

## The Clean Air Act: The Case for Reform\*

by Kathleen Hartnett  
White

### Key Points

- Congress should reclaim its constitutional authority to make the fundamental policy decisions about air quality.
- The CAA should reaffirm and strengthen the states' primary authority in air quality management.
- The CAA should require objective and more rigorous and transparent science.
- The CAA should incorporate the dynamism of the free market by encouraging performance-based standards.
- The structure of the CAA and the organization of the EPA should be streamlined through integrated multi-pollutant programs.

### Executive Summary

For decades, the U.S. Environmental Protection Agency (EPA) has incrementally expanded regulatory authority under the Clean Air Act. The current EPA, however, is on an unprecedented regulatory spree jeopardizing electric reliability, jobs, state economies, U.S. competitiveness, and national security. This exponential expansion of EPA's regulatory authority is not justified by any reasonable standard. In fact, America's air quality has dramatically improved over the past 40 years. In recent years, however, the EPA has aggressively exceeded its authority under the federal Clean Air Act to regulate conventional pollutants with the objective of supplanting fossil fuels from which 85 percent of our energy use derives.

EPA is now mandating emission reductions of conventional pollutants at levels approaching or below natural background levels. Further, EPA has arrogated the law-making powers of Congress in the Endangerment Finding to regulate greenhouse gases as pollutants under the existing Clean Air Act (CAA). Once a marginal increase in the cost of production, EPA regulatory fiat now alter the fundamental dynamics of the energy sector and thus the entire economy. Job losses in the thousands already have occurred.

The CAA is in urgent need of reform.

To this end, this paper recommends five strategic reforms of the CAA. These reforms will not rollback existing, effective protection of

air quality but will foster more rapid, cost-efficient management of genuine air quality challenges. This paper also provides background on improvements in air quality, the basic structure of the Clean Air Act, and the evolution of the EPA's sweeping, law-like authority to control basic economic activity and private conduct. The reforms are as follows:

1. Congress should reclaim its constitutional authority to make the fundamental policy decisions about air quality; such as determination of the National Ambient Air Quality Standards and approval of major regulations.
2. The CAA should reaffirm and strengthen the states' primary authority in air quality management.
3. The CAA should require objective and more rigorous and transparent science. It must, further, relegate science to its proper role as a critical tool to guide policy decisions about environmental risk but not as a means of dictating policy decisions.
4. The CAA should incorporate the dynamism of the free market by encouraging performance-based standards.
5. The structure of the CAA and the organization of the EPA should be streamlined through integrated multi-pollutant programs.

\*The paper is an updated and expanded version of "Clean Air Through Liberty: Reforming the Clean Air Act" published as Chapter IV of *Environmental Conservation: Eight Principles of the American Conservation Ethic* by the Heritage Foundation, July 2012. Kathleen White was one of seven people who helped formulate the Eight Principles almost 20 years ago under the auspices of NWI, a free market conservation organization, led by Robert Gordon now Senior Strategic Advisor for the Heritage Foundation.

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## After 40 years of air quality management under the CAA, federal policies need to absorb the dramatic improvements in our nation's air—a condition quite different than when the CAA was enacted.

### Introduction

The Clean Air Act (CAA) needs strategic reform. This law no longer provides an effective, scientifically credible or economically viable means of air quality management. Under the current administration, EPA is abusing the broad authority of this law intended to protect human health to force a centrally-controlled, economically damaging anti-fossil fuel energy policy rejected by the U.S. Congress.

The CAA needs major reform. Over the last four decades, EPA gradually extended the scope and stringency of air quality regulation. Over the last four years, EPA has exponentially expanded its regulatory regime to the point of jeopardizing the reliability and affordability of the nation's electric power and transportation fuels, thus impairing U.S. competitiveness.

After 40 years of air quality management under the CAA, federal policies need to absorb the dramatic improvements in our nation's air—a condition quite different than when the CAA was enacted. Congress should reclaim its constitutional authority to make policy decisions about air quality in order to forestall the unnecessary economic and human damage now flowing from the current EPA's reckless aggression.

Congress, through the terms of CAA, has delegated broad law-like authority to the EPA to make policy decisions of national importance. In constitutional principle, Congress unquestionably retains authority to restrain the EPA. In practice, however, EPA operates with unlimited discretion. In our constitutional scheme, the courts are supposed to keep agency actions within the bounds of the law passed by Congress. "Yet, judicial review does not delve into the policy choices that agencies

make—nor should it. Whether a given agency is following the best course is ultimately a decision for the political branch."<sup>1</sup> To preserve our constitutional democracy, Congress must enact measures that limit the discretionary policymaking authority of unelected federal employees of the EPA.

Congress should also restore and strengthen the CAA's original recognition that states are the primary authorities in air quality management. The state and local governments' direct accountability to real people has catalyzed far more creative and cost-effective solutions than EPA's approach, which is dominated by heavy-handed control, bureaucratic process, and the phantom of national consistency. Regions with interstate environmental problems are few. Those regions with interstate air quality problems can address them regionally through interstate compacts or other legal mechanisms.

