

EXHIBIT SC-4 (JIF-4)

WRI FACT SHEET

Response to EEI's Timeline of Environmental Regulations

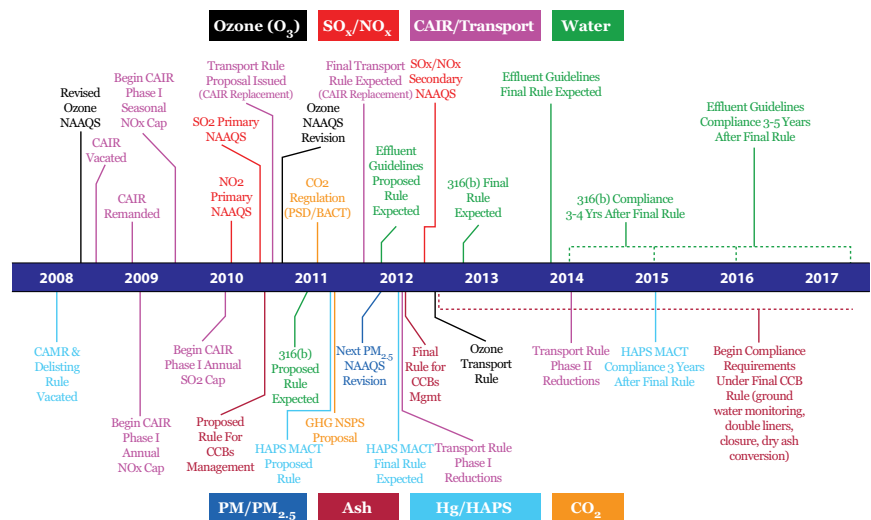
After years of delay, EPA gets back on track in issuing rules that provide a path to a cleaner power fleet.

After years of delay, the Environmental Protection Agency (EPA) is working to reduce dangerous and toxic pollutants released to the air and water by electric power plants, as required by the Clean Air Act and other statutes. Four key points about EPA's actions are clear:

- **Contrary to assertions by industry groups, EPA is pursuing a realistic timeline over the next decade to bring the electric power industry into compliance with the law.**
- **In most cases the electric power sector has been on notice for several years (in some cases several decades) that these pollutants would be regulated.**
- **Without new regulations, these pollutants will continue to impair America's waterways, heat the planet, perpetuate acid rain, and lead to preventable hospital visits and premature deaths.**
- **In each of its rulemakings, EPA provides for an extensive, open public process based on evidence. This leads to more robust and fair rules for the electric power sector. As EPA finalizes each rule, it will establish an increasingly clear pathway for investments in an American electric generation fleet for the 21st century.**

CEOs and other representatives of major electric power corporations have frequently suggested that EPA's regulatory timeline is unworkable.¹ The largest industry trade group, the Edison Electric Institute (EEI) has produced a slide that purports to display an onslaught of new requirements for

FIGURE 1: POSSIBLE TIMELINE FOR ENVIRONMENTAL REGULATORY REQUIREMENTS FOR THE UTILITY INDUSTRY



power plants.² EEI has been distributing this slide widely on Capitol Hill where it presumably hopes to win lawmakers' support for additional delays in EPA regulation or even a stripping of EPA's authority.

The EPA regulatory process is far from a "train wreck." EEI's misleading timeline reproduced in Figure 1, mostly consists of procedural events and activities that will not impose a direct compliance obligation on power plants. This serves only to spread confusion about EPA's actual regulatory schedule.

WRI has identified four categories of EPA activities on the EEI timeline that are potentially misleading. When these activities are removed, only the timing of actual new compliance obligations is left. In figure 2, "X"s (color coded for each filter in the screening process) have been applied to remove events from the figure that are not consequential from a compliance standpoint. The screening filters are as follows:





