

August 3, 2020

Administrator Andrew Wheeler  
U.S. Environmental Protection Agency  
William Jefferson Clinton Federal Building  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

***Comments submitted electronically via <https://www.regulations.gov>.***

**RE: Comments on Docket ID No. EPA-HQ-OAR-2020-00044.**

Dear Administrator Wheeler:

The California Air Resources Board submits the enclosed comments on the Notice of Proposed Rulemaking, "Increasing Consistency and Transparency in Considering Costs and Benefits in the Clean Air Act Rulemaking Process," 85 Fed. Reg. 35,612 (June 11, 2020).

Informed and timely regulatory decision-making depends on objective and appropriate benefits-cost analyses. Current protocols already result in highly cost-effective, transparent, and appropriately consistent Clean Air Act regulations. The proposed regulation constitutes improper manipulation of these processes. It would delay and burden future agency rulemaking and embed current policy preferences into future outcomes; indeed, this appears to be its intent. We urge you to abandon this unnecessary, ill-advised, and unlawful proposal.

Sincerely,



Richard W. Corey  
Executive Officer

**Enclosure:** Comments of the California Air Resources Board on the Notice of Proposed Rulemaking, "Increasing Consistency and Transparency in Considering Costs and Benefits in the Clean Air Act Rulemaking Process," 85 Fed. Reg. 35,612 (June 11, 2020).

**Comments of the California Air Resources Board  
Responding to**

**The United States Environmental Protection Agency's  
Notice of Proposed Rulemaking: Increasing Consistency and Transparency in  
Considering Benefits and Costs in the Clean Air Act Rulemaking Process**

**Docket No. EPA-HQ-OAR-2020-00044**

The California Air Resources Board (CARB) submits the following comments on the United States Environmental Protection Agency's (U.S. EPA) notice of proposed rulemaking, "Increasing Consistency and Transparency in Considering Costs and Benefits in the Clean Air Act Rulemaking Process," 85 Fed. Reg. 35,612 (June 11, 2020).

Benefit-cost analyses (BCA) are important elements of significant rulemakings, but current protocols already result in transparent, comprehensive, and appropriately consistent analyses, along with highly cost-effective Clean Air Act regulations. U.S. EPA's proposal is unlikely to improve analyses or further the agency's mission to protect public health and the environment or its duties under the Clean Air Act. Instead, the proposed rule is likely to burden, delay, and bias regulatory decision-making – which, in the absence of any reasoned justification, may well be its intent.

Regulatory agencies' ability to develop informed, transparent, rational, and legally defensible regulations depends on comprehensive and objective cost-benefit analysis.<sup>1</sup> Objectivity, transparency, and legal defensibility<sup>2</sup> in regulatory decision-making necessitate full analysis of *all* costs and *all* benefits of a proposed regulation, along with regulatory and non-regulatory alternatives.<sup>3</sup> CARB is committed to fully and objectively estimating anticipated costs and benefits when considering regulatory

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<sup>1</sup> See E.O. 12866, Sept. 30, 1993, 58 Fed. Reg. 51,735 (Oct. 4, 1993); E.O. 13563, Jan. 18, 2011, 76 Fed. Reg. 3821 (Jan. 21, 2011).

<sup>2</sup> For example, a National Highway Transportation Safety Administration vehicle fuel economy rule was invalidated as arbitrary and capricious because it failed to consider the social cost of carbon. *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1198, 1200 (9th Cir. 2008) (agencies "cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs" of reducing GHGs; "[w]hile the record shows that there is a range of values, the value of carbon emissions reduction is certainly not zero.").

<sup>3</sup> See E.O. 12866, Sept. 30, 1993, 58 Fed. Reg. 51,735 (Oct. 4, 1993); E.O. 13563, Jan. 18, 2011, 76 Fed. Reg. 3821 (Jan. 21, 2011); Office of Management and Budget (OMB) Circular A-4, Sept. 17, 2003.

actions. CARB has relied on longstanding guidelines from U.S. EPA,<sup>4</sup> in conjunction with State-level requirements,<sup>5</sup> in the analysis of economic impacts including monetary and non-monetary costs and benefits. Development of these guidelines is spearheaded by U.S. EPA's National Center for Environmental Economics in consultation with economists across U.S. EPA, and they benefit from expert peer review (by U.S. EPA's Science Advisory Board Environmental Economics Advisory Committee or external experts) before finalization.<sup>6</sup>

Rather than maintaining its reliance on these comprehensive, objective, and longstanding documents, and improving implementation if and as necessary, U.S. EPA now proposes to bind future administrations with arbitrary, unjustified, highly burdensome, and bias-inducing regulatory requirements. The proposed regulation would: (1) significantly limit the scientific studies that could inform Clean Air Act BCAs, explicitly targeting limitations on the use of epidemiological studies; (2) delay and burden rulemaking by requiring staff to publish all underlying, legally publishable data; (3) allow the Administrator to voluntarily delay and burden minor regulations by applying these requirements at will; (4) burden and confuse regulatory decision-making by requiring unjustified emphasis on normal scientific uncertainty; and (5) through codification of these baseless, but complex and burdensome, requirements, impede the work of future administrations and provide opportunities for procedural challenges of all future Clean Air Act regulations. The proposal provides virtually no justification for any of these drastic and unlawful changes to longstanding practice.

There is also no suggestion that Clean Air Act regulations have not been cost-effective or justified. U.S. EPA would be unable to make such an assertion, as numerous analyses – including by this administration – have concluded that Clean Air Act regulations are highly cost-effective. The Trump administration's White House Office of Management and Budget (OMB) concluded, in a report to Congress published on December 9, 2019, "Across the Federal government, the rules with the highest

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<sup>4</sup> U.S. EPA Guidelines for Preparing Economic Analyses, National Center for Environmental Economics, Dec. 17, 2010, updated May 2014, available at <https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses>.

<sup>5</sup> E.g., the California Administrative Procedure Act, Cal. Gov. Code section 11340 et seq.; Cal. Health & Safety Code secs. 38506, 38562.5 (requiring CARB, when adopting certain rules and regulations, to "consider the social costs of the emissions of greenhouse gases," defined as "an estimate of the economic damages, including, but not limited to, changes in net agricultural productivity; impacts to public health; climate adaptation impacts, such as property damages from increased flood risk; and changes in energy system costs, per metric ton of greenhouse gas emission per year.").

<sup>6</sup> U.S. EPA, Guidelines for Preparing Economic Analyses, <https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses>, last updated Jan. 31, 2018.

estimated benefits as well as the highest estimated costs come from the Environmental Protection Agency and in particular its Office of Air and Radiation[.]" and that "the estimated benefits of these rules far exceed the estimated costs[.]"<sup>7</sup> A previous, peer-reviewed study of Clean Air Act regulations determined that benefits from 1990 to 2020 would exceed costs by a factor of more than 30 to one.<sup>8</sup>

CARB is committed to consistent, transparent, and objective quantification and monetization of economic impacts based on the latest peer-reviewed science and economic literature. CARB urges U.S. EPA to maintain its historic commitment to the same principles. These principles would not be served by codifying inappropriately burdensome and bias-inducing approaches for cost-benefit analysis, as U.S. EPA proposes. We urge the agency to abandon this unlawful, wasteful, and ill-advised proposal.

#### **I. U.S. EPA lacks authority to promulgate the proposed rule.**

As authority for the proposal, U.S. EPA cites Clean Air Act section 301(a)(1), 42 U.S.C. § 7601(a)(1), which provides general authority for the administrator "to prescribe such regulations as are necessary to carry out his functions" under the Clean Air Act. As the D.C. Circuit Court of Appeals has held, however, Clean Air Act "section 301 does not provide the Administrator 'carte blanche authority to promulgate any rules, on any matter relating to the Clean Air Act, in any manner that the Administrator wishes,'" but only "allow[s] the promulgation of rules that are necessary and reasonable to effect the purposes of the Act."<sup>9</sup>

U.S. EPA claims that its Clean Air Act sec. 301(a)(1) authority applies to actions "that increase the Agency's ability to provide consistency and transparency to the public in regard to the rulemaking process under the CAA."<sup>10</sup> Yet U.S. EPA provides no indication of how consistency or transparency are Clean Air Act "functions" – presumably because it cannot. Instead, the agency acknowledges, as it must, that

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<sup>7</sup> OMB, 2017 Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act (December 9, 2019), available at [https://www.whitehouse.gov/wp-content/uploads/2019/12/2019-CATS-5885-REV\\_DOC-2017CostBenefitReport11\\_18\\_2019.docx.pdf](https://www.whitehouse.gov/wp-content/uploads/2019/12/2019-CATS-5885-REV_DOC-2017CostBenefitReport11_18_2019.docx.pdf), p. 10.

<sup>8</sup> U.S. EPA, Office of Air and Radiation, *The Benefits and Costs of the Clean Air Act from 1990 to 2020* (April 2011), available at [https://www.epa.gov/sites/production/files/2015-07/documents/fullreport\\_rev\\_a.pdf](https://www.epa.gov/sites/production/files/2015-07/documents/fullreport_rev_a.pdf), p. 7-1.

<sup>9</sup> *Nat. Res. Def. Council v. EPA*, 22 F.3d 1125, 1148 (D.C. Cir. 1994) (quoting *Citizens to Save Spencer County v. EPA*, 600 F.2d 844, 873 (D.C. Cir. 1979)).

<sup>10</sup> 85 Fed. Reg. at 35,613.

various provisions of the Act provide disparate requirements, considerations, and processes.<sup>11</sup> This variation not only renders U.S. EPA's push for consistency arbitrary and wasteful, as discussed below, but undermines the agency's claim to find authority for the proposed rule in its pursuit of consistency. And while transparency is a worthwhile goal when appropriate, U.S. EPA does not suggest or explain how transparency is a "function" or purpose of the Clean Air Act.<sup>12</sup>

U.S. EPA has failed to identify any purposes of the Act that its proposal would effect. As the D.C. Circuit Court of Appeals has recently underscored, "A 'necessary or appropriate' provision in an agency's authorizing statute does not necessarily empower the agency to pursue rulemaking that is not otherwise authorized."<sup>13</sup>

**a. The proposal is not necessary to carry out the Administrator's functions under the Clean Air Act.**

Even if ensuring consistency or transparency were "functions" of the Administrator under the Clean Air Act (which they are not), the agency utterly fails to explain how any aspect of the proposal – the proposed changes from longstanding practice, codification of BCA requirements generally, and the proposed requirements in particular – are "necessary" for the administrator to carry them out.

The transparency and comprehensiveness of Clean Air Act BCAs are already ensured by the Unfunded Mandates Reform Act of 1995 (UMRA),<sup>14</sup> longstanding Presidential

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<sup>11</sup> *Id.* at 35,615.

<sup>12</sup> While transparency and consistency can be relevant considerations for an agency, no court has found that transparency or consistency qualify as functions within the meaning of section 301(a)(1).

<sup>13</sup> *New York Stock Exch. LLC v. Sec. & Exch. Comm'n*, 962 F.3d 541, 556 (D.C. Cir. 2020), citing *Michigan v. EPA*. The court continued, "[U]nless an agency's authorizing statute says otherwise, an agency regulation must be designed to address identified problems. Rules are not adopted in search of regulatory problems to solve; they are adopted to correct problems with existing regulatory requirements that an agency has delegated authority to address." *Id.* at 556–57 (internal citation omitted).

<sup>14</sup> 2 U.S.C. §§ 1501 et seq.

Executive Orders,<sup>15</sup> OMB guidelines,<sup>16</sup> U.S. EPA's current Guidelines for Preparing Economic Analyses,<sup>17</sup> and U.S. EPA's Plan for Periodic Retrospective Reviews of Existing Regulations,<sup>18</sup> among other laws and policies. They provide appropriate and necessary flexibility in evaluating costs and benefits across a wide variety of regulatory actions and various air pollutants. U.S. EPA has not identified any deficiencies in these laws, orders, and guidelines that would necessitate the proposed rule.

The agency also does not suggest that any procedural deficiencies have resulted in regulations that may have been unjustified because a Regulatory Impact Analysis did not include all of the elements now proposed. Neither is there any suggestion that U.S. EPA has relied on flawed economic methods or cost-benefit analyses as the basis for regulatory action, or that any failure to comply with existing requirements and guidelines has resulted in irrational or arbitrary regulations. To the extent that the agency has articulated a basis for the rule, it is to counter alleged perceptions that U.S. EPA has not abided by current guidelines and best practices, with some commenters suggesting "inadequate adherence to existing EPA and OMB guidance for how to conduct BCA."<sup>19</sup>

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<sup>15</sup> E.O. 12866, "Regulatory Planning and Review," 58 Fed. Reg. 51,735 (Oct. 4, 1993), was issued twenty-five years ago and has been upheld by all presidents since. It requires agencies to "assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs." § 1(b)(6). The assessed costs and benefits must "include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider." § 1(a). E.O. 12866, requiring that the anticipated benefits of rulemaking strictly justify anticipated costs, replaced E.O. 12291, which required that benefits strictly outweigh costs, 46 Fed. Reg. 13,193 (Feb. 19, 1981), thereby acknowledging the difficulty of precisely measuring and monetizing benefits and costs. E.O. 13563, "Improving Regulation and Regulatory Review," which also remains active, both affirms the 1993 E.O. and additionally directs federal agencies "to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. Where appropriate and permitted by law, each agency may consider (and discuss qualitatively) values that are difficult or impossible to quantify, including equity, human dignity, fairness, and distributive impacts." 76 Fed. Reg. 3,821 (Jan. 21, 2011), § 1(c).

