

White House to revive its climate change campaign

With new coal plants effectively outlawed under new carbon emissions limits, the Obama administration is poised to regulate CO₂ from existing power plants.

President Obama is promising to take steps that will slow climate change, whether lawmakers agree with him or not. “If Congress won’t act soon to protect future generations, I will,” Obama declared in his State of the Union address on 12 February. “I will direct my cabinet to come up with executive actions we can take, now and in the future, to reduce pollution, prepare our communities for the consequences of climate change, and speed the transition to more sustainable sources of energy.”

In announcing on 4 March his selection of Gina McCarthy to become administrator of the Environmental Protection Agency and Ernest Moniz to become secretary of Energy, Obama said he and the two nominees will be “doing everything we can to combat the threat of climate change.”

The statements appear to signal the end of a lengthy White House silence on global warming that followed the collapse of Obama’s push for comprehensive climate change legislation in 2009. Although the bill narrowly passed the Democrat-controlled House, it failed in the Senate. Since Republicans gained control of the House in 2010, there has been no significant legislative push to address global warming. “The assumption is that it’s highly unlikely that Con-

gress will do anything on climate,” notes David Goldston, director of government affairs for the Natural Resources Defense Council (NRDC).

Administration officials have yet to specify what executive branch actions the president might take. Addressing a White House gathering on 13 February, presidential science adviser John Holdren predicted “a wide array of measures” that the administration will push to address the climate challenge. The steps will encourage a transition from coal to natural gas and renewable electricity generation and will provide incentives to companies to invest more on innovations in clean energy and energy efficiency, he said. Speaking the same day, Heather Zichal, deputy assistant to the president for energy and climate change, said the president will act in three areas: reducing greenhouse gas emissions, increasing cities’ resiliency to and preparedness for climate change, and transitioning to a clean-energy economy.

Fuel switching

The EPA is due this year to finalize a rule that will effectively prohibit future coal-fired generation by capping carbon emissions on new fossil-fuel power plants. The proposed standard will

limit emissions to 1000 pounds of CO₂ per megawatt hour—less than half the amount put out by the average coal plant today, according to the EPA. Natural gas plants will meet the cap, and given the low price of gas, few, if any, new coal plants are on the drawing board. In recent months, plans to build two new coal plants in Texas have been scrapped, with executives of the two companies involved, White Stallion Energy Center and Chase Power, blaming the upcoming regulation in part for their decisions.

Obama took action during his first term to reduce emissions from the transport sector, setting new fuel efficiency standards that will double mileage for cars and light trucks by 2025.

Environmental organizations say they now expect the administration to move to establish limits on CO₂ from existing electricity-generating plants. The 2007 *Massachusetts v. EPA* Supreme Court decision affirmed the EPA’s authority under the Clean Air Act (CAA) to regulate emissions from existing plants. Because the EPA has determined that CO₂ emissions endanger public health, the agency is compelled by the 2007 decision to take action on power plants, which generate about 40% of US CO₂ emissions.

In the 2010 settlement of a lawsuit by numerous states and environmental groups, the EPA agreed to issue guidelines to the states for reducing carbon emissions from fossil-fuel plants. The guidelines will include targets that are based on demonstrated controls, emission reductions, costs, and expected time frames for installation and compliance. The EPA guidelines are likely to be less stringent than the requirements imposed on new sources, according to the EPA.

States must submit their plans to the EPA within nine months after the guidelines’ publication unless the agency sets a different schedule. States could apply less stringent standards or longer compliance schedules if they demonstrate that the federal guidelines are cost prohibitive, physically impossible, or unfeasible for other reasons. Alternatively, states could establish more stringent standards. But the EPA is well behind its May 2012 target deadline for finalizing the new regulations.