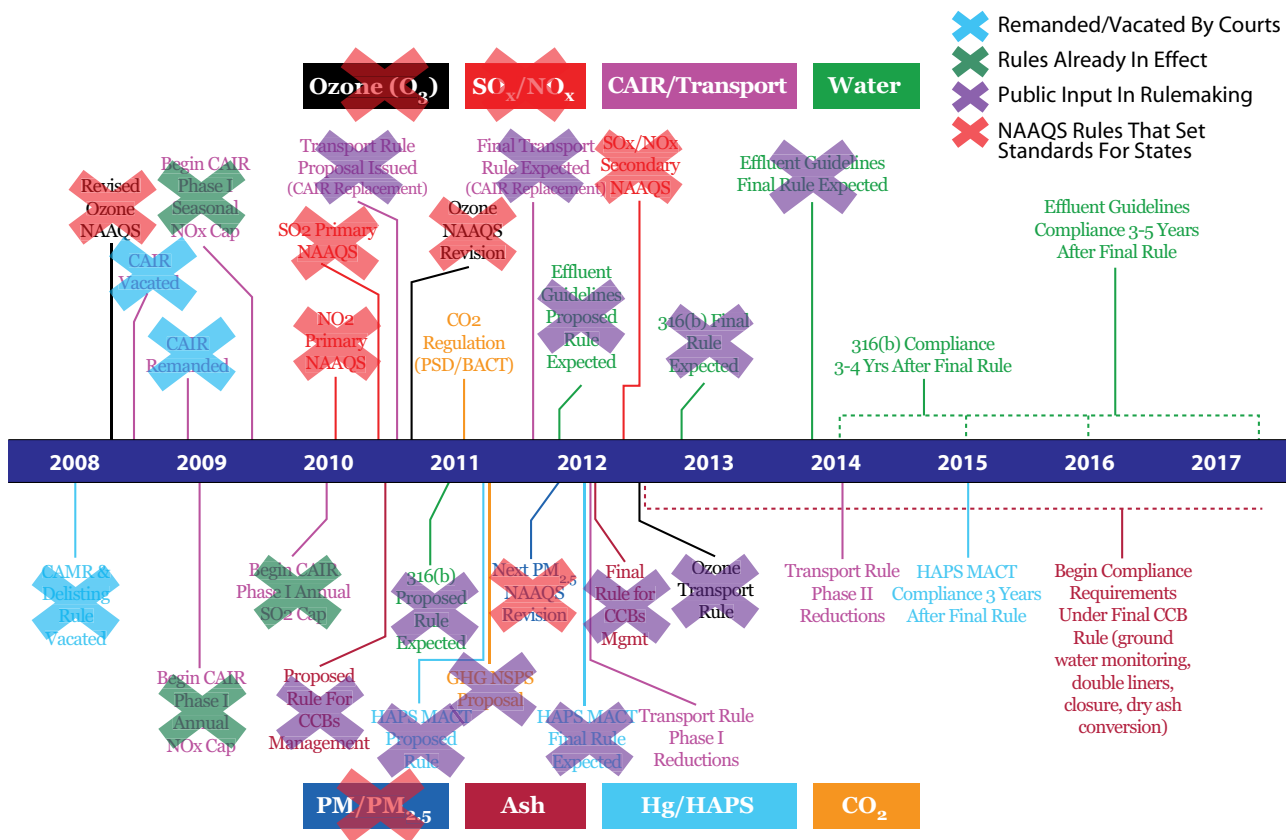
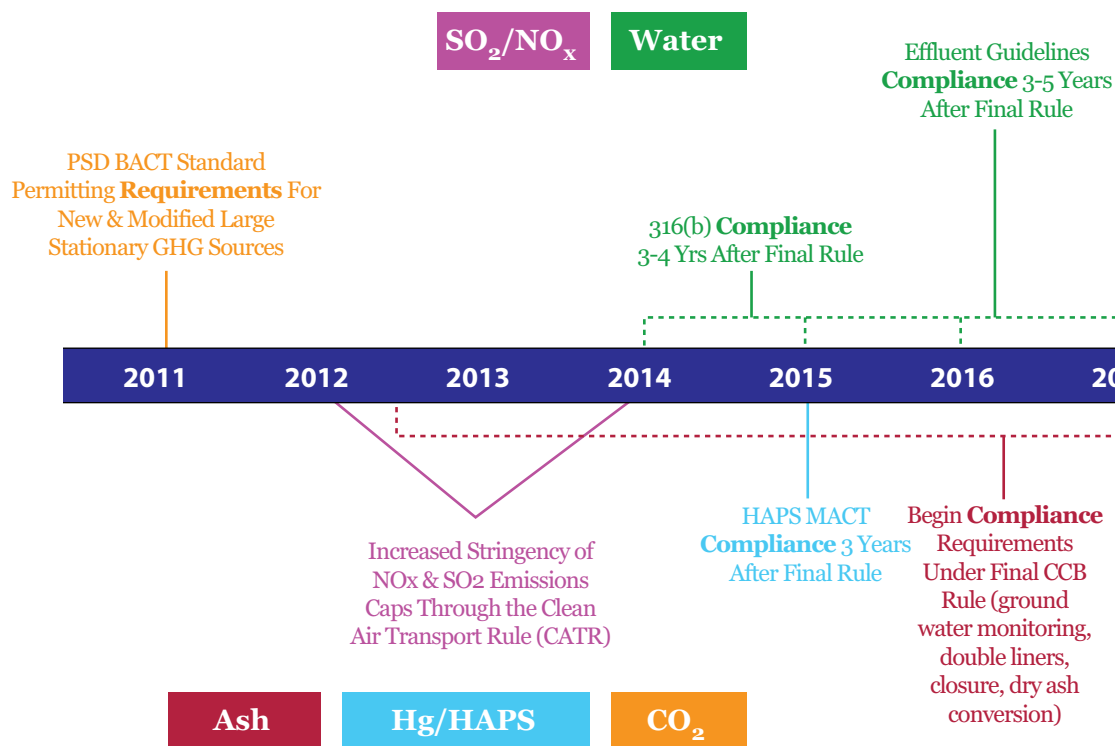
1. Rules that have been remanded or vacated by court decisions that do not impose compliance obligations. 
2. Rules that are already in effect representing compliance obligations that already exist; there are no new requirements imposed by these rules. 
3. Public input through the rulemaking process (leads to more robust and fair rules for the electric power sector, and should not be conflated with new compliance obligations). 
4. National Ambient Air Quality Standard (NAAQS) rules for various pollutants that set standards for states to achieve. They do not establish new requirements for electric generation units.³ 

