 years from the date the document is created:
 - (i) All emissions monitoring information, in accordance with 40 CFR §75.57;¹¹
 - (ii) All reports, compliance certifications, and other submissions required under this Part; and
 - (iii) All documents used to complete a permit application and any other submission under this Part, and any other information used to demonstrate compliance with this Part.
- (c) With respect to the documents referred to in subsection (b), the Agency or EPA may, where appropriate, extend the 10-year retention period at any time prior to the end of the retention period by providing written notice. The Agency or EPA may, where appropriate, require owners and operators to retain additional documents not listed in this section by providing written notice.

3. HOW DO I OBTAIN CO₂ ALLOWANCES?

1. Compliance Accounts.

- (a) *In general.* Upon receipt of a complete certificate of representation under section 4.1, the Agency will establish one compliance account for each affected EGU covered by the certificate of representation. Each compliance account will be assigned a unique identifying number. In the alternative, the Agency may rely upon the centralized Emissions Allowance and Tracking System that is hereby established for these purposes by EPA, who will establish such an account.
 - (i) *Function of account.* Distributions of allowances per section 3.3, deductions of CO₂ allowances pursuant to section 2.2, or transfers of CO₂ allowances pursuant to section 3.4 will be recorded in the source's compliance account in accordance with this Part.
 - (ii) *Banking.* Each CO₂ allowance that is held in a compliance account will remain in such account unless and until the CO₂ allowance is deducted pursuant to section 2.2 or transferred pursuant to section 3.4.
 - (iii) *Role of designated representative.* Once a compliance account is established for an affected EGU, all submissions to the Agency or EPA pertaining to the account including, but not limited to, submissions concerning the deduction or transfer of

¹¹ 40 CFR §75.57 presents the general recordkeeping requirements under the Continuous Emissions Monitoring Program.

CO₂ allowances in the account, shall be made only by the designated representative, as defined by section 4.

- (iv) *Error correction.* The Agency or EPA may, at its sole discretion, correct any error in any compliance account it has established under this section. Within 10 business days of making such correction, the Agency or EPA will notify the designated representative of such correction.

2. CO₂ Mass Emissions Performance Goal.

(a) *[STATE] CO₂ Allowance Budget.*

- (i) For 2020, the [STATE] budget is [tons of CO₂].
- (ii) For 2021, the [STATE] budget is [tons of CO₂].
- (iii) For 2022, the [STATE] budget is [tons of CO₂].
- (iv) For 2023, the [STATE] budget is [tons of CO₂].
- (v) For 2024, the [STATE] budget is [tons of CO₂].
- (vi) For 2025, the [STATE] budget is [tons of CO₂].
- (vii) For 2026, the [STATE] budget is [tons of CO₂].
- (viii) For 2027, the [STATE] budget is [tons of CO₂].
- (ix) For 2028, the [STATE] budget is [tons of CO₂].
- (x) For 2029, the [STATE] budget is [tons of CO₂].
- (xi) For 2030, the [STATE] budget is [tons of CO₂].
- (xii) For each year after 2030, the [STATE] budget is [tons of CO₂].

- (b) All allowances from each year's budget will be assigned the vintage from that year.

3. CO₂ Allowance Distribution.

[Language to be included from Appendix A based on state's allowance distribution decision of either (1) auction or (2) allocation.]

