

D I A L O G U E

How Best to Use CAA §111(d) to Regulate Existing Power Plants' Carbon Emissions

Summary

President Barack Obama has directed EPA “to use your authority under §§111(b) and 111(d) of the Clean Air Act to issue standards, regulations, or guidelines, as appropriate, that address carbon pollution from modified, reconstructed, and existing power plants and build on State efforts to move toward a cleaner power sector.” EPA is to propose standards no later than June 1, 2014, finalize them within a year, and have approved state or federal plans in place by the end of President Obama’s term. On September 17, 2013, ELI brought together top domestic experts to discuss various options for using the CAA to achieve the president’s orders.

John Cruden, President, Environmental Law Institute (ELI) (moderator)

David Doniger, Policy Director Clean Air & Climate Program, Natural Resources Defense Council (NRDC)

Jeffrey Holmstead, Partner, Bracewell & Giuliani LLP

William F. Pedersen, Senior Counsel, Perkins Coie LLP

I. Introductions

John Cruden: I want to introduce this topic by bringing to your attention the great environmentalist, Willie Sutton, who lived between 1901 and 1980. Willie robbed banks. During a 40-year criminal career, he reaped an estimated \$2 million. For that, he spent about half of his life in prison. He was quite accomplished as a bank robber. He carried a pistol or a Thompson submachine gun, and when asked about that, said: “You can’t rob a bank on charm and personality.” He went into prison several times and once escaped from the prison in Philadelphia by dressing himself as a guard. Later in 1969, he was paroled and became famous for two things. He actually did TV commercials for bank credit cards that had his picture on them, which is sort of interesting. And Willie uttered those words

that have now gone into history: “Why do you rob banks?” “That’s where the money is.”

So, why do I call him the great environmentalist? Why would you reduce carbon in existing power plants? Because that’s where it is. It doesn’t take a lot of math to figure out that existing power plants are a gigantic source of pollution.

On June 25th, the president of the United States sent a memo to the Administrator of the U.S. Environmental Protection Agency (EPA)—this is one of the very few times I’ve actually seen a president dictate what statutes to use. The president set a deadline of September 20th to come up with standards for future power plants. I’m assuming that EPA will meet that deadline largely because the president told them to.

But that’s not what we’re talking about today. We’re talking about where Willie Sutton directed us. Where is the carbon in this case? Where is the money? It’s in existing power plants. The president said to EPA: “You are to use your authority under §§111(b) and (d) [of the Clean Air Act (CAA)] to come out with a proposed standard not later than June 1, 2014, finish it by June 1, 2015, and then get the states to do stuff by June 2016.” Having spent a lot of my life defending EPA regulations, I will tell you that’s an ambitious schedule. But not only that, the president has also directed the Administrator to do a lot of things: Talk to states, reduce costs, develop approaches to allow the use of market-based instruments, and make sure that we have reliable and affordable electrical power for consumers and businesses. This is a high order and clearly one of the most important issues legally that we’re going to be involved in. And so, on this area of the application of §111(d), we have in fact assembled the experts.

Our first speaker will be David Doniger, a Policy Director and Senior Attorney for NRDC’s Climate and Clean Air Program in Washington. David has been at the center of air issues for almost his entire life. He’s worked at the Council on Environmental Quality (CEQ), and was the EPA director of climate change policy. He is one of the co-authors of the NRDC study called *Closing the Power Plant Carbon Pollution Loophole*,² which specifically looks at §111(d).

Editors’ Note: Presentation slides and other supplemental materials from this seminar are available for download at http://www.eli.org/Seminars/past_event.cfm?eventid=816.

1. 42 U.S.C. §§7401-7671q, ELR STAT. CAA §§101-618.

2. DANIEL A. LASHOF ET AL., CLOSING THE POWER PLANT CARBON POLLUTION LOOPHOLE: SMART WAYS THE CLEAN AIR ACT CAN CLEAN UP AMERICA’S BIGGEST CLIMATE POLLUTERS (Natural Resources Defense Council, Mar. 2013).

Jeffrey Holmstead is a partner at Bracewell & Giuliani, but I knew him best when he was the assistant administrator for Air. He now heads the environmental practice at Bracewell & Giuliani. He's also been a partner at Latham & Watkins, and during the Bush Administration, he was in the White House Counsel's office.

Bill Pedersen is Senior Counsel at Perkins Coie, and he is really well-known for his work on the Clean Air Act. It's hard to think of a case in the last 25 years of any significance that Bill has not been involved in. The latest issue of the *Environmental Law Reporter* has an Article by Bill on using §111(d).³

II. The Legal Framework

David Doniger: Thank you, John. Thanks to ELI for the opportunity to talk about this.

As John mentioned, NRDC put out a proposal last December for how to use §111(d), and I'm not going to go through the mechanics of that proposal, at least not directly, but I'm going to present an overview of the legal framework, at least as we see it, and address some of the questions that come up in constructing or in reaction to the NRDC proposal. Hopefully, all this won't be totally through the lens of that proposal. Hopefully, this discussion will have some relevance to other ideas that are in play, including Bill's, for example.

NRDC's goals in constructing our proposal were (1) to achieve significant carbon dioxide (CO₂) reductions, (2) to do it at reasonable cost, and (3) to do the maximum CO₂ reductions one can get at a reasonable cost. The third point is achieved through what's come to be called a system-based approach, in which you have the opportunity to use source-specific emission reduction measures, but also more than that, have other compliance techniques available, including shifting dispatch to cleaner sources, bringing in non-emitting sources, improving transmission efficiency, improving end-use efficiency, etc. And there would be ways in the system to credit those as reductions that help CO₂-emitting plants meet their targets.

