

LEGAL UPDATES

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Services

Energy Regulation
Environmental

EPA Proposes Significant Reductions in Carbon Dioxide Emissions

On June 18, 2014, the U.S. Environmental Protection Agency (EPA) proposed two new rules that have the potential to significantly limit carbon dioxide emissions from fossil fuel-fired electric generating units (EGUs). EPA is soliciting comments on the proposed rules through October 16, 2014.

Summary of the Proposed Rules

The first proposed rule, the “Carbon Pollution Standards for Modified and Reconstructed Stationary Sources: Electric Utility Generating Units,” proposes to amend the New Source Performance Standards for carbon dioxide that apply to modified and reconstructed fossil fuel-fired utility boilers, Integrated Gasification Combined Cycle (IGCC) units, and natural gas-fired stationary combustion turbines.

The second proposed rule, “Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units,” proposes to establish state-specific goals for carbon dioxide emissions from existing fossil fuel-fired electric generating units, and to require states to develop plans to meet those goals.

Legal Framework

Section 111 of the Clean Air Act requires EPA to publish a list of categories of stationary sources, including any category of sources that “causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.” In 1971, EPA listed fossil fuel-fired steam generating boilers as a source category subject to rulemaking, and in 1979 EPA listed fossil fuel-fired combustion turbines.

Once EPA lists a source category, it must publish standards of performance for new sources within the category. EPA must also adopt regulations that

establish a procedure for states to submit plans that establish standards of performance for any existing source in that source category. The standards of performance must reflect the degree of emission limitation achievable through the application of the “best system of emission reduction” (BSER) that EPA determines has been adequately demonstrated, taking into account the cost of achieving the reduction, any non-air quality health and environmental impacts, and energy requirements.

The state must then submit its plan to EPA for approval. If EPA does not approve the plan, EPA must establish a plan for that state.

Modified and Reconstructed Sources

The proposed rule for modified and reconstructed sources identifies BSER and proposes standards, each of which varies based on the type of source at issue. For reconstructed utility boilers and IGCC units, EPA proposes that BSER is the “most efficient generating technology at the affected source,” and proposes that sources with a heat input > 2,000 MMBtu/h would be required to meet an emission limit of 1,900 lb CO₂/MWh-net while sources with a heat input ≤ 2,000 MMBtu/h would be required to meet an emission limit of 2,100 lb CO₂/MWh-net. For modified utility boilers and IGCC units, EPA proposes that BSER is the “most efficient generation at the affected source achievable through a combination of best operating practices and equipment upgrades,” and proposes that the source would be required to meet a unit-specific emission limit determined by the unit’s best historical annual carbon dioxide emission rate, plus an additional two percent reduction (but not lower than the limits proposed for reconstructed utility boilers); in a co-proposed alternative, EPA proposes that the unit-specific emission limit would be determined from the results of an energy efficiency improvement audit for those sources that modify after becoming subject to a Section 111(d) state plan.

For both modified and reconstructed natural gas-fired stationary combustion turbines, EPA proposes that BSER is “efficient [Natural Gas Combined Cycle] NGCC technology,” and proposes that sources with a heat input > 850 MMBtu/h would be required to meet an emission limit of 1,000 lb CO₂/MWh-gross while sources with a heat input ≤ 850 MMBtu/h would be required to meet an emission limit of 1,100 lb CO₂/MWh-gross.

Existing Sources

The proposed rule for existing sources proposes that BSER is the combination of the following four “building blocks:”

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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.

In addition, the proposed rule proposes state-specific rate-based goals that reflect EPA’s calculation of the emissions each state can achieve through BSER. States must meet interim goals between 2020 and 2029, and must meet final goals beginning in 2030. The goals for those states in which Husch Blackwell has an office are as follows:

State	Interim goal	Final goal
Arizona	735	702
Colorado	1,159	1,108
Illinois	1,366	1,271
Missouri	1,621	1,544
Nebraska	1,596	1,479
Tennessee	1,254	1,163
Texas	853	791

The state rate-based carbon dioxide emission performance goal may be converted to a mass-based emission performance goal.

The proposed rule also requires states to develop plans to meet those goals, and proposes guidelines for those plans. The state plan must identify affected entities, which EPA proposes must include certain affected steam generating units, IGCCs, or stationary combustion turbines that commence construction on or before January 8, 2014, that have a base load rating greater than 73 MW (250 MMBtu/h) and were constructed for the purpose of supplying one-third or more of its potential electric output to a utility distribution system. The state plan must also describe the plan approach and geographic scope, including identifying which of the four building blocks will be used to achieve the required emission reduction. In addition, it must identify the state emission performance level; demonstrate that the plan is projected to achieve the emission performance level for affected entities; identify the emission standards for each affected entity; demonstrate that each emission standard is quantifiable, non-duplicative, permanent, verifiable, and enforceable; identify monitoring, reporting, and recordkeeping requirements; describe the process, contents, and schedule for annual state reporting to EPA regarding plan implementation and progress; certify that a hearing was held on the state plan; and provide supporting material. Each state must submit its plan to EPA by June 30, 2016.

What You Can Do

The proposed rule regarding modified and reconstructed units will potentially affect fossil fuel electric power generating units. And the impacts of the proposed rule regarding existing units could be significantly more far-reaching, depending on the approach to emission reduction adopted by each state. Some states might adopt plans that directly require carbon dioxide emissions reductions from electric generating units, while others might reduce emissions by reducing utilization of fossil fuel-fired electric generating units by encouraging renewable energy resources and demand-side energy efficiency programs. In addition, the proposed rule will have implications for the energy market as well as businesses that have high energy demands, as average nationwide retail electricity prices are projected to increase by roughly four to seven percent in 2020 and electric power sector delivered natural gas prices are projected to increase by about eight to 12 percent. Submission of comments to EPA regarding both the proposed rate-based emission goals and the requirements for state plans could impact the framework within which your state is required to adopt a plan in the coming years.

Comments on each proposed rule must be submitted no later than October 16, 2014. However, a comment to the Office of Management and Budget regarding the recordkeeping and reporting burdens associated with the proposed rules is best assured of having its full effect if the OMB receives it by July 18, 2014.

Contact Us

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For additional information regarding how the proposed rules might impact your business or your clients, or if you'd like assistance filing comments on the proposed rules, please contact Bob Wilkinson, the leader of Husch Blackwell's Environmental practice, at 314.480.1842.