<sup>16</sup> OMB, Circular A-4, Sept. 17, 2003.

<sup>17</sup> U.S. EPA Guidelines for Preparing Economic Analyses, National Center for Environmental Economics, Dec. 17, 2010, updated May 2014, available at <https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses>.

<sup>18</sup> August, 2011, available at <https://19january2017snapshot.epa.gov/laws-regulations/documents-retrospective-review.html>.

<sup>19</sup> 85 Fed. Reg. at 35,617.

Even to the extent that U.S. EPA has received comments suggesting inadequate transparency or consistency, and even to the extent that such comments could justify changes, the agency has not indicated why codification – rather than improved implementation – would be the necessary or appropriate remedy. The agency says only, “Several commenters recommended that the EPA issue binding procedural requirements to ensure transparency and consistent adherence to best practices for BCA. This proposed rulemaking seeks to ensure consistent adherence to best practices for BCA of future CAA regulations by codifying these requirements into regulation.”<sup>20</sup> This unquestioning acceptance of “several commenters’” recommendation hardly qualifies as indicating necessity.

Even if codification of some BCA processes were necessary to fulfill the functions or purposes of the Clean Air Act, U.S. EPA has also provided no indication that its burdensome, arbitrary, and outcome-seeking proposal meets that description. As the D.C. Circuit Court of Appeals recently held of similar “general administrative authority” granted to the Secretary of Health and Human Services, “[T]he further a regulation strays from truly facilitating the ‘administration’ of the Secretary’s duties, the less likely it is to fall within the statutory grant of [housekeeping] authority. . . . Although the Secretary’s regulatory authority is broad, it does not allow him to move the goalposts to wherever he kicks the ball.”<sup>21</sup>

Because the proposed regulation is not necessary to fulfill any of the administrator’s functions under the Clean Air Act, the agency lacks authority for its promulgation.

**b. The proposal is not a “housekeeping” rule.**

U.S. EPA also claims that Clean Air Act sec. 301(a)(1) authorizes this proposal because it “is a proposed rulemaking of agency organization, procedure or practice [that] would not regulate any person or entity outside the EPA and would not affect the rights or obligations of outside parties.”<sup>22</sup> Yet this is the standard for an exception to the notice and comment requirements of the Administrative Procedure Act,<sup>23</sup> not the standard for Clean Air Act sec. 301(a)(1) authority. Moreover, the proposed rule does not constitute a so-called “housekeeping” measure given its significant, substantive impact. Unlike a standard rule of “agency organization, procedure, or practice,” the proposal would govern the manner in which the agency implements its obligations

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<sup>20</sup> *Ibid.*

<sup>21</sup> *Merck & Co. v. U.S. Dep’t of Health & Human Servs.*, 962 F.3d 531, 538, 541 (D.C. Cir. 2020).

<sup>22</sup> 85 Fed. Reg. at 35,614.

<sup>23</sup> 5 U.S.C. § 553(b).

under the Clean Air Act, including the processes and the science that U.S. EPA would be obligated to use in determining baselines and benefits. The proposal would directly limit the public's ability to provide effective comment on future agency proposals, as it would force U.S. EPA economists to summarily reject public comments referencing studies outside the proposal's categories of acceptable studies for this purpose.<sup>24</sup> And as detailed throughout the remainder of this comment, the proposal would significantly affect future U.S. EPA regulatory decisions. Therefore, even if it were "necessary to carry out [the administrator's] functions" under the Clean Air Act<sup>25</sup> (which it is not), the "housekeeping" provision that U.S. EPA cites would not authorize the proposal.

**c. The proposed rule would subvert the purposes of the Clean Air Act.**

Not only is the proposal unnecessary for the administrator to carry out his Clean Air Act functions, and therefore unauthorized by section 301(a)(1), it would actually undermine the purposes of the Act.

A variety of proposed provisions would invite unnecessary and improper delay of U.S. EPA's Clean Air Act rulemakings. These include proposals, without justification, to require analysts to evaluate at least three regulatory options, even if these options are not actually under consideration by decision-makers<sup>26</sup>; to affirmatively publish all underlying data that is not protected by law<sup>27</sup>; and for each BCA to analyze and characterize a large number of attributes, assumptions, uncertainties, variabilities, influences, and alternatives that have no basis for being standard elements of every BCA.<sup>28</sup> These extensive requirements would create new burdens on agency economists that vastly exceed current regulatory workloads. As discussed in Section II.a. below ("The proposal is arbitrary and capricious"), these proposed requirements

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<sup>24</sup> See proposed sec. 83.3(a)(9)(iii).

<sup>25</sup> 42 U.S.C. § 7601(a)(1).

<sup>26</sup> Proposed sec. 83.3(a)(3).

<sup>27</sup> Proposed sec. 83.3(a)(12) (requiring U.S. EPA to "ensure that all information (including data and models) used in the development of the BCA is publicly available" or to publish "the underlying inputs and assumptions used, equations, and methodologies used by EPA," to the extent permitted by law.) If this requirement is codified, U.S. EPA could avoid the burden by significantly reducing its reliance on studies with non-publicly available underlying data, as the agency has concurrently proposed to do. See Strengthening Transparency in Science: Supplemental Notice of Proposed Rulemaking, 85 Fed. Reg. 15,396 (March 18, 2020); comments filed by California Environmental Protection Agency on May 18, 2020 (Docket ID No. EPA-HQ-OA-2018-0259).

<sup>28</sup> Proposed secs. 83.3(a)(9)(vii), (10).



are also completely unjustified – to the degree that burden and delay appear to be their objective.

These provisions are also in stark contrast with the Clean Air Act's many provisions requiring U.S. EPA to promulgate regulations within certain periods or by certain deadlines. Among many other examples, Clean Air Act section 109(d) requires the administrator to review and, if appropriate, revise the national ambient air quality standards (NAAQS) every five years; section 111(b)(1)(B) requires the administrator to publish proposed new source performance standards within one year of listing a stationary source category, and to review and, if appropriate, revise the standards every eight years once promulgated; and section 112(c)(1) requires the administrator to review and, if appropriate, revise the maximum achievable control technology standards for hazardous air pollutants every eight years.<sup>29</sup> U.S. EPA already struggles to meet these statutory deadlines.<sup>30</sup> U.S. EPA's baseless proposal to mandate inappropriate, highly burdensome, and delay-inducing protocols would almost inevitably force the agency further afield of Clean Air Act deadlines, and thereby subvert the purposes of the Act.

The proposal could also systematically bias agency processes by forcing attention only or primarily onto the factors that the proposed regulation mandates for detailed analysis and review. This would also contradict the Clean Air Act, as many of the important values that Congress identified for protection in the CAA either cannot be quantified or may not be. For example, in the Act, "All language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being[.]"<sup>31</sup> While the proposed regulation would require U.S. EPA to quantify impacts that it cannot monetize, and qualitatively evaluate impacts that it cannot quantify,<sup>32</sup> it seems inevitable that the agency would disproportionately emphasize the values that this proposal would mandate for analysis in painstaking detail.

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<sup>29</sup> 42 U.S.C. §§ 7409(d), 7411(b)(1)(B), 7412(c)(1).

<sup>30</sup> *E.g.*, Congressional Research Service, *Clean Air Act: A Summary of the Act and Its Major Requirements*, Feb. 25, 2020, p. 3, <https://fas.org/sgp/crs/misc/RL30853.pdf> ("More often than not, EPA has taken more than five years in reviewing the [NAAQS] standards, but the establishment of a deadline has allowed interested parties to force review of the standards by filing suit.").

<sup>31</sup> 42 U.S.C. § 7602(h).

<sup>32</sup> Proposed sec. 83.3(a)(8).

Indeed, this has already been the case in U.S. EPA's reversal of its prior determination that regulating mercury emissions from power plants is "appropriate and necessary," after the agency compared total regulatory costs (which U.S. EPA purported to be unable to disaggregate) to the sole benefit of mercury regulation that the agency had quantified or monetized: avoided IQ loss in children from prenatal exposure via consumption of self-caught, freshwater fish.<sup>33</sup> Disparate consideration of the easily-accounted costs and unmonetizable and relatively uncertain benefits of regulation would only be enabled and aggravated by this proposal. For example, the proposed definition of "Benefit-cost analysis (BCA)" seems to omit questions regarding disparate or environmental justice impacts. It also assumes that the entities that bear compliance costs of the regulation always differ from those who accrue benefits. This is not necessarily the case; an entity that bears cost may also realize benefits (such as cost-savings), which may even offset their initial costs.

The proposed requirements are likely to delay rulemakings beyond statutory deadlines and undermine consideration of hard-to-monetize benefits that the Clean Air Act requires the agency to prioritize. The proposal would subvert the purposes of the Act, and is unauthorized and unlawful for this reason as well.

## **II. The proposed rule violates the Administrative Procedure Act.**

### **a. The proposal is arbitrary and capricious.**

Agency action violates the Administrative Procedure Act (APA), 5 U.S.C. § 706, if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."<sup>34</sup> Agency action is arbitrary and capricious when the agency "has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise[,]"<sup>35</sup> or otherwise fails to "examine the relevant data and articulate a satisfactory explanation for its

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<sup>33</sup> National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review, 85 Fed. Reg. 31,286 (May 22, 2020).

<sup>34</sup> 5 U.S.C. § 706(2)(A).

<sup>35</sup> *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

action 'including a rational connection between the facts found and the choice made.'"<sup>36</sup>

The proposed rule is arbitrary and capricious and not in accordance with law. The Clean Air Act provides different requirements for different programs and contexts; an effort to standardize cost-benefit analyses under these programs, regardless of the statutory requirements, is inherently arbitrary and in violation of statute. The interrelated but distinct programs mandated by the Clean Air Act include, among others, NAAQS, new source performance standards, and hazardous air pollutant programs. Through disparate statutory text, and courts' interpretations thereof, each program prescribes different approaches as to whether and how U.S. EPA may consider costs in promulgating regulations. In setting and updating NAAQS, U.S. EPA is not permitted to consider costs.<sup>37</sup> In determining new source performance standards, the agency need only consider costs in determining whether a system of emission reduction has been "adequately demonstrated."<sup>38</sup> And in the hazardous air pollutants program, U.S. EPA must consider some costs when deciding whether to regulate power plants.<sup>39</sup>

Yet U.S. EPA proposes to mandate a full cost-benefit analysis for proposed regulations, such as NAAQS standards, for which the agency is prohibited from considering costs. The requirement to perform such an analysis, itself, would be arbitrary (in addition to making the resulting standard likely arbitrary, as discussed below.)

Even if the proposal's particular requirements were not outcome-seeking, it is unclear that consistent BCA processes could appropriately and non-arbitrarily be mandated across the variety of Clean Air Act programs, sectors, and strategies with disparate statutory requirements and parameters. The proposal preamble states, "[I]n light of the varying statutory provisions in the CAA that apply to or otherwise address cost consideration, the Agency proposes to provide analysis to the public that will present all of the benefits and costs in a consistent manner for all significant CAA rulemakings."<sup>40</sup> It is entirely unclear, and unexplained, how the agency may mandate

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<sup>36</sup> *Ibid.* (citing *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)); see also *Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 105 (1983) ("The APA requires agencies to consider[] the relevant factors and articulate[] a rational connection between the facts found and the choice made.").

<sup>37</sup> 42 U.S.C. § 7409(b)(1); *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 471 (2001)

<sup>38</sup> 42 U.S.C. § 7411(a)(1); *Portland Cement Ass'n v. Train*, 513 F.2d 506, 508 (D.C. Cir. 1975).

<sup>39</sup> 42 U.S.C. § 7412(n)(1)(A); *Michigan v. EPA*, 135 S. Ct. 2699, 2708-2709 (2015).

<sup>40</sup> 85 Fed. Reg. at 35,613.

*consistent* processes for regulations promulgated under statutory provisions with *varied* cost considerations. As U.S. EPA acknowledged in the Advance Notice of Proposed Rulemaking (ANPRM) that proceeded this proposal, “Many technical and practical factors play a role in how EPA implements statutory instruction related to cost considerations in regulatory decisions. Any assessment of costs (and benefits) is limited by the state of scientific and economic modeling, quantification methods, and available data—all of which change over time and across industries and sectors of the economy.”<sup>41</sup> Further, U.S. EPA wrote, “[I]ndustry or sector specific factors may play a role, as some metrics may be more or less relevant to the affected industries, sectors, or question at hand.”<sup>42</sup> Given these technical, practical, and industry factors, promulgation of consistent regulatory requirements is arbitrary.

As the D.C. Circuit Court of Appeals has noted, “The failure of an agency to consider obvious alternatives has led uniformly to reversal.”<sup>43</sup> Even if U.S. EPA were attempting to address a deficiency in current laws, E.O.s, and policies, the agency has arbitrarily failed to consider more targeted, lower-cost alternatives to its proposal (ironically, in a proposal that would codify such a requirement). The proposal would needlessly codify new requirements, as discussed in Section I.a. above (“The proposal is not necessary to carry out the Administrator’s functions under the Clean Air Act”) and heavily increase U.S. EPA’s workload in promulgating Clean Air Act regulations, discussed in detail in Section II.d.i. below (“The proposal fails to comply with E.O.s 12866 and 13771”). The agency not only fails to justify this increase, but fails even to acknowledge it. Indeed, given that no other basis for the proposal has been articulated, burdening, delaying, and increasing opportunities to challenge future rulemakings may well be the agency’s intent.

The vagueness of U.S. EPA’s proposed requirements also render them arbitrary. The overarching requirement of U.S. EPA’s proposal is for the Agency to “develop BCAs of significant CAA regulations in accordance with best available scientific information and best practices from the economic, engineering, physical, and biological sciences, *including*” the specified procedures.<sup>44</sup> If the agency departs from “best practices” in such a BCA, the proposed regulation would require the agency to “provide a reasoned explanation,” “including a discussion of the likely effect of the departures on the results of the BCA.”<sup>45</sup> Throughout the proposal preamble, U.S. EPA describes

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<sup>41</sup> 83 Fed. Reg. 27,524, 27,526 (June 13, 2018).

<sup>42</sup> 83 Fed. Reg. at 27,526.

<sup>43</sup> *Yakima Valley Cablevision, Inc. v. F.C.C.*, 794 F.2d 737, 746 (D.C. Cir. 1986).

<sup>44</sup> Proposed sec. 83.3(a) (emphasis added).

<sup>45</sup> Proposed sec. 83.3(b).

“best practices” in addition to the proposed regulatory provisions. It is unclear how agency economists would determine which additional best practices are mandated.

Additionally, the proposal preamble’s descriptions of “best practices” includes a variety of references to the agency’s 2010 and 2014 internal Guidelines for Preparing Economic Analyses.<sup>46</sup> Only in a footnote in the proposal preamble does the agency acknowledge that these Guidelines are mid-update.<sup>47</sup> However, the draft update includes thorough and significant revisions; on June 2, 2020, the Science Advisory Board expert panel providing peer review released a draft review report that is nearly 80 pages long.<sup>48</sup> The reliance, in both the proposal preamble and the proposed regulatory requirements, of Guidelines that are mid-revision is arbitrary. (It also precludes informed comment in violation of the APA,<sup>49</sup> as commenters cannot know which “best practices” identified or discussed in the 2010 and 2014 Guidelines may be retained or omitted in the ongoing update.)

Under E.O. 12866, BCAs are required for “significant regulatory actions,” defined as:

[A]ny regulatory action that is likely to result in a rule that may: (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way

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<sup>46</sup> 85 Fed. Reg. at 35,620 (“More discussion of these best practices and estimation methods is provided in Circular A-4 and EPA’s Guidelines for Preparing Economic Analyses, and the literature cited therein.”); 35,621 (“Additional discussion of these best practices related to uncertainty analysis is provided in OMB’s Circular A-4, Treatment of Uncertainty, and throughout EPA’s Guidelines for Preparing Economic Analyses Guidelines.”); 35,622 (“Additional discussion of these best practices related to transparency is provided in OMB’s Circular A-4, Transparency and Reproducibility of Results, and throughout EPA’s Guidelines (2010).”), citing National Center for Environmental Economics, Dec. 17, 2010, updated May 2014, available at <https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses>.

<sup>47</sup> 85 Fed. Reg. at 35,627, note 13 (“The EPA is in the process of a periodic update of the Guidelines. The EPA anticipates that among the changes within this update, the current Section 9.2.3.3, “Impacts on employment”, will be replaced with a discussion based on more recent literature and feedback from the Economy Wide Modeling Science Advisory Board Panel. For more details regarding Chapter 9, see: <https://www.epa.gov/sites/production/files/2017-09/documents/ee-0568-09.pdf>. For more details regarding the update of the Guidelines in general, see: <https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebProjectsCurrentBOARD/30D5E59E8DC91C2285258403006EEE00?OpenDocument>.”).

<sup>48</sup> Draft SAB Peer Review of EPA’s Revised Guidelines for Preparing Economic Analyses, June 2, 2020, [https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebProjectsCurrentBOARD/40F2ADC8D6E4BB868525857B007234D5/\\$File/6.2.20+draft+report.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebProjectsCurrentBOARD/40F2ADC8D6E4BB868525857B007234D5/$File/6.2.20+draft+report.pdf).

<sup>49</sup> 5 U.S.C. § 553(c).

the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive order.<sup>50</sup>

Despite the comprehensiveness of this longstanding definition, U.S. EPA proposes to apply the proposed requirements not only to significant regulatory actions, as defined by E.O. 12866, but to any Clean Air Act action "otherwise designated as significant by the Administrator."<sup>51</sup> As ostensible justification, the agency cites potential regulations "that are important to analyze for other policy reasons. For example, a rule projected to have less than a \$100 million annual effect on the economy could disproportionately affect a single industry, population subgroup, or geographic area."<sup>52</sup> Such rules would already be covered by the definition under E.O. 12866, which includes rules that may "adversely affect in a material way" a sector of the economy or local communities. Neither the proposal preamble nor proposed regulatory text contains any parameters or guidelines for the administrator to make apply the proposed rule to additional Clean Air Act regulations. This unjustified and arbitrary provision would allow the administrator to selectively delay and burden minor regulations with the mandatory process now proposed.

The proposal's technical requirements are also arbitrary, unjustified, and often outcome-seeking or easily manipulated. The proposal identifies the willingness-to-pay metric as the "correct measure" of changes from the baseline, but fails to even acknowledge the existence of other metrics, let alone to justify their exclusion in favor of willingness-to-pay.<sup>53</sup> The proposal also fails to acknowledge or consider the greater difficulty in estimating willingness-to-pay for non-market goods, such as air quality and associated health risk.<sup>54</sup> The agency's proposed restriction of endpoint assessment to studies with "causal" or "likely causal" outcomes, for which no explanation is provided, would dramatically and irrationally restrict assessment of the health benefits of regulation. This provision would particularly and inexplicably exclude

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<sup>50</sup> Sec. 3(f).

<sup>51</sup> Proposed sec. 83.1.

<sup>52</sup> 85 Fed. Reg. at 35,618.

<sup>53</sup> *Id.* at 35,620.

<sup>54</sup> *Id.* at 35,627, note 27; *comp.* U.S. EPA, Guidelines for Economic Analysis, 2010, p. XV.

epidemiological studies, which do not individually determine causality,<sup>55</sup> and would severely limit understanding of a regulation's impact on vulnerable and impacted communities and children. The agency provides no explanation or justification for such arbitrary and bias-inducing provisions.

The proposal would arbitrarily establish so-called "minimum standards" for studies, particularly epidemiological studies, to be considered in establishing endpoints and baselines for BCA, for which no justification is provided.<sup>56</sup> It is difficult to imagine what rational or appropriate explanation U.S. EPA could provide for drastically and limiting such studies, had the agency attempted to provide one. This provision is likely to preclude U.S. EPA, in evaluating and developing benefits endpoints, from considering high-quality CARB-funded epidemiological or cohort studies that provide critical findings on air pollution exposures and health impacts. These likely include:

- *The 10-year Children's Health Study (CHS)*: Initiated in 1993, this was the first major study to assess the impacts of long-term air pollution exposure on the respiratory health of California's children.<sup>57</sup> Following 5,500 students in 12 southern California communities from fourth grade through high school, this

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<sup>55</sup> Determination of causality in epidemiology is based on review of groups of studies and consensus among researchers in the field using criteria known as "Hill's criteria." See HILL A. B. (1965). THE ENVIRONMENT AND DISEASE: ASSOCIATION OR CAUSATION?. Proceedings of the Royal Society of Medicine, 58(5), 295-300.

<sup>56</sup> 85 Fed. Reg. at 35,620.

<sup>57</sup> Peters, J.M., et al. (1999) *A study of twelve Southern California communities with differing levels and types of air pollution. II. Effects on pulmonary function*, AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE. 159: 768-775; Avol, E.L., et al. (2001) *Respiratory effects of relocating to areas of differing air pollution levels*, AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE, 164: 2067-2072; Gauderman, W.J., et al. (2002) *Association between air pollution and lung function growth in Southern California children: Results from a second cohort*, AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE, 166(1): 74-84; McConnell, R., et al. (2002) *Asthma in exercising children exposed to ozone: A cohort study*, LANCET, 359: 386-391; Gauderman, W.J., et al. (2004) *The effect of air pollution on lung development from 10 to 18 years of age*, NEW ENGLAND JOURNAL OF MEDICINE 351(11): 1057-1067; Gauderman, W. J., et al. (2005) *Childhood asthma and exposure to traffic and nitrogen dioxide*, EPIDEMIOLOGY 16:737-743; McConnell, R., et al. (2006) *Traffic, susceptibility, and childhood asthma*, ENVIRONMENTAL HEALTH PERSPECTIVES 114:766-772; Gauderman, W. J., et al. (2007) *Effect of exposure to traffic on lung development from 10 to 18 years of age: a cohort study*, LANCET 369:571-577; Gauderman, W.J., et al. (2015) *Association of improved air quality with lung development in children*, NEW ENGLAND JOURNAL OF MEDICINE 372(10):905-913; Berhane, K. et al. (2016) *Association of changes in air quality with bronchitic symptoms in children in California, 1993-2012*, JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 315(14):1491-1501.

study revealed the extent to which ozone, nitrogen dioxide, acid vapors consisting of nitric acid and hydrogen chloride, and particulate matter affect children's lung development. The results of this study are evidence for classifying children as sensitive receptors to air pollution and have influenced research since and shaped California legislation addressing children's microenvironments.<sup>58</sup>

- *The Los Angeles Family and Neighborhood Survey (LAFANS)*: This was a study of families in different neighborhoods in Los Angeles County.<sup>59</sup> The researchers found that children more highly exposed to traffic pollution were 30-40 percent more likely to report wheeze symptoms.<sup>60</sup>
- *The East Bay Kids Study<sup>61</sup> and the California Health Interview Survey (CHIS)*:<sup>62</sup> These studies sought to determine impacts of pollution levels and greater sensitivity in low income neighborhoods on asthma, including in the CHIS study, on whether the asthma burden disparity is due to exposure to higher levels of air pollutants, greater vulnerability, or both. Findings from these studies have helped to inform policy decisions on motor vehicle emissions control and enforcement, and asthma prevention, control, and education in low socioeconomic status populations.<sup>63</sup>
- *Wildfire Impact*: Studies currently in progress are examining the impacts of wildfire smoke on lost work days and on respiratory symptoms.

The proposal also unjustifiably weights the burden of uncertainty assessment on benefits rather than costs, placing more prescriptive requirements on the analysis of

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<sup>58</sup> CARB 2018. Proposed Triennial Strategic Research Plan Fiscal Years 2018-2021, [https://ww2.arb.ca.gov/sites/default/files/2018-04/FY2018-21\\_Triennial\\_Research\\_Plan-2018-04-24.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-04/FY2018-21_Triennial_Research_Plan-2018-04-24.pdf), pp. 6, 15.

<sup>59</sup> Ritz, B et al. (2009) "Traffic-Related Air Pollution and Asthma in Economically Disadvantaged and High Traffic Density Neighborhoods in Los Angeles County, California" Final Report ARB Contract No. 04-323 Prepared for the California Air Resources Board and California Environmental Protection Agency Sacramento, CA.

<sup>60</sup> CARB 2018. Proposed Triennial Strategic Research Plan Fiscal Years 2018-2021, [https://ww2.arb.ca.gov/sites/default/files/2018-04/FY2018-21\\_Triennial\\_Research\\_Plan-2018-04-24.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-04/FY2018-21_Triennial_Research_Plan-2018-04-24.pdf), p. 15.

<sup>61</sup> Kim, J., et al. (2008) "Residential Traffic and Children's Respiratory Health." *Environmental Health Perspectives* 116.9 (2008): 1274-1279.

<sup>62</sup> Meng, Y-Y., et al. (2012) "Is Disparity in Asthma among Californians due to Higher Pollution Exposures, Greater Vulnerability, or Both?" Final Report ARB Contract No: 07-309 Prepared for the California Air Resources Board and the California Environmental Protection Agency.

<sup>63</sup> CARB 2018. Proposed Triennial Strategic Research Plan Fiscal Years 2018-2021, [https://ww2.arb.ca.gov/sites/default/files/2018-04/FY2018-21\\_Triennial\\_Research\\_Plan-2018-04-24.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-04/FY2018-21_Triennial_Research_Plan-2018-04-24.pdf), p. 22.



the uncertainty of benefits. This is likely to skew the assessment of uncertainty towards benefits more than costs, depicting benefits as more uncertain than costs. Even aside from inappropriately weighting uncertainty assessment, the proposal would also institute an arbitrary and inappropriate focus on uncertainty.<sup>64</sup> Instead, uncertainty should be recognized as an accepted element of scientific research, as long as research has been conducted according to accepted scientific methods and has undergone peer review. Given that researchers cannot measure every individual's exposure or every confounding factor in a population-based epidemiological study, the key factor is to address the known uncertainties and limitations, and make sure those are transparent and scientifically valid and the studies are evaluated in the context of the current status of scientific evidence. The proposal would vastly exceed these well-accepted principles by requiring regulators to estimate the influence of uncertainties on results for specific studies. U.S. EPA provides no justification for these proposed requirements, let alone a reasoned basis, thereby underscoring the proposal's arbitrariness.