We want to do this within the state-based structure of §111 and with flexibility that respects the structure of the electric system, which is different from any other category of sources EPA has dealt with under §111. Typically, §111 measures in the past have dealt with isolated sources—no interconnections between them in the way they operate and in the way they're regulated. But the power system is highly interconnected.

Does §111 put EPA in the position to set some substantive standards, or is it totally procedural? In other words, can EPA sketch out the stringency and other characteristics of the performance standards in the Emission Guidelines and then hold states to those requirements in their approval and disapproval decisions of state plans? Section 111(d) resembles the state implementation plan [SIP] provisions

in that EPA sets a performance standard as a benchmark, in something called an Emission Guideline document, and then states write plans and EPA approves and disapproves plans. EPA has the authority to write federal plans in cases where states don't submit approvable ones.

Does that include the ability to set minimum performance standards? Does that include the flexibility to take a system-based approach? Recognizing that §111 is structured state by state by state, with individual plans, does it allow for ways that states can combine their efforts?

Section 111(d) calls for this SIP-like procedure in which each state submits to EPA a plan that establishes performance standards. The Administrator approves "satisfactory" plans, and establishes federal plans if states don't submit "satisfactory" plans.

EPA issued Emission Guideline regulations in 1975. Those, of course, are regulations. They can be modified, updated, and there'll be some ways I'm going to suggest they should be, but they are a touchstone for this discussion.

Does §111(d) have substantive requirements? It'd be our contention that a plan isn't "satisfactory" unless it includes valid standards of performance. The definition of a standard of performance is found in §111(a)(1) and has some key phrases. It's got to be a "standard," presumably some enforceable quantitative limitation. It's got to specify an "achievable" emission limitation, using the best system of emission reduction, it has to consider cost and some other factors, and the Administrator has to determine that that achievable system has been adequately demonstrated. The guideline regulations have quite similar language with respect to what would be required of a state.

So, in our view, the emission guidelines first serve as the template for an approvable plan. They signal that if the state submits a plan that follows the template of the guideline, then the state can know that EPA will approve it. They also serve as a function of an advanced notification—I don't mean advanced notice in the formal regulatory sense, but advanced word of what would be in a federal plan. If the states simply don't submit a plan or don't submit a satisfactory one, this is what EPA would do in a federal plan.

In our view, EPA can set a system-based standard, one that sources can meet on their own, one that multiple sources can meet through averaging or other measures, and ones that covered sources can meet by getting qualifying credits from eligible activities. Why only things in the electric system? There needs to be a connection to the regulated category—power plants. Tree-planting, for example, wouldn't displace any power generation, so our proposal limits this credit mechanism to things that directly or indirectly result in displacing power generation and emissions from power generation.

We think that there can be differentiation among the states. It seems to follow pretty straightforwardly from the fact that there's a plan required from each state, state by state. We've recommended a particular approach, a formula that recognizes the power plant mix each state starts with and holds each state to an emission rate that's a reduc-

3. William F. Pedersen, *Should EPA Use Emissions Averaging or Cap and Trade to Implement §111(d) of the Clean Air Act?*, 43 ELR 10731 (Sept. 2013).

tion from where it started. It's not the only design. Bill, I know, will be talking about a different design. We think that the guideline can build in flexibility, including these flexible compliance options I described, in which states can choose to allow averaging and crediting within the state, among the sources within the state. Two or more states can also make agreements to have inter- or multistate averaging accredited.

Now, here is where the guideline serves another purpose, and that's as the yardstick for alternative approaches. Because at least in NRDC's view, we wouldn't say, well, this is the only way that the plan can be structured. But the key would be to have a yardstick for determining what's equivalent. If a state wants to demonstrate that the power-sector emissions under its cap-and-trade program will be below what they would be if the state carried out the template program, then the state could get approval of its program as an alternate program. And so, again, our proposal starts with a federal emission rate-based standard, but it allows for states to opt into equivalent mass-based plans.

There are other options, too. Colorado basically has a state contract with the utilities that calls for the retirement of some sources and the building of others and the expansion of renewables and efficiency programs. If Colorado could show that its program, in some enforceable way, is going to achieve the same emissions levels that the template federal program would, then the state could get approval for that alternate program, too.

The statute says that in addition to the factors in the definition of a standard of performance—which I quoted before about achievability, adequate demonstration, best system, and taking into account cost—the state plans need to allow states to take into account the “remaining useful life” of facilities. Well, what does that mean? It's actually not a defined term.

Traditionally, EPA has seen that as a variance procedure. For things like primary aluminum smelters and a few other instances in which §111(d) has been used, EPA established standards that had to be met by that source at that source. EPA also provided for a variance procedure, allowing the states to address whether there's some factor like the age of the source, or some other factor, that would call for a different outcome.

I am suggesting that a system-based approach accommodates “remaining useful life” in another way. Basically, a system-based approach, if it's designed properly, takes into account the cost of all the covered sources within a state meeting the standard. And the cost is not driven by the highest cost source, necessarily. It's really driven by the cost of the averaging and credit mechanisms. These mechanisms establish a way for a high-cost source to avoid the high cost of complying by itself. And since those measures have already been taken into account in setting the stringency of the guideline, it would be our view that first of all, cost has already been taken into account. The structure gives the source the option to use reasonable cost credit mechanisms in lieu of complying itself. So, with those flex-

ible compliance options, the high-cost problem has been addressed, and to layer a variance provision on top of that would be “double-dipping.” So, our strong view is that if EPA adopts a system-based approach, which we think it should, the agency needs to modify the current remaining useful life and variance provisions in the guideline regulations going forward.