The CAA should relegate science to its proper role as a critical tool to inform policy decisions but not as a force for dictating regulatory action. To limit EPA's increasing misuse of science, the CAA needs to stipulate minimal criteria for vigorous health-effects science and credible regulatory impact analyses of costs, benefits and outcomes. To weld free market principles to air quality improvement, the CAA should facilitate measurable environmental results through flexible performance standards. The structure of the CAA and the organization of EPA need to be streamlined through integrated multi-pollutant strategies.

Most critically, federal policies about air quality need to incorporate fundamental principles of individual liberty, private property, and the free market. The air quality improvements over the last 40 years were driven by innovation, efficiency, and economic growth. Economic freedom has powerful environmental benefits, because liberty promotes objectivity, creativity, investment, and problem-solving.

That the CAA needs reform is a belief increasingly shared, at least outside EPA and environmental activist organizations. A four-year project enlisting the input from 40 environmental experts from across the ideological spectrum concludes that the CAA has statutory arteriosclerosis!<sup>2</sup>

## State of the Air Today: A Remarkable Record of Success

Any discussion of reforming the CAA must begin with recognition of the significant improvements in our nation's air quality. Over the last 40—and particularly over the last 20—years, the quality of U.S. air has dramatically improved.<sup>3</sup>

The table below documents the remarkable record of improving air quality. Although infrequently noted, the data is easily accessible on EPA's own website. The table shows the magnitude of improvement from 1980-2010. The condition or trend of air quality is measured in terms of ambient levels in the air and emission volumes. The ambient levels are the key measure of health impacts because they are a physical measurement of the actual concentrations of pollutants in the air to which humans are exposed. Emissions are an estimate of the volume of pollutants released to the air by human activities. Ambient levels are physically measured by monitors across the country, while emissions are estimated by models.

This is a success story rarely told and more often utterly denied. The current EPA Administrator, Lisa Jackson, repeatedly tells the public that outdoor air in the country "may kill you."<sup>4</sup> EPA's own data, as used in the Table below, from "Our Nation's Air-Status and Trends 2012," documents a radically different condition of air quality in the U.S.<sup>5</sup> Since 1970, aggregate emissions of the six criteria

pollutants regulated under the Clean Air Act have decreased 53-60 percent.<sup>6</sup> This environmental achievement occurred while the U.S. Gross Domestic Product (GDP) increased over 200 percent. Virtually the entire country has attained the NAAQS for four of the six criteria pollutants.

Urban areas in some states continue to exceed the NAAQS for ozone and particulate matter, but the levels of exceedance and the number of these non-attainment areas are rapidly falling. In 1997, EPA classified 113 metropolitan areas as non-attainment areas for ozone. That number has fallen to below 30. The once highly polluted region around Houston, Texas—home of the world's largest petro-chemical industrial complex—attained the federal ozone standard in 2009 and 2010.<sup>7</sup> Emissions from cars and trucks, now the predominant source of particulate matter and precursor emissions for ozone, have been reduced over 90 percent, while vehicles miles traveled have increased 165 percent. Emissions of lead have declined by 97 percent, largely a result of eliminating lead in transportation fuels. EPA's Toxics Release Inventory documents a 65 percent reduction since 1988. And mercury emissions have declined by roughly 60 percent between 1990 and 2008.<sup>8</sup> New power plants emit 90-95 percent less sulfur dioxide than power plants built in the 1940s.<sup>9</sup> Under existing regulations, the long-term trend in cleaner skies is certain to continue with the turnover of old equipment and refinement of technologies.

### Air Quality Improvement 1980-2010

|                             | Ambient<br>1980-2008 | Ambient<br>1980-2010 | Emissions<br>1980-2008 | Emissions<br>1980-2010 |
|-----------------------------|----------------------|----------------------|------------------------|------------------------|
| Carbon Monoxide (CO)        | -79%                 | -82%                 | -58%                   | -71%                   |
| Ozone (O3)                  | -25%                 | -28%                 | -49%                   | NCD                    |
| Lead (Pb)                   | -92%                 | -90%                 | -96%                   | -97%                   |
| Nitrogen Dioxide NO2        | -46%                 | -52%                 | -40%                   | -52%                   |
| Particulates (PM10)*        | -31%                 | -38%                 | -46%                   | -83%                   |
| Fine Particulates (PM2.5)** | -21%                 | -27%                 | -36%                   | -55%                   |
| Sulfur Dioxides (SO2)       | -71%                 | -76%                 | -56%                   | -69%                   |
| NCD- No Current Data        |                      |                      |                        |                        |
| *1990-2010                  |                      |                      |                        |                        |
| **2000-2010                 |                      |                      |                        |                        |

U.S. Environmental Protection Agency, "Air Quality Trends," January 2012,  
<http://www.epa.gov/airtrends/aqtrends.html> (April 18, 2012).

Indeed, “the learning curve is green.” The competitive private marketplace spurred technological innovations. Market-driven operational efficiencies, to avoid costly wastes, simultaneously reduced emissions and conserved energy use. Privately-owned enterprises, acting in a free market under a predictable and limited government, prospered and were thus able to absorb the steep costs of environmental controls.