**b. The proposal would render subsequent Clean Air Act regulations arbitrary and capricious.**

Finalizing and implementing the proposal would render subsequent U.S. EPA actions arbitrary and capricious as well. As noted, the agency is prohibited from considering costs in setting or updating NAAQS. U.S. EPA asserts that codifying a requirement to evaluate costs, including for more- and less-rigorous standards than proposed, is still appropriate because "[w]hether the Agency utilizes any information produced as a result of these procedural requirements would be determined by the statutes and regulations governing particular subsequent rulemakings."<sup>65</sup> Yet a requirement to

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<sup>64</sup> E.g., proposed secs. 83.3(a)(10) ("The Agency must identify uncertainties underlying the estimation of both benefits and costs and, to the extent feasible, quantitatively analyze those that are most influential; and must present benefits and cost estimates in ways that convey their uncertainty. The Agency must provide a reasoned explanation for the scope and specific quantitative or qualitative methods chosen to analyze uncertainties."); (11)(iv) ("The Agency must assess the sources of uncertainty that are likely to have a substantial effect on the results of the BCA and present the results of this assessment. The Agency must identify any data and models used to analyze uncertainty in the BCA, and the quality of the available data shall be discussed."). Additionally, where cost or benefits are known to be jointly distributed, proposed § 83.3(a)(10)(iii) would require the agency to complete an uncertainty analysis assuming they are independently distributed. This is not technically correct analysis and could potentially lead to a significant overestimation of the uncertainty of the BCA results.

<sup>65</sup> 85 Fed. Reg. at 35,615. The agency attempts to draw a parallel between Regulatory Impact Analyses (RIA), which it currently develops for NAAQS regulations, and the requirements for BCAs that it proposes to codify. *Ibid.* Yet the differences between current standard RIAs and

generate and provide such an analysis, even if ostensibly disregarded by decision-makers, is likely to produce arbitrary decisions (and certain to increase litigation risk).

Even where the Clean Air Act requires or permits consideration of some or all costs of a proposed regulation, this proposal would lead to arbitrary results. An agency doing a cost-benefit analysis “cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards[,]” or by failing to monetize or quantify benefits that can be monetized or quantified.<sup>66</sup> The proposal would result in BCAs that overemphasize the uncertainty of regulatory benefits as opposed to costs; omit some benefits from consideration in benefit endpoints; exclude high-quality epidemiological studies; and undervalue environmental justice concerns.

The proposal would also prohibit U.S. EPA’s consideration of relevant and high-quality studies, particularly epidemiological studies, that do not meet U.S. EPA’s arbitrary and outcome-seeking proposed requirements for incorporation in BCAs.<sup>67</sup> These unjustified restrictions would most severely limit consideration of epidemiological studies, and would place far fewer limits on the types of laboratory studies that tend to be sponsored by and favor industry, thereby placing a thumb on the analytical scale.<sup>68</sup> (Notably, the proposal places no limits on the regulatory costs that may be claimed by industry or other opponents of health and environmental protections.)

In excluding relevant science from expert consideration, based on factors that Congress did not intend for the agency to prioritize, U.S. EPA would inevitably fail to consider important aspects of the problems under consideration, issue decisions counter to the evidence before the agency, and commit other basic APA violations with every affected action. Further, in addition to its substantive prohibition on arbitrary and capricious actions, the APA establishes general procedural requirements for agency rulemakings, including a requirement for agencies to consider the relevant information presented via public comment on proposed rulemakings.<sup>69</sup> By precluding agency economists from incorporating relevant studies raised in public comments on

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the proposed BCA requirements are precisely what U.S. EPA is proposing to require via this proposal.

<sup>66</sup> *Center for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1198-1203 (9th Cir. 2008); see *High Country Conservation Advocates v. United States Forest Serv.*, 52 F. Supp. 3d 1174, 1191 (D. Colo. 2014) (failure to use social cost of carbon was arbitrary and capricious); *California v. Bernhardt*, \_\_\_ F.Supp.3d \_\_\_, 2020 WL 4001480, at \*29 (N.D. Cal. July 15, 2020).

<sup>67</sup> See proposed sec. 83.3(a)(9)(iii).

<sup>68</sup> *Ibid.*

<sup>69</sup> 5 U.S.C. § 553(c).

proposed Clean Air Act regulations, the proposal would cause future U.S. EPA actions to violate the APA's procedural requirements as well.

The proposed requirements to disaggregate benefits "into those targeted and ancillary to the statutory objective of the regulation" and to present co-benefits separately may also lead to arbitrary outcomes. Aside from the technical challenges of drawing distinctions between "targeted" and "ancillary" benefits, this requirement would set the stage for the agency to subvert full consideration of regulatory benefits and improperly determine that regulation would be unjustified. For example, U.S. EPA's recent reversal of its prior determination that regulating mercury emissions from power plants is "appropriate and necessary" considered total regulatory costs, which U.S. EPA purported to be unable to disaggregate.<sup>70</sup> By contrast, the agency disregarded many billions of dollars in annual benefits, and considered only the monetized benefit for avoided IQ loss in children from prenatal exposure via consumption of self-caught, freshwater fish.<sup>71</sup>

Yet partially considering benefits while fully considering costs is both inappropriate for economic analysis and unlawful,<sup>72</sup> as it results in significant underestimation of the benefits of environmental regulations. Full estimation of co-benefits of regulatory actions is critically important to ensuring appropriate actions are taken to comprehensively improve air quality and mitigate climate change. Additionally, reducing consideration of co-benefits in regulatory decision-making would affect air quality planning. CARB and local air agencies employ the co-benefits analyses and information in U.S. EPA's regulatory impacts analyses for compliance planning and development of state compliance strategies within State Implementation Plans for the National Ambient Air Quality Standards.

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<sup>70</sup> 85 Fed. Reg. 31286 (May 22, 2020).

<sup>71</sup> 85 Fed. Reg. 31286 (May 22, 2020).

<sup>72</sup> *E.g., Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1198 (9th Cir. 2008) ("Even if NHTSA may use a cost-benefit analysis to determine the 'maximum feasible' fuel economy standard, it cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards. NHTSA fails to include in its analysis the benefit of carbon emissions reduction in either quantitative or qualitative form. It did, however, include an analysis of the employment and sales impacts of more stringent standards on manufacturers.").

**c. U.S. EPA has failed to provide a reasoned basis for the proposed requirements.**

Under the APA, agencies must “articulate[] a rational connection between the facts found and the choice made.”<sup>73</sup> The APA’s notice-and-comment rulemaking provisions also require agencies to provide notice of a proposed rulemaking and to “disclose in detail the thinking that has animated the form of a proposed rule and the data upon which that rule is based.”<sup>74</sup> As the D.C. Circuit Court of Appeals has noted, “[A] prerequisite to the ability to make meaningful comment is to know the basis upon which the rule is proposed.”<sup>75</sup> Despite these substantive and procedural requirements, U.S. EPA has not provided a justification for the proposal, let alone a detailed disclosure of its reasoning and data.

On June 13, 2018, U.S. EPA issued an ANPRM to solicit comment on potential regulations to govern the agency’s approach to cost-benefit analyses and the weight given certain costs and benefits in regulatory decision-making.<sup>76</sup> To the extent that U.S. EPA relayed specific concerns that prompted publication of the ANPRM and solicitation of further public comment, U.S. EPA admitted that these concerns were limited to industry and reflected policy preferences related to consideration of co-benefits and other analytical decisions.<sup>77</sup> Nowhere did the agency suggest that these concerns related to consistency or transparency, merely to compliance costs.<sup>78</sup> And the ANPRM was itself the result of U.S. EPA’s April 2017 solicitation of public comment only on regulations that “impose costs that exceed benefits.”<sup>79</sup>

On May 13, 2019, Administrator Andrew Wheeler issued a memorandum explaining that, rather than proposing an overarching regulation based on the ANPRM, the agency would “proceed with cost-benefit reforms using a media-specific approach,” or regulations pertaining to individual U.S. EPA’s statutory authorities, beginning with

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<sup>73</sup> *Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 105 (1983).

<sup>74</sup> 5 U.S.C. 553(b); *Home Box Office, Inc. v. F.C.C.*, 567 F.2d 9, 35 (D.C. Cir. 1977).

<sup>75</sup> *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375, 393 (D.C. Cir. 1973).

<sup>76</sup> 83 Fed. Reg. 27524 (June 13, 2018); CARB Comment on Advance Notice of Proposed Rulemaking, “Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process,” 83 Fed. Reg. 27524, Regulation Identifier Number 2010-AA12, submitted August 13, 2018. CARB’s comment on the ANPRM is attached to this letter.

<sup>77</sup> 83 Fed. Reg. at 27,526.

<sup>78</sup> *Ibid.*

<sup>79</sup> Evaluation of Existing Regulations: Request for Comment, 82 Fed. Reg. 17,793 (April 13, 2017), Docket ID No. EPA-HQ-OA-2017-0190.

the Clean Air Act.<sup>80</sup> Notably, Administrator Wheeler described the impetus for the ANPRM and subsequent actions, including this proposal, as “stakeholders [having] identified instances when the agency underestimated costs, overestimated benefits or evaluated benefits and costs inconsistently.”<sup>81</sup> The memorandum indicated no concern for potential overestimation of costs or underestimation of benefits, though many commenters (including CARB) have certainly raised these issues.

Thus, the agency has, for 3.5 years, been seeking justification for precisely this proposal – and it still has not articulated a basis that satisfies APA requirements. The proposal merely assumes and asserts that transparency and consistency are appropriate and useful characteristics of regulatory BCAs under the Clean Air Act; that transparency and consistency are currently insufficient; that codification of some BCA requirements is the appropriate solution (and there exist no less disruptive or burdensome means of increasing transparency and consistency that U.S. EPA could consider); and that codification of these particular BCA requirements and processes would solve the (ostensible) problem.

U.S. EPA provides no reasoned basis for the proposal’s codification of any requirements, and these proposed requirements in particular. The agency instead relies on concerns raised by unspecified numbers of unidentified commenters on the ANPRM<sup>82</sup> and conclusory and unjustified statements about proper BCA processes.<sup>83</sup>

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<sup>80</sup> Andrew Wheeler, Memorandum to Assistant Administrators, “Increasing Consistency and Transparency in Considering Benefits and Costs in the Rulemaking Process,” May 13, 2019.

<sup>81</sup> *Ibid.*

<sup>82</sup> *E.g.*, 85 Fed. Reg. at 35,618 (“One theme raised by some commenters was that there is inadequate adherence to existing EPA and OMB guidance for how to conduct BCA. Some commenters pointed to recent CAA regulatory BCAs conducted pursuant to E.O. 12866 as examples of a lack of transparency or improper analytic assumptions.”); *ibid.* (“Several commenters recommended that the EPA issue binding procedural requirements to ensure transparency and consistent adherence to best practices for BCA.”); *ibid.* (“several commenters recommended that additional consistency and transparency be applied in the assessment of risks leading to the estimation of benefits.”).

<sup>83</sup> *E.g.*, *id.* at 35,620 (“The EPA recognizes that the strength of scientific evidence for different health or environmental endpoints varies, and that strength of scientific evidence should be strongest when the benefits are estimated.”); 35,619 (“Willingness to pay (WTP) is the correct measure of these changes in BCA.”); 35,619 (“Since best practices for the conduct of BCA inherently require that the inputs to analysis reflect the best available information, the EPA is also taking the opportunity in this proposal to require that the EPA follow certain best practices regarding the incorporation of information as an input to BCA for significant CAA regulations.”).

None of these conclusory and question-begging statements, however, approach the detailed disclosure of basis and data that the APA requires.<sup>84</sup>

CARB's comments on the ANPRM noted that U.S. EPA failed to explain a need to codify BCA standards, and that there is, in fact, no need for it. In the intervening two years, U.S. EPA had ample opportunity to develop an explanation for its proposal to constrain agency decision-makers and burden and delay the agency's compliance with required and necessary Clean Air Act rulemakings. But U.S. EPA failed to provide such an explanation in the NPRM. The proposal remains an expensive and reckless solution in search of an unidentified problem.

**d. The proposal's failure to comply with applicable Executive Orders underscores its arbitrariness.**

The proposal fails to comply with at least five E.O.s: E.O.s 12866 and 13771 regarding economic and fiscal impacts; E.O. 13132 regarding federalism implications; E.O. 12898 regarding environmental justice; and E.O. 13045 regarding environmental health and safety risk to children. These failures further demonstrate the proposal's utter arbitrariness.

**i. The proposal fails to comply with E.O.s 12866 and 13771.**

Transparency in regulatory decision-making requires full analysis of all costs and benefits of a proposed regulation and regulatory and non-regulatory alternatives, including taking no action. This is among the reasons that Presidents have issued multiple currently-effective E.O.s to require and promote comprehensive regulatory analyses across the federal government, including E.O. 12866 (Sept. 30, 1993), requiring agencies to fully assess the costs and the benefits of an intended regulation and available alternatives, including "both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider".<sup>85</sup>

U.S. EPA determined the proposal to be a "significant regulatory action" and, as a result, was required to conduct a regulatory impacts analysis under E.O. 12866.<sup>86</sup> Yet U.S. EPA failed to conduct the required impacts analysis or provide a rational explanation for not doing so. The agency claims that it need not evaluate the costs of

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<sup>84</sup> See *Home Box Office, Inc. v. F.C.C.*, 567 F.2d 9, 35 (D.C. Cir. 1977).