4. Allowance Transfers.

- (a) *Submission of CO₂ Allowance Transfer.* The designated representative seeking recordation of a CO₂ allowance transfer shall submit the transfer to the agency administering the account, whether that be EPA or the Agency. Prior to use for compliance, all allowances sold to another party that are intended for use for compliance by that party shall be registered in the recipient's account. To be considered correctly submitted, the CO₂ allowance transfer shall include the following elements in a format specified by the agency administering the account:

- (i) The numbers identifying both the transferor and transferee accounts;
 - (ii) A specification by serial number of each CO₂ allowance to be transferred;
 - (iii) The printed name and signature of the designated representative of the transferor account and the date signed;
 - (iv) The date of the completion of the last sale or purchase transaction for the allowance, if any; and
 - (v) The purchase or sale price of the allowance that was subject of a sale or purchase transaction under this section.
- (b) *Recordation.*
- (i) Within five business days of receiving an allowance transfer, the agency administering the account¹² will record an allowance transfer by moving each CO₂ allowance from the transferor account to the transferee account as specified by the request, provided that:
 - 1. The transfer includes the information required under subsection (a);
 - 2. The transfer was submitted prior to the relevant CO₂ allowance transfer deadline; and
 - 3. The transferor account includes each CO₂ allowance identified by serial number in the transfer.
 - (ii) If an allowance transfer fails to satisfy any requirement of subsection (a), the allowance transfer will not be recorded by the agency administering the account, and that entity will provide notice pursuant to subsection (c)(ii). The parties may attempt to cure the defect identified in the notice and resubmit the transfer for recordation.
- (c) *Notification.*
- (i) Within five business days of recordation of an allowance transfer under this section, the agency administering the account will notify each party to the transfer, through their designated representative.
 - (ii) Within ten business days of receipt of an allowance transfer that fails to meet the requirements of subsection (a), the agency administering the account will notify each party to the transfer, through their designated representative, of the reason for non-recordation.

¹² We expect states will have the choice of electing to administer the trading platform itself, or requesting that EPA or a third party administer the trading platform.

4. WHAT ARE THE REQUIREMENTS FOR DESIGNATED REPRESENTATIVES?

1. Certificate of Representation.
 - (a) The requirements for a certificate of representation of 40 CFR §97.13¹³ hereby also apply to affected EGUs of CO₂ emissions.
2. Authorization and Responsibilities of Account Designated Representative.
 - (a) No CO₂ budget allowance will be issued, no emissions data reports will be accepted, and no compliance account will be established for an affected EGU until the Agency or EPA, as appropriate, has received a complete certificate of representation under section 4.1 identifying a designated representative of the affected EGU or designating a representative already identified for another program in this Part as a representative for these purposes.
 - (b) Upon receipt by the Agency and EPA of a complete certificate of representation under section 4.1, the designated representative shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each owner and operator of the affected EGUs in all matters pertaining to the CO₂ Allowance System, notwithstanding any agreement between the designated representative and the entity's owners and operators to the contrary.
 - (c) Each submission by an affected EGU under this Part, including the Certificate of Representation, shall be submitted, signed, and certified by the designated representative for each affected EGU on behalf of which the submission is made and shall include the statement required in 40 CFR §§97.10 and §97.30(c).¹⁴
3. Alternate Representative.
 - (a) A certificate of representation under section 4.1 may designate one and only one natural person to serve as alternate representative.
 - (b) The provisions of 40 CFR §97.11¹⁵ are hereby amended to include CO₂ to govern Agency and EPA action on such representation.
4. Changes to Designated Representative, Alternate Designated Representative, or Owner and Operator. The owners and operators of an affected EGU may change the designated and alternate

¹³ 40 CFR §97.13 regulates the account certificate of representation requirements under the Federal NO_x and CAIR Programs.

¹⁴ 40 CFR §97.10 presents the authorization and responsibilities of NO_x authorized account representative under the Federal NO_x and CAIR Programs; §97.30(c) contains that program's compliance certification requirements.

¹⁵ 40 CFR §97.11 presents the alternate NO_x authorized account representative requirements representative under the Federal NO_x and CAIR Programs.

representatives at any time pursuant to the procedure specified in 40 CFR §97.12,¹⁶ which is hereby amended in all respects to include emissions of CO₂.

