

LIMITED GOVERNMENT • FREE MARKETS • FEDERALISM

# ECONOMY DERAILED

STATE-BY-STATE IMPACTS OF THE EPA REGULATORY TRAIN WRECK

WWW.REGULATORYTRAINWRECK.COM



**APRIL 2012** 

#### ABOUT THE AMERICAN LEGISLATION EXCHANGE COUNCIL

The American Legislative Exchange Council (ALEC) is the nation's largest nonpartisan, individual membership organization of state legislators, with more than 2,000 members across the nation. ALEC is committed to advancing the Jeffersonian principles of free markets, limited government, federalism, and individual liberty. ALEC is classified by the Internal Revenue Service as a 501(c) (3) non-profit, public policy, and educational organization. Individuals, philanthropic foundations, corporations, companies, or associations are eligible to support ALEC's work through tax-deductible gifts.

#### ABOUT ALEC'S ENERGY, ENVIRONMENT, AND AGRICULTURE TASK FORCE

ALEC's Energy, Environment, and Agriculture (EEA) Task Force promotes the mutually beneficial link between a robust economy and a healthy environment, and seeks to enhance the quality and use of our natural and agricultural resources for the benefit of human health and well-being. The Task Force works with more than 250 public- and private-sector members to develop model best practices legislation on issues such as climate change, agriculture, environmental health, regulatory reform, federalism, chemical regulation, property rights, waste management, and public lands. Rep. David Wolkins of Indiana serves as the Task Force's public-sector chairman, and Martin Shultz of Brownstein Hyatt Farber Schreck serves as private-sector co-chairman. Todd Wynn is the task force director, and can be reached at twynn@alec.org or 202.742.8542.

Economy Derailed: State-by-State Impacts of the EPA Regulatory Train Wreck © 2012 American Legislative Exchange Council

All rights reserved. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system without the prior permission of the publisher.

Published by American Legislative Exchange Council 1101 Vermont Ave., NW, 11th Floor Washington, DC 20005 Phone: 202.466.3800 Fax: 202.466.3901 www.alec.org

Designed for ALEC by Jason Keisling

## **TABLE OF CONTENTS**

EXECUTIVE SUMMARY	v
OVERVIEW	1
SECTION 1: THE CAUSES OF ECONOMIC DERAILMENT	
Utility MACT Rule	10
Boiler MACT Rule	
Cross-State Air Pollution Rule	
Regulation of Coal Combustion Residues	
Cooling Water Intake Regulation	19
Regulation of Hydraulic Fracturing	22
Ozone Regulation	25
Mining Restrictions and Regulation	26
Greenhouse Gas Regulations	29
SECTION 2: ECONOMY DERAILED: STATE-BY-STATE IMPACT PROFILES	34
SECTION 3: BROAD AND DIVERSE COALITION OPPOSING THE EPA	60
SECTION 4: TOOLS FOR STATE LEGISLATORS	73
APPENDIX:	79
Glossary of Terms	79
References	81

### **EXECUTIVE SUMMARY**

The U.S. Environmental Protection Agency (EPA) has begun a war on the American standard of living. During the past couple of years, the Agency has undertaken the most expansive regulatory assault in history on the production and distribution of affordable and reliable energy. As of 2010, EPA regulations promulgated under the Obama Administration had already surpassed the Agency's regulatory output in the entire first term of Bill Clinton, which, as the Wall Street Journal notes, was a period in which "the EPA had just been handed broad new powers" under the 1990 revisions to the Clean Air Act. With 30 major regulations and more than 170 policy rules still being finalized in the next five years, the extent of EPA actions could surpass its entire 40-year history of regulation.

Numerous regulations, all proposed within a short timeframe, have created regulatory chaos and uncertainty, stagnating investment as the economy attempts to recover from recession. These regulations are causing the shutdown of power plants across the nation, forcing electricity generation off of coal, destroying jobs, raising energy costs, and decreasing reliability.

Economy Derailed: State-by-State Impacts of the EPA's Regulatory Train Wreck sheds light on a few of the more onerous regulations that will hit all Americans in the next few years, and on some of the impacts that the nation is already experiencing. This report covers the economic effects of the Utility MACT Rule (also known as the MATS Rule), the Boiler MACT Rule, the Cross-State Air Pollution Rule, coal ash residuals regulation, cooling water intake regulation, potential EPA regulation of hydraulic fracturing, ozone regulation, restrictions and regulations on mining, and greenhouse gas regulations.

Major findings in the report include:

- Environmental quality in the United States continues to improve, despite the doomsday rhetoric coming from the EPA and environmental groups. Mercury, carbon monoxide, ozone, lead, nitrogen oxide, particulates, fine particulates, and sulfur dioxide have all decreased in both ambient concentrations in the atmosphere and in total emissions.
- Affordable and reliable energy has directly led to a high standard of living by allowing Americans to devote more resources to health-promoting activities such as diet, health care, and exercise rather than heating, cooling, and transportation costs. By contrast, unnecessary and burdensome environmental regulations do have negative health impacts that result from income being diverted away from health-promoting expenditures toward energy costs. These impacts are far worse for lower-income populations, because energy makes up a larger proportion of their budget.
- The Utility MACT (MATS) Rule could require retrofits for up to 753 electricity-generating units, and up to 15 gigawatts of electricity could be forced into early retirement. The standards are so stringent that even recently permitted plants employing the best available technology cannot meet them, and no new coal plants are likely to be built. Although at odds with just about every independent cost estimate, the EPA's estimate of annual cost is approximately \$11 billion, and its estimate of annual health benefits from the reduction in mercury is only \$6 million.
- The Boiler MACT Rule risks nearly 800,000 jobs nationwide,

- and the EPA has not estimated a single health benefit for reducing the pollutants that this rule was intended to address.

   Estimates show that the regulation of greenhouse gases will lead to significant increases in energy costs, with increases of
- The Cross-State Air Pollution Rule could threaten up to 7 gigawatts of electricity generation with early retirement, affecting reliability and affordability of electricity. The EPA estimates that the rule could cost \$2.4 billion annually, yet the newest data reveals that the CSAPR may not even be necessary, because emissions have declined during the past few years.
- The regulation of coal combustion residues will have significant consequences on electricity generation and a robust recycling industry in the United States. The EPA estimates the average regulatory cost, for the next 50 years, to be almost \$1.5 billion per year. Other estimates have found that the price tag could run up to \$20 billion annually. In addition, states themselves already have regulatory structures in place, meaning that EPA action would be a redundant, burdensome layer of regulation.
- Cooling water intake regulation could affect more than 1,000 coal, oil steam, and gas steam generating units (totaling 252 gigawatts) as well as roughly one third of all installed nuclear capacity (approximately 60 gigawatts). This could threaten up to 41 gigawatts with early retirement, and would also affect electric reliability across the country.
- The further tightening of ozone standards could mean that approximately 85 percent of the nation would be in nonattainment of a strict standard that has already been deemed unnecessary. By 2020, the standard could threaten up to 7.3 million jobs.
- The EPA has begun a war against coal mining by halting already approved permits, holding back and unnecessarily delaying permits, and even revoking previously issued permits. The closure of coal plants resulting merely from EPA air quality regulations puts 27,000 coal mining jobs at risk.

- Estimates show that the regulation of greenhouse gases will lead to significant increases in energy costs, with increases of 50 percent for gasoline and residential electricity prices, 75 percent for industrial electricity prices and residential natural gas prices, and 600 percent for electric utility coal prices. These costs come with little to no environmental benefit.
- State economic impacts of the EPA train wreck vary depending upon the percentage of the state's electricity derived from coal, whether coal mining operations exist within the state, and the makeup of the state's industries. The top ten states impacted by the EPA regulatory train wreck are Illinois, West Virginia, Ohio, Alabama, Michigan, Indiana, Pennsylvania, Tennessee, Kentucky, and North Carolina.
- A broad and diverse coalition opposes EPA overreach. In sum, 32 current and former governors and lieutenant governors, 27 groups of state and local officials, 16 labor unions, 17 state legislative bodies, 10 state agencies, and 57 trade associations have openly voiced opposition to the escalating EPA expansion. This coalition represents millions of workers, thousands of state officials, tens of thousands of companies, more than 3,000 counties, more than 19,000 cities, villages, and towns, and thousands of state legislators across the country.

Given all of this EPA regulatory activity, it is essential for concerned state legislators to get involved and stop the economic derailment. This report outlines some of the available comprehensive and issue-specific legislative tools, which include expressing strong opposition to the EPA's regulatory onslaught, enhancing regulatory review, introducing bills to assert state sovereignty, and providing guidelines for getting states on the right side of the ongoing legal and public relations battles.

While this report offers a snapshot of EPA regulatory activity and the ensuing economic damage, the regulatory landscape is constantly shifting. Ongoing updates to the regulations detailed in this report are available at www.regulatorytrainwreck.com.

# OVERVIEW

The United States is under attack from within. In the past couple of years, the U.S. Environmental Protection Agency (EPA) has begun a war on the American standard of living, promulgating and finalizing the most onerous regulatory assault on the American economy since its inception more than 40 years ago. Although talks of a national cap-and-trade program are a political non-starter, the attack on affordable and reliable energy has continued through the numerous regulations being imposed in the next few years. This report reveals a dangerous picture of regulatory overreach trampling on state sovereignty, with no regard to cost or implications within the states.

## America's True Clean Air and Water Success Story

It is an amazing time to be alive in the United States. Technological improvements, sensible regulations protecting property rights, and efficiency improvements advanced by the competitive pressures of free markets have led to some of the cleanest air and water in the world. These improvements, coupled with economic development advanced by access to affordable energy during the past century, are the reasons for the greatest advancement of standards of living in humankind's history. But this story is not often told.

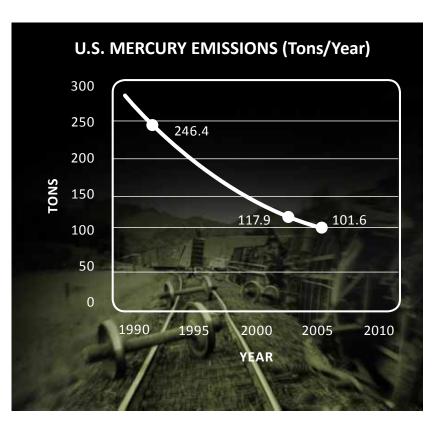
The EPA and environmental activists continue to cast a discouraging and alarmist image of the state of the environment and health in the nation. If one only read press releases from the EPA or talking points from the major U.S. environmental groups, one would be depressed, fearful of imminent environmental

disaster, and most likely demand that the government take action. Doomsday stories are told continuously, and create an emotionally driven response to justify additional regulations on industry and businesses.

Just before the end of 2011, EPA Administrator Lisa Jackson strategically unveiled one of the most comprehensive and controversial regulations on the electric power industry at the National Children's Hospital in Washington, D.C. Exploiting children in order to create an emotional justification for an economy-killing regulation is obvious propaganda, and demonstrates the shameless tactics used by the Agency.

Because of these tactics, it is not surprising that public opinion regarding the environment is pessimistic, with polls showing that large majorities of Americans think environmental quality is getting worse, not better. Propaganda from governmental agencies and environmental advocacy groups fuel this sentiment. The doomsday picture is unfortunately a necessary element for these groups, because it is hard to raise money for an environmental organization or justify the next regulation and round of taxpayer funding when the air and water are cleaner every day. The media is also to blame, in some respect, because one would never see a headline stating, "Our air is clean and our water is pure. No need for alarm" — not many newspapers would be sold. Unfortunately, alarmism, regardless of the lack of data or facts, can have a profound effect both on Americans and on the political leaders that represent the public. This translates into the basing of policy and regulatory change on misguided agendas and depressing and inaccurate views of environmental trends.

Much to the contrary of propaganda fostered by the EPA. This trend is not confined only to mercury emissions. Other and others, traditional pollutants have been on the decline for decades, and continue to decline. The success story of environmental quality improvement in the United States is one that is often forgotten or never told, yet it may be one of the greatest success stories of our modern age. Specifically, when Lisa Jackson unveiled the Utility MACT regulation at the Children's Hospital, she was focusing on the main pollutant to be reduced by the regulation: mercury. On the surface, this sounds like a worthy cause. What is conveniently left out is that the trend for mercury emissions is already declining, and this regulation would have little to no effect whatsoever on ambient mercury levels. Between the early 1990s and 2005, annual nationwide mercury emissions decreased from 246 tons per year to 103 tons per year, a decrease of 58 percent.



pollutants, such as carbon monoxide, ozone, lead, nitrogen oxide, particulates, fine particulates, and sulfur dioxide have all decreased both in ambient concentrations in the atmosphere and in total emissions.

Change in National Average Ambient Levels
and Emissions 1980-2008*

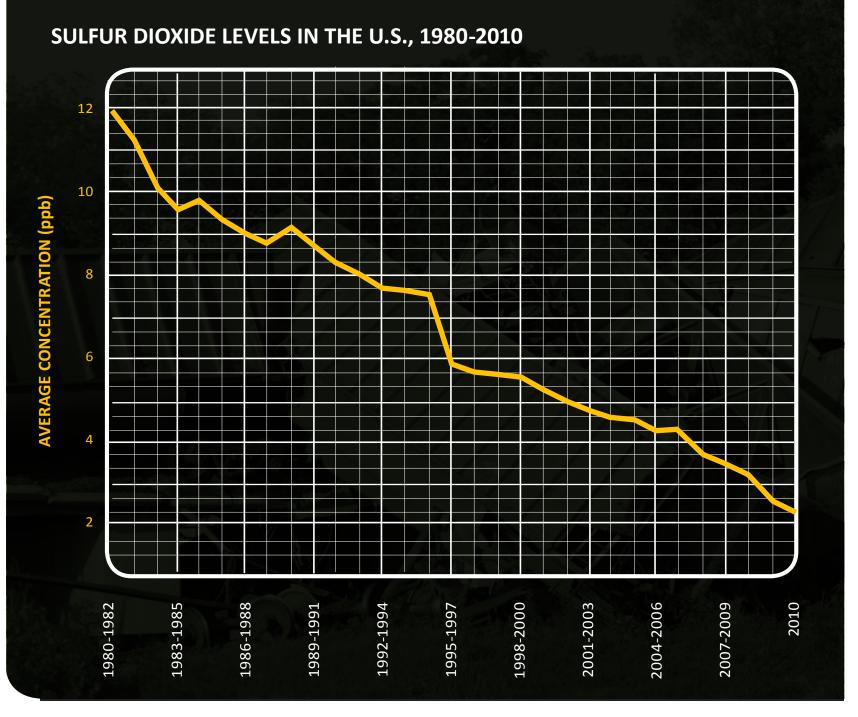
POLLUTANT	AMBIENT	EMISSIONS
Carbon Monoxide (CO)	-79%	-58%
Ozone** (O3)	-25%	-49%
Lead (Pb)	-92%	-96%
Nitrogen Oxide	-46%	-40%
Sulfur Dioxide	-71%	-56%
Particulates (PM10), 1985-2008	-31%	-46%
Fine Particulates (PM2.5), 1985-2008	-31%	-46%

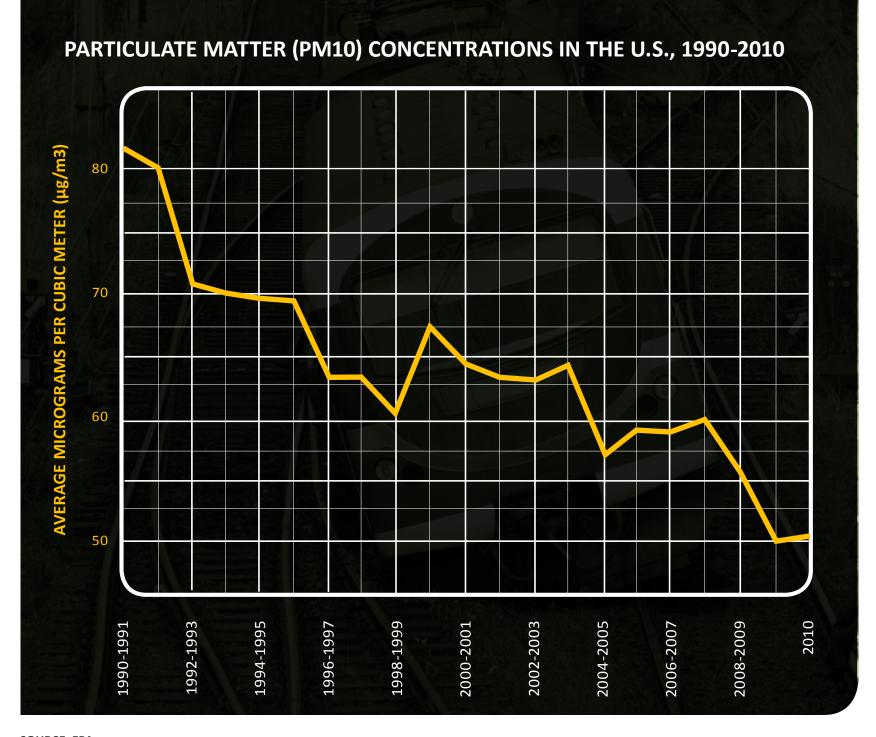
Source: EPA and Regulatory Trainwreck Publication

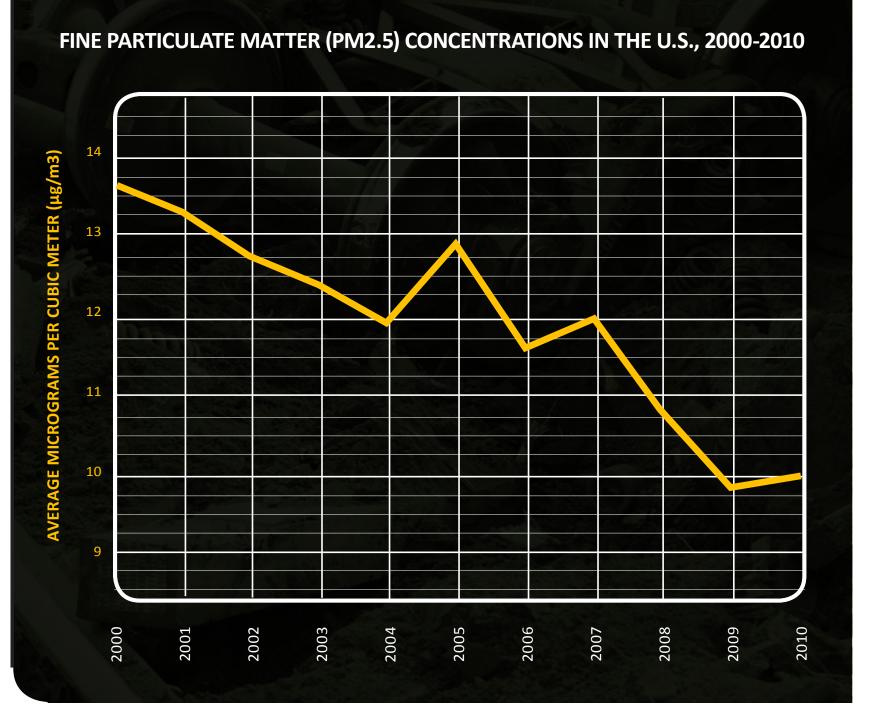
\*Except for PM10 and PM2.5

The long-term trend of the EPA's Air Quality Index (AQI) also reveals a similar success story. The AQI is a metric used for declaring days on which the air is "unhealthy" for sensitive people (children, the elderly, and people with respiratory ailments) in metropolitan areas. In just 10 years (1999–2008), the AQI declined almost 63 percent, meaning that there are 63 percent fewer days that air quality is unhealthy for sensitive populations.1

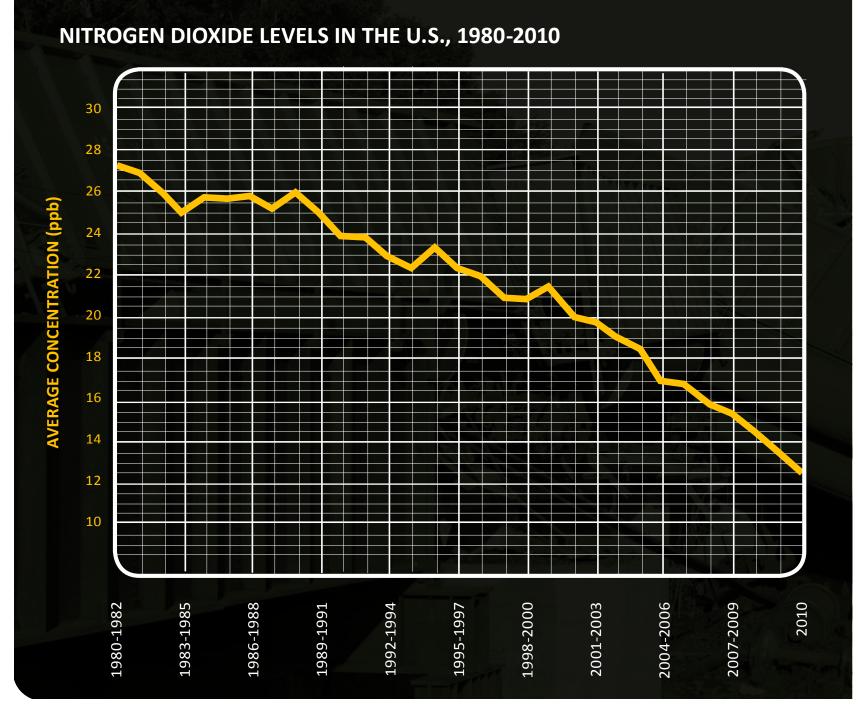
<sup>\*\*</sup>The emission measure here is volatile organic compounds (VOCs), a principal ozone precursor







### OZONE LEVELS IN THE U.S., 1980-2010 0.10 0.09 **AVERAGE CONCENTRATION (ppm)** 0.08 0.07 0.06 0.05 2004-2006 2010 1980-1982 1983-1985 1986-1988 1992-1994 1998-2000 2001-2003 2007-2009 1989-1991 1995-1997



These environmental quality improvements mean that U.S. citizens are living healthier, longer lives, and this is evident in increasing life expectancies. At the turn of the century, life expectancy was considerably shorter than it was today. Around 1900, an average American could expect to live 49.2 years.<sup>2</sup> In this century, an average American can be expected to live almost 78 years — an increase of almost 37 percent in just 100 years.<sup>3</sup>

## **Ever-Increasing Regulations Threaten Standards of Living**

One of the major reasons why we see higher life expectancies today than 100 years ago is the increasing access to affordable and reliable energy. Energy is the lifeblood of the economy and our standard of living. Everything Americans buy, consume, produce, and transport requires energy. The ability to develop energy resources within a state's borders, to use energy resources efficiently and effectively, and to be free of overbearing regulations and policies that constrict consumer choice all play a role in the economic position of a state. Access to affordable and reliable energy leads to economic

"Electricity ushered in a transformation of American Society at the end of the 19th century. Suddenly, the backbreaking work that consumed dawn to dusk for most Americans was alleviated by electric motors, dynamos and generators. Electric household appliances made it possible to heat homes, cook food, store meat and perishable items and wash clothes without the drudgery and fear of disease that had haunted previous generations." — Ohio Department of Public Utilities

development, which is intricately tied to the standard of living and health of citizens. The Annapolis Center for Science-Based Public Policy has found that inexpensive energy has directly led to a high standard of living and longevity by allowing individuals to devote more resources to health-promoting activities such as diet, health care, and exercise, rather than to heating, cooling, and transportation costs.<sup>4</sup>

"Prosperity depends upon reliable, affordable access to energy..." — Steven Chu, Secretary of Energy, 2009

Because of its low cost and abundance, coal is used to generate about half of the electricity consumed in the United States. The EPA's recent regulatory onslaught is a direct attack on affordable and reliable power in the country, and coal is its major target. Instead of eliminating the use of coal with a cap-and-trade scheme or a carbon tax, the EPA has initiated a number of rules that will effectively end the use of coal. The regulations discussed in the next section are only some of the EPA's actions aimed at eliminating coal and thus increasing energy costs.

Electricity generation is the first industry to be affected by the EPA onslaught. The Agency is moving forward with additional regulations that will increase the cost of electricity through unnecessary retrofits, increase the cost and reduce the supply of coal through additional mining restrictions, and force power plants to retire—affecting both the reliability and affordability of electricity. Opponents of overbearing regulation often cite studies that show significant increases in electricity rates and the number of job losses resulting from a power plant closure. These are the direct impacts of EPA actions. What is not seen is the myriad of negative consequences that touch every single American. Overreaching regulations impact more than just your electricity bill. Electricity is the major input to industry, so

it runs the factories that manufacture the products you need. Industry uses 30 percent of the nation's energy, which means that electricity prices have a large effect on the cost of the products produced. These factories will pass cost increases onto consumers or go out of business. A hospital that sees a spike in the cost of electricity will integrate a portion of that cost into the bill the next time a patient visits the doctor. Electricity is an input to refining oil, and the EPA has proposed new regulations on refineries, so the next gallon of gasoline needed to transport fresh fruits and vegetables to the local grocery store will increase in cost as well.

"Access to electricity is strongly correlated with every measureable indicator of human development." — Berkeley Science Review, 2008

The U.S. Bureau of Labor Statistics found that a family with annual income of \$50,000 or less takes a significant hit when energy prices increase. Nearly 50 percent of U.S. households earn less than \$50,000 per year, and these households spend more on energy than on food, spend twice as much on energy than on health care, and spend more on energy than on anything else except for housing.<sup>5</sup> The picture becomes even grimmer for households with an annual income of less than \$30,000. Nearly 40 million U.S. households earning less than \$30,000 per year spend 20 percent or more of their income on energy. These households spend 75 percent more on energy than on health care, and more on energy than on food. Increases in energy prices will mean that Americans have less money in their pockets to purchase health care, healthy food, exercise, shelter, and many other essentials for a healthy and long life.

Despite significant environmental improvements during the past few decades, the EPA continues to propose more stringent air and water regulations. The vast expansion of federal regulations is illustrated by the trend of the size of the Federal Register, the main source for rules and regulations on the economy. In 1936, the pages in the Register totaled just 2,620. In 2011, this number topped 80,000, representing more than a 3,000 percent increase. In addition, at the end of 2010, there were more than 270,000 federal regulatory employees focused on proposing, implementing, and enforcing regulations.

Good public policy and sensible environmental regulation weigh the costs and benefits of regulatory action. The costs of the recent EPA regulations are well documented by both the EPA and independent research studies, and although they vary, they all show significant costs. It is unfortunate that many regulators and policymakers alike do not understand the unintended consequences of ignoring a thoughtful consideration of costs versus benefits. If a regulation's cost outweighs the benefit, that regulation could be causing more harm than good. Instead of a citizen spending money on access to better health care, improving his or her health, it would be spent on an inefficient and costly regulation. There is a point of diminishing returns at which the continuing regulatory burden, by increasing the cost of energy, will have dangerous unintended consequences for the health and standard of living of Americans. A study released by Johns Hopkins University noted that "predicted mortality trends associated with air quality regulations that increase energy costs show trends an order of magnitude greater than the estimated benefits."8 Another study cautions that the economic costs of regulations "tend to worsen individual health or safety and can shorten lifetimes."9

The state impact profiles in this report are just the tip of the economic destruction iceberg. Affordable and reliable energy is being attacked, and thus the American way of life, standard of living, and even public health is being threatened. The EPA's regulatory impacts will be felt for generations to come if nothing is done to stop them.

## THE CAUSES OF ECONOMIC DERAILMENT

The EPA has begun an unprecedented expansion of regulatory authority. This section provides a basic introduction to just nine of the numerous regulations representing the cause of an economic derailment.

## **Utility Maximum Available Control Technology (MACT) Rule**

The Utility MACT Rule aims to regulate all hazardous air pollutants (HAPs), including mercury and acid gases, for coal and oil plants. Under Title I of the Clean Air Act (CAA), the EPA will require the adoption of "Maximum Available Control Technology" for these HAPs, defined as the strict requirement that all existing power plants must equal the average performance of the top 12 percent of power plants. New plants must meet an even stricter standard. As proposed, the Utility MACT would require coal-fired power plants to achieve a 91 percent reduction from emissions of mercury, nine other toxic metals, and three acid gases.

"The rule could require retrofits for up to 753 units, and up to 15 gigawatts could be forced into early retirement by the rule, affecting electricity price and reliability for up to 15 million American households."

#### **Background**

In 2005, the EPA promulgated regulations establishing a cap-

and-trade system to limit emissions of mercury from coal-fired power plants. This was a change in policy by the Agency, because all previous sources of mercury subject to emission standards had been required to meet plant-specific MACT standards under the CAA. The 2005 cap-and-trade rules addressed only mercury, and would have allowed many power plants to avoid control provided they obtained allowances from others who achieved lower pollution levels than required, or reduced emissions sooner than required.