III. EPA Authority

Jeffrey Holmstead: Well, I'm delighted to be here this afternoon. It's always interesting to have these discussions with Mr. Doniger. We've done this on a few other occasions as well, and he won't be surprised to know that I'm not sure I agree with everything that he said in his presentation.

And here's the basic issue, the CAA doesn't give EPA authority to regulate the energy economy. It does not give EPA authority to regulate the electric system. It gives EPA the authority under §111(d) to regulate individual sources of emissions based on the best system of emission reduction that has been demonstrated to reduce emissions at the designated facilities. This is clear from the statutory language, it's clear from the regulatory language, it's clear from the provision that David would like to read out of the statute regarding the “remaining useful life” of plants. EPA can't just change its regulations to eliminate that provision or the basic fact that §111(d) is all about regulating individual sources. And I can find nothing that talks about a system-based approach under §111(d).

Let me just review a couple of the provisions that David mentioned. Section 111(d) says that EPA can require states to submit a plan that establishes standards of performance for any existing source of CO₂, to which a new source performance standard would apply if such existing source were a new source. “Standards of performance” is a defined term. And as NRDC has pointed out in various briefs, it specifically says that a standard of performance is a requirement of a continuous emission reduction, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction. So, the statute is pretty clear that what EPA can do is individualized performance-based standards for the facilities covered by the provision.

Under §111(d), “[t]he statute mandates that each State plan apply the best system of emission reduction to any existing source on a source-specific basis—and that each source subject to this standard demonstrate continuous emission reduction.” Now, at the end of this discussion, I want to come back and explain why I think my view of §111(d) is much more consistent than David's. But I want to just take a step back for a second and point out this: NRDC's proposal is really very clever and in many ways very complicated, but at the heart of the proposal, if you look at all the analyses that they've done, the way they get emission reductions from the energy sector really comes from just two things: For the most part—and again, it's 98% of the emission reduction that they achieve—one, by

requiring existing fossil-fueled plants to sell less of their product. And two, by what they called shifting dispatch, which means by taking business away from certain plants and shifting it to other plants. So, number one, you force plants to sell less of their product. Number two, you take business from some plants and you shift it to others.

Now, these may be effective ways of reducing CO₂ emissions. Congress certainly has the authority to do such things, and states may also have authority to do something like that. But EPA does not have authority under the CAA to do either one of those things because neither one of those things is a standard of performance within the meaning of the CAA. Now, I was thinking the other day about what NRDC might propose for other sectors, and their claim is that somehow the electric sector is a system that's fundamentally different from any other sector, but I don't think that's really true. Any other manufacturing sector has production and distribution and conception. So, the next sector up according to EPA's own schedule is the refining sector.

So, what might NRDC's proposal look like when it comes to reducing CO₂ from refineries? Well, the major thing, of course, would be to reduce demand for gasoline and other refined products. So, you could set a requirement that applies to refineries, they would be the point of regulation, and you would come up with some arbitrary reduction in CO₂ emissions that they would have to get by doing such things as subsidizing more fuel-efficient cars, investing in bike pass and mass transit, or perhaps they could come up with a particular type of credit card that could goad individual buyers in the more gasoline that you buy, the more expensive it becomes, so it would discourage you from buying their product. Now, that might be an effective way to reduce CO₂ emissions from the refining sector, but it's not something that is a standard of performance under the CAA.

One of my colleagues was having a little fun with this concept and thinking about airline emissions, and he said: "Well, you know, you could just change frequent flyer programs so that people who take the most flights would be charged more for the more flights they take, and after a certain number of flights, you would have to pay for business class and you'd be put in the back in coach, and there are things that you could do to discourage people from buying your product." Now, some of you might say, well, airlines, that's not even a stationary source. So, let's think about fast food restaurants. You could have fast food restaurants, they would be required to provide appetite suppression pills, maybe free memberships to Weight Watchers clinics. It's exactly the same thing. What you're doing is you're taking a business that is operating and selling a product and telling them that the standard for performance for your business is to sell less of your product or to shift that business from certain types of facilities to others.

One of the things that in retrospect surprised me a little bit about the NRDC proposal is that there are obvious regulatory strategies that they don't include. Those of you

who've practiced CAA law know that it's pretty typical for a permit to have a limit on the hours of operation. People will adopt hours of operation limits in a permit to avoid triggering a regulatory requirement. So, that's a proven method for reducing emissions. So, all NRDC would need to do is to say: "Okay. I know. We'll say—we'll start coal-fired power plants at 5,000 hours a year, and then we'll say the next year it has to go down to 4,000 and 3,000, and pretty soon, you're allowed no hours of operation." Now, for a gas plant, you could start a little higher, you could gradually phase it out over a little bit more time. That would be an effective strategy for reducing CO₂ emissions, but it's not a standard of performance under the CAA.

