# ENERGY EFFICIENCY: ROLE IN PROSPECTIVE POWER PLANT $CO_2$ RULES?

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President Obama's Climate Action Plan, released on June 25, 2013, redoubled attention to prospective regulation of greenhouse gases (GHGs) from the electric power sector. In his plan and address, the President gave significant attention to fossil fueled electric power plants, which account for about one-third of U.S. GHG emissions (as carbon dioxide ($CO_2$) equivalent). Indeed, on that same day, he issued a memorandum to the Administrator of the Environmental Protection Agency (EPA) directing a schedule for developing rules to address power plant GHG emissions.

The Alliance to Save Energy's interest is energy efficiency. The Alliance and the Alliance Commission on National Energy Efficiency Policy's Energy 2030 report recommends that energy efficiency be used as an emissions reduction strategy. EPA and state and local air regulators should encourage, allow and credit energy efficiency measures as compliance options in air quality regulations, plans and procedures.

The President's directive to the EPA on power plant GHG regulations opens a possibility for energy efficiency to play a large role in achieving cost-effective emissions reductions by allowing and encouraging states to count energy efficiency programs that also deliver economic, energy reliability and conventional air quality benefits.

## The President's Directive to the EPA

The EPA originally proposed "Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Generating Units" (77 Fed. Reg. 22392) on April 13, 2012, which would establish a New Source Performance Standard (NSPS) under §111(b) of the Clean Air Act (CAA). Promulgation of such a regulation would then trigger EPA development of "emissions guidelines" under CAA §111(d) that states would use to plan and implement standards for existing plants.

In his memorandum, the President directed that the EPA issue a new NSPS proposal (i.e., standards for new fossil fueled power plants) no later than September 20, 2013, and issue a final rule thereafter in a timely manner. He then directed that EPA propose "carbon pollution standards, regulations, or guidelines, as appropriate" for modified, reconstructed and existing power plants no later than June 1, 2014 to be finalized no later than June 1, 2015. He also instructed that guidelines for existing power plants include a requirement for states to submit to EPA their CAA §111(d) implementation plans no later than June 30, 2016.

The President directed that the EPA engage with states and stakeholders in developing the standards, regulations and guidelines. Further, he directed that the EPA develop approaches that allow significant regulatory flexibility, ensure that a diversity of energy sources and

technologies are used, and are sensitive to considerations of cost, affordability and reliability of power. The memorandum specifically calls on the EPA to work with the Department of Energy and other federal and state agencies to promote reliable and affordable power through deployment of clean technologies and increasing energy efficiency.

## Potential Role for Energy Efficiency

There is not much experience with §111(d), which has been used infrequently. It applies only to pollutants that are not regulated by the CAA as either criteria air pollutants (such as ozone, particulate matter, nitrogen oxides and sulfur dioxide) or hazardous air pollutants. Traditionally, this part of the CAA is implemented by imposing pollution control measures at the regulated facilities; however, the wording of the law may allow a wider set of compliance approaches, including end-use energy efficiency.

The CAA calls for §111(d) to be implemented through a process similar to that used for criteria air pollutants, under which states develop State Implementation Plans (SIPs). SIPs include enforceable emissions limits, other pollution prevention and control approaches, compliance timetables, monitoring and enforcement mechanisms, and other provisions. States have some discretion in developing SIPs and can use a variety of policy tools, including fees, emission rights trading and other economic incentives.

The SIP-like approach suggests to some analysts that states would have discretion to include energy efficiency policies and programs, as well as renewable energy and other low/no-carbon generation options, in their §111(d) implementation plans. Under this approach, electrical energy savings attributed to state-level energy efficiency resource standards (EERS) and utility efficiency programs, enhanced building energy codes, state and local incentives and other measures could be credited for avoided power plant emissions and count toward meeting power plant §111(d) standards.

The Natural Resources Defense Council (NRDC) published a §111(d) proposal that would allow standards to be met through measures taken at power plants (improving generation efficiency, fuel switching and carbon capture and storage), at the grid level (increasing dispatch of lower-carbon units), by building more low/no-carbon generation and through end-use energy efficiency. The proposal would give states discretion to allow emissions (actually emissions rate) averaging and trading in-state and, subject to voluntary interstate agreement, across state lines. Modeling of the NRDC proposal points to energy efficiency as the most potent and most cost-effective emissions reduction tool.

A National Climate Coalition proposal is structured quite differently from NRDC's approach. It also includes considerable flexibility for states to perform averaging and trading and to include end-use energy efficiency.

The President's directive to the EPA to engage states and diverse stakeholders, to encourage regulatory flexibility and to be sensitive to power cost and reliability impacts indicate that he understands that there are varied state and regional contexts and experiences. Also it indicates recognition that some states have explicit power plant $CO_2$

policies (e.g., California's AB32 and Regional Greenhouse Gas Initiative (RGGI) states), while many states have *de facto* power plant GHG emissions programs via their energy efficiency and renewable energy programs, even if they were implemented for reasons other than climate concerns.

Energy efficiency is increasingly recognized as the lowest cost, most abundant and cleanest energy "source" available. Strengthening energy efficiency can be the most cost-effective way to address GHG emissions and other environmental impacts while delivering economic and energy reliability benefits.

## Selected Additional Resources

Alliance to Save Energy meeting with NRDC and Alliance power sector Associates, June 11, 2013 slides

Center for Climate Change Law, Columbia University and the World Resources Institute, What's Ahead for Power Plants and Industry? Using the Clean Air Act to Reduce Greenhouse Gas Emissions, Building on Existing Regional Programs by Franz T. Litz, Nicholas M. Bianco, Michael B. Gerrard, and Gregory E. Wannier (February 2011)

Nicholas Institute for Environmental Policy Solutions, Duke University, Regulating Carbon Dioxide under Section 111(d) of the Clean Air Act: Options, Limits, and Impacts by Jeremy Tarr, Jonas Monast, and Tim Profeta (January 2013)