The CAA statute requires that MACT standards applicable at each existing plant be no less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the industry. Whether the EPA could substitute capand-trade rules for the MACT requirements was challenged by the State of New Jersey and others. The D.C. Circuit Court of Appeals found that the EPA had to require that each plant meet MACT standards instead of instituting cap-and-trade. Rather than appeal the court's ruling to the Supreme Court, the EPA proposed what is referred to as "Utility MACT" on March 16, 2011. The final MACT standards were to be publicized by Nov. 16, 2011. After receiving 960,000 comments on the rule, EPA extended the final rule date to Dec. 16, 2011. On Feb. 16, 2012, the EPA published the finalized Utility MACT Rule (also known as the Mercury and Air Toxics or MATS rule) in the Federal Register. The three-year compliance period starts on April 16, 2012, and affected power plants will have to comply with the standards by April 16, 2015.

#### Who Is Affected?

This rule will apply on a plant-by-plant basis to nearly every

**APRIL 2012** 

coal- or oil-fired utility in the country, and it will require rapid compliance within just three years. An analysis by the North American Electric Reliability Corporation estimates that the rule could require retrofits for up to 753 units, and that up to 15 gigawatts could be forced into retirement by the rule.

Expensive pollution-control equipment will need to be installed to meet these standards at a large number of plants, and these installations will be required as the EPA is simultaneously imposing many other requirements on the industry. Regardless of cost, it simply may be impossible for many plants to install the necessary equipment to meet the standards within the limited compliance time frame, forcing them to close. The standards are so stringent that even recently permitted plants employing the best available technology cannot meet them, and no new coal plants are likely to be built.<sup>10</sup>

A 2005 analysis by the U.S. Energy Information Administration found that, depending on the availability of compliant commercialized mercury removal technologies, resource costs could be as high as \$261 to \$358 billion. Even without addressing potential scrubber requirements, a Credit Suisse report predicts capital expenditures of \$70 to \$100 billion for utilities to comply with just the mercury MACT and Clean Air Transport Rule.

An analysis by National Economic Research Associates (NERA) found that the Utility MACT rule and other pending EPA regulations would destroy an average of 183,000 jobs every year from 2012 to 2020, and increase electricity and other energy prices by \$170 billion.<sup>11</sup> The NERA analysis also found that the average American household would have \$270 less to spend each year because of new EPA regulations.

The EPA projected the annualized cost of compliance with the proposed rule at \$10.9 billion in 2015, remaining at \$10–11 billion annually through 2030. Incredibly, the EPA's highest benefit estimate of the reduction in mercury is only \$6 million

per year. The EPA claims that the rule will be the most costly of the proposed rules (although they failed to estimate costs on a number of proposed regulations). The EPA is not required to look at the cumulative effects of the rule, only the direct cost of compliance, thus its calculations leave out any ancillary impacts, such as job losses, impact on businesses from higher energy costs, or electric reliability issues because of the early retirement of power plants.

"The EPA's estimates of the direct benefits attributable to reduction of the specific air toxics targeted by Utility MACT range from \$500,000 to \$6 million per year. Costs of the proposed rule outweigh benefits roughly 1800 to 1."

The Texas Commission on Environmental Quality (TCEQ) claims that the EPA, through implementation of the Utility MACT Rule, is using the CAA as a "mechanism to drive national energy policy." TCEQ states that "the proposed rule is not technologically feasible for coal-fired EGUs [electricity-generating units]. Based on the current state of technology, the TCEQ anticipates that no new coal-fired EGUs will be built in the country if the EPA adopts the rule as proposed and that many existing coal-fired EGUs will be shut down." 13

Households will not only face higher electricity bills because of this rule, but also the possibility of reduced reliability resulting from the early retirement of power plants. This effect can ripple through the economy, hindering investment and economic development for years to come.

#### Why Is This Unnecessary?

The impact of U.S. sources for mercury exposure is vastly overstated. At least 30 percent of the mercury that is in the

## WHAT LEGISLATORS ON THE HILL ARE SAYING ABOUT THE UTILITY MACT RULE

"The economic analysis of the Obama EPA's Utility MACT paints a bleak picture for economic recovery as it will cost \$11 billion to implement, increase electricity rates for every American, and, along with the Cross-State rule, destroy nearly 1.4 million jobs. This contrasts sharply with the mere \$6 million in direct benefits the Agency projects from the rule's implementation. Sadly, this rule isn't about public health. It is a thinly veiled electricity tax that continues the Obama Administration's war on affordable energy and is the latest in an unprecedented barrage of regulations that make up EPA's job-killing regulatory agenda." — Senator James Inhofe (R-OK)

"It is disappointing but not surprising to see that regulations by EPA have caused several plants to be closed. These local plants provide jobs and are an economic benefit to the area. This is just the tip of the iceberg. While EPA has not been transparent about exactly how much the Utility MACT will cost, estimates show that it will be the most costly electricity regulation in EPA's history. Unfortunately, consumers and workers will ultimately suffer the most from EPA's job destroying agenda." — Energy and Power Subcommittee Chairman Ed Whitfield (R-KY)

United States comes from other countries, and more than 80 percent of seafood (the primary exposure method) eaten in this country is from foreign shores. The Electric Power Institute estimates that less than 5 percent of the 2,500 tons of mercury released each year comes from the United States. Natural sources of mercury, such as volcanoes, sub-sea vents, and geysers, release 9,000 to 10,000 tons per year—dwarfing any manmade sources. Eliminating the very low levels of mercury emitted from U.S. power plants would have virtually no effect on human health in this country.

A former EPA Assistant Administrator for Air and Radiation explains: "[E]ven if you could eliminate all the mercury emissions in the U.S. completely, from every source of mercury pollution, you would have almost no impact on people's exposure."

The EPA's analysis for the Utility MACT Rule indicates that two percent of mercury deposition in the United States is attributable to coal-fueled power plants, because most of the mercury deposited in the United States originates in other countries.14 According to the EPA's own analysis, mercury reduction from the proposed utility MACT rule would result in average IQ savings of 0.002 IQ points per child among the U.S. population that consumes recreationally caught freshwater fish. 15 Because average IQ is 95 to 100 IQ points, the resulting improvement within this population would be two thousandths of one percent (0.002 percent) per child, a difference that "could never be measured or observed in real life." In addition, the EPA's analysis indicates that the increased cancer risk caused by coal-fueled power plants is only three ten-thousandths of one percent (0.0003 percent). Similarly, the EPA indicates that non-cancer health effects are well below what the EPA considers a "level of concern." 16

In addition, the EPA is relying to a great degree on coincidental "co-benefits" of fine particulate matter (PM<sub>2.5</sub>) reductions. This means that regulations having nothing to do with reducing

PM<sub>2.5</sub>, such as the Utility MACT, are counting the reduction in PM<sub>2.5</sub> as a benefit, even though there is a separate rule that expressly addresses this pollutant. Co-benefits from PM<sub>2.5</sub> that the EPA already regulates should not be allowed to be the major —or, in some cases, the entire—calculated health benefit for a regulation that addresses entirely different pollutants. If the cobenefits are counted, then there is a misleading and unjustifiable benefit analysis for such regulations.

For example, the EPA claims that the Utility MACT rule will save up to 17,000 lives per year, avert 11,000 heart attacks, and lower numerous other respiratory and cardiovascular ailments. Almost all of the health benefits (more than 99.9 percent) claimed by the EPA are attributable to the EPA's estimates in reductions of PM<sub>2.5</sub>, which the Utility MACT rule is not even designed to address. The EPA has estimated benefits for mercury reductions, only one of the air toxics addressed by the rule. The Agency's highest benefit estimate for the mercury reduction is \$6 million per year, compared to its cost estimate totaling \$10.9 billion annually.<sup>17</sup>

Nevertheless, mercury emissions are already declining. Between 1990–1993 and 2005, annual nationwide mercury emissions decreased by 58 percent. Decreases will continue as older plants are phased out and replaced by newer plants.

UTILITY MACT COSTS VS BENEFITS (Billions/Year)				
Pollutant Type	Direct Benefits	Direct Costs		
Mercury	<\$0.1	\$2.3		
Acid Gases	\$0	\$5.4		
Non-HG Metals	\$0	\$3.2		
Organic HAPs	\$0	Not estimated by EPA		
TOTAL	<\$0.1	\$10.9		

#### **Boiler Maximum Achievable Control Technology (MACT) Rule**

The proposed MACT standard for commercial and industrial boilers (Boiler MACT Rule) would regulate emissions of hazardous air pollutants (HAPs) from a variety of commercial, industrial, and institutional boilers. Specifically, the rule will address emissions of mercury, dioxin, particulate matter (a proxy for non-mercury metallic HAPs), hydrogen chloride (a proxy for acid gas HAPs), and carbon monoxide (a proxy for non-dioxin organic HAPs). Thousands of such boilers are used throughout the nation, burning gas, oil, coal and biomass to generate heat and electricity for factories, schools, and a variety of other types of facilities.

#### **Background**

The EPA released the first version of its Boiler MACT Rule on April 29, 2010, and planned to issue a final rule by Jan. 21, 2011. After the release of the first version, there was an overwhelming outpour of protest that the agency did not leave itself enough time to consider comments from the public, as required by law, and to make changes to the rule in response to those comments. Consequently, the EPA sought court approval to extend the deadline for issuing the rule to April 13, 2012, citing the need to "formulate the final standards based on careful consideration of all relevant data and upon full consideration of comments." Environmental groups opposed the EPA's request for extension, and the court ordered the agency to release the regulations by Feb. 21, 2011.

On May 18, 2011, the EPA published a notice of postponement in the *Federal Register* stating the need to delay implementation of the rule. The agency cited several issues it intended to reconsider, new data that it was unable to incorporate, and insufficient opportunity for the public to comment on certain revisions. Unfortunately, a federal court ruled that it was unlawful for the EPA to delay the implementation date while the agency undertakes

a process of reconsideration of the final rule. The court decision means that new boilers must immediately comply with the rule when they come on-line. Existing boilers would have until March 2014 to comply with the rule. The EPA intends to announce its reconsidered proposed rules in April 2012, and intends to issue final rules by the fall. After the decision by the court, the EPA has committed not to enforce those standards for the time being. EPA Administrator Lisa Jackson noted that the Agency has proposed a revised suite of boiler standards that it expects to finalize in April 2012. Until those standards are complete, Jackson stated that the EPA would not enforce notification obligations that might otherwise apply to existing sources under the 2011 standards reinstated by the D.C. court.

"The cost, according to the United Steelworkers Union, 'will be sufficient to imperil the operating status of many industrial plants.'"

Unfortunately, there is little consolation for numerous industries relying on the affected fossil fuel—fired and biomass-fired boilers. The rule and the uncertainty surrounding its implementation would impose difficult-to-meet emissions standards and monitoring requirements for hazardous air pollutants.

#### Who Is Affected?

The original Boiler MACT rule would have affected almost 200,000 existing boilers and any new boilers constructed after the rule became final. These boilers can be found in factories, farms, schools, apartment buildings, restaurants, hospitals, and churches, and the operators of these facilities would be required to test emissions and to meet strict and complex standards in order to comply. The newest version of the rule now affects the largest 5,500 industrial boilers. Most of these boilers are found at paper mills, chemical manufacturing facilities, and refineries.

In September 2010, 41 U.S. senators signed on to a bipartisan letter to Lisa Jackson expressing deep concern that this rule would create "onerous burdens on U.S. manufacturers."<sup>20</sup> The U.S. Small Business Administration warned that the rules would cause "significant new regulatory costs" for businesses, institutions, and municipalities across the country.<sup>21</sup>

The cost, according to the United Steelworkers Union, "will be sufficient to imperil the operating status of many industrial plants." A study by IHS/Global Insight concluded that this proposal would risk nearly 800,000 jobs, and that "[e]very billion dollars spent on MACT upgrade and compliance costs will put 16,000 jobs at risk and reduce U.S. GDP by as much as \$1.2 billion." The Council of Industrial Boiler Owners estimates that the rule may cost \$14.3 billion and put 230,000 jobs at risk. Even the EPA estimates that the installation and maintenance of controls to implement the rule will cost \$487 million per year.<sup>24</sup>

The costs of the rule will be borne by consumers. Any facility affected by this rule that generates electricity or heat from an industrial boiler will face higher costs.

#### Why Is This Infeasible and Unnecessary?

In setting specific standards for emissions, the EPA chose to estimate "technology-based" standards that would require existing boilers to match the average emissions achieved by the best-performing 12 percent of existing sources. Meanwhile, new boilers would have to match the absolute best-performing source. Each standard is measured against the best-performing source of each individual pollutant, not against total emissions.

"Under the current form of the rule, boiler operators are expected to meet standards that not only may be impossible, but that are also entirely disconnected from any real benefit to health."

For example, a best-performing emitter of mercury may not be a good performer in regard to the other pollutants. The Boiler MACT Rule expects existing and new boilers, however, to perform extremely well or match the best performers in all of these categories, something which no boiler out there may be doing at present.

In choosing standards based on technology, the EPA avoided setting emission levels based on health risks, which is the purported reason for the rule in the first place. The EPA admitted that it lacked information necessary to set health-based standards.<sup>25</sup> Yet in a press release on the Boiler MACT Rule, the EPA claimed that the rule will "avoid between 2,600-6,600 premature deaths, prevent 4,100 heart attacks and avert 42,000 asthma attacks per year in 2014."<sup>26</sup> The EPA only quantified the benefit attributed to reductions in PM<sub>2.5</sub>, which is addressed by another regulation. Not a single health benefit has been estimated for the hazardous air pollutants that this rule was intended to address.

Americans cannot afford costly regulations that aim only to impose difficult, if not impossible, technological standards that are entirely disconnected from any real benefit to health.

Potential Economic Impact of Boiler MACT Rule				
	LOW ESTIMATE	HIGH ESTIMATE		
Employment	-152,552	-798,250		
Labor Income	-\$6.9 billion	-\$38 billion		
Industry Sales	-\$30.4 billion	-\$172.5 billion		
Tax Revenues	-\$2.6 billion	-\$14.3 billion		
Gross Domestic Product	-\$11.4 billion	-\$63.3 billion		

#### **Cross-State Air Pollution Rule**

The Cross-State Air Pollution Rule, approved in July 2011, aims to reduce power plant emissions that cross state lines and contribute to ozone and fine particle pollution in the eastern United States. The rule requires reduction of power plant  $SO_2$  emissions by 73 percent from 2005 levels, and  $NO_x$  emissions by 54 percent.

#### **Background**

The original version of the rule was the Bush Administration's Clean Air Interstate Rule (CAIR), which was approved in 2005. The rule was largely supported by the utility industry, states, and the environmental community, but it was overturned in court because the mechanism for unlimited trading of permits was not authorized under the applicable Clean Air Act provision.

On remand, the EPA proposed a new program, the Clean Air Transport Rule (CATR), which is formally called the Cross-State Air Pollution Rule. The rule requires the states to meet more stringent emissions reductions than CAIR, and is largely supported by environmental groups but opposed by utility groups.

Although the rule was only approved in July 2011, the EPA wants the rule to be effective in 2012. Normally, states are responsible for having State Implementation Plans (SIP) to meet requirements, and if the EPA thinks that the plan does not adequately address the requirements, the EPA is required to give the state time to revise the plan (usually measured in years). In order to implement the Cross-State Rule quickly, the EPA is imposing a Federal Implementation Plan (FIP) for each of the states. States may develop their own SIP, but the federal plan will take effect until the state acts to replace it. Expediting the timeline for compliance deprives states of reasonable time to make revisions or implement their own plans. Such action unnecessarily ignores the established legal process under the model of cooperative federalism set forth in the Clean Air Act.

Utilities were planning for standards in 2012 with only six months' notice of the details of the final rule. As a result, the industry only recently discovered specifically what rule the EPA was implementing, much less what the final requirements would be.

"CSAPR is an unnecessary, burdensome regulation that violates states' rights and hinders any chance of an economic recovery."

A last-minute ruling by the U.S. Court of Appeals for the District of Columbia delayed the Jan. 1, 2012, effective date of the CSAPR until the Court can make a final decision on the regulation, which is expected to be heard by April 2012.

As it stands, the industry will have to comply sometime soon, making it virtually impossible for them to fashion coherent plans for making the long-term, capital-intensive investments necessary to ensure that power supplies remain reliable.

#### Who Is Affected?

The Cross-State Air Pollution Rule will apply to virtually the entire fleet of fossil fuel power plants east of the Mississippi River, and some on the western side. The North American Reliability Corporation's report figures that even the most modest version of the rule could threaten 7 gigawatts (GW) with retirement. To put this in perspective, 7 GW provides power to a little less than 7 million American households. A report by the Brattle Group found that the number could go as high as 55 GW if the most expensive pollution control equipment — "scrubbers" to remove sulfur dioxide and selective catalytic reduction equipment (SCRs) to remove nitrogen oxides — are required for power plants.

The cost of investing in scrubbers and SCR units could run up to \$120 billion by 2015. Even the EPA's extremely conservative cost estimate indicates that the rule's price could be \$2.4

billion annually, with the majority being borne by consumers each year.

Households in the affected region will face not only higher electricity bills, but also reduced reliability in the form of brownouts resulting from the restricted power supply. This effect can ripple through the economy, hindering investment and economic development for years to come.

#### Why Is This Unnecessary?

The Cross-State Air Pollution Rule seeks to reduce power plant  $SO_2$  emissions by 73 percent from 2005 levels, and  $NO_x$  emissions by 54 percent. This is an ambitious, dangerous, and unnecessary pursuit that ignores the steady progress made



through technological improvements and existing regulations. Ambient levels and overall emissions of both  $SO_2$  and  $NO_x$  have dramatically declined during the past few decades, and will continue to do so into the future without the imposition of tighter restrictions. From 1980 to 2008,  $SO_2$  ambient levels dropped by 71 percent, and overall emissions dropped by 56 percent nationwide. During the same time period,  $NO_x$  ambient levels dropped by 46 percent and overall emissions dropped by 40 percent. With these levels already at historic lows, it is unclear even from an environmental perspective what is to be gained by forcibly reshaping the electric utility industry in exchange for marginal emissions reductions.

The Cross-State Air Pollution Rule could threaten 7 gigawatts of electricity generation capacity with early retirement, which is roughly enough to power 7 million American households.

To justify CSAPR, the EPA took emissions data from 2003–2007 to determine which states were affecting downwind air quality. The Agency then applied computer modeling to predict which states would likely be targets for the two phases of EPA regulation that go into effect in 2012 and 2014. Targets for regulation would be states that contribute more than 1 percent of the level of nonattainment of ozone and PM<sub>2.5</sub> in neighboring states. Recently, the EPA released more timely emissions data from 2007–2010 that reflect the recent reductions in emissions since the base years. The data show that emissions levels have dropped, accomplishing regulatory outcomes in areas that will be forced to comply with the CSAPR. This data was available to the EPA during the time the CSAPR was proposed but it was not used. By using outdated data, the EPA inflated the nonattainment areas by 1,200 percent and maintenance areas by 277 percent,

yet the Agency still plans to move forward with the CSAPR. Virtually all of the communities that the EPA found to be out of compliance are now in compliance, and the rest are expected to be in compliance by 2014 with existing regulations in place.



## Regulation of Coal Combustion Residues (CCRs)

The EPA is considering classifying coal combustion residues, more commonly known as coal ash, as a hazardous waste. CCRs are byproducts of the combustion of coal at power plants, and are disposed of in liquid form at large surface impoundments, in solid form at landfills, or in many cases beneficially recycled .This classification would place strict and expensive regulations on coal ash, burdening both coal power plant owners and the \$2-billion-per-year coal ash recycling trade that uses the byproduct for a variety of purposes.

#### **Background**

In 2008, a dam at a coal ash storage impoundment operated by the Tennessee Valley Authority failed, resulting in a significant spill. Although the problem was the integrity of the dam, and although only some coal ash is stored in impoundments (some of it is stored in landfills and coal mines, and much is beneficially reused), the EPA is using this incident to justify its regulation of coal ash. The Agency is considering this hazardous waste designation action, despite having issued final regulatory determinations in 1993 and 2000 concluding that CCRs do not represent hazardous waste.

Under one of the two regulatory proposals that the EPA is considering, CCRs would be regulated under Subtitle C of the Resource Conservation and Recovery Act (RCRA), which is reserved for hazardous waste. The EPA is prohibited from declaring CCRs to be hazardous until it "conduct[s] a detailed and comprehensive study and submit[s] a report" to Congress on the "adverse effects on human health and the environment, if any, of the disposal and utilization" of CCRs.<sup>27</sup>

"Classifying CCRs as hazardous waste will have significant consequences for electricity generation and the robust recycling industry in the United States. This translates into higher electricity rates and fewer jobs in an already struggling economy."

Chairman Fred Upton of the Energy and Commerce Committee has rightfully raised questions about whether the Agency has the authority to unilaterally reverse course on this issue, arguing that "to do so...would render meaningless the statutorily prescribed procedures Congress specifically required EPA to follow in determining whether CCRs warrant regulation under RCRA Subtitle C."<sup>28</sup>

The EPA issued its proposed rule on June 21, 2010, and held a series of public hearings in the latter half of the year. More than 400,000 comments were generated on the rule. On Nov.

"250 to 350 coal units could be shut down as a result of coal ash regulation, which will further drive up the cost of electricity and hinder economic recovery."

14, 2011, the EPA concluded another public comment period regarding a Notice of Data Availability issued on data that is relevant to the rule, including chemical constituent data from CCRs, current state regulatory programs, and the beneficial uses of coal ash.<sup>29</sup> The EPA has yet to act on this rule, but has signaled its intention to regulate coal ash in some manner. This has created regulatory uncertainty in the industry, because not only the content of the regulation is unknown but also the timeline.

Last fall, the U.S. House of Representatives approved H.R. 2273, the Coal Residuals Reuse and Management Act, with broad bipartisan support. The legislation provides an alternative to the EPA's proposal to regulate coal ash under RCRA, setting up a state-based, federally enforceable program to ensure that coal ash is safely managed and disposed of. In October 2011, Sen. John Hoeven introduced the Senate version of The Coal Residuals Reuse and Management Act (S. 1751), yet the bill will most likely go nowhere because of internal politics in the Senate and a possible veto from the presidential administration.

#### Who Is Affected?

Classifying CCRs as hazardous waste will have significant consequences for electricity generation and the robust recycling industry in the United States. This translates into higher electricity rates and fewer jobs in an already struggling economy.

Reclassification will risk stigmatizing the numerous beneficial uses of CCRs. From Portland cement and wallboard products to kitchen cabinets and bowling balls, roughly 44 percent (more than 60 million tons per year) of CCRs are beneficially recycled, which contributes to more than \$2 billion in economic activity.<sup>30</sup>

In addition to threatening the \$2-billion-per-year CCR recycling trade, regulating any aspect of coal ash as hazardous waste could create enormous compliance costs and force power plant retirements. A 2010 report by the Congressional Western Caucus states: the rule "would have the effect of treating coal ash like nuclear waste and make it nearly impossible to operate a power plant with coal due to the costly requirements that would go along with such a designation."<sup>31</sup>

Subtitle C compliance costs for electric utilities would be in the conservative range of at least \$55 billion to \$77 billion.<sup>32</sup> The EPA itself estimates the average regulatory cost, for the next 50 years, to be almost \$1.5 billion per year. Other estimates have found that the price tag could run up to \$20 billion annually.<sup>33</sup> Bryan Hannegan, vice president of the environmental sector for the Electric Power Research Institute, sees a risk that "250 to 350 coal units could be shut down, in an extreme scenario, and drive up the cost of electricity."<sup>34</sup>

"Compliance costs for utilities would be in the conservative range of \$55 billion to \$77 billion. This will be directly passed down to Americans in the form of higher electricity rates."

#### Why Is This Unnecessary?

In its own studies over the years, the EPA found that it was inappropriate to designate coal ash as a hazardous waste.<sup>35</sup> By doing so now, and without the science or cost-benefit analyses to back up the change, the EPA is taking action that

will cost billions of dollars and potentially reduce electricity reliability for no justifiable reason. If, as is stated in numerous government and private studies, coal ash does not have high levels of toxicity, then this rule will be all cost and no benefit. As recently as May 2010, EPA Administrator Lisa Jackson expressed concern that classifying coal ash as a hazardous material would discourage companies from recycling it for economically beneficial uses. <sup>36</sup> In fact, the EPA's headquarters building was built with a concrete mix that includes coal ash. <sup>37</sup> If the rule is enacted as proposed, the status that coal ash now has as an economically useful byproduct will be destroyed.

Groups including the U.S. Department of Energy, the Federal Highway Administration, the Department of Agriculture, the Electric Power Research Institute, a variety of state agencies, and the EPA itself have studied CCRs over the last several decades, and all have found that the toxicity levels in CCRs are far below criteria that would require a hazardous designation.

In addition, the EPA stated in a 2005 study that "the regulatory infrastructure is generally in place at the state level to ensure adequate management of these wastes" and recommended that states should continue to be the principal regulatory authority for regulating CCRs, because they are best suited to develop and implement CCR regulatory programs tailored to specific climate and geological conditions designed to protect human health and the environment.

#### **Cooling Water Intake Regulation**

The EPA is considering a broad regulation that could force a significant number of existing fossil fuel (and nuclear) power plants to replace their once-through cooling systems with cooling towers, in an attempt to protect fish populations under certain situations. This is an extremely costly proposition that would reduce efficiency, and possibly force some plants to close, for marginal benefit at best.

#### **Background**

On April 20, 2011, the EPA published a proposed rule under section 316(b) of the Clean Water Act that will require changes in "cooling water intake structures." The Clean Water Act's Section 316(b) requires that these cooling water intake structures minimize environmental effects by using the "best technology available." Most power plants heat water into steam to turn a turbine and generate electricity, and many use cooling water from a water body to condense the steam back to water and repeat the process. This system is used to cool the vast majority of America's coal, gas, and nuclear electricitygenerating plants, as well as a wide range of manufacturing and industrial facilities. There are two major types of cooling water systems: once-through cooling, which withdraws water used to cool a condenser then returns it; and closed-cycle cooling, usually in cooling towers, which circulates water to cool through evaporation. These cooling water systems are vital to the operation of those facilities.

"The EPA's proposed rule will have substantial economic, energy, and environmental impacts on electric-generating and -manufacturing facilities nationwide, without providing corresponding benefits."

The proposed rule focuses primarily on two potential cooling water intake effects:

- Impingement, which is the trapping of organisms against screens.
- Entrainment, which is the passing of organisms, such as small fish, eggs, and larvae, through the cooling system.

The EPA has indicated that it could require once-through cooling systems to shift to closed-cycle cooling towers, which would be an extremely costly and unnecessary retrofit. For impingement,

the EPA proposes stringent fish mortality and water intake velocity standards, without regard to site-specific factors that may make the standards unachievable. The EPA requires that the standards be met at all times, despite natural variability that would make compliance technically impossible at many sites.

For entrainment, the EPA proposes that state environmental agencies set site-specific standards by evaluating technology options, including closed-cycle cooling (cooling towers), and requiring the "maximum reductions warranted" after consideration of site-specific factors, including costs and benefits. Although technologies that reduce entrainment often reduce impingement as well, the proposed rule does not provide for impingement and entrainment issues to be considered together in a comprehensive and site-specific fashion. Moreover, under the proposal's narrow definition of closed-cycle cooling, even facilities that already have closed-cycle cooling will face new impingement control requirements. Many existing recirculating systems that were designed to rely on cooling ponds, channels, or basins will face extensive new impingement and entrainment requirements, as well. As a result, the EPA's proposed rule will have substantial economic, energy, and environmental impacts on electric-generating and -manufacturing facilities nationwide, without providing corresponding benefits.

In 2004, national standards for impingement and entrainment were established, and consideration of cooling towers as the "best technology available" was rejected because of their excessive costs. In 2007, the court remanded the rule, in part denying cost-benefit analysis, and implied that cooling towers should be deemed the "best technology available." Two years later, the U.S. Supreme Court decided that the EPA has discretion to use cost-benefit analysis in its regulatory rulemaking.

The EPA is scheduled to take final action on this rule in July 2012.

