These comments are submitted jointly by Save EPA and by the Environmental Protection Network in response to EPA's Advanced Notice of Proposed Rulemaking on "Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process."

Save EPA is an all-volunteer organization made up of retired and former employees of the Environmental Protection Agency.[1] Its members have expertise in environmental science, law, economics and policy. It is based in Colorado and has members across the country, using their collective expertise to educate and advocate for public health and environmental protection. The Environmental Protection Network is a volunteer organization of more than 200 EPA alumni and others who work to preserve the nation's bipartisan legacy of progress toward clean air, water, land and climate protections. EPN tracks EPA, Executive Branch and congressional budgetary and regulatory actions and provides reporters, Hill staff and NGOs objective background information and ground-truths reports and proposed actions.[2]

Overview

The ANPRM invites input on a variety of options, but its general thrust appears intended to import the principles of cost-benefit analysis into EPA's decisions under the various environmental statutes, to the maximum extent permitted by law. It further anticipates codifying certain specific approaches (such as excluding "co-benefits") into that analysis, and/or changing its interpretation of the statutes in a more targeted way with regard to specific terms -- changes that would not be policy-neutral.

Both of our organizations take strong exception to many of the suggestions put forward in this notice. We do so from the perspective of longtime EPA staff who analyzed the issues that it raises over many years. Our key points may be summarized as follows:

- **This exercise is unnecessary and ill-conceived.** The notice lacks a clear problem statement. Instead, it refers generally to past industry comments on EPA's consideration of costs and benefits under different statutes, and asks for more information about those complaints. The notice generally asks for comment on EPA's use of different cost concepts and metrics under different statutory provisions, and provides an example of a cost issue (i.e., whether it is appropriate to calculate cost effectiveness by summing reductions of multiple pollutants). In general, the public is left to guess what the cost consistency issues might be.

- **This ANPRM is not a neutral exercise.** Rather, it appears to be a fishing expedition for grounds to roll back numerous regulations by hiding their true value, even though the benefits of these measures, in the aggregate, far exceed their costs. In particular, the concept of counting only benefits that reflect the statutory purpose, and ignoring all other benefits (i.e., "co-benefits"), is a misguided approach that EPA has previously considered and rejected in prior notice and comment rulemakings (e.g., the Mercury and Air Toxics Standards). In fact, re-raising the idea of ignoring co-benefits appears to respond to a single specific concern raised in the past by some in industry who oppose consideration of particulate matter (PM) reduction benefits in economic assessments of rules aimed primarily at addressing other air pollution problems. The idea of ignoring co-benefits is essentially a companion to the proposed EPA regulation [EPA–HQ–OA–2018–0259; FRL–9977–40– ORD] that would, on other grounds, exclude consideration of the scientific studies

[1] www.SaveEPAalums.info
[2] www.environmentalprotectionnetwork.org

documenting those benefits. There is no grounding in economic theory or in the practice of regulatory impact analysis to support such an exclusion

- **Cost-benefit analysis is a valuable tool but should not be the singular basis for regulatory decisionmaking.** Cost-benefit analysis is a respected, time-tested tool for describing in an integrated way the quantifiable and non-quantifiable benefits and costs of regulatory alternatives for decision makers and the public. It provides a valuable framework within which various effects can be presented, integrated, and selectively assigned valuations. However it has not been, and should not be, a singular deterministic instrument in the regulatory decision process, which must reflect the statutory decision-making factors that Congress has established for each program. Cost-benefit analysis is a complement to balanced risk management, not a substitute for it. We emphasize this perspective because of the apparent intent of the agency to seek comment on and potentially advance "net benefits" as the dominant criterion for decisions on regulatory options across many, if not all, statutes administered by EPA. This would effectively supplant the present multifactor risk management process with a mechanistic tool. The effect would be that senior management would be the forced victims of illusory precision and incomplete consideration of the full range of effects of a regulatory option.

- **EPA has no legal authority to adopt such approaches.** There are serious legal difficulties with issuing a rule calling for a uniform approach to its performance of cost-benefit analysis and use of that analysis in decision making under multiple environmental statutes. While EPA has authority to interpret the various statutes that it implements, the statutes vary greatly and would not permit a uniform interpretation.