<sup>85</sup> 58 Fed. Reg. 51,735 (Oct. 4, 1993), § 1(a), (b)(6).

<sup>86</sup> 85 Fed. Reg. at 35,624; E.O. 12866, 58 Fed. Reg. 51,735 (October 4, 1993), Section 6(a)(3)(B).

the proposal under E.O. 12866 because “EPA does not anticipate that this rulemaking will have an economic impact on regulated entities.”<sup>87</sup> Yet E.O. 12866 also requires agencies to assess *their own* likely costs to administer a significant proposed regulation, which U.S. EPA failed to do.<sup>88</sup>

Similarly, E.O. 13771 requires agencies to assess and consider the costs of regulatory actions when making regulatory decisions.<sup>89</sup> Under the E.O., OMB provides agencies, including U.S. EPA, with a total “budget” of incremental costs (or “regulatory cap”) for all applicable actions finalized over a given fiscal year. U.S. EPA claims that the proposed rule is exempt from analysis under E.O. 13771 because it concerns “agency organization, management or personnel.”<sup>90</sup> The reasons that the proposal does not qualify for this exclusion are discussed under Section I.b., “The proposal is not a ‘housekeeping’ rule.”

The costs of complying with the rule would considerably burden agency resources. One provision of the proposed regulation requires:

To the extent permitted by law, the Agency must ensure that all information (including data and models) used in the development of the BCA is publicly available. If the data and models are proprietary, the Agency must make available, to the extent permitted by law, the underlying inputs and assumptions used, equations, and methodologies used by EPA, while continuing to provide appropriate protection for information claimed as confidential business information (CBI), personally identifiable information (PII), and other privileged, non-exempt information.<sup>91</sup>

Despite U.S. EPA’s failure to estimate the costs of these requirements, the Congressional Budget Office and U.S. EPA staff have already evaluated the potential

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<sup>87</sup> 85 Fed. Reg. at 35,624.

<sup>88</sup> §§ 6(a)(3)(C)(ii) (E.O. 12866 requires agencies to conduct “[a]n assessment, including the underlying analysis, of costs anticipated from the regulatory action (such as, but not limited to, the direct cost [] to the government in administering the regulation . . . together with, to the extent feasible, a quantification of those costs[.]”). The E.O. requires agencies to both provide this analysis to OMB and to make it available to the public. §§ 6(a)(3)(C)(ii), 6(a)(3)(E)(i) (“After the regulatory action has been published in the Federal Register or otherwise issued to the public, the agency shall: Make available to the public the information set forth in subsections (a)(3)(B) and (C).”). No such analysis appears in the docket for this proposal, indicating that U.S. EPA did not estimate the resources necessary for the agency to implement the proposal.

<sup>89</sup> Reducing Regulations and Controlling Regulatory Costs, 82 Fed. Reg. 9339 (Feb. 3, 2017).

<sup>90</sup> 85 Fed. Reg. at 35,624.

<sup>91</sup> Proposed § 83.3(a)(12).

cost of implementing similar requirements under two bills with similar requirements, the Secret Science Reform Act of 2015 and the Honest and Open New EPA Science Treatment (HONEST) Act of 2017.<sup>92</sup> U.S. EPA staff estimated that making underlying data publicly available would cost \$10,000 to \$30,000 for most studies but could range up to \$1 million for some studies.<sup>93</sup> The total cost across the agency was estimated at more than \$250 million per year<sup>94</sup>; a significant portion (if not the majority) of this cost is likely to stem from Clean Air Act rulemakings. U.S. EPA staff explained:

In addition to spending dollars and staff time on requesting and getting data from study authors, creating [information technology] infrastructure and a data management system to manage, store, and archive large volumes of data, and making the data available in a format that is useful and accessible to the public, EPA would also have to spend dollars and staff time combing through these extensive datasets to find and redact Personally Identifiable Information and Confidential Business Information.<sup>95</sup>

These same tasks would apply under the proposed provision. While the number of studies may be smaller than estimated for the 2015 and 2017 bills, the cost and burden would still be immense.

Other proposed requirements would also apply significant new burdens to the agency that it has failed to estimate or consider. For example, the proposal would mandate that each BCA (or related document) characterize:

(A) The variability in the concentration-response functions across studies and models, including plausible alternatives; (B) The assumptions, defaults, and uncertainties, their rationale, and their influence on the resulting estimates; (C)

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<sup>92</sup> H.R. 1030, 114th Congress, 2015-2016; H.R. 1430, 115th Congress, 2017-2018.

<sup>93</sup> Congressional Budget Office, H.R. 1030, *Secret Science Reform Act of 2015*, March 11, 2015, available at <https://www.cbo.gov/publication/50025>; Scott Tong, *Critics Say HONEST Act Undercuts EPA's Use of Science*, April 10, 2017, available at <https://www.marketplace.org/2017/04/10/sustainability/honest-act-seen-critics-undercutting-epa-s-use-science>; U.S. EPA, EPA analysis of Honest Act to CBO, March 9, 2017, available at <https://www.scribd.com/document/344731162/EPA-analysis-of-Honest-Act-to-CBO>; Union of Concerned Scientists, *Administrator Pruitt Ignores EPA Staff Analysis of HONEST Act Costs*, March 20, 2018, available at <https://www.ucsusa.org/center-science-and-democracy/attacks-on-science/administrator-pruitt-ignores-epa-staff-analysis#.WwRd0lWcGcx>.

<sup>94</sup> *Ibid.*

<sup>95</sup> U.S. EPA, EPA analysis of Honest Act to CBO, March 9, 2017, available at <https://www.scribd.com/document/344731162/EPA-analysis-of-Honest-Act-to-CBO>.



The extent to which scientific literature suggests that the nature of the effect may vary across demographic or health characteristics; (D) The potential variability of the concentration-response function over the range in concentrations of interest for the given policy; (E) The influence of potential confounders on the reported risk coefficient; (F) The likelihood that the parameters of the concentration-response differ based on geographic location; and (G) Attributes that affect the suitability of the study or model for informing a risk assessment, including the age of the air quality data, and the generalizability of the study population.<sup>96</sup>

The proposal would also require analysts to evaluate at least three regulatory options – even if these options are not actually under consideration by decision-makers.<sup>97</sup> In addition to being completely unjustified, these extensive analyses create new burdens on agency economists that vastly exceed current regulatory workloads.

U.S. EPA's failure to estimate or consider the agency's costs of implementing the proposal violates E.O. 12866, precludes fully-informed public comment, and renders the proposed rule arbitrary and capricious.

## **ii. The proposal fails to comply with E.O. 13132.**

Although E.O. 13132 requires U.S. EPA to analyze the federalism implications of this proposal and consult with states on its impacts, the agency declined to fulfill these requirements. U.S. EPA incorrectly states that the proposal "does not have federalism implications. It would not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government."<sup>98</sup>

In fact, the proposal would disrupt the cooperative relationship between the federal government and California to implement federal environmental laws, including potentially undercutting state-level air quality standards under the Clean Air Act. The Clean Air Act represents a hallmark example of cooperative federalism, as U.S. EPA and state air agencies partner to protect public health from harmful effects of air pollution. An essential aspect of this relationship includes basing federal and state-level implementation decisions on the best available science. This includes U.S. EPA setting of NAAQS at a level requisite to protect the public health,<sup>99</sup> while states meet

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<sup>96</sup> Proposed § 83.3(a)(9)(vii).

<sup>97</sup> Proposed § 83.3(a)(3).

<sup>98</sup> 85 Fed. Reg. at 35,624-25.

<sup>99</sup> 42 U.S.C. §§ 7409(a), (b)(1).

the standards through development and implementation of State Implementation Plans (SIP). As discussed above, U.S. EPA is prohibited from considering costs in setting or updating the NAAQS.<sup>100</sup>

California relies on the legitimacy of the NAAQS setting and update process for purposes of developing and implementing its SIPs. Separately but relatedly, California sets California Ambient Air Quality Standards (CAAQS) under state law to define maximum allowable levels of certain pollutants, which include the federal Clean Air Act criteria pollutants and additional pollutants.<sup>101</sup> Though California continues to require meeting CAAQS, attainment of NAAQS has precedence due to federal preemption and federal penalties for failure to meet federal attainment deadlines. Further, CAAQS must be met by a showing of incremental progress compared to NAAQS, which must be met by deadlines subject to sanction under the federal law.<sup>102</sup> To the extent that NAAQS are negatively impacted by improper cost considerations, California could be impelled to consider changes to its own laws or procedures, consistent with the Clean Air Act, to ensure that the State can ensure effective air quality regulation and protection of the public health.

A requirement to generate a BCA for NAAQS standards barred from incorporating costs is likely to generate confusion and disagreements between CARB (and its counterparts in other states) and U.S. EPA. This is likely to harm the cooperative relationship between U.S. EPA and state air agencies, in addition to hindering the ability of U.S. EPA and CARB to meet the obligations of the Clean Air Act, and, ultimately, harming public health through the setting of substandard NAAQS. This instability could also create significant liabilities, and hence reliance risks, for states including California.

U.S. EPA's failure to consult with the states on the impacts of this proposal is also inconsistent with U.S. EPA's own primary goal set forth in its 2018-2022 Strategic Plan to create more effective partnerships with the states, among others, in carrying out shared responsibilities and communicating results to all Americans.<sup>103</sup> Given the potentially significant impacts, U.S. EPA's failure to analyze the cooperative federalism impacts of the proposal under E.O. 13132 further demonstrates the arbitrariness of U.S. EPA's rulemaking process.

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<sup>100</sup> *Id.*; *Whitman v. Am. Trucking Ass'n*, 531 U.S. 457, 471 (2001).

<sup>101</sup> 42 U.S.C. § 7509.

<sup>102</sup> See Cal. Health & Saf. Code § 40910.

<sup>103</sup> U.S. EPA, Working Together, FY 2018-2022 U.S. EPA Strategic Plan, February 2018 (Updated: September 2019), available at <https://www.epa.gov/sites/production/files/2019-09/documents/fy-2018-2022-epa-strategic-plan.pdf>.

**iii. The proposal fails to comply with E.O. 12898.**

E.O. 12898 requires a federal agency to consider the environmental justice “effects of its programs, policies, and activities . . . to the greatest extent practicable and permitted by law.”<sup>104</sup> U.S. EPA incorrectly asserts that the proposed regulation is not subject to E.O. 12898 “because it does not establish an environmental health or safety standard.”<sup>105</sup> Yet E.O. 12898 does not apply only to “standard[s],” but rather to all “programs, policies, and activities.” To the extent that U.S. EPA has any doubt about whether the proposal could have environmental justice impacts, E.O. 12898 directs agencies to consider such justice impacts “to the greatest extent practicable.” And the proposal certainly would have these impacts.

In California, millions of residents suffer disproportionate health impacts caused by multiple and confounding vulnerabilities, stressors, and health burdens, including pollution burdens. For example, people living in disadvantaged communities are at increased risk of adverse health outcomes from environmental pollution exposure due to housing conditions, inadequate access to health food options, economic stress and lack of access to health care as documented in multiple state and national studies. Residents of disadvantaged communities are also more likely to live near major freeways and industrial facilities such as refineries, railyards, rendering plants, metal platers, ports, and agricultural operations that contribute to increased exposure to harmful pollution.<sup>106</sup>

The proposed rule would preclude U.S. EPA from fully considering the substantial health and economic impacts to disadvantaged communities that would fall in the “upper-bound” risk estimates. This would include both the disproportionate impacts of exposure to pollution from nearby sources and the increased rates of illness and death from heightened vulnerability to the effects of pollution. The proposal’s restrictions on use of epidemiological studies, primarily excluding epidemiological

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<sup>104</sup> Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed. Reg. 7629 (Feb. 11, 1994), sec. 1-101 (emphasis added).

<sup>105</sup> 85 Fed. Reg. at 35,625.

<sup>106</sup> See e.g., Meng Y-Y, Wilhelm M, Rull RP, English P, Nathan S, Ritz B. *Are frequent asthma symptoms among low-income individuals related to heavy traffic near homes, vulnerabilities, or both?*, 18:343-350 ANNALS OF EPIDEMIOLOGY. 2008. Gunier, R.B., et al., *Traffic density in California: socioeconomic and ethnic differences among potentially exposed children*; JOURNAL OF EXPOSURE SCIENCE AND ENVIRONMENTAL EPIDEMIOLOGY, 2003. 13(3): pp. 240-246; A. Carlson, *The Clean Air Act’s Blind Spot: Microclimates and Hotspot Pollution*, 65 UCLA L. REV. 1036, 1056 (2018).

studies that do not demonstrate causality, would severely limit understanding of impacts on vulnerable communities. Many, if not most, epidemiology studies could be excluded based on this criterion alone. Additional restrictions on epidemiological studies would further limit use of research to characterize conditions in marginalized communities. The proposal would permit only the consideration of studies whose location is “appropriately matched to the analysis” and whose “study population characteristics [are] sufficiently similar to those of the analysis.” These provisions would largely exclude consideration of studies that demonstrate health impacts to vulnerable communities, which categorically receive less research attention and funding. U.S. EPA has failed to consider these likely impacts, further demonstrating the arbitrariness of the proposed rule.

**iv. The proposal fails to comply with E.O. 13045.**

E.O. 13045 provides that, for each “covered regulatory action” submitted to the Office of Information and Regulatory Affairs (OIRA), the issuing agency must provide: “(a) an evaluation of the environmental health or safety effects of the planned regulation on children; and (b) an explanation of why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the agency.”<sup>107</sup> The E.O. defines a “covered regulatory action” as a rulemaking that could be economically significant and that “concern[s] an environmental health risk or safety risk that an agency has reason to believe may disproportionately affect children.”<sup>108</sup>

The proposed regulation could disproportionately affect children by preventing U.S. EPA from considering valid and high-quality epidemiological and other children’s health studies, thereby increasing risks and negative health outcomes for American children. U.S. EPA recognized the proposal as significant (and submitted it to OIRA), but failed to conduct the evaluation of health impacts to children required by E.O. 13045.

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<sup>107</sup> 62 Fed. Reg. 19,885, 19,887.

<sup>108</sup> *Id.* at 19,885.

**III. U.S. EPA should not require global benefits and costs of regulation to be presented separately, and should incorporate the global social costs of greenhouse gases.**

U.S. EPA requests comment on whether “non-domestic” benefits and costs of regulations should be reported separately from “domestic” benefits and costs.<sup>109</sup> As CARB has commented on the ANPRM (comment attached), the draft revised Guidelines for Preparing Economic Analyses,<sup>110</sup> and on a wide range of U.S. EPA’s proposed regulatory rollbacks,<sup>111</sup> U.S. EPA’s consideration of ostensibly domestic-only costs and benefits, particularly the use of domestic social cost of greenhouse gas (GHG) values, is scientifically and economically improper. The request for comment on separate presentation presumes, wrongly, that “non-domestic” benefits and costs can be accounted separately while meeting the agency’s obligations to use the best available science and reasoned decision-making. Below, we reiterate our prior comments and supplement them with a recent federal court decision and report of the U.S. Government Accountability Office, both highly critical of this administration’s attempts to estimate and apply domestic values for the social costs of GHGs.

Given the interconnectedness of the global economy and security, climatic damages outside U.S. borders have both direct and indirect domestic impacts. These include impacts to U.S. citizens (including U.S. military service members) who live abroad and/or have significant investments abroad; potential impacts to trade flows and global commodity markets that affect the U.S. economy; impacts to U.S. military sites abroad; and other risks to national security with significant potential costs.<sup>112</sup> As a federal court recently affirmed, a purported estimate of the domestic social costs of GHGs that omits these impacts on the U.S. violates the APA by “failing to consider ...

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<sup>109</sup> 85 Fed. Reg. at 35,623.

<sup>110</sup> Comments of the California Environmental Protection Agency, June 3, 2020, available at [https://yosemite.epa.gov/sab/sabproduct.nsf/550B7A500C855C028525857D006636EF/\\$File/19819629.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/550B7A500C855C028525857D006636EF/$File/19819629.pdf).

<sup>111</sup> *E.g.*, CARB comments on notices of proposed rulemaking: “Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks,” 83 Fed. Reg. 53,204 (Oct. 22, 2018), Docket ID No. EPA-HQ-OAR-2018-0283, submitted Oct. 26, 2018; “Affordable Clean Energy Rule,” 83 Fed. Reg. 44,746 (Aug. 31, 2018), Docket ID No. EPA-HQ-OAR-2017-0355, submitted Oct. 31, 2018; “Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review,” 84 Fed. Reg. 50,244 (Sept. 24, 2019), Docket ID No. EPA-HQ-OAR-2017-0757, submitted Nov. 25, 2019.

<sup>112</sup> Public Law 115-91, Defense Authorization Act of 2018, December 12, 2017, 131 Stat. 1283, § 335.

important aspect[s] of the problem” and “run[ning] counter to the evidence before the agency.”<sup>113</sup>

In 2017, the National Academies of Sciences, Engineering, and Medicine released a report examining potential approaches for a comprehensive update to the social cost of carbon methodology to ensure resulting cost estimates reflect the best available science.<sup>114</sup> The report highlights the challenges in developing domestic estimates, given complex interactions related to migration, and economic and political destabilization.<sup>115</sup> Such analysis makes clear that maximizing the welfare of U.S. citizens and residents involves considering climate impacts beyond U.S. borders, as does appropriate regulatory analysis.

Existing estimates for domestic social costs of GHGs also do not comprise the best available science, which remains the social cost of GHGs methodology developed by the Interagency Working Group on the Social Cost of Greenhouse Gases (IWG).<sup>116</sup> The IWG, comprised of scientific and economic experts, recommended the use of social cost of carbon, and later additional GHG, values based on three integrated assessment models developed over decades of global peer-reviewed research.<sup>117</sup> The IWG methodology relies on a standardized range of assumptions and can be used consistently when estimating the benefits of regulations across agencies. The IWG

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<sup>113</sup> *California v. Bernhardt* at \*27, citing *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

<sup>114</sup> Public Law 115-91, Defense Authorization Act of 2018, December 12, 2017, 131 Stat. 1283, § 335.

<sup>115</sup> National Academies of Science, Engineering, and Medicine, *Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide*, 2017, available at <http://www.nap.edu/24651>, conclusion 2-4 (“It is important to consider what constitutes a domestic impact in the case of a global pollutant that could have international implications that impact the United States. More thoroughly estimating a domestic [social cost of carbon dioxide] would therefore need to consider the potential implications of climate impacts on, and actions by, other countries, which also have impacts on the United States.”).

<sup>116</sup> The IWG was convened in 2009 by the President’s Council of Economic Advisors and OMB, and originally titled the Interagency Working Group on the Social Cost of Carbon.

<sup>117</sup> Additional technical detail on the IWG process is available in the Technical Updates of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866. Iterations of the Updates are available at <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/for-agencies/Social-Cost-of-Carbon-for-RIA.pdf>; <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-tsd-final-july-2015.pdf>; and [https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc\\_tsd\\_final\\_clean\\_8\\_26\\_16.pdf](https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc_tsd_final_clean_8_26_16.pdf).

provides a critical example of transparency in methodology and assumptions as well as consistency in valuation of environmental damages.<sup>118</sup>

The 2017 National Academies of Sciences, Engineering, and Medicine report concluded that the existing integrated assessment models used to estimate the social costs of greenhouse gases are not calibrated for domestic-only valuations.<sup>119</sup> A variety of other experts have concluded that no appropriate domestic-only social cost of GHGs estimate exists, and that updated versions of the IWG values remain the best available science.<sup>120</sup>

Although E.O. 13783 withdrew the IWG reports as no longer representative of federal governmental policy in March 2017,<sup>121</sup> “[T]he President did not alter by fiat what constitutes the best available science. The Executive Order in and of itself has no legal impact on the consensus that IWG’s estimates constitute the best available science about monetizing the impacts of greenhouse gas emissions.”<sup>122</sup> However, as a federal court recently admonished, “An agency simply cannot construct a model that confirms a preordained outcome while ignoring a model that reflects the best science available.”<sup>123</sup> Because updated IWG reports continue to be the best available science, and no appropriate, peer-reviewed domestic-only social cost of GHGs exists, use of domestic-only social cost of GHG values is arbitrary and capricious.<sup>124</sup> Moreover, a recent U.S. Government Accountability Office report affirms that U.S. EPA’s domestic SC-GHG does not account for the best available science, in violation of E.O.s 12688

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<sup>118</sup> This approach is in line with Presidential E.O.s, including 12866, and OMB Circular A-4, which as noted above, require agencies to quantify anticipated benefits and costs of proposed rulemakings as accurately as possible using the best available techniques, and to ensure that any scientific and technological information or processes used to support their regulatory actions are objective. 58 Fed. Reg. 51,735 (Oct. 4, 1993); Circular A-4, Sept. 17, 2003.

<sup>119</sup> National Academies of Science, Engineering, and Medicine, *Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide*, 2017, at 12, available at <http://www.nap.edu/24651>.

<sup>120</sup> *California v. Bernhardt* at \*27 (noting that “focusing solely on domestic effects has been soundly rejected by economists as improper and unsupported by science.”).

<sup>121</sup> E.O. 13783, March 28, 2017, § 5(b).

<sup>122</sup> *California v. Bernhardt* at \*25, citing *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

<sup>123</sup> *Id.* at \*28, citing *Center for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1198-1201 (9th Cir. 2008) (agency “cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards” by failing to “monetize or quantify the value of carbon emissions reduction”); *Zero Zone, Inc. v. United States Dep’t of Energy*, 832 F.3d 654, 677-79 (7th Cir. 2016) (agency reasonably relied on IWG’s estimates to calculate global benefits of greenhouse gas reductions from energy efficiency rules).

<sup>124</sup> *California v. Bernhardt* at \*28.

and 13783, and OMB Circular A-4, which U.S. EPA claims as the basis for the proposed regulation.<sup>125</sup>

CARB continues to utilize the current IWG-supported social cost of carbon values to consider the social costs of actions to reduce GHG emissions. The current federal administration's withdrawal of IWG reports as no longer representative of federal policy does not call into question the validity and scientific integrity of this work. Indeed, the IWG's work remains relevant, reliable, and appropriate for use for these purposes. CARB supports continued use of the IWG social cost of GHG values and strongly suggests that U.S. EPA support and promote these values, which would increase transparency and consistent high quality of regulatory analyses vastly more than any of U.S. EPA's current proposals.

#### **IV. Conclusion.**

U.S. EPA should not pursue this rulemaking. The proposal is highly unlikely to promote transparent and high-quality decision-making, and would restrict and burden U.S. EPA's regulatory cost-benefit analyses under the Clean Air Act. The rational conclusion is that the agency, and/or the White House, intends to restrict, burden, and delay health and environmental protections for this and future administrations.

If current U.S. EPA regulatory guidance on costs and benefits is to be modified, including through rulemaking, it should only be to increase the comprehensiveness of valuation of costs and benefits. This would include emphasis on valuing the co-benefits of mitigation actions and the inclusion and continued refinement of valuation of currently non-monetized impacts, including impacts on natural and working lands, health impacts, and impacts related to active transportation and mobility.

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<sup>125</sup> U.S. Government Accountability Office, *Social Cost of Carbon: Identifying a Federal Entity to Address the National Academies' Recommendations Could Strengthen Regulatory Analysis*, GAO-20-254, June 2020, p. 29 ("The rulemakings we reviewed used the current federal estimates, which were based on EPA's interim estimates; therefore, the federal government may not be well positioned to ensure agencies' future regulatory analyses are using the best available science until the agencies finalize federal estimates that consider the National Academies' implemented recommendations.").



August 13, 2018

Andrew Wheeler  
Acting Administrator  
U.S. Environmental Protection Agency  
William Jefferson Clinton Federal Building  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460  
Attention: 2010-AA12

***Comments submitted electronically via <https://www.regulations.gov>***

**RE: Comments on Advance Notice of Proposed Rulemaking, "Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process," 83 Fed. Reg. 27524, Regulation Identifier Number: 2010-AA12**

Dear Acting Administrator Wheeler:

The California Air Resources Board submits the enclosed comments on the Advance Notice of Proposed Rulemaking, "Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process," 83 Fed. Reg. 27524 (June 13, 2018). We urge the Environmental Protection Agency to maintain and enhance consideration of co-benefits and social costs in regulatory analyses. We also urge the Agency to refrain from rulemaking that is unlikely to enhance consistency or transparency, but is likely to result in bias and delay in fulfilling the Agency's mission and duty to protect public health and the environment.

Sincerely,



Richard W. Corey  
Executive Officer

**Enclosure:** Comments of the California Air Resources Board on the Advance Notice of Proposed Rulemaking, "Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process"; Docket No. EPA-HQ-OA-2018-0107.

**Comments of the California Air Resources Board**

**Responding to**

**The United States Environmental Protection Agency's**

**Request for Comment on Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process: Advance Notice of Proposed Rulemaking**

**Docket No. EPA-HQ-OA-2018-0107**

The California Air Resources Board (CARB)<sup>1</sup> submits the following comment on the U.S. Environmental Protection Agency's (EPA) advance notice of proposed rulemaking (ANPRM), "Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process."<sup>2</sup>

While CARB supports U.S. EPA's ostensible goal of increasing consistency and transparency in its cost-benefit analyses, the ideas on which U.S. EPA solicits comment are unlikely to improve analyses or further the agency's mission to protect public health and the environment. Instead, they are likely to bias regulatory decisionmaking. There are other steps that U.S. EPA can and should take to improve regulatory cost-benefit analysis in furtherance of its mission, namely, heightened consideration of co-benefits and social costs.

CARB is committed to fully estimating anticipated costs and benefits when considering regulatory actions. CARB has relied on previously-established guidelines from U.S. EPA,<sup>3</sup> in conjunction with State-level requirements,<sup>4</sup> in the analysis of economic impacts including

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<sup>1</sup> The mission of the California Air Resources Board (CARB) is to protect and promote public health, welfare, and ecological resources of California's population through air quality monitoring and protection. CARB's major goals include safe and clean air for all Californians, reducing the State's greenhouse gas (GHG) emissions, and providing leadership and innovating approaches to implement air pollution controls. CARB works with local California Air Districts, many of which regulate air pollution from oil and gas operations at the regional or county level, in addition to developing statewide rules.