**APRIL 2012** 

#### Who Is Affected?

According to the North American Electric Reliability Corporation (NERC), this rule could impact existing plants with once-through cooling systems, including as many as 1,201 coal, oil steam, and gas steam generating units (totaling 252 gigawatts), as well as roughly one third of all installed nuclear capacity (approximately 60 gigawatts).<sup>38</sup>

The Electric Power Research Institute (EPRI) has found that the total initial capital costs would be around \$64 billion nationally, and affect nearly 30 percent of U.S. electricity generating capacity.<sup>39</sup> According to a report by New Jersey utility PSEG, "[a] requirement to install cooling towers will force power plants into a retrofit-or-retire decision."<sup>40</sup>

The NERC study found that, as a result of these decisions, this rule alone could threaten up to 41 GW and, in turn, electric reliability throughout the country. For each plant, costs could run several hundred million dollars (and, for nuclear plants, as high as \$1 billion).<sup>41</sup> The enormous capital expenditures, combined with reliability issues, could result in substantial rate increases for consumers.



"The EPA's cooling water intake regulation could result in power plant retirements and reduced electricity supply, and will very likely lead to higher costs for Americans at a time when they can least afford them."

#### Why Is This Unnecessary?

Beyond economic costs associated with the rulemaking, there are several other reasons for pause on any broad cooling water intake structure regulation. From barrier nets to fish return systems, there are a variety of alternatives to cooling towers for reducing any adverse aquatic effects. Several studies have indicated that the overall impact for fish populations as a result of once-through cooling systems is minimal. Furthermore, cooling towers could decrease efficiency, increase emissions of particulate matter and greenhouse gases, and expand water use.<sup>42</sup>

While EPA Administrator Jackson stated in a letter to Chairman Upton that she does not favor a "one-size-fits-all federal mandate," close attention must be paid to whether the regulations with which the EPA proceeds provide the necessary flexibility. Moreover, the necessity for federal intervention in this area, as opposed to action by the states, is questionable. As noted by the Nuclear Energy Institute , a recent Supreme Court decision granted the EPA broad flexibility to "allow for the states to protect both the aquatic environment and the reliability of the electrical grid through appropriate site-specific and cost-benefit analyses."<sup>43</sup>

The states themselves have a longstanding practice of managing the resources within their state, and of considering both costs and benefits in establishing the "best technology available" as part of their permitting duties. Many states have examined the issue, and have considered further regulation of cooling water intake structures to be a low priority.

#### **Hydraulic Fracturing Regulation**

Hydraulic fracturing, also known as "fracking," involves using water pressure to break up shale formations and stimulate the flow of natural gas or oil. Advancements in "fracking" technology and the increasing use of the practice to recover previously inaccessible domestic energy resources has spurred rapid economic development in places such as Texas, North Dakota, and western Pennsylvania. This development has also led the EPA to examine the process and potentially regulate "fracking" despite already-existing regulations at the local, state, and federal levels.

#### **Background**

Although vast deposits of energy resources, such as oil and natural gas in shale formations, have been known for some time, they were previously inaccessible. The process of hydraulic fracturing and horizontal drilling is now enabling the extraction of these resources in an economical way, and it has revolutionized the country's energy outlook. As with any booming energy industry, environmental activists have latched on and begun spreading misinformation regarding the environmental impacts of "fracking."

The release of the documentary Gasland created a stir about the potential for water contamination that has created a dialogue based on fear and skepticism of the process. Environmentalists claim that "fracking" threatens air quality and water supplies, and that there is no existing regulatory body to ensure that damages do not occur. Both charges are false. Energy production through "fracking" is already subject to federal, state, and local regulations that address every aspect of "fracking" operations. The Clean Water Act regulates surface-water discharges and storm-water runoff. The Clean Air Act regulates air emissions from sources associated with drilling and production. The National Environmental Policy Act requires permits and environmental impact assessments for

any drilling done on federal lands. The Occupational Safety and Health Act sets standards for the safety of workers.

Moreover, because of the recent resource production boom, the states themselves have assessed their own regulatory needs and have begun introducing a number of measures to ensure that resources are developed in a responsible manner that balances environmental concerns with economic development. State-level action is much more appropriate for hydraulic fracturing, because drilling practices are customized based on the unique geological characteristics in different localities, states, and regions. The geology of energy formations in shale can vary greatly from region to region, and even from well to well in the same area. In order to provide transparency to the process, a number of states have begun requiring drilling companies to disclose the contents of "fracking" fluid used in each well. "Fracking" fluids are typically composed of 98 to 99 percent water, with sand as the next major ingredient and small amounts of chemicals added to protect the wellbore and improve production. Although many of the ingredients are natural and common, some "fracking" fluids utilize trace amounts of chemicals that would be harmful to people if ingested in large quantities. However, these chemicals are only present in trace amounts, and scientific studies have yet to demonstrate a causal link between "fracking" and water contamination.

Texas became the first state to enact a "fracking" fluid disclosure bill in 2011. Pennsylvania has followed this year in a broadly supported, bipartisan comprehensive reform, and four other states—Illinois, Indiana, New York, and Ohio—have introduced versions of the bill for consideration this year. In some states, including Wyoming, the issue has been addressed through existing regulatory programs, and in nearly all of the states with significant hydraulic fracturing, the state itself is working to make the regulatory tweaks to bolster the industry while safeguarding the environment.

Nevertheless, the EPA and the Bureau of Land Management are pressing forward in developing federal hydraulic fracturing regulations, and although the specific content of the regulations are not yet released, reports have indicated that the scheme will include numerous overlapping regulations and a requirement for hydraulic fracturing fluid disclosure. In the last State of the Union address, President Obama also mentioned this intent by stating, "... I'm requiring all companies that drill for gas on public lands to disclose the chemicals they use."

Also, the White House Office of Management and Budget has begun its review of updated New Source Performance Standards applicable to new and modified hydraulically fractured gas wells, natural gas processing facilities, and other facilities in the oil and gas sector. The rule was originally proposed in August 2011, and the standards are scheduled to be published by mid-April 2012.

#### Who Does This Affect?

Duplicative and unnecessary federal regulations over resource development have proven to be a strong deterrent to development. Hydraulic fracturing has already proven to be a significant job creator, yet pending burdensome federal regulations will potentially hinder the advancement of this industry.

An American Petroleum Institute report, released in February 2012, says EPA's forthcoming New Source Performance Standards for oil and gas production could slow hydraulic fracturing by as much as 52 percent, lower natural gas production by as much as 11 percent, and lower oil production by as much as 37 percent. The report also says that federal and state tax revenues related to drilling would be reduced by more than \$10 billion.<sup>44</sup>

Other than New Source Performance Standards regarding "fracking" emissions, there are no firm details on EPA regulation of hydraulic fracturing, so it is hard to determine the effect on economic development and job creation in the states. But

there has been research on how much the oil and natural gas industry has contributed to the U.S. economy.

A recent report from the World Economic Forum asserts that oil and natural gas production accounted for 9 percent of new U.S. jobs in 2011, nearly one of every 10 new U.S. jobs created last year. This report found that, in 2011, 37,000 new jobs were created from oil and gas resources, which, in turn, drove the creation of another 111,000 jobs related to industries that supply the oil and natural gas industry with goods and services. In places such as North Dakota, oil and gas production has jump-started rapid economic development across all sectors to support population increases resulting from large numbers of new high-paying jobs.



Surprising for a technology that barely existed a decade ago, "unconventional" oil and natural gas production employs more than 1.3 million Americans. The shale gas industry alone employs 600,000 people in the United States. An additional 400,000 are employed in the production of tight gas and coal seam gas, and another 350,000 in unconventional oil extraction.<sup>45</sup>

Furthermore, increased access to energy reserves has led to a sharp decline in natural gas prices. This has benefited household budgets immensely, because many Americans heat their homes with gas, and many electric utilities rely on gas to generate electricity for their customers.

Additional layers of regulations coming from the EPA, on top of the existing regulatory framework at the federal and state levels, will certainly add costs to the industry that will be passed down to all Americans who use oil and gas in their daily lives. In addition, it may hinder additional investment and development in areas where shale resources lie.

#### Why Is This Unnecessary?

Ultimately, the states themselves are best poised to ensure environmental protection from hydraulic fracturing processes, yet it is important to debunk some of the more egregious claims from environmental groups and anti-"fracking" proponents.

Groundwater contamination is continuously debated as a central issue related to hydraulic fracturing, but it is important to note that several layers of impermeable rock separate the oil and gas from aquifers and groundwater. "Fracking" is done deep enough below the earth's surface—generally 5,000–20,000 feet down—that the process itself cannot compromise the purity of water supplies. The Groundwater Protection Council, a nonprofit organization whose members consist of state groundwater regulatory agencies, conducted a report in 2008 and found that the layers of impermeable rock over shale act as a barrier so that the water and chemicals used in "fracking" could not affect

groundwater aquifers.<sup>46</sup> In 2010, the Pennsylvania Department of Environmental Protection completed a report and found similar conclusions, noting that "no groundwater pollution or disruption of underground sources of drinking water have been attributed to hydraulic fracturing of deep gas formations."<sup>47</sup> In February 2012, a new study was released at the American Association for the Advancement of Science's annual meeting finding "no direct evidence that fracking itself has contaminated groundwater." The study, released by the University of Texas at Austin, found no need for new regulations specific to "fracking," but for better enforcement of existing regulations of drilling in general.

Although "fracking" used to extract oil and natural gas from deep shale reserves is relatively new, the process of hydraulic fracturing has been used for decades, and there has never been any direct evidence that it has contaminated ground water. The University of Texas study concluded, as others have found as well, that any contamination is attributable to minor flaws in well construction, and that risk can be minimized through proper enforcement of existing regulatory frameworks within the states.<sup>48</sup>

Regarding air quality, federal, state, and local governments have thoroughly tested hydraulic fracturing sites for air pollution. Test results consistently show that the "fracking" process does not pose significant air pollution or health risks, and that air quality in the immediate vicinity of "fracking" sites meets applicable air quality standards. One example is a study completed for the city of Fort Worth, Texas, examining air quality around natural gas sites. The study "did not reveal any significant health threats."<sup>49</sup> The Fort Worth Star-Telegram characterized that report as "the most comprehensive study of urban gas drilling to date."<sup>50</sup>

Lastly, one of the issues brought up by "fracking" opponents is the possibility that the process causes earthquakes. In regions near hydraulic fracturing sites, there has been a higher frequency of minor earthquakes, but no connection has yet been verified between "fracking" and earthquakes. Researchers have reported that any connection would not be related to "fracking" itself, but would instead be related to the practice of re-injecting used "fracking" fluid underground near a well site.<sup>51</sup> If any connection between recent minor earthquakes and "fracking" is found through further research, it can be readily addressed at the state level through restricting or limiting the process of re-injecting used fluids underground.

Hydraulic fracturing is already transforming job markets in areas of the country that are in dire need, and it is critical that the EPA reserve regulation of hydraulic fracturing for the states. This will accomplish the same regulatory goals in a less burdensome way, while allowing for states to address any environmental concerns that are unique to them.

## Ozone Regulation under the National Ambient Air Quality Standards (NAAQS)

The Clean Air Act requires the EPA to set National Ambient Air Quality Standards for carbon monoxide, lead, nitrogen dioxide, ozone, sulfur dioxide, and particulate matter. During the next few years, each one of these standards will be reviewed, and it is anticipated that each one will be tightened. Ozone regulation will be highlighted in this report, because it is one of the more damaging standards likely to be implemented in the next year.

#### **Background**

The NAAQS are truly the backbone of the Clean Air Act, and they drive the stringency of federal controls on pollutants. The EPA is required to revisit the stringency of the standards every five years, but is not required to tighten NAAQS for any of the covered air pollutants. In 1997, the EPA set an ozone standard of 84 parts per billion (ppb). In March 2008, the Agency promulgated a final rule lowering the standard to 75 ppb, which was at odds with the recommendations of its clean air science advisory committee. Implementation of the 2008 standard was suspended in 2009 pending further study. A full

revisit of the standard wasn't to occur until 2013.

Despite the mandatory requirement to revisit the standard in 2013, the Obama Administration decided it would make the standard more stringent even before the 2008 standard had been fully implemented. Under direction from the Administration, the EPA was poised to tighten ozone standards in January 2011, but the decision was delayed to July 2011 pending review from the Office of Management and Budget. Under the new proposal, the EPA proposed to reduce the acceptable primary ozone level to as low as 60 ppb parts. The revision of the standard represents a unilateral attempt by the Administration to change the standard adopted by the previous Administration without doing any further studies or analysis. The public would be far better served if the EPA allowed the current standard to be fully implemented, then reviewed additional science as a part of the regular NAAQS review cycle to determine whether a tightening of the standard is justified.

Just before the new standard was to be proposed, the Administration stepped in as numerous reports were pouring in about the incredible cost of the regulation. In September 2011, President Obama demanded that the EPA withdraw its final rule to tighten the ozone standard until 2013, just after the presidential election.

"Non-attainment can mean loss of industry and economic development, including plant closures; loss of federal highway and transit funding; increased EPA regulation and control over permitting decisions; increased costs for industrial facilities to implement more stringent controls; and increased fuel and energy costs." — Sen. James Inhofe and Rep. Fred Upton

Obama noted that the next mandatory review of the ozone standard is due in 2013, and issuing a new standard now would have created regulatory uncertainty, stating, "Ultimately, I did not support asking state and local governments to begin implementing a new standard that will soon be reconsidered." Unfortunately, regulated entities are quite uncertain about what will happen in 2013.

Following the withdrawal of the final ozone rule, lawsuits began on both sides. Industry has challenged the 2008 NAAQS of 75 ppb as too stringent, while environmental groups have filed suit challenging the standard as too weak.

#### Who Is Affected?

According to an analysis by the Business Roundtable, 66 out of 736 monitored counties nationwide do not meet the ozone standard of 75 ppb. If the EPA lowers it to 60 ppb, the estimated number of non-attainment counties would skyrocket to 628 out of 736.<sup>52</sup> This means that approximately 85 percent of the nation would be in non-attainment. The Congressional Research Service (CRS) found similar results. CRS noted that the number of counties in non-attainment would jump from 85 to 650. The EPA's own analysis is even worse, with a prediction that up to 96 percent of counties would be in non-attainment at the stringent 60 ppb threshold.

As a result of these non-attainment designations, the labor group Unions for Jobs and the Environment foresees "significant job losses across the country during a period of high unemployment."

The EPA has estimated the costs of moving to a 60 ppb standard to be in the range of \$52–90 billion annually. Analysis by Manufacturers Alliance/MAPI estimates that the annual cost of attaining a standard of 60 ppb would be \$1.013 trillion between 2020 and 2030. That is approximately 5.4 percent of the nation's projected gross domestic product in 2020. By 2020, the analysis reveals, job losses could reach 7.3 million, which represents an estimated 4.3 percent of the total work force in the country.<sup>53</sup>

#### Why Is It Unnecessary?

Many toxicologists and physicians challenge the EPA's scientific justification for an ozone standard lower than 85 ppb. Even the former chairman of the EPA's Scientific Advisory Committee, Dr. Roger McClellan, in referring to the proposal of the Bush Administration to lower the previous ozone standard to a range of 70 ppb to 75 ppb, called the revision "a policy judgment based on a flawed and inaccurate presentation of the science," and recommended that a range up to 80 ppb be considered.<sup>54</sup>

The proposed 60 ppb standard is so strict that even areas of Yellowstone National Park may be naturally noncompliant. To the extent that some areas will be affected by ozone emitted elsewhere (even outside the United States), it may prove literally impossible to comply with the new standard.

The EPA estimated the annual benefits of moving to a 60 ppb standard to be in the range of \$30–87 billion. Although the benefit analysis itself is questionable, the cost-benefit analysis of the more stringent standard still does not pencil out. Only between 27–35 percent of the EPA's claimed health benefits are attributable to reductions in ozone. On the other hand, 65–73 percent of the benefits are attributed to coincidental reductions in fine particulate matter, which is addressed by another regulation entirely. Using the EPA's own cost and benefit estimates, the 60 ppb standard could cost up to \$90 billion per year for a direct benefit of \$53–63 billion per year.

#### **Restrictions on Mining Permits**

The EPA is not only at war with coal-fired generation of electricity, but also with the mining of coal. Mountaintop mining is authorized by the 1977 Surface Mining Control and Reclamation Act (SMCRA), and it is essential for the Appalachian coal industry. The process involves removing the tops of mountains to get at the underlying coal, and it is being attacked by the current Administration in a number of ways. The EPA is halting already-

approved permits, holding back and unnecessarily delaying permits, and even revoking previously issued permits.

#### **Background**

Impacts from mountaintop mining have long been regulated under the Clean Water Act by the EPA, the states, and the Army Corps of Engineers. In order to regulate even further, the EPA came up with a new basis for regulation beyond the accepted standards and existing regulatory framework, claiming that the states' interpretation of "water quality" insufficiently accounts for the threatened species of the mayfly. A single inside draft study from 2008, which found a tenuous connection between water near mines and reduced mayfly populations, led the EPA to believe mining is unacceptable under the Clean Water Act. In April 2010, the EPA subverted the normal rulemaking processes and issued new water quality standards. Although the EPA claims that the standards were officially "non-binding," the Agency informed states that they needed to follow the new standards when it issues Clean Water Act permits. The EPA's new definition of water quality is so stringent that EPA Administrator Lisa Jackson conceded it would outlaw future mountaintop mining altogether.

To make matters worse, the EPA announced in January 2011 that, for the first time in history, it was retroactively revoking an existing water permit. The EPA does not have the statutory authority to do this under the Clean Water Act, and, with this action, it has jeopardized all similarly issued permits. The EPA's veto of the Spruce Mine No.1 in West Virginia sent shockwaves throughout the industry, leaving significant uncertainty regarding whether other permits could be revoked, stranding investments and costing jobs. Now that the EPA has demonstrated that it will veto issued permits, states are obligated to adhere to a regulatory process under which they must follow the EPA's new standards or risk a veto. Rep. Nick Rahall (D-West Virginia) describes this process as "do or dare permits."

In all, the EPA has halted more than 150 permits already approved

by state and federal officials. This number does not include the more than 200 backlogged permits that the EPA is sitting on and not subjecting to review. <sup>56</sup> Through stopping the issuance of mining permits, the EPA has violated the Administrative Procedures Act, the Clean Water Act, the National Environmental Policy Act, and the Surface Mining Control and Reclamation Act. The EPA has disregarded requirements under these laws for public comment and formal rulemaking procedures, as well as extending its jurisdictional reach over state and local authorities.

This isn't all. The Obama Administration is poised to reinterpret SMCRA in a move to essentially ban mountaintop mining. SMCRA contains a "100 foot buffer rule" that prohibits mining activity within 100 feet of intermittent or perennial streams, unless the mine operator installs the best technology available to mitigate impacts. When mining for coal, the loose dirt and rock has more volume then when it was compacted. Much of this is used to reconstruct the approximate original shape of the mined terrain; however, extra dirt and rock is often placed in the valley at the base of the mine. This is known as a valley fill, and it is an essential part of the mining industry in Appalachia.

In the 1990s, lawsuits originating from environmental groups alleged that valley fills, a byproduct of mining, violate the buffer rule. The Court clearly ruled that SMCRA assumed that valley fills would be used in the mining process, and it makes no sense that SMCRA would envision valley fills as part of the process yet also serve as the basis to ban them.<sup>57</sup> Every Administration since the passage of SMCRA has interpreted the 100 foot buffer rule as not conflicting with the construction of valley fills, as long as the best technology available is used. In fact, the Bush Administration undertook a formal rulemaking to clarify the use of valley fills with the 100 feet buffer rule, to end the uncertainty once and for all.<sup>58</sup> After President Obama took office, the Department of Interior attempted to reverse the Bush rule clarification, but a federal court intervened because the Department had bypassed the formal rulemaking process. In April 2010, a notice of proposed rulemaking was issued stating an

intent to reconsider the interpretation of the 100 feet buffer rule.<sup>29</sup> Only time will tell whether the Administration decides to change the interpretation or threaten coal mining across Appalachia.

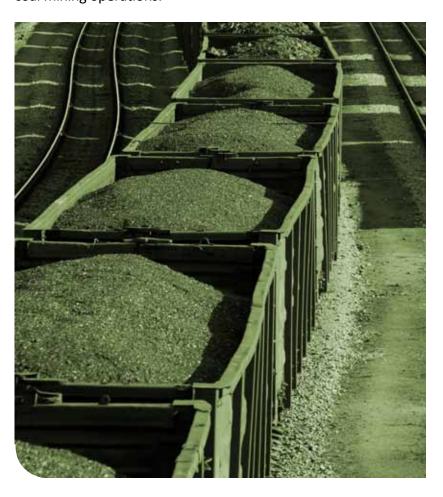
Recently, WildEarth Guardians, the Sierra Club, and other environmental groups, filed a lawsuit requesting that the U.S. District Court for the District of Columbia require the EPA to respond to a petition filed in 2010, which argues that the Clean Air Act should cover coal mines as pollution sources. The EPA has acknowledged that it received the petition to add a coal mine stationary source category under the New Source Performance Standards, but has yet to respond. Regulation of coal mines under the CAA would add yet another burdensome layer of regulation, and the threat of regulatory change is already causing uncertainty in the market.

#### Who Is Affected?

Attempts to change or alter already-existing and accepted standards are causing significant uncertainty in mining operations across the country. This means less investment, less economic development, and, ultimately, fewer jobs and less tax revenue for the states. The revocation of the Spruce No. 1 Mine resulted in the loss of 250 jobs that paid on average \$62,000 a year, but this is just one mine. Gov. Steve Beshear of Kentucky called the rejection of 11 permits that were approved by the Kentucky Division of Water as "arbitrary and unreasonable," citing that it risked up to 18,000 mining jobs. The EPA's actions threaten thousands of jobs, with each coal mining job generating an estimated 3.5 jobs elsewhere in the economy.

There is no way to know the full impact of regulatory uncertainty, just as there is no way to calculate how many mines would have been developed. Even so, the National Mining Association (NMA) has quantified how the mining industry as a whole will be affected by the closure of coal power plants across the country. The NMA estimates that up to **27,000 jobs could be lost, and the industry itself could take an almost \$15 billion hit.**<sup>63</sup>

According to the Department of Interior, the rewrite of the stream buffer zone would eliminate 7,000 coal mining jobs, and coal mining would decline or stay flat in more than 20 states. Production would decrease or stay flat in 22 states, but climb by 15 percent in North Dakota, Wyoming, and Montana. The NMA claims that even this large impact is deflated, stating that the rewrite "will destroy tens of thousands of coal-related jobs across the country from Appalachia to Alaska and Illinois to Texas with no demonstrated benefit to the environment," and that the Department's "own analysis provides a very conservative estimate of jobs that will be eliminated, incomes that will be lost and state revenues that will be foregone at both surface and underground coal mining operations."



A study by ENVIRON International Corporation completed in March 2012 revealed that the proposed rewrite of the stream buffer zone **puts up to 273,000 coal-mining related jobs at risk,** puts up to 79,000 direct mining jobs at risk, and leads to losses of \$5 billion in annual federal and state tax revenues.<sup>65</sup>

Needless to say, this will impact the thousands of families and communities supported by mining, and the millions of Americans who will see increases in electricity rates resulting from a reduced coal supply and the consequent higher prices of coal.

#### Why Is This Unnecessary?

The EPA claims that the coal mines would impact water quality, pointing to the results of its 2008 study finding that certain mayflies — a type of insect that is sensitive to any change in the environment — are absent from water near mines. Yet the same EPA study cited another report finding that "total abundance of all organisms was not substantially reduced in streams below valley fills."

During the past 30 years, there have been a handful of reports and environmental impact statements on the practice of mountaintop mining. The most comprehensive was an environmental impact statement co-sponsored by the Environmental Protection Agency, the Fish & Wildlife Service, the Office of Surface Mining, the U.S. Army Corps of Engineers, and the state of West Virginia.

This 5,000-page report includes 30 studies of all different aspects of mountaintop mining. According to the report, surface mining has disturbed only about 3 percent of the land in the study area during the past 10 years. This area, which includes parts of Virginia, West Virginia, Kentucky, and Tennessee, accounts for about 25 percent of the nation's coal mining. During the 10-year period studied, mountaintop mining was viewed as impacting only 2 percent of the streams in the study area, which does not take into account the numerous measures used to avoid, minimize, or mitigate impacts under the Clean Water Act.<sup>66</sup>

In addition, there are numerous state agencies that thoroughly assess the environmental impact of mining within their state's borders. No mining activity can even take place without a permit, and the permitting process is rigorous. It requires mining companies to submit different types of environmental studies, engineering reports, and land restoration and reclamation plans.

Changing, altering, or drastically increasing the stringency of the already well-accepted standards on mining is burdensome and will not lead to any appreciable environmental benefit.

## Regulation of Greenhouse Gas Emissions (GHGs)

The EPA is moving full steam ahead on regulating greenhouse gases under the Clean Air Act. The principal human-emitted GHGs include carbon dioxide, methane, nitrous oxide, and fluorinated gases. The EPA blames these gases for an increase in global temperature during the past 100 years that they allege will lead to catastrophic global climate change. The EPA finalized first-ever rules for reducing GHG emissions and increasing fuel efficiency for automobiles and light-duty trucks in May 2010, and it added the final rule for medium- and heavy-duty vehicles in September 2011. Now the EPA has moved to implement a program of regulating GHGs from stationary sources through two different programs.

#### **Background**

The cornerstone of the EPA's regulation of greenhouse gases is the published endangerment finding that emission of GHGs threatens public health and future generations. Although the Clean Air Act does not provide for regulation of GHGs, the Supreme Court held in Massachusetts v. EPA that the agency could pursue such regulations if it found them to endanger the public. President Bush declined to make this finding, but within the first year of President Obama's tenure the EPA published the final endangerment finding for GHGs.

Currently, a broad coalition of groups is challenging the endangerment finding in court on the grounds that the EPA violated the statutory standard that regulations not be "arbitrary and capricious." Arguing that the EPA admittedly relied on suspect science, they charge the agency with weaving together three highly uncertain lines of evidence — temperature records, climate models, and understanding of large-scale physical phenomena to create the false sense that it could be 90 percent certain of anthropogenic global warming. The coalition also argued that the EPA made the endangerment finding outside of the legal context provided by the Clean Air Act, which requires a reasonable approach that considers a real benefit to regulation of a pollutant, not merely negligible decreases in global temperature. In addition, the Pacific Legal Foundation, one of the petitioners in the case, argues that the EPA's finding is invalid because it did not submit its work for independent scrutiny by its Science Advisory Board (SAB), as required by the Clean Air Act. The SAB is a panel of top scientists from universities, research institutions and other highly regarded organizations, empowered by federal law to review any new "criteria document, standard, limitation, or regulation" that the EPA proposes to issue under the Clean Air Act. The EPA is legally required to have the SAB review its work on greenhouse gases, and the Agency broke the law by ignoring this obligation.

"The EPA's claim of authority to regulate greenhouse gases gives it an unprecedented ability to control virtually every facet of American life."

The case is currently pending decision in the D.C. Circuit Court of Appeals, although in oral arguments the justices unfortunately showed little willingness to challenge the EPA on science.

The EPA's first program for regulating GHGs began on January 2, 2010. The Clean Air Act requires states to implement programs

approved by the EPA as a part of issuing pre-construction permits under the Prevention of Significant Deterioration of air quality (PSD) portion of New Source Review, as well as operating permits under Title V. The permits require sources to adopt "best available control technology" to limit emissions of regulated pollutants. The CAA triggers these permitting requirements if a source emits a regulated pollutant at levels above a certain threshold, and they apply only to new and substantially upgraded sources.

However, these requirements are uniquely unsuited for regulation of GHGs, having been designed to regulate pollutants with a local or regional impact, not emissions that circulate globally in the atmosphere.

The CAA's PSD and Title V permitting programs set relatively low emissions thresholds to determine which projects must obtain permits under these programs. Those thresholds are appropriate for traditional types of pollutants because, in general, only large industrial facilities emit traditional pollutants above those levels. But GHGs are different. Under the same threshold set forth by the CAA, more than 6 million buildings and facilities do not comply. The EPA therefore has had to unilaterally raise those thresholds to much higher levels for GHGs (in its "Tailoring Rule") to prevent what the Agency characterizes as the "absurd result" of a multiplicity of smaller buildings and facilities from becoming immediately subject to permitting requirements.

The tailoring rule is currently being challenged in court as a part of the same combined cases involving the endangerment finding. The court in oral arguments showed more skepticism toward the tailoring rule than the other arguments advanced by the EPA, but it remains to be seen what the practical effect would be if the rule were overturned in court.

The initial target of these programs is large industrial, electric generation, and manufacturing facilities; over time,

the EPA plans further rulemaking to expand the universe of regulated facilities. Because the economy runs on fossil fuels, and because carbon dioxide is the inevitable byproduct of combusting fossil fuels, the EPA's claim of authority to regulate GHGs gives it an unprecedented ability to control virtually every facet of American life. The EPA is considering regulation of everything from ships and boats to planes, cars, and trucks, agricultural facilities, mining, and movable equipment of every stripe (from forklifts to lawnmowers), as well as more regulations on manufacturing and industrial facilities, and commercial and industrial buildings.