I've been thinking about what I think is a helpful way to understand this whole problem. Because there's been a lot of talk, and Bill thinks that a cap-and-trade approach would be better than kind of a credit-trading approach that David is talking about. But I don't think either of those, a cap-and-trade approach or credit trading, is a system of emission reduction within the meaning of the CAA. Those are regulatory tools that impose requirements that ultimately get emission reductions. And here is what I mean by that: Within the meaning of §111, if you're talking about, let's say, a coal-fired power plant, a system of emission reduction for an individual power plant is a scrubber. Now, there are different ways that you could design a regulatory tool to require scrubbers on existing power plants. You could have a command-and-control approach, where you say, by X date, all facilities above a certain size need to install a scrubber that meets this standard. That would be a regulatory tool, but that wouldn't be a system of emission reduction. That's a regulatory tool to require that they install a system of emission reduction. You could also get people to install scrubbers by doing case-by-case permitting requirements or through a cap-and-trade approach.

And so, I think that it would be possible to design a cap-and-trade system or a credit-trading system that would eventually require companies to adopt, to meet things that are standards of performance to reduce emission. You could do that through cap and trade, you could do it through any number of systems. But what EPA can't do is to require states to go beyond what is possible by the best system of emission reduction that is a performance standard within the meaning of the CAA to reduce emissions from individual power plants. Now, I think there are effective ways of doing that. There are things that can be done at existing facilities that would reduce their emissions and that would qualify as a standard of performance under the CAA. But the idea that you can choose any arbitrary measure that you like and then adopt that through a cap-and-trade system, I think, simply doesn't pass muster under §111(d) of the CAA. And I'll turn it over to Bill.

IV. Predictions

William Pedersen: Well, I guess I'm the only one here who doesn't have a dog, in the sense of some larger inter-

est that I represent in this fight, so I thought what I would do is try and give you some pointers for various things to look at as this very fascinating set of regulatory events unfolds. And the first one will be whether EPA when, at the end of this week, it proposes its new source emission standard goes for one standard for both coal and gas plants or two standards. The trade presses all say unanimously that although EPA proposed just one standard, a standard that only gas plants could meet, it will now rethink that and propose two standards: one standard for gas plants, and one standard for coal plants. This has been said to be driven by legal considerations. I have never seen that the one-standard approach was that illegal, and I cannot see that EPA is legally compelled to do it the other way.

The reason I mention it here in this discussion of §111(d) is that, as both the speakers have said, the whole logic of the collective approach to §111(d) is taking the electrical system as a system. I don't think that you need to view this as unique to electricity, although you could view it that way. It's just like any market with a unified product—the electrical market, the automobile market, the air transportation market—you take that and you treat it as a unit. Once you have split that electrical market into coal and gas, how you put it back together into one market for the purpose of the §111(d) approach is something that strikes me as sort of difficult. And I think it can be done, but if you're EPA and you want to go that way, you've made your job harder. And of course, there are many things that EPA could say in this proposal going halfway there or leaving both options open. It'll be an interesting thing to look at.

The next thing to look at, as both the speakers have said, is a collective approach versus a source-by-source approach. This is a sophisticated debate that we won't get to the bottom of here. I'll just say put me squarely in the camp of those who think that a collective approach is legal. You did not hear—actually, if you look at §111, there is nothing in it that actually says there must be source-by-source regulation. And even if you think that the new source standard pretty clearly says that there, source-by-source regulation is required, §111(d) is carefully crafted so as to not say that. This is all spelled out quite well in the Clean Air Mercury Rule (CAMR) that was issued by Jeff Holmstead when he was at EPA.

I do not think we have heard the good argument yet as to why a collective approach is not legal. I haven't worked it out, but I think it's something like this. You cannot command sources to do something that is not in their own power to do in order to reduce their emissions. Well, again, when you look at §111(d), it doesn't quite say that sources are responsible for their own compliance. It says sources are responsible for noncompliance, but who brings about the compliance is a somewhat different question. What Jeff did in sort of mocking the collective approach is he blurred ends and means. Whenever you have a cap-and-trade approach, there are a million dif-

ferent things that people can do to comply. If you have a cap-and-trade approach for sulfur oxides, you can stop running your dirty coal plants and meet it that way, you can install energy conservation and reduce demand and meet it that way. No one says that that's the government interfering. That's just how the market works. And what Jeff is saying is once you have cap and trade or emission-rate averaging out of §111(d), then you have the government tell you you have to sit in the back of the plane and all these other things. That's just not true.

The third issue that I will only touch on is if we are to have a collective approach, is it to be cap and trade or emission-rate averaging? And as people have said, I favor cap and trade. I believe cap and trade is generally conceded to be the simplest and most efficient way of setting up a market-based system for emission control. More than that, by its very design, it accommodates energy conservation, which everyone knows is the way to go to reduce carbon emissions over the next 10 or 15 years or so. If you have energy conservation in a state, let's say, that means that as less electricity is consumed, automatically the emissions go down. So, if you have stated the emissions-reduction obligation in terms of annual emissions, you move toward it. But if you stated it in terms of an emissions rate from a defined universe of sources, a reduction in demand doesn't do anything for the emissions rate, and so what NRDC is compelled to do is basically to create a legal fiction to fix a design flaw in their proposal.

And then, the final thing to look at when EPA comes out with its proposal will be the balance they strike between detail and discretion in the message they give to states. This is not really a question of what the legal rules would be. Everyone, I think, would agree that just as with air quality standards, EPA under §111(d) would have much more power to set the ends than to set the means. So, for example, it could say, reduce your carbon emissions in a state to such and such, or move toward it, but it could not say: "And do it by these means." That has to be left open to the state itself. Well, there are two things you can do with that. One is to take it as it stands and say: "There you are, states. Do what you want," and then you don't put a lot of political pressure onto the states and maybe you enhance creativity, but states may not do anything.

