

Before the United States Senate  
Subcommittee on Clean Air and Nuclear Safety

*Oversight Hearing:  
EPA's Proposed National Ambient Air Quality Standards for Ozone*

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Chairman Whitehouse, Ranking Member Sessions and Members of the Subcommittee, thank you for the opportunity to testify about the U.S. Environmental Protection Agency's proposed revisions to the nation's health-based ambient air quality standard for ground-level ozone.

My name is Vickie Patton. I serve as the General Counsel at Environmental Defense Fund, a national non-partisan science-based environmental organization, where I manage the national and regional air quality programs. EDF is a national environmental organization with over one million members that links science, economics, law and private-sector partnerships to solve our most serious environmental challenges. EDF and its members are deeply concerned about harmful air pollution, including ground-level ozone, and I greatly appreciate the opportunity to testify about the urgent need for strengthened ozone standards to protect human health and the environment. I previously served as an attorney-advisor in the U.S. Environmental Protection Agency's Office of General Counsel under the George H.W. Bush and William Clinton Administrations, where I worked on a variety of Clean Air Act matters.

**I. The Clean Air Act: A Bi-partisan Triumph for Public Health, the Environment, and Economy**

The Clean Air Act is a bedrock public health statute that has provided for extraordinary, bipartisan progress in protecting Americans' health and the environment for over 40 years. Senator John Sherman Cooper, a Republican from Kentucky, captured the spirit of bipartisan cooperation that led to the United States Senate's historic and unanimous adoption of the modern Clean Air Act in 1970:

We worked together. We disagreed. We worried about many provisions of the bill. At last, however, we joined unanimously in recommending and sponsoring this bill, believing that our approach was one that could make progress toward solution of the problem of air pollution.<sup>1</sup>

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<sup>1</sup> 116 CONG. REC. S32,917 (daily ed. Sept. 21, 1970) (statement of Sen. Cooper).

The unanimous vision forged into law by the United States Senate has secured healthier air for millions of Americans. The net benefits of the Clean Air Act from 1970 to 1990 are valued at over \$21 trillion.<sup>2</sup> By 2020, the Environmental Protection Agency (“EPA”) estimates the 1990 Clean Air Act Amendments will prevent a projected 230,000 deaths; 2.4 million asthma attacks; 200,000 heart attacks; and 5.4 million lost school days,<sup>3</sup> as set out in the Table immediately below. EPA also found that these vital health protections would provide \$2 trillion in monetized benefits.<sup>4</sup> Additionally, EPA projects a net overall improvement in economic growth due to the benefits of cleaner air.<sup>5</sup>

The 1990 Clean Air Act Amendments prevent:

	Year 2010 (cases)	Year 2020 (cases)
Adult Mortality - particles	160,000	230,000
Infant Mortality - particles	230	280
Mortality - ozone	4,300	7,100
Chronic Bronchitis	54,000	75,000
Acute Myocardial Infarction	130,000	200,000
Asthma Exacerbation	1,700,000	2,400,000
Emergency Room Visits	86,000	120,000
School Loss Days	3,200,000	5,400,000
Lost Work Days	13,000,000	17,000,000

*This chart shows the health benefits of the Clean Air Act programs that reduce levels of fine particles and Ozone.*

Source: EPA<sup>6</sup>

## **II. The Clean Air Act’s Two-Step Process: Establishing and Implementing National Health-Based Ambient Air Quality Standards**

In 1970, Congress established an effective process in the fight against air pollution. Congress commanded that the national ambient air quality standards (“NAAQS”) be based on public

<sup>2</sup> U.S. Environmental Protection Agency, *The Benefits and Costs of the Clean Air Act, 1970 to 1990*, at 53 (Oct. 1997), available at <http://www.epa.gov/cleanairactbenefits/copy.html>. Estimates of benefits, in 1990 dollars, range from \$5.6 to \$49.4 trillion, with a central estimate of \$22.2 trillion. *Id.*

<sup>3</sup> U.S. Environmental Protection Agency, *The Benefits and Costs of the Clean Air Act from 1990 to 2020*, at 5-25, tbl. 5-6 (Apr. 2011), available at [http://www.epa.gov/cleanairactbenefits/feb11/fullreport\\_rev\\_a.pdf](http://www.epa.gov/cleanairactbenefits/feb11/fullreport_rev_a.pdf).

<sup>4</sup> *Id.* at 7-3.

<sup>5</sup> U.S. Environmental Protection Agency, Summary Report, *The Benefits and Costs of the Clean Air Act from 1990 to 2020*, at 3, available at <http://www.epa.gov/cleanairactbenefits/feb11/summaryreport.pdf>.

<sup>6</sup> U.S. Environmental Protection Agency, *Benefits and Costs of the Clean Air Act Amendments of 1990*, Fact Sheet, available at <http://www.epa.gov/cleanairactbenefits/feb11/factsheet.pdf>.

health considerations alone. Then, economics are thoroughly considered in developing the air pollution control strategies to achieve the health standards. So, the law is sharply focused on ensuring the nation's health-standards are established solely on the basis of public health, and this same law is broadly encompassing in considering economics when federal, state and local officials determine how to cost-effectively achieve the health standards.

### ***Protecting Public Health***

Some have long protested this carefully calibrated dual system. Some have argued that this two-step inquiry should be conflated rather than distinct, that the nation's health standards should be based on economics and then economics should likewise infuse the policies to achieve the standards. This argument has been thoroughly presented and resoundingly rejected over the past 40-plus years.

This question was answered by a unanimous Senate in 1970. The language crafted by Congress in 1970 is straight forward; its meaning is plain. The Administrator is instructed to establish standards that "are requisite to protect the public health" with "an adequate margin of safety."<sup>7</sup> The statute thus provides for the health-based standards to be based exclusively on public health and to be precautionary in safeguarding against adverse health effects.

This question has also been consistently answered by the decisions of prior EPA Administrators and numerous judicial decisions of the federal court of appeals in Washington, D.C.<sup>8</sup>

Ultimately, this question was emphatically answered by a unanimous Supreme Court. Justice Antonin Scalia, writing for the high Court, explained that the text of the Clean Air Act is clear, notwithstanding the copious arguments of many lawyers:

Were it not for the hundreds of pages of briefing respondents have submitted on the issue, one would have thought it fairly clear that this text does not permit the EPA to consider costs in setting the standards.<sup>9</sup>

Justice Scalia then set forth the inquiry the Administrator must make in establishing the nation's health-based air quality standards that is thoroughly anchored in protecting public health:

The EPA, "based on" the information about health effects contained in the technical "criteria" documents compiled under § 108(a)(2), 42 U.S.C. § 7408(a)(2), is to identify the maximum airborne concentration of a pollutant that the public health can tolerate, decrease the concentration to provide an "adequate"

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<sup>7</sup> Clean Air Act § 109(b)(1), 42 U.S.C. § 7409(b)(1).

<sup>8</sup> See, e.g., *Am. Lung Ass'n v. EPA*, 134 F.3d 388 (D.C. Cir. 1998); *Natural Res. Def. Council v. Adm'r, EPA*, 902 F.2d 962 (D.C. Cir. 1990), vacated in part on other grounds, 921 F.2d 326 (D.C. Cir. 1991); *Am. Petroleum Inst. v. Costle*, 665 F.2d 1176 (D.C. Cir. 1981); *Lead Indus. Ass'n, Inc. v. EPA*, 647 F.2d 1130 (D.C. Cir. 1980).

<sup>9</sup> *Whitman v. Am. Trucking Ass'ns, Inc.*, 531 U.S. 457, 465 (2001).

margin of safety, and set the standard at that level. Nowhere are the costs of achieving such a standard made part of that initial calculation.<sup>10</sup>

Accordingly, in setting the health-based air quality standard for ozone, Administrator McCarthy must base her decision exclusively on what is requisite to protect the public health with an adequate margin of safety. That is her solemn responsibility under the law in protecting the health of the American people.

### ***Considering Costs and Deploying Cost-Effective Solutions***

After the health-based standards are established, the Clean Air Act provides a prominent role for consideration of costs in national, state and local decisions about the pollution control strategies deployed to achieve the health standards. The statute provides for the consideration of costs in setting emission limits for cars, SUVs, trucks, buses, construction equipment, aircraft, fuels, power plants, and industrial facilities.<sup>11</sup>

States and local governments, in turn, are distinctly responsible for designing the air quality management plans for their communities and entrusted with determining how the clean up burden is allocated to restore healthy air. Justice Scalia succinctly explained that “[i]t is to the States that the Act assigns initial and primary responsibility for deciding what emissions reductions will be required from which sources.”<sup>12</sup>

### **III. Strengthening the Ozone Standard is Long Overdue, and Urgently Needed to Protect Americans’ Health**

There has been enormous progress in the past few decades to clean the air, but our nation has more bipartisan work to do to adequately protect public health from ozone pollution. Scientific evidence overwhelmingly demonstrates that the current 75 part per billion (“ppb”) standard for ground-level ozone is not requisite to protect human health with an adequate margin of safety, as required by the Clean Air Act.<sup>13</sup>

### ***The Clean Air Scientific Advisory Committee Recommends Stronger Ozone Standards***

The recommendations of the statutorily established and independent scientific advisory committee—the Clean Air Scientific Advisory Committee (“CASAC”)—underscore the need, as determined by the latest scientific evidence, to strengthen the ground-level ozone standard.

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<sup>10</sup> *Id.*

<sup>11</sup> 42 U.S.C. §§ 7521(a), 7547(a), 7545, 7541, and 7411(a).

<sup>12</sup> *Whitman*, 531 U.S. at 470.

