

**Testimony of Jeffrey R. Holmstead
before the
U.S. House Committee on
Science, Space, and Technology
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Thank you Chairman Smith, Ranking Member Johnson, and distinguished members of the Committee for inviting me to participate in today's hearing.

My name is Jeff Holmstead. I am a partner in the law firm of Bracewell & Giuliani and have been the head of the firm's Environmental Strategies Group (ESG) since 2006. For almost 25 years, my professional career has been focused on policy, regulatory, and legal issues arising under the Clean Air Act. From 1989 to 1993, I served in the White House Counsel's Office as Associate Counsel to President George H.W. Bush. In that capacity I was involved in many of the discussions and debates that led to the passage of the 1990 Amendments to Clean Air Act – and was then deeply involved in the initial efforts to implement those Amendments. From 2001 to 2005, I was the Assistant Administrator of EPA for Air and Radiation and headed the EPA Office in charge of implementing the Clean Air Act. I am well acquainted with the legal, policy, and practical issues associated with the Clean Air Act and efforts to regulate carbon and other greenhouse gases under the Act.

I am pleased to come before you today to discuss the EPA's proposal to regulate carbon dioxide emissions from existing power plants. There is much to say about this proposal, but I will focus on 2 main concerns: (1) EPA's proposal goes well beyond its legal authority under the Clean Air Act by trying to force states to regulate anything that produces or uses electricity; and (2) EPA has been so distracted by the notion that it can fundamentally change the electricity system in all 50 states that it has not done the technical work needed to develop legally sound regulations to reduce carbon emissions from existing fossil fuel power plants.

At the outset, I want to note an important issue that I will not address in any detail. EPA proposes to regulate existing power plants under Section 111(d) of the Clean Air Act. Given that it has already regulated power plants under Section 112, there are significant legal questions as to whether EPA has authority to regulate power plants at all under Section 111(d). Attorneys General in many states, along with many other parties, have already raised this issue, and the courts may well decide that EPA is precluded from issuing any type of power plant regulation under Section 111(d). In today's testimony, however, I will assume that EPA does have authority to use 111(d) to regulate carbon emissions from power plants and will focus only on the type of regulation that is legally permissible under Section 111(d).

EPA's Authority to Regulate GHGs under the Clean Air Act

The Supreme Court has made it clear that EPA has authority to regulate carbon dioxide (CO₂) and other greenhouse gases (GHGs) under the Clean Air Act (CAA). But the Supreme Court has not given EPA a roving mandate to do whatever it thinks best when it comes to regulating greenhouse gases. In the CAA, Congress created a number of different regulatory programs with

carefully defined limits. Some of these programs can be used to regulate greenhouse gases, but EPA may only do so in a way that complies with the limits established by Congress.

A recent Supreme Court decision makes this point quite clearly. On June 23rd, the Court issued its decision in *Utility Air Regulatory Group v. Environmental Protection Agency (UARG v. EPA)*. In that case, the Court overruled EPA's determination that emissions of CO₂ and other GHGs trigger certain CAA permitting requirements. Although the Court did allow EPA to require GHG permit limits for projects that must have permits for conventional pollutants, it reminded EPA that the Agency does not have unfettered authority to regulate carbon emissions in any way the Agency might want. Instead, the Court ruled that EPA must craft regulations that are consistent with the statutory language of the CAA.

Section 111 of the Clean Air Act

Section 111, in essentially its current form, has been in place since 1977, and anyone who works on CAA issues is familiar with it. Before issuing any type of regulation under Section 111, EPA must first identify specific types of facilities (which are generally known as "sources" under the CAA) that, in EPA's judgment, emit air pollution that endangers public health. As part of this process, EPA creates "source categories" and carefully defines the type of facilities that fall within these categories.

For power plants (and other types of sources as well), EPA has also created "subcategories" to reflect the fact that there are different types of power plants – traditional coal-fired plants, plants known as IGCC plants that burn gasified coal, combined-cycle natural gas plants, and simple-cycle natural gas plants. Sometimes there are different subcategories for different sizes of the same type of plant. These subcategories are important because the best system for controlling emissions can be quite different for different types of plants. More importantly, the emission rate that can be achieved with these systems can vary greatly for different types of plants. For ease of explanation, I will use "category" to refer to both categories and subcategories.

Once EPA has defined a category, it then develops, under Section 111(b), a "standard of performance" for a particular pollutant. Once such a standard is issued, any new facility that falls within the defined category must comply with it. These standards are often called "new source performance standards" or NSPS. The CAA air includes two different but complementary definitions of the term "standard of performance," and any EPA regulation must comply with both of them.

Section 111(a): The term "standard of performance" means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

Section 302(l): "The term "standard of performance" means a requirement of continuous emission reduction, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction."