The other is what EPA did, both when David was there and when Jeff was there, which is to say: "That's right, states, you could do what you want. But if you do it our way, here is how much easier life will be for you. Just sign here and drive it away. If you want to do it your way, that's your right. Here are all these hurdles." And that, the record shows, is the way to get things done if the states will play along with it and you give them a model rule, you give them a tight deadline, you give them default choices that are easy to make. Of course, if you think that this rule is going to be very controversial and doing that will spark a rebellion, then you might not do it. So, it will be interesting to see, not just for legal reasons, but as an indication of how EPA views the political situation. Thank you.

V. Discussion

John Cruden: So far, I think we've agreed that there is a CAA and it has within it a §111(d). Apart from that, I'm not so sure.

The president directs the Administrator of EPA to develop approaches that allow the use of market-based instruments, performance standards, and other regulatory flexibilities. We've talked a little bit about cap and trade and we've talked a bit about credit trading. So, here is my question: Can EPA tell the state to have a cap-and-trade program, or can they take advantage of states that already have cap-and-trade programs like you pointed out, RGGI [Regional Greenhouse Gas Initiative] states in California, or both?

David Doniger: I like the way Bill put it, that EPA is tasked in these provisions like §110 and §111(d) with setting a target, largely speaking, and leaving a lot of flexibility about means to the states. In the ambient air quality standards context, it's the concentration target in the air that sets the end or the goal. In this area, it's the standard of performance. And what we are debating is how narrowly limited or how broadly is EPA authorized to craft the standard. In our view, it should be guided by, well, what works? What produces results? And if you step back one step from the end toward the means, there should be a preference for things that achieve the most reduction at the lowest cost. And for power plants, that leads us to look beyond the fence-line, because while there are things you can do besides heat-rate improvements—you can require plants to switch fuels, you can require plants to cut back their hours of operation, you can require them to capture and store their carbon—but they are clearly more expensive measures than some of these outside the fence-line system-based approaches. So, why not go to the well for the emission reductions in the lowest cost way that is achievable? I share with Bill the view that there is nothing in §111 or §§111(b) or (d) that prevents this approach. The very language about system is certainly adaptable to this purpose. But I think even if there weren't mention of the word "system" in the statute, there would still be nothing that precludes EPA from taking an approach that involves flexible compliance mechanisms.

Jeffrey Holmstead: I think that EPA can set an end, but they are constrained by what the statute says. They can't just come up with what they think is the best system for regulating a transmission and end use and demand reduction. They have to look at what can be achieved by these regulated sources using the best system of emission reduction that has been demonstrated for those sources. And I think that's heat-rate improvements and changing turbine blades and things that reduce emissions from those sources. I don't know how David believes that they could just set hours of operation limits and basically compel plants to gradually shut down over time. I don't see that anywhere

in the CAA. So, EPA can set the ends and then, I think, it's quite clear that states then do have flexibility.

I don't think EPA can compel states to do a cap and trade. As long as they have an explanation for why they adopted the plan that they did, the big question is, is this like §110 where there is an objective standard? I think EPA can set a total limit on emissions on a statewide basis. It's only about what can be achieved using the best system of emission reduction at these individual facilities. So, I think, EPA's ability to disapprove state plans, it will be quite different here than it is in the §110 context, but, short answer, I don't think they could compel states to use cap and trade. But I do think states can choose a wide variety of things, so I have no problem predicting at the outset that California and the RGGI states will be okay and Colorado will be okay, because they have other plans that will achieve reductions that go beyond anything I can envision that EPA could require under the CAA.

John Cruden: If you are right, could EPA allow other states to opt into the California program, for example?

Jeffrey Holmstead: Sure. I think states can do virtually anything they want to under the CAA to regulate sources within their states. I mean, that's quite clear from §116, so I think that really is almost beyond dispute at this point.

William Pedersen: I think I agree with really what David and Jeff both said in their separate ways, that EPA can set the ends, but it has to allow state's power, broad power, to select the means. And the dispute has been over what the proper end for EPA to set would be. And I think everyone has agreed that EPA could set a tons-per-state limit and then let—

Jeffrey Holmstead: On CO₂?

William Pedersen: Didn't you say that?

Jeffrey Holmstead: No, absolutely not. I don't see any possible way they can set entitlement on—

William Pedersen: Well, if it was supposed that a state—if a state adopted for its existing power plants all the efficiency improvements you say are proper, and you sum that up and you come out with X tons, why would that not be a proper transposition?

Jeffrey Holmstead: If states want to limit tons, they can. I just don't see how EPA can come up with a ton number. Because you would have to allow new plants to continue to be built as long as they meet the standard of performance.

William Pedersen: Well, that's a detail.

Jeffrey Holmstead: That's an important detail.

William Pedersen: If you say that EPA can set a technology requirement that states can then translate into tons, why cannot EPA set tons and let the states translate it into a technology requirement? Same thing.

Jeffrey Holmstead: No, no. It's quite different.

William Pedersen: Why is it different?

Jeffrey Holmstead: Because EPA can only set standards of performance. You can have as many different sources as you want in your state as long as they meet the standard of performance.

William Pedersen: I think you are betraying the weakness of the textual argument to which you have nailed your colors.

Jeffrey Holmstead: I'm not sure I understand. But anyway, let me just go on record in saying I don't see how EPA could justify a cap on the tons of CO₂ per state.

