State of Oregon
Department of Environmental Quality Memorandum

Date: Aug. 20, 2014

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda item D, Informational item: EPA's new rules for greenhouse gas emission reductions from existing power plants
Aug. 27-28, 2014, EQC meeting

Why this is important

EPA proposed new rules June 2, 2014, to reduce greenhouse gas emissions from existing fossil fuel power plants. This proposal, known as the Clean Power Plan, will require Oregon to adopt a state plan with measures that will reduce emissions from fossil fuel plants to achieve EPA's emission guideline. DEQ will be the lead state agency developing Oregon's plan.

Background

Carbon dioxide emissions from power plants represent a third of the greenhouse emissions in the United States. EPA's proposed rule would reduce carbon dioxide emissions from power plants 30 percent by 2030 compared to 2005 levels. The proposed rule incorporates emission reductions not just from operating improvements at the power plants, but also from renewable energy and energy efficiency that can lower demand on these facilities. EPA projects that the significant reductions in carbon pollution and other air pollutants would result in net climate and health benefits of $48 billion to $82 billion. At the same time, coal and natural gas would remain the two leading sources of electricity generation in the U.S., with each providing more than 30 percent of the projected generation.

Next steps and commission involvement

DEQ staff will bring informational items and updates to the commission in 2014 and 2015. DEQ may be required to establish new state rules to implement Oregon's state plan. State plans are currently anticipated to be due to EPA in 2016, with the possibility of a one or two-year extension. Staff will involve commissioners at various levels throughout any resultant rulemaking processes.

Attachments

A. EPA fact sheet on proposed Clean Air Act Section 111d rules
B. Executive summary of the proposed rules

Report prepared by Stephanie Caldera
from materials provided by DEQ staff

EPA FACT SHEET: Clean Power Plan

OVERVIEW OF THE CLEAN POWER PLAN

CUTTING CARBON POLLUTION FROM POWER PLANTS

On June 2, 2014, the U.S. Environmental Protection Agency, under President Obama's Climate Action Plan, proposed a commonsense plan to cut carbon pollution from power plants. The science shows that climate change is already posing risks to our health and our economy. The Clean Power Plan will maintain an affordable, reliable energy system, while cutting pollution and protecting our health and environment now and for future generations.

Our climate is changing, and we're feeling the dangerous and costly effects right now.

- Average temperatures have risen in most states since 1901, with seven of the top 10 warmest years on record occurring since 1998.
- Climate and weather disasters in 2012 cost the American economy more than $100 billion.

Although there are limits at power plants for other pollutants like arsenic and mercury, there are currently no national limits on carbon.

- Children, the elderly, and the poor are most vulnerable to a range of climate-related health effects, including those related to heat stress, air pollution, extreme weather events, and others.

Nationwide, the Clean Power Plan will help cut carbon pollution from the power sector by 30 percent from 2005 levels.

- Power plants are the largest source of carbon pollution in the U.S., accounting for roughly one-third of all domestic greenhouse gas emissions.
- The proposal will also cut pollution that leads to soot and smog by over 25 percent in 2030.

Americans will see billions of dollars in public health and climate benefits, now and for future generations.

- The Clean Power Plan will lead to climate and health benefits worth an estimated $55 billion to $93 billion in 2030, including avoiding 2,700 to 6,600 premature deaths and 140,000 to 150,000 asthma attacks in children.

States and businesses have already charted the path toward cleaner, more efficient power.

- States, cities and businesses are already taking action.
- The Clean Power Plan puts states in the driver's seat to a cleaner, more efficient power fleet of the future by giving them the flexibility to choose how to meet their goals.

With EPA's flexible proposal, we can cut wasted energy, improve efficiency, and reduce pollution – while <u>still</u> having all the power we need to grow our economy and maintain our competitive edge.

- The agency's proposal is flexible—reflecting the different needs of different states.
- The proposal will put Americans to work making the U.S. electricity system less polluting and our homes and businesses more efficient, shrinking electricity bills by roughly 8 percent in 2030.
- It will keep the United States—and more importantly our businesses—at the forefront of a global movement to produce and consume energy in a better, more sustainable way.

Join the conversation

- In the coming months, we'll be listening to feedback and seeking new ideas about the best ways to reduce carbon pollution from existing power plants: http://www.epa.gov/cleanpowerplan

A. Executive Summary

1. Purpose of the Regulatory Action

Under the authority of Clean Air Act (CAA) section 111(d), the EPA is proposing emission guidelines for states to follow in developing plans to address greenhouse gas (GHG) emissions from existing fossil fuel-fired electric generating units (EGUs). In this summary, we outline the proposal; discuss its purpose; summarize its major provisions, including the EPA's approach to determining goals; describe the broad range of options available to states, including flexibility in timing requirements both for plan submission and compliance deadlines under those plans; and briefly describe the estimated CO_2 emission reductions, costs and benefits expected to result from full implementation of the proposal.

This rule, as proposed, would continue progress already underway to lower the carbon intensity of power generation in the United States (U.S.). Lower carbon intensity means fewer emissions of CO_2, a potent greenhouse gas that contributes to climate change. This proposal is a significant step forward in the EPA and states partnering to reduce GHG emissions in the U.S. The proposal incorporates critical elements that reflect the information and views shared during the unprecedented effort that the EPA has undertaken, beginning in the summer of 2013, to interact directly with, and solicit input from, a wide range of states and stakeholders. This effort encompassed several hundred meetings across the country with state environmental and energy officials, public utility commissioners, system operators, utilities and public interest advocates, as well as members of the public. Many participants submitted written material and data to the EPA as well.

Nationwide, by 2030, this rule would achieve CO_2 emission reductions from the power sector of approximately 30 percent from CO_2 emission levels in 2005. This goal is achievable because innovations in the production, distribution and use of electricity are already making the power sector more efficient and sustainable while maintaining an affordable, reliable and diverse energy mix. This proposed rule would reinforce and continue this progress. The EPA projects that, in 2030, the significant reductions in the harmful carbon pollution and in other air pollution, to which this rule would lead, would result in net climate and health benefits of $48 billion to $82 billion. At the same time, coal and natural gas would remain the two leading sources of electricity generation in the U.S., with each providing more than 30 percent of the projected generation.

Based on evidence from programs already being implemented by many states as well as input received from stakeholders, the agency recognizes that the most cost-effective system of emission reduction for GHG emissions from the power sector under CAA section 111(d) entails not only improving the efficiency of fossil fuel-fired EGUs, but also addressing their utilization

by taking advantage of opportunities for lower-emitting generation and reduced electricity demand across the electricity system's interconnecting network or grid.

The proposed guidelines are based on and would reinforce the actions already being taken by states and utilities to upgrade aging electricity infrastructure with 21st century technologies. The guidelines would ensure that these trends continue in ways that are consistent with the long-term planning and investment processes already used in this sector, to meet both region- and state-specific needs. The proposal provides flexibility for states to build upon their progress, and the progress of cities and towns, in addressing GHGs. It also allows states to pursue policies to reduce carbon pollution that: (1)Continue to rely on a diverse set of energy resources, (2) ensure electric system reliability, (3) provide affordable electricity, (4) recognize investments that states and power companies are already making, and (5) can be tailored to meet the specific energy, environmental and economic needs and goals of each state. Thus, the proposed guidelines would achieve meaningful CO_2 emission reduction while maintaining the reliability and affordability of electricity in the U.S.

a. Proposal Elements

The proposal has two main elements: (1) State-specific emission rate-based CO_2 goals and (2) guidelines for the development, submission and implementation of state plans. To set the state-specific CO_2goals, the EPA analyzed the practical and affordable strategies that states and utilities are already using to lower carbon pollution from the power sector. These strategies include improvements in efficiency at carbon-intensive power plants, programs that enhance the dispatch priority of, and spur private investments in, low emitting and renewable power sources, as well as programs that help homes and businesses use electricity more efficiently. In addition, in calculating each state's CO_2 goal, the EPA took into consideration the state's fuel mix, its electricity market and numerous other factors. Thus, each state's goal reflects its unique conditions.

While this proposal lays out state-specific CO_2 goals that each state is required to meet, it does not prescribe how a state should meet its goal. CAA section 111(d) creates a partnership between the EPA and the states under which the EPA sets these goals and the states take the lead on meeting them by creating plans that are consistent with the EPA guidelines. Each state will have the flexibility to design a program to meet its goal in a manner that reflects its particular circumstances and energy and environmental policy objectives. Each state can do so alone or can collaborate with other states on multi-state plans that may provide additional opportunities for cost savings and flexibility.

To facilitate the state planning process, this proposal lays out guidelines for the development and implementation of state plans. The proposal describes the components of a state plan, the

latitude states have in developing compliance strategies, the flexibility they have in the timing for submittal of their plans and the flexibility they have in determining the schedule by which their sources must achieve the required CO_2 reductions. The EPA recognizes that each state has differing policy considerations—including varying emission reduction opportunities and existing state programs and measures—and that the characteristics of the electricity system in each state (e.g., utility regulatory structure, generation mix and electricity demand) also differ. Therefore, the proposed guidelines provide states with options for meeting the state-specific goals established by the EPA in a manner that accommodates a diverse range of state approaches. This proposal also gives states considerable flexibility with respect to the timeframes for plan development and implementation, providing up to two or three years for submission of final plans and providing up to fifteen years for full implementation of all emission reduction measures, after the proposal is finalized.

Addressing a concern raised by both utilities and states, the EPA is proposing that states could choose approaches in their compliance plans under which full responsibility for actions achieving reductions is not placed entirely upon emitting EGUs; instead, state plans could include measures and policies (e.g., demand-side energy efficiency programs and renewable portfolio standards) for which the state itself is responsible. Of course, individual states would also have the option of structuring programs (e.g., allowance-trading programs) under which full responsibility rests on the affected EGUs.

The EPA believes that, using the flexibilities inherent in CAA section 111(d), this proposal would result in significant reductions of GHG emissions that cause harmful climate change, while providing states with ample opportunity to design plans that use innovative, cost-effective strategies that take advantage of investments already being made in programs and measures that lower the carbon intensity of the power sector and reduce GHG emissions.

b. Policy Context and Industry Conditions

This proposal is an important step toward achieving the GHG emission reductions needed to address the serious threat of climate change. GHG pollution threatens the American public by leading to potentially rapid, damaging and long-lasting changes in our climate that can have a range of severe negative effects on human health and the environment. CO_2 is the primary GHG pollutant, accounting for nearly three-quarters of global GHG emissions [1] and 82 percent of U.S. GHG emissions. [2] The May 2014 report of the National Climate Assessment[3] concluded that climate change impacts are already manifesting themselves and imposing losses and costs. The report documents increases in extreme weather and climate events in recent decades, damage and disruption to infrastructure and agriculture, and projects continued increases in impacts across a wide range of communities, sectors, and ecosystems.

The President's Climate Action Plan, [4] issued in June 2013, recognizes that climate change has far-reaching harmful consequences and real economic costs. The Climate Action Plan details a broad array of actions to reduce GHG emissions that contribute to climate change and affect public health and the environment. One of the plan's goals is to reduce CO_2 emissions from power plants. This is because fossil fuel-fired EGUs are, by far, the largest emitters of GHGs, primarily in the form of CO_2, among stationary sources in the U.S. To accomplish this goal, President Obama issued a Presidential Memorandum [5] that recognized the importance of significant and prompt action. The Memorandum directed the EPA to complete carbon pollution standards, regulations or guidelines, as appropriate, for modified, reconstructed and existing power plants by June 1, 2015, and in doing so to build on state leadership in moving toward a cleaner power sector.

The way that power is produced, distributed and used is already changing due to advancements in innovative power sector technologies and in the availability and cost of low carbon fuel, renewable energy and energy efficient demand-side technologies, as well as economic conditions. In addition, the average age of the coal-fired generating fleet is increasing. In 2025, the average age of the coal-fired generating fleet isprojected to be 49 years old, and 20 percent of units would be more than 60 years old if they remained in operation at that time. Therefore, even in the absence of additional environmental regulation, states and utilities can be expected to be, and already are, making plans to address the changes necessitated by the aging of current assets and infrastructure. With change inevitably underway between now and 2030, a CAA section 111(d) rulemaking for CO_2 emissions is timely and can inform current and ongoing decision making by states and utilities, as well as private sector business and technology investments. As states develop their plans, they will make key decisions that will stimulate private sector investment and innovation associated with reducing GHG emissions. We expect that many states will consider the opportunities offered for their respective economies as a result of this investment.

The proposed guidelines are designed to build on and reinforce progress by states, cities and towns, and companies on a growing variety of sustainable strategies to reduce power sector CO_2emissions. At the same time, the EPA believes that this proposal provides flexibility for states to develop plans that align with their unique circumstances, as well as their other environmental policy, energy and economic goals. All states will have the opportunity to shape their plans as they believe appropriate for meeting the proposed CO_2 goals. This includes states with long-established reliance on coal-fired generation, as well as states with a commitment to promoting renewable energy (including through sustainable forestry initiatives). It also includes states that are already participating in or implementing CO_2 reduction programs, such as the Regional Greenhouse Gas Initiative (RGGI), California's “Global Warming Solutions Act” and Colorado's “Clean Air, Clean Jobs Act”.

States would be able to rely on and extend programs they may already have created to address the power sector. Those states committed to Integrated Resource Planning (IRP) would be able to establish their CO_2 reduction plans within that framework, while states with a more deregulated power sector system could develop CO_2 reduction plans within that specific framework. Each state, including states without an existing program, would have the opportunity to take advantage of a wide variety of strategies for reducing CO_2 emissions from affected EGUs. The EPA and other federal entities, including the U.S. Department of Energy (DOE), the Federal Energy Regulatory Commission (FERC) and the U.S. Department of Agriculture, among others, are committed to sharing expertise with interested states as they develop and implement their plans.

States would be able to address the economic interests of their utilities and ratepayers by using the flexibilities in this proposed action to: (1) Reduce costs to consumers, minimize stranded assets, and spur private investments in renewable energy and energy efficiency technologies and businesses; and (2) if they choose, work with other states on multi-state approaches that reflect the regional structure of electricity operating systems that exists in most parts of the country and is critical to ensuring a reliable supply of affordable energy. The proposed rule gives states the flexibility to provide a broad range of compliance options that recognize that the power sector is made up of a diverse range of companies that own and operate fossil fuel-fired EGUs, including vertically integrated companies in regulated markets, independent power producers, rural cooperatives and municipally-owned utilities, all of which are likely to have different ranges of opportunities to reduce GHG emissions while facing different challenges in meeting these reductions.

Both existing state programs (such as RGGI, the California Global Warming Solutions Act program and the Colorado Clean Air, Clean Jobs Act program) and ideas suggested by stakeholders show that there are a number of different ways that states can design programs that achieve required reductions while working within existing market mechanisms used to dispatch power effectively in the short term and to ensure adequate capacity in the long term. These programs and programs for conventional pollutants, such as the Acid Rain Program under Title IV of the CAA, have demonstrated that compliance with environmental programs can be monetized such that it is factored into power sector economic decision making in ways that reduce the cost of controlling pollution, maintain electricity system reliability and work within the least cost dispatching principles that are key to operation of our electric power grid. The proposal would also allow states to work together with individual companies on potential specific challenges. These and other flexibilities are discussed further in Section VIII of the preamble.

a. CAA Section 111(d) Requirements

Under CAA section 111(d), [6] state plans must establish standards of performance that reflect the degree of emission limitation achievable through the application of the "best system of emission reduction" that, taking into account the cost of achieving such reduction and any non-air quality health and environmental impacts and energy requirements, the Administrator determines has been adequately demonstrated (BSER). [7] Consistent with CAA section 111(d), the EPA is proposing state-specific goals that reflect the EPA's calculation of the emission limitation that each state can achieve through the application of the BSER. This calculation reflects the degree of emission limitation that the state plan must achieve in order to implement the BSER that the EPA has determined has been adequately demonstrated and that, in turn, would be required to be, and via the calculation, has been, applied for the affected EGUs in each state. A CAA section 111(d) state plan will differ from a state implementation plan (SIP) for a criteria air pollutant national ambient air quality standard (NAAQS) in several respects, reflecting the significant differences between CAA sections 110 and 111. A CAA section 110 SIP must be designed to meet the NAAQS for a criteria air pollutant for a particular area—not for a source category—within a timeframe specified in the CAA. The NAAQS itself is based on the current body of scientific evidence and, by law, does not reflect consideration of cost. By contrast, a CAA section 111(d) state plan must be designed to achieve a specific level of emission performance that has been established for a particular source category within a timeframe determined by the Administrator and, to some extent, by each state. Moreover, the emission levels for the source category reflect a determination of the BSER, which incorporates consideration of cost, technical feasibility and other factors.

To determine the BSER for reducing CO_2 emissions at affected EGUs, the EPA considered numerous measures that are already being implemented and can be implemented more broadly to improve emission rates and to reduce overall CO_2 emissions from fossil fuel-fired EGUs. Overall, the BSER proposed here is based on a range of measures that fall into four main categories, or "building blocks," which comprise improved operations at EGUs, dispatching lower-emitting EGUs and zero-emitting energy sources, and end-use energy efficiency. All of these measures have been amply demonstrated via their current widespread use by utilities and states.

The proposed guidelines are structured so that states would not be required to use each and every one of the measures that the EPA determines constitute the BSER or to apply any one of those measures to the same extent that the EPA determines is achievable at reasonable cost. Instead, in developing its plan, each state will have the flexibility to select the measure or combination of measures it prefers in order to achieve its CO_2 emission reduction goal. Thus, a state could choose to achieve more reductions from one measure encompassed by the BSER and less from another, or it could choose to include measures that were not part of the EPA's BSER determination, as long as the state achieves the CO_2 reductions at affected EGUs necessary to meet the goal that the EPA has defined as representing the BSER.

As explained in further detail in Sections VI, VII and VIII of this preamble regarding the agency's determination of the BSER, the EPA is offering the opportunity via this proposal to comment on the proposed BSER, the proposed methodology for computing state goals based on application of the BSER, and the state-specific data used in the computations. Once the final goals have been promulgated, a state would no longer have an opportunity to request that the EPA adjust its CO_2 goal. The final state-specific CO_2 goals would reflect any adjustments as appropriate based on comments provided to the EPA to address any data errors in the analysis for the proposed goals. We expect that states will be able to meet the CO_2 goals because they will represent the application of the BSER for the states' affected sources.

This proposed rule sets forth the state goals that reflect the BSER and guidelines for states to use in developing their plans to reduce CO_2 from fossil fuel-fired EGUs. The preamble describes the proposed expectations for state plans and discusses options that the EPA has considered. It also explains the EPA's authority to define the BSER, as well as state goals, and each state's responsibility to develop and implement standards of performance that will achieve its CO_2goal. Additional detail on various aspects of the proposal is included in several technical support documents (TSDs) and memoranda, which are available in the rulemaking docket. The proposal was substantially informed by the extensive input from states and a wide range of stakeholders that the EPA sought and has received since the summer of 2013. The EPA invites further input through public comment on all aspects of this proposal.

2. Summary of the Proposal's Major Provisions

a. Approach

In developing this proposed rulemaking, the EPA is implementing statutory provisions that have been in place since Congress first enacted the CAA in 1970 and that have been implemented pursuant to regulations promulgated in 1975 and followed in subsequent CAA section 111(d) rulemakings. These provisions ensure that, in concert with the provisions of CAA sections 110 and 112, new and existing major stationary sources operate in ways that address their emissions of significant air pollutants that are harmful to public health and the environment. These requirements call on the EPA to develop emission guidelines, which reflect the EPA's determination of the BSER, for states to follow in formulating compliance plans to implement standards of performance to achieve emission reductions consistent with the BSER. In following these provisions, the EPA is proposing a BSER based on strategies currently being used by states and companies to reduce CO_2 emissions from EGUs.

The CAA, as interpreted by the courts, identifies several factors for the EPA to consider in a BSER determination. These include technical feasibility, costs, size of emission reductions and technology (e.g., whether the system promotes the implementation and further development of technology). In determining the BSER, the EPA considered the reductions achievable through measures that reduce CO_2 emissions from existing fossil fuel-fired EGUs either by (1) reducing the CO_2 emission rate at those units or (2) reducing the units' CO_2 emission total to the extent that generation can be shifted from higher-emitting fossil fuel-fired EGUs to lower- or zero-emitting options.

As the EPA has done in making BSER determinations in previous CAA section 111(d) rulemakings, the agency considered the types of strategies that states and owners and operators of EGUs are already employing to reduce the covered pollutant (in this case, CO_2) from affected sources (in this case, fossil fuel-fired EGUs). [8] Across the nation, many states, cities and towns, and owners and operators of EGUs have shown leadership in creating and implementing policies and programs that reduce CO_2 emissions from the power sector while achieving other economic, environmental and energy benefits. Some of these activities, such as market-based programs and GHG performance standards, directly require CO_2 emission reductions from EGUs. Others reduce CO_2 emissions by reducing utilization of fossil fuel-fired EGUs through, for example, renewable portfolio standards (RPS) and energy efficiency resource standards (EERS). For example, currently 10 states have market-based GHG emission programs, 38 states have renewable portfolio standards or goals, and utilities in 47 states run demand-side energy efficiency programs. Many individual companies also have significant voluntary CO_2emission reduction programs.

Such strategies—and the proposed BSER determination—reflect the fact that, in almost all states, the production, distribution and use of electricity can be, and is, undertaken in ways that accommodate reductions in both pollution emission rates and total emissions. Specifically, electricity production, at least to some extent, takes place interchangeably between and among multiple generation facilities and different types of generation, a fact that Congress, the EPA and the states have long relied on in enacting or promulgating pollution reduction programs, such as Title IV of the CAA, the NO_XSIP Call, the Cross State Air Pollution Rule (CSAPR) and RGGI.

As a result, the agency, in quantifying state goals, assessed what combination of electricity production or energy demand reduction across generation facilities can offer a reasonable-cost, technically feasible approach to achieving CO_2 emission reductions. States, in turn, will be able to look broadly at opportunities across their electricity system in devising plans to meet their goals. Importantly, states may rely on measures that they already have in place, including renewable energy standards and demand-side energy efficiency programs, and the proposal

details how such existing state programs can be incorporated into state plans. States will also be able to participate in multi-state programs that already exist or may create new ones.
Thus, to determine the BSER for reducing CO_2 emissions at affected EGUs and to establish the numerical goals that reflect the BSER, the EPA considered numerous measures that can and are being implemented to improve emission rates and to reduce or limit mass CO_2 emissions from fossil fuel-fired EGUs. These measures encompass two basic approaches: (1) Reducing the carbon intensity of certain affected EGUs by improving the efficiency of their operations, and (2) addressing affected EGUs' mass emissions by varying their utilization levels. For purposes of expressing the BSER as an emission limitation, in this case in the form of state-level goals, we propose to base these two approaches on measures grouped into four main categories, or "building blocks." These building blocks can also be used as a guide to states for constructing broad-based, cost-effective, long-term strategies to reduce CO_2 emissions. The EPA believes that the application of measures from each of the building blocks can achieve CO_2 emission reductions at fossil fuel-fired EGUs such that, when combined with measures from other building blocks, the measures represent the "best system of emission reduction . . . adequately demonstrated" for fossil fuel-fired EGUs.

The building blocks are:

1. Reducing the carbon intensity of generation at individual affected EGUs through heat rate improvements.
2. Reducing emissions from the most carbon-intensive affected EGUs in the amount that results from substituting generation at those EGUs with generation from less carbon-intensive affected EGUs (including NGCC units under construction).
3. Reducing emissions from affected EGUs in the amount that results from substituting generation at those EGUs with expanded low- or zero-carbon generation.
4. Reducing emissions from affected EGUs in the amount that results from the use of demand-side energy efficiency that reduces the amount of generation required.

The four building blocks are described in detail in Sections VI of this preamble. As explained in that section, the EPA evaluated each of the building blocks individually against the BSER criteria and found that each of the building blocks independently merits consideration as part of the BSER. The EPA also evaluated combinations of the building blocks against the BSER criteria—in particular, a combination of all four building blocks and a combination of building blocks 1 and 2.

Based on that evaluation, the EPA proposes that the combination of all four building blocks is the BSER. The combination of all four blocks best represents the BSER because it achieves greater emission reductions at a lower cost, takes better advantage of the wide range of measures that states, cities, towns and utilities are already using to reduce CO_2 from EGUs and reflects the integrated nature of the electricity system and the diversity of electricity generation technology. Section VI of this preamble also explains how the EPA considered more aggressive

application of measures in each block. This includes consideration of more extensive application of measures that the EPA determined do represent a component of the BSER (such as more extensive or accelerated application of demand-side measures), as well as consideration of options in some blocks that the EPA determined would not represent the BSER for existing sources (such as the inclusion of retrofit carbon capture and storage or sequestration (CCS) on existing EGUs).

As part of the BSER determination, the EPA considered the impacts that implementation of the emission reductions based on the combination of the blocks would have on the cost of electricity and electricity system reliability. As the preamble details, the EPA believes that, both with respect to the overall proposed BSER and with respect to the individual building blocks, the associated costs are reasonable. Importantly, the proposed BSER, expressed as a numeric goal for each state, provides states with the flexibility to determine how to achieve the reductions (i.e., greater reductions from one building block and less from another) and to adjust the timing in which reductions are achieved, in order to address key issues such as cost to consumers, electricity system reliability and the remaining useful life of existing generation assets.

In sum, the EPA proposes that the BSER for purposes of CAA section 111(d), as applied to existing fossil fuel-fired EGUs, is based on a combination of measures that reduce CO_2 emissions and CO_2 emission rates and encompass all four building blocks. [9] We are also soliciting comment on application of only the first two building blocks as the basis for the BSER, while noting that application of only the first two building blocks achieves fewer CO_2 reductions at a higher cost.

In determining the BSER, we have considered the ranges of reductions that can be achieved by application of each building block, and we have identified goals that we believe reflect a reasonable degree of application of each building block consistent with the BSER criteria. Relying on all four building blocks to characterize the combination of measures that reduce CO_2 emissions and CO_2 emission rates at affected EGUs as the basis for the BSER is consistent with strategies, actions and measures that companies and states are already undertaking to reduce GHG emissions and with current trends in the electric power sector, driven by efforts to reduce GHGs as well as by other factors, such as advancements in technology. Reliance on all four building blocks in this way also supports the goals of achieving significant and technically feasible reductions of CO_2 at a reasonable cost, while also promoting technology and approaches that are important for achieving further reductions. Finally, the EPA believes that the diverse range of measures encompassed in the four building blocks allows states and sources to take full advantage of the inherent flexibility of the current regionally interconnected and integrated electricity system so as to achieve the CO_2 goals while continuing to meet the demand for electricity services in a reliable and affordable manner.

The EPA recognizes that states differ in important ways, including in their mix of existing EGUs and in their policy priorities. Consequently, opportunities and preferences for reducing emissions, as reflected in each of the building blocks, vary across states. While the state-specific goals that the EPA is proposing in this rule are based on consistent application of a single goal-setting methodology across all states, the goals account for these key differences. The state-specific CO_2 goals derived from application of the methodology vary because, in setting the goals for a state, the EPA used data specific to each state's EGUs and certain other attributes of its electricity system (e.g., current mix of generation resources).

The proposed BSER and goal-setting methodology reflect information provided and priorities expressed during the EPA's recent, extensive public outreach process. The input we received ranged from the states' desires for flexibility and recognition of varying state circumstances to the success that states and companies have had in adopting a range of pollution—and demand-reduction strategies. The state-specific approach embodied in both CAA section 111(d) and this proposal recognizes that ultimately states are the most knowledgeable about their specific circumstances and are best positioned to evaluate and leverage existing and new generation capacity and programs to reduce CO_2 emissions.

To meet its goal, each state will be able to design programs that use the measures it selects, and these may include the combination of building blocks most relevant to its specific circumstances and policy preferences. States may also identify technologies or strategies that are not explicitly mentioned in any of the four building blocks and may use those technologies or strategies as part of their overall plans (e.g., market-based trading programs or construction of new natural combined cycle units or nuclear plants). Further, the EPA's approach allows multi-state compliance strategies.

The agency also recognizes the important functional relationship between the period of time over which measures are deployed and the stringency of emission limitations those measures can achieve in a practical and reasonable cost way. Because, for this proposal, the EPA is proposing a 10-year period over which to achieve the full required CO_2 reductions, a period that begins more than five years from the date of this proposal, a state could take advantage of this relationship in the design of its program by using relevant combinations of building blocks to achieve its state goal in a manner that provides for electricity system reliability, avoids the creation of stranded assets and has a reasonable cost.

b. State Goals and Flexibilities

In this action, the EPA is proposing state-specific rate-based goals that state plans must be designed to meet. These state-specific goals are based on an assessment of the amount of emissions that can be reduced at existing fossil fuel-fired EGUs through application of the

BSER, as required under CAA section 111(d). The agency is proposing state-specific final goals that must be achieved by no later than the year 2030. The proposed final goals reflect the EPA's quantification of adjusted state-average emission rates from affected EGUs that could be achieved at reasonable cost by 2030 through implementation of the four building blocks described above.

The EPA recognizes that, with many measures, states can achieve emission reductions in the short-term, though the full effects of implementation of other measures, such as demand-side energy efficiency (EE) programs and the addition of renewable energy (RE) generating capacity, can take longer. Thus, the EPA is proposing interim goals that states must meet beginning in 2020. The proposed interim goals would apply over a 2020-2029 phase-in period. They reflect the level of reductions in CO_2 emissions and emission rates and the extent of the application of the building blocks that would be presumptively approvable in a state plan during the ramp-up to achieving the final goal.

The EPA is proposing to allow each state flexibility with regard to the form of the goal. A state could adopt the rate-based form of the goal established by the EPA or an equivalent mass-based form of the goal. A multi-state approach incorporating either a rate- or mass-based goal would also be approvable based upon a demonstration that the state's plan would achieve the equivalent in stringency, including compliance timing, to the state-specific rate-based goal set by the EPA.

We believe that this approach to establishing requirements for states in developing their plans responds both to the needs of an effectively implemented program and to the range of viewpoints expressed by stakeholders regarding the simultaneous need for both flexibility and clear guidance on what would constitute an approvable state plan. We likewise believe that this approach represents a reasonable balance between two competing objectives grounded in CAA section 111(d)—a need for rigor and consistency in calculating emission reductions reflecting the BSER and a need to provide the states with flexibility in establishing and implementing the standards of performance that reflect those emission reductions. The importance of this balance is heightened by the fact that the operations of the electricity system itself rely on the flexibility made available and achieved through dispatching between and among multiple interconnected EGUs, demand management and end-use energy efficiency. We view the proposed goals as providing rigor where required by the statute with respect to the amount of emission reductions, while providing states with flexibility where permitted by the statute, particularly with respect to the range of measures that a state could include in its plan. This approach recognizes that state plans for emission reductions can, and must, be consistent with a vibrant and growing economy and supply of reliable, affordable electricity to support that economy. It further reflects the growing trend, as exemplified by many state and local clean energy policies and programs, to shift energy production away from carbon-intensive fuels to a modern, more

sustainable system that puts greater reliance on renewable energy, energy efficiency and other low-carbon energy options.

c. State Plans

i. Plan Approach

Each state will determine, and include in its plan, emission performance levels for its affected EGUs that are equivalent to the state-specific CO_2 goal in the emission guidelines, as well as the measures needed to achieve those levels and the overall goal. As part of determining these levels, the state will decide whether it will adopt the rate-based form of the goal established by the EPA or translate the rate-based goal to a mass-based goal. The state must then establish a standard, or set of standards, of performance, as well as implementing and enforcing measures, to achieve the emission performance level specified in the state plan. The state may choose the measures it will include in its plan to achieve its goal. The state may use the same set of measures as in the EPA's approach to setting the goals, or the state may use other or additional measures to achieve the required CO_2 reductions.

A state plan must include enforceable CO_2 emission limits that apply to affected EGUs. In doing so, a state plan may take a portfolio approach, which could include enforceable CO_2 emission limits that apply to affected EGUs as well as other enforceable measures, such as RE and demand-side EE measures, that avoid EGU CO_2 emissions and are implemented by the state or by another entity. The plan must also include a process for reporting on plan implementation, progress toward achieving CO_2 goals, and implementation of corrective actions, if necessary. No less frequently than every two rolling calendar years, beginning January 1, 2022, the state will be required to compare emission performance achieved by affected EGUs in the state with the emissions performance projected in the state plan, and report that to the EPA.

In this action, the EPA is also proposing guidelines for states to follow in developing their plans. These guidelines include approvability criteria, requirements for state plan components, the process and timing for state plan submittal and the process and timing for demonstrating achievement of the CO_2 emission performance level in the state plan. The proposed guidelines provide states with options for meeting the state-specific goals established by the EPA in a flexible manner that accommodates a diverse range of state approaches. The plan guidelines provide the states with the ability to achieve the full reductions over a multi-year period, through a variety of reduction strategies, using state-specific or multi-state approaches that can be achieved on either a rate or mass basis. They also address several key policy considerations that states can be expected to contemplate in developing their plans.

With respect to the structure of the state plans, the EPA, in its extensive outreach efforts, heard from a wide range of stakeholders that the EPA should authorize state plans to include a portfolio of actions that encompass a diverse set of programs and measures that achieve either a rate-based or mass-based emission performance level for affected EGUs but that do not place legal responsibility for achieving the entire amount of the emission performance level on the affected EGUs. In view of this strong sentiment from stakeholders, the EPA is proposing that state plans that take this portfolio approach would be approvable, provided that they meet other key requirements such as achieving the required emission reductions over the appropriate timeframes. Plans that do directly assure that affected EGUs achieve all of the required emission reductions (such as the mass-based programs being implemented in California and the RGGI states) would also be approvable provided that they meet other key requirements, such as achieving the required emission reductions over the appropriate timeframes.

ii. State Plan Components

The EPA is proposing to evaluate and approve state plans based on four general criteria: (1) Enforceable measures that reduce EGU CO_2 emissions; (2) projected achievement of emission performance equivalent to the goals established by the EPA, on a timeline equivalent to that in the emission guidelines; (3) quantifiable and verifiable emission reductions; and (4) a process for reporting on plan implementation, progress toward achieving CO_2 goals, and implementation of corrective actions, if necessary. In addition, each state plan must follow the EPA framework regulations at 40 CFR 60.23.

The proposed components of states plans are:

- Identification of affected entities
- 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 emission standards
- Demonstration that each emission standard is quantifiable, non-duplicative, permanent, verifiable, and enforceable
- Identification of monitoring, reporting, and recordkeeping requirements
- Description of state reporting
- Identification of milestones
- Identification of backstop measures
- Certification of hearing on state plan

- Supporting material

iii. Process for State Plan Submittal and Review

Recognizing the urgent need for actions to reduce GHG emissions, and in accordance with the Presidential Memorandum, [10] the EPA expects to finalize this rulemaking by June 1, 2015. The Presidential Memorandum also calls for a deadline of June 30, 2016, for states to submit their state plans. The EPA is proposing that each state must submit a plan to the EPA by June 30, 2016. However, the EPA recognizes that some states may need more than one year to complete all of the actions needed for their final state plans, including technical work, state legislative and rulemaking activities, coordination with third parties, and coordination among states involved in multi-state plans. Therefore, the EPA is proposing an optional two-phased submittal process for state plans. Each state would be required to submit a plan by June 30, 2016, that contains certain required components. If a state needs additional time to submit a complete plan, then the state must submit an initial plan by June 30, 2016 that documents the reasons the state needs more time and includes commitments to concrete steps that will ensure that the state will submit a complete plan by June 30, 2017 or 2018, as appropriate. To be approvable, the initial plan must include specific components, including a description of the plan approach, initial quantification of the level of emission performance that will be achieved in the plan, a commitment to maintain existing measures that limit CO_2 emissions, an explanation of the path to completion, and a summary of the state's response to any significant public comment on the approvability of the initial plan, as described in Section VIII.E of this preamble.

If the initial plan includes those components and if the EPA does not notify the state that the initial plan does not contain the required components, the extension of time to submit a complete plan will be deemed granted and a state would have until June 30, 2017, to submit a complete plan if the geographic scope of the plan is limited to that state. If the state develops a plan that includes a multi-state approach, it would have until June 30, 2018 to submit a complete plan. Further, the EPA is proposing that states participating in a multi-state plan may submit a single joint plan on behalf of all of the participating states.

Following submission of final plans, the EPA will review plan submittals for approvability. Given the diverse approaches states may take to meet the emission performance goals in the emission guidelines, the EPA is proposing to extend the period for EPA review and approval or disapproval of plans from the four-month period provided in the EPA framework regulations to a twelve-month period.

iv. Timing of Compliance

As states, industry groups and other stakeholders have made clear, the EPA recognizes that the measures states have been and will be taking to reduce CO_2 emissions from existing EGUs can take time to implement. Thus, we are proposing that, while states must begin to make reductions by 2020, full compliance with the CO_2 emission performance level in the state plan must be achieved by no later than 2030. Under this proposed option, a state would need to meet an interim CO_2 emission performance level on average over the 10-year period from 2020-2029, as well as achieve its final CO_2 emission performance level by 2030 and maintain that level subsequently. This proposed option is based on the application of a range of measures from all four building blocks, and the agency believes that this approach for compliance timing is reasonable and appropriate and would best support the optimization of overall CO_2reductions. The agency is also requesting comment on an alternative option, a 5-year period for compliance, in combination with a less stringent set of CO_2 emission performance levels. These options are fully described in Section VIII of this preamble, and the state goals associated with the alternative option are described in Section VII.E of this preamble. The EPA is also seeking comment on different combinations of building blocks and different levels of stringency for each building block.

The EPA is also proposing that measures that a state takes after the date of this proposal, or programs already in place, which result in CO_2 emission reductions during the 2020-2030 period, would apply toward achievement of the state's 2030 CO_2 emission goal. Thus, states with currently existing programs and policies, and states that put in place new programs and policies early, will be better positioned to achieve the goals.

v. Resources for States

To respond to requests from states for methodologies, tools and information to assist them in designing and implementing their plans, the EPA, in consultation with the U.S. Department of Energy and other federal agencies, as well as states, is collecting and developing available resources and is making those resources available to the states via a dedicated Web site. [11] As we and others continue to develop tools, templates and other resources, we will update the Web site. We intend, during the public comment period, to work actively with the states on resources that will be helpful to them in both developing and implementing their plans.

3. Projected National-Level Emission Reductions

Under the proposed guidelines, the EPA projects annual CO_2reductions of 26 to 30 percent below 2005 levels depending upon the compliance year. These guidelines will also result in important reductions in emissions of criteria air pollutants, including sulfur dioxide (SO_2), nitrogen oxides (NO_X) and directly emitted fine particulate matter ($PM_{2.5}$). A thorough

discussion of the EPA's analysis is presented in Section X.A of this preamble and in Chapter 3 of the Regulatory Impact Analysis (RIA) included in the docket for this rulemaking.

4. Costs and Benefits

Actions taken to comply with the proposed guidelines will reduce emissions of CO_2 and other air pollutants, including SO_2, NO_X and directly emitted $PM_{2.5}$, from the electric power industry. States will make the ultimate determination as to how the emission guidelines are implemented. Thus, all costs and benefits reported for this action are illustrative estimates. The EPA has calculated illustrative costs and benefits in two ways: One based on an assumption of individual state plans and another based on an assumption that states will opt for multi-state plans. The illustrative costs and benefits are based upon compliance approaches that reflect a range of measures consisting of improved operations at EGUs, dispatching lower-emitting EGUs and zero-emitting energy sources, and increasing levels of end-use energy efficiency.

Assuming that states comply with the guidelines collaboratively (referred to as the regional compliance approach), the EPA estimates that, in 2020, this proposal will yield monetized climate benefits of approximately $17 billion (2011$) using a 3 percent discount rate (model average) relative to the 2020 base case, as shown in Table 1.[12]The air pollution health co-benefits associated with reducing exposure to ambient $PM_{2.5}$ and ozone through emission reductions of precursor pollutants in 2020 are estimated to be $16 billion to $37 billion using a 3 percent discount rate and $15 billion to $34 billion (2011$) using a 7 percent discount rate relative to the 2020 base case. The annual compliance costs are estimated using the Integrated Planning Model (IPM) and include demand-side energy efficiency program and participant costs as well as monitoring, reporting and recordkeeping costs. In 2020, total compliance costs of this proposal are approximately $5.5 billion (2011$). The quantified net benefits (the difference between monetized benefits and compliance costs) in 2020 are estimated to be $28 billion to $49 billion (2011$) using a 3 percent discount rate (model average). As reflected in Table 2, climate benefits are approximately $30 billion in 2030 using a 3 percent discount rate (model average, 2011$) relative to the 2030 base case assuming a regional compliance approach for the proposal. Health co-benefits are estimated to be approximately $25 to $59 billion (3 percent discount rate) and $23 to $54 billion (7 percent discount rate) relative to the 2030 base case (2011$). In 2030, total compliance costs for the proposed option regional approach are approximately $7.3 billion (2011$). The net benefits for this proposal increase to approximately $48 billion to $82 billion (3 percent discount rate model average, 2011$) in 2030 for the proposed option regional compliance approach.

In comparison, if states choose to comply with the guidelines on a state-specific basis (referred to as state compliance approach), the climate benefits in 2020 are expected to be approximately

$18 billion (3 percent discount rate, model average, 2011$), as Table 1 shows. Health co-benefits are estimated to be $17 to $40 billion (3 percent discount rate) and $15 to $36 billion (7 percent discount rate). Total compliance costs are approximately $7.5 billion annually in 2020. Net benefits in 2020 are estimated to be $27 to $50 billion (3 percent model average discount rate, 2011$). In 2030, as shown on Table 2, climate benefits are approximately $31 billion using a 3 percent discount rate (model average, 2011$) relative to the 2030 base case assuming a state compliance approach. Health co-benefits are estimated to be approximately $27 to $62 billion (3 percent discount rate) and $24 to $56 billion (7 percent discount rate) relative to the 2030 base case (2011$). In 2030, total compliance costs for the state approach are approximately $8.8 billion (2011$). In 2030, these net benefits are estimated to be approximately $49 to $84 billion (3 percent discount rate, 2011$) assuming a state compliance approach.

	3% Discount rate	**7% Discount rate**
[Billions of 2011$]		

[a]All estimates are for 2020, and are rounded to two significant figures, so figures may not sum.

[b]The climate benefit estimate in this summary table reflects global impacts from CO_2 emission changes and does not account for changes in non-CO_2 GHG emissions. Also, different discount rates are applied to SCC than to the other estimates because CO_2 emissions are long-lived and subsequent damages occur over many years. The benefit estimates in this table are based on the average SCC estimated for a 3% discount rate, however we emphasize the importance and value of considering the full range of SCC values. As shown in the RIA, climate benefits are also estimated using the other three SCC estimates (model average at 2.5 percent discount rate, 3 percent, and 5 percent; 95th percentile at 3 percent). The SCC estimates are year-specific and increase over time.

[c]The air pollution health co-benefits reflect reduced exposure to $PM_{2.5}$and ozone associated with emission reductions of directly emitted $PM_{2.5}$, SO_2 and NO_X. The range reflects the use of concentration-response functions from different epidemiology studies. The reduction in premature fatalities each year accounts for over 90 percent of total monetized co-benefits from $PM_{2.5}$ and ozone. These models assume that all fine particles, regardless of their chemical composition, are equally potent in causing premature mortality because the scientific evidence is not yet sufficient to allow differentiation of effect estimates by particle type.

[d]Total costs are approximated by the illustrative compliance costs estimated using the Integrated Planning Model for the proposed guidelines and a discount rate of approximately 5%. This estimate includes monitoring, recordkeeping, and reporting costs and demand side energy efficiency program and participant costs.

	3% Discount rate	7% Discount rate
[e]*The estimates of net benefits in this summary table are calculated using the global social cost of carbon at a 3 percent discount rate (model average). The RIA includes combined climate and health estimates based on these additional discount rates.*		
Proposed Guidelines Regional Compliance Approach		
Climate benefits[b]	$17.	
Air pollution health co-benefits[c]	$16 to $37	$15 to $34.
Total Compliance Costs[d]	$5.5	$5.5.
Net Monetized Benefits[e]	$28 to $49	$26 to $45.
Non-monetized Benefits	Direct exposure to SO_2 and NO_2. 1.3 tons of Hg. Ecosystem Effects. Visibility impairment.	
Proposed Guidelines State Compliance Approach		
Climate benefits[b]	$18	
Air pollution health co-benefits[c]	$17 to $40	$15 to $36.
Total Compliance Costs[d]	$7.5	$7.5.
Net Monetized Benefits[e]	$27 to $50	$26 to $46.

	3% Discount rate	7% Discount rate
Non-monetized Benefits	Direct exposure to SO_2 and NO_2. 1.5 tons. Ecosystem effects. Visibility impairment.	

Table 1—Summary of the Monetized Benefits, Compliance Costs, and Net Benefits for the Proposed Guidelines in 2020 [a] Back to Top

	3% Discount rate	7% Discount rate
[Billions of 2011$]		

[a]All estimates are for 2030, and are rounded to two significant figures, so figures may not sum.

[b]The climate benefit estimate in this summary table reflects global impacts from CO_2 emission changes and does not account for changes in non-CO_2 GHG emissions. Also, different discount rates are applied to SCC than to the other estimates because CO_2 emissions are long-lived and subsequent damages occur over many years. The benefit estimates in this table are based on the average SCC estimated for a 3% discount rate, however we emphasize the importance and value of considering the full range of SCC values. As shown in the RIA, climate benefits are also estimated using the other three SCC estimates (model average at 2.5 percent discount rate, 3 percent, and 5 percent; 95th percentile at 3 percent). The SCC estimates are year-specific and increase over time.

[c]The air pollution health co-benefits reflect reduced exposure to $PM_{2.5}$and ozone associated with emission reductions of directly emitted $PM_{2.5}$, SO_2 and NO_X. The range reflects the use of concentration-response functions from different epidemiology studies. The reduction in premature fatalities each year accounts for over 90 percent of total monetized co-benefits from $PM_{2.5}$ and ozone. These models assume that all fine particles, regardless of their chemical composition, are equally potent in causing premature mortality because the scientific evidence is not yet sufficient to allow differentiation of effect estimates by particle type.

[d]Total costs are approximated by the illustrative compliance costs estimated using the Integrated Planning Model for the proposed guidelines and a discount rate of approximately 5%. This estimate includes monitoring, recordkeeping, and reporting costs and demand side energy efficiency program and participant costs.

[e]The estimates of net benefits in this summary table are calculated using the global social cost of carbon at a 3 percent discount rate (model average). The RIA includes combined climate

	3% Discount rate	7% Discount rate
and health estimates based on these additional discount rates.		
Proposed Guidelines Regional Compliance Approach		
Climate benefits[b]	$30.	
Air pollution health co-benefits[c]	$25 to $59	$23 to $54.
Total Compliance Costs[d]	$7.3	$7.3.
Net Monetized Benefits[e]	$48 to $82	$46 to $77.
Non-monetized Benefits	Direct exposure to SO_2 and NO_2. 1.7 tons of Hg and 580 tons of HCl. Ecosystem Effects. Visibility impairment.	
Proposed Guidelines State Compliance Approach		
Climate benefits[b]	$31.	
Air pollution health co-benefits[c]	$27 to $62	$24 to $56.
Total Compliance Costs[d]	$8.8	$8.8.
Net Monetized Benefits[e]	$49 to $84	$46 to $79.

	3% Discount rate	7% Discount rate
Non-monetized Benefits	Direct exposure to SO_2 and NO_2. 2.1 tons of Hg and 590 tons of HCl. Ecosystem effects. Visibility impairment.	

Table 2—Summary of the Monetized Benefits, Compliance Costs, and Net Benefits for the Proposed Guidelines in 2030 [a] Back to Top

There are additional important benefits that the EPA could not monetize. These unquantified benefits include climate benefits from reducing emissions of non-CO_2 greenhouse gases (e.g., nitrous oxide and methane) [13] and co-benefits from reducing direct exposure to SO_2, NO_X and hazardous air pollutants (e.g., mercury and hydrogen chloride), as well as from reducing ecosystem effects and visibility impairment.

In addition to the cost and benefits of the rule, the EPA projects the employment impacts of the guidelines. We project job gains and losses relative to base case for the electric generation, coal and natural gas production, and demand side energy efficiency sectors. In 2020, we project job growth of 25,900 to 28,000 job-years [14] in the power production and fuel extraction sectors, and we project an increase of 78,800 jobs in the demand-side energy efficiency sector.
Based upon the foregoing, it is clear that the monetized benefits of this proposal are substantial and far outweigh the costs.

B. Organization and Approach for This Proposed Rule

This action presents the EPA's proposed emission guidelines for states to consider in developing plans to reduce GHG emissions from the electric power sector. Section II provides background on climate change impacts from GHG emissions, GHG emissions from fossil fuel-fired EGUs and the utility power sector and CAA section 111(d) requirements. Section III presents a summary of the EPA's stakeholder outreach efforts, key messages provided by stakeholders, state policies and programs that reduce GHG emissions, and conclusions. In Section IV of the preamble, we present a summary of the rule requirements and the legal basis for these. Section V explains the EPA authority to regulate CO_2 and EGUs, identifies affected sources, and describes the proposed treatment of source categories. Section VI describes the use of building blocks for setting state goals and key considerations in doing so. Sections VII and VIII provide explanations of the proposed state-specific goals and the proposed requirements for state plans, respectively. Implications for the new source review and Title V programs and potential

interactions with other EPA rules are described in Section IX. Impacts of the proposed action are then described in Section X, followed by a discussion of statutory and executive order reviews in Section XI and the statutory authority for this action in Section XII.

We note that this rulemaking overlaps in certain respects with two other related rulemakings: The January 2014 proposed rulemaking that the EPA published on January 8, 2014 for CO_2 emissions from newly constructed affected sources, [15] and the rulemaking for modified and reconstructed sources that the EPA is proposing at the same time as this rulemaking. Each of these three rulemakings is independent of the other two, and each has its own rulemaking docket. Accordingly, commenters who wish to comment on any aspect of this rulemaking, including a topic that overlaps an aspect of one or both of the other two related rulemakings, should make those comments on this rulemaking.