In its rush to commence regulating greenhouse gas emissions by the beginning of 2011 under these two permit programs, the EPA triggered a regulatory stampede that trampled over states' rights and federal law requirements under the cooperative federalism model of the Clean Air Act. The EPA promulgated no less than 11 GHG regulations in 2010, seven of them in December of that year, and six of them totaling more than 500 pages.

Because in most cases states implement the PSD and Title V programs under plants submitted to the EPA for approval, the Agency needed states to change the laws and regulations under which these programs operate to conform to the Agency's new GHG requirements. With time running out in 2010, the EPA actually threatened states with a construction ban for large industrial and manufacturing sources if they did not make the necessary law and regulatory changes on the EPA's incredibly expedited schedule.

The final months of 2010 witnessed a large majority of states galloping through rulemaking, many of which invoked emergency authority to meet the EPA's schedule, in order to avoid the construction ban. Some states did not make it, and the EPA imposed a federal implementation plan on eight states that did not act quickly enough. Surprisingly, the EPA announced in a press

release that the Agency and the states had "worked closely" to implement the GHG program.

This is simply not the case. Rather than cooperating with states, the EPA rapidly and forcefully imposed a regulatory program for which it is not explicitly authorized under the Clean Air Act. When states were unable to meet the federal requirements, their sovereignty under the Act to implement their own air quality permit programs was revoked.

The second track by which EPA aims to regulate GHGs is through New Source Performance Standards (NSPS), which limit the level of emissions for regulated pollutants by certain sources. The EPA was poised to roll out GHG NSPS for both power plants and refineries by the end of 2011, although persistent delays have plagued both rules. In late December 2010, the EPA announced that it had settled litigation with states and environmental groups, agreeing to propose standards for power plants in July 2011 and petroleum refineries in December 2011. In the settlement, the EPA committed to final rules for both types of facilities by May 26, 2012.

In January 2012, EPA Assistant Administrator for Air and Radiation Gina McCarthy announced that the agency was close to proposing NSPS for new and significantly modified power plants. At the time, she claimed that the regulations would be released before the end of that month, but the Agency missed that deadline as well. Finally on March 27th, the Agency released a carbon dioxide standard for new power plants. The regulation requires that all new fossilfuel fired power plants that exceed 25 megawatts in capacity be able to meet an emission rate standard of 1,000 pounds of carbon dioxide per megawatt hour. The EPA notes that the standards could be met either by natural gas combined cycle generation or coal-fired generation using carbon capture and sequestration (CCS) - the commercially unproven process of capturing and storing carbon dioxide.

The EPA admits that it is not close to finalizing the rules for existing sources which is the next step in the Agency's goal to eliminate coal-fired electricity as the regulations will most likely cause the early retirement of power plants across the country.

As for NSPS for oil refineries, EPA Administrator Lisa Jackson announced in early March 2012 that there are no such rules under development, and it appears that the issue has been punted until after the November elections. Rising gas prices made the refinery rule an obvious tool for President Obama to show that he is willing to slow down the regulatory onslaught. The original settlement set a goal of December 2011 and a deadline of May 2012, so the parties will now begin negotiating a new settlement with a new timeline for eventually implementing the rule.

"Greenhouse gas regulations will increase U.S. energy costs, with increases of 50 percent for gasoline and residential electricity prices, 75 percent for industrial electricity prices and residential natural gas prices, and 600 percent for electric utility coal prices."

#### Who Is Affected?

If the tailoring rule stands through court scrutiny, the EPA plans to regulate both mobile sources and major stationary sources of GHGs. This will mean that anything using or requiring energy to be produced will increase in cost.

The EPA failed to study the overall cost of its GHG regulations, but estimates from a variety of perspectives suggest a substantial price tag.

Dr. Roger Bezdek of the economic research firm Management Information Services, Inc., compiled a variety of analyses on

GHG regulation, concluding that the EPA approach would:<sup>68</sup>

- Reduce Gross Domestic Product every year for the next two decades, with GDP dropping \$500 billion by 2030;
- Reduce U.S. employment, culminating in the loss of 2.5 million jobs by 2030;
- Reduce U.S. household incomes, with average household income dropping by about \$1,200 annually by 2030;
- Increase U.S. energy costs, with increases of 50 percent for gasoline and residential electricity prices, 75 percent for industrial electricity prices and residential natural gas prices, and 600 percent for electric utility coal prices.

The Heritage Center for Data Analysis found that regulation of GHGs from all sources under the Clean Air Act (in other words, if the EPA is wrong and the tailoring rule is shot down by the court) would result in: cumulative GDP losses of \$7 trillion by 2029; single-year GDP losses exceeding \$600 billion; and annual job losses of 800,000 or more for several years.

#### Why Is This Unnecessary?

The recently released carbon dioxide standard for new power plants is a perfect example of how politically favored policies can be disguised as providing real health benefits. Although the purpose of a regulation is to protect human health, the EPA did not attempt to calculate health benefits of reducing carbon dioxide as an alleged "pollutant." In order to justify each proposed regulation in terms of a cost benefit analysis, the EPA conducts a regulatory impact analysis (RIA). In the carbon dioxide RIA, the EPA clearly shows that its agenda is politically-motivated rather than based on health benefits:

"This proposed rule is consistent with the President's goal to ensure that 'by 2035 we will generate 80 percent of our electricity from a diverse set of clean energy sources - including renewable energy sources like wind, solar, biomass and hydropower, nuclear power, efficient natural gas, and clean coal."

Putting aside the issue that there are no direct human health benefits of reducing GHGs, three major reasons suggest that, even if things go according to EPA plans, the impact on GHG emissions will be minimal.

First, the EPA admits that its CAA requirements will achieve at best a 5 percent reduction in U.S. GHGs — a drop in the global climate bucket. The EPA's Federal Register entry accompanying the rule regulating GHG emissions from new cars and light-duty trucks found that: "[G] lobal mean temperature is estimated to be reduced by 0.006 to 0.015 [degrees] C by 2100... and sea-level rise is projected to be reduced by approximately 0.06 — 0.14 cm by 2100." As the minority staff of the Senate Environment and Public Works Committee notes, "[t]his amount is so miniscule it can't even be measured by a ground-based thermometer."

Second, the growing and unmitigated emissions by developing countries will overwhelm even the most severe unilateral GHG reductions. U.S. emissions are likely to remain relatively flat, while developing country emissions will grow exponentially over the next century (further compounded by the fact that China's faster growth of electricity demand comes from more than 70 percent coal-fired generation). Even the EPA's own analysis concludes that unilateral American reduction in GHGs has a negligible impact on atmospheric concentrations.

Third, there is a significant risk that carbon leakage (in which energy-intensive industries shift production overseas to avoid costly regulation) will wipe out even the modest effect estimated by the EPA.

Also, according to the U.S. Energy Information Administration, greenhouse gas regulation may not even be necessary as U.S. carbon dioxide emissions continue to track lower than levels during 2000. The newest data rebut assertions that the EPA needs to impose strict greenhouse gas emissions.

As standards of living rise worldwide, global demand for energy is expected to continue rising over the next few decades. Yet technological improvements have led to a dramatic increase in energy efficiency that

is already accomplishing the goal of greenhouse gas reduction: carbon dioxide emissions per dollar of GDP declined in the U.S. by 41.3 percent from 1981 to 2005, and are expected to decline by another 42 percent through 2035. The growth in global energy demand will be 65 percent lower through 2030 than it would have been without these innovations. These improvements were prompted not by an unnecessary regulatory scheme that achieves only negligible results, but by market demand for energy efficiency.

Essentially, EPA regulation of GHGs is all cost and no benefit and it is being used as a political tool to advance the Administration's goal of forcing Americans to purchase renewable energy.

JOB LC	SSES DUE TO GAS REGUL		SE
STUDY	LEGISLATION ANALYZED (PROXY FOR EPA GHG REGULATION)	YEAR OF IMPACT	FEWER JOBS
Energy Information Administration	H.R. 2454	2030	2.3 Million
National Black Chamber of Commerce	H.R. 2454	2050	3.6 Million
National Association of Manufacturers/ ACCF	H.R. 2454	2030	2.44 Million
Heritage Foundation	H.R. 2454	2035	2.5 Million
Institute for Energy Research	Kerry/Leiberman American Power Act	2050	5.1 Million
ACCF/Small Business & Entrepreneurship Council	Kerry/Leiberman American Power Act	2030	Up to 1.9 Million

### ECONOMY DERAILED: STATE-BY-STATE IMPACT PROFILES

The state impact profiles highlight just a few of the impacts of the EPA regulations described in the preceding section. Ultimately, the economic impact of numerous overlapping stringent regulations on the energy industry will cause damage in all sectors of state economies. The top 10 states impacted by the EPA, according to highest potential job loss, are Illinois, West Virginia, Ohio, Alabama, Michigan, Indiana, Pennsylvania, Tennessee, Kentucky, and North Carolina.

#### **Electricity Impacts**

The state's average retail price for electricity is correlated with the type of energy used to generate electricity. Larger percentages of coal in a state's generation mix equates to lower rates. The 16 states that rely on coal for a small percentage of their electricity generation paid 30 percent more than the national average price for electricity. The 34 states that used more coal paid 17 percent less than average. <sup>69</sup> Unfortunately, the vast majority of the EPA regulations proposed are specifically designed to make coal-generated electricity more expensive or, as President Obama has stated to be his goal, not economically feasible at all.

The expected increase in electricity rates comes from a variety of sources. Electric utilities have begun releasing estimates on the increase in electricity rates resulting from a number of EPA regulations. Also, a National Economic Research Associates, Inc., study completed in September 2011 estimated increases in electricity rates resulting from the Cross-State Air Pollution Rule, the Utility MACT, the regulation of coal combustion residues, and cooling water intake regulations.

It is important to note that none of the increase in electricity rates for the state impact profiles incorporates the cost associated with regulation of greenhouse gases. Estimates for electricity price increases resulting from greenhouse gas regulations vary, yet all show significant increases. The Heritage Foundation predicts that GHG regulation (through cap-and-trade regulations) would increase residential electricity rates by 90 percent.<sup>72</sup> Management Information Services, Inc., an economic research firm, estimates a 50 percent increase for residential electricity prices and a 600 percent increase for electric utility coal prices.

"... if somebody wants to build a coal power plant, they can. It's just that it will bankrupt them because they're going to be charged a huge sum for all the greenhouse gas that's being emitted." — Barack Obama

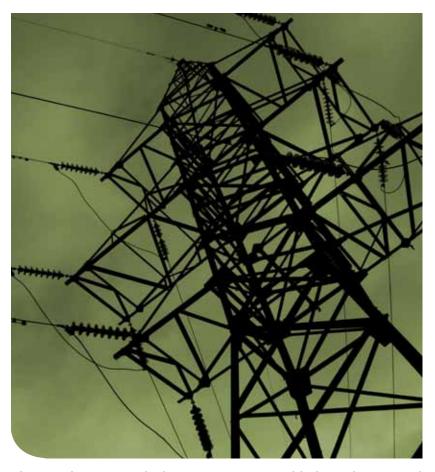
In addition, the effect of increasing electricity prices on the transportation sector of the economy is not incorporated in the state impact profiles. Not only will the refining of oil into gasoline increase in cost because of greenhouse gas regulations, but the major input cost for refineries happens to be energy. Nearly half of a refinery's operating costs (43 percent) are for energy. Research shows that six kilowatt hours of electricity is needed to produce one gallon of gasoline, which means that the price of electricity has a significant effect on the price of gasoline. The reliability of electricity also plays a role. For a specific example, the Energy Information Administration notes

that up to 27 percent of California refining capacity could be "expected to be forced to shut down completely" during rotating power shortages.<sup>75</sup> Given that the EPA regulations are expected to cut electricity supply and increase rates, it is certain that the regulatory onslaught will increase the cost of supplying gasoline to American consumers.

"Under my plan of a cap and trade system, electricity rates would necessarily skyrocket ..." — Barack Obama

Every one of the power plant retirements detailed in the state impact profiles are the result of EPA regulations. The list is derived from three sources. One is the EPA's modeling, which identifies the power plants that will close as a result of either the Cross-State Air Pollution Rule or the Utility MACT. Another is culled from press releases or news stories in which a power plant operator states that a power plant will or is likely to close because of EPA regulations. The final source comes from filings with state public utility commissions in which a power plant operator states that a power plant will or is likely to close because of EPA regulations.

The total job losses are derived from two different studies, depending upon the state. A study completed by McIlvaine Company for the National Mining Association estimated specific job losses in the power sector resulting from the Utility MACT, the Cross-State Air Pollution Rule, cooling water intake regulation, and coal combustion residual regulations that are causing coal-fired power plants to retire. In addition, a study completed by the Unions for Jobs and the Environment (UJAE) assessed the figure for both direct and indirect job losses associated with power plant closures. The UJAE estimates that more than 50,000 direct jobs in the coal, utility, and rail industries will be lost, with a total job loss — including indirect jobs — of 251,300.



The total estimated electricity capacity likely to be retired because of EPA regulations is derived from the National Mining Association study, as well. This study provided three scenarios: a best-case scenario, a most-likely scenario, and a worst-case scenario. The most-likely scenario was used for the state impact profiles, and the calculation of the number of homes that the retired capacity could power was based the average U.S. household electricity use.<sup>78</sup>

#### Mining Impacts

The state impact profiles show only impacts on the mining sector that result from power plant closures. As power plants

and, thus, electric utilities begin using less coal, less coal is mined and communities that were previously supported by these endeavors begin to fall apart. The result is a loss of jobs, economic development, and state government revenues. For a specific example, Alpha Natural Resources, a major Appalachian coal producer, announced plans on Feb. 3, 2012, to lower coal production because demand for coal by utilities is dropping. Altogether, 10 mining operations are affected, four in eastern Kentucky and six in southern West Virginia, reducing annual coal production by approximately 4 million tons.<sup>79</sup>

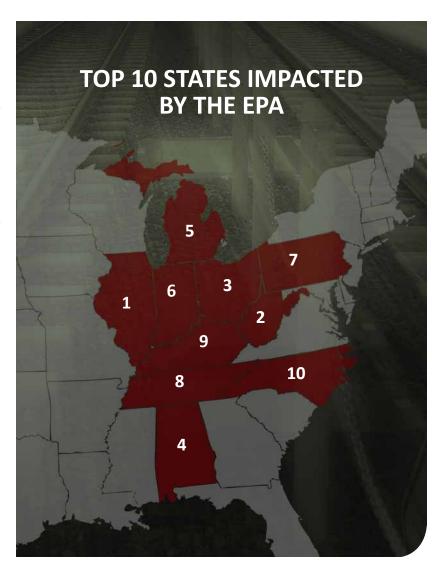
The state profiles that contain impacts on the mining sector are derived from the National Mining Association study. The authors of study assess the origin and destination of coal to power specific plants that are being retired, and estimate the impact on the mining sector resulting from the decrease in coal usage from these retirements. For the most-likely scenario, nearly 20,000 coal mining jobs will be lost as a result of power plant retirements, more than 300 million tons will not be mined, and the coal industry itself will lose almost \$11 billion. This impacts the standard of living of families and communities supported by mining, as well as the millions of Americans that rely on affordable and reliable coal-generated electricity.

#### **Boiler Regulation Impacts**

The Boiler MACT Rule affects a number of facilities across the country. One of the major industries affected by the Boiler MACT is the forest and paper industry, which often uses boilers to generate electricity for its facilities.

The data for impacts on the forest product industry and the overall economy originates from a study by IHS Global Insight, an economic forecasting firm that specializes in economic impacts on national, state, and local economies.<sup>80</sup>

The study revealed significant negative impacts on state economies resulting from this regulation. For every \$1 billion spent on upgrade and compliance costs, the regulation will put 16,000 jobs at risk and reduce U.S. gross domestic product by as much as \$1.2 billion. The "total jobs at risk" figure used in the state impact profiles is the number of jobs potentially "at risk" of being eliminated as a consequence of compliance with the Boiler MACT.





**RANK: #4 WORST HIT BY THE EPA** 

"The EPA continues to issue job-killing regulations that harm our economy. I am proud to stand with other state attorneys general to push back against the continued onslaught of burdensome new federal rules and regulations flowing from Washington, D.C."

— Luther Strange, Alabama Attorney General

"Some proposed regulations pending in Washington could result in significant cost increases for our customers — many of whom are already having trouble making ends meet in a tough economy. These cost increases could also hurt business and industry, and hurt their ability to create or retain jobs in Alabama." — Michael Sznajderman, Alabama Power spokesman

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

18,832

8.98 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal: 8.2%—14%

41%

Total estimated electricity capacity likely to be retired:

5,324 megawatts

This represents enough energy to power almost 4 million homes.

#### **MINING IMPACTS**

Coal industry potential

Coal tons lost per year:

Coal industry lost revenue:

6,910,190

\$478,420,000

1,745

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected: Total capital costs:

\$468,394,778

**Overall Impact** 

Number of boilers affected: Total jobs at risk:

Total capital costs:

<u>61</u> 7,943

\$544,618,932

Potential and Ani	nounced Power Plan	Power Plant Closures	
Power Plant Name	Fuel Type	Year of Closure	
Colbert	Coal	2015	

### ARIZONA

"As the stewards of our states' natural resources, we share the broad goals of the EPA to protect our air and water. However, we wish to express our strong concerns over the contents and timing of many of the recently adopted and pending regulations, which together could seriously impact energy supply, reliability, and affordability for the residents, small businesses, and manufacturers in our states and across the country." — Janice K. Brewer, Governor of Arizona, signer of a governors' coalition letter opposing EPA overreach

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

572

9.7 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

1.6%

39%

Total estimated electricity capacity likely to be retired:

676.3 megawatts

This represents enough energy to power more than 500,000 homes.

#### **MINING IMPACTS**

Coal industry potential

Coal tons lost per year:

Coal industry lost revenue:

job loss:

2,592,250

\$91,610,000

174

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers

affected: Total capital costs:

Total jobs at risk:

2

\$23,532,103

345

Potential and An	Potential and Announced Power Plant Closures	
Power Plant Name	Fuel Type	Year of Closure
Navajo	Coal	2015



"At a time when the unemployment rate remains alarmingly high, the Administration seems determined to impose overly burdensome regulations at the expense of Arkansas jobs. It's estimated that the EPA's Boiler MACT rules, as written, could cost Arkansas's economy over \$338 million and put more than 5,400 Arkansans out of work."

- Arkansas Congressman Tim Griffin

**ELECTRICITY IMPACTS** 

Total job loss in power sector:

Average Retail Electricity Price:

388

7.19 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

19-23%

46%

Total estimated electricity capacity likely to be retired:

2,158 megawatts

This represents enough energy to power more than 1.6 million homes.

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected: Total capital costs:

39

\$297,281,774

**Overall Impact** 

Number of boilers affected: Total jobs at risk:

42 3,684

Total capital costs:

\$338,482,280

Potential and An	al and Announced Power Plant Closures	
Power Plant Name	Fuel Type	Year of Closure
Welsh 2	Coal	2014

### CALIFORNIA

"Regulations such as the Boiler MACT could raise compliance costs, take away billions of dollars in capital annually and put hundreds of thousands of jobs at risk. It is essential that we reform this regulation in order to protect the quality of our environment, but also prevent overburdening small businesses with new compliance costs."

— Representative Kevin McCarthy, California House Majority Whip

#### **ELECTRICITY IMPACTS**

Average Retail Electricity Price:

13.81 cents per Kwh

Expected increase in electricity rates:

1.6%-5%

Percentage of Electricity Derived from Coal:

1%

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected:

Total capital costs:

Total jobs at risk:

18

\$69,016,238

1.104

Potential and Ann	ential and Announced Power Plant Closures	
Power Plant Name	Fuel Type	Year of Closure
BP Wilmington Calciner	Petroleum Coke	2015
Rio Bravo Poso	Petroleum Coke	2015
Rio Bravo Jasmin	Coal	Pending
ACE Cogeneration Facility	Coal	Pending

### COLORADO

"The compliance cost for these Clean Air Act programs would be overwhelming as millions of entities, including farms and ranches would be subject to burdensome CAA regulations ... the high costs of this regulation, the unidentified environmental benefits, and the ongoing effort in Congress to decide this issue argues strongly for Congress to use its authority under the Congressional Review Act to intervene in this matter."

— Alan Foutz, Colorado Farm Bureau

— Colorado Congressmen Cory Gardner

"Much like last year's failed cap and trade bill would have done, EPA regulations are driving up the cost of energy and forcing American jobs overseas. To be clear, my colleagues and I care deeply about the quality of our air and water. But the EPA is attempting to regulate greenhouse gasses with no consideration for the economic consequences. Now is not the time to impose new costs on American businesses trying to create jobs."

#### **ELECTRICITY IMPACTS**

Total job loss in power sector:

Average Retail Electricity Price:

4,736

9.18 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

1.5-11%

68%

Total estimated electricity capacity likely to be retired:

464 megawatts

This represents enough energy to power more than 300,000 million homes.

#### **MINING IMPACTS**

Coal tons lost per year: Coal industry lost revenue: Coal industry potential

1,881,000

\$63.980.000

job loss: 143

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected:

5

Total capital costs:

Total jobs at risk:

\$73,282,889

1.173

### CONNECTICUT

"It's devastating for the town. They've been a longtime good neighbor. It's not only the tax revenue, but they've created a lot of jobs." — Ronald K. McDaniel Jr., Mayor of Montville Connecticut, regarding the AES Thames coal plant shutdown resulting from "unexpected market conditions" and "regulatory uncertainties"

"The cumulative potential impact of both retrofits and retirements on reliability is troubling. The possibility of regional reliability problems is high if a substantial number of coal-fired power plants go out of service for extended periods of time in the same time frame to either accomplish the retrofits required to comply with the EPA requirements, or to replace the plant with a new natural gas-fired plant." — American Public Power Association (APPA), eight Connecticut public utilities are APPA members

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

1,526

**17.39** cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

2.2%-5%

8%

Total estimated electricity capacity likely to be retired:

399.5 megawatts

This represents enough energy to power more than 300,000 homes.

Aes thames co-generation plant 181 mw shut down last year, with a loss of 43 jobs.

Estimated loss in tax revenue because of thames plant closure: more than \$1.2 Million

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected:

Total capital costs:

Total jobs at risk:

13

\$122,190,754

1.747

### **L** DELAWARE

"AMP urges EPA to withdraw the Utility MACT rule as proposed and to conduct a thorough analysis of the specific regional and electricity market impacts associated with this rulemaking ... only then will EPA have a complete picture of the negative impact that these rules will comprehensively have on the nation's economy and recovery."— Delaware Municipal Electric Corporation (American Municipal Power, Inc.)

"... Delaware's high cost of electricity is costing approximately \$500 per home per year in higher energy costs ... employers leave the State or decide not to locate in Delaware due to its 50% higher electricity costs ..." — Delaware House Bill 86, 146th General Assembly

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

1,368

11.99 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

10.7%

46%

Total estimated electricity capacity likely to be retired:

**82** megawatts

This represents enough energy to power more than 60,000 homes.

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers

affected: Total capital costs:

Total jobs at risk:

\$18,258,898

292

Potential and Ann	d Announced Power Plant Closures	
Power Plant Name	Fuel Type	Year of Closure
Indian River Power Station	Coal	2013

### T FLORIDA

"The problems inherent in regulating GHGs under the CAA are so profound that we believe EPA must decide against making an endangerment finding at this time and delay regulation because regulation of GHGs will overwhelm the Agency and state environmental agencies to the point where they cannot carry out their other responsibilities under the Act." — Florida Municipal Electric Association

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

2,695

10.64 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

3.9%-5%

26%

Total estimated electricity capacity likely to be retired:

**1,703** megawatts

This represents enough energy to power more than 1.2 million homes.

Lost manufacturing output by 2015:

Lost state and local government revenues by 2015:

\$1,300,000,000

\$2,100,000,000

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected:

Total capital costs:

17

\$146,217,277

**Overall Impact** 

Number of boilers affected:

Total jobs at risk:

Total capital costs:

36

3,602

\$365,498,920

Potential and A	itial and Announced Power Plant Closures	
Power Plant Name	Fuel Type	Year of Closure
Northside	Petroleum Coke	2015
Scholz	Coal	2015
Crystal River	Coal	2020



"The cumulative impact of EPA's regulatory actions, resulting in a reduction of domestic energy supply and higher energy prices, could force the U.S. to rely even more heavily on foreign energy which can potentially stifle our fragile economic recovery."— Nathan Deal, Governor of Georgia, signer of a governors' coalition letter opposing EPA overreach

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

5,460

8.99 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

8.2%-10%

53%

Total estimated electricity capacity likely to be retired:

1629.1 megawatts

This represents enough energy to power more than 1.2 Million homes.

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Total capital costs: Number of boilers affected:

\$371,162,554 45

**Overall Impact** 

Number of boilers affected: Total jobs at risk:

6,363 51

Total capital costs:

\$399,225,204

Potential and An	atial and Announced Power Plant Closures	
Power Plant Name	Fuel Type	Year of Closure
Harllee Branch 1	Coal	2013
Harllee Branch 2	Coal	2013



"Allowing any federal agency to unilaterally move forward on issues of this magnitude not only allows politics to drive policy decisions; it locks out the voices of Idahoans, Americans and their elected representatives in Congress ... Such an important debate as climate change, and the potential to drive up costs on consumers and small businesses, should not be left in the hands of Washington, D.C., bureaucrats" — Idaho Sen. Mike Crapo

"(The) EPA is not equipped to consider the very real potential for economic harm when regulating emissions. Without that consideration, regulation will place heavy administrative burdens on state environmental quality agencies, will be costly to consumers and could be devastating to the economy and jobs." — C.L. "Butch" Otter, Governor of Idaho

**ELECTRICITY IMPACTS** 

Percentage of Electricity Derived from Coal:

Average Retail Electricity Price:

1%

6.54 cents per Kwh

Expected increase in electricity rates:

0.1%-5%

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected: \$13,495,337

**Overall Impact** 

Number of boilers affected:

Total jobs at risk:

Total capital costs:

20

1,272

Total capital costs:

\$98,248,045





**RANK: #1 WORST HIT BY THE EPA** 

First, any costs incurred by utilities, refiners, manufacturers and other large emitters to comply. with GHG regulatory requirements will be passed on to the consumers of those products, including farmers and ranchers ... As a result, our nation's farmers and ranchers will have higher input costs, namely fuel and energy costs, to grow food, fiber and fuel for our nation and the world." — Philip Nelson, President of the Illinois Farm Bureau.

**ELECTRICITY IMPACTS** 

Total job loss (direct & indirect):

Average Retail Electricity Price:

28,899

9.07 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

7.8%-18%

47%

Total estimated electricity capacity likely to be retired:

**8,003.5** megawatts

This represents enough energy to power more than 6 million homes.

Lost manufacturing output by 2015:

Lost state and local government revenues by 2015:

\$1,800,000,000

\$2,100,000,000

#### MINING IMPACTS

Coal tons lost per year:

Coal industry lost revenue:

1,236,680

\$47.680.000

149

Coal industry

potential job loss:

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers

affected:

Total capital costs:

Total jobs at risk:

53

\$464,824,188

9,334

Potential and Announced Power Plant Closures		
Fuel Type	Year of Closure	
Coal/oil	2012	
Coal	2012	
Coal	2014	
Coal	2015	
Coal	2017	
	Fuel Type  Coal/oil  Coal  Coal  Coal	



**RANK: #6 WORST HIT BY THE EPA** 

"We believe the EPA's proposed rules harm domestic energy production and are hostile to the Administration's stated goals of creating jobs, improving the regulatory process, and increasing our nation's energy security." — Mitch Daniels, Governor of Indiana, signer of a governors' coalition letter opposing EPA overreach

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

12,781

7.75 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

8.6-30%

90%

Total estimated electricity capacity likely to be retired:

**6,863.5** megawatts

This represents enough energy to power more than 5 million homes.

Lost manufacturing output by 2015:

Lost state and local government revenues by 2015:

\$1,500,000,000

\$1.100.000.000

#### MINING IMPACTS

Coal tons lost per year:

Coal industry lost revenue:

Coal industry potential job loss:

6,407,370

\$244,330,000

766

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers

affected:

Total capital costs:

Total jobs at risk:

82

\$1,023,776,776

12.712

Potential and Announced Power Plant Closures	

Power Plant Name	Fuel Type	Year of Closure
Tanners Creek	Coal	2014
Wabash River	Coal	2014
State Line	Coal	2015
R Gallagher	Coal	Pending



"Because we are consumer-owned power systems, costs imposed by EPA must be passed on directly to our consumers. We have no shareholders who will earn a rate of return on the capital investments that will be mandated in order to comply with EPA requirements. Moreover, many of our communities contain disproportionate shares of low income consumers and elderly on fixed incomes." — Robert Haug, lowa Association of Municipal Utilities

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

5,607

7.66 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

7.8%-32%

72%

Total estimated electricity capacity likely to be retired:

**4,391.5** megawatts

This represents enough energy to power more than 6 million homes.

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected: Total capital costs:

\$46,197,293

**Overall Impact** 

Number of boilers affected: Total jobs at risk: Total capital costs

**51 7,667** \$489,971,530

Potential and Announced Power Plant Closures		
Power Plant Name	Fuel Type	Year of Closure
Dubuque	Coal	2015
Earl F. Wisdom	Coal	2015
Prairie Creek	Coal	Pending
Burlington	Coal	Pending
Milton L Kapp	Coal	Pending
Sutherland	Coal	Pending

### KANSAS

"We believe the EPA's proposed rules harm domestic energy production and are hostile to the Administration's stated goals of creating jobs, improving the regulatory process, and increasing our nation's energy security." — Kansas House Resolution opposing the Environmental Protection Agency's regulatory train wreck

"The speed of EPA regulatory action prevents careful consideration of the impacts. The expectation that the power sector may comply with new requirements in as few as three years is simply not realistic given our operating experience with the lead times necessary to develop and acquire the required hardware for compliance." — Colin Hansen, Kansas Municipal Utilities

**ELECTRICITY IMPACTS** 

Total job loss (direct & indirect):

Average Retail Electricity Price:

2,417

**8.23** cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

8%-15%

67%

Total estimated electricity capacity likely to be retired:

**1,745.2** megawatts

This represents enough energy to power more than 1.3 million homes.

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers

affected: Total capital costs:

Total jobs at risk:

7

\$78,652,329

1,146

Potential and Announced Power Plant Closures		
Power Plant Name	Fuel Type	Year of Closure
Riverton	Coal	2014
Lawrence Energy Center	Coal	2015
Tecumseh Energy Center	Coal	2015



**RANK: #9 WORST HIT BY THE EPA** 

"Coal is not only a vital national resource, but coal mining also supports thousands of Kentucky families ... It's time for the EPA to end these unpredictable policy swings and work with us on a reasonable policy that protects our families." — Steve Beshear, Governor of Kentucky

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

12,521

6.75 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

13.5%

93%

Total estimated electricity capacity likely to be retired:

**4,704.3** megawatts. This represents enough energy to power more than 3.6 million homes.

#### MINING IMPACTS

Coal tons lost per year:

Coal industry lost revenue:

Coal industry

32,709,700

\$1,964,580,000

6,245

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected:

Total capital costs:

6

\$13,872,185

**Overall Impact** 

Number of boilers affected:

Total jobs at risk:

Total capital costs:

26

2,806

\$183,140,546

Power Plant Name	Fuel Type	Year of Closure
Robert A. Reid	Coal	2014
Dale	Coal	2014
Big Sandy	Coal	2014
D.B. Wilson	Coal	2015
Cane Run	Coal	2016
Green River	Coal	2016
Tyrone	Coal	2016
Shawnee	Coal	Pending



"The cumulative impact of EPA's regulatory actions, resulting in a reduction of domestic energy supply and higher energy prices, could force the U.S. to rely even more heavily on foreign energy which can potentially stifle our fragile economic recovery. Additionally, EPA's actions are adding to already overburdened state resources and are limiting the ability of states to administer their own, effective environmental programs and further slow the nation's economic recovery." — Bobby Jindal, Governor of Louisiana, signer of a governors' coalition letter opposing EPA overreach

#### **ELECTRICITY IMPACTS**

Total job loss in the power sector:

Average Retail Electricity Price:

238

7.77 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

7.2%-23%

23%

Total estimated electricity capacity likely to be retired:

1.324 megawatts

This represents enough energy to power more than 1 million homes.

#### MINING IMPACTS

Coal tons lost per year:

Coal industry lost revenue:

Coal industry potential job loss:

3,640,150

\$98,040,000

272

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected:

25

\$279,045,236

#### **Overall Impact**

Power

Number of boilers affected:

Total jobs at risk: Total capital costs:

31

4.021

\$345,665,237

Potential and Announced Power Plant Closure			
r Plant Name	Fuel Type	Year of Closure	
Nolcon	Petroleum coke	2015	

### MAINE

"Maine has previously adopted numerous regulatory and policy requirements that exceed federal standards, putting Maine mills at a competitive disadvantage...MPPA is very concerned that recently proposed air emission rules from the EPA will cripple the U.S. paper industry. The 'Boiler MACT' rules would cost Maine mills in excess of \$300 million, with limited environmental benefit." — Maine Pulp and Paper Association

"At a time when millions of Americans are out of work and manufacturers are struggling to retain jobs, it simply does not make sense for Washington to swamp businesses in red tape and new regulations. Doing so would only create further uncertainty, making it impossible for them to plan, grow, and add jobs. I am particularly concerned with onerous new rules proposed by the Environmental Protection Agency (EPA) that would impose billions of dollars of new costs on mills that use biomass for energy. Nationwide, the new boiler rules could jeopardize thousands of manufacturing jobs, particularly in the forest products industry, which is the economic backbone of many rural areas here in Maine." — Senator Susan Collins

#### **ELECTRICITY IMPACTS**

Average Retail Electricity Price:

Expected increase in electricity rates:

**12.71** cents per Kwh

2.2%-5%

Percentage of Electricity Derived from Coal:

1%

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Total capital costs: Number of boilers affected:

\$280,178,777 24

**Overall Impact** 

Number of boilers affected: Total jobs at risk: Total capital costs:

39 \$365,590,686

### MARYLAND

"The EPA fails to analyze and communicate scientific uncertainties, refuses to make key scientific data publicly available, and short-changes the peer review process. In short, the Administration's political agenda aims to frighten Americans into supporting a regulatory agenda against affordable energy, while science and objective analysis takes a backseat." — Andy Harris, Congressman from Maryland

"The price of electricity may not be the only victim—reliability of the bulk power system may also suffer. As plants are retired, the generation capacity to meet the demand for electricity will be reduced, and so will the reserves available to back up plants that experience outages during the course of a year. Without sufficient back-up, the likelihood that demand will exceed the available supply (especially in times of peak usage) becomes more real." — Southern Maryland Electric Cooperative

**ELECTRICITY IMPACTS** 

Percentage of Electricity Derived from Coal:

Total job loss (direct & indirect):

Average Retail Electricity Price:

3,738

12.68 cents per Kwh

Expected increase in electricity rates:

54%

10.7%

Total estimated electricity capacity likely to be retired:

**1,161.5** megawatts

This represents enough energy to power more than 850,000 homes.

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected: Total jobs at risk:

Total capital costs:

13

3,135

\$195,929,256

Potential and Announced Power Plant Closures			nt Closures
	Power Plant Name	Fuel Type	Year of Closure
	R. Paul Smith	Coal	2015

### **™**MASSACHUSETTS

"Well, I'm looking out for jobs and jobs in Massachusetts and throughout the country. And to give a non-governmental agency the ability to regulate the way that they have the potential to, they can regulate churches and restaurants and drop it all the way down from the big emitters to the very smallest emitters and it's not appropriate. And, you know, we in Congress should continue to work on this issue and have the authority to do just that." — Senator Scott Brown

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

4.515

**14.53** cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

2.2%-5%

20%

Total estimated electricity capacity likely to be retired:

163.9 megawatts

This represents enough energy to power more than 120,000 homes.

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected: Total capital costs:

24

\$30,875,604

**Overall Impact** 

Number of boilers affected: Total jobs at risk:

Total capital costs:

39

2,400

\$119,941,780

Potential and Announced Power Plant Closures		
Power Plant Name	Fuel Type	Year of Closure
Brayton Point	Coal	2014
Salem Harbor	Coal	2014



"The resolutions call on Congress to stop the EPA from issuing burdensome rules known as the train wreck that will, in the words of the American Legislative Exchange Council, dramatically increase energy costs, causing enormous negative impact to jobs and the economy, irreparable damage to the competitiveness of businesses, and trample on the rights of states in the process." — State Sen. Casperson regarding the vote on the resolutions opposing the EPA from regulating greenhouse gases

**ELECTRICITY IMPACTS** 

Total job loss (direct & indirect):

Average Retail Electricity Price:

14,624

10.03 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

19-30%

**59%** 

Total estimated electricity capacity likely to be retired:

**6,554.5** megawatts

This represents enough energy to power more than 5 million homes.

Lost manufacturing output by 2015:

Lost state and local government revenues by 2015:

\$1,900,000,000

\$1,700,000,000

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected:

Total capital costs:

16

\$213,383,489

**Overall Impact** 

Number of boilers affected:

Total jobs at risk:

Total capital costs:

84

12.821

\$801,314,219

# Potential and Announced Power Plant Closures Power Plant Name Fuel Type Year of Closure Endicott Station Coal 2014 James De Young Coal 2014 Eckert Station Coal 2015

### **MINNESOTA**

"EPA is not equipped to consider the very real potential for economic harm when regulating emissions. Without that consideration, regulation will place heavy administrative burdens on state environmental quality agencies, will be costly to consumers and could be devastating to the economy and jobs." — Tim Pawlenty, Former Governor of Minnesota, signer of a governors' coalition letter opposing EPA overreach

#### **ELECTRICITY IMPACTS**

**Average Retail Electricity Price:** 

**8.41** cents per Kwh

Percentage of Electricity Derived from Coal:

52%

Total estimated electricity capacity likely to be retired:

930.3 megawatts

This represents enough energy to power more than 700,000 homes.

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected:

120

Total capital costs: \$120,468,757

**Overall Impact** 

Number of boilers affected: Total jobs at risk: Total capital costs:

8,926 68

\$557,885,114

Total job loss (direct & indirect):

Expected increase in electricity rates:

2.911

7.8%

Potential and Announced Power Plant Closures		
Power Plant Name	Fuel Type	Year of Closure
Fox Lake	Coal	Pending

### **MISSISSIPPI**

"This is a regulatory scheme that will impact the entire economy without having any significant impact on global greenhouse gas levels. This is unconscionable. The Obama Administration should be focused on creating more and cheaper American energy in all forms, not on heavy-handed regulation that will drive away American jobs." — Haley Barbour, Governor of Mississippi

"Higher electricity rates impact families and businesses alike. These costs would put U.S. workers at a disadvantage to our overseas competitors who are not subjected to the same energy costs and government regulations. The level of federal overreach by the EPA is unprecedented in scope and takes no consideration of how these newly imposed requirements will impact jobs and the American economy." —Senator Roger Wicker

#### **ELECTRICITY IMPACTS**

Total job loss in power sector:

Average Retail Electricity Price:

**8.62** cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

7.2%-8%

144

25%

Total estimated electricity capacity likely to be retired:

799.20 megawatts

This represents enough energy to power more than 600,000 homes.

#### **MINING IMPACTS**

Coal tons lost per year:

Coal industry lost revenue:

Coal industry potential job loss:

5,056,600

\$147.100.000

309

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected: Total jobs at risk:

Total capital costs:

37

2.642

\$165,113,821



"The United States Environmental Protection Agency has proposed numerous new regulations, particularly in the area of air quality and regulation of greenhouse gases, that are likely to have major effects on the economy, jobs, and the competitiveness of the United States in worldwide markets." — Missouri House of Representatives in HCR 42 (2011)

"We write today to express concern at the pace and stringency of other expanded EPA regulation of our electric generation resources, which more directly jeopardize our ability to provide affordable, reliable electricity. ... EPA moves precipitously in a number of rulemaking processes that will impact electric reliability, resource adequacy and impose significant cost on electric consumers." — Duncan Kincheloe, Missouri Association of Municipal Utilities

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect)

Average Retail Electricity Price:

12,978

7.81 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

11.1%-23%

81%

Total estimated electricity capacity likely to be retired:

6,714 megawatts

This represents enough energy to power more than 5 million homes.

Lost manufacturing output by 2015:

Lost state and local government revenues by 2015:

\$1,200,000,000

\$1,300,000,000

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected: Total jobs at risk:

Total capital costs:

44 5,456

\$341,015,163

Potential and Announced Power Plant Closures		
Power Plant Name	Fuel Type	Year of Closure
Sibley	Coal	2014
Blue Valley	Coal	2014
Chamois	Coal	2014
James River Power Station	Coal	2015
Lake Road	Coal	2015
Meramec	Coal	2015
Montrose	Coal	Pending

### MONTANA

"... the U.S. Environmental Protection Agency has proposed or is proposing numerous new regulations, particularly in the area of air quality and the regulation of greenhouse gases, that could have major detrimental effects on the economy, jobs, and U.S. competitiveness in worldwide markets... neither the EPA nor President Obama's administration has undertaken any comprehensive study of what the cumulative effect of all of this new regulatory activity will be on the economy, jobs, and competitiveness" — Montana Senate Resolution opposing efforts by the EPA to regulate greenhouse gas emissions

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect)

Average Retail Electricity Price:

835

7.8 cents per Kwh

**Expected increase in electricity rates:** 

Percentage of Electricity Derived from Coal:

0.1%-10%

63%

Total estimated electricity capacity likely to be retired:

**241** megawatts

This represents enough energy to power more than 180,000 homes.

#### **MINING IMPACTS**

Coal tons lost per year:

Coal industry lost revenue:

Coal industry potential job loss:

12,511,690

\$316,020,000

373

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected:

Total capital costs:

6

\$27,191,330

**Overall Impact** 

Number of boilers affected:

Total jobs at risk:

Total capital costs:

8

515

\$32,209,962

Potential and Announced Power Plant Closures		
Power Plant Name	Fuel Type	Year of Closure
Colstrip Energy LP	Coal	2015
Yellowstone LP	Petroleum Coke	2015

### **™** NEBRASKA

"We feel compelled to quard against a regulatory approach that would increase the cost of electricity and gasoline prices, manufactured products, and ultimately harm the competitiveness of the U.S. economy. As governors, we strongly urge Congress to stop harmful EPA regulation of greenhouse gas emissions that could damage those vital interests." — Dave Heineman, Governor of Nebraska, signer of a governors' coalition letter opposing EPA overreach

"I am supporting this resolution to protect the Nebraska economy, and our nation's economy, from EPA overreach. It's that simple ... I want to send a clear message: Nebraska's farmers, ranchers, business owners, cities, towns and hundreds of thousands of electricity consumers should not have their economic fortunes determined by unelected bureaucrats in Washington." — Senator Ben Nelson regarding the Murkowski Disapproval Resolution

"We appreciate Senator Nelson's support for the Murkowski Disapproval Resolution as we believe this is clearly in the best economic interests of Nebraska's electricity consumers."

— Ron Asche, President of the Nebraska Power Association

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

3.237

7.48 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

7.8%-27%

65%

Total estimated electricity capacity likely to be retired:

3.129.90 megawatts

This represents enough energy to power more than 2.3 million homes.

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected: Total jobs at risk:

Total capital costs:

956

\$57,581,639

### **INEW JERSEY**

"... if coal ash were to be classified as hazardous waste it would have a significant economic impact to New Jersey, leading to higher electricity production costs for industry and increases in costs for electricity for every consumer of the State." — Nancy Wittenberg, Assistant Commissioner of Environmental Regulation, New Jersey Department of Environmental Protection

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

365

14.68 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

10.9%

10%

Total estimated electricity capacity likely to be retired:

**163.20** megawatts

This represents enough energy to power more than 120,000 homes.

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected: Total jobs at risk:

Total capital costs:

12

1,884

\$117,763,956

#### Potential and Announced Power Plant Closures

Power Plant Name	Fuel Type	Year of Closure
Glen Gardner	Coal	2015
Schiller	Coal	2015
Deepwater	Coal	2015

### **NEW MEXICO**

"Adopting meaningless, incredibly expensive and symbolic regulations that only serve to harm New Mexico families and businesses simply does not make sense."

— Susana Martinez, Governor of New Mexico

"The Utility MACT rule could cause significant electricity reliability constraints that would have a ripple effect through our fragile economy, hurting businesses of all sizes. Reasonable regulation and regulatory certainty are essential for businesses to grow and prosper. By contrast, regulatory uncertainty is a deterrent to putting Americans back to work, particularly for small businesses. The potential costs of the Utility MACT rule could have a major impact on job creation and consumer demand for our products."

— Greater Sandoval County Chamber of Commerce

#### **ELECTRICITY IMPACTS**

Total job loss in the power sector:

Average Retail Electricity Price:

409

8.45 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

1.6%-6%

71%

Total estimated electricity capacity likely to be retired:

**2,269.8** megawatts

This represents enough energy to power more than 1.7 million homes.

#### **MINING IMPACTS**

Coal tons lost per year:

Coal industry lost revenue:

Coal industry potential job loss:

10,701,390

\$377,000,000

594

Potential and Announced Power Plant Closures		
Power Plant Name	Fuel Type	Year of Closure
Four Corners 1, 2, 3	Coal	2013

### **▲** NEW YORK

"It is likely that CSAPR [Cross-State Air Pollution Rule] may raise concerns about the economic viability of some New York generators. If generation is mothballed or generation is reduced, and/or more costly, this is likely to lead towards concerns about reliability, increased transmission congestion, effects on the market clearing price, effects on zone pricing, long term contracts, ability to meet power demands...and effects on large consumers."

- Energy Committee of the Business Council of New York State

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

1,329

16.31 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

4.2-8%

10%

Total estimated electricity capacity likely to be retired:

694.4 megawatts

This represents enough energy to power more than 500,000 homes.

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected: Total jobs at risk:

Total capital costs:

46

8,966

\$560,381,038

#### Potential and Announced Power Plant Closures

Power Plant Name	Fuel Type	Year of Closure
Glenwood	Natural Gas	2015
Port Jefferson	Natural Gas	2015
Niagara	Coal	2015



**RANK: #10 WORST HIT BY** THE EPA

"In our state, coal is not a partisan issue. Both parties understand its significance as a major contributor to North Carolina's economy. The industry provides families with a reliable, affordable supply of electricity, and directly employs thousands of workers across the state."— Rep. Thom Tillis, Speaker of the North Carolina House of Representatives

#### **ELECTRICITY IMPACTS**

Average Retail Electricity Price:

8.70 cents per Kwh

Percentage of Electricity Derived from Coal:

56%

Total job loss (direct & indirect):

6.030

Expected increase in electricity rates:

5.1%-7%

Total estimated electricity capacity likely to be retired:

**3.298.6** megawatts

This represents enough energy to power more than 2.5 million homes.

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected:

Total jobs at risk:

Total capital costs:

166

15,557

\$972,292,267

#### **Potential and Announced Power Plant Closures**

TOTAL COLUMN TO THE PARTY OF TH		
Power Plant Name	Fuel Type	Year of Closure
HF Lee	Coal	2013
LV Sutton	Coal	2013
Buck	Coal	2013
Cape Fear	Coal	2013
Weatherspoon	Coal	2013
Riverbend	Coal	2013

### **INORTH DAKOTA**

"... the EPA is simultaneously developing and implementing a number of regulatory and policy initiatives with extremely short and converging compliance deadlines within the next five years which will significantly impact the energy industry, increase burdensome costs to consumers, and hurt the competitiveness of U.S. manufacturers."— Jack Dalrymple, Governor of North Dakota, signer of a governors' coalition letter opposing EPA overreach

"... the Environmental Protection Agency's regulatory activity as to air quality and greenhouse gases has become known as the "train wreck" because of the numerous and overlapping requirements and because of the potentially devastating consequences this regulatory activity may have on the economy ..." — North Dakota House of Representatives Resolution opposing the EPA's regulatory train wreck

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

7.03 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

7.8%-27%

2.730

82%

Total estimated electricity capacity likely to be retired:

292 megawatts

This represents enough energy to power more than 220,000 homes.

#### **MINING IMPACTS**

Coal tons lost per year:

Coal industry lost revenue:

Coal industry potential job loss:

14,962,200

\$225,160,000

**503** 

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected: Total jobs at risk:

Total capital costs:

14

1.647

\$102,953,268

Total job loss (direct & indirect):

Expected increase in electricity rates:

Lost wages resulting from power

19,647

7–12%

plant closures:



"We believe the EPA's proposed rules harm domestic energy production and are hostile to the Administration's stated goals of creating jobs, improving the regulatory process, and increasing our nation's energy security." — John R. Kasich, Governor of Ohio, signer of a governors' coalition letter opposing EPA overreach

"The EPA only looks at the new rules in isolation, rather than considering that the pancaking of these rules will make compliance costs unnecessarily higher. Furthermore, the agency requires compliance with some of these regulations within three years, a deadline that is often unrealistic or impossible to meet."

-Kevin Schmidt, Ohio Manufacturers' Association

Power Plant Name	Fuel Type	Year of Closur
Bay Shore Units 2-4	Coal	2012
Eastlake	Coal	2012
Ashtabula	Coal	2012
Lake Shore	Coal	2012
Avon Lake	Coal	2014
Conesville	Coal	2014
Hamilton	Natural Gas/ Residual Fuel Oil	2014
Muskingum River	Coal	2014
Picway	Coal	2014
RE Burger	Coal	2014
Miami Fort	Coal	2015
Niles	Coal	2015
WC Beckjord	Coal	2015

#### **ELECTRICITY IMPACTS**

Average Retail Electricity Price:

9.12 cents per Kwh

Percentage of Electricity Derived from Coal:

82%

Total estimated electricity capacity likely to be retired:

6,871.30 megawatts

This represents enough energy to power more than 5 million homes.

Lost manufacturing output by 2015:

Lost state and local government revenues by 2015:

\$10,900,000

\$1,800,000,000

\$1,300,000,000

#### **MINING IMPACTS**

Coal tons lost per year:

Coal industry lost revenue:

Coal industry potential job loss:

3,027,050

\$131,220,000

382

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected:

Total capital costs:

8

\$95,863,004

**Overall Impact** 

Number of boilers affected:

Total jobs at risk:

Total capital costs:

75

13,968

\$850,983,351

### OKLAHOMA

"We believe the EPA's proposed rules harm domestic energy production and are hostile to the Administration's stated goals of creating jobs, improving the regulatory process, and increasing our nation's energy security." — Mary Fallin, Governor of Oklahoma, signer of a governors' coalition letter opposing EPA overreach

"The simple fact is, your agency is issuing multiple rules and regulations on top of each other at such an accelerated rate that it makes it difficult for companies to invest and create jobs. Your regulatory actions on the utility sector alone are having a negative impact on electric reliability that threatens our nation's economy recovery." — Congressman John Sullivan, Oklahoma

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

844

7.51 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal: 12.6%—19%

44%

Total estimated electricity capacity likely to be retired:

**4,689.8** megawatts

This represents enough energy to power more than 3.5 million homes.

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected: Total jobs at risk:

Total capital costs:

10

1,699

\$106,184,389

Potential and Announced Power Plant Closures				
Power Plant Name	Fuel Type	Year of Closure		
Mustang 1	Natural Gas	2015		
Mustang 2	Natural Gas	2015		
Mustang 3	Natural Gas	2015		
Mustang 4	Natural Gas	2015		
Anadarko Plant	Natural Gas	2015		



"This is the worst possible time for new job-killing regulations that make it harder for business to grow and for the economy to recover. I hope the EPA works with the bipartisan coalition in Congress that is ready and willing to help identify solutions that protect the environment and public health while not destroying jobs at the same time."

— Congressman Greg Walden, Oregon

#### **ELECTRICITY IMPACTS**

Total job loss in the power sector:

Average Retail Electricity Price:

101

7.58 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

0.1%-5%

7%

Total estimated electricity capacity likely to be retired:

560.5 megawatts

This represents enough energy to power more than 400,000 homes.

2,434

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected: Total jobs at risk:

Total capital costs:

30

\$209,294,358

Potential Power Plant Closure					
Power Plant Name	Year of Closure				
Boardman	Coal	Pending			



### **PENNSYLVANIA**

"The cumulative impact of EPA's regulatory actions, resulting in a reduction of domestic energy supply and higher energy prices, could force the U.S. to rely even more heavily on foreign energy which can potentially stifle our fragile economic recovery. Additionally, EPA's actions are adding to already overburdened state resources and are limiting the ability of states to administer their own, effective environmental programs and further slow the nation's economic recovery." — Tom Corbett, Governor of Pennsylvania, signer of a governors' coalition letter opposing EPA overreach

"... the loss of generating capacity is a significant concern to the PUC as it directly threatens the obligations of utilities to provide reliable and cost-effective power ... Such an approach would appear to be regulatory overkill and, more importantly, could threaten cost-effective and reliable provision of electrical services in our State."

— Pennsylvania Public Utility Commission

Power Plant Name	Fuel Type	Year of Closur
Elrama	Coal	2012
Armstrong Power Station	Coal	2012
Eddystone	Coal	2012
New Castle	Coal	2014
Shawville	Coal	2014
Sunbury Generation LP	Coal	2014
Penn State West Campus Plant	Coal	2014
Titus	Coal	2015
Portland	Coal	2015
G F Wheaton Power Station	Coal	2015

#### **ELECTRICITY IMPACTS**

Average Retail Electricity Price:

10.35 cents per Kwh

Percentage of Electricity Derived from Coal:

48%

Total job loss (direct & indirect):

11,407

Expected increase in electricity rates:

10.7%

Total estimated electricity capacity likely to be retired:

**6,871.30** megawatts

This represents enough energy to power more than 5 million homes.

Lost manufacturing output by 2015:

Lost state and local government revenues by 2015:

\$1,200,000,000

\$1,100,000,000

#### **MINING IMPACTS**

Coal tons lost per year:

Coal industry lost revenue:

Coal industry potential job loss:

10,709,650

\$504,350,000

1,521

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected:

Total capital costs:

13

\$99,842,473

**Overall Impact** 

Number of boilers affected:

Total jobs at risk:

Total capital costs:

82

12,028

\$726,068,629



### SOUTH CAROLINA

"...These electric rate increases would adversely affect the ratepayers in South Carolina who currently have 18.3% less disposable income than the average American and face one of the Nation's highest unemployment rates of 11%. Further complicating the economic landscape in South Carolina is the fact that this state ranks 10th highest in average residential electric expenditures. Any increase in electric rates will have a substantial and detrimental impact on the already economically disadvantaged ratepayers in South Carolina."

— South Carolina Office of Regulatory Staff

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

6.876

8.48 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

5.1%-8%

36%

Total estimated electricity capacity likely to be retired:

1.749 megawatts

This represents enough energy to power more than 1.3 million homes.

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Total capital costs: Number of boilers affected:

\$204,873,197 28

**Overall Impact** 

Number of boilers affected: Total capital costs: Total jobs at risk:

\$677,585,203 11,429 68

Potential and Announced Power Plant Closures				
Power Plant Name	Fuel Type	Year of Closure		
Savannah River	Savannah River Natural Gas 20			
Canadys Steam	Natural Gas	2015		
WS Lee	Natural Gas	2020		
H B Robinson	Natural Gas	Pending		



"Governors are deeply concerned about the high and growing costs of environmental protection, including both the programmatic and capital costs required to comply with federal environmental mandates and reporting requirements." — National Governors Association (NGA) in a resolution opposing further regulation by the EPA during tough economic times. Bill Haslam, Governor of Tennessee, is a member of NGA

**ELECTRICITY IMPACTS** 

Total job loss (direct & indirect):

Average Retail Electricity Price:

15.217

**8.68** cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

13.5%

53%

Total estimated electricity capacity likely to be retired:

4.530.4 megawatts

This represents enough energy to power more than 3.4 million homes.

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Total capital costs: Number of boilers affected:

\$73,238,697 9

**Overall Impact** 

Number of boilers affected: Total jobs at risk: Total capital costs:

\$527,375,393 60 7,435

Potential and Announced Power Plant Closures				
Power Plant Name	Year of Closure			
John Sevier	Coal	2014		
Johnsonville	Coal	2014		



"Once again, the unelected, unaccountable bureaucrats at the EPA are flouting the law by denying Texas the opportunity to manage its own air permitting program. The EPA's unlawful scheme threatens Texas jobs and businesses by imposing costly and unnecessary greenhouse gas regulations immediately and improperly. These expensive mandates do little to make our air safer or to control the global warming the EPA insists is threatening our country, while doing great damage to our energy independence and economic recovery."