John Cruden: When we're thinking about what the options are for EPA to act or, for that matter, even the state to act, how constrained are they? Is EPA limited to only considering the fence line of that source or in a collective way, the fence line of all the sources? And if it's all the sources, is there a limiting factor on what credit could be considered?

David Doniger: Well, I mean, we've been fencing about this fence-line question: the basic divide so far is Jeff's staked out view that there must be something or there is something in the standard of performance language that limits the range of options that EPA can take into account in deciding the percent, the degree of reduction, to things that can be done by each source by itself. It's not even within the fence line. I suppose it would be unit-by-unit. So, if there are three units inside the same fence line, under Jeff's theory, the standard would still have to be limited to what individual units can do.

For the reasons I've already given, we don't think there's a limit of that kind in the language. Now, to go to the other end of your question, so, how far outside the fence line, what could be included? Any crediting system has to be both allowed by the language and have a reasonable policy rationale.

The common thread in all the ideas that we've discussed in our proposal are measures that either make electricity generation cleaner or reduce the need for total electricity generation. So, efficiency measures in the plants count, efficiency measures in transmission would count because you could deliver the wattage to the light bulb, while losing less on the wires between the plant and the bulb. And a better light bulb would reduce the amount of electricity that would be needed to provide the lighting service. All of these things have a logic to them that work back into

less generation or cleaner generation. But growing trees or cleaning up a blast furnace or doing something in another industry that isn't related to electricity consumption seems to us to lack the nexus to backing out power generation. So, those are the boundaries of our logic.

Jeffrey Holmstead: But does that go to all other source categories? You're talking about electricity. Again, take my refinery example. Could you just require refineries to do all kinds of things that would reduce the demand for their product? Invest in mass transit—I mean, you could require them to do all kinds of things that would encourage people to buy less fuel. Is that allowable under §111(d)?

David Doniger: I'm not sure what is and isn't permissible in other situations. We haven't thought it through.

Jeffrey Holmstead: But the logic is exactly the same.

David Doniger: But in the application, you'd find it harder to create this tight nexus between the activities that would be counting for credit and the impact on the pollution output of the covered sources.

Jeffrey Holmstead: So, you're regulating plants, but you're saying the way they reduce their emissions is to buy their customers energy-efficient light bulbs. And they may not own the transmission, but if they pay someone to improve their transmission, there are all these things that they can do that are not related to the plant but that reduce demand on that plant and that's what EPA can do?

David Doniger: But that's the way a cap-and-trade system works too.

Jeffrey Holmstead: But that's not the way §111(d) works.

David Doniger: Well, that was not your position when you were assistant administrator.

Jeffrey Holmstead: But it is. If you go back to CAMR, the cap-and-trade system was explicitly designed to get facilities throughout the country to install pollution controls on those facilities.

David Doniger: That's true, but that's irrelevant, because you're setting the mercury reduction level that was achievable based not only on what each company could do, but also in effect pay other companies to do through a credit system. And that's no different.

Jeffrey Holmstead: But all the reductions were achieved by installing pollution controls at the plants being regulated.

David Doniger: But if I am motivated because it's cheaper to pay for you to install pollution controls and I had taken

an action outside the fence line, it seems to violate your current position.

William Pedersen: Why should we force the CAA to focus so singly on putting devices onto specific plants that emit when there are many other available means?

Jeffrey Holmstead: And my answer to that is that the legislative power in the United States goes to [the U.S.] Congress. EPA has the authority that Congress gave to it. So, back in 1970, you're telling me when this statute was enacted, that Congress intended to give EPA broad power to regulate the electric system to require people to sell less of their product, to shut down—

William Pedersen: In other words—well, you know, I'm an administrative law lawyer, and what you were saying translated in my terms is that the language is absolutely clear and so clear that even in the circumstances of the day, a reading that seems clearly better from a technocratic perspective is ruled out.

Jeffrey Holmstead: So, we come up with a clever way to read a statute that is clearly inconsistent with congressional intent. I don't think that's the way it works.

David Doniger: That's what you have to prove. You have to show that there is a clear limitation.

Jeffrey Holmstead: No, no. EPA has—you would have to prove that it's a reasonable construction of the statute.

David Doniger: Which usually means that it fits within the reasonable meaning of words, and it isn't countermanded by either of those words, or if you believe in legislative history, by something in the legislative history.

Section 129 is a little bit of an oddball. It says, use §111(d), notwithstanding the fact that it normally doesn't apply to criteria or toxic pollutants, but use it anyway for municipal waste combustors, and do some things that are required by §112. So, it's a kind of a hybrid. But in the NO_x [nitrogen oxide] provisions, what EPA promulgated was a provision allowing for NO_x credit trading between municipal waste combustors. So, it saw them as something of a system.

Perhaps, you might take the view that the individual municipal waste combustors are really not connected in a system, or you could look at it very generously and say that they're in a system. But the power plants *are* in a system, and the reductions taken at one power plant have an impact on the emissions of another, at least depending on how you structure the standard.

John Cruden: One of the problems with a rate-based approach as opposed to a cap-and-trade approach is that a rate-based approach could undermine the RGGI approach in competitive electricity markets as well as existing invest-

ment expectations for existing investments in a zero-emission generation capacity. Isn't EPA's consideration of the impact on existing investment in a zero-generation asset appropriate under §111(d)'s direction that states may consider the remaining useful life of facilities?