As a shorthand, CAA practitioners often refer to the first definition as BSER, because a standard of performance must reflect the application of the “best system of emission reduction” (BSER) to sources that fall within the category being regulated.

Under Section 111(b), EPA has set dozens of different “standards of performance” by identifying the BSER that can be applied to the types of facilities included in the regulated category. As noted above, these standards are generally set as an emission rate that can be achieved by the use of BSER, and any new facility in the category must meet them. EPA has recently used Section 111(b) to propose standards of performance for CO₂ emissions from different types of new fossil fuel power plants. As proposed, these standards would establish an allowable emission rate in terms of CO₂ emissions per MMBtu – in essence, an allowable amount of CO₂ per unit of electricity produced. If these standards are finalized and upheld in court, then any new coal- or gas-fired power plant must meet the standard of performance that applies to that particular type of plant.

Section 111(d) comes into play only after EPA has set a standard of performance for new plants in a source category under Section 111(b) – and only for pollutants that are not regulated as either “criteria pollutants” or “hazardous air pollutants” under other parts of the CAA. (As noted above, EPA may be precluded from using Section 111(d) for any source category that is regulated under Section 112, but I am assuming that this is not the case for now.) Because virtually all pollutants are regulated as either criteria or hazardous air pollutants, Section 111(d) has only been used five times before, but the key term in section 111(d) is the same as the key term in Section 111(b) -- and is a term that EPA has interpreted consistently (with one exception in a regulation that was vacated in court) for almost 40 years. Here is what it says:

The Administrator [of EPA] shall prescribe regulations which shall establish a procedure . . . under which each state shall submit to the Administrator a plan which establishes standards of performance *for any existing source . . . to which a section 111(b) standard of performance would apply if such existing source were a new source.*

The statutory scheme is quite straightforward. Under Section 111(b), EPA is required to establish “standards of performance” for any new source within a listed category; and then, under Section 111(d), each state is required to submit a plan that establishes “standards of performance” for “any existing source” in the same category. In either case, it is quite clear from the statute that this standard applies to an individual source – to any new source in the country or to “any existing source” in the state.

This is also clear from another part of Section 111(d), which says that EPA’s 111(d) regulations

shall permit the State in applying a standard of performance *to any particular source* under a plan submitted under this paragraph to take into consideration, among other factors, the remaining useful life of *the existing source* to which such standard applies.

Thus, the statute certainly contemplates that a standard of performance is something that each and every regulated source must meet. EPA agrees with this reading when it comes to new

sources. Over the years, the Agency has established dozens of different “standards of performance” for new sources, and all of them apply to any new source within the regulated category or subcategory. This is even true for carbon emissions. EPA recently proposed “standards of performance” to regulate carbon emissions from new fossil fuel power plants based on its view of the best system of emission reduction that can be applied to each type of plant. If these standards are finalized and upheld in court, each new plant must meet the applicable standard of performance.

But for existing sources, EPA now claims that a “standard of performance” can actually be much broader. Rather than requiring states to submit plans that establish standards for individual power plants, EPA is proposing to require states to submit plans to regulate the whole “electricity system” in the state – and anything connected to that system by either producing or using electricity. Rather than set an emission rate for each existing plant, each state must meet a statewide CO₂ emission rate based on a rather complex formula that includes most, but not all, the power generating sources in the state and an estimate of the CO₂ emissions avoided by energy efficiency programs designed to reduce electricity demand in the state. This legally binding CO₂ emission rate varies substantially from state to state depending on EPA’s view of how each state should change its current electricity system.

This whole program is based on a 37-year old provision in the CAA which says that, under certain circumstances, EPA may require states to submit “a plan which establishes standards of performance for any existing source . . . to which a section 111(b) standard of performance would apply if such existing source were a new source.” To support its expansive new reading of this provision, EPA points to one part of the statutory definition of the term “standard of performance,” which says:

The term “standard of performance” means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of *the best system of emission reduction* which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

EPA focuses on the word “system” and argues that a “system” can involve many different things that all fit together, like the electricity system in a state. But the statute does not say that EPA can regulate a “system.” It says that EPA and the states are to set standards for emissions of air pollutants based on the “application of the best system of emissions reduction.” The question is not what a “system” may be. Rather, the question is the best system as “applied to what”? EPA says, “as applied to anything that produces or uses electricity in the state.” But the answer, according to the statute and almost 40 years of regulatory history, is “as applied to the individual sources within the source category being regulated.” In the context of Section 111(d), this means to “*any existing source*,” as long as, “in applying a standard of performance *to any particular source*,” the state is able to “take into consideration, among other factors, the remaining useful life of *the existing source* to which such standard applies.