<sup>13</sup> Letter from Christopher Frey PhD to Administrator McCarthy, *CASAC Review of the EPA’s Second Draft Policy Assessment for the Review of the Ozone National Ambient Air Quality Standards*, at ii (June 26, 2014), available at [http://yosemite.epa.gov/sab/sabproduct.nsf/5EFA320CCAD326E885257D030071531C/\\$File/EPA-CASAC-14-004+unsigned.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/5EFA320CCAD326E885257D030071531C/$File/EPA-CASAC-14-004+unsigned.pdf) (hereinafter “CASAC Letter”).

In the 1977 Clean Air Act Amendments, Congress established the CASAC to review the scientific and technical basis for the NAAQS and to provide the Administrator with independent advice concerning the establishment, review, and revisions of those standards. Section 109(d) of the Clean Air Act underscores CASAC’s independent scientific charge and broad-based scientific and technical expertise: “[t]he Administrator shall appoint an independent scientific review committee composed of seven members including at least one member of the National Academy of Sciences, one physician, and one person representing State air pollution control agencies.”<sup>14</sup> Among other things, the statute requires that CASAC “recommend to the Administrator any new national ambient air quality standards and revisions of existing criteria and standards as may be appropriate under section 108 [42 U.S.C. § 7408] of this title and subsection (b) of this section.”<sup>15</sup> Consistent with these statutory requirements, the CASAC ozone review panel is currently comprised of scientific experts from numerous universities as well as other independent experts, including a representative from the Electric Power Research Institute.<sup>16</sup>

CASAC has reviewed and provided analysis and feedback on EPA’s scientific and policy assessments related to the agency’s proposed revisions of the 2008 ozone standards. In its most recent letter responding to EPA’s *Second Draft Policy Assessment for the Review of the Ozone National Ambient Air Quality Standards*—which reflects the recommendations of EPA staff—CASAC emphasized that the latest scientific evidence underscores the inadequacy of the current standard.<sup>17</sup> Specifically, CASAC found “scientific justification that current evidence and the results of the exposure and risk assessment call into question the adequacy of the current standard” and that there is “clear scientific support for the need to revise the standard.”<sup>18</sup>

Accordingly, CASAC recommended strengthening the health-based standard for ozone to effectuate the statute’s command to protect public health with an adequate margin of safety: “[t]he CASAC further concludes that there is adequate scientific evidence to recommend a range of levels for a revised primary ozone standard from 70 ppb to 60 ppb.”<sup>19</sup> In recommending this range, however, CASAC emphasized that “[a]t 70 ppb, there is substantial scientific evidence of adverse effects as detailed in the charge question responses, including decrease in lung function, increase in respiratory symptoms, and increase in airway inflammation.”<sup>20</sup> While CASAC noted a level of 70 ppb would provide greater protections than the 2008 standard of 75 ppb, it concluded that a standard of “60 ppb would certainly offer more public health protection than levels of 70 ppb or 65 ppb” and so recommended that the Administrator “set the level of the standard lower than 70 ppb within a range down to 60 ppb, taking into account your judgment

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<sup>14</sup> 42 U.S.C. § 7409(d)(2)(A).

<sup>15</sup> *Id.* § 7409(d)(2)(B).

<sup>16</sup> See EPA Clean Air Scientific Advisory Committee (CASAC), *Ozone Review Panel*, <http://yosemite.epa.gov/sab/sabpeople.nsf/WebCommitteesSubcommittees/Ozone%20Review%20Panel> (last visited Dec. 15, 2014).

<sup>17</sup> CASAC Letter, *supra* note 13, at ii.

<sup>18</sup> *Id.* at ii.

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

regarding the desired margin of safety to protect public health, and taking into account that lower levels will provide incrementally greater margins of safety.”<sup>21</sup>

In reaching this conclusion, CASAC evaluated extensive scientific evidence, including clinical studies, epidemiological studies, and animal toxicology studies—summarized in EPA’s Integrated Scientific Assessment— along with findings from exposure and risk assessments included in EPA’s Health and Risk Exposure Assessment. As with any scientific assessment, CASAC identified certain areas where additional research would help facilitate and further enhance future evaluations of the ozone standard, but in doing so, emphasized “that there is sufficient scientific evidence, and sufficient confidence in the available research results, to support the advice we have given above for this review cycle of the primary and secondary standards.”<sup>22</sup>

***A More Protective Health Standard for Ozone is Requisite to Protect Public Health in Light of the CASAC Findings and the Extensive Scientific Evidence Before EPA***

The Environmental Protection Agency’s analysis is consistent with this CASAC recommendation, and is based on an extensive and compelling body of scientific evidence. Since the last proposal, there have been more than 1,000 new studies that demonstrate the health and environmental harms of ozone.<sup>23</sup> In particular, EPA has concluded:

Exposure to ozone can cause respiratory system effects such as difficulty breathing and airway inflammation. For people with lung diseases such as asthma and COPD (chronic obstructive pulmonary disease), these effects can lead to emergency room visits and hospital admissions.