- **Appropriate processes must be followed.** The ANPRM invites comment on whether it could achieve the goals of consistency and transparency without going through rulemaking. Although we do not believe the need for or value of such an effort has been demonstrated, any proposal to change EPA's interpretation of statutory terms should go through notice and comment rulemaking. Furthermore, some of the ideas presented in the ANPRM would require changing EPA's economic analysis guidelines. As the notice indicates, those guidelines were developed through an extended process and underwent extensive peer review and any reconsideration should undergo a similar procedure. Certainly the guidelines should not be revised on a whim, or based on the opinions of a small number of stakeholders (and EPA's guidelines should not conflict with OMB's directives on regulatory impact analysis).[3]

Legal authority

As a threshold matter, there would be serious legal obstacles to achieving the goal that the notice seems to contemplate. Each statute (and each relevant provision) must be analyzed separately considering its terminology, statutory structure, congressional intent, and other factors. As the notice states, Congress used different terms in different contexts (e.g., "practicable," "available," "achievable," "cost," "cost-effective") and this was presumably intentional. Interpreting all statutes to follow a uniform cost-benefit approach across the board would clearly not be possible; whether such principles could be adopted under any given statutory provision would depend on the statute in question. While some statutes use general terms that suggest a balancing approach (but do not specify how it is to be done), many allow only a constrained consideration of

[3] EPN considers it unfortunate that the Science Advisory Board recently disbanded its Environmental Economics Advisory Committee, as that group would have been a valuable source of advice on the issues presented in the ANPRM.

cost; and some provisions do not allow the consideration of cost at all. Even where cost is considered, many provisions do not call for benefits to be part of the standard-setting analysis.

It might be possible to reinterpret some specific terms to mean similar things under different statutes, or to provide an enhanced role or cost or to change the way in which costs are computed, but even this would require careful analysis of each statutory provision. Past statutory interpretations fully considered issues such as whether and if so how to consider economic factors in decision-making, so the potential for dramatically different interpretation now seems limited.

The notice appears to contemplate avoiding these complexities by issuing a broad rule directing EPA to make decisions consistent with a cost-benefit approach to the extent permitted under each statute, and then applying that principle in subsequent rulemakings. However, this would simply defer the analysis to individual rulemakings. Moreover, it is not clear what such a rule would accomplish, as the rule would not bind any party other than EPA, and could be overridden by EPA itself in any later rule. At most a rule stating an approach to future statutory interpretation would create an appearance of certainty that is for the most part illusory.

Key issues

EPA's notice invites input on a wide variety of questions. We will focus on only a few, which are those that we believe are the true underlying focus of the administration's interest.

Overview of Regulatory Impact Analysis and Cost-Benefit Analysis at EPA

It is important at the outset to distinguish between (1) the analysis that is done pursuant to statutory criteria for standard-setting, and (2) preparation of cost-benefit analyses as part of the Regulatory Impact Analysis (RIA) that is done in conjunction with rulemaking, pursuant to E.O. 12866.[4] RIAs are conducted pursuant to the agency's *Guidelines for Preparing Economic Analysis* that are updated periodically to reflect current science and methodologies. RIAs are not the sole basis on which statutory determinations are made but are a supplemental informational tool that can inform decisions among options permitted by the statutes.

RIA is a well-established, integral element of the regulatory development process in EPA. It is a framework for identifying, and characterizing a wide range of costs and benefits attributable to a regulatory action (including both those that are quantifiable and monetizable, and those that do not lend themselves to such analysis). It is a vehicle for incorporating many effects, mostly non-market, that are amenable to a range of certainties with respect to quantification and assignment of monetary value. RIAs also provide information to the public about the rule. Draft RIAs are made available to the public when a major rule is proposed, allowing the public to consider the costs and benefits of a proposal when commenting on it.

However, the RIA, including cost-benefit analysis as embodied in RIAs, is not a strict decision tool. Instead, it is a framework for organizing and integrating information to the fullest degree reasonably achievable. Hence, it affords decision makers a full spectrum of our understanding of the effects that derive from a regulatory action, but is not intended singularly to direct how decisions are made.

[4] E.O.12866, Regulatory Planning and Review, signed September 30, 1993, https://www.archives.gov/files/federal-register/executive-orders/pdf/12866.pdf. This E.O. replaced earlier orders Nos. 12291 and 12498.

Further, even if there are cases in which the science affords a high degree of precision and empirical confidence around the measurement of costs and benefits, the RIA does not drive the agency's decision. In making regulatory decisions, the agency is administering a variety of laws (as noted above) that have very different specifications as to the basis on which standards are to be set. As noted above, the statutes vary widely in the way they consider economic factors, but none directs that cost-benefit analysis strictly determine Administrator decisions.

We believe that the current approach to the consideration of economic analysis in rulemaking is the right one and should not be changed.

Consistency and the Limits of Cost-Benefit Analysis as a Basis for Decision

The notice invites comment on whether EPA should provide greater consistency across programs in the use of benefit and cost information to establish standards across regulatory programs. "Consistency" in standard setting has superficial appeal, but the notice does not provide any specific reason to believe that there are problems with the current approach (other than referring to unspecified "industry comments," the nature of which it does not reveal).