As the Environmental Performance Index,<sup>10</sup> the Heritage Foundation Index of Economic Freedom, the Fraser Institute, and other studies<sup>11</sup> consistently demonstrate, those countries which structurally enshrine economic liberty under the rule of clear and limited laws also achieve environmental success. Environmental quality remains an unaffordable luxury for most of the developing world and an elusive goal for countries that deny or undermine property rights.

The remarkable improvement in air quality across this country is a major public policy success to which major media rarely give even lip service. The CAA played a significant role, but the main engine of progress was techno-

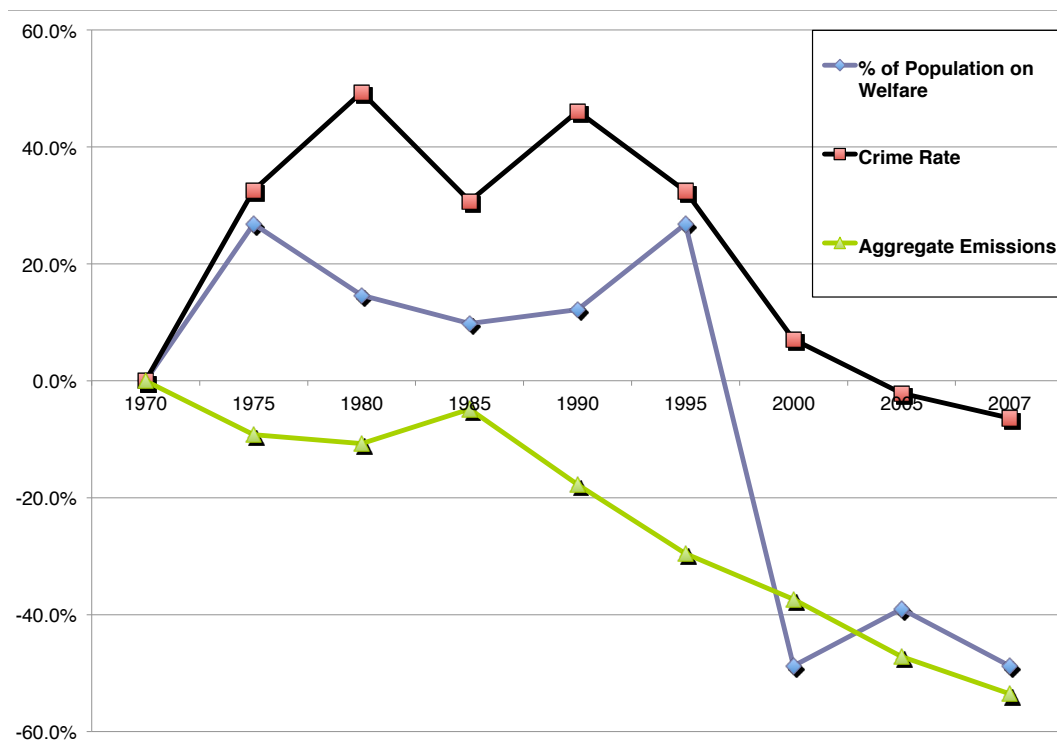
logical improvements in efficiency and in emission controls. The EPA’s regulatory dictates may have prompted some technological advance, but the main driver was economic growth within the dynamics of the free market. Objective science, innovative technology, entrepreneurial investments of capital and rapid information exchange: these hallmarks of the free market maximize continual environmental enhancements.

### Reform of the Clean Air Act

The CAA, now 40 years old, is in need of reform on multiple levels.

The CAA gave broad discretionary authority to EPA to make what are now decisions jeopardizing the health of the entire economy and the livelihoods of real people, with sharply regressive impacts on low-income families. Rising food and energy prices, coupled with high unemployment, have pushed poverty rates to the highest levels in 52 years. Morbidity (illness) and shortened lifespan (premature mortality) are far more directly correlated with poverty and unemployment than with air quality.<sup>12</sup>

## A Comparison of Crime Rate, Welfare, and Air Pollution, 1970-2007



Source: Steve Hayward, *2011 Almanac of Environmental Trends*, (Apr. 2011); FBI Uniform Crime Reports, U.S. Department of Health and Human Services, EPA.

There is no readily available means of legally restraining the EPA's unprecedented regulatory spree. Unless the EPA's authority is limited by amendments to the CAA, the courts have sparse legal ground to restrain the Agency. And many states now must devote finite resources to challenging the EPA's encroachment of fundamental state authority rather than to the hands on job of protecting air quality.

Compelling evidence comes from the National Academy of Science's recent conclusion that the EPA's science—purportedly the foundation of the Agency's regulatory decisions—"is on the rocks." The recommendations that follow address widely recognized problems now the subject of legal challenge to the EPA's actions in hundreds of lawsuits. If the CAA is to guide a broadly supported and effective response to the air quality challenges of the future, meaningful reform is essential.

### ***I. Restore Congressional Authority and Accountability***

As articulated in federal law, the definition of healthy air is a matter of policy for the elected branches of government. In the CAA, the Congress delegated this responsibility to the EPA with the belief that objective experts would make rigorous scientific decisions. Science under the aegis of government employees, however, is easily politicized. The current EPA misuses science to propagandize the need for ever-stricter regulatory mandates.<sup>13</sup> While science should critically inform government decisions about air quality necessary to protect human health, science is inherently incapable of dictating the final policy decisions. These involve a complex balancing of interests, risks, costs, diverse benefits, relative effectiveness, and inherent scientific uncertainties.

