GHG Existing Source Performance Standards

Status

- EPA Stakeholder Engagement – Fall 2013
- Draft EPA Emission Guidelines – June 2014
- Final EPA Emission Guidelines – June 2015
- State Implementation Plans to EPA – June 2016

Southern Company Involvement

- Participated in EPA listening session in Atlanta
- Engaging with EPA and states

Southern Company Position

- Any requirements/reductions from existing sources are limited by the CAA
- EPA guidelines must be based on the "best system of emission reductions" that are "adequately demonstrated" by those sources
  - i.e., analysis should not go beyond the fence and should take into account unit specific characteristics
- States have authority to develop standards of performance and flexibility in choosing compliance mechanisms

Good afternoon, I'm Chris Hobson, Senior Vice President of Research and Environmental Affairs and Chief Environmental Officer of Southern Company.

As an ***industry leader*** in the research, development and deployment of low-emitting, cost-effective energy technologies, Southern Company believes that best meeting customers' electricity needs requires the full portfolio of resources including new nuclear, 21st century coal, natural gas, renewables and broad-based energy efficiency. Southern Company is working to ensure that requirements for greenhouse gases from existing power plants do not have an adverse impact on our customers. The underlying cause of our concern is based upon the pace and manner in which the recent GHG regulations for new power plants have been proposed and have relied on CO2 control technologies, such as carbon capture and storage, that are not yet **adequately demonstrated**.

Southern Company's generation fleet, and the nation's fleet, is already in transition as a result of numerous EPA rules including the Mercury and Air Toxics Standards. Greenhouse gas rules on those plants must not penalize the investments we have made to reduce their environmental impact and must not interfere with our ability to continue to provide clean, safe, reliable and affordable electricity to our customers. In order to meet this obligation, we must maintain a diverse fuel portfolio and allow our existing fleet, in which we have so far invested about $9 billion for environmental controls, to operate for its remaining useful lifetime.

I have three main points to make today. First, within the Clean Air Act, section 111(d) authorizes EPA to develop ***emission guidelines for States to use*** in establishing greenhouse gas performance standards for existing sources. EPA should follow the Clean Air Act provisions to determine appropriate guidelines for reductions at plants and not some arbitrary goal or target. We do not believe that Section 111(d) grants EPA flexibility in

establishing emission guidelines or authority to directly issue standards of performance for existing sources.

Second, the Clean Air Act requires that EPA guidelines reflect the "best system of emission reduction" for greenhouse gases **based solely on the application of "adequately demonstrated" technology at covered sources**. An analysis of adequately demonstrated technology should be based on what is achievable at the specific source, should not go beyond the fence line, and must take into account the cost of achieving emission reductions. In addition, the "best system of emission reduction" must account for unit specific characteristics, such as fuel type, technology, age, size, location, and potential operational challenges.

Third, in developing standards of performance and compliance programs, ***States already possess authority and considerable discretion*** in determining the best solution for sources within their State. This authority needs to be maintained and affirmed in EPA's guidelines. ***Each State is allowed to use the best approach for individual sources within its own boundaries***. We believe that the Clean Air Act says that once EPA establishes the "best system of emission reductions" based on inside-the-fence GHG-specific controls, ***the use of flexible compliance mechanisms***, such as averaging, banking, trading, and credit for early action, ***is a State decision.*** In addition, States should be given time to adequately consider the impacts of the rules through appropriate stakeholder feedback prior to developing their implementation plans.

Southern Company appreciates the opportunity to engage with the EPA on this extremely important rulemaking and we encourage EPA to use the Clean Air Act to appropriately create guidelines for States to consider in establishing specific performance standards that are best suited for their individual needs.

EPA and State Roles in the § 111(d) Greenhouse Gas Regulatory Process

EPA plans to propose greenhouse gas (GHG) emissions guidelines for existing power plants in June of 2014 and then finalize those guidelines by June of 2015. We are concerned that EPA plans to interpret §111(d) of the Clean Air Act (CAA) in a way that will infringe upon the States' authority given by Congress. For example, EPA has indicated that the emission guidelines will be "binding" on States, and the Agency is evaluating whether to base emission reductions on requirements beyond the power plant fence. However, the CAA clearly defines the role of EPA and the role of the States at each step in the process of developing emission guidelines, performance standards, and compliance options for existing power plants under §111(d). The proper steps, as defined by the CAA and potential issues are outlined below.

STEP 1: The CAA directs EPA to issue emission *guidelines* to States that reflect the "best system of emission reduction" (BSER). BSER must be based on "adequately demonstrated" GHG-specific controls implemented at the power plant.

Key Issues:

- EPA's role under the CAA is **limited** to only a BSER evaluation of "*inside-the-fence*" GHG- specific controls at covered sources – the **"*small box*"** evaluation approach. (See below).
- EPA's recent comments indicate a potential expansion of EPA's authority to include "*outside-the-fence*" activities (e.g., demand-side management, energy efficiency, etc.) in BSER evaluation to create more stringent emission guidelines – the **"*big box*"** evaluation approach.