David Doniger: There are questions about what happens if under our proposal some states follow the template and others do the RGGI or the cap-and-trade alternative, and do those create some sort of impacts. I think those things need to be studied and thrashed out. Ultimately what we're trying to do is work with the state-by-state nature of §111(d) and within the constraint that EPA, in our view, gets to set a meaningful performance standard and give states a lot of flexibility about which ways they choose to meet it. And if two states in sovereign decisionmaking decide they want to implement a federal requirement in different ways, that's for them to work out. As long as from EPA's point of view, the emission standards are met.

Jeffrey Holmstead: Let me just jump in to agree with David. I do think states have a lot of discretion. I think the key question and the meaningful question here is, how does EPA go about determining the target or the ends? I think it's constrained largely by cost-effectiveness concerns, right? I mean, you guys could—there's no rationale. You could've chosen 1,400 or 1,300, but it's all kind of based on what you thought was reasonably cost effective.

I view the constraint very differently based on the statute. I think it's based on a system of performance, standards of performance that apply to individual facilities, and that's what EPA has to focus on and setting the ends. But once they do that, I think states have enormous flexibility to come up with something that is equivalent or better than EPA. So, I'm happy to have states do all sorts of things, including RGGI and including AB 32 and energy efficiency, whatever it is. I just don't think that EPA can come up with a system to compel states to do that if they choose not to.

John Cruden: What is the role of cost-effectiveness? What does that mean for EPA? And does EPA have to look at the cost-effectiveness of a state program that's already in existence like AB 32?

Jeffrey Holmstead: No. States can be as cost ineffective as they choose to be. That's entirely their right.

David Doniger: So, if I may add to that, typically, what EPA does when setting standards requiring the best technology, the greatest degree of reduction taking into account cost, typically, what EPA does is to use models to test out how much emission reduction you get and how much it costs for different options, structural options and then degrees of stringency within different structural options. And it's

EPA's job in writing up its proposals and final decisions to explain how much emission reduction it gets and what the costs are going to be and what certain other impacts there are going to be and show that those are within the bounds of reason. That costs are reasonable, that they've taken into account cost. There are phrases in court decisions about not imposing "disproportionate cost." There're not too many other super-clear explanations of what that language means, but it's basically looking for the balance. And so, we sometimes make fun of this as the Goldilocks' approach, that you use the modeling tools to determine a range of options, and one gets discarded because it's too hot, it's too expensive, another because it's too cold, it doesn't achieve enough emission reduction, and there's something in the middle that's just right.

Audience Member: David, I've heard that you formally pitched this plan to EPA, and I'm wondering if EPA raised the type of fence-line legal objections that Jeff has talked about when you pitched it.

David Doniger: When you pitch things to EPA, it's often like pitching things to the Sphinx. Sometimes the Sphinx asks some questions, but the Sphinx doesn't usually tell you the answer to the riddle, at least not right then and there. So, we've had opportunities to describe our proposal last November, December, to EPA staff, including to now-Administrator McCarthy, and we, like good policy wonks, continue to have interaction with EPA as well as all the other interest groups that we can talk to.

I think the most interesting tea leaf to read, to change the metaphor, is the video that EPA produced in August, which has a section that sketches out two alternatives: what EPA helpfully calls a source-based approach and the system-based approach. And I've written in my blog that the description of the system-based approach in that video is a pretty excellent description of our proposal. Something like that, and variations on it, is in play.

Now, what I would hope people would do is use the ICF Integrated Planning Model platform and other tools and examine alternatives. You know, what if you tweak the way the formulas that we came up with were done and structure them differently? What if you examine standards of different stringency? And so, we would end up with a richer library of analytical cases. I'm hopeful that EPA will do some of that analysis and that other stakeholders will contribute their policy designs and their exercises of the models to see how it would work out.

John Cruden: Section 111(d) refers to a process similar to that of §110; how do you reconcile your contention that an inside-the-fence-individual approach is necessary with the fact that CAIR [the Clean Air Interstate Rule] and CSAPR [the Cross-State Air Pollution Rule] take a systemwide approach?

Jeffrey Holmstead: That part of §111 that refers to something similar to §110 has nothing to do with the standards themselves. I think it's pretty clear from the statute, it has to do with the fact that states are given the opportunity to come up with plans that EPA then reviews to decide whether they're satisfactory or not. But as I've said before, I think there are some fundamental differences between §110 and §111.

Under §110, there are objective standards, the National Ambient Air Quality Standards for various pollutants, and states have an obligation to meet those standards within their own borders, and they also have the responsibility to make sure that sources within their state are not significantly contributing to downwind nonattainment. But under that section, EPA clearly has the ability to come up with actual caps on emissions that are needed to achieve these objective standards. There is nothing like that in §111. It's all based on this idea that you're setting individual standards of performance for the specific facilities that are subject to those standards of performance, and I don't see anywhere in §111 that EPA can choose to regulate the electric sector generally when what they're talking about is regulating individual sources that can be regulated as though they were new sources under §111. So, I think the mechanism is similar in that people have to do SIPs and submit them to EPA, but I don't think how EPA judges those plans—I think it's really quite different under the two sections.

David Doniger: So, Jeff, am I correct in concluding that in your current capacity, you would oppose the CAMR proposal because it required sources to do not only what was achievable by themselves, but also it created a market in tradable mercury credits, and a source would have had to buy those credits even if it had a very high cost of self-control, so to speak?

Jeffrey Holmstead: No. And I—under CAMR, every single covered facility could comply by taking actions at its own plant. Now, you are correct that our modeling suggested that some facilities would find it less expensive to pay someone else, but every—there were available technologies that can be used at every single power plant that would've allowed them to meet the requirements of CAMR.

