



# AN UPDATED RESPONSE TO EEI'S TIMELINE OF ENVIRONMENTAL REGULATIONS

BY JOHN LARSEN, UPDATED BY MICHAEL OBEITER

## ABOUT THE AUTHOR

**Michael Obeiter** is a Senior Associate with WRI's Climate and Energy Program. As a member of the US Climate Objective, he works to advance climate and clean energy policies at the national level.

You can reach Michael at [mobeiter@wri.org](mailto:mobeiter@wri.org) or 202-729-7617

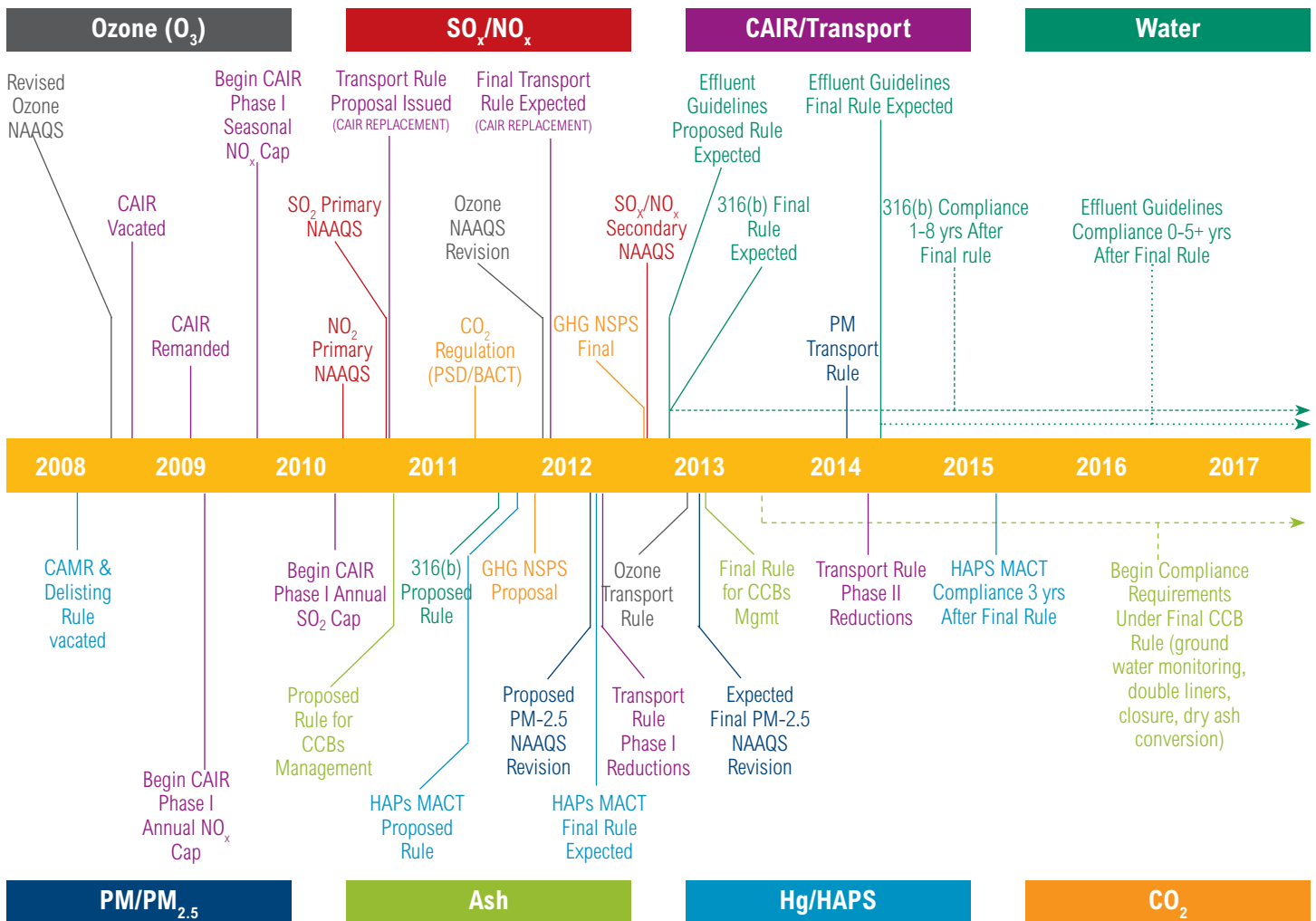
EPA remains on track in issuing rules that provide a path to a cleaner power fleet.

After years of delay, the U.S. 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 (CAA) 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 five to ten years 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 comment period. 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 grid for the 21st century.*

CEOs and other representatives of major electric power corporations have suggested that EPA's regulatory timeline is unworkable.<sup>1</sup> The largest industry trade group, the Edison Electric Institute (EEI), produced a slide in 2010 (updated in May 2011) that purports to display an onslaught of new requirements for power

Figure 1 | Edison Electric Institute's Timeline of Environmental Regulatory Requirements for the Utility Industry



Adapted from Wegman (EPA 2003) Updated 05-31-2011

plants.<sup>2</sup> EEI has distributed this slide (reproduced in Figure 1) widely on Capitol Hill, where it presumably hopes to win lawmakers' support for additional delays in EPA rules or even a stripping of EPA's regulatory authority.

The EPA regulatory process is far from a "train wreck." EEI's misleading timeline consists mostly 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 EEI's timeline that are not consequential from a compliance standpoint. The screening filters are as follows:

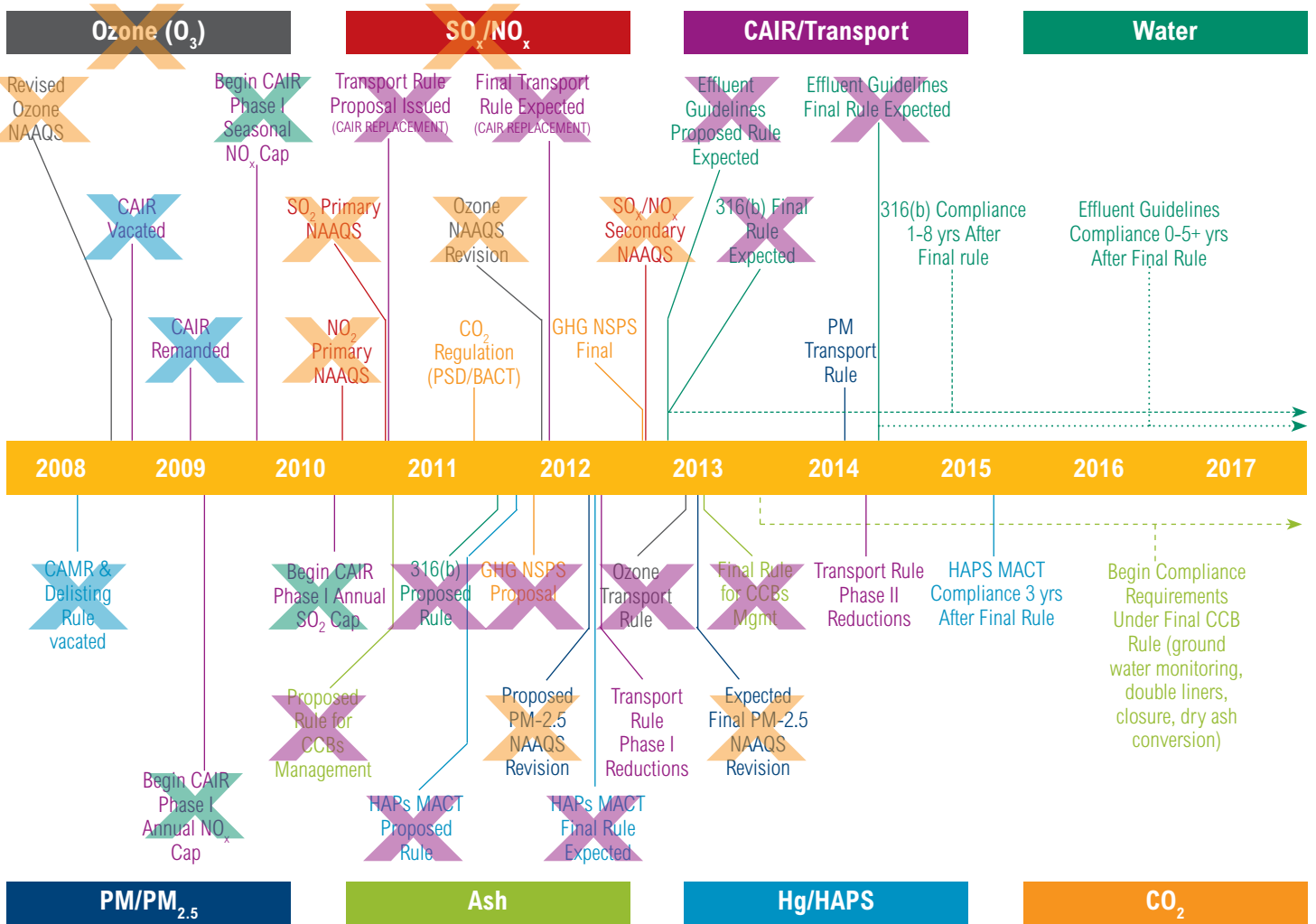
1. Rules that have been remanded or vacated by court decisions that do not impose compliance obligations.
2. Rules that were already in effect when EEI circulated its chart, representing compliance obligations that already exist; there are no new requirements imposed by these rules.
3. Public input through the rulemaking process (which 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.<sup>3</sup>

*The EPA regulatory process is far from a “train wreck”*

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

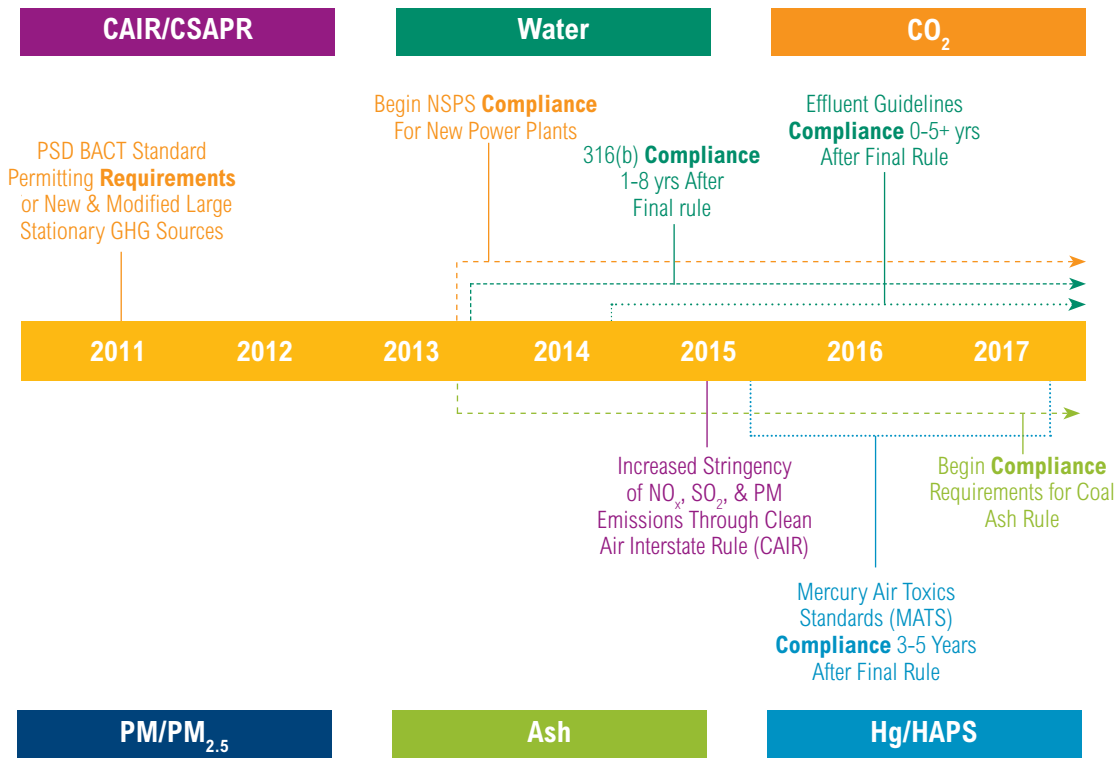
Figure 2 | Modified Edison Electric Institute Timeline, Removing All But New Compliance Obligations



- ✕ Remanded/Vacated By Courts
- ✕ Rules Already in Effect
- ✕ Public Input in Rulemaking
- ✕ NAAQS Rules That Set Standards For States

SOURCE: WRI Analysis based on EEI 2011, EPA 2003.

Figure 3 | **Timeline of Actual Compliance Obligations for Electric Power Plants**



NOTE: In September 2011, the DC Court of Appeals issued a ruling to stay the Cross-State Air Pollution Rule (CSAPR), and the Clean Air Interstate Rule (CAIR) remains in place during the judicial review process.

Adapted from EEI 2011

EPA is carrying out the intent of Congress (through the passage of the bipartisan Clean Water Act, 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 21<sup>st</sup> 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 \$82 and \$556 billion annually.<sup>4</sup> 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*