The other part of the CAA definition of the term “standard of performance,” in Section 302(l), also makes this clear:

The term “standard of performance” means a requirement of continuous emission reduction, including any requirement relating to the operation or maintenance *of a source* to assure continuous emission reduction.

The only plausible reading of the statute is that a standard of performance must be based on “the best system of emission reduction” that can achieve a “continuous emission reduction” at “a source” being regulated, whether it is a new source or an existing source. However, although the term “standard of performance” is the same for both new and existing sources, EPA now claims that, when it comes to existing power plants (but not new ones), the term empowers it to require all fifty states to change the way that electricity is produced and used within their borders. If so, this would be a breathtaking expansion in EPA’s authority based on a novel reading of a statutory provision that has existed for almost 40 years. This is why a number of Supreme Court observers believe that, in its recent *URG* decision (which was released just weeks after EPA announced its proposal to regulate existing power plants), the Court may have been sending a message to EPA:

When an agency claims to discover in a long-extant statute an unheralded power to regulate ‘a significant portion of the American economy,’ *Brown & Williamson*, 529 U. S., at 159, we typically greet its announcement with a measure of skepticism. We expect Congress to speak clearly if it wishes to assign to an agency decisions of vast ‘economic and political significance.’”

What EPA Can Do To Reduce CO2 Emissions But Has Failed to Do

In its 111(d) proposal, EPA has identified four “building blocks” that it uses to develop a CO2 emission rate that applies to the electricity system (at least most of it) in each state. According to EPA, these building blocks make up the “best system of emission reduction” for the state as a whole. The first one – and the only one that has anything to do with EPA’s statutory authority under Section 111 – is based on improvements in efficiency that existing coal-fired power plants can achieve by making changes to their equipment or operations. Where such improvements are possible, they would reduce the carbon emissions rate of individual power plants, as envisioned under Section 111.

But rather than actually doing the technical work necessary to establish legally defensible efficiency standards for existing power plants, EPA simply asserts, with essentially no technical basis, that existing coal-fired power plants can boost their efficiency by 6 percent on average – meaning that they can produce a given amount of electricity by burning 6 percent less coal. Each state is then required to reduce carbon emissions by the amount that would be achieved if every coal-fired plant in the state improved its energy efficiency by 6 percent. It doesn’t matter if power plants in one state already are more efficient than those in another. All states are required to reduce CO2 emissions based on the assumption that their existing plant can produce the same amount of electricity with 6 percent less fuel.

Before EPA can set legally defensible efficiency standards for existing plants, it needs to conduct a more rigorous process backed by research and data. First, the Agency must determine the heat rate (a measure of efficiency) that can be achieved by different types of existing plants. Then it

can establish a carbon emissions rate – as it has already proposed for new plants – rather than an arbitrary percent reduction. When doing so, EPA officials will also need to recognize that existing plants differ significantly from one another, so they will almost certainly need to establish subcategories for different plants based on size, boiler type, age, and other factors. Only then can they establish a carbon emissions rate for each subcategory based on what can be achieved by sources in that subcategory.

Based on discussions with industry experts – people whose job is to make power plants as efficient as possible – it appears that an efficiency improvement of 6 percent is unrealistic for most plants. The Agency must base any requirements on credible research and actual data. To date, EPA has been so distracted by the notion that it can fundamentally change the electricity system in all 50 states that it has not done the technical work needed to develop legally sound regulations to reduce carbon emissions from existing fossil fuel power plants.

A Wasted Opportunity

Over the next year, many different groups – environmental advocacy organizations, companies and trade associations, and state and local governments – will be forced to spend an enormous amount of time and effort trying to understand and comment on a very complicated proposal that is almost certainly unlawful. Even if companies and state and local officials and utility commissioners believe, as I do, that the proposal will never be implemented, they cannot simply ignore it. They must perform studies and hold meetings and try to figure out what they would be required to do on the chance that it will actually come into place. Then, assuming the EPA ignores the legal and practical concerns that have been raised and issues a final rule that follows the same general approach, all these parties will be spending much more time and effort trying to come up with state plans to meet requirements that will almost certainly be set aside.

EPA's very capable staff will also be focused on remaking the electricity system in all 50 states – something it is not authorized or well equipped to do. Rather than devoting so much time and effort on things that are outside its purview, EPA should do what it is supposed to do under the CAA. It should do the technical work that will be needed to reduce carbon emissions from existing power plants by establishing legally defensible standards of performance that will reduce the carbon emission rate from individual power plants.

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Again, I very much appreciate the opportunity to appear before the Committee and hope that my testimony will be helpful to you as you review the many issues raised by EPA's proposal to regulate the production and consumption of electricity in the U.S.