<sup>2</sup> 83 Fed.Reg. 27,524 (June 13, 2018).

<sup>3</sup> U.S. EPA Guidelines for Preparing Economic Analyses, National Center for Environmental Economics, Dec. 17, 2010, updated May 2014, *available at* <https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses>.

<sup>4</sup> *E.g.*, the California Administrative Procedure Act, Cal. Gov. Code section 11340 et seq., *available at* [https://oal.ca.gov/publications/administrative\\_procedure\\_act/](https://oal.ca.gov/publications/administrative_procedure_act/); Cal. Health & Safety Code Sections 38506, 38562.5 (requiring CARB, when adopting certain rules and regulations, to "consider the social costs of the emissions of greenhouse gases," defined as "an estimate of the economic damages, including, but not limited to, changes in net agricultural productivity; impacts to public health; climate

monetary and non-monetary costs and benefits. Development of these guidelines is spearheaded by U.S. EPA's National Center for Environmental Economics in consultation with economists across U.S. EPA, and they benefit from expert peer review (by U.S. EPA's Science Advisory Board Environmental Economics Advisory Committee or external experts) before finalization.<sup>5</sup>

CARB is committed to consistent and transparent quantification and monetization of economic impacts based on the latest peer-reviewed science and economic literature. CARB urges U.S. EPA to maintain its historic commitment to the same principles. These principles would not be served by altering approaches for cost-benefit analysis in the manner that U.S. EPA presently contemplates.

**U.S. EPA should not codify standardized definitions or practices to implement disparate legal requirements.**

Increased consistency in analytical practices and approaches, where permissible and appropriate, can assure quality, improve transparency, and reduce uncertainty. In foundational environmental statutes, however, as U.S. EPA recognizes, Congress has assigned disparate statutory requirements and parameters to the agency's cost-benefit analyses of different pollutants, sectors, and reduction strategies.<sup>6</sup> Preserving the legality of agency actions frequently requires U.S. EPA to tailor analytical practices by statute, program, pollutant, strategy, and/or judicial interpretation.<sup>7</sup>

Additionally, mandating consistent implementation of disparate statutory requirements and judicial holdings would impair regulatory decisionmaking. As U.S. EPA acknowledges, "Many technical and practical factors play a role in how EPA implements statutory instruction related to cost considerations in regulatory decisions. Any assessment of costs (and benefits) is limited by the state of scientific and economic modeling, quantification methods, and available data—all of which change over time and across industries and sectors of the economy."<sup>8</sup>

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adaptation impacts, such as property damages from increased flood risk; and changes in energy system costs, per metric ton of greenhouse gas emission per year.")

<sup>5</sup> <https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses>, last updated Jan. 31, 2018.

<sup>6</sup> "Most statutory provisions require or allow some consideration of cost and benefits when setting regulatory standards to achieve public health and environmental benefits, but there can be a significant variation in terminology and specificity provided in each law regarding the nature and scope of cost and benefit considerations"; "Even when Congress does include statutory language to indicate how EPA should weigh cost considerations against benefits and other relevant factors, there is considerable variation in the language used." 83 Fed.Reg. at 27525.

<sup>7</sup> "For many of EPA's regulatory programs, the courts have weighed in on the scope of costs to be considered during the development of a regulation"; "In cases where current EPA practice reflects prior judicial decisions, a change in course may come with significant burden to the Agency." *Id.* at 27526, 27527.

<sup>8</sup> *Id.* at 27526.

Further, “industry or sector specific factors may play a role, as some metrics may be more or less relevant to the affected industries, sectors, or question at hand.”<sup>9</sup> These technical, practical, and industry factors argue for continued appropriate tailoring of regulatory analyses in the manner that most comprehensively and accurately considers benefits and costs.

The ANPRM also seems to contemplate that consideration of co-benefits may be reduced or eliminated in cost-benefit analyses for regulatory decisionmaking, evidently in the name of consistency.<sup>10</sup> At the same time, the ANPRM references Office of Management and Budget Circular A-4,<sup>11</sup> the office’s guidance to federal agencies on cost-benefit analyses in regulatory decisionmaking, which was heralded in President Trump’s Executive Order (E.O.) 13783 (March 28, 2017).<sup>12</sup> Circular A-4 states, “Your analysis should look beyond the direct benefits and direct costs of your rulemaking and consider any important ancillary benefits and countervailing risks. An ancillary benefit is a favorable impact of the rule that is typically unrelated or secondary to the statutory purpose of the rulemaking . . . . Like other benefits and costs, an effort should be made to quantify and monetize ancillary benefits and countervailing risks.”<sup>13</sup>

We agree that full consideration of co-benefits is a vital component of effective cost-benefit analysis and that U.S. EPA should, if anything, develop methods and require consistency in quantifying and considering co-benefits more fully. Partially considering benefits while fully considering costs is both inappropriate for economic analysis and unlawful,<sup>14</sup> as it results in significant underestimation of the benefits of environmental regulations. Full estimation of co-benefits of regulatory actions is critically important to ensuring appropriate actions are taken to comprehensively improve air quality and mitigate climate change. CARB vehemently opposes changes in policy or guidance that dilute or prevent agencies from estimating co-benefits of

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<sup>9</sup> *Ibid.*

<sup>10</sup> U.S. EPA notes that industry “commenters argued in past rulemakings the Agency has justified the stringency of a standard based on the estimated benefits from reductions in pollutants not directly regulated by the action (*i.e.*, ‘ancillary benefits’ or ‘co-benefits’),” and requests comment on “to what extent should EPA develop a general rule on how the Agency will weigh the benefits from reductions in pollutants that were not directly regulated (often called ‘co-benefits’ or ‘ancillary benefits’).” *Id.* at 27526-27.

<sup>11</sup> *Id.* at 27525.

<sup>12</sup> “Promoting Energy Independence and Economic Growth,” noting that Circular A-4 “was issued after peer review and public comment and has been widely accepted for more than a decade as embodying the best practices for conducting regulatory cost-benefit analysis.” 82 Fed.Reg. 16093 (March 31, 2017), § 5(c), citing Circular A-4, September 17, 2003, *available at* [https://obamawhitehouse.archives.gov/omb/circulars\\_a004\\_a-4/#e](https://obamawhitehouse.archives.gov/omb/circulars_a004_a-4/#e).

<sup>13</sup> § 6.

<sup>14</sup> *E.g.*, *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1198 (9th Cir. 2008) (“Even if NHTSA may use a cost-benefit analysis to determine the “maximum feasible” fuel economy standard, it cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards. NHTSA fails to include in its analysis the benefit of carbon emissions reduction in either quantitative or qualitative form. It did, however, include an analysis of the employment and sales impacts of more stringent standards on manufacturers.”).

potential regulatory actions. Additionally, reducing consideration of co-benefits in regulatory decisionmaking would affect air quality planning. CARB and local air agencies employ the co-benefits analyses and information in U.S. EPA's regulatory impacts analyses for compliance planning and development of state compliance strategies within State Implementation Plans for the National Ambient Air Quality Standards. U.S. EPA should not promulgate any rulemaking that requires the agency to ignore or discount co-benefits, but may increase consistency by requiring and promoting their full and appropriate consideration.

**The ideas under consideration would not increase transparency.**

Transparency in regulatory decisionmaking requires full analysis of all costs and benefits of a proposed regulation and regulatory and non-regulatory alternatives, including taking no action. This is among the reasons that Presidents have issued multiple currently-effective E.O.s to require and promote comprehensive regulatory analyses across the federal government, including E.O. 12866 (Sept. 30, 1993, requiring agencies to fully assess the costs and the benefits of an intended regulation and available alternatives, including "both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider")<sup>15</sup> and E.O. 13563 (Jan. 18, 2011, directing agencies "to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible . . . [including] values that are difficult or impossible to quantify, including equity, human dignity, fairness, and distributive impacts.")<sup>16</sup>

U.S. EPA's request for comment on transparency in the ANPRM, however, focuses on extending the agency's concurrent proposal to limit regulatory science and requiring greater retrospective review of existing regulations before rulemaking. Neither would increase transparency and both would impede U.S. EPA's foundational mission of protecting public health and the environment.

Limiting consideration of benefits would bias decisionmaking.

U.S. EPA asks, "In what ways can EPA increase transparency about the decision-making process in cases where the decision was based on information that is barred from release by law?"<sup>17</sup> This query echoes the agency's concurrent proposal to bar consideration of scientific data and models that are not publicly available,<sup>18</sup> based on the false presumption that public availability of underlying data is the guarantor of transparency. Here, as with the agency's anti-science proposal, transparent analysis does not necessarily depend on public availability of data. Rather, transparent analysis depends on factors such as clear discussion of methods, explanation of models, and discussion of any uncertainties or limitations. As with U.S. EPA's

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<sup>15</sup> 58 Fed.Reg. 51735 (October 4, 1993), § 1(a), (b)(6).

<sup>16</sup> 76 Fed.Reg. 3821 (January 21, 2011), § 1(c).

<sup>17</sup> 83 Fed.Reg. at 27527.

<sup>18</sup> "Strengthening Transparency in Regulatory Science," 83 Fed.Reg. 18768 (April 30, 2018).

proposal to limit consideration of science in regulatory decisionmaking, the effect of limiting the use of protected data in agency analyses would likely be to privilege industry-funded data and models over epidemiological studies (for which the raw individual health data is protected by law) or academic models (which are often protected intellectual property).<sup>19</sup>

Retrospective analysis is already required and is a useful tool, but can also justify or cause delay.

Despite CARB's commitment to accurately representing and appropriately analyzing the economic impacts of its regulatory actions,<sup>20</sup> CARB does not consider it appropriate to require comprehensive retrospective analyses of all existing regulations before initiating regulatory action, given the variability of regulatory actions, available data, competing agency priorities, and resource limitations. Such a requirement is likely to stall vital public health and environmental protections by increasing "analysis paralysis," allowing U.S. EPA to delay setting protective standards through prolonged evaluation of cumulative effects of a new regulation in the existing regulatory environment. A related likely consequence would be to limit U.S. EPA's ability to quickly respond to emerging challenges.

U.S. EPA already has a Plan for Periodic Retrospective Reviews of Existing Regulations,<sup>21</sup> in keeping with the requirements of E.O.s 13563 (Jan. 18, 2011),<sup>22</sup> 13579 (July 11, 2011),<sup>23</sup> and 13610 (May 10, 2012).<sup>24</sup> CARB would support U.S. EPA's issuance of additional guidance on the types of data and information that could be collected from regulated entities to facilitate periodic retrospective analyses in the future. This type of guidance would support transparency and lay the foundation for potential beneficial actions related to retrospective analyses in regulatory impact assessments.

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<sup>19</sup> See California Environmental Protection Agency's forthcoming comment on the notice of proposed rulemaking, Docket ID No. EPA-HQ-OA-2018-0259.

<sup>20</sup> In 2012, CARB and the University of California at Santa Barbara convened a symposium of economists to discuss the potential for the ex-post analysis of the State's flagship law addressing GHG emissions, Assembly Bill 32 (the Global Warming Solutions Act). The symposium focused on the need for regulatory evaluation while also highlighting the difficulty in obtaining the data necessary to perform consistent retrospective analyses – especially given interacting policies and levels of regulatory jurisdiction. Charles D. Kolstad and Emily Wimberger, "Information Needs for Analysis of Effectiveness of the Cap-and-Trade Regulation," April 2012, available at <https://www.arb.ca.gov/lists/com-attach/23-ct-3-2-18-wkshp-ws-B2wHbl0wUXFXJVc2.pdf>.

<sup>21</sup> August 2011, available at <https://19january2017snapshot.epa.gov/laws-regulations/documents-retrospective-review.html>.

<sup>22</sup> 76 Fed.Reg. 3821, January 21, 2011.

<sup>23</sup> "Regulation and Independent Regulatory Agencies," 76 Fed.Reg. 41587 (July 14, 2011).

<sup>24</sup> "Identifying and Reducing Regulatory Burdens," 77 Fed.Reg. 28468 (May 14, 2012).

## **U.S. EPA analyses should incorporate and reflect the global social costs of GHGs.**

Whether or not U.S. EPA promulgates rulemaking in pursuit of consistency and transparency in regulatory cost-benefit analyses, it should maintain and promote consideration of the social costs of GHG emissions. CARB strongly suggests the continued inclusion of the social costs of GHG emissions in regulatory analyses, as environmental damage caused by carbon emissions should be included in the estimation of economic impacts of regulatory actions that reduce those emissions. The inclusion of these valuations results in a more complete estimation of economic impacts, which leads to more appropriate and responsive regulations.