When Congress has given the EPA specific statutory orders through amendments to the CAA, instead of general direction about healthy air, the environmental outcomes were superior. Indeed, the most effective federal air quality programs to date were stipulated by Congress in the Clean Air Act and not left to EPA's discretionary designs. Congress not only created the programs but specified the extent of emission reductions, the timetable, and the parties expected to bear the burdens. Further, Congress also permitted regulatory flexibility through the creation of market-like mechanisms for emission trading. These programs were: the acid rain program, which cut relevant emissions by 50 percent; the elimination of lead in gasoline; new engine standards which cut 99 percent of three criteria pollutants from tailpipe emissions; and the strato-

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spheric ozone program.<sup>14</sup> Flexible regulatory mechanism combined with clear regulatory goals for measurable environmental benefits are the most effective.

To restrain the EPA's over-reaching actions, the Congress should:

- **Reclaim the legislative authority delegated to EPA to set the federal air quality standards for the criteria pollutants and the emission limits for hazardous pollutants.** "It is axiomatic," the U.S. Supreme Court has held, "that an administrative agency's power to promulgate legislative regulation is limited to the authority delegated by Congress."<sup>15</sup> What authority Congress has delegated, Congress can reclaim.
- **Exercise authority to approve all the major rules proposed by EPA.** The Regulation of Executives in Need of Scrutiny Act (REINS) already passed by the House of Representatives, should be fully enacted. To avoid the constitutional infirmity of the legislative veto and the weakness of the Congressional Review Act, the REINS Act requires bicameral approval with presentment to the President of all "major" or "economically significant" regulation. REINS also imposes an expedited procedure for congressional decision to avoid political roadblocks.
- **Require annual advisory reports that contain cumulative regulatory impact analyses of risk, cost, effectiveness and benefits based on a methodology and scope determined by Congress and conducted by a third party.** The Transparency in Regulatory Analysis of Impacts on the Nation Act (TRAIN), already passed by the House of Representatives, should become law.

## Recent federal court decisions have sharply rebuked EPA for denial of state authority in rulings upholding the original CAA's strict division of authority between federal and state governments.

EPA should function in a far more advisory and less regulatory role. To inform Congressional decision, Congress could require EPA to submit annual or bi-annual reports to contain stipulated information, data, types of studies on health impacts, air quality data, progress reports, risk assessments, priority risks, and alternative implementation strategies. Numerous bills filed in the 112th Congress would require far more comprehensive and regulatory impact analyses including impact on jobs, electric rates, electric reliability, U.S. competitiveness as well as cumulative impacts of multiple regulations.<sup>16</sup> For example, the increased electric rates projected as a result of EPA's rules impacting electric generation, would have harshly regressive impacts on low-income families.<sup>17</sup> The nature and scope of what counts as a regulatory benefit must be defined to prevent EPA from transforming minute statistical associations into human deaths.<sup>18</sup>

### II. Restore State Authority

The EPA's micro-management of state authorities impedes efficient management of air quality. A 2004 National Research Council study concluded that the inflexibility and complexity of the State Implementation Plan (SIP) process imposed on states is counter-productive. Said the Council: "The process now mandates extensive amounts of time and resources in a legalistic, often frustrating proposal and review process, which focuses primarily on compliance with intermediate process steps. This process discourages innovation and experimentation at the state and local levels; overtaxes the limited financial and human resources available to the nation's [air quality management system] at the state, local and federal levels; and draws attention and resources away from the more germane issue of ensuring progress towards the goal of meeting the NAAQS."<sup>19</sup> The NRS reached this conclusion in 2005 and yet no actions to date have been taken to streamline the SIP process.

The original CAA wisely asserted that "prevention and control of air pollution is the primary responsibility of the States and local government," because "those closest to the resource are best able to [effectively] manage it."<sup>20</sup> EPA, however, increasingly treats state agencies as instruments of the federal government rather than as partners, much less as equal sovereigns. Under the current regime, the states have the responsibility, on pain of sanctions, to do whatever EPA dictates.

Recent federal court decisions have sharply rebuked EPA for denial of state authority in rulings upholding the original CAA's strict division of authority between federal and state governments. In a complete vacature of the Cross State Air Pollution Regulation (CSAPR), the D.C. Court of Appeals noted: "Under the Clean Air Act, the Federal Government sets air quality standards, but the States retain primary authority ... for choosing how to attain those standards within their borders."<sup>21</sup>

To re-establish state authority, Congress should:

- **Clearly re-affirm the CAA's original allocation of federal and state authorities in law.** As stated in 1977, "Congress carefully balanced State and national interests by providing for a fair and open process in which States and local governments, and the people they represent, will be free to carry out the reasoned weighing of environmental and economic goals and needs."<sup>22</sup> The EPA has obviously strayed from this statutory framework. Congress should forcibly restate the CAA's original allocation of federal and state powers in the CAA.
- **Abandon the current State Implementation Plan process.** SIPs now must contain a mass of information: elaborate emission inventories, reams of photo-chemical modeling runs and all control measures needed to attain the NAAQS in question. States must complete separate SIPs for each criteria pollutant and other federal programs, none of which are coordinated, although all data and programs are interconnected. EPA micro-manages each step of the increasingly cumbersome process in which administrative requirements take precedence over creative, effective state actions to attain the federal standards. The SIP process must be abandoned or greatly simplified.
- **Eliminate the EPA's authority to disapprove of State Programs.** Through SIP approval authority, the EPA asserts command and control authority over state governments. If EPA now disapproves a state program con-

sidered a required component of the SIP, EPA can take over the state authority through a Federal Implementation Plan (FIP), impose freezes on road constructions and withhold highway funds owed to the state. The Supreme Court's recent ruling in the Patient Protection and Affordable Care Act, which called unconditional pre-emption an unconstitutional commandeering of state government, may be applicable to the CAA.<sup>23</sup>

- **Rescind the EPA's authority to compel state actions.** With primary authority under the CAA to implement federal standards, States should be entitled to choose whether to seek EPA counsel on air quality management. EPA's Guidance Documents, however, should not be binding, nor should every state regulation be subject to EPA approval. States may elect to form regional interstate compacts to combine resources or to address interstate air quality issues as several state legislatures already have done.<sup>24</sup>

### III. Encourage Performance Standards: Monitors Trump Models

EPA's implementation of the CAA increasingly emphasizes command of administrative process and dictation of the means of production at the expense of achieving measurable and meaningful environmental benefits. And after four decades of prescriptive emission standards, air quality regulation should emphasize historically successful performance standards that focus on concrete, measurable environmental results.

Congress should require that the EPA:

- **Use Performance Standards based on measurable results.** Performance standards require objective, measurable results of *what* must be achieved in lieu of rigid, complex requirements that dictate *precisely how* the entity will operate and *certify compliance*. Performance standards allow more flexibility in operation, maximizing the incentives of property rights and site-specific adaptation. The permit holder may choose how to operate and even expand production as long as the standard is met. Performance standards include plant-wide emission caps, emission trading schemes, and other systems that incorporate market-like mechanisms and property rights. Cap and trade schemes may work for some traditional pollutants, but the trading system must be carefully designed to minimize pitfalls typical when government creates and manages a market. Continually changing the rules of the market and price controls undermine market dynamics.

## When scientific knowledge is objective, transparent, and rigorous in accordance with the scientific method, it provides a critical tool to inform final regulatory decisions.

### IV. Restore Objective, Rigorous, Transparent Science

EPA justifies its regulatory actions on the basis of what it construes as scientific edicts. Yet scientific findings alone, inherently incomplete and uncertain, are incapable of weighing the complex policy considerations that shape the law in a democracy. Unless the CAA stipulates criteria to assure rigor and objectivity in the EPA's risk assessments, regulatory excess cannot be restrained.<sup>25</sup>

Science offers both the promise and the demise of meaningful management of air quality to protect human health. But when developed and applied by a government body, science is easily manipulated to justify a predetermined policy preference.

When scientific knowledge is objective, transparent, and rigorous in accordance with the scientific method, it provides a critical tool to inform final regulatory decisions. Scientific findings are, however, categorically different than policy judgments based on reasoned weighing of societal trade-offs and relative risks. The wide body of environmental science existing today should inform the major regulatory decisions under the CAA but never dictate policy decisions about air quality. The more substantive scientific disciplines, such as toxicology, must be given prominence over the purely statistical sciences such as ecological epidemiology.

To restore objective, rigorous and transparent science, Congress should:

- **Mandate that regulatory actions be supported by third party, peer-reviewed analysis of cost-benefit-effectiveness.** The CAA requires that ambient air quality standards must be protective of public health with an adequate margin of safety—*regardless of cost*. EPA increasingly uses this statutory rubric to legitimize unachievable regulatory mandates as if no risks were too low and no costs too high. For decades, EPA has

## A single, flexible management plan with integrated strategies to reduce multi-pollutants could facilitate cost-effective results.

adopted increasingly stricter NAAQS that now approach naturally-occurring—thus unpreventable—background levels. When objective and comprehensive, cost-benefit-effect analyses can provide critical information to policy makers and would check the implausible charade of the current EPA’s regulatory justifications.

- **Include cost in determination of NAAQS.** The CAA should acknowledge that consideration of the cost to society is a necessary, valuable and ineluctable factor.
- **Reject the no-threshold linear regression model to impute risk.** EPA implausibly now assumes that a positive, linear, no-safe-threshold (causal) relation exists between any concentration of a pollutant above zero and risk of premature death. Piling assumption upon assumption, EPA attributes a 100 percent probability—translated as absolute certainty—to the premise that there is no ambient level at which human health is adequately protected. This statistical methodology has enabled EPA to calculate health benefits far surpassing regulatory costs. When, in 2009, EPA began extrapolating risks at natural background levels of fine particulate matter (PM 2.5), the number of mortality risks EPA attributed to this pollutant almost quadrupled from 88,000 to 320,000 deaths.<sup>26</sup>
- **Abandon absolutist version of the precautionary principle.**<sup>27</sup> Vague statistical correlations between death rates and pollutant levels cannot be transformed into causal connections. Costs and political interests invariably affect EPA’s decisions, but the law’s absolutist terms shield EPA’s pretensions from judicial scrutiny. The CAA should acknowledge that consideration of the cost to society is a valuable and ineluctable factor.
- **Establish minimal criteria for scientific risk assessment of health effects.** Many scientific bodies have harshly criticized the weakness of EPA’s current sci-

