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EPA Proposes CO2 Emission Guidelines

Public hearings next week are likely to be contentious

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On June 2, the United States Environmental Protection Agency (EPA) issued proposed regulations for states to develop plans to reduce the emission of greenhouse gases. The proposed regulations specifically apply to the reduction of carbon dioxide (CO2) emissions from existing electric utility generating units (EGUs).

The proposed rule, identified informally on the EPA website as the "Clean Power Plan," is intended to achieve CO2 emissions reductions of approximately 30 percent from 2005 levels, in the nationwide power sector as a whole, by the year 2030. This would be a period of approximately 15 years from the intended 2015 adoption date of the rule.

To achieve this reduction, the rule would rely only partially on reduced emissions from individual fossil-fuel burning power plants by physical or operational improvements. The balance of the emissions reductions would be achieved through other, less costly "building block" measures. These would include simply using these plants less in favor of greater utilization of less CO2-intensive combined cycle natural gas plants, as well as the increased use of nuclear power and renewable energy, and the implementation of electric demand reduction measures.

While the actual goal of the rule would be CO2 emissions reduction, the EPA is utilizing the arguably softer language of "emissions guidelines" and "emissions performance goals" in lieu of emissions reduction requirements.

Under the proposed rule, each state would be required to develop and submit to the EPA a plan to meet a state-specific CO2 emissions performance goal that has been calculated by the EPA and is listed in Table 1 of the rule. The calculation of these goals is based on the EPA's determination of the degree of emissions limitations achievable for each state, taking into account factors including technical feasibility and cost as required by the applicable provisions of the Clean Air Act (CAA).

The rule proposal follows several months of "listening sessions" held by the EPA at various locations through the country, including Washington, D.C., Philadelphia and New York City, during which the agency solicited input from stakeholders on how to best address the issue of CO2 emissions reduction. At the sessions, the EPA indicated interest in what could be done directly at plants, as well as energy efficiency and renewable energy suggestions, and provided the opportunity for both oral and written comment. The proposed rule is consistent with that focus.

Legal Authority/Background

The proposed rules are promulgated pursuant to the authority of CAA §111, specifically §111(d). Section 111 requires performance standards for air pollutant emissions from categories of stationary sources that may reasonably contribute to the endangerment of public health or welfare. Applicable air pollutants have been determined by the U.S. Supreme Court and the EPA to include CO2 emissions. Section 111(d) requires performance standards for existing (as opposed to new) sources, and generally provides that states must develop and submit to the EPA plans to meet the performance standards.

Under CAA §111(a)(1), the performance standards must reflect the degree of emission limitations achievable through the application of the "best system of emission reduction" (BSER). BSER must take into account the cost of achieving this reduction, along with any nonair quality health and environmental impacts and energy requirements, which the EPA determines the state has adequately demonstrated.

The rule proposal is a companion to September 2013 proposed rules for reduction of CO2 emissions for new and modified power plants pursuant to CAA §111(b), a prerequisite to the June 2014 rule proposal.

The rule also follows the issuance of the Obama administration's June 2013 Climate Action Plan, which included the goal of reducing CO2 emissions from power plants, as well as President Obama's June 25, 2013, Power Sector Carbon Pollution Standards Memorandum. In the memorandum, as indicated in the rule proposal, the president 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."

State Plans

The proposed rule would be codified at 40 C.F.R. Part 60, new Subpart UUUU, to be entitled: "Emission Guidelines for Greenhouse Gas Emissions and Compliance Times for Electric Utility Generating Units."

It provides the specifics of what must be included in the required state plans, while providing states with two ways of measuring CO2 emissions reductions: rate-based (measured as the rate of pounds of CO2 emitted per net megawatt hour of energy produced), and mass-based (measured as tons of CO2 emitted per performance period). These methodologies follow existing state programs which are discussed in section III.D of the rule proposal preamble.