5. **Objections Concerning Designated Representative.** Once a complete certificate of representation under section 4.1 has been submitted and received, the Agency and EPA will rely on the certificate of representation unless and until the Agency receives a superseding complete certificate of representation, which shall be treated under the requirements of 40 C.F.R. §97.14¹⁷ as they are hereby amended to include CO₂ private legal disputes concerning the proceeds of any CO₂ allowance transfers.
6. **Delegation by Designated Representative and Alternate Representative.**
 - (a) A designated representative or alternate representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Agency or EPA under this Part.
 - (b) In order to delegate authority to make an electronic submission to the Agency or EPA in accordance with subsection (a), the designated representative or alternate representative must submit to the Agency a notice of delegation, in a format prescribed by the Agency that includes the following elements:
 - (i) The name, address, e-mail address, telephone number, and facsimile transmission number of designated representative or alternate representative;
 - (ii) The name, address, e-mail address, telephone number and facsimile transmission number of each such natural person who is delegated authority, herein referred to as the “electronic submission agent”;
 - (iii) For each such natural person, a list of the type of electronic submissions for which authority is delegated to him or her; and
 - (iv) The following certification statements by such designated representative or alternate representative:

“I agree that any electronic submission to the Agency and EPA that is by a natural person identified in this notice of delegation and of a type listed for such electronic submission agent in this notice of delegation and that is made when I am a designated representative or alternate representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under section 4.6, shall be deemed to be an electronic submission by me.”

¹⁶ 40 CFR §97.12 presents the requirements for changing the NO_x authorized account representative and alternate NO_x authorized account representative under the Federal NO_x and CAIR Programs.

¹⁷ 40 C.F.R. §97.14 contains regulations for filing objections concerning the NO_x authorized account representative.

“Until this notice of delegation is superseded by another notice of delegation or terminated entirely pursuant to section 4.6, I agree to maintain an e-mail account and to notify the Agency immediately of any change in my e-mail address.”

- (c) A notice of delegation submitted under subsection (b) shall be effective, with regard to the designated representative or alternate representative identified in such notice, upon receipt of such notice by the Agency or EPA and until receipt by the Agency or EPA of a superseding notice of delegation by such designated representative or alternate representative. The superseding notice of delegation may replace any previously identified electronic submission agent, add a new electronic submission agent, or eliminate entirely any delegation of authority.
- (d) Any electronic submission covered by the certification in subsection (b) and made in accordance with a notice of delegation effective under subsection (c) shall be deemed to be an electronic submission by the designated representative or alternate representative submitting such notice of delegation.

5. WHAT ARE THE REQUIREMENTS FOR MONITORING & REPORTING?

1. General Requirements.

- (a) If you are the owner or operator of an affected EGU, you must:
 - (i) Comply with the monitoring, measurement, certification, and reporting requirements, including continuous emissions monitoring under 40 CFR § 75, for their CO₂ emissions regulated pursuant to Agency plans under this Part, including:
 - 1. Establish continuous CO₂ emissions monitoring or determine CO₂ emissions through approved methodologies per 40 CFR §75.13;¹⁸
 - 2. Follow missing data procedures as necessary for CO₂ emissions per 40 CFR §75.35;¹⁹
 - 3. Successfully complete all certification tests required and meet all other requirements under 40 CFR §75.20²⁰ that are applicable to the monitoring systems installed pursuant to paragraph 1;
 - 4. Submit a monitoring plan in accordance with 40 CFR §75.62;²¹ and

¹⁸ 40 CFR §75.13 presents specific provisions for monitoring CO₂ emissions under the Emissions Monitoring Program.

¹⁹ 40 CFR §75.35 presents missing data procedures for CO₂ under the Emissions Monitoring Program.

²⁰ 40 CFR §75.20 presents the initial certification and recertification procedures under the Emissions Monitoring Program.

²¹ 40 CFR §75.62 presents the requirements for monitoring plan submittals under the Emissions Monitoring Program.

5. Record, report, and perform quality assurance on the data from the monitoring systems installed pursuant to paragraph 1 under the requirements of 40 CFR §75 Subparts F and G.²²
 - (ii) Comply with the reporting and recordkeeping requirements established in this Part, including:
 1. Submit and certify reports and meet all other requirements as required by section 2.4 of this Part; and
 2. Record, report, and quality-assure the data from the monitoring systems under section 2.5 of this Part.
2. Compliance Dates.
 - (a) If you are the owner or operator of an affected EGU, you must comply with the requirements of subsection (1)(a) on or before the following dates:
 - (i) For an affected EGU that commenced operation prior to the effective date of this Part, by the effective date of this Part.
 - (ii) For an affected EGU that commenced operation after the effective date of this Part, by the first date of commercial operation.²³
 - (iii) For an affected EGU at which construction of a new stack or flue installation is completed after the applicable deadline under subsections (i) and (ii), by the date on which emissions first exit to the atmosphere through the new stack or flue.
3. Prohibitions.
 - (a) No owner or operator of an affected EGU shall use any alternative monitoring system, alternative reference method, or any other alternative for the required continuous emission monitoring system without having obtained prior written approval from the Agency or EPA in accordance with this Part.
 - (b) No owner or operator of an affected EGU shall operate any affected EGU at the source so as to discharge, or allow to be discharged, CO₂ emissions into the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this Part and 40 CFR §75.
 - (c) No owner or operator of an affected EGU shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring

²² 40 CFR §75 Subparts F and G constitute §§75.50 – 75.75, and cover all Recordkeeping Requirements and Reporting Requirements under the Emissions Monitoring Program.

²³ As indicated in the document, we have assumed that states will choose to use EPA's final mass-based targets that include expected future generation from new fossil fuel-fired sources and include new sources in the mass-based program. This language reflects this assumption.

method, and thereby avoid monitoring and recording CO₂ mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this Part and 40 CFR §75.

- (d) No owner or operator of an affected EGU shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved emissions monitoring system under this Part, except under any one of the following circumstances:
 - (i) The owner or operator is monitoring emissions from the affected EGU with another certified monitoring system that provides emissions data for the same pollutant or parameter as the retired or discontinued monitoring system, and the Agency has approved the use of such system at the affected EGU in accordance with the applicable provisions of this Part and 40 CFR §75; or
 - (ii) The designated representative submits notification of the date of certification testing of a replacement monitoring system in accordance with subsection 1(a)(i).

Appendix A: Options for Disposition of Allowances

Below we present the two options for distributing allowances within a state. States could choose to include the following language should they choose to utilize an auction. Alternatively, states that wish to distribute allowances without charge could develop language informed by the considerations noted below.

Auction Regulatory Language

The following language could be incorporated as section 3.3 of the mass-based program regulatory structure proposed above:

3. Auction of CO₂ Allowances.

- (a) *In general.* The following rules shall apply to any allowance auction conducted under this section. The Agency may include additional rules for a specific auction in the notice for that auction. The auction notice may also include time and location information, registration deadlines, and any additional information the Agency deems appropriate. The auction will be designed and carried out to achieve the following objectives:
 - (i) achieve fully transparent and efficient pricing of allowances;
 - (ii) promote a liquid allowance market by making entry and trading as easy and low-cost as possible;
 - (iii) be open to participation by the categories of bidders which meet minimum financial requirements;
 - (iv) monitor for and guard against the exercise of market power and market manipulation;
 - (v) avoid interference with existing allowance markets;
 - (vi) align to the maximum extent practicable with wholesale energy and capacity markets; and
 - (vii) be designed to not act as a barrier to efficient investment in relatively clean existing or new electricity generating sources.
- (b) *Required information in auction notice.* The Agency shall include the following information in the auction notice for each auction:
 - (i) The number of CO₂ allowances, per vintage, offered for sale at the auction; and
 - (ii) The minimum reserve price for the auction.

- (c) *Auction Schedule.*
- (i) CO₂ allowance auctions will be held quarterly, or as often as practical and necessary to facilitate the objectives of the CO₂ Allowance System. In the event the allowance auction is held quarterly:
 - 1. One quarter of the state budget for each calendar year will be allocated during January of that calendar year;
 - 2. One quarter of the state budget for each calendar year will be allocated during April of that calendar year;
 - 3. One quarter of the state budget for each calendar year will be allocated during July of that calendar year; and
 - 4. One quarter of the state budget for each calendar year will be allocated during October of that calendar year.
 - (ii) In order to facilitate price discovery, allowances may be made available for sale up to [four] years in advance of each allocation auction.
- (d) *Reserve price.* The Agency shall implement the reserve price in the following manner:
- (i) No allowances shall be sold at any auction for a price below the reserve price for that auction; and
 - (ii) If the total demand for allowances at an auction is less than or equal to the total number of allowances made available for sale in that auction, then the auction clearing price for the auction shall be the reserve price.
- (e) An Agency may choose to establish and participate in a multi-state auction in meeting these requirements.

Allocation Regulatory Considerations

The following outlines some of the considerations states would need to evaluate in determining how to distribute any of the allowances without charge. Based on those decisions, a state will need to develop specific regulatory language.

States can elect to distribute, or “allocate” allowances to parties within the state. In general, there are three key issues for states to consider in designing such an allocation approach. First, it must determine which parties will be allocated allowances. Second, a state must establish the basis to use in determining individual allocations (i.e., how the state will decide how to split the allowances among parties who receive allocations). Third, a state may choose to either set the distribution amounts at the outset of the program or update the distribution of allowances periodically throughout the program.

States may choose to allocate allowances to various parties, such as affected EGUs, non-affected technologies or programs, or local distribution companies (LDCs). For example, states may want to promote certain policy objectives or technologies by distributing a portion of allowances to new resources or to specific types of sources such as zero-emitting energy projects or energy efficiency programs. Additionally, states could look to allocate allowances as a means to ensure value is returned to electricity customers. For example, states could allocate a portion of the allowances to third parties providing low-income energy assistance or investing in demand-side energy efficiency programs for customers. Another option could be to reduce customer electric bills by allocating allowances in “trust” to LDCs on behalf of their customers. Under Public Utility Commission or appropriate regulatory oversight, the LDCs could use the revenue from selling allowances to reduce customer electric bills by investing in energy efficiency programs or lowering rates. The LDC could also be required to use a portion of the revenue to invest in zero-emitting energy in order to help facilitate compliance with the standards.

States will also need to determine how to allocate allowances among these selected parties and whether to update allocation amounts periodically through the program. For example, states could distribute the allowances to generators based on the amount of electricity produced (i.e. output-based), the amount of fuel consumed (measured in British thermal units or Btus), or the quantity of CO₂ emissions released to the atmosphere (i.e., emissions-based). States may choose to distribute allowances based on an updating, output-based approach in order to create incentives for generators to earn a greater share of allowances by increasing their output and improving their efficiency. Such an updating system would recalculate the allocation ratios on a regular basis.

Some existing mass-based trading programs, such as the Acid Rain Program and CSAPR, rely on an allocation based on historic emissions or heat input data (i.e., a non-updating methodology). This methodology often favors sources that have historically produced the largest share of emissions, and therefore, have the highest compliance obligation. Some stakeholders have objected to this approach as imposing higher costs on customers, rewarding sources with the highest emissions, and penalizing sources that have invested in low- and zero-emission generation.

If states elect to distribute all, or a portion, of the allowances without charge, states will need to evaluate these and other considerations to identify the best approach for distribution given state-specific factors. However, it is important to note that, as discussed above, states can make different decisions concerning allocation while still allowing EGUs to participate in an interstate market for allowances, provided that other key elements are consistent with other states' compliance frameworks.