In January, 75 environmental organizations urged Obama to aggressively use his executive authority under the CAA. “You can set standards that cut



The Scherer coal-fired power plant in Juliette, Georgia, is one of the largest emitters of carbon dioxide in the US. The Obama administration is expected to pursue new regulations that will require reductions in CO₂ emissions from existing fossil-fuel plants.

carbon pollution from America's aging power plant fleet at least 25 percent by 2020 while boosting energy efficiency and shifting to clean energy sources," the groups wrote in their letter to the White House. That would "create tens of thousands of clean energy jobs, meet the pollution targets you set for the country, and restore U.S. international leadership," they said.

Limits on the possible

Alden Meyer, director of strategy and policy at the Union of Concerned Scientists (UCS), says that using administrative actions alone, Obama should be able to meet the pledge he made in Copenhagen in 2009 to cut US greenhouse gas emissions in 2020 by 17% from 2005 levels. Indeed, during the December 2012 meeting of the United Nations Framework Convention on Climate Change in Doha, Qatar, the US delegation reaffirmed the 2020 target and promised to achieve it whether Congress cooperates or not.

In a report issued in February, the World Resources Institute warned that the administration will achieve its 2020 commitment only by the most aggressive use of its existing executive authorities. Nearly half of the required emissions reductions will have to come from instituting CO₂ standards on existing power plants, the WRI said. The balance of the cuts will be from the phaseout of hydrofluorocarbons; curbs on methane emissions from natural gas systems; and incentives to improve residential, commercial, and industrial energy efficiency.

In his State of the Union speech, Obama unveiled a new cooperative initiative with states to cut in half the amount of energy wasted by US homes over the next 20 years. The "energy efficiency race to the top" program will award \$200 million in federal support to states that are judged to have the best ideas for lowering energy bills and creating jobs by constructing more efficient buildings, according to Zichal.

The WRI estimates that the US could cut its greenhouse gas emissions 40% below current levels by 2035 if the Obama administration uses existing executive branch authorities. But there is a limit to what can be done without participation from lawmakers. "It's difficult to see how you can do the deep reductions in greenhouse gases we need by midcentury," says Meyer. That's the time frame in which CO₂ emissions must be slashed by at least 80% to avoid catastrophic climate impacts,

according to the scientific consensus.

In particular, legislation is required for any revenue-generating measures; in this case those could include an emissions cap-and-trade system or a carbon tax. Revenues from such schemes could fund the development and deployment of, for example, carbon capture and storage.

Rising expectations

In a December report, the NRDC said the EPA could curtail CO₂ pollution from existing US fossil-fuel plants to 26% below their 2005 level by 2020 by establishing state-specific emissions standards. That would give states flexibility to determine how utilities would achieve carbon reductions, perhaps by improved efficiency or an emissions cap-and-trade system. The NRDC estimates the cost at \$4 billion for CO₂ cuts on that scale. It said benefits to health and the environment, including reduced hospitalizations and fewer workdays lost to illness, would range from \$25 billion to \$60 billion. The recommended approach, the NRDC said, would stimulate investments of more than \$90 billion in energy efficiency and renewable energy technologies.

But lobbyist Scott Segal at Bracewell and Giuliani says there are few technological or other options available for the coal plants. He warns of a "gap of rising expectations by the environmental community and the White House" on what is feasible for existing plants. Carbon is the only global air pollutant that lacks a specific section in the CAA, he argues, and the law is too inflexible to be applied to CO₂. Imposing limits on existing plants could stall an economy that is "based on affordable and reliable electric power," he says.

Indeed, utilities have announced that they will close 17% of existing US coal plants by 2022. That means a decrease of 57 000 megawatts of electricity derived from coal, according to the Edison Electric Institute.

A UCS report issued in November found that as many as 353 coal generators in 31 states may no longer be economically viable if they were to be upgraded with modern pollution controls, since the power those generators produce would cost more than electricity produced by natural gas power plants or, in many cases, wind power. The UCS analysis said that collectively, those coal plants produce approximately 6% of the nation's power and represent 59 gigawatts of power-generation capacity.

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