Key Priorities for States:

- EPA must only evaluate BSER with a "*small box*" / "*inside- the-fence*" approach.
- EPA must not override the States':
  - Authority to develop state plans that establish performance standards at BSER relevant levels of reduction and
  - Discretion and flexibility in establishing compliance options.

STEP 2: The CAA directs States to develop *performance standards* while taking into account EPA's emission guidelines. State plans can differ from the emission guidelines and will consider cost, technical feasibility, the remaining useful life, and other facility- and state-specific factors – including the present energy mix of each state.

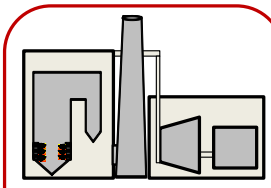
Key Issues:

- After EPA develops emission guidelines using a ***"small box"*** approach, the States maintain authority in establishing standards of performance, which can be less stringent and/or have longer compliance timelines than the EPA emission guidelines.
- States have discretion and flexibility regarding compliance options and can consider the **"*big box*" / "*inside and outside-the-fence*"** compliance approach.

Key Priorities for States:

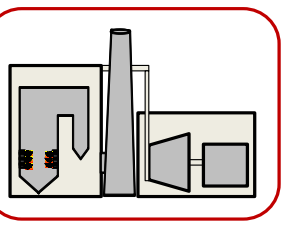
- States use their authority in developing state plans/performance standards and discretion and flexibility in establishing compliance options that best fit the needs and energy mix of each state.

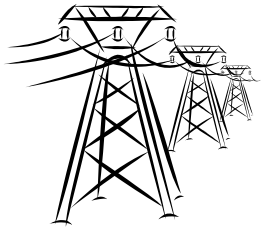
EPA's Authority



STEP 1 "SMALL BOX" BSER: Emission *Guidelines* for Unit Efficiency Projects at the Power Plant

States' Authority





STEP 2

"SMALL BOX" BSER: Emission *Limits* by Unit Based on Unit-Specific Factors

"BIG BOX" COMPLIANCE OPTIONS: Unit Efficiency Projects at the Power Plant - Averaging - Trading - Banking - Environmental Dispatch - Demand-Side Management - Energy Efficiency - Fuel Switching - Credit for Past Reductions - Credit for Existing Programs - Credit for Renewables and Nuclear - Regional Trading Programs

GHG Existing Source Guidelines, Standards, and Compliance Options – Q & A

What is state and stakeholder experience with programs that reduce CO_2 emissions in the electric power sector?

- Currently, states within Southern Company's regulated footprint do not employ programs aimed directly at reducing CO_2 emissions from existing power plants; however, due to various factors (e.g., the economic downturn, low natural gas prices, mild weather in the Southeast, and generation fleet transition due to environmental rules), Southern Company's GHG emissions have decreased over the past several years.

How should EPA establish emission guidelines and identify the best system of emission reduction (BSER)?

- The Clean Air Act (CAA) directs EPA to issue emission guidelines for categories and subcategories of sources that reflect the degree of emission limitation achievable based on BSER, which have been adequately demonstrated.
- The CAA limits EPA's BSER evaluation to inside-the-fence GHG-specific controls at individual covered sources.
- The CAA directs States to develop implementation plans that establish standards of performance based on inside-the-fence GHG-specific controls while considering EPA's emission guidelines.
- State plans can differ from EPA's emission guidelines – considering costs, technical feasibility, the remaining useful life of the affected units, and other facility-specific factors.

What metric should EPA's emission guidelines use in identifying the degree of emission limitation achievable from BSER?

- EPA's emission guidelines should be expressed as an emission rate; however, States may establish rate-based or mass-based limits, regardless the form of EPA's emission guidelines.

What flexibility do states maintain in developing plans?

- Under the CAA, States develop standards of performance at BSER relevant levels of reduction. In considering EPA's emission guidelines, States may apply "less stringent emission standards or longer compliance schedules" to particular facilities or classes of facilities if adopting the EPA's emission guidelines would be "unreasonably costly," or "physically impossible," among other factors.
- States, based on the CAA, have discretion and flexibility regarding compliance options and can consider inside- and outside-the-fence compliance options, if so desired.

What are your thoughts on trading, both inter- and intra-state?

- States have flexibility, provided by the CAA, to implement trading (inter- and intra-state) as a compliance option, but EPA can neither force trading nor utilize trading in order to justify more stringent emission limitations than what is achievable through an inside-the-fence BSER evaluation.

What did publicly released Section 111(d) proposals (NRDC, State of Kentucky) get wrong / get right?

- Both the NRDC and the State of Kentucky plans are inconsistent with the process outlined in the CAA, because they start with an arbitrary end in mind (the 17% reduction goal in the President's Climate Action Plan) rather than first determining the appropriate BSER for power plants. As a result, these proposals effectively establish emission guidelines and standards of performance through unlawfully broad BSER evaluations using a beyond-the-fence approach.
- Once EPA establishes BSER appropriately based on adequately demonstrated technology at the affected source, all States have the authority under the CAA to develop performance standards and chose flexible compliance options.