— Grea Abbott, Texas Attorney General

"The Obama Administration continues to put up road blocks for our nation's job creators by imposing burdensome regulations based on assumptions, not facts, that will result in job losses and increased energy costs with no definite environmental benefit. Yet again, this administration is ignoring Texas' proven track record of cleaning our air while creating jobs, opting instead for more stifling red tape. As expected, the only results of this rule will be putting Texans out of work and creating hardships for them and their families, while putting the reliability of Texas' grid in jeopardy." — Rick Perry, Governor of Texas

Potential and Announced Power Plant Closures				
Power Plant Name	Fuel Type	Year of Closure		
Monticello	Coal	2012		
Lone Star	natural gas, distillate fuel oil	2014		
Welsh	Coal	2014		
AES Deepwater	petroleum coke	2015		
ERCT_TX_Coal steam	petroleum coke	2015		
Moore County	natural gas	2015		
San Miguel	coal	2015		
J.T. Deely	coal	2018		

#### **ELECTRICITY IMPACTS**

Average Retail Electricity Price:

9.33 cents per Kwh

Percentage of Electricity Derived from Coal:

37%

Total job loss in the power sector:

472

Expected increase in electricity rates:

6.9%

Total estimated electricity capacity likely to be retired:

2,623 megawatts

This represents enough energy to power more than 2 million homes.

#### **MINING IMPACTS**

Coal tons lost per year:

Coal industry

potential job loss:

Coal industry lost revenue:

8,755,970

686

\$242,970,000

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected:

Total capital costs:

23

\$139,243,045

#### **Overall Impact**

Number of boilers affected:

Total jobs at risk:

Total capital costs:

27

2,166

\$202,218,185



"The cumulative impact of EPA's regulatory actions, resulting in a reduction of domestic energy supply and higher energy prices, could force the U.S. to rely even more heavily on foreign energy which can potentially stifle our fragile economic recovery. Additionally, EPA's actions are adding to already overburdened state resources and are limiting the ability of states to administer their own, effective environmental programs and further slow the nation's economic recovery." — Gary R. Herbert, Governor of Utah, signer of a governors' coalition letter opposing EPA overreach

"... the EPA's regulatory activity of GHG has numerous and overlapping requirements that are likely to have major effects on the nation's economy, jobs, and U.S. competitiveness in worldwide markets the Legislature of the state of Utah calls on Congress to adopt legislation prohibiting the United States Environmental Protection Agency (EPA) from regulating greenhouse gas (GHG) emissions without Congressional approval, including, if necessary, not funding EPA greenhouse gas regulatory activities." — Utah House Resolution

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

1.287

6.95 cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

1.5%-5%

81%

Total estimated electricity capacity likely to be retired:

188.6 megawatts

This represents enough energy to power more than 140,000 homes.

#### MINING IMPACTS

Coal industry

Coal tons lost per year: potential job loss:

loss: Coal industry lost revenue:

213 2,292,250

92,250 \$103,450,000

Potential and Announced Power Plant Closures					
Power Plant Name Fuel Type Year of Closu					
Carbon	coal	2015			
кисс	coal	2015			
Sunnyside Cogen Associates	coal	2015			



"We've been called the Saudi Arabia of coal because the amount of coal we got in our country is akin to what Saudi Arabia has in oil. Why would we ever want to sacrifice a strategic American advantage? ... We all know that an unnecessary regulation is nothing more than a hidden tax." — Robert McDonnell, Governor of Virginia

#### **ELECTRICITY IMPACTS**

Total job loss (direct & indirect):

Average Retail Electricity Price:

11,492

**8.73** cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

10-15%

35%

Lost state tax revenue resulting from power

Lost wages resulting from power plant closures:

plant closures: \$2.900,000

\$6,100,000

Ψ=,500,0

Total estimated electricity capacity likely to be retired:

2,643 megawatts

This represents enough energy to power more than 2 million homes.

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected: Total capital costs:

\$142,249,627

**Overall Impact** 

Number of boilers affected: Total jobs at risk:

tal jobs at risk: Total capital costs:

81 9,597

\$634,212,550

#### **Potential and Announced Power Plant Closures**

Power Plant Name	Fuel Type	Year of Closure		
Clinch River	Coal	2014		
Glen Lyn 1,2	Coal	2014		
Glen Lyn 51,52	Coal	2015		
Potomac River	Coal	2015		
Yorktown	Coal	2015		
Chesapeake	Coal	2016		



"The U.S. Environmental Protection Agency is expected to propose new federal rules that would designate coal ash — a byproduct of using coal to generate electricity — as a 'hazardous' waste. Such a decision would cause significant economic and environmental damage and I implore the EPA to evaluate the facts about coal ash recycling before making a decision."

— Joe Manchin, Governor of West Virginia

"This type of unfunded mandate at a time when many state governments cannot meet exisiting commitments for education and other vital public services makes no sense and is wholly unwarranted. Electric power reliability and electricity rates for our citizens also would be adversely affected."— Randy C. Huffman, Cabinet Secretary of the West Virginia Department of Environmental Protection, in a letter to the U.S. EPA regarding coal ash regulation

Totelitial alia A	nnounced Power Plan	t closures
Power Plant Name	Fuel Type	Year of Closure
Rivesville	Coal	2012
Willow Island	Coal	2014
Albright	Coal	2012
Kammer	Coal	2014
Kanawha	Coal	2014
Phillip Sporn	Coal	2014

#### **ELECTRICITY IMPACTS**

Average Retail Electricity Price:

7.44 cents per Kwh

Percentage of Electricity Derived from Coal:

97%

Lost wages resulting from power plant closures:

\$16,900,000

Total job loss (direct & indirect):

25,646

Expected increase in electricity rates:

7%-28%

\$12,890,000

Lost state tax revenue resulting from power

Total estimated electricity capacity likely to be retired:

**3,009.7** megawatts

This represents enough energy to power more than 2 million homes.

#### MINING IMPACTS

Coal tons lost per year:

Coal industry potential job loss:

Coal industry lost revenue:

18,387,080

3,190

\$1.140.000.000

#### **BOILER MACT REGULATION IMPACTS**

IMPACT ON THE FOREST PRODUCTS INDUSTRY

Number of boilers affected:

Total capital costs:

3

\$7,644,318

**Overall Impact** 

Number of boilers affected:

Total jobs at risk:

Total capital costs:

39

7,706

\$481,618,811



"In 2008, Mr. Obama said that if he was elected President, electricity rates would 'necessarily skyrocket' under his cap and trade policy, and that those who built coal-fired power plants would wind up going bankrupt. Now those promises will come true. The Utility MACT rule promulgated by the EPA will put many coal-fired plants out of business. This will eliminate thousands of jobs and threaten the reliability of our electrical grid, while delivering very little in the way of health benefits." — Senator Ron Johnson, Wisconsin

#### **ELECTRICITY IMPACTS**

Average Retail Electricity Price:

9.73 cents per Kwh

tricity Price: 7,102

Expected increase in electricity rates:

Total job loss (direct & indirect):

Percentage of Electricity Derived from Coal: 9.2%—21%

63%

Total estimated electricity capacity likely to be retired:

**2,820.60** megawatts

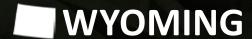
This represents enough energy to power more than 2 million homes.

#### **BOILER MACT REGULATION IMPACTS**

Number of boilers affected: Total jobs at risk: Total capital costs:

72 9,124 \$570,273,057

Potential and Ar	Potential and Announced Power Plant Closures					
Power Plant Name	Fuel Type	Year of Closure				
Alma	coal	2012				
Valley	coal	2014				
Blount Street	coal	2015				
South Oak Creek	coal	2015				



"As the stewards of our states' natural resources, we share the broad goals of the EPA to protect our air and water. However, we wish to express our strong concerns over the contents and timing of many of the recently adopted and pending regulations, which together could seriously impact energy supply, reliability, and affordability for the residents, small businesses and manufacturers in our states." — Matt Mead, Governor of Wyoming, signer of a governors' coalition letter opposing EPA overreach

"Utility MACT will make it harder and more expensive for the private sector to create good jobs for American workers. This red tape will force coal fired power plants to close their doors and send their workers to the unemployment office." — John Barrasso, Wyoming U.S. Senator

**ELECTRICITY IMPACTS** 

Total job loss (direct & indirect):

Average Retail Electricity Price:

**6.20** cents per Kwh

Expected increase in electricity rates:

Percentage of Electricity Derived from Coal:

1.5%-26%

1,580

89%

Total estimated electricity capacity likely to be retired:

3,193.05 megawatts

This represents enough energy to power more than 2 million homes.

**MINING IMPACTS** 

Coal tons lost per year:

**Coal industry** 

potential job loss:

Coal industry lost revenue:

180,122,970

3,403.53

\$4,929,400,000

**BOILER MACT REGULATION IMPACTS** 

Number of boilers affected:

Total jobs at risk:

Total capital costs:

13

2.479

\$154,967,483

## BROAD AND DIVERSE COALITION OPPOSING THE EPA

Advocates of EPA regulation claim that only industry, particularly the coal industry, is fighting recent EPA action while many other organizations and companies are supportive of the EPA's efforts. This is not even close to true.

This section exposes the broad and diverse coalition that is actively pushing back against EPA overreach. The various organizations, trade associations, labor unions, government officials, legislative bodies, and state agencies represented reveal a wide consensus that the EPA has gone much too far in regulating almost every aspect of the economy.

In sum, 32 current and former governors and lieutenant governors, 27 groups of state and local officials, 16 labor unions, 17 state legislative bodies, 10 state agencies, and 57 trade associations have openly voiced opposition to the escalating EPA expansion.

OP	PΩ	SITIC	N TO	EPA C	WFRR	FΔCH
OI.	ıv					

ORGANIZATIONS & ELECTED OFFICIALS	TOTAL
Governors	32
Groups of State & Local Officials	27
Labor Unions	16
State Legislatures	17
State Agencies	10
Trade Associations	57

"What they are trying to do to coal and our coal miners is bad for Kentucky. That's why I sued the EPA and that's why I will continue fighting to get our people back to work."—Steve Beshear, Governor of Kentucky 81

"...Such regulations under consideration by EPA could pose significant challenges for the electric power sector, with respect to the economic burden, the feasibility of implementation by the contemplated deadlines and the maintenance of system reliability..."—National Association of Regulatory Utility Commissioners<sup>82</sup>

"This rule is an all-out, in my opinion, decision by the EPA that we're never going to have another coal-fired facility in the United States that's constructed."—Cecil Roberts, President of United Mine Workers of America 83

"See, with the EPA, there's regulations. They are not actually laws ... they never go through Congress and are never voted on by our representatives. That creates soft tyranny because we have no choice in the matter."

— Gary Howell, West Virginia Delegate 84

"While we understand that regulation of CCRs [coal combustion residuals] will impose significant costs on power plant operations....Such increases will likely lead to increased electricity prices for all electricity consumers... Such an approach would appear to be regulatory overkill..."—Pennsylvania Public Utility Commission<sup>85</sup>

### **GOVERNORS OPPOSED TO EPA OVERREACH**

There are 32 governors, former governors, and lieutenant governors that have voiced opposition to EPA regulations. The majority of the opposition is directed towards greenhouse gas regulations, coal ash regulations, and a variety of other regulations that will lead to higher electricity prices for their states' citizens. These governors and lieutenant governors represent 28 states, including Alabama, Alaska, Arizona, Georgia, Hawaii, Idaho, Indiana, Iowa, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Nebraska, Nevada, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia, and Wyoming.

"It is vital for our citizens and businesses to have access to a wide diversity of energy sources in order to facilitate our economic recovery. The fact that our dominant energy source, oil, is heavily imported reinforces the need for utilizing our abundant domestic energy supply. The United States has bounteous reserves of oil and natural gas, and we believe that your administration should allow for adequate utilization of these domestic resources."

 Mary Fallin, Governor of Oklahoma, signer of a governors' coalition letter opposing EPA overreach<sup>86</sup>

"Jumping to classify coal ash as hazardous waste would neglect many dozens of years of proven beneficial uses of this byproduct. Hastily raising its status to 'hazardous' could actually cause more environmental harm and place undue financial burden on countless thousands of Americans."

Joe Manchin, Governor of West Virginia<sup>87</sup>

		1
GOVERNOR	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
Alabama Former Governor Bob Riley	Sign-on Letter	Greenhouse Gas Emissions
Alabama Governor Robert J. Bentley	Sign-on Letter	Various EPA rules, Electric Utilities
Alaska Governor Sean Parnell	Sign-on Letters	Greenhouse Gas Emissions , Various EPA rules, Electric Utilities
Arizona Governor Janice K. Brewer	Sign-on Letters	Greenhouse Gas Emissions , Various EPA rules, Electric Utilities
Georgia Former Governor Sonny Perdue	Sign-on Letter	Greenhouse Gas Emissions
Georgia Governor Nathan Deal	Sign-on Letter	Various EPA rules, Electric Utilities
Hawaii Former Governor Linda Lingle	Sign-on Letter	Greenhouse Gas Emissions
Idaho Governor C.L. "Butch" Otter	Sign-on Letter	Various EPA rules, Electric Utilities
Indiana Governor Mitch Daniels	Sign-on Letter	Various EPA rules, Electric Utilities
Iowa Governor Terry E. Branstad	Sign-on Letter	Various EPA rules, Electric Utilities
Kentucky Governor Steven L. Beshear	Sign-on Letter	Greenhouse Gas Emissions
Louisiana Governor Bobby Jindal	Sign-on Letters	Greenhouse Gas Emissions , Various EPA rules, Electric Utilities
Minnesota Former Governor Tom Pawlenty	Sign-on Letter	Greenhouse Gas Emissions

### **GOVERNORS OPPOSED TO EPA OVERREACH**

		-
GOVERNOR	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
Mississippi Governor Haley Barbour	Sign-on Letters	Greenhouse Gas Emissions , Various EPA rules, Electric Utilities
Missouri Lieutenant Governor Peter D. Kinder	Letter	Coal Ash Disposal
Nebraska Governor Dave Heineman	Sign-on Letter	Greenhouse Gas Emissions
Nevada Former Governor Jim Gibbons	Sign-on Letter	Greenhouse Gas Emissions
North Dakota Former Governor John Hoeven	Sign-on Letter	Greenhouse Gas Emissions
North Dakota Governor Jack Dalrymple	Sign-on Letter	Various EPA rules, Electric Utilities
Ohio Governor John R. Kasich	Sign-on Letter	Various EPA rules, Electric Utilities
Oklahoma Governor Mary Fallin	Sign-on Letter	Various EPA rules, Electric Utilities
Pennsylvania Governor Tom Corbett	Sign-on Letter	Various EPA rules, Electric Utilities
Rhode Island Former Governor Donald L Carcieri	Sign-on Letter	Greenhouse Gas Emissions
South Carolina Former Governor Mark Sanford	Sign-on Letter	Greenhouse Gas Emissions
South Carolina Governor Nikki Haley	Sign-on Letter	Various EPA rules, Electric Utilities
South Dakota Former Governor M. Michael Rounds	Sign-on Letter	Greenhouse Gas Emissions
South Dakota Governor Dennis Daugaard	Sign-on Letter	Various EPA rules, Electric Utilities

GOVERNOR	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
Texas Governor Rick Perry	Sign-on Letter	Various EPA rules, Electric Utilities
Utah Governor Gary R. Herbert	Sign-on Letters	Greenhouse Gas Emissions , Various EPA rules, Electric Utilities
Virginia Governor Robert F. McDonnell	Sign-on Letter	Greenhouse Gas Emissions , Various EPA rules, Electric Utilities
West Virgina Governor Joe Manchin	Op-Ed and Sign-on Letter	Greenhouse Gas Emissions
Wyoming Governor Matthew H. Head	Sign-on Letter	Various EPA rules, Electric Utilities



### **GROUPS OF STATE & LOCAL OFFICIALS OPPOSED TO EPA OVERREACH**

There are 27 groups of state and local officials that oppose recent EPA action, including tens of thousands of state legislators, utility commissioners, agricultural department officials, foresters, drinking water administrators, fish and wildlife agencies, solid waste management officials, state wetland managers, mayors, counties, and cities.

A cross-section of this list demonstrates just how many officials and entities are represented. The American Legislative Exchange Council represents more than 2,000 state legislators from all 50 states, which add up to nearly a third of all state legislators in the country. The American Association of Pesticide Control Officials represents about 170 state control officials in all 50 states, the District of Columbia, and U.S. territories. The Environmental Council of the States is the national association of state and territorial environmental agency leaders from around the country. The National Association of State Foresters consists of the directors of forestry agencies in all 50 states, U.S. territories, and D.C. The National Association of Counties represents the nation's 3.068 counties. The American Association of State Highway and Transportation Officials represents highway and transportation departments in all 50 states, D.C., and Puerto Rico, and represents all five transportation modes: air, highways, public transportation, rail, and water. The National League of Cities represents more than 19,000 cities, villages, and towns, and more than 1,600 municipalities of all sizes are also members.

"While local governments share EPA's goals for improving and protecting the environment, we continue to be deeply concerned about the high and growing costs of complying with federal regulations."

- Donald J. Borut, Executive Director of the National League of Cities<sup>87</sup>

"The U.S. Environmental Protection Agency (EPA) has proposed, or is in the process of proposing, numerous regulations regarding air quality and regulation of greenhouse gases that likely will have major effects on Southern state economies, impacting businesses, manufacturing industries and, in turn, job creation and U.S. competitiveness in world markets. ... Neither the EPA nor the Obama administration has undertaken any comprehensive studies of the cumulative effects of this new regulatory activity on the nation's wealth or financial system."— Council of State Governments88

NAME OF ORGANIZATION	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
American Association of Pesticide Control Officials	Sign-on Letter	Pesticides, NPDES
American Association of State Highway & Transportation Officials	Letters & Policy Resolution	Clean Water Act, "Waters of the U.S.," NPDES, TMDL, Coal Ash, Hazardous Waste
American Legislative Exchange Council	Report	EPA Regulation, Power Plants, Greenhouse gases, Coal Ash, Hazardous Waste, Tailoring Rule
American Public Works Association	Sign-on Letters	Chesapeake Bay Watershed Regulations, Coal Ash, Hazardous Waste
Association of Fish & Wildlife Agencies	Sign-on Letter	Clean Water Act, "Water of the U.S.," NPDES, TMDL
Association of State and Interstate Water Pollution Control Officials	Sign-on Letters & Letter	Pesticides, NPDES, Clean Water Act, NPDES, TMDL
Association of State and Territorial Solid Waste Management Officials	Letters, Survey	Coal Ash, Hazardous Waste, Environmental Justice

# GROUPS OF STATE & LOCAL OFFICIALS OPPOSED TO EPA OVERREACH

NAME OF ORGANIZATION	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
Association of State Drinking Water Administrators	Sign-on Letter	Clean Water Act, "Water of the U.S.,"NPDES, TMDL
Association of State Floodplain Managers	Sign-on Letter	Clean Water Act, "Water of the U.S.," NPDES, TMDL
Association of State Wetland Managers	Sign-on Letter	Clean Water Act, "Water of the U.S.," NPDES, TMDL
Coastal States Organization	Sign-on Letter	Clean Water Act, "Water of the U.S.," NPDES, TMDL
Council of State Governments – Southern Legislative Conference	Resolution / Policy Position	Air Quality, Greenhouse Gases
Environmental Council of the States	Resolution, Sign-On Letter, Letters	Coal Ash, Hazardous Waste, Clean Water ACT, NPDES, TMDL, Fossil Fuels, Electric Utilities
Ground Water Protection Council	Sign-on Letter	Clean Water Act, "Water of the U.S.," NPDES, TMDL
Interstate Mining Compact Commission	Letters, Comments	Coal Ash, Hazardous Waste
National Association of Clean Air Agencies	Letters	CO2, Tailoring Rule, PSD, Title V
National Association of Counties	Letters, Sign- On Letters, Resolutions	Clean Water Act, "Water of the U.S.," NPDES, TMDL, Chesapeake Bay Watershed Regulations, PM, Air Quality Standards, Emissions, GHGs, Pesticides, NPDES, Cap and Trade, Coal Ash, Hazardous Waste, Silvicultural Rule, MACT
National Association of County Engineers	Sign-On Letters	Chesapeake Bay Watershed Regulations, Coal Ash, Hazardous Waste

NAME OF ORGANIZATION	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
National Association of Flood and Storm water Management Agencies	Letter	Clean Water Act, "Waters of the U.S.," NPDES, TMDL
National Association of Regulatory Utility Commissioners	Letters & Resolutions	Utility MACT, Various EPA rules, Electric Utilities, CAA, CWA RCRA
National Association of State Departments of Agriculture	Sign-On Letters, Letters	Pesticides, NPDES, Chesapeake Bay Watershed Regulations, Clean Water Act, EPA regulation and federalism, Pesticides, TMDLs, Water Pollutants, CAA, NNC
National Association of State Foresters	Sign-On Letters	Pesticides, NPDES, Chesapeake Bay Watershed Regulations, Clean Water Act, NPDES, TMDL
National Conference of State Legislatures	Letters, Sign-On Letter	Clean Water Act, "Water of the U.S.," NPDES, TMDL, Chesapeake Bay Watershed Regulations, Cooling Water Intake, Coal Ash, Hazardous Waste
National Governors Association	Resolution & Letter	EPA Regulation, Unfunded Mandates, Coal Ash, Hazardous Waste
National League of Cities	Sign-On Letters & Letter	Chesapeake Bay Watershed Regulations , Storm Water, NPDES, Coal Ash, Hazardous Waste
United States Conference of Mayors	Sign-On Letters & Letter	Chesapeake Bay Watershed Regulations , Coal Ash, Hazardous Waste
Western Governors' Association	Letters, Resolution	Water Transfers, NPDES, Coal Ash, Hazardous Waste

### LABOR UNIONS OPPOSED TO EPA OVERREACH

The 16 labor unions entail a diverse group of miners, electrical workers, pipe fitters, food and commercial workers, the transportation and construction industry, and more. These unions represent millions of workers nationwide, and all have played a role in fighting back against an ever-expanding EPA.

Two examples from this list that especially show the extent to which workers oppose the EPA are the Brotherhood of Locomotive Engineers and the Unions for Jobs and the Environment. The Brotherhood of Locomotive Engineers represents locomotive engineers, conductors, brakemen, firemen, switchmen, and other train service employees on numerous railroads in the United States. Its total membership includes more than 59,000 employees, and it opposes the EPA's classification of coal ash as a hazardous waste. <sup>90</sup> Unions for Jobs and the Environment represents more than 3.2 million workers in electric power, transportation, coal mining, construction, and other industries. These unions understand that numerous overlapping and overreaching EPA regulations will cause negative economic impacts, and they have actively voiced their concern.



NAME OF UNION	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
Brotherhood of Locomotive Engineers	Sign-On Letter	Coal Ash, Hazardous Waste
Indiana State Building & Construction Trades Council	Letter	Coal Ash, Hazardous Waste
International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers	Sign-On Letter	Proposed MATS / MACT Regulation
International Association Of Plumbers and Pipe Fitters	Sign-On Letter	Coal Ash, Hazardous Waste
International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers & Helpers	Letter, Sign-On Letters	EPA MACT Proposed Regulation, Coal Ash, Hazardous Waste
International Brotherhood of Electrical Workers	Letters & Resolutions	Proposed MATS / MACT Regulation, Coal Ash, Hazardous Waste, Clean Air Transport Rule, NOX, SO2
International Brotherhood of Teamsters	Sign-On Letters	Proposed MATS / MACT Regulation, Coal Ash, Hazardous Waste
Marine Engineers Beneficial Association	Sign-On Letters	Proposed MATS / MACT Regulation, Coal Ash, Hazardous Waste
Sheet Metal Workers International Association	Sign-On Letters	Proposed MATS / MACT Regulation, Coal Ash, Hazardous Waste

### LABOR UNIONS OPPOSED TO EPA OVERREACH

NAME OF UNION	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
Transportation & Communications International Union	Sign-On Letters	Proposed MATS / MACT Regulation, Coal Ash, Hazardous Waste
Unions for Jobs and the Environment	Sign-On Letters	Proposed MATS / MACT Regulation, Coal Ash, Hazardous Waste
United Association of Plumbers and Pipe Fitters	Sign-On Letter	Proposed MATS / MACT Regulation
International Association of Bridge, Structural, Ornamental & Reinforcing Iron Workers	Sign-On Letter	Proposed MATS / MACT Regulation
United Food & Commercial Workers International Union	Sign-On Letter	Proposed MATS / MACT Regulation, Coal Ash, Hazardous Waste
United Mine Workers of America	Sign-On Letters, Letter, Press Release	Proposed MATS / MACT Regulation, Coal Ash, Hazardous Waste, Revoking a Mine Permit
United Transportation Union	Sign-On Letter	Proposed MATS / MACT Regulation, Coal Ash, Hazardous Waste
Utility Workers Union of America	Sign-On Letters, Press Release	Proposed MATS / MACT Regulation, Coal Ash, Hazardous Waste, Revoking a Mine Permit

### WHAT UNIONS ARE SAYING ABOUT THE EPA TRAIN WRECK

"Early shutdowns of coal-fired plants could lead to the loss of 50,000 workers in utilities, mining, railroad and related occupations and 200,000 more in indirect losses. If — as most credible estimates predict — the utilities have to close 50,000 megawatts or more of coal plants, rates will soar and reliability will be dramatically affected in many parts of the country."

—Edwin D. Hill, International President of the International Brotherhood of Electrical Workers<sup>91</sup>

"It's never a good day when hard-working people lose their jobs. The current and future job losses caused as a result of this decision will cause great difficulties for the Spruce mine workers, their families and their local communities." — Cecil E. Roberts, President of the United Mine Workers of America, in response to an EPA veto of a mine permit<sup>92</sup>

"Electricity prices are almost certain to increase as a result of these increased operational and maintenance costs, further impacting industries and consumers. As a result, jobs throughout the country and in nearly every sector of the economy could be threatened at a time when unemployment is high and our economic recovery is uncertain."— -Indiana State Building and Construction Trades Council regarding EPA regulation of coal ash.93

# STATE LEGISLATIVE BODIES OPPOSED TO EPA OVERREACH

There are 17 state legislative bodies that have realized the negative impact that the EPA is having on the states, all passing resolutions opposing EPA overreach. The vast majority of the opposition was to the EPA attempting to regulate greenhouse gases through the Clean Air Act. These legislative bodies represent 14 different states and thousands of state legislators nationwide.

- "... the Indiana House of Representatives urges Congress to adopt legislation prohibiting the Environmental Protection Agency from regulating greenhouse gas emissions, and if necessary, by defunding the EPA's greenhouse gas regulatory activities."
- Indiana House of Representatives Resolution<sup>94</sup>
- "... EPA over-regulation is driving jobs and industry out of the United States ... neither the EPA nor any other entity in the executive branch has undertaken a comprehensive study to determine the cumulative effect this regulatory activity will have on the economy including jobs and competitiveness in worldwide markets ..."
- —Wyoming Legislature Resolution opposing the EPA regulatory train wreck<sup>95</sup>
- "...EPA's regulatory activity as to air quality and greenhouse gases has numerous and overlapping requirements and may have a potentially devastating consequence on the economy..."
- -Missouri House of Representatives Resolution<sup>96</sup>

LEGISLATIVE BODY	LEGISLATION TYPE	ISSUE AREA OF EPA OPPOSITION
Alabama Legislature	Resolution	Greenhouse Gases
Indiana House	Resolution	Greenhouse Gases
Indiana Senate	Resolution	Greenhouse Gases
Iowa House	Resolution	Greenhouse Gases
Kansas House	Resolution	Greenhouse Gases
Kentucky Legislature	Resolution	Combined Sewer Overflow Control Policy
Kentucky Senate	Resolution	Greenhouse Gases
Michigan House	Resolution	Greenhouse Gases
Michigan Senate	Resolution	Greenhouse Gases
Missouri House	Resolution	Greenhouse Gases
Montana Senate	Resolution	Greenhouse Gases
Oklahoma Senate	Resolution	CO2 Emission Limits
Pennsylvania House	Resolution	Federal Water Pollution Control Act Permits
Utah House	Resolution	Greenhouse Gases
Virginia House	Resolution	Greenhouse Gases
Wyoming Legislature	Resolution	"Train Wreck" Air Quality Regulations

## STATE AGENCIES OPPOSED TO EPA OVERREACH

Ten state agencies have also expressed their concern with the EPA. Each one of these state agencies, representing nine different states across the country, focused on the potential EPA regulation of coal ash. It is interesting to note that six of these state agencies are environmental protection agencies. Their mission is to protect the states' citizens from environmental hazards, yet they too have decided that the EPA has overstepped its bounds.