. . . .

Studies have also found that ozone exposure is likely to cause premature death from lung or heart diseases. In addition, evidence indicates that long-term exposure to ozone is likely to result in harmful respiratory effects, including respiratory symptoms and the development of asthma.<sup>24</sup>

With respect to ozone’s impact on premature mortality, EPA applied risk estimates based on two short-term epidemiological studies and one long-term study. The Table below summarizes the studies’ findings and the strong link between ground-level ozone and premature mortality.

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<sup>21</sup> *Id.* at ii-iii.

<sup>22</sup> *Id.* at iv.

<sup>23</sup> U.S. Environmental Protection Agency, Fact Sheet, *Overview of EPA’s Proposal to Update the Air Quality Standards for Ground-Level Ozone*, available at <http://www.epa.gov/airquality/ozonepollution/pdfs/20141125fs-overview.pdf> (hereinafter “Ozone Standard Fact Sheet”); see also U.S. Environmental Protection Agency, Integrated Science Assessment for Ozone and Related Photochemical Oxidants, Final Report (Feb. 2013), available at <http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=247492#Download>.

<sup>24</sup> Ozone Standard Fact Sheet, *supra* note 23.

**Table 8-1 Estimated annual O<sub>3</sub>-related premature mortality in 2007 associated with 2006-2008 average O<sub>3</sub> concentrations (95th percentile confidence interval)**

Source of risk estimate and modeling period	Exposure duration	Age	City-specific effect estimates <sup>1</sup>	National average effect estimate <sup>2</sup>
Smith et al. (2009), May-September 95% confidence interval % occurring within the 98 cities	Short-term	>0	15,000 (1,400-28,000) 43%	16,000 (7,200-22,000)
Zanobetti and Schwartz (2008), June-August 95% confidence interval % occurring within the 48 cities	Short-term	>0	16,000 (6,000-25,000) 30%	15,000 (8,300-22,000)
Jerrett et al. (2009), April-September 95% confidence interval	Long-term	≥30 years	-	45,000 (17,000-70,000)

<sup>1</sup>City-specific effect estimates are applied to the gridcells lying within the cities defined in the epidemiological studies. Average effect estimates across all cities included in the epidemiological studies (national average) are applied to all other gridcells. For the application of Smith et al. (2009) effect estimates, city-specific effect estimates were applied to 2,227 gridcells and the national average to 44,064 gridcells. For the application of Zanobetti and Schwartz (2008) effect estimates, city-specific effect estimates were applied to 925 gridcells and the national average to 45,366 gridcells.

<sup>2</sup>National average effect estimates are based on the average of all cities included in the epidemiological studies applied to all 12km gridcells nationally.

Source: EPA<sup>25</sup>

Scientific and technical analyses—reflected in EPA’s proposal—underscore that the risk of these harmful health effects is even more pronounced for people with asthma and other respiratory diseases, children, older adults, people who work or are active outdoors. Nearly 26 million people have asthma in the U.S., including almost 7.1 million children.<sup>26</sup> Asthma disproportionately impacts communities of color and lower-income communities.<sup>27</sup> Strong ozone health standards will help improve air quality in these and all communities across the country.

Children, in particular, are considered the most at risk group because they breathe more air per unit of body weight, are more active outdoors, are more likely to have asthma than adults, and are still developing their lungs and other organs. In fact, EPA’s Children’s Health Protection Advisory Committee—a body of external experts that provide the Administrator with recommendations concerning children’s health—recommends a revised ambient air quality standard of 60 ppb to protect the health of children. CHPAC finds that “[c]hildren suffer a disproportionate burden of ozone-related health impacts due to critical developmental periods of lung growth in childhood and adolescence that can result in permanent disability.”<sup>28</sup>

<sup>25</sup> U.S. Environmental Protection Agency, Health Risk and Exposure Assessment for Ozone, Final Report, at 8-7, tbl. 8-1 (Aug. 2014), available at <http://www.epa.gov/ttn/naaqs/standards/ozone/data/20140829healthrea.pdf>.

<sup>26</sup> Ozone Standard Fact Sheet, supra note 23.

<sup>27</sup> *Id.*

<sup>28</sup> Letter from Sheela Sathyanarayana MD MPH, Chair, Children’s Health Protection Advisory Committee to Christopher Frey PhD, *CASAC Review of the Health Risk and Exposure Assessment for Ozone and Policy Assessment for the Review of the Ozone NAAQS: Second External Review Drafts*, (May 19, 2014), available at [http://yosemite.epa.gov/sab/sabproduct.nsf/7F79D27B503CB28385257CDE00546CB3/\\$File/CHPAC+May+2014+Letter+&+Attached+2007+Letters.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/7F79D27B503CB28385257CDE00546CB3/$File/CHPAC+May+2014+Letter+&+Attached+2007+Letters.pdf).