ence. The National Academy of Science, National Research Service, and EPA’s own Scientific Advisory Board, Board of Scientific Counselors and the Clean Air Act Advisory Council voice grave concerns about the integrity of the science upon which EPA now relies. Dr. Thomas Burke, chairman of a recent National Academy of Science (NAS) review panel on EPA’s chemical risk assessment told EPA officials that “EPA science is on the rocks ... if you fail, you become irrelevant, and that is kind of a crisis.”<sup>28</sup> EPA’s chemical risk assessment for formaldehyde set the health-effects level several times lower than the natural level of formaldehyde in human exhalation.<sup>29</sup>

- **Minimal criteria for health-effects risk assessment would include the following:**
  - ▶ EPA’s health effects studies must be peer-reviewed by an independent body.
  - ▶ Toxicological studies and clinical trials demonstrating a causal connection between pollutant exposures and health effects carry more weight than ecological epidemiological studies indicating statistical correlations.
  - ▶ Health-based standards must incorporate average exposure and not implausibly assume that all people are exposed to the highest monitored level 100 percent of the time.
  - ▶ Physical measurement through monitored readings trumps models.
  - ▶ Health-effects findings must include a plausible biological mechanism.
  - ▶ EPA’s risk assessments must be judicially reviewable under a clear standard of plausibility and rigor.

### V. *Multi-Pollutant Strategies by States.*

Most of the criteria pollutants and many hazardous pollutants share sources, precursors, and control strategies. A single, flexible management plan with integrated strategies to reduce multi-pollutants could facilitate cost-effective results. State and local authorities are far better situated than EPA to devise and implement effective multi-pollutant plans.



To achieve this, Congress must:

- **Allow states to develop multi-pollutant strategies.** The current SIP process should be replaced by a single integrated multi-pollutant plan devised by states. Such a comprehensive management plan should encompass both criteria pollutants and select hazardous pollutants.
- **Re-evaluate priorities for research and regulatory programs.** After 40 years of all but exclusive focus on criteria pollutants and attainment of the NAAQS through the SIP process, EPA should focus more on select hazardous emissions in localized areas. Now that the criteria pollutants affecting urban areas across the country have been substantially reduced, EPA's predominant emphasis on the NAAQS is no longer justified. EPA should prioritize health risks in localized areas among the 189 hazardous chemicals stipulated by Congress in the 1990 amendments to the CAA.
- **Break down EPA's bureaucratic silos to allow for integrated strategies.** Acting under an organizational structure modeled on the statutory structure of the CAA enacted in the 1970s, EPA promulgates individual federal air quality standards (NAAQS) for each of the six criteria pollutants in administrative silos. EPA similarly compartmentalizes the national emission standards (NSPS) for hazardous air pollutants, permitting regimes and other programs. And the air, water, and waste programs operate independently, as if hermetically sealed from each other. Yet, air pollutants, water contaminants, and waste issues are all interconnected. EPA's bureaucratic silos impede environmental improvements and create massive administrative burdens for state and local governments.

### Unprecedented Regulatory Overreach

Using and often exceeding the broad authority of the CAA, the current EPA is on a regulatory spree unprecedented in U.S. history.<sup>30</sup> EPA is churning out a torrent of new rules with unparalleled speed, scope, stringency, costs, and job loss but without rigorous scientific justification or measurable benefits. Since 2009, EPA has assumed—without supporting data—health risks at pollutant concentrations already far below the established federal standards to protect human health. The science underlying the current EPA's regulatory onslaught is deeply flawed.

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Over 20 new regulations, collectively known as the EPA train wreck because of converging effective dates within the next three years, augur cumulative economic impacts of a magnitude never before experienced.<sup>31</sup> The National Electric Reliability Council (NERC) predicts that four of the rules aimed at electric utilities could mean the abrupt loss of 8 percent of the country's electric generation capacity by 2015.<sup>32</sup> The economic and human damage from EPA's reckless agenda already emerges. Over 100 electric generating plants have announced closure. Coal-fired electric generation has fallen to 36-40 percent of U.S. electricity from 50 percent only two years ago. Utilities have announced sharply higher electric rates for consumers.

In late September 2012, approximately eight coal mines shut down. Thousands of jobs directly and indirectly tied to these mines have been lost. As many as 200 coal-fired power plants may cease generating electricity by early 2013. Slightly more than one-half of U.S. households (with a median income of \$50,000) spent an average of 21 percent of their after-tax income on energy—an amount slightly higher than food.<sup>33</sup> If the EPA's many new rules are fully implemented, the price of electric power will escalate.

### CAA History: Evolution of EPA's Vast Authority

The first version of the CAA was enacted in 1967 more as a general policy statement about the societal value of healthy air than as the regulatory juggernaut of today. The law assumed its current form in 1970 as a broad but prescriptive template for controlling the sources of air pollution capable of impairing human health. The CAA was strengthened in 1977 and again in 1990 by major amendments. Although EPA has incrementally enlarged regulatory scope and stringency over the last 30 years, the current EPA's regulatory aggression stands alone.

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The CAA articulates five fundamental programs, the first three of which are the subject of increasing controversy. The Act lists six major “criteria” pollutants for which EPA must set standards: carbon monoxide (CO), lead, sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM) and ground level ozone (O<sub>3</sub>). The law directs the EPA to establish National Ambient Air Quality Standards (NAAQS) for each of the criteria pollutants, formulated as the maximum allowable atmospheric concentration for each pollutant necessary to protect public health “with a requisite margin of safety.” The CAA precludes the consideration of cost as a balancing factor when determining the NAAQS. The statute mandates that each state attain the NAAQS by means of a State Implementation Plan (SIP) that “demonstrates” that the state will meet the NAAQS at the specified date.

The CAA also requires that EPA develop National Emission Standards for Hazardous Air Pollutants (NESHAP) from a list of 189 chemicals which Congress enumerated in the 1990 amendments to the Act. Other programs in the law require reduction of air emissions 1) contributing to regional haze (visibility) over national parks and wilderness areas; 2) causing acid-rain; and 3) associated with stratospheric ozone depletion.

One of the country’s most intricate, sweeping, and rigidly prescriptive laws, the CAA is one of the first statutes to authorize administrative bureaucracies to operate as a federal master throughout the economy.<sup>34</sup> Under the CAA, Congress delegated broad authority to the Environmental Protection Agency (EPA) to protect human health and the environment by regulation of economic activity, consumer products, and private conduct. A rule binding private conduct carries the force of law. When the CAA directs the EPA to formulate national air quality

standards adequate to protect health regardless of cost, Congress effectively delegated law-making authority to unelected federal employees.<sup>35</sup>

The objective was to allow scientific experts, rather than elected lawmakers, to make the difficult policy decisions inescapably connected to highly technical subject matter such as atmospheric chemistry and toxicology. “The scientization of American political life,” writes Prof. Angelo Codevilla, “was just beginning. Between the 1950s and 2000, social policy was taken away from the voter because courts and ‘independent agencies’ took them over. Beginning in the 1970s, courts and agencies began to take control of economic life through the pretense of scientific environmental management.”<sup>36</sup> Rule by an administrative state directed by unelected experts, however, undermines the basic function of our constitutional democracy.<sup>37</sup>

The EPA’s recent assertion of regulatory authority over greenhouse gases under the CAA—a policy repeatedly rejected by the Congress—gives this single federal agency unparalleled power over basic economic activity.

### **EPA and CO<sub>2</sub> Regulation**

Under the EPA’s 2009 Endangerment Finding—in unquestioned deference to the U.N.’s Intergovernmental Panel on Climate Change (IPCC) 4th Assessment Report—that greenhouse gases are pollutants, EPA’s power to control the economy and private conduct became all-encompassing. Unlike emissions of actual pollutants which in certain concentrations can adversely impact human health, carbon dioxide (CO<sub>2</sub>) is a ubiquitous by-product of natural processes and human activity with no adverse ambient health effects. And unlike conventional pollutants measured in parts per million or billion, CO<sub>2</sub> is so ever-present it is measured in tons. As a result of the Endangerment Finding, EPA has estimated that the number of businesses subject to new regulatory requirements would increase from 15,000 to 6.1 million. EPA estimates the cost to governments and business at more than \$100 billion just in the first few years.

EPA admits that regulatory scope of this magnitude would be “absurd” because administratively infeasible. Thus, the agency justified narrowing the statutory emission thresholds so that the new rules would apply only to the largest industrial facilities. In this action (Tailoring Rule), EPA re-wrote the black-letter law of its enabling statute. The intended restraint of this Tailoring Rule, however, is temporary because this is only the initial phase of regulation.

Preventing levels of atmospheric CO<sub>2</sub> that IPCC science considers dangerous, the crux of the endangerment finding, would require an 85 percent reduction of CO<sub>2</sub> emissions, to a level not seen since the late 19th century.

In April 2012, EPA proposed the first hard limits for CO<sub>2</sub> emissions from power plants—a *de facto* ban on new coal-fired electric generating units (EGU). In a rule violating the technology-based limits of regulation enshrined in the CAA, EPA effectively mandated combined-cycle natural gas fire EGUs for new electric generation across the country. EPA finds that because the rule is not expected to reduce CO<sub>2</sub>—and thus has no environmental benefits—it has no costs. This rule unabashedly uses environmental regulatory authority to dictate the means of production—a case of pure economic engineering.

In June, a panel of the D.C. Circuit Court of Appeals rejected challenges to the Endangerment finding and Tailoring Rule. A petition for rehearing is now pending. Given the Supreme Court's prior decision in *Massachusetts v. EPA*<sup>38</sup> and the Circuit Court's unqualified ruling that the EPA's rules were compelled by statute, overturning those regulations will likely take either congressional action or Supreme Court reversal of *Massachusetts*.

