National Rural Electric Cooperative Association

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SETTING ACHIEVABLE CLEAN AIR ACT (CAA) NEW SOURCE PERFORMANCE STANDARDS (NSPS) UNDER SECTION 111(d) FOR EXISTING SOURCE CARBON DIOXIDE (CO_2) EMISSIONS

BACKGROUND AND TIMING

On June 25, 2013, President Obama issued a Presidential Memorandum directing the EPA to issue proposed carbon standards and guidelines for modified and existing power plants no later than June 1, 2014, and to issue final standards and guidelines no later than June 1, 2015. EPA is then directed to include a requirement for state submittal of implementation plans required under section 111(d) of the Clean Air Act by no later than June 1, 2016. EPA's responsibilities fall under the President's overarching goal of achieving a 17% reduction of greenhouse gases by 2020 from a 2005 emission baseline.

WHAT ARE THE SECTION 111(D) MANDATES AND RESPONSIBILITIES?

Section 111(d) of the Clean Air Act requires EPA to issue regulations (via guidance) that sets ***achievable*** emission limitations for existing sources based on the application of a "best system of emission reduction" (BSER). The BSER is applied on a facility by facility basis. It must account for: cost and any non-air quality health, environmental impacts and energy requirements as well as numerous other pertinent factors such as source size, fuel constraints, remaining useful life, unit configuration, cost of controls, energy impacts, etc.

Section 111(d) envisions a "state implementation plan (SIP) like" process **where a state, not EPA,** is given discretion and authority to determine individual source NSPS. Section 111(d) is clear that BSER and corresponding NSPS are determined by the state for each electric generating unit (EGU). States follow EPA's guidance to set existing source NSPS on a case by case basis considering all factors identified above. However, **states can deviate from EPA guidance** for various reasons. Only if a state fails to act can EPA issue a federal implementation plan.

Setting the CO_2 emissions limitations using BSER for controlling emissions at existing power plants must be determined by ***onsite actions.*** Currently, the only onsite action to reduce carbon dioxide emissions at existing units is supply-side energy efficiency improvements such as heat rate improvements. The corresponding emission reduction obligation for each EGU needs to reflect what is achievable at that facility.

Once the NSPS limit is set, the affected utility may, with state approval, exercise ***flexible*** options to satisfy these obligations to reduce CO_2 emissions. This could include emissions averaging or offsetting among affected EGUs or with other generation sources, as well as other actions. In no case should a state be required to achieve emission reductions that exceed those required by aggregating individual EGU obligations within the state; nor should an EGU be obligated to achieve reductions that exceed its individual obligations.

WHAT ARE THE IMPACTS?

EPA's 111(d) regulatory program for existing EGUs will directly affect fossil-fuel EGUs nationally, regionally and at the state level. Unlike regulation of traditional air emissions, there are no emission controls for mitigating CO_2 at existing EGUs. So the EPA and other stakeholders, including states, are looking to manipulate 111(d) in a way to require power plants to achieve emission reductions from beyond their facility. EPA's decision could trigger a range of outcomes such as statewide reliability concerns, increased electric rates, and a nationwide reliance on natural gas as the only choice for base-load generation.

WHY ARE SOME ADVOCATES PROMOTING A BROAD EMISSION REDUCTION MANDATE?

Most utilities maintain their EGUs close to heat rate design efficiencies and thus little additional heat rate improvements are available for CO_2 reductions. EPA has already stated that carbon capture and storage isn't a viable option for existing units. This limits the range of BSER options applicable to existing EGUs to small efficiency gains made primarily through modifications to the boiler and turbine systems to reduce EGU heat rates and corresponding CO_2 emissions on CO_2/MWh output basis. This means a likely result of 5% or less CO_2 reduction from the EGU existing source category.

Advocates are seeking greater CO_2 reductions and are looking beyond the plant boundary for setting emission limits to gain reductions from beyond individual coal-fired EGUs.

WHAT REGULATORY OPTIONS ARE BEING CONSIDERED BY EPA?

EPA is considering defining the "system" component of BSER as the entire utility system, which is well beyond the generating facility. If such a broad interpretation of "system" were legally permissible, EPA could require state consideration of CO_2 reductions mandates throughout the entire utility "system" by employing offsets or emission averaging with low carbon or carbon free generation sources or other such supply side reduction measures - essentially redefining what is achievable at a facility as anything inside "the utility system." This could then theoretically extend to demand side management mandates.

WHY ARE COOPERATIVES CONCERNED?

Cooperatives believe that state-wide CO_2 tonnage caps, CO_2/Mwh rate caps or other emission reduction requirements must be tied to what is achievable at each facility; otherwise EPA exceeds their Section 111(d) authority.

Electric cooperatives have invested billions of dollars for new or upgraded emission controls to comply with years of CAA mandates directed at conventional pollutants. By adopting a BSER limit for EGUs based on what is achievable at a facility, it allows for consideration of factors unique to cooperative EGUs. Additionally, most G&Ts are small systems and serve a high number of residential meters; therefore, system-wide BSER mandates would afford them few viable options for emission averaging, emissions offsetting, or cost-effective demand side measures.

Any section 111(d) mandates must avoid reductions in utilization of these units that generate revenue for outstanding debt servicing. Once the BSER limit is set based on what is achievable at each facility, NRECA supports EPA and states providing for flexibility in how to achieve compliance by allowing emission averaging and offsetting. Conversely, with the majority of their generation being coal fired, cooperatives would be disproportionally affected if NSPS for coal-fired EGUs is established with a BSER beyond a facility boundary.

RECOMMENDED ACTION

EPA is engaging in outreach with states, tribes and other key stakeholders to seek input on issues and approaches that should be considered in designing a program under the Clean Air Act Section 111(d) to reduce carbon dioxide emissions from **existing** power plants.

Stakeholder engagement with EPA and state air regulators in this rapidly evolving 111(d) regulatory initiative will be critical to ensure minimal disruption to electric reliability and the electricity markets, while ensuring reasonable costs to the electric consumer.