More importantly, the real issue presented by the ANPRM is not "consistency" per se, but importation of a a cost-benefit or "net benefits" test as the uniform basis for regulatory decisions across all statutes. Specifically, the ANPRM seeks comment regarding the extent to which "standard benefit-cost principles," such as "setting a standard to maximize net benefits" should guide the interpretation of statutory terms that establish regulatory thresholds.

We strongly caution against casually importing economic concepts as the sole basis for regulatory decisionmaking. While maximizing net benefits has obvious appeal, current data and methodologies do not allow accurate valuation (especially in dollar terms) of many benefits. Again, it is important to distinguish between the consideration of cost in the criteria for decision-making as prescribed in the environmental statutes, and conducting cost-benefit analysis as a supplementary tool under Executive Order 12866. Whereas cost-benefit analysis is a useful tool, when done correctly, to help the agency and the public understand the effects of regulation, the notice invites comment on using it as a test to actually set the level of regulations across the multitude of EPA programs. This is justified as a move to make EPA programs consistent. In fact, it is a simplistic misuse of cost-benefit that would undermine the agency's ability to protect public health and the environment, for several reasons.

First, as already noted, under many provisions of federal environmental statutes, using net benefits as the uniform, sole criterion for decision-making would not be legal. The various programs have different purposes, different characteristics, and, in fact, the statutory authorities for the various programs lay out the appropriate criteria that each program must use – which are not the same. The environmental laws lay out the factors that must be considered in setting standards. Some provisions are intended to protect public health, others to protect wildlife or scenic values. As the notice says, some but not all, require that costs be

considered in setting a standard, but not necessarily in the same way. They may require that regulations not impose an undue burden or that they be economically achievable. Others must be set to protect public health without regard to costs. Imposing on the EPA a uniform protocol for considering monetized costs and benefits in setting standards would necessarily run afoul of the authorizing laws in the name of "consistency."

Second, the use of cost-benefit analysis as the principal basis for regulatory decisions raises policy concerns as well. The concern is not with the use of cost-benefit analysis as a tool or the consideration of costs and benefits; EPA is already directed by E.O. 12866 to select "approaches that maximize net benefits," to the extent its statutory authority allows. Rather, it is with the practical limitations of such analysis. E.O. 12866 defines benefits very broadly to include: "economic, environmental, public health and safety, and other advantages; distributive impacts and equity." However, in practice, the actual calculation of net benefits in RIAs has emphasized *monetized* benefits and costs. Although RIAs discuss nonmonetized benefits, they are typically not part of the quantified estimates of net benefits. As a result, the quantified net benefits metric has tended to exclude nonmonetized benefits and other factors such as distributive impacts and equity.

Using cost-benefit analysis as the sole basis for decisions would tend to create a presumption that the preferred option is always that with the strongest monetized "net benefits". In addition, the emphasis on quantifiable measures tends to create an inaccurate and often misleading sense of precision in the analysis which in many cases conceals a high degree of uncertainty around the estimates of both benefits and costs.

All of these reasons, in the light of past experience, raise grave concern about attempting to make a "net benefits" test the uniform statutory decision-making standard in the name of "consistency." Shifting to a test that ignores or underweights those benefits that are not quantified and monetized would, frankly, lead to bad decisions. Failing to consider all benefits, and standard-setting based on that criterion alone, would lead to standards that fail to protect public health. We believe the present approach to the use of cost-benefit analysis is appropriate and should be continued.

Transparency

"Transparency" in rule making is already an integral part of EPA's rule making and clearly incorporated in its existing regulations, policies, and guidance. EPA has continually strived to be more transparent to the public and those it regulates. Again, the notice does not clearly identify any problem with lack of transparency at the current time. However, a close reading of the proposed ANPRM seems to contemplate under the transparency objective changes to existing practices that would in fact hide from the public the true benefits of environmental regulations. For example, it asks whether EPA can increase transparency "where the decision was based on information that is barred from release by law." This appears to refer to the issue that was already raised by the recent proposed rule titled "Strengthening Transparency in Regulatory Science" -- which

in fact would limit the science that EPA can use to inform regulatory decision making.[5] Thus these proposals should be read together as a signal that EPA intends to go beyond rolling back regulations. We see an effort to stifle the agency's ability to regulate by putting credible science off limits to EPA. In short, it appears that this effort has nothing at all to do with "transparency" in rulemaking, but rather quite the opposite. It appears that the intention is to hide from the public benefits of environmental protection.

Consideration of co-benefits

An issue of great significance raised in the notice is whether EPA should report the benefits achieved as co-benefits of reducing targeted pollutants. For example, actions taken to reduce emissions of mercury, arsenic, and other toxic pollutants from power plants under the Mercury and Air Toