

US EPA ARCHIVE DOCUMENT

GHG EGU 111(d) Emission Guidelines – State Plan Implementation

June 24, 2014

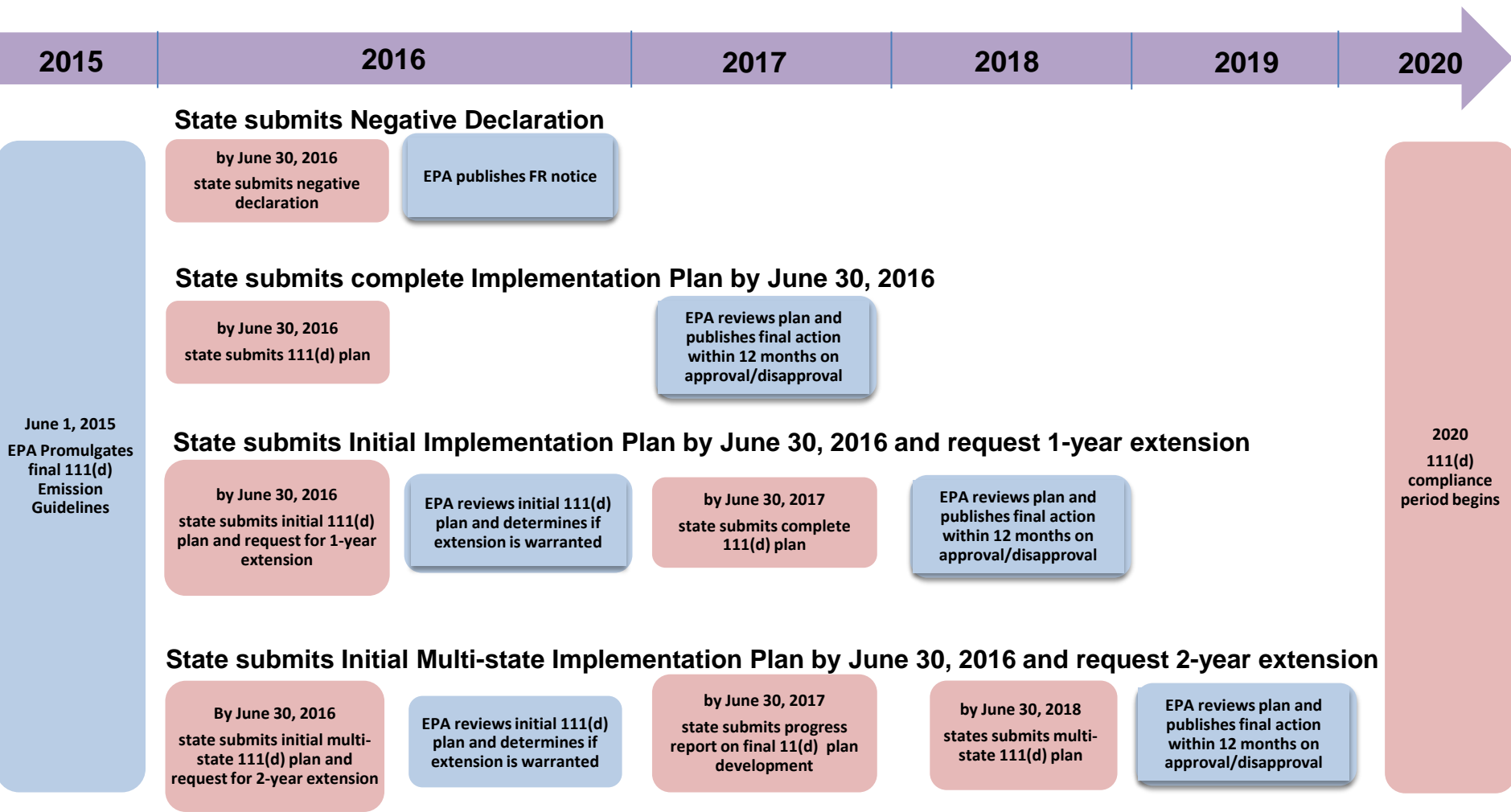
General Overview of Proposal

- ▶ Proposal sets an interim (2020-2029) and final goal (2030) for affected EGUs in each state to reduce carbon pollution
 - ▶ Rate-based performance level (lb CO₂/MWh)
- ▶ EPA is not prescribing measures states need to implement to meet the goal
- ▶ States have flexibility to choose what goes into their plan – how and when to get the necessary reductions, provided the goals are met in established timeframe
 - ▶ Choose form of goal (rate or translate to mass)
 - ▶ Choose what works best in a state, tailored to state needs and policy objectives
 - ▶ Opportunity to build on existing energy efficiency and renewable energy programs
 - ▶ Flexible over time and place – states can look across the electricity system to achieve reductions from affected EGUs, and have 10 years to meet the interim goal on average basis
 - ▶ Option to work with other states through multi-state plan, which can lower costs
 - ▶ Fits into existing state and utility electricity sector planning processes

Timing for State Plan Submittals

- ▶ Individual and multi-state plans due June 30, 2016
- ▶ Some states may reasonably need additional time to submit complete plans, due legislative approval process, rulemaking, complexities associated with regional approaches
- ▶ Providing states with additional time to submit complete plans if justified, and if states provide specific information
 - ▶ Proposed timing of extensions to submit a complete plan, if justified and supported:
 - Individual state plans: a one-year extension (June 30, 2017)
 - Multi-state plans: a two-year extension (June 30, 2018); would submit a progress report on June 30, 2017

111 (d) State Plan Timeline



Initial Plan Content

- ▶ If a state seeks an extension, must submit an initial plan with following content by June 30, 2016:
 - ▶ Description of plan approach and progress made in developing complete plan
 - ▶ Initial quantification of the level of emission performance that will be achieved through the plan
 - ▶ Commitment to maintain existing measures that limit or avoid CO₂ emissions (e.g., RPS, unit-specific limits on operation or fuel utilization), at least until the complete plan is approved
 - ▶ Comprehensive roadmap for completing the plan, including process, analytical methods, and schedule (including milestones) specifying when all necessary plan components will be complete (e.g., projection of emission performance; implementing legislation, regulations and agreements; necessary approvals)
 - ▶ Identification of existing programs state intends to rely on to meet its goal (if used)
 - ▶ Executed agreement(s) with other states (e.g., MOU), if regional approach is being pursued
 - ▶ Commitment to submit a complete plan by the applicable required date and actions the state will take to show progress in addressing incomplete plan components
 - ▶ Description of steps already taken toward developing complete plan
 - ▶ Evidence of opportunity for public comment on the initial plan

Evaluating the Sufficiency of Plans

- ▶ The EPA will evaluate the sufficiency of each plan based on the plan addressing twelve plan components and on four general criteria to determine whether a state's plan is “satisfactory” under CAA section 111(d)(2)(A)
- ▶ Four general criteria
 1. A state plan must contain enforceable measures that reduce EGU CO₂ emissions from affected EGUs
 2. Measures in the plan must be projected to achieve emission performance equivalent to or better than the applicable state-specific CO₂ goal on a timeline equivalent to that in the emission guidelines
 3. EGU CO₂ emission performance under the state plan must be quantifiable and verifiable
 4. The state plan must include a process for state reporting of plan implementation (at the level of the affected entity), CO₂ emission performance outcomes, and, if necessary, implementation of corrective measures

Required State Plan Components

- ▶ State plans must include 12 components:
 1. Identification of affected entities (affected EGUs and other responsible parties)
 - ▶ A state may identify affected EGUs as the only entities subject to requirements in its state plan
 - ▶ A state plan may include other non-EGU affected entities that have enforceable obligations under the plan
 2. Description of plan approach and geographic scope
 - ▶ A state may participate in a multi-state plan or develop a state-specific plan
 - ▶ A multi-state approach may provide participating states with greater flexibility and options
 3. Identification of required emission performance level for affected EGUs
 - ▶ Emission performance level must be equal to or better than state CO₂ emission performance goal for affected EGUs
 - ▶ A state may convert its goal from a rate basis to a mass basis, if appropriate
 - ▶ See “Projecting EGU Emission Performance in State Plans” TSD for discussion of considerations related to this translation

Required State Plan Components (cont.)

4. Demonstration that plan is projected to achieve required emission performance level
 - ▶ State plan must demonstrate that the suite of enforceable measures in the plan are projected to achieve the required emission performance level for affected EGUs specified in the plan (on a rate or mass basis, as applicable)
 - ▶ During the initial 2020-2029 plan performance period, demonstration on an average basis (rate goal) or cumulative basis (mass goal),
 - ▶ Plan must demonstrate it will achieve the required final emission performance level in 2030
 - ▶ This demonstration includes a detailed description of the analytic process, tools, and assumptions used to project future CO₂ emission performance
 - ▶ Considerations related to projecting the emission performance of affected EGUs under a state plan are discussed in the “Projecting EGU CO₂ Emission Performance in State Plans” TSD

Required State Plan Components (cont.)

5. Identification of milestones

- ▶ Periodic programmatic milestones are required to demonstrate program implementation (for plans that are not “self-correcting”)
 - ▶ “Self-correcting” plans inherently assure full achievement of the state plan’s required level of emission performance through requirements that are enforceable against affected EGUs
- ▶ Milestones must have specific achievement dates appropriate to the programs and measures in the plan
- ▶ State plan demonstration must also indicate the plan’s trajectory of emission performance improvement
 - ▶ State must compare the collective emission performance achieved by affected entities in the state during the previous two-year period with performance projected in the state plan, beginning in 2022 and for each year during the interim performance period
- ▶ See preamble Section VIII.B.2.d

6. Identification of corrective measures

- ▶ A plan without self-correcting mechanisms must specify corrective measures that will be implemented if the state plan fails to achieve its projected emission performance trajectory by more than 10 percent of the plan’s projection and a process and a schedule for implementing such measures
- ▶ See preamble Sections VIII.B.2.d and VIII.B.2.e

Required State Plan Components (cont.)

7. Identification of emission standards and any other measures
 - ▶ State plan must identify the applicable emission standards for affected entities (e.g., individual affected EGUs, groups of affected EGUs, all the state's affected EGUs in aggregate, affected entities that are not EGUs)
 - ▶ State plan must identify any implementing and enforcing measures for the emission standards, including the schedule for compliance for each affected entity
 - ▶ Averaging times for emission standards for an affected entity:
 - Rate-based emission performance level – cannot exceed 12 months
 - Mass-based emission performance level – cannot exceed 3 years
8. Demonstration that each emission standard is quantifiable, non-duplicative, permanent, verifiable, and enforceable
 - ▶ State plan must describe how each emission standard has these characteristics, recognizing the non-traditional nature of some potentially affected entities
 - ▶ An emission standard is quantifiable if it can be reliably measured using technically sound methods in a replicable manner

Required State Plan Components (cont.)

9. Identification of monitoring, reporting, and recordkeeping requirements
 - ▶ Plan must include monitoring and reporting requirements for CO₂ emissions and energy output (if applicable) from affected EGUs
 - ▶ Plan must include monitoring and reporting requirements for other affected entities if include in the plan
 - ▶ For additional information see Part 75 Monitoring and Reporting Considerations TSD and State Plan Considerations TSD
10. Description of state reporting
 - ▶ Annual reports, due six (6) months after calendar year end
 - ▶ Must include all information in 40 CFR 60.5815 (Part 75 reporting program)
 - ▶ EGUs may report emissions directly to EPA, if a state wants to incorporate the Part 75 reporting program; this option may save state resources
 - ▶ State must report all information necessary to demonstrate plan performance and implementation, including programmatic milestones and implementation of corrective actions (if relevant)
 - ▶ For additional information see Part 75 Monitoring and Reporting Considerations TSD and State Plan Considerations TSD

State Plan Components (cont.)

11. Certification of hearing on state plan

- ▶ State plan must provide certification that it held a hearing on the state plan, a list of witnesses (with their organizational affiliation, if any) appearing at the hearing, and a brief written summary of each presentation or written submission, pursuant to the requirements of the EPA framework regulations at 40 CFR 60.23-60.29

12. Supporting material

- ▶ State must provide supporting material and technical documentation for applicable plan components
 - Must demonstrate that it has the legal authority for each implementation and enforcement component in its plan, as part of a federally enforceable emission standard, by providing material related to the state's legal authority used to implement and enforce each component of the plan, such as statutes, regulations, public utility commission orders, and any other applicable legal instruments
 - Must provide analytical materials used in translating a rate-based goal to a mass-based goal if a mass-based goal is used, analytical materials used in projecting emission performance that will be achieved through the plan, relevant implementation materials, and any additional technical requirements and guidance the state proposes to use to implement elements of the plan

Summary of Required State Plan Components

- ▶ Identification of affected entities (affected EGUs and other responsible parties)
- ▶ Description of plan approach and geographic scope
- ▶ Identification of state emission performance level
- ▶ Demonstration that plan is projected to achieve emission performance level
- ▶ Identification of milestones
- ▶ Identification of corrective measures
- ▶ Identification of emission standards and any other measures
- ▶ Demonstration that each emission standard is quantifiable, non-duplicative, permanent, verifiable, and enforceable (recognizing non-traditional nature of some potentially affected entities)
- ▶ Identification of monitoring, reporting, and recordkeeping requirements
- ▶ Description of state reporting
- ▶ Certification of hearing on state plan
- ▶ Supporting material

Clean Power Plan Toolbox

Goal: Provide centralized, streamlined information to assist states with state plan development and submittal

Currently:

- ▶ Links to proposal and technical support documents
- ▶ Federal resources to assist states in evaluating state plan approaches
 - ▶ Not required for state plan development
- ▶ Information on current state policies and programs

After the rule is finalized:

- ▶ Additional information states will need to include in their state plans
 - ▶ Checklist
 - ▶ Tools, if appropriate

This is a dynamic resource that will be updated periodically, and we are soliciting informal feedback on additional information that would be helpful to states; states can provide comments through the website

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Clean Power Plan Toolbox for States

Resources to help develop state plans

As co-regulators, states will develop plans to meet the guidelines in the [Clean Power Plan \(CPP\)](#). The resources below provide information on state plan development and can help states determine the most cost-effective approaches to reducing greenhouse gas emissions from the power sector.

Regulatory Action

- [Proposed CPP for existing power plants](#)
- [Technical support documents](#)

Policies and Programs for Reducing CO₂ from the Power Sector

- [Existing state programs](#)
- [Energy efficiency portfolio planning with ENERGY STAR](#)
- [Utility incentives for energy efficiency \(PDF\)](#) (116 pp, 1.2 MB)
- [Market-based mechanisms: design and operation \(PDF\)](#) (78 pp, 1.1 MB)
- [Market-based mechanisms: key insights \(PDF\)](#) (47 pp, 1.1 MB)

Technical Resources for Reducing CO₂ from Power Plants

- [Combined heat and power technology options](#)
- [Combined heat and power project development resources](#)

Estimating Potential Energy Efficiency and Renewable Energy (EE/RE) Impacts

- [Avoided Emissions & generation Tool \(AVERT\)](#)
- [Assessing the multiple benefits of EE/RE](#)
- [Projected energy impacts from existing state EE/RE policies](#)
- [Combined Heat and Power Partnership](#)
- [U.S. DOE Building Technologies Office](#)
- [U.S. DOE Advanced Manufacturing Office – Technical Assistance Activities](#)
- [State & Local Energy Efficiency Action Network](#)

[Contact Us](#) to ask a question, provide feedback, or report a problem.

Clean Power Plan

EPA is taking its first steps under President Obama's Climate Action Plan to reduce carbon pollution from power plants - the largest stationary source of carbon pollution in the United States.

[Learn more about EPA's proposed Clean Power Plan](#)

Get Involved

- [Comment on the Clean Power Plan proposal](#)
- [Attend a public hearing on the proposed rule](#)

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