Since 2008, federal agencies have been incorporating the social costs of GHGs, including carbon dioxide, methane, and nitrous oxide, into the analyses of their potential regulatory actions to comprehensively account for the economic impact of regulations that will result in changes in GHGs emissions. In 2008, the U.S. Ninth Circuit Court of Appeals held that a National Highway Transportation Safety Administration vehicle fuel economy rule was arbitrary and capricious because it failed to consider the social cost of carbon, writing, "While the record shows that there is a range of values, the value of carbon emissions reduction is certainly not zero."<sup>25</sup>

In 2009, the President's Council of Economic Advisors and the U.S. Office of Management and Budget convened the Interagency Working Group on the Social Cost of Greenhouse Gases<sup>26</sup> (IWG) to develop a methodology for estimating the social cost of carbon. This methodology relied on a standardized range of assumptions and could be used consistently when estimating the benefits of regulations across agencies. The IWG, comprised of scientific and economic experts, recommended the use of social cost of carbon values based on three integrated assessment models developed over decades of global peer-reviewed research.<sup>27</sup> The IWG provides a critical example of transparency in methodology and assumptions as well as consistency in valuation of environmental damages. CARB utilizes the current IWG-supported social cost of carbon values to consider the social costs of actions to reduce GHG emissions. This approach is in line with Presidential E.O.s, including 12866, and OMB Circular A-4, which as noted above, require agencies to quantify anticipated benefits and costs of proposed rulemakings as accurately as possible using the best available techniques, and to ensure that

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<sup>25</sup> *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1200 (9th Cir. 2008).

<sup>26</sup> Originally titled the Interagency Working Group on the Social Cost of Carbon, the IWG was renamed in 2016.

<sup>27</sup> Additional technical detail on the IWG process is available in the Technical Updates of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866. Iterations of the Updates are available at: <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/for-agencies/Social-Cost-of-Carbon-for-RIA.pdf>; <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-tds-final-july-2015.pdf>; and [https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc\\_tsd\\_final\\_clean\\_8\\_26\\_16.pdf](https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc_tsd_final_clean_8_26_16.pdf).

any scientific and technological information or processes used to support their regulatory actions are objective.<sup>28</sup>

CARB acknowledges that the current federal administration has withdrawn certain social cost of GHG reports as no longer representative of federal governmental policy.<sup>29</sup> However, this determination does not call into question the validity and scientific integrity of federal social cost of carbon work, or the merit of independent scientific work. Indeed, the IWG's work remains relevant, reliable, and appropriate for use for these purposes. CARB supports continued use of the IWG social cost of GHG values and strongly suggests that U.S. EPA support and promote these values, which would increase transparency and consistent high quality of regulatory analyses.

The IWG describes the social costs of carbon dioxide as follows:

The social cost of carbon (SC-CO<sub>2</sub>) for a given year is an estimate, in dollars, of the present discounted value of the future damage caused by a 1-metric ton increase in carbon dioxide (CO<sub>2</sub>) emissions into the atmosphere in that year, or equivalently, the benefits of reducing CO<sub>2</sub> emissions by the same amount in that year. The SC-CO<sub>2</sub> is intended to provide a comprehensive measure of the net damages – that is, the monetized value of the net impacts- from global climate change that result from an additional ton of CO<sub>2</sub>.

These damages include, but are not limited to, changes in net agricultural productivity, energy use, human health, property damage from increased flood risk, as well as nonmarket damages, such as the services that natural ecosystems provide to society. Many of these damages from CO<sub>2</sub> emissions today will affect economic outcomes throughout the next several centuries.<sup>30</sup>

Table 1 presents the range of IWG social cost of carbon values used in regulatory assessments in California and specifically at CARB.<sup>31</sup>

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<sup>28</sup> 58 Fed.Reg. 51735 (October 4, 1993); Circular A-4, September 17, 2003, *available at* [https://obamawhitehouse.archives.gov/omb/circulars\\_a004\\_a-4/#e](https://obamawhitehouse.archives.gov/omb/circulars_a004_a-4/#e).

<sup>29</sup> E.O. 13783, March 28, 2017, § 5(b).

<sup>30</sup> The National Academies, *Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide*, 2017, *available at* <http://www.nap.edu/24651>.

<sup>31</sup> The social cost of carbon values as of July 2015 are available at <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-tds-final-july-2015.pdf>.



**Table 1. Social cost of carbon dioxide, 2015-2030 (in 2007\$ per Metric Ton)**

<b>Year</b>	<b>5 Percent Discount Rate</b>	<b>3 Percent Discount Rate</b>	<b>2.5 Percent Discount Rate</b>
<b>2015</b>	\$11	\$36	\$56
<b>2020</b>	\$12	\$42	\$62
<b>2025</b>	\$14	\$46	\$68
<b>2030</b>	\$16	\$50	\$73

The IWG estimates the social cost of GHGs across a range of discount rates that encompass a variety of assumptions regarding the correlation between climate damages and consumption of goods and is consistent with OMB's Circular A-4 guidance.<sup>32</sup>

There is an active discussion within government and academia about the role of social cost of GHGs in assessing regulations, quantifying avoided climate damages, and the values themselves. In January 2017, the National Academies of Sciences, Engineering, and Medicine (NAS) released a report examining potential approaches for a comprehensive update to the social cost of carbon methodology to ensure resulting cost estimates reflect the best available science. The NAS review did not modify the estimated values of the social cost of carbon, but evaluated the models, assumptions, handling of uncertainty, and discounting used in the estimating of the social cost of carbon. The report titled, "Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide" recommends near-term improvements to the existing IWG social cost of carbon as well as a long-term strategy to more comprehensive updates.<sup>33</sup> CARB will continue to follow updates to the IWG social cost of carbon dioxide, including changes outlined in the NAS report, and incorporate appropriate peer-reviewed modifications to estimates based on the latest available data and science and supports U.S. EPA in following the recommendations of the NAS in continuing to modify and expand the estimation of values associated with mitigation actions.

It is important to note that the social cost of carbon, while intended to be a comprehensive estimate of the damages caused by carbon globally, does not represent the cumulative cost of climate change and air pollution to society. There are additional co-benefits from reductions in carbon, including changes in co-pollutants, social costs of other GHGs including methane and nitrous oxide, and co-benefit estimation that may be limited by data availability and modeling constraints. The IPCC has stated that the IWG social cost of carbon estimates are likely underestimated due to the omission of significant impacts that cannot be accurately monetized, including important physical, ecological, and economic impacts.<sup>34</sup> CARB will

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<sup>32</sup> The National Academies, Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide, 2017, available at <http://www.nap.edu/24651>.

<sup>33</sup> National Academies, Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide, 2017, available at: <http://www.nap.edu/24651>.

<sup>34</sup> [https://www.ipcc.ch/publications\\_and\\_data/ar4/wg3/en/ch3s3-5-3-3.html](https://www.ipcc.ch/publications_and_data/ar4/wg3/en/ch3s3-5-3-3.html).

continue engaging with experts to evaluate the comprehensive California-specific impacts of climate change and air pollution.

Social costs of methane and nitrous oxide have also been developed consistent with the methodology used in estimating the IWG social cost of carbon. The social cost of methane and nitrous oxide values have also been endorsed by the IWG and used in federal regulatory analyses.<sup>35</sup>

CARB supports the inclusion of these valuations in regulatory analyses to promote transparency and consistency and proposes that U.S. EPA fulfill these objectives by requiring the inclusion of social costs of GHGs in all regulatory impact assessment. Along with the social cost of carbon, CARB also supports the use of the social cost of methane and nitrous oxide values in monetizing the impacts of GHG emissions and proposes that the IWG valuations be included in any future U.S. EPA guidance on the estimation of costs and benefits.

Finally, CARB also supports the IWG valuations' consideration of global damages when estimating the social cost of GHGs. Given the interconnectedness of the global economy and security, climatic damages outside U.S. borders have both direct and indirect domestic impacts. The Defense Authorization Act of 2018 acknowledges the global impacts of climate change, including some of the ways in which foreign impacts impose domestic costs, such as sea level rise that threatens U.S. military sites abroad and drought and famine that lead to failed states, "which are breeding grounds of extremist and terrorist organizations."<sup>36</sup>

#### **Rulemaking to increase consistency and transparency is unnecessary.**

U.S. EPA's current Guidelines for Preparing Economic Analyses<sup>37</sup> and Plan for Periodic Retrospective Reviews of Existing Regulations<sup>38</sup> are transparent and comprehensive. They provide appropriate and necessary flexibility in evaluating costs and benefits across a wide variety of regulatory actions and various pollutants. They are not in need of update, amendment, or regulatory codification.

Indeed, U.S. EPA cannot identify any such need, referencing only alleged "perceived inconsistency and lack of transparency in how the Agency considers costs and benefits in

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<sup>35</sup> More information is available at [https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/august\\_2016\\_sc\\_ch4\\_sc\\_n2o\\_addendum\\_final\\_8\\_26\\_16.pdf](https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/august_2016_sc_ch4_sc_n2o_addendum_final_8_26_16.pdf).

<sup>36</sup> Public Law 115-91, December 12, 2017, 131 Stat 1283, § 335.

<sup>37</sup> U.S. EPA Guidelines for Preparing Economic Analyses, National Center for Environmental Economics, Dec. 17, 2010, updated May 2014, available at <https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses>.

<sup>38</sup> August 2011, available at <https://19january2017snapshot.epa.gov/laws-regulations/documents-retrospective-review.html>.

rulemaking,” and requesting “more information about the nature and extent of the concerns.”<sup>39</sup> To the extent that U.S. EPA relays specific concerns that prompted publication of the ANPRM and solicitation of further public comment, U.S. EPA admits that these concerns are limited to industry and reflect policy preferences related to consideration of co-benefits and other analytical decisions.<sup>40</sup> Nowhere does U.S. EPA suggest that these concerns relate to consistency or transparency, merely to compliance costs.<sup>41</sup> Additionally, U.S. EPA states that it is *not* accepting exactly the category of comment that it claims necessitated the ANPRM: “In this ANPRM, EPA is taking comment on the role that regulatory analysis or aspects of that analysis play in decision making consistent with statutory direction, not what these existing guidance documents recommend about how best to conduct the underlying analysis of regulatory actions.”<sup>42</sup> Yet this is the only type of comment that U.S. EPA relays as it describes the alleged problem.<sup>43</sup>

CARB notes that current E.O.s and U.S. EPA policies obviate any claimed need for rulemaking, and that any rulemaking that U.S. EPA does undertake must abide by the E.O.s. E.O. 12866, “Regulatory Planning and Review,” was issued twenty-five years ago and has been upheld by all presidents since.<sup>44</sup> It requires agencies to “assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs.”<sup>45</sup> As noted above, the assessed costs and benefits must “include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider.”<sup>46</sup> E.O. 12866, requiring that the anticipated benefits of

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<sup>39</sup> 83 Fed.Reg. at 27527.

<sup>40</sup> *Id.* at 27526.

<sup>41</sup> *Ibid.*

<sup>42</sup> *Id.* at 27525.

<sup>43</sup> *Id.* at 27526.

<sup>44</sup> 58 Fed.Reg. 51735 (October 4, 1993); <https://www.archives.gov/federal-register/executive-orders/1993-clinton.html#12866>.

<sup>45</sup> § 1(b)(6).

<sup>46</sup> § 1(a). Additionally, for significant regulatory actions, agencies must also prepare “(i) An assessment, including the underlying analysis, of benefits anticipated from the regulatory action (such as, but not limited to, the promotion of the efficient functioning of the economy and private markets, the enhancement of health and safety, the protection of the natural environment, and the elimination or reduction of discrimination or bias) together with, to the extent feasible, a quantification of those benefits; (ii) An assessment, including the underlying analysis, of costs anticipated from the regulatory action (such as, but not limited to, the direct cost both to the government in administering the regulation and to businesses and others in complying with the regulation, and any adverse effects on the efficient functioning of the economy, private markets (including productivity, employment, and competitiveness), health, safety, and the natural environment), together with, to the extent feasible, a quantification of those costs; and (iii) An assessment, including the underlying analysis, of costs and benefits of potentially effective and reasonably feasible alternatives to the planned regulation, identified by the agencies or the public (including improving the current regulation and reasonably viable nonregulatory

rulemaking strictly justify anticipated costs, replaced E.O. 12291, which required that benefits strictly outweigh costs,<sup>47</sup> thereby acknowledging the difficulty of precisely measuring and monetizing benefits and costs. E.O. 13563, "Improving Regulation and Regulatory Review," which also remains active, both affirms the 1993 E.O. and additionally directs federal agencies "to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. Where appropriate and permitted by law, each agency may consider (and discuss qualitatively) values that are difficult or impossible to quantify, including equity, human dignity, fairness, and distributive impacts."<sup>48</sup>

If current U.S. EPA regulatory guidance on costs and benefits is to be modified, including through rulemaking, it should only be to increase the comprehensiveness of valuation of costs and benefits. This would include emphasis on valuing the co-benefits of mitigation actions and the inclusion and continued refinement of valuation of currently non-monetized impacts, including impacts on natural and working lands, health impacts, and impacts related to active transportation and mobility.

## **Conclusion**

U.S. EPA should not pursue a rulemaking that is unlikely to promote transparent and high-quality decisionmaking and is likely to impede U.S. EPA's mission of protecting public health and the environment. The agency should instead improve its analyses by advancing mechanisms for monetizing or otherwise quantifying currently unquantified harms and benefits. This particularly includes co-benefit, negative externalities of pollution, and the social costs of GHGs.

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actions), and an explanation why the planned regulatory action is preferable to the identified potential alternatives. (§ 6(a)(3)(C).)

<sup>47</sup> 46 Fed.Reg. 13193 (February 19, 1981).

<sup>48</sup> 76 Fed.Reg. 3821 (January 21, 2011), § 1(c).