What will be the upshot of the Obama administration's rules aimed at clamping down on heat-trapping carbon emissions from the nation's power plants?

The Environmental Protection Agency on Friday announced regulations controlling greenhouse-gas emissions from power plants not yet built. The rules, which were repurposed from ones initially announced last year, are expected to require technology to at least partially capture carbon from new power plants that burn coal, the dirtiest but also the most plentiful and cheap fossil fuel. The vast majority of scientists around the world agree that humans' use of fossil fuels, including coal, oil, and natural gas, is causing the Earth to warm more so than otherwise.

This set of rules is a precursor to another set that EPA is planning to announce by June 2014, which will represent the crux of President Obama's agenda to combat global warming: regulations cutting carbon emissions from power plants operating today. Coal-fired power plants represent the biggest chunk of U.S. carbon emissions, at 40 percent.

What impact will the regulations announced last week have on the nation's electricity sector, and the broader economy? What impact will they have on greenhouse-gas emissions and public health?

Do the structure and content of these regulations portend anything about how EPA may craft the more significant regulations aimed at existing power plants?

What, if anything, can or should Congress do in response to the regulations announced last week and, more broadly, EPA's suite of climate rules?
EPA’s reproposed New Source Performance Standards (NSPS) for new coal- and gas-fired power plants are not expected to have much effect over the next decade on either costs or emissions. Modern natural gas-fired power plants will easily meet the standards and the few projected new coal-fired power plants are expected to integrate carbon capture and sequestration technology in response to federal, state and local incentives. However, the NSPS will provide much-needed regulatory certainty for industry, helping to avoid stranded costs. In addition, the NSPS provides security from an environmental standpoint; in the event that fuel markets differ from what is projected, we will not be building more uncontrolled coal-fired power plants that lock us into decades of high-emitting electric generation. And perhaps more importantly, the reproposed NSPS opens the door to federal/state collaboration to develop standards that will apply to greenhouse gas emissions from existing power plants. With power plants accounting for 40 percent of the nation’s greenhouse gas emissions, a rule applicable to this source offers a vital opportunity to set the country and the world on a path toward a lower carbon future.

The Clean Air Act offers a sensible, system-based approach to lowering emissions from the electric power sector that makes use of the full set of mitigation actions. Rather than being limited to measures that boost efficiency at the power plant itself, a system-based approach would also include shifting away from inefficient coal-fired electric generation toward lower-emitting and more efficient natural gas combined cycle units and zero-emitting energy sources. In fact, in 2011, the Massachusetts Institute of Technology found that there is sufficient surplus natural gas combined cycle generating capacity to replace roughly one-third of U.S. coal generation, reducing CO2 emissions from the power sector by 20 percent. McKinsey & Co. has estimated there are 50.4 gigawatts (GW) of cost-effective combined heat and power (CHP) that can be deployed by 2020. CHP is a technology in which heat and power are produced together in a single boiler with greater overall efficiencies than when heat and power are produced separately.

Reasonable and flexible carbon pollution standards for power plants will reduce the primary cause of climate change, which threatens public health and fuels extreme weather. These standards will create new demand for low carbon electric generation and a new revenue source for low carbon electric technologies that would help move the energy sector on a lower carbon trajectory. Technologies like CHP will result in lower energy costs for consumers. For industrial sources and communities, this will translate into improved economic competitiveness, increased production and more jobs and economic growth.

While some forward-thinking members of Congress have proposed various efficient and comprehensive approaches to controlling greenhouse gases, such proposals are unlikely to advance in the current divisive legislative environment. Congress should therefore let the EPA and the state air agencies do the job that Congress directed them to do under the Clean Air Act. We have every confidence that EPA’s planned outreach to states and other stakeholders will yield a flexible and meaningful policy outcome for existing power plants that builds on existing state efforts in a sensible way to lower the emissions intensity of the electric sector.