"We believe regulation of coal combustion waste as hazardous waste is unnecessary, as none of these wastes generated by Pennsylvania power plants has been observed to exhibit characteristics of hazardous waste. Classification of coal combustion waste as hazardous would likely end its beneficial use without any tangible increase in environmental protection."— Thomas K. Fidler, Deputy Secretary of the Pennsylvania Department of Environmental Protection<sup>97</sup>

"... the ORS [Office of Regulatory Staff] is concerned that if CCRs [Coal Combustion Residues] are regulated as hazardous waste, there will be significant increases in electric utility rates due to the higher costs of handling and disposing of CCRs. These electric rate increases would adversely affect the ratepayers in South Carolina who currently have 18.3% less disposable income than the average American and face one of the Nation's highest unemployment rates of 11%." — Florence P. Belser, General Counsel of the South Carolina Office of Regulatory Staff98

NAME OF AGENCY	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
lowa Land Quality Bureau, Environmental Services Division	Comment	Coal Ash Disposal
Maryland Department of the Environment	Comment	Coal Ash Disposal
Mississippi Department of Environmental Quality	Comment	Coal Ash Disposal
Missouri Department of Natural Resources	Comment	Coal Ash Disposal
Nevada Division of Environmental Protection	Comment	Coal Ash Disposal
New Jersey Department of Environmental Protection	Comment	Coal Ash Disposal
Pennsylvania Office of Waste, Air and Radiation Management	Comment	Coal Ash Disposal
Pennsylvania Public Utility Commission	Comment	Coal Ash Disposal
South Carolina Office of Regulatory Staff	Comment	Coal Ash Disposal
West Virginia Department of Environmental Protection	Comment	Coal Ash Disposal

**APRIL 2012** 

# TRADE ASSOCIATIONS OPPOSED TO EPA OVERREACH

Lastly, there are 57 trade associations representing hundreds of thousands of companies nationwide that are stepping up and fighting back. These associations represent a broad variety of industries, such as agriculture, forestry, manufacturing, energy, chemicals, mining, independent businesses, the automotive industry, construction, and even apparel and footwear.

Just a couple of examples from this list reveal how many aspects of American life are affected by the EPA. The National Association of Manufacturers (NAM) represents small and large manufacturers in every industrial sector, and in all 50 states. These manufacturers employ nearly 12 million workers and contribute more than \$1.6 trillion to the U.S. economy annually. The industry represented by this association is the largest driver of economic growth in the nation, and accounts for a majority share of private-sector research and development. NAM is concerned with the impact of a number of EPA regulations, including the Utility MACT (MATS), Boiler MACT, the regulation of greenhouse gases and more. The American Forest and Paper Association (AFPA) is the national trade association of the forest products industry, which accounts for approximately 5 percent of the total U.S. manufacturing gross domestic product. Industry companies produce about \$175 billion in products annually and employ nearly 900,000 men and women across the country. From tissue, newsprint, and boxes to wood for construction purposes, AFPA member company products are used in just about every aspect of our lives. AFPA member companies, those employed by the industry, and Americans that rely on their products will be hit hard by the EPA's proposed Boiler MACT Rule.

## WHAT TRADE ASSOCIATIONS ARE SAYING ABOUT THE EPA TRAIN WRECK

"Affordable energy and jobs are top priorities for manufacturers, and the EPA's proposed Utility MACT rule threatens to deal a lethal blow to both. The EPA's Utility MACT proposal is yet another example of excessive overreach that will dampen economic growth and result in job losses."

Chip Yost, Vice President for Energy and Resources
 Policy for the National Association of Manufacturers<sup>99</sup>

"The proposed Boiler MACT rule would destroy jobs in our industry at a time when policymakers are rightly saying we need to preserve and grow manufacturing jobs. EPA has a choice — they can regulate in a way that protects both jobs and the environment, or they can regulate in a way that sacrifices jobs."

Donna Harman, President and CEO of the American
 Forest and Paper Association<sup>100</sup>

"The new EPA requirements could be devastating to consumers and communities across the nation. Consumers would be hurt by the increased cost of fuel ... and the closing of refineries could put local economies at risk, meaning there would be fewer jobs. In addition, we would be forced to rely even more on foreign fuel supplies, and that can only weaken our nation's economy and national security."

Bob Greco, American Petroleum Institute<sup>101</sup>

# TRADE ASSOCIATIONS OPPOSED TO EPA OVERREACH

NAME OF TRADE ASSOCIATION	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
Agricultural Retailers Association	Sign-On Letter	EPA Chesapeake Bay Watershed Regulations
Air Conditioning Contractors of America	Testimonies, Letter	EPA's Ban on Pre-Charged Equipment Rule, Lead, EPA's Proposed HCFC Allocation Rule
Alliance of Automobile Manufacturers	Press Releases	Increase in Ethanol in Fuel Use, Fleet Fuel Economy/GHGs, E15
American Apparel & Footwear Association	Letter	Redundant Compliance with State and Federal Regulations & Laws
American Architectural Manufacturers Association	Press Releases	Regulations for Polyvinyl Chloride (PVC) Manufacturing, Vinyl Production and Use, Increased Manufacturing Costs, Lead: Renovation, Repair and Painting Regulations
American Association of Air Port Executives	Press Releases	EPA Rule Proposing New Standards for Limiting Deicing Fluid Runoff at Commercial Airports, Lead Aviation Fuel
American Chemistry Council	Sign-On Letter	EPA's Final Ozone Emissions, Chemical Safety Assessment
American Cleaning Institute	Press Release	New Guidelines for Cleaning Products
American Coatings Association	Press Release	EPA and HUD Public Service Announcement Campaign About Lead Paint
American Farm Bureau Federation	Sign-On Letters, Press Releases	EPA Chesapeake Bay Watershed Regulations , Bills to Preempt EPA GHG Regulations
American Forest and Paper Association	Sign-On Letters, Press Releases	EPA's Boiler MACT Rule

NAME OF TRADE ASSOCIATION	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
American Gas Association	Letters	EPA Ozone Review Panel, EPA Proposed Rule for Mandatory Reporting of GHGs
American Home Furnishings Alliance	Press Release	EPA Proposed Federal Formaldehyde Rule
American International Automobile Dealers Association	Sign-On Letter	E15 Fuel
American Petroleum Institute	Press Releases, Studies	EPA Gasoline Regulations could Raise Costs, Block EPA from Regulating GHGs
American Public Gas Association	Sign-On Letter	EPA Regulation of Greenhouse Gases
American Public Power Association	Press Release	EPA's Proposed Rule on Electric Generating Unit MACT
American Road & Transportation Builders Association	Sign-On Letters, Letters	EPA Chesapeake Bay Watershed Regulations, Stormwater Permit Regulations, Ozone Standards, Revocation of Valid Permit
American Seed Trade Association	Press Release	EPA's Proposal Eliminates Any Tolerances for Grain Found to Have Sulfuryl Fluoride Residue
American Soybean Association	Press Releases	EPA Over-Regulation, EPA Regulation of Greenhouse Gases, Renewable Fuel Standard
Associated General Contractors of America	Sign-On Letter	EPA Chesapeake Bay Watershed Regulations
Automotive Recyclers Association	Press Release	Stormwater Discharges

# TRADE ASSOCIATIONS OPPOSED TO EPA OVERREACH

NAME OF TRADE ASSOCIATION	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
Automotive Service Association	Press Release	EPA Used Oil Proposal
Automotive Warehouse Distributors Association	Press Release	EPA Used Oil Proposal
CropLife America	Sign-On Letter, Testimony	EPA Chesapeake Bay Watershed Regulations, Impact of EPA Regulation on Agriculture
Environmental Industry Associations	Press Releases	Greenhouse Gas Reporting, GHG regulation, Municipal Solid Waste Facilities
Flexible Packaging Association	Press Release	Emissions of Toxic Air Pollutants
Industrial Minerals Association North America	Sign-On Letter, Letter	EPA Chesapeake Bay Watershed Regulations, GHG Regulations
International Council of Shopping Centers	Sign-On Letter	EPA Chesapeake Bay Watershed Regulations
Interstate Natural Gas Association of America	Letter	Identifying Waters Protected by the Clean Water Act
Irrigation Association	Sign-On Letter	EPA Chesapeake Bay Watershed Regulations
NACS - The Association for Convenience and Fuel Retailing	Press Release	E-15 Gasoline Rule
NAFA Fleet Management Association	Press Release	E-15 Gasoline Rule
National Association of Manufacturers	Press Releases, Sign on Letters	New Ozone Standards, Utility MACT, Chesapeake Bay Watershed Regulations, Boiler MACT, GHGs, EPA Job Killing Regulations, Overregulation, Section 404 Permit

NAME OF TRADE	DOCUMENT	ICCLIE ADEA OF EDA
NAME OF TRADE ASSOCIATION	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
National Business Aviation Association	Sign-On Letter	Lead in Piston Aircraft Gasoline
National Cattlemen's Beef Association	Sign-On Letter, Press Release	EPA Chesapeake Bay Watershed Regulations, EPA Overregulation
National Chicken Council	Press Releases	EPA Chesapeake Bay Watershed Regulations , E15 Gasoline Rule
National Corn Growers Association	Press Release	Clean Water Act Guidelines
National Cotton Council of America	Sign-On Letter	EPA Chesapeake Bay Watershed Regulations
National Federation of Independent Business	Press Release	Greenhouse Gases
National Lumber and Building Material Dealers Association	Press Release	Lead Regulations
National Milk Producers Federation	Sign-On Letter	EPA Chesapeake Bay Watershed Regulations
National Oilseed Processors Association	Letter	EPA's Proposed Utility MACT Rule
National Petrochemical & Refiners Association	Press Releases & Letter	Chemical Reporting Rule , Renewable Fuel Standard, Cellulosic Biofuels, GHGs
National Pork Producers Council	Sign-On Letter, Press Release	EPA Chesapeake Bay Watershed Regulations, E15 Gasoline Rule
National Stone, Sand & Gravel Association	Sign-On Letter	EPA Chesapeake Bay Watershed Regulations
National Turkey Federation	Press Releases	Water Quality, E15 Gasoline Rule
Natural Gas Supply Association	Sign-On Letter	Greenhouse Gases

# TRADE ASSOCIATIONS OPPOSED TO EPA OVERREACH

NAME OF TRADE ASSOCIATION	DOCUMENT TYPE	ISSUE AREA OF EPA OPPOSITION
Portland Cement Association	Press Releases	National Emission Standard for Hazardous Air Pollutants, Cement EPA Regulation
The Alkylphenols & Ethoxylates Research Council	Press Releases	EPA's Screening Level Review of NP/NPEs, NPEs in BP Oil Spill Dispersants
The Brick Industry Association	Press Release	Greenhouse Gases
The Fertilizer Institute	Sign-On Letter, Press Releases	EPA Chesapeake Bay Watershed Regulations, Climate Regulations, NNC, Water Pollutants
The National Mining Association	Press Releases, Sign-On Letter	New Air Regulations, Chesapeake Bay Watershed Regulations, Utility MACT, Section 404 Permit
U.S. Chamber of Commerce	Letters, Sign-On Letter	Air Pollutants From Coal and Oil-Fired Electric Utility Steam Generating Units, PVC, Water Quality, GHG/Fuel Economy, TSCA, Unfunded Mandates, Overregulation, Coal Ash
U.S. Poultry & Egg Association	Press Releases	Water Quality
United Egg Producers	Sign-On Letter	EPA Chesapeake Bay Watershed Regulations
United Soybean Board	Press Releases	Water Quality

## WHAT TRADE ASSOCIATIONS ARE SAYING ABOUT THE EPA TRAIN WRECK

"The costs incurred by utilities, refiners and manufacturers to comply with GHG regulations will be passed along to their customers, including farmers and ranchers, increasing their fuel, fertilizer and energy costs. Unlike other types of businesses, farmers and ranchers have much less ability to pass along such costs."

Bob Stallman, American Farm Bureau Federation
 President<sup>102</sup>

"EPA is out of control and often acts as activists rather than a taxpayer-funded government agency that is expected to use sound science when imposing regulations. We cannot allow EPA to jeopardize economic growth by placing opinions over science."

— Ashley Lyon, National Cattlemen's Beef Association Deputy Environmental Counself<sup>103</sup>

"EPA is now imposing emission levels 5-12 times stricter than Europe. Such excessive regulation will shift production, investment and jobs offshore to countries like China. Already the world's largest cement producer, China's standards have a long way to go before they catch-up to what the U.S. has, even before these recent EPA regulations. In the end, we don't even improve air quality in the United States, as their emissions will eventually reach us."

—Aris Papadopoulos, Chair of the Portland Cement Association<sup>104</sup>

# TOOLS FOR STATE LEGISLATORS

There exist a number of tools at the disposal of state legislators to make sure their state is heard in 2012 and beyond. This section provides an introduction to some of the approaches and language that have been utilized by state legislatures, and some new strategies being tested throughout the United States. It often seems fruitless for state legislators to push back against federal government overreach, but it is imperative that one uses all of the tools possible in order to maintain the balance of power between federal and state governments.

# **Model Resolutions Addressing EPA Overreach**

ALEC has a number of model resolutions that state legislators can introduce directly addressing the EPA regulatory train wreck. These resolutions are intended to push back against an everexpanding federal government and Administration.



### RESOLUTION OPPOSING THE EPA'S REGULATORY TRAIN WRECK

This resolution calls on Congress to slow and stop the EPA's train wreck. This resolution highlights the impact and scope of the EPA's recent regulatory offensive. It also calls on Congress to adopt legislation prohibiting the EPA by any means necessary from regulating greenhouse gases, impose a moratorium on any new air quality regulation for at least two years, and requires the Administration to undertake a multi-agency study identifying all EPA regulatory activity and the cumulative effect on the economy, jobs, and American competitiveness.

#### Reason to introduce:

This is the most comprehensive ALEC resolution addressing EPA overreach. It is important to get the state on record as calling on Congress to stop the regulatory train wreck. It is needed to bolster allies in Congress and to show the EPA and the Administration that consequences will follow across the country if they refuse to pull back.



## RESOLUTION IN OPPOSITION TO THE EPA'S REGULATION OF GREENHOUSE GASES FROM MOBILE SOURCES

This resolution takes issue with the Supreme Court's review of climate science and its ruling that the EPA has the authority to regulate greenhouse gases under the Clean Air Act. It opposes the EPA endangerment finding and regulation of mobile source greenhouse gas emissions.

#### Reason to introduce:

Although the EPA is well under way in regulating greenhouse gases from mobile sources, introduction of this resolution would provide an excellent vehicle to express dissatisfaction of regulating greenhouse gases from mobile sources.



### RESOLUTION IN OPPOSITION OF CARBON DIOXIDE STANDARDS

This resolution lays out the argument against mandatory or voluntary carbon dioxide emission standards and the use of greenhouse gas transferable credits as a tool for environmental policy or regulation. The resolution also states that "state regulations of carbon dioxide emission standards for motor vehicles is tantamount to a state version of federal fuel economy mandates that reduce consumer

choice by restricting production of larger, heavier vehicles that provide more utility and passenger safety."

#### Reason to introduce:

Setting carbon dioxide standards will significantly and negatively impact the state's economy with little or no environmental benefit. This is a powerful opposition statement regarding the regulation of carbon dioxide.



## RESOLUTION ON BEST AVAILABLE CONTROL TECHNOLOGY FOR COAL-BASED ELECTRIC GENERATION

This resolution offers guidance to state regulatory agencies on how to interpret "Best Available Control Technology" (BACT) when issuing Prevention of Significant Deterioration permits for the BACT requirements for greenhouse gases from coal-based electric generation. The language expresses the need for new electric generation that is efficient and economically practicable. It also encourages accommodation of highly efficient power technologies, like super-critical and ultra-super-critical coal-fired electric generating units, to serve the dual purpose of reducing the overall emissions profile of the electricity generation unit while providing efficient, affordable, and available power today and into the future.

#### Reason to introduce:

Considering the extremely vague guidance offered by the EPA as to what constitutes "Best Available Control Technology," legislatures should consider weighing in to prevent overly restrictive interpretations that could devastate investment and certainty. Also, this resolution is needed to be able to incorporate highly efficient and reliable technologies into the definition of BACT.



#### **RESOLUTION TO RETAIN STATE AUTHORITY OVER COAL** III ASH AS NON-HAZARDOUS WASTE

This resolution supports the 2000 EPA determination that coal combustion residuals do not warrant federal regulation as

hazardous waste, and concludes that states are best positioned to serve as the principal regulatory authority for CCRs as nonhazardous waste.

#### Reason to introduce:

The concern regarding EPA overreach into state regulatory affairs warrants the introduction of this resolution. In addition, the overregulation of coal ash and impacts on electric reliability and electricity rates merits a pushback from the states.



#### **RESOLUTION IN OPPOSITION TO THE EPA'S PLAN TO REGULATE GREENHOUSE GASES UNDER THE CLEAN AIR ACT**

This resolution opposes the EPA's endangerment finding and any regulation of greenhouse gases, citing the massive economic burden that would result and the global nature of climate emissions.

#### Reason to introduce:

This resolution is more comprehensive than the Resolution in Opposition to EPA's Regulation of Greenhouse Gases from Mobile Sources, because it expresses opposition to the endangerment finding and all regulation of greenhouse gases. This year and next will be critical years, in which the EPA will roll out regulations of greenhouse gases. In addition, 2012 and 2013 will be filled with litigation surrounding every aspect of the endangerment finding and greenhouse gas regulation. It is imperative that states voice opposition to regulations that would significantly damage state economies, grow federal influence within state borders, and lead to little or no environmental benefit.



#### **RESOLUTION TO RETAIN STATE AUTHORITY OVER** HYDRAULIC FRACTURING

This resolution anticipates the EPA's planned regulation of hydraulic fracturing. It explains that reservoirs producing oil and gas are highly variable geologically, and separated geographically

across the oil- and gas-producing states such that state regulatory agencies are best suited, through local expertise and experience, to effectively regulate hydraulic fracturing.

#### Reason to introduce:

The EPA is currently working on a federal regulatory framework for hydraulic fracturing. To push back against federal overreach, introduction of this resolution would influence the regulatory process and send a strong message that the state regulatory framework is adequate, and that the state should have sovereignty over state-specific energy development issues.



#### **RESOLUTION ON RESPONSIBLE RESOURCE** DEVELOPMENT

This resolution also focuses on the jurisdiction of regulating hydraulic fracturing. It describes in detail the benefits of resource development in the states, and encourages responsible resource development practices, balanced efforts to ensure reliable U.S. energy resources, and continued jurisdiction of the states to appropriately regulate oil and gas production in their unique geological and geographical circumstances.

#### Reason to introduce:

This resolution asserts that states can effectively and safely extract and use resources within their borders. In order to preemptively push back against potential federal regulation of hydraulic fracturing, this resolution confirms that the state is the best entity to deal with the unique characteristics within their state.



RESOLUTION IN SUPPORT OF ENERGY SECURITY, PRODUCTION, DISTRIBUTION, ENVIRONMENTAL PROTECTION, AND ECONOMIC GROWTH IN THE U.S

This resolution requests that Congress quickly pass legislation and take other actions as necessary so that that the benefits of coal-fire-generated electricity to Americans and state economies are increased, not decreased; fuel diversity and grid reliability

is improved, not restricted; and continuing emission reduction progress is made while minimizing capital costs, rate increases, and other economic impacts while meeting public health and environmental goals.

#### Reason to introduce:

This resolution pushes back against the implications of the Cross-State Air Pollution Rule, the regulation of coal combustion residuals, and the Utility MACT Rule that threaten the reliability and security of the nation's energy supply. It sends a message to Congress and the Administration that the state does not approve of recent regulatory actions that threaten the ability of the state to have affordable and reliable electricity generation.



#### RESOLUTION REQUESTING THAT THE FEDERAL **GOVERNMENT CONFER AND CONSULT WITH THE** TIPE STATES ON MANAGEMENT OF PUBLIC LANDS AND **ENERGY RESOURCES**

This resolution requests Congress and the Administration to acknowledge and respect the role of states in a federal constitutional republic. It calls on Congress and the Administration to commit to greater consultation with the states, and to recognize cost-benefit and job-impact analyses must be addressed in order to understand how federal regulations impact states and their respective citizens.

#### Reason to introduce:

Every year, the federal government further erodes state sovereignty by handing down decisions on the use of energy on public land. Introduction of this resolution demands a seat at the table when decisions are made at the federal level that affect public land and energy development.

# Model Legislation Addressing Regulatory Overreach

These model bills provide direct action against the EPA or state-specific environmental regulatory activity by providing accountability and transparency, and creating alliances among the states.



#### **REGIONAL AIR QUALITY INTERSTATE COMPACT**

The Regional Air Quality Interstate Compact asserts the right of states to retain authority over their own implementation plans to enforce the Clean Air Act. The interstate compact has throughout constitutional history been a tool for states to exercise joint authority over a common issue, and the Supreme Court has held in recent decades that it can be an effective means for states to preserve their sovereignty and push back against federal overreach.

Under the cooperative federalism model established by the Clean Air Act, the federal government traditionally defers enforcement of many air quality standards to states, which develop and submit for approval their own State Implementation Plans. However, in the wake of the onslaught of rapidly enforced regulations, the EPA revoked the authority of eight states to develop SIPs and imposed a Federal Implementation Plan. The EPA argued that states were not adapting their plans quickly enough to include the new bevy of regulations, including regulations of greenhouse gases that are not explicitly authorized by the Clean Air Act.

The compact represents a direct attempt to combat the EPA on this particular legal issue — the violation of state sovereignty to implement CAA requirements through SIPs. It establishes a commission comprising representatives of joining states to develop non-binding common guidance for SIP enforcement of the CAA. Per Supreme Court precedent, a compact that receives

Congressional consent assumes the force of federal law, and it would displace the authority of the EPA to implement the portions of the Clean Air Act covered by the compact. State sovereignty to develop their own plans to meet air quality requirements, as explicitly outlined in the CAA, would be restored.

#### Reason to introduce:

Full implementation of the compact, which requires Congressional consent, is an admittedly uphill battle. Nonetheless, the compact is still more than just stated opposition to the EPA Train Wreck. It makes a compelling constitutional case for a viable solution demonstrating that state legislatures are serious about restoring state sovereignty and reason to air quality regulation. A broad coalition of states joined together would offer a proposal to Congress directly from constituents to which it would have to respond. By taking this actionable step, state legislatures can publicly address the federalism concerns raised by the actions of the EPA.



#### **CLIMATE ACCOUNTABILITY ACT**

This model bill requires that before implementation of any government expenditure to reduce greenhouse gas emissions, the respective agency must provide the overall cost per ton of carbon dioxide—equivalent to be achieved by the policy. This bill is designed to ensure that states receive the greatest return possible on environmental expenditures.

#### Reason to introduce:

Many states are passing and implementing laws to reduce greenhouse gas emissions. If these efforts cannot be stopped, holding the programs designed to reduce these emissions accountable and assessing their relative cost would shine a light on the expense of these activities and guide the process toward less expensive alternatives.



#### CONDITIONING REGULATION OF NON-POLLUTANT **EMISSIONS ON SCIENCE ACT**

This legislation requires a state environmental administrator to perform an assessment prior to implementing regulation of an emission not explicitly listed as a "pollutant" under the Clean Air Act. This includes a "regulatory right to know" disclosure, to include: reasonable demonstration that authority is necessary to protect public health or welfare; whether there is a significant impact on energy availability or price; and if the regulation is feasible and superior to alternatives.

#### Reason to introduce:

This legislation provides full disclosure and a proper procedure for regulating any pollutants not explicitly listed under the Clean Air Act. States should be concerned with the impact of such regulation on energy availability and price. This will provide proper consideration before moving forward with a regulation that has potentially damaging unintended consequences.



#### **ECONOMIC IMPACT STATEMENTS ACT**

This bill is designed to provide environmental protection without compromising economic growth, by requiring an economic analysis of new environmental regulations. Key components of the bill include: detailed short-term and longterm projections of the economic effects of regulation, and legislative review of regulators.

#### Reason to introduce:

This bill is essential for states that want proper evaluation of the economic costs of a proposed regulation. It will also allow for better decision making in deciding to implement a regulation that could have a major impact on the state's economy.



#### STATE REGULATORY RESPONSIBILITY ACT

This Act clearly establishes the role of a state environmental agency when confronted with attempted intrusive and unauthorized actions by the federal government. The purpose of the Act is to ensure the division of governmental responsibilities between the federal government and the states under the principles of federalism, so those state agencies are free to implement their powers without unauthorized federal interference.

Toward that end, the legislation establishes three policies. First, the Act prevents a state agency from complying with a federal requirement that is inconsistent with state law unless the requirement is clearly expressed in a federal statute or rule, and is adopted pursuant to the Federal Administrative Procedures Act. Second, the Act precludes a state agency from allowing federal law to preempt state law unless the state attorney general finds that such preemption is required. Lastly, the Act prohibits state agencies from complying with any federal regulatory mandate or requirement unless adequate funds are provided, the state agency has express state statutory authority to implement the program, and the action does not conflict with state law. These provisions ensure that the state does not accept unfunded mandates, and has the authority to implement a delegated program consistent with state law.

#### Reason to introduce:

This Act effectively pushes back against unfunded and unwarranted federal intervention in the states. The State Regulatory Responsibility Act is one way to address the federal government overstepping its bounds.



#### STATE SOVEREIGNTY THROUGH LOCAL **TIFF** COORDINATION ACT

This model legislation grants city and town governments the authority to demand that the federal or state government government when the federal or state government imposes a law or regulation more restrictive than local law or regulation. According to American Stewards for Liberty, coordination is mandated by federal law and "requires federal agencies to coordinate their plans, programs and management activities with local governments."105

#### Reason to introduce:

This legislation is a powerful tool that can be used to protect private property rights, productive uses of land, and local economies from burdensome government regulations.

#### Other Avenues to Make Your Voice Heard

States should pursue all available legal means for opposing excessive EPA regulation, including filing appeals of EPA rules or filing interventions of amicus briefs in the appropriate proceedings. As of last year, 18 states are party to a case before the D.C. Circuit appeal on the EPA endangerment finding and greenhouse gas regulations: TX, MI, HA, IN, KY, LA, NE, ND, OK, SC, SD, UT, MI, AK, FL, VA, AL, and GA. One approach to this litigation, as proposed in New Hampshire in 2011, would require incoming attorneys general to join ongoing lawsuits over EPA regulation.

Another example of the success of pursuing legal options is the delay of the Cross-State Air Pollution Rule. The states of Alabama, Florida, Kansas, Nebraska, Oklahoma, South Carolina, Texas, and Virginia, along with several private companies, sued the EPA in federal court in order to halt the implementation of this regulation. The rule was to be implemented on Jan. 1, 2012, but was stayed by the court because of pending litigation.

coordinate its law or regulation with that of the local State legislators should consider filing comments on individual EPA rules. Although the Agency has proceeded on an unnecessarily rapid path for regulating nearly every aspect of the economy, there are opportunities for state legislators to protect their constituents' interests by filing comments at www.regulations.gov. During 2012, ALEC will provide updates to regulations and will identify and post opportunities to comment at www.regulatorytrainwreck. com.

> State legislators should write focused, joint letters to their congressional delegations, particularly if your federal representatives are on the fence about action to limit EPA's agenda. For example, Wyoming's Joint Minerals, Business and Economic Development Interim Committee coauthored a letter to their incoming and outgoing governors and congressional delegation, asking them to "stand as one against the efforts of the United States Environmental Protection Agency (EPA) as they seek to regulate carbon dioxide and other greenhouse gases in the state of Wyoming." On March 18, 2011, 20 governors sent a letter to President Obama about the "unreasonably aggressive regulatory agenda being pursued by the U.S. Environmental Protection Agency."

> Legislators should also consider holding oversight hearings over the EPA's regulatory train wreck, including both regional and national EPA officials, as well as state administrators.

> As the media educates minds and minds inform policy, ALEC members should attempt to inform the public by writing opeds and pursuing other press opportunities to highlight the damage that this train wreck will cause to local economies. Talking points for five of the major EPA regulations are available at www.regulatorytrainwreck.com.

# **GLOSSARY OF TERMS**

#### ATTAINMENT AREA

An area considered to have air quality as good as or better than the national ambient air quality standards as defined in the Clean Air Act. An area may be an attainment area for one pollutant and a non-attainment area for others.

#### **BEST AVAILABLE CONTROL TECHNOLOGY (BACT)**

An emission limitation based on the maximum degree of emission reduction (considering energy, environmental, and economic impacts) achievable through application of production processes and available methods, systems, and techniques. BACT does not permit emissions in excess of those allowed under any applicable Clean Air Act provisions. Use of the BACT concept is allowable on a case-by-case basis for major new or modified emissions sources in attainment areas, and applies to each regulated pollutant.