### **The Regulatory Cliff: Expanding Bureaucracy, Escalating Costs, Immeasurable Benefits**

Perhaps no other federal agency has such discretionary authority to issue prescriptive dictates across the economy. Says David Schoenbrod: "Two-thirds of the cost imposed by major rules issued by all federal agencies over the past decade [1995-2005] has come from rules issued by EPA."<sup>39</sup> Of the \$26 billion cost of major federal regulations issued in 2010, EPA regulations accounted for over \$23 billion.<sup>40</sup> In the early decades of the Clean Air Act, EPA's dictates did not necessarily compel a reduction in economic output. The language of the Act avers that EPA regulation must be achievable through existing technology.<sup>41</sup> Thus regulated entities developed creative emission controls to meet EPA's limits. Increased production carried higher costs, but growth was not precluded.

But after decades of increasingly stricter regulations, the current EPA's exponentially more stringent limits now entail reduced production, compulsory change of the means of production, and business closure or relocation to a country lacking such onerous regulations. Such economic engineering is operational in a recently adopted

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**After decades of increasingly stricter regulations, the current EPA's exponentially more stringent limits now entail reduced production, compulsory change of the means of production, and business closure or relocation to a country lacking such onerous regulations.**

EPA rule called the Cross-State Air Pollution Rule. After reduction of sulfur dioxide emissions by 69 percent, EPA now mandates further reduction of more than 50 percent of the remaining SO<sub>2</sub> within two years.<sup>42</sup> These mandates are infeasible for many sources and would not result in any measurable health benefits. CSAPR was initially scheduled to go into effect on January 1, 2012. A motion to stay granted on December 30, 2011. On August 21, 2012, the rule was completely vacated by the D.C. Circuit Court of Appeals. The Court ruled that EPA had denied the state authority guaranteed by the CAA and had mandated an amount of emission reduction that vastly exceeded an upwind state's contribution to air pollution in downwind states.

For the first time in EPA history, the reliability of the nation's electric supply is at risk. Electric generators in multiple states have announced closures of power plants, reduced operation, or switched to different fuels.<sup>43</sup> As a founding trustee of the Environmental Defense Fund noted as early as 1988, "The EPA's regulation has grown to the point where it amounts to nothing less than a massive effort at Soviet-style planning of the economy to achieve environmental benefits."<sup>44</sup> EPA's current regulatory agenda is filled with major rules carrying multi-billion dollar annual costs by EPA's own conservative estimates. Even before the effective dates for these new mandates, the unprecedented impacts of the EPA's agenda already emerge. During 2012, many states have experienced job loss, declining electric capacity, and sharply higher electric rates.

## Conclusion

Harsh criticism of the current EPA's administration of the CAA in no way amounts to advocacy of a rollback of meaningful environmental protections nor of a slackening of future efforts to address air quality challenges. The reforms recommended above would, indeed, support more effective, efficient and meaningful management of air quality necessary to protect human health.

As one observer noted, the EPA speaks flexibility but practices rigidity. Left unchecked, the EPA has become a centralized economic planning agency in pursuit of an energy policy precluded by math and physics. EPA's regulatory agenda would not only "fundamentally change the economy," as President Obama has promised. The unelected technocrats at the EPA would also undermine our form of democratic governance in which elected representatives, not federal employees, make the major policy decisions affecting the country and real people. ★

## Appendix: Eight Principles of the American Conservation Ethic

1. People are the Most Important, Unique and Precious Resource
2. Renewable Natural Resources Are Resilient, Dynamic and Respond Positively to Wise Management
3. Private Property Protections and Free Markets Provide the Most Promising Opportunity for Environmental Improvements
4. Efforts to reduce, Control, and Remediate Pollution Should Achieve Real Environmental Benefits
5. As We Accumulate Scientific and Technological Knowledge, We Learn How to Get More from Less
6. Management of Natural Resources Should be Conducted on a Site-and-Situation-Specific Basis
7. Sound Science Should Be Employed as a Tool to Guide but Not to Dictate Public Policy
8. The Most Successful Environmental Policies Emanate From Liberty

Source: *Eight Principles of the American Conservation Ethic*, Heritage Foundation (Aug. 2012).

## Endnotes

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- <sup>17</sup> U.S. Bureau of Labor Statistics, Consumer Expenditure Survey 2009 (Oct. 2010).
- <sup>18</sup> White, *supra*, note 14.
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## About the Author

**Kathleen Hartnett White** joined the Texas Public Policy Foundation in January 2008. She is a Distinguished Senior Fellow-in-Residence and Director of the Armstrong Center for Energy & the Environment.

Prior to joining the Foundation, White served a six-year term as Chairman and Commissioner of the Texas Commission on Environmental Quality (TCEQ). With regulatory jurisdiction over air quality, water quality, water rights & utilities, storage and disposal of waste, TCEQ's staff of 3,000, annual budget of more than \$600 million, and 16 regional offices make it the second largest environmental regulatory agency in the world after the U.S. Environmental Protection Agency.

Prior to Governor Rick Perry's appointment of White to the TCEQ in 2001, she served as then Governor George Bush appointee to the Texas Water Development Board where she sat until appointed to TCEQ. She also served on the Texas Economic Development Commission and the Environmental Flows Study Commission. She is now serving in her fifth gubernatorial appointment as an officer and director of the Lower Colorado River Authority.

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