Many 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

Table 1 | **Regulatory Lag-Time of Major Pollutant Rules**

Pollutant	Notice that new or more stringent rules would be imposed <sup>5</sup>	Year in which compliance obligations will be imposed <sup>6</sup>	Regulatory lag-time	Comments
<b>Mercury</b>	2000	2015, with option for one year extension (to 2016)	15-16 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 hazardous air pollutants
<b>SO<sub>2</sub> and NO<sub>x</sub></b>	1990 for initial rules, 2003 for increased stringency of rules, 2011 for CSAPR	Initially in 1995 for SO <sub>2</sub> , with increasing stringency beginning in 2010 (for SO <sub>2</sub> ) and again in 2012 and 2014 if CSAPR is not vacated by the courts, or in 2015 if CAIR remains in place. Technology standards for NO <sub>x</sub> were first imposed in 1995; Northeast NO <sub>x</sub> cap started in 1999; initial expansion in 2003, and then again in 2009	5 years for initial rules, 7 years for more stringent rules	New rules for SO <sub>2</sub> and NO <sub>x</sub> represent increasing stringency under existing frameworks
<b>Greenhouse Gases (GHGs)</b>	December 2009 (EPA endangerment finding)	2011 for PSD BACT Standard Permitting, 2012 for NSPS for new power plants	13 months for PSD BACT, 27 months for NSPS	EPA found in 2009 that GHGs endanger public health and welfare; EPA proposed New Source Performance Standards for new power plants in March 2012
<b>Coal Combustion Residuals (CCR, or Coal Ash)</b>	2007 EPA Notice of Data Availability solicited initial reactions to EPA data	Possible by end of 2012, with requirements phased in depending on which of two proposed rules becomes the final rule	At least 5 years	Initial requests for information were initiated in 2007, signaling the intention to regulate; depending on EPA final rules, timetables for compliance will vary
<b>Cooling water intake</b>	1972 (Section 316(b) of the Clean Water Act requires that cooling water intake structures reflect the best technology available for minimizing adverse environmental impact)	No sooner than 2014. Requirements are incorporated permit by permit, which could take up to 5 years	37 years	The CWA amendments of 1977 require these regulations but no final rule has been implemented due to delay and court orders
<b>Power plant effluent</b>	1982 CWA mandates periodic review of existing regulations for potential update	Final rule expected in 2014; requirements are incorporated permit by permit, which could take up to 5 years	32 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.

for the electric power industry to prepare for new pollutant rules. The 1990 Clean Air Act amendments 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. In 2000, EPA determined that it was “appropriate and necessary” to regulate mercury emissions from utilities, 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. The vacated Clean Air Mercury Rule was then replaced with EPA’s Mercury Air Toxics Standards, which were finalized in December 2011 and which give existing sources up to four years to comply.

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

## FINALIZING REGULATIONS PROVIDES CERTAINTY

Finalizing regulation 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 (SO<sub>2</sub>) emissions from power plants have been covered by cap-and-trade programs that began in 1995. Nitrogen oxides (NO<sub>x</sub>) emissions were the subject of a cap-and-trade program covering plants in the eastern half of the country since 2003. The Clean Air Interstate Rule and its potential successor, the Cross-State Air Pollution Rule, extend NO<sub>x</sub> cap-and-trade to new states and increase the stringency of requirements for units already subject to the cap-and-trade for NO<sub>x</sub> and SO<sub>2</sub>. 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 additional 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 (for more information, see <http://www.wri.org/stories/2010/11/what-are-limits-epa-clean-air-act-holds-answers>).

Rules are often litigated, and one outcome can be a decision 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), SO<sub>2</sub>, NO<sub>x</sub>, greenhouse gases, coal ash, cooling water intake and discharge, and industrial water effluent. Mercury is a neurotoxin that causes brain damage. SO<sub>2</sub> and NO<sub>x</sub> cause acid rain and regional haze, and can cause or worsen asthma and aggravate cardiovascular disease leading to increased hospital visits and premature death. An 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 (<http://www.nytimes.com/2008/12/25/us/25sludge.html?scp=11&sq=Roane%20County%20tennessee%20coal&st=cse>). Electric power plants are major sources of many pollutants that EPA is regulating or intends to regulate, and which substantially contribute to ongoing public health and environmental problems that impose real costs on the economy.



When just air pollutants are considered, electric power plants represent the following shares of total U.S. emissions in 2008<sup>7</sup>:

- 66 percent of  $SO_2$  emissions
- 72 percent of mercury emissions
- 39 percent of  $CO_2$  emissions
- 19 percent of  $NO_x$  emissions

By controlling these emissions using appropriate regulations under clear statutory authority, EPA will go a long way toward 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 and will only increase uncertainty for the electric power industry and jeopardize important efforts to protect public health.

## NOTES AND REFERENCES

1. See page 3 of “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, an updated version of which can be found on slide 63 here, [http://www.eei.org/whatwedo/DataAnalysis/IndusFinanAnalysis/Documents/EEI%20Financial%20Community%20Presentation%20\(8.10.11\).ppt](http://www.eei.org/whatwedo/DataAnalysis/IndusFinanAnalysis/Documents/EEI%20Financial%20Community%20Presentation%20(8.10.11).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 effect those changes is through modification of the existing regulations that already control emissions of those same pollutants.
4. Figures are in 2001 dollars and apply only to EPA air rules. See page 14 of the Office of Management and Budget’s 2012 report at: [http://www.whitehouse.gov/sites/default/files/omb/oira/draft\\_2012\\_cost\\_benefit\\_report.pdf](http://www.whitehouse.gov/sites/default/files/omb/oira/draft_2012_cost_benefit_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. Source: <http://www.nrdc.org/air/pollution/benchmarking/2008/benchmark2008.pdf>.

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