FIGURE 2: ENVIRONMENTAL REGULATORY REQUIREMENTS FOR THE UTILITY INDUSTRY, REMOVING ALL BUT NEW COMPLIANCE OBLIGATIONS



Sources: WRI Analysis based on Edison Electric Institute 2010, Wegman, EPA 2003.

FIGURE 3: REGULATORY COMPLIANCE OBLIGATIONS FOR THE UTILITY INDUSTRY



Sources: WRI Analysis based on Edison Electric Institute 2010, Wegman, EPA 2003.

Figure 3 shows a more accurate picture of the timeline for new requirements applicable to electric power plants.

EPA is carrying out the intent of Congress (through the passage of the bipartisan Clean Air Act and subsequent amendments) to clean the nation's air and water. These rules can help the United States transition to cleaner and more efficient power plants, by establishing a clear pathway for investments in an electric generation fleet for the 21st century.

The CAA requires EPA and states to regulate and reduce harmful pollutants from major emissions sources including power plants. To date, this framework has delivered substantial improvements in air quality and significant public health benefits estimated between \$77 and \$519 billion annually.⁴ Over the next decade, power plants will be subject to new rules under the CAA as well as the Clean Water Act (CWA) and the Resource Conservation and Recovery Act (RCRA) to control substances that cause serious health problems and substantial damage to America's natural resources. These rules will take effect after long lead times. In most cases industry has been on notice for years that these pollutants would be regulated.

The electric power sector has had substantial notice—in some cases for decades—that power plants would be subject to regulations to control dangerous pollutants

Half of the regulations under consideration by EPA have been in the regulatory pipeline for over a decade. Due to administrative delays and litigation resulting in court decisions remanding or vacating previous rules, many of these rules have not been finalized or the final rules were reversed. In many cases Congress has set statutory deadlines for EPA to act, EPA has missed the deadlines, and courts have ordered EPA to act. Table 1 outlines the amount of time the electric sector has had to prepare for new regulations.