***Strengthening the Nation’s Health Standard to Protect Americans’ from Ground-Level Ozone Will Help to Secure Substantial Public Health Benefits.***

EPA’s analysis demonstrates the clear, profound health benefits of strengthening the ozone standard to 60 ppb. Under a standard of 60 ppb, for example, EPA projects as many as 7,900 fewer deaths, 1.8 million fewer asthma attacks in children, and 9.2 million fewer minor restricted activity days or lost school days. Indeed, EPA estimates at this level of protection the monetized benefits in 2025 will be \$37–75 billion.<sup>29</sup>

**IV. Strengthened Ozone Standards are Achievable and Cost-Effective**

Strengthened ozone standards are urgently needed to protect public health and many highly cost-effective, commonsense clean air measures are available to help secure these needed health protections. The 40-year history of the Clean Air Act shows that the nation’s public health standards are achievable, through available technologies and innovation by states and businesses. Our nation has often worked to achieve greater reductions than required, sooner, and at lower costs than estimated. Indeed, there are many clean air measures well underway that will help states, communities and families realize vital protections from ozone pollution.

***Misplaced “Sky is Falling” Claims Provoke Polarization Over Clean Air Protections for America’s Communities and Families***

Some claim that strengthening the ground-level ozone standard to protect public health, as the science and law demands, would amount to “the most expensive regulation ever.”<sup>30</sup> Unfortunately, these “sky is falling” prognostications are not new. In 1997, during another debate over strengthened national public health standards, Senator Spencer Abraham (R-MI) was among those who claimed that the new standards would have serious economic impacts: “Dry cleaning establishments, hair salons, and other small businesses will not be able to absorb the increased costs imposed by these regulations,” the Senator said.<sup>31</sup>

In fact, our nation made enormous strides in protecting public health from air pollution through commonsense cost-effective solutions. This is consistent with the time tested history of the Clean Air Act. Between 1990 and 2020, a recent EPA report projects that the benefits of the Clean Air Act will outweigh costs by 30 to 1.<sup>32</sup>

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<sup>29</sup> U.S. Environmental Protection Agency, Regulatory Impact Analysis of the Proposed Revisions to the National Ambient Air Quality Standards for Ground-Level Ozone (Nov. 2014), available at <http://www.epa.gov/glo/pdfs/20141125ria.pdf>.

<sup>30</sup> Nat’l Assoc. of Manuf., *Ozone Regulations: Potentially the Costliest Regulation in History Threatens Manufacturing Comeback*, <http://www.nam.org/Issues/Ozone-Regulations/> (last visited Dec. 15, 2014).

<sup>31</sup> 143 CONG. REC. S10813 (daily ed. Oct. 9, 1997) (statement of Sen. Abraham).

<sup>32</sup> U.S. Environmental Protection Agency, *The Benefits and Costs of the Clean Air Act from 1990 to 2020*, supra note 3.



In recent years, similar “sky is falling” claims have been made about clean air standards to control acid rain, cut mercury and other air toxics, reduce soot, and lower tailpipe emissions.

These “sky is falling” claims were recently prominent in the debate over EPA’s landmark mercury and air toxics standards for power plants. EPA Administrator Lisa Jackson signed the final Mercury and Air Toxics Standards in December 2011 at Children’s Hospital in Washington, D.C. Within months, major power companies that had been making “sky is falling” claims about the compliance costs during EPA’s development of these standards were touting to investors that compliance costs were plummeting:

- On July 20, **American Electric Power CEO Nicholas Akins** confirmed that the company’s projected costs have come down nearly 25% from what AEP originally projected. He added, “[W]e expect it to continue to be refined as we go forward.” In other words, costs will come down even further.<sup>33</sup>
- On May 15, **Southern Company CFO and Executive Vice President Arthur P. Beatty** stated that the amount the company projects for compliance costs “could be \$0.5 billion to \$1 billion less, because of the new flexibility that [the company has] found in the final rules of the MATS regulation.”<sup>34</sup>
- On August 8, **First Energy CEO Anthony Alexander** stated, “[W]e have significantly reduced our projected capital investment related to MATS compliance.”<sup>35</sup>

Based on recent earnings calls, American Electric Power Company’s range of cost estimates has fallen by a third to half, Southern Company’s cost estimates have declined by a third, and FirstEnergy’s costs have fallen approximately 77-85 percent.<sup>36</sup>

This is consistent with the history of the Clean Air Act. Since 1970, our nation has reduced the six pollutants regulated under the national ambient air quality standards program by 68 percent while GDP has grown 234 percent as illustrated in the graph below.