David Doniger: Would you have defended CAMR—if the trading were erased but the emission limits were the same—would you defend that as being economically achievable within the meaning of §111(d)?

Jeffrey Holmstead: No, no. If the conclusion was that the best system of emission reduction, the performance standard had been set at a level for each of those facilities, then it clearly would be acceptable. The trading program made achieving that level less expensive than it otherwise would have been. So, your problem wasn't with the trading. It was the cap.

David Doniger: Look, let's be plain about it, NRDC was taking a position mostly motivated by our view that mercury is a pollutant completely unsuited for a cap-and-trade program. In that context, we took a rather rigid view that under §111(d), you can't do caps and so forth. Reexamining that position, I think that our current view is actually a much sounder view. And, of course, the court of appeals didn't rule on that question because they found it sufficient to rule that mercury was appropriately controlled under §112. And I'm not particularly afraid of having our briefs in the CAMR case cited as authority against what will then be our position in the carbon litigation.

John Cruden: What needs to be updated in the Emission Guidelines Regulation?

David Doniger: Well, the main thing I pointed to is the variance provision. So, as I said, the guideline regulations from 1975 were constructed before anybody had fully elaborated these techniques of emissions trading. I don't think that there's anything in the statute that precludes these flexible approaches. When using these approaches, it may be necessary to go back and revise some elements of the 1975 regulations. In the specific guideline for power plants, you would change some of the language to make it clearer that you're taking a system approach, and one of the things you'd need to do to maintain consistency and avoid double-dipping would be to remove the variance provision for the purposes of this system-based power plant standard.

Jeffrey Holmstead: And no other corresponding provision in the CAA?

David Doniger: No. You would explain, as I did, that what the statute provides is that the states have to have a way to take into account remaining useful life. What is remaining useful life? There's no fixed do-not-sell-by date on a power plant. It's an economic proposition. You generate from it indefinitely if it's a profitable unit, all things considered—fuel prices, regulatory requirements, and so on.

So, basically I think the sensible way to look at remaining useful life is there has to be a way within the standard to take into account the economic position of that plant relative to others. So, if you have a high-cost plant, that's the beauty of these flexible market-based approaches—a plant with a higher-than-average cost to control can make use of these mechanisms to control, to comply at a lower cost, and plants that are with a lower-than-average cost of control will be motivated to do things that create more credits. So, this is a way to take into account the concept that underlies remaining useful life: consideration for plants that are on

the high cost end of the spectrum. As long as the interest in this factor is taken into account, EPA is compliant with the statute, it doesn't have to be through a variance provision.

Jeffrey Holmstead: When the 1990 Amendments were adopted, there was a provision that was passed by the [U.S. House of Representatives] and it was codified that says very clearly that if a source category is regulated under §112, so if there are §112 regulations for a source category, then EPA is not permitted to regulate that source category under §111(d). This is kind of a threshold issue, and there is an argument that EPA cannot even use §111(d) to regulate coal-fired power plants because they are regulated now under §112.

There is a competing and slightly different version that came from the [U.S.] Senate bill that was also codified, and EPA has tried to reconcile those two things, and what we conceded back in 2005 was that the interpretation we adopted really didn't give full meaning to the House version, and we were coming up with something that we thought reconciled the two sections. But I will just say, and I see people nodding their heads, that there is a fairly good legal argument that EPA perhaps doesn't even have authority because of this provision that was adopted by the House. But that's kind of separate from all the other questions.

David Doniger: The *Chevron* doctrine—and I had the misfortune of being NRDC's lawyer in the *Chevron* case—but the *Chevron* doctrine is that when there is a statutory ambiguity, the agency has some leeway to give a reasonable interpretation. This is a weird one where the statute as adopted actually included two conflicting, inconsistent, irreconcilable passages. If there is ever a situation where a statute is ambiguous, it's where there's been the adoption by the Congress of mutually incompatible language within the same sentence, which it seems to me would be the classic case where the agency gets "*Chevron* deference" to resolve the ambiguity in a reasonable way.

John Cruden: And I would point out, of course, the [U.S.] Supreme Court in the SEC case just last term did decide that *Chevron* did apply when an agency was in fact interpreting its own jurisdiction. That's not directly applicable, but certainly relevant.

One last question, and this is just yes or no: Do you think the Supreme Court is going to take the four greenhouse gas cases that were upheld by the D.C. Circuit?

William Pederson: No.

Jeffrey Holmstead: I vote yes.

David Doniger: And I vote no. So its a two-to-one panel decision.

John Cruden: Panel two to one. We'll see. We'll know that before long.⁴

Thank you for the great questions. Thank you to the panel for the discussion. This is exactly what we like to hear at ELI. We like to hear all the issues talked about by the most knowledgeable people that we could draw. And you saw the spirited debate, but you also saw one that was airing a number of issues at a time where in fact there is actually an answer to this question to, as to what EPA ultimately chooses.

4. All panelists were correct. On October 15, 2013, the Supreme Court granted six petitions for certiorari, consolidating them into a single question: "Whether EPA permissibly determined that its regulation of greenhouse gas emissions from new motor vehicles triggered permitting requirements under the Clean Air Act for stationary sources that emit greenhouse gases." The Court declined requests to review EPA's Endangerment Finding, Vehicle Rule, and Tailoring Rule, but granted review on the PSD issue, the Timing Rule.