The case of mercury from power plants provides a good example of how much regulatory lag time there has been for the electric power industry to prepare for new pollutant rules. The CAA required EPA to study mercury and other hazardous air pollutant (HAP) emissions from electric power plants and determine whether or not regulating these emissions would be necessary and appropriate. In 2000, EPA determined that regulations were appropriate effectively putting the electric power industry on notice that controls on mercury would be required. EPA then proposed and finalized rules (including the Clean Air Mercury Rule) that were ultimately vacated by the courts, which found that EPA had not acted within the constraints of the CAA. EPA now intends to issue revised draft and final rules in accordance with CAA requirements in 2011. Compliance obligations would take effect in 2015.

TABLE 1. REGULATORY LAG TIME OF MAJOR POLLUTANT RULES

Pollutant	Notice that new or more stringent rules would be imposed ⁵	Year in which compliance obligations will be imposed ⁶	Regulatory lag time	Comments
Mercury	2000	2015	15 years	After a study required by statute and subject to public review, EPA found in 2000 that it was “necessary and appropriate” to regulate mercury and other pollutants from power plants as HAPs
SO ₂ and NO _x	1990 for initial rules. 2003 for increased stringency of rules.	Initially in 1995 for SO ₂ with increasing stringency beginning in 2010 (for SO ₂) and again in 2012. Technology standards for NO _x were first imposed in 1995, Northeast NO _x cap started in 1999; initial expansion in 2003, and then again in 2009	5 years for initial rules. 6-7 years for more stringent rules	New rules for SO ₂ and NO _x represent increasing stringency under existing frameworks.
Greenhouse Gases (GHGs)	2009 (December)	2011	13 months	EPA found that GHGs endanger public health and welfare. EPA rules to regulate GHGs from light-duty vehicles take effect on January 2, 2011, the CAA requires BACT for a pollutant once it is subject to regulation under the Act.
Coal Combustion Residuals (CCR, or Coal Ash)	2007 EPA Notice of Data Availability solicited initial reactions to EPA data.	No sooner than mid-2012, requirements phased in	At least 3 years	Initial requests for information were initiated in 2007, signaling the intention to regulate. Depending on EPA final rules timetables for compliance will vary.
Cooling water intake	1972	No sooner than 2014. Requirements are incorporated permit by permit, which could take up to 5 years	38 years	The CWA amendments of 1977 require these regulations but no final rule has been implemented due to delay and court orders
Power plant effluent	1982 CWA mandates periodic review of existing regulations for potential update.	2015 Final rule not expected before 2012. Requirements are incorporated permit by permit, which could take up to 5 years	23 years	Effluent guidelines are required to be reviewed periodically. The last update was in 1982.

Note: Regulatory lag time is calculated from the date that it was made clear under statutory requirements and court decisions that new or more stringent rules would be pursued relative to the current expected date that compliance will be required.

Thus, the electric power industry has had 15 years to prepare, from the determination in 2000 to the expected date of compliance obligations in 2015.

FINALIZING REGULATIONS PROVIDES CERTAINTY

Finalizing regulations removes uncertainty that might otherwise stymie new investments. The ultimate stringency and compliance obligations for most of the regulations EPA is pursuing will remain uncertain until rules are final. The statutes — RCRA, CWA and the CAA — establish which pollutants will be subject to regulation and the relevant legal standards; the specifics are established during the EPA rulemakings. The longer it takes EPA to finalize new pollutant rules, the longer plant operators face uncertainty as to what will be required.

NOT ALL EPA ACTIONS WILL CREATE NEW REGULATORY REGIMES

It is important to note that some EPA rules do not constitute new regulatory programs. For example, sulfur dioxide (SO₂) emissions from power plants have been covered by cap-and-trade programs that began in 1995. Nitrogen oxides (NO_x) emissions were the subject of a cap-and-trade program covering plants in the eastern half of the country since at least 2003. The Clean Air Interstate Rule and its successor, the Transport Rule, extend NO_x cap-and-trade to new states and increase the stringency of requirements for units already subject to the cap-and-trade for NO_x and SO₂. Power plant operators are familiar with these regulatory frameworks and are familiar with their operation. While increasing the stringency of these rules may require additional investments in control strategies, there is no fundamentally new requirement in play.