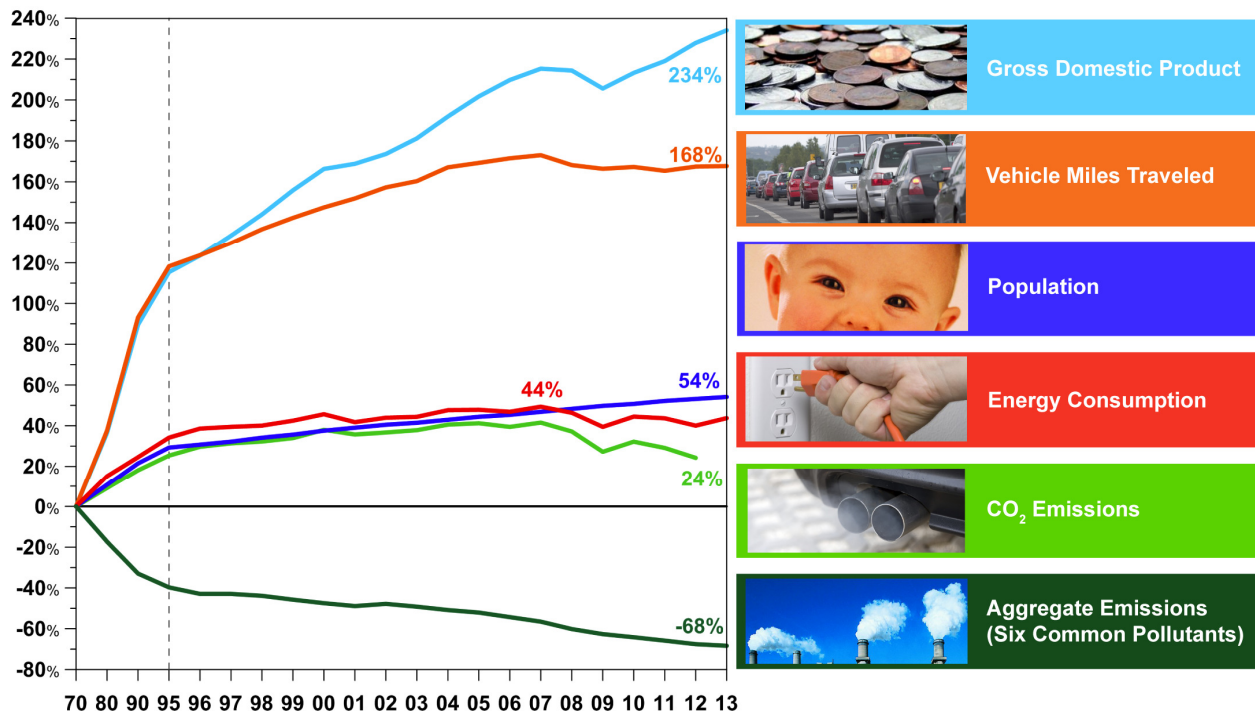
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<sup>33</sup> Nicholas Akins, American Electric Power Co., Inc. Q2 2012 Earnings Call Transcript (July 20, 2012), *available at* <http://seekingalpha.com/article/736561-american-electric-power-management-discusses-q2-2012-results-earnings-call-transcript?all=true&find=american%2Belectric%2Bpower%2BAEP%2B%2Bjuly%2B12%2C%2B2012>.

<sup>34</sup> Art Beattie, CFO of Southern Company, Deutsche Bank Clean Tech, Utilities and Power Conference Call Recording (May 15, 2012), *available at* <http://earningscast.com/SO/20120515>.

<sup>35</sup> Anthony Alexander, CEO, FirstEnergy, Q2 2012 Results, Earnings Call Transcript (Aug. 8, 2012), *available at* <http://seekingalpha.com/article/790061-firstenergys-ceo-discusses-q2-2012-results-earnings-call-transcript>.

<sup>36</sup> See Env’tl. Def. Fund, Blog, *Power Companies’ Declining Estimates of Compliance Costs of the Mercury & Air Toxics Standards (MATS)*, [http://blogs.edf.org/climate411/files/2014/05/Declining-costs-of-MATS-compliance.pdf?\\_ga=1.102810441.834084056.1418406109](http://blogs.edf.org/climate411/files/2014/05/Declining-costs-of-MATS-compliance.pdf?_ga=1.102810441.834084056.1418406109).



Source: EPA<sup>37</sup>

### ***Actions Already Underway Will Help Communities Meet Strengthened Ozone Standards***

Currently, 90 percent of areas designated nonattainment for the 1997 ozone health standards now meet those standards.<sup>38</sup> The U.S. has already taken steps over the past few years that help to cost-effectively reduce ozone smog pollution and help restore healthy air. Those protections include the Tier 3 tailpipe standards, supported by the U.S. auto industry, which will slash smog-forming pollution from new cars beginning in model year 2017 and the lower sulfur gasoline requirements will reduce pollution from every car on the road, and EPA’s proposed Clean Power Plan which will substantially reduce smog-forming pollutants from power plant smokestacks nationwide.

These are just a few of the existing and pending national emission standards that will secure substantial reductions and that EPA anticipates will help to achieve broad-based compliance with strengthened ozone air quality standards. Analysis of various clean air measures adopted or soon to be put in place indicates that our nation will reduce the precursors to smog by millions of tons, securing over two million tons of volatile organic compound reductions and over five million tons of nitrogen oxides reductions.<sup>39</sup> These emissions standards will help to secure the vast majority of reductions needed to meet a strong health-based standard for ozone.

<sup>37</sup> U.S. Environmental Protection Agency, Air Quality Trends, [http://epa.gov/airtrends/images/y70\\_13.png](http://epa.gov/airtrends/images/y70_13.png) (last visited Dec. 15, 2014).

<sup>38</sup> U.S. Environmental Protection Agency, *The National Ambient Air Quality Standards, EPA’s Proposal to Update the Air Quality Standards for Ground-level Ozone*, Fact Sheet, available at <http://www.epa.gov/airquality/ozonepollution/pdfs/20141125fs-numbers.pdf>.

<sup>39</sup> U.S. Environmental Protection Agency, Regulatory Impact Analysis, *supra* note 29, at tbl. 3-1.

V. **There is Broad Support to Strengthen the Health-Based National Ambient Air Quality Standards for Ground-Level Ozone**

Leading health and medical associations have strongly recommended that our nation strengthen the health-based standard for ground-level ozone to protect public health. The American Lung Association, American Public Health Association, American Thoracic Society, Trust for America's Health, Asthma and Allergy Foundation of America, Health Care Without Harm, and National Association of County and City Health Officials recommended a health protective range for the 8-hour ozone standard that "extends no higher than 60 ppb."<sup>40</sup>

Here are a few examples of the broad support for stronger health-protective ozone standards:

"Today's proposal by the Obama Administration to strengthen the National Ambient Air Quality Standards for ozone would provide greater protection to millions of Americans from the nation's most pervasive air pollutant—a step that is long overdue."

"We are concerned that EPA did not include 60 ppb in the range, though it was the clear recommendation of independent scientists as well as health and medical societies, including the American Lung Association. The scientific record clearly shows that a standard of 60 ppb would provide the most public health protection. We will continue to push the Agency to adopt standards based on the scientific evidence."

"Thousands of peer-reviewed medical studies show that breathing ozone pollution is dangerous to human health and the EPA review shows harm is occurring at levels far below what is currently considered 'safe.' "

"This means too many Americans have been informed that the air in their community is safe to breathe based on the outdated standard. The science shows that information was wrong. Every parent in America has a right to know the truth about the air their children breathe."

"The EPA's proposal to strengthen the standard is a step forward in the fight to protect all Americans from the dangers of breathing ozone pollution, especially to protect our children, our older adults and those living with lung or heart disease. To that end, we will focus on ensuring that the final ozone standard provides the most protection possible to the American people, especially the most vulnerable."

"For far too long, millions of Americans have been living with a weak and outdated standard. We call on President Barack Obama and EPA Administrator Gina McCarthy to adopt a more protective standard to protect the American

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<sup>40</sup> Letter from Janice Nolen, et al., to Christopher Frey PhD (May 19, 2014), *available at* [http://blogs.edf.org/climate411/files/2014/11/health\\_and\\_medical\\_org\\_letter\\_to\\_casac\\_on\\_o3\\_naaqs.pdf](http://blogs.edf.org/climate411/files/2014/11/health_and_medical_org_letter_to_casac_on_o3_naaqs.pdf).

people from real dangers of ozone pollution no later than October 1, 2015. Further delay is not acceptable.”

- **Harold P. Wimmer, National President and CEO of the American Lung Association**<sup>41</sup>

“The Academy welcomes the new proposed standard, which is between 65 and 70 parts per billion, but urges EPA to go further. Scientific evidence strongly supports a level of 60 parts per billion, and pediatricians will focus on ensuring that the final ozone standard provides the most possible protection to especially vulnerable citizens like children and those who suffer from asthma.”

“Ozone pollution in the air disproportionately impacts children, who are not just little adults and whose unique health and developmental needs make them more susceptible to pollutants. High levels of ozone in the air can lead to decreased lung function, coughing, burning and shortness of breath, as well as inflammation and swelling of the airways. For children with asthma, the health consequences of ozone pollution are even more pronounced, often requiring trips to the emergency room or intensive care unit for treatment. On high ozone days, many of these children are forced to stay home or to see their pediatrician, missing school or other recreational activities. Today's new ozone standard is a welcome and needed step forward to protect children's health by ensuring the air they breathe is safe and clean.”

“As pediatricians, we can prescribe inhalers and treat asthma attacks, but unfortunately we cannot reduce the risk that ozone pollution poses to our young patients. The EPA's proposed new lower standard is a step in the right direction to help limit the amount of ozone our children are exposed to on a daily basis, whether during their walk to the bus stop or their outdoor sports activity. Every child deserves the opportunity to play outside without the risk of breathing in harmful air, and pediatricians will continue advocating for clean air until we achieve that goal.”