#### **CLEAN AIR ACT (CAA)**

Enacted in 1970 and amended in 1977 and 1990, the CAA requires industries to use various technologies to reduce air pollutants that contribute to acid rain and smog by establishing national ambient air quality standards.

#### **CRITERIA AIR POLLUTANT**

The 1970 amendments to the Clean Air Act required the EPA to set National Ambient Air Quality Standards for certain pollutants known to be hazardous to human health. The EPA has identified and set standards to protect human health and welfare for six pollutants: ozone, carbon monoxide, total suspended particulates, sulfur dioxide, lead, and nitrogen oxide. The term "criteria pollutants" derives from the requirement

that the EPA must describe the characteristics and potential health and welfare effects of these pollutants. It is on the basis of these criteria that standards are set or revised.

#### **FEDERAL IMPLEMENTATION PLAN (FIP)**

Under current law, a federally implemented plan to achieve attainment of air quality standards, used when a state is unable to develop an adequate plan.

#### **HAZARDOUS AIR POLLUTANT (HAP)**

Air pollutants that are not covered by ambient air quality standards, but which, as defined in the Clean Air Act, may present a threat of adverse human health effects or adverse environmental effects. Such pollutants include asbestos, beryllium, mercury, benzene, coke oven emissions, radionuclides, and vinyl chloride.

#### **MAJOR STATIONARY SOURCES**

Term used to determine the applicability of Prevention of Significant Deterioration and new source regulations. In a nonattainment area, any stationary pollutant source with potential to emit more than 100 tons per year is considered a major stationary source. In PSD areas, the cutoff level may be either 100 or 250 tons, depending on the source.

#### MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT)

The emission standard for sources of air pollution requiring the maximum reduction of hazardous emissions, taking cost and feasibility into account. Under the Clean Air Act Amendments of 1990, the MACT must not be less than the average emission level achieved by controls on the bestperforming 12 percent of existing sources, by category of industrial and utility sources.

#### MOBILE SOURCE

Any non-stationary source of air pollution such as cars, trucks, motorcycles, buses, airplanes, and locomotives.

#### NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

Standards established by EPA that apply for outdoor air throughout the country.

#### NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

Emissions standards set by the EPA for an air pollutant not covered by NAAQS that may cause an increase in fatalities, or in serious, irreversible, or incapacitating illness. Primary standards are designed to protect human health, secondary standards to protect public welfare (e.g., building facades, visibility, crops, and domestic animals).

#### **NEW SOURCE PERFORMANCE STANDARDS (NSPS)**

Uniform national EPA air emission and water effluent standards that limit the amount of pollution allowed from A fixed-site producer of pollution, mainly power plants and new sources, or from modified existing sources.

#### **NEW SOURCE REVIEW (NSR)**

A Clean Air Act requirement that State Implementation Plans must include a permit review that applies to the construction and operation of new and modified stationary sources in nonattainment areas, to ensure attainment of national ambient air quality standards.

#### **NONATTAINMENT AREA**

An area that does not meet one or more of the National Ambient Air Quality Standards for the criteria pollutants designated in the Clean Air Act.

#### **PERMIT**

An authorization, license, or equivalent control document issued by the EPA or an approved state agency to implement the requirements of an environmental regulation; e.g., a permit to operate a wastewater treatment plant, or to operate a facility that may generate harmful emissions.

#### PREVENTION OF SIGNIFICANT DETERIORATION (PSD)

EPA program in which state and/or federal permits are required in order to restrict emissions from new or modified sources in places where air quality already meets or exceeds primary and secondary ambient air quality standards.

#### **SCRUBBER**

An air pollution device that uses a spray of water or reactant, or a dry process to trap pollutants in emissions.

#### STATE IMPLEMENTATION PLAN (SIP)

EPA-approved state plans for the establishment, regulation, and enforcement of air pollution standards.

#### STATIONARY SOURCE

other facilities using industrial combustion processes.

# REFERENCES

<sup>1</sup>Steven Hayward. 2011 Almanac of Environmental Trends. Pacific Research Institute. Apr. 2011. Available at: http://www.pacificresearch.org/docLib/20110419\_ almanac2011.pdf

<sup>2</sup>Laura B. Shrestha. Life Expectancy in the United States. Congressional Research Service. Aug. 16, 2006. Available at: http://aging.senate.gov/crs/aging1.pdf

<sup>3</sup>U.S. Census Bureau. Statistical Abstract of the United States. 2011. Available at: http://www.census.gov/compendia/statab/2011/tables/11s0103.pdf

<sup>4</sup>The Annapolis Center for Science-Based Public Policy. 2006. "Economic Growth and Low-Cost Energy Drive Improved Public Health."

<sup>5</sup>U.S. Bureau of Labor Statistics. Consumer Expenditure Survey 2009. Oct. 2010.

<sup>6</sup>Statistics on Federal Register pages published annually. Available at: http://www.llsdc.org/attachments/wysiwyg/544/fed-reg-pages.pdf

<sup>7</sup>Weidenbaum Center, Washington University and the Regulatory Studies Center, the George Washington University.

Derived from the Budget of the United States Government and related documents, various fiscal years.

Schamber of Commerce comments to EPA on Docket ID No. EPA-HQ-OAR-2001-0017: National Ambient Air Quality Standards for Particulate Matter.

<sup>9</sup>Daniel E Klein and Ralph L. Keeney. "Mortality Reductions from Use of Low-Cost Coal-Fueled Power: An Analytical Framework." Twenty-First Strategies. Mclean, Virginia. Dec. 2002.

<sup>10</sup>Jon McKinney, Chair, NARUC Clean Coal and Carbon Sequestration Subcommittee and Commissioner of the West Virginia Public Service Commission. Support Document for remarks made at the NARUC/FERC Electricity Reliability and Environment Forum. Feb. 7, 2012.

<sup>11</sup>"Potential Impacts of EPA Air, Coal Combustion Residuals, and Cooling Water Regulations." National Economic Research Associates, Inc. 2011. Available at: http://www.americaspower.org/sites/default/files/NERA\_Four\_Rule\_Report\_Sept\_21.pdf

12"Comments by the Texas Commission on Environmental Quality Regarding the National Emission Standards for Hazardous Air Pollutants from Coal and Oil-fired Electric Utility Steam Generating Units." EPA Docket ID No. EPA-HQ-OAR-2009-0234.

<sup>13</sup>"Comments by the Texas Commission on Environmental Quality Regarding the National Emission Standards for Hazardous Air Pollutants from Coal and Oil-fired

Electric Utility Steam Generating Units." EPA Docket ID No. EPA-HQ-OAR-2009-0234.

<sup>14</sup>Lewandowski, Thomas, Ph.D. Memorandum to American Coalition for Clean Coal Electricity. "Review of Proposed EPA HAPs Rule." Aug. 4, 2011 ("Gradient memorandum").

<sup>15</sup>U.S. EPA. "Regulatory Impact Analysis of the Proposed Toxics Rule: Final Report." Mar. 2011.

<sup>16</sup>"EPA states that non-cancer risks for the non-mercury HAPs for coal units never exceeded a non-cancer hazard index of 0.05 whereas the level of concern would be 1.0." EPA's definition of "hazard index" states that "... exposures equal to or below [a hazard index] of 1.0 ... likely will not result in adverse non-cancer health effects over a lifetime of exposure and would ordinarily be considered acceptable." (see http://www.epa.gov/ttn/atw/nata2005/gloss1.html.)

<sup>17</sup>Smith, Anne Ph. D. Testimony at Hearing on "Quality Science for Quality Air." Subcommittee on Energy and the Environment. Committee on Science, Space, and Technology. U.S. House of Representatrives. Oct. 4, 2011.

<sup>18</sup>Don Wolf PE. Overview of the EPA's Industrial Boiler MACT Rule. Burns and McDonnell. Mar. 2011. Available at: http://www.burnsmcd.com/Resource\_/ PageResource/PDF Uploads/White Papers/White-Paper-Boiler-MACT-032511.pdf

<sup>19</sup>USEPA Issues Final Boiler MACT Rule. Environmental Law Resource. Mar. 2011. Available at: http://www.environmentallawresource.com/2011/03/articles/air/usepa-issues-final-boiler-mact-rules/

<sup>20</sup>Full letter available at: http://epw.senate.gov/public/index. cfm?FuseAction=Minority.Speeches&ContentRecord\_id=5d9e1da9-802a-23ad-4b41-98994e366d4c&Region\_id=&Issue\_id=

<sup>21</sup>Winslow Sargeant, Chief Counsel for Advocacy, and Kevin Bromberg, Assistant Chief Counsel for Environmental Policy, Small Business Administration Office of Advocacy. Letter to Lisa Jackson, Administrator, Environmental Protection Agency. Aug. 23, 2010. Available at: http://www.sba.gov/advocacy/816/12752

<sup>22</sup>United Steelworkers Union. "Comment: Proposed Rule, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters," Document ID: EPA-HQ-OAR-2002-0058-2964.1. Available at: http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2002-0058-2964.1

<sup>23</sup>IHS/Global Insight (for the Council of Industrial Boiler Owners), "The Economic Impact of Proposed EPA Boiler/Process Heater MACT Rule on Industrial, Commercial, and Institutional Boiler and Process Heater Operators," Aug. 2010. Available at:

http://www.cibo.org/pubs/boilermact jobsstudy.pdf

<sup>24</sup>Business Roundtable. Background on Industrial Boiler MACT. Apr., 2011. Available at: http://businessroundtable.org/studies-and-reports/background-paper-on-industrial-boiler-mact

<sup>25</sup>United States Environmental Protection Agency. "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, Request for Comment on Proposed Rule." Jun. 9, 2010. Available at: http://www.epa.gov/air/ej/pdfs/commentmajoricib.pdf

<sup>26</sup>United States Environmental Protection Agency. "EPA Establishes Clean Air Act Standards for Boilers and Incinerators / Sensible standards provide significant public health benefits while cutting costs from initial proposal by nearly 50 percent." Feb. 23, 2011. Available at: http://yosemite.epa.gov/opa/admpress.nsf/ 6424ac1caa800aa b85257359003f5337/06ddff3abfb133d585257840005e6406%21OpenDocument

<sup>27</sup>42 U.S.C. § 6982.

<sup>28</sup>"Upton Fights EPA's Misguided Coal Ash Rule that Could Cost Billions and Eliminate Thousands of Jobs." Nov. 22, 2010. Available at: http://www.upton.house.gov/News/DocumentSingle.aspx?DocumentID=215616

<sup>29</sup>U.S. EPA. Coal Combustion Residues-Proposed Rule. Available at: http://www.epa.gov/osw/nonhaz/industrial/special/fossil/ccr-rule/index.htm

30 Ibid.

<sup>31</sup>Senate and Congressional Western Caucuses. "The War on Western Jobs." Sep. 2010. Available at: http://robbishop.house.gov/UploadedFiles/WaronWesternJobsReportFinal.pdf

<sup>32</sup>EPRI. Comments to EPA on Disposal of Coal Combustion Residuals From Electric Utilities. Nov. 18, 2010. Available at: http://www.uswag.org/pdf/2010/CCR%20 Comments/EPRI%20Part111192010.pdf

<sup>33</sup>Thomas R. Kuhn and David K. Owens. "Electricity 2010: Opportunity Dressed as Hard-Work." Feb. 10, 2010. Available at: http://www.eei.org/ourissues/finance/Documents/Wall Street Briefing 2010.pdf

<sup>34</sup>Neil King, Jr., and Rebecca Smith. "White House, EPA at Odds Over Coal-Waste Rules." Wall Street Journal, Jan. 9, 2010. Available at: http://online.wsj.com/article/SB126300256672322625.html

<sup>35</sup>U.S. EPA. Hazardous Waste Identification. p. 14. Available at: http://www.epa.gov/osw/inforesources/pubs/orientat/rom31.pdf

<sup>36</sup>"EPA says ash not hazardous." May 5, 2010. Available at: http://www.pittsburghlive.com/x/pittsburghtrib/business/s 679528.html

<sup>37</sup>Rep. David McKinley. "Coal Ash bill a winner for American economy." The Daily Caller. Apr. 15, 2011. Available at: http://dailycaller.com/2011/04/15/coal-ash-legislation-a-winner-for-american-economy/

<sup>38</sup>North American Electric Reliability Corporation (NERC). "2010 Special Reliability

Scenario Assessment: Resource Adequacy Impacts of Potential U.S. Environmental Regulations." Oct. 2010. Available at: http://www.nerc.com/files/EPA\_Scenario\_Final v2.pdf

<sup>39</sup>Nuclear Energy Institute. "Issues in Focus" at 1.

<sup>40</sup>PSEG. "Navigating the Environmental Regulatory Landscape: Overview of Forthcoming National Environmental Requirements, Impacts to the Electric Power Industry, and PSEG Power's Position." Jun. 29–30, 2010. Available at: http://www.nerc.com/files/EPA Scenario Final v2.pdf

<sup>41</sup>Rep. Fred Upton. "Declaring war on the regulatory state." The Washington Times. Oct. 18, 2010. Available at: http://www.washingtontimes.com/news/2010/oct/18/declaring-war-on-the-regulatory-state/

<sup>42</sup>Nuclear Energy Institute. "Issues in Focus: Water Use and Electricity Production." Nov. 2010. Available at: http://www.nei.org/filefolder/Issues\_in\_Focus\_-\_Water\_ Use.pdf

<sup>43</sup>Nuclear Energy Institute. "EPA Should Consider Flexible Approaches to Clean Water Regulation." Nov. 2010. Available at: http://www.nei.org/resourcesandstats/documentlibrary/protectingtheenvironment/policybrief/epa-should-consider-flexible-approaches-to-clean-water-act-revision/

<sup>44</sup>"Estimate of Impacts of EPA Proposals to Reduce Air Emissions from Hydraulic Fracturing Operations." Advanced Resources International Inc. Feb. 2012. Available at: http://www.api.org/~/media/Files/Policy/Hydraulic\_Fracturing/NSPS-OG-ARI-Impacts-of-EPA-Air-Rules-Final-Report.ashx

<sup>45</sup>"Energy for Economic Growth: Energy Vision Update 2012." World Economic Forum and IHS CERA. Available at: http://www3.weforum.org/docs/WEF\_EN\_IndustryVision.pdf

<sup>46</sup>J. Daniel Arthur, Brian Bohm, and Mark Layne. "Hydraulic Fracturing Considerations for Natural Gas Wells of the Marcellus Shale." Sep. 21, 2008. Available at: http://www.thefriendsvillegroup.com/HydraulicFracturingReport1.2008.pdf

<sup>47</sup>Pennsylvania Hydraulic Fracturing State Review. Pennsylvania Department of Environmental Protection. Sep. 2010. Available at: http://www.strongerinc.org/documents/PA%20HF%20Review%20Print%20Version.pdf

<sup>48</sup>"Faulty Wells, Not Fracking, Blamed for Water Pollution." Wall Street Journal. Mar. 12, 2012. Available at: http://online.wsj.com/article/SB1000142405270230453790457 7277814040731688.html?mod=googlenews\_wsj

<sup>49</sup>City of Fort Worth Natural Gas Air Quality Study. Jul. 13, 2011. Available at: http://fortworthtexas.gov/uploadedFiles/Gas Wells/AirQualityStudy final.pdf

<sup>50</sup>"Study: No 'significant health threats' from natural gas sites in Fort Worth." Star-Telegram. Jul. 15, 2011. Available at: http://www.star-telegram. com/2011/07/14/3222750/no-significant-health-threats.html

<sup>51</sup>"Ohio Earthquake Likely Caused by Fracking Wastewater." Scientific American. Jan. 4, 2012. Available at: http://www.scientificamerican.com/article.cfm?id=ohio-

**APRIL 2012** 

earthquake-likely-caused-by-fracking

<sup>52</sup>Ozone Rule Fact Sheet. Business Roundtable. Jul. 14, 2011. Available at: http://businessroundtable.org/studies-and-reports/ozone-rule-fact-sheet/

<sup>53</sup>Donald A. Norman. "Economic Implications of EPA's Proposed Ozone Standard." Sep. 2010. Available at: http://www.mapi.net/Filepost/ER-707.pdf

<sup>54</sup>Roger McClellan. Statement Before the Senate Subcommittee on Clean Air and Nuclear Safety, Senate Environment and Public Works Committee, Hearing on EPA's Proposed Revision to the National Ambient Air Quality Standards for Ozone. Jul. 11, 2007. Available at: http://epw.senate.gov/public/index.cfm?FuseAction=FilesView&FileStore id=57ca4cda-7a2a-4da7-afba-80a4d2fbbb6d

<sup>55</sup>Ozone Rule Fact Sheet. Business Roundtable. Jul. 14, 2011. Available at: http://businessroundtable.org/studies-and-reports/ozone-rule-fact-sheet/

<sup>56</sup>Faces of Coal. "Mining Permits: Surface Mining Permitting Delays Put Jobs and Energy Production at Risk." Available at: http://www.facesofcoal.org/index. php?mining-permits

<sup>57</sup>United States Court of Appeals, Fourth Circuit. Ohio Valley Environmental Coalition v. Aracoma Coal Company. Available at: http://caselaw.findlaw.com/us-4th-circuit/1308762.html

<sup>58</sup>Department of the Interior. Federal Register. Vol. 73, No. 240. Dec. 12, 2008. Available at: http://www.gpo.gov/fdsys/pkg/FR-2008-12-12/pdf/E8-29150.pdf

<sup>59</sup>Department of the Interior. Federal Register, Vol. 75, No. 83. Apr. 30, 2010. Available at: http://edocket.access.gpo.gov/2010/pdf/2010-10091.pdf

<sup>60</sup>William Yeatman. "EPA Guilty of Environmental Hyperbole in Mountaintop Mining Veto." Competitive Enterprise Institute. Feb. 7, 2011. Available at: http://cei.org/web-memo/epa-guilty-environmental-hyperbole-mountaintop-mining-veto

<sup>61</sup>Cheryl K. Chumley. "Kentocuky Challenges EPA Restrictions on Mining." Environment and Climate News. Jan. 2011. Available at: http://www.heartland.org/custom/semod\_policybot/pdf/28985.pdf

62"Fast Facts About Coal." Available at: http://www.nma.org/statistics/fast\_facts.asp

<sup>63</sup>National Mining Association. "Jobs and Plant Losses from EPA's Proposed Air Regulations." Mar. 2011. Available at: http://www.wmc-usa.org/lssuesStatements/2011FlyIn/NMA%20final%20report%20coal%20background.pdf

<sup>64</sup>"New rules would cut thousands of coal jobs." The Charleston Gazette. Jan. 26, 2011. Available at: http://wvgazette.com/News/MiningtheMountains/201101280708?page= 2&build=cache

<sup>65</sup>"Economic Analysis of Proposed Stream Protection Rule Stage 1 Report." ENVIRON International Corporation. Mar. 5, 2012. Available at: http://nma.org/pdf/tmp/030612\_ENVIRON\_study.pdf

<sup>66</sup>National Mining Association. "Mountaintop Mining Fact Book." Mar. 2009. Available

at: http://www.nma.org/pdf/fact sheets/mtm.pdf

<sup>67</sup>"EPA Completes Framework for Greenhouse Gas Permitting Programs." Dec. 23, 2010. Available at: http://yosemite.epa.gov/opa/admpress.nsf/e77fdd4f5afd88a3852576b3005a604f/cad212db554919ec8525780200570c1c!OpenDocument

<sup>68</sup>Roger Bezdek. "Potential Harm of EPA Greenhouse Gas Control Regulations to Minorities, Low-Income Persons, the Elderly, and Those Living on Fixed Incomes." Declaration to United States Court of Appeals for the District of Columbia Circuit. Sep. 2010. Available at: http://www.uschamber.com/sites/default/files/issues/ environment/files/Ex%2013 Declaration%20of%20Roger%20Bezdek.pdf

<sup>69</sup>EIA. Electric Power Monthly. Mar. 2011.

<sup>70</sup>American Electric Power. New EPA Rules. Available at: http://www.aep.com/environmental/NewEPARules/

<sup>71</sup>National Economic Research Associates. "Potential Impacts of EPA Air, Coal Combustion Residuals, and Cooling Water Regulations." Sep. 2011. Available at: http://www.americaspower.org/sites/default/files/NERA Four Rule Report Sept 21.pdf

<sup>72</sup>William Beach, Karen Campbell, David Kreutzer, Ben Lieberman, and Nicolas Loris. "The Economic Consequences of Waxman-Markey: An Analysis of the American Clean energy and Security Act of 2009." Aug. 6, 2009. Available at: http://www.heritage.org/research/reports/2009/08/the-economic-consequences-of-waxman-markey-ananalysis-of-the-american-clean-energy-and-security-act-of-2009#\_ftn9

<sup>73</sup>Energy Consumption Facts. Available at: http://www.need.org/needpdf/infobook\_activities/IntInfo/ConsI.pdf

<sup>74</sup>Jacob Ward. U.S. Department of Energy. Available at: http://gatewayev.org/how-much-electricity-is-used-refine-a-gallon-of-gasoline

<sup>75</sup>Energy Information Administration. Electricity Shortage in California: Issues for Petroleum and Natural Gas Supply. Available at: http://205.254.135.7/forecasts/steo/ special/pdf/california.pdf

<sup>76</sup>National Mining Association. Jobs and Plant Losses from EPA's Proposed Air Regulations. Mar. 2011. Available at: http://www.wmc-usa.org/ IssuesStatements/2011FlyIn/NMA%20final%20report%20coal%20background.pdf

<sup>77</sup>Unions for Jobs and the Environment. Comments submitted to the U.S. Environmental Protection Agency. Jul. 8, 2011. Unions for Jobs and the Environment. Letter and analysis prepared for the U.S. EPA. Jul. 8, 2011: Available at: http://www.instituteforenergyresearch.org/wp-content/uploads/2011/07/UJAE\_MATS\_Comments\_Final\_0708111.pdf

<sup>78</sup>Congressional Budget Office. Prospects for Distributed Electricity Generation. Sep. 2003. Available at: http://www.cbo.gov/publication/14750

<sup>79</sup>Alpha Natural Resources. Press Release regarding adjustments to coal production. Feb. 3, 2012. Available at: http://alnr.client.shareholder.com/releasedetail. cfm?ReleaseID=646151 <sup>80</sup>IHS Global Insight. The Economic Impact of the Proposed EPA Boiler/Process Heater MACT Rule on Industrial, Commercial, and Institutional Boiler and Process Heater Operators. Aug. 2010. Available at: http://www.cibo.org/pubs/boilermact\_jobsstudy.pdf

<sup>81</sup>Beshear Campaign Responds with TV Ad Highlighting Lawsuit over EPA Regulations". Oct. 3, 2011. Available at: http://mycn2.com/politics/beshear-campaign-responds-with-tv-ad-highlighting-lawsuit-over-epa-regulations

<sup>82</sup>National Association of Regulatory Utility Commissioners. Resolution on the Role of State Regulatory Policies in the Development of Federal Environmental Regulations. Jul. 18, 2007. Available at: http://www.naruc.org/Resolutions/Resolution%20on%20 the%20Role%20of%20State%20Regulatory%20Policies%20in%20Development%20 of%20Fed%20Enviro%20Regs.pdf

<sup>83</sup>Mine Union Boss: Coal Industry Could Suffer Same Fate as Bin Laden." The Hill. Apr. 4, 2012. Available at: http://thehill.com/blogs/e2-wire/e2-wire/219919-mine-union-chief-coal-industry-could-suffer-same-fate-as-osama-bin-laden

<sup>84</sup>West Virginia's Latest Plan to Avoid Federal Regulation". Jan. 18, 2011. Available at: http://www.mnn.com/earth-matters/politics/blogs/west-virginias-latest-plan-to-avoid-federal-regulation

85 Pennsylvania Public Utility Commission. Letter to EPA Administrator. Sept. 7, 2010. Available at: http://www.uswag.org/pdf/2010/CCR%20Comments/PAPUC09072010. pdf

<sup>86</sup>Governors' coalition letter to President Barack Obama. Mar. 18, 2011. Available at http://republicans.energycommerce.house.gov/Media/file/ Letters/112th/032111Obama.pdf

87 Joe Manchin. "Coal Ash a Beneficial Resource if Safety Concerns Are Put First." Huntington News. Feb. 13, 2010. Available at http://archives.huntingtonnews.net/columns/100213-manchin-columnscoalash.html

88 Letter to the U.S. Environmental Protection Agency. Oct. 9, 2009. National League of Cities. Available at: http://www.nlc.org/File%20Library/Influence%20Federal%20 Policy/Advocacy/Regulatory/nlc-comments-coal-combustion-residuals-oct2009.pdf

89 Council of State Governments. Southern Legislative Conference. Memphis, Tenn., Jul. 19, 2011. Available at: http://www.slcatlanta.org/policy\_positions/2011/2011-1-EPA\_ Regulations.pdf

90Letter to the U.S. EPA. September 2, 2010. Available at: http://www.uswag.org/pdf/2010/CCR%20Comments/UJAE9022010.pdf

<sup>91</sup>International Brotherhood of Electrical Workers, on the Need for Legislative Action to Phase In EPA Regulations of the Clean Air Act. Press Release. May 16, 2011. Available at: http://www.ibew.org/articles/11daily/1105/110516 EPAStmtFF.pdf

<sup>92</sup>President Roberts' statement re: EPA veto of Spruce #1 mine permit. Jan. 13, 2011. Available at: http://www.umwa.org/?q=news/president-roberts-statement-re-epa-veto-spruce-1-mine-permit

<sup>93</sup>Indiana State Building and Construction Trades Council. Letter to EPA Administrator on the regulation of coal ash. Nov. 19, 2010. Available at: http://www.uswag.org/ pdf/2010/CCR%20Comments/ISBCT11192010.pdf

<sup>94</sup>Indiana House of Representative Resolution opposing the numerous new regulations proposed by the United States Environmental Protection Agency. 2011. Available at: http://www.in.gov/legislative/bills/2011/PDF/HRESP/HR0013.pdf

95 Wyoming Legislature Resolution. 2011. Available at: http://legisweb.state.wy. us/2011/Engross/SJ0006.pdf

<sup>96</sup>Missouri House of Representative Resolution opposing the numerous new regulations proposed by the United States Environmental Protection Agency. 2011. Available at: http://house.mo.gov/billtracking/bills111/billpdf/intro/HCR0042I.PDF

<sup>97</sup>Letter to the EPA regarding regulation of coal combustion waste. Pennsylvania Department of Environmental Protection. Apr. 10, 2009. Available at: http://www.uswag.org/pdf/2009/PADEP.pdf

98 Comments on EPA regulation of coal combustion residuals. South Carolina Office of Regulatory Staff. Nov. 19, 2010. Available at: http://www.uswag.org/pdf/2010/ CCR%20Comments/SCORS112010.pdf

<sup>99</sup> Press release regarding EPA Utility Regulation. National Association of Manufacturers. Aug. 8, 2011. Available at: http://www.nam.org/Communications/Articles/2011/08/Manufacturers-EPA-Utility-Regulation-Will-Cost-Jobs.aspx

<sup>100</sup>Press release regarding a new study showing EPA's Boiler MACT Rule would destroy Tens of Thousands of Jobs. American Forest and Paper Association. Aug. 31, 2010. Available at: http://www.afandpa.org/pressreleases.aspx?id=1545

<sup>101</sup>American Petroleum Institute. "Study: EPA Gasoline Regulations could raise costs by 25 cents per gallon". Jul. 29, 2011. Available at: http://www.api.org/News-and-Media/ News/NewsItems/2011/jul-2011/study-epa-gasoline-regulations.aspx

<sup>102</sup>American Farm Bureau Federation. "AFBF Backs Bills to Preempt EPA Greenhouse Gas Regs". Mar. 3, 2011. Available at: http://www.fb.org/index.php?action=newsroom. news&year=2011&file=nr0303c.html

<sup>103</sup>National Cattlemen's Beef Association. "NCBA: House Votes to Curtail EPA's Overregulation". Jul. 14, 2011. Available at: http://www.beefusa.org/newsreleases1. aspx?NewsID=368

<sup>104</sup>Portland Cement Association. "Economic Study Details Cumulative Impact of Regulations". Mar. 15, 2011. Available at: http://www.cement.org/newsroom/Job\_ Report 031511.asp

<sup>105</sup>American Stewards for Liberty Coordination Strategy. Available at: http://americanstewards.us/coordination/coordination-main-page

## WWW.REGULATORYTRAINWRECK.COM

American Legislative Exchange Council

LIMITED GOVERNMENT • FREE MARKETS • FEDERALISM

1101 Vermont Ave., NW, 11th Floor • Washington, D.C. 20005 P: (202) 466-3800 • F: (202) 466-3801 • www.alec.org