The majority of the 645-page rule proposal is its approximately 600-page preamble. The rules are written in a user-friendly question format (for example, proposed §60.5700 is entitled "What is the purpose of this subpart?") and is similar in that respect to other recent EPA rules, including the CAA §111(b) rule proposal.

Key provisions of the proposed rule include the following CO2 emissions performance goals:

• Timing

The rule would set two deadlines by which states are to achieve their state-specific emissions performance goals: a 10-year interim plan performance period of 2020 through 2029, and the single projection year of 2030 (§60.5740(a)). The identified emission performance level for each plan performance period must be equivalent to or better than the levels of the rate-based CO2 emission performance goals in Table 1 of the rule for each state's plan.

State plans are due under the rule by June 30, 2016 (§60.5755), although states may apply for a one-year extension to June 30, 2017, or a two-year extension for multistate plans to June 30, 2018.

• Table 1

The proposed rule defines CO2 emission performance goals as "the rate-based CO2 emissions performance goal specified for a state in Table 1 of this subpart, or a translated mass-based form of that goal."

Table 1 of the rule lists each state and provides an annual average rate-based interim and final performance goal for each (for example, the interim goal for New Jersey is 647 pounds of CO2 per megawatt-hour (mwh), while for California the interim goal is 556, and for North Dakota, 1817). Section 60.5770 would provide that if a state opts to use a mass-based emission performance goal in its plan, the plan must also include the methodology for converting the Table 1 rate-based goal to a mass-based goal for that state.

Section 60.5775 would provide that each state's plan must include increments of emissions performance within the interim performance period for every two rolling calendar years starting Jan. 1, 2020, and ending in 2028, and must then meet the interim performance level in 2029. During the final performance period, 2030 and thereafter, each state must meet the final emission performance level on a three calendar-year rolling average.

Building Block Approach

The BSER CO2 emission goal for each state can be met through utilization of a range of measures that fall into four main categories, or "building blocks":

Improved operations at EGUs;

EGU CO2 emission reduction achievable through re-dispatch from affected steam EGUs to natural gas combined cycle (NGCC) units (subject to system constraints such as geographic distribution of NGCC units, availability of natural gas, and the need to have fossil fuel-fired units up and running in order to meet peak demand);

Meeting demand for electricity through low or zero carbon generating capacity (renewable energy and nuclear); and

The expanded use of demand-side energy efficiency.

In developing its plan, each state would have the flexibility to select the measure or combination of measures it prefers in order to best achieve its CO2 emission reduction goal.

Reporting

Proposed §60.5815 addresses state reporting requirements, which include submittal of an annual report on July 1 of each year, covering the prior calendar year, with the first reports due by July 1, 2021. The annual report is to include the emissions performance achieved by all affected EGUs during the reporting period, and is to indicate whether the state is on track to meet the level of emissions performance during the plan performance period, as specified in the state plan.

Multistate Plan Option

Proposed §60.5745 provides for states to comply with the rule by submitting a multistate plan. Further, proposed §60.5750 provides that existing state programs, requirements and measures may qualify for use in demonstrating that a state plan achieves the required level of emission performance specified in a plan. Additionally, it provides that emission impacts of existing programs that occur during a plan performance period may be recognized in meeting or projecting CO2 emission performance by affected EGUs, provided certain criteria are met. States in multistate plans may seek a two-year extension to June 30, 2018, for complete plan submittal, provided initial information is submitted by June 30, 2016.

Conclusion

Public hearings on the proposed rule are scheduled in Washington, D.C., and in several other locations throughout the country for the week of July 28. It is likely that those hearings will be both well-attended and contentious. Litigation in opposition to the proposed rule is also widely anticipated, and at least one lawsuit has already been filed in the U.S. Court of Appeals for the D.C. Circuit by Murray Energy, a large coal company, seeking to block the rules. Still, after having come this far, it would not be unreasonable to assume that some version of the EPA's proposed rule will survive to enactment. Stay tuned.

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