- **American Academy of Pediatrics**<sup>42</sup>

“While the ATS is pleased EPA is proposing a stricter standard, the society is concerned EPA is not considering a standard of 60 ppb. “The body of scientific evidence supporting the health benefits of a lower ozone standard has grown substantially in the last few years,” said John R. Balmes, MD, a pulmonary critical care physician and chair of the ATS Environmental Health Policy Committee. “Ozone pollution has been linked to low birth weight, decreased lung function and other respiratory problems in infants and children, worse asthma

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<sup>41</sup> American Lung Association, Press Release, *Lung Association Welcomes Obama Administration's Long Overdue Ozone Pollution Proposal, Calls for Greater Protection*, (Nov. 26, 2014), available at <http://www.lung.org/press-room/press-releases/healthy-air/statement-on-2014-ozone-regs.html>.

<sup>42</sup> American Academy of Pediatrics, *AAP Statement on New EPA Ozone Standards Proposal* (Nov. 26, 2014), available at <http://www.aap.org/en-us/about-the-aap/aap-press-room/Pages/EPAOzoneStandard.aspx>.

control in both children and adults, and with cardiovascular disease and increased mortality in adults.”

“While some evidence shows that ozone exposure below 0.060 ppm also has adverse health effects, the strongest data support the connection between exposure at levels above 0.060 ppm and serious adverse health effects in people of all ages.”

“The recent evidence linking ozone pollution and adverse health effects includes studies showing dose-response relationships between ozone exposure and hospital admissions for asthma in children and hospital admissions for asthma and COPD in adults, lung function deficits in healthy adults exposed to ozone at levels between 0.060 and 0.070 ppm, and an increased mortality risk associated with ozone exposure, primarily affecting the elderly and patients with chronic diseases.”

- **American Thoracic Society**<sup>43</sup>

“Today's announcement by EPA is welcome news for our country and for the millions of who live in areas that frequently suffer high levels of ozone. A more protective standard on ozone will limit the pollution that we all breathe and will especially benefit the most vulnerable among us: those with respiratory problems like asthma, children and the elderly.”

“Ozone, the main component of smog, is a dangerous air pollutant formed when emissions from vehicle tailpipes, power plants and factories pollutants including volatile organic compounds such as cancer-causing benzene and nitrogen oxides, combine with strong sunlight. Even at low levels, smog can aggravate asthma, cause and worsen respiratory illnesses, and cause lung damage for those who breathe it repeatedly. Ozone exposure results in excessive hospitalizations and emergency room visits and millions of lost school and work days. For the millions of Latinos who work outdoors in construction, landscaping and other fields, continued exposure can lead to serious health problems.”

“If we missed the window to protect our families before, this re-energized proposal is right on time. We couldn't agree more with Administrator McCarthy that 'bringing ozone pollution standards in line with the latest science is more than just a legal requirement; it empowers the American people.”

“Voces urges EPA to set the standard at 60 ppb. We look forward to engaging our allies, friends and leaders to voice their support for this proposal in the months ahead.”

- **Adrianna Quintero, Director of Voces Verdes**

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<sup>43</sup> American Thoracic Society, ATSNNews, *EPA Proposes Stricter Ozone Standard* (Dec. 5, 2014), available at <http://news.thoracic.org/?p=5515>.

## **VI. Conclusion**

A rigorous and extensive body of science demonstrates that EPA's current national ambient air quality standard for ground-level ozone must be strengthened to protect public health. The Clean Air Act, forged on a bedrock foundation of bipartisan collaboration for our nation, instructs the EPA Administrator to take decisive and protective action against these health harms and to establish standards that are requisite to protect public health with an adequate margin of safety.

At the same time, our nation has commonsense and cost-effective solutions already moving forward that will help to achieve a more protective ozone standard and restore healthy air. These solutions include clean air measures, supported by the U.S. auto industry, that will dramatically reduce the smog-forming emissions from new cars beginning in model year 2017 and the landmark Clean Power Plan that will reduce a suite of health-harming emissions from power plants. Indeed, EPA, states and communities alike carefully consider costs in developing the solutions to restore healthy air, and the time tested history of the Clean Air Act is that our nation has in fact secured cleaner, healthier air at a fraction of the predicted costs.

The science and law, along with these innovative solutions, create a strong foundation for carrying out the Clean Air Act's founding bipartisan vision to establish national air quality standards that are protective of the health of our children and communities, and then to work together to find cost-effective, common sense solutions to meet the level of protection that science tells us is necessary to safeguard the health of our nation. This vibrant, bipartisan made in America law has stood the test of time—delivering a stronger, healthier and more prosperous nation. If we continue to work together building from this legacy of bipartisan collaboration forged in law we will continue to chart a commonsense path forward in protecting the health of our children and communities, securing a stronger and more prosperous nation, and finding that the sky is clearing not falling.