THE EPA REGULATORY PROCESS PROVIDES OPPORTUNITIES FOR INDUSTRY INPUT

There are few, if any surprises in the very public and largely transparent EPA regulatory process. Multiple events must take place before any actual compliance obligation is imposed on an electric power plant or any other regulated entity. The EPA must issue proposed rules and seek public comment. Some rulemakings are initiated with advanced notices of proposed rulemaking, so that the process has extra opportunities for industry and public comment, and some start with studies that are conducted with public input and comment. This process allows the electric power industry to have substantial input into the shape of new regulations and allows the industry to better understand what may be required of them by EPA when rules are finalized. Fears of agency overreach are misplaced given the built-in limitations on EPA's authority contained in the CAA.⁷

Often rules are litigated; one outcome can be to send the rule back to EPA for further work. Many of EPA's rules are issued on schedules established by the federal courts — because EPA has already missed the statutory deadline for promulgation. Only the final rule imposes a direct compliance obligation — after which there are practical implications for power plant owners and operators as they make investments in their generation fleets.

WHY IS EPA REGULATING POWER PLANTS AT ALL?

EPA is responding to direction from Congress to reduce the human health and environmental effects of mercury (as well as other HAPs), SO₂, NO_x, greenhouse gases (GHGs), coal ash, cooling water intake and discharge, industrial water effluent. Mercury is a neurotoxin that causes brain damage. SO₂ and NO_x cause acid rain, regional haze and can cause or worsen asthma and aggravate cardio-pulmonary disease leading to increased hospital visits and premature death. A recent example of the dangers of coal ash was the major spill of ash at the Tennessee Valley Authority's Kingston plant in 2008 where irresponsible containment of coal ash caused waterways and communities to be inundated with waste.⁸ Electric power plants are major sources of many pollutants that EPA is regulating or intends to regulate.

Electric power plants are a major source of pollutants that substantially contribute to ongoing public health and environmental problems that impose real costs to the economy. When just air pollutants are considered, electric power plants represent the following shares of total U.S. emissions in 2005:

- 70 percent of SO₂ emissions
- 50 percent of mercury emissions
- 34 percent of GHG emissions
- 18 percent of NO_x emissions

By controlling these emissions using appropriate regulations under clear statutory authority EPA will go a long way towards meeting its mandate to protect public health and welfare. The electric power industry has had substantial time to prepare for regulations and once rules are final the industry will have a clear regulatory roadmap to guide investments. Misleading charts that exaggerate EPA actions such as those distributed by EEI cause confusion that will only increase uncertainty for the electric power industry and jeopardize important efforts to protect public health.

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ENDNOTES

1. See page 3 of the "An Exchange on Change" Edison Electric Institute, 2010. <http://www.eei.org/magazine/EEI%20Electric%20Perspectives%20Article%20Listing/2010-09-01-EXCHANGE.pdf>
2. The Edison Electric Institute has circulated a chart, a version of which can be found here, <http://www.eei.org/meetings/Meeting%20Documents/EPA-CAAUtilityRegTimelineTrain-WreckChart.ppt> that grossly misrepresents the EPA regulatory timeline for coal fired power plants. Through this article, WRI is countering this misleading chart.
3. If states believe that the only way to come into attainment of NAAQS standards is by obtaining additional reductions from electric generators, then the most likely way for states to affect those changes is through modification of the existing regulations that already control emissions of those same pollutants. EPA could undertake similar action through a future update to the transport rule.
4. Figures are in 2001 dollars and apply only to EPA air rules. See page 13 of the Office of Management and Budget's 2010 report. http://www.whitehouse.gov/sites/default/files/omb/legislative/reports/2010_Benefit_Cost_Report.pdf
5. Based on statutory requirements and court rulings.
6. Assuming no additional delays in rulemaking due to administrative actions, litigation and/or court actions.
7. <http://www.wri.org/stories/2010/11/what-are-limits-epa-clean-air-act-holds-answers>.
8. <http://www.nytimes.com/2008/12/25/us/25sludge.html?scp=11&sq=Roane%20County%20tennessee%20coal&st=cse>.

ABOUT WRI

The World Resources Institute is an environmental think tank that goes beyond research to find practical ways to protect the earth and improve people's lives. Our mission is to move human society to live in ways that protect Earth's environment and its capacity to provide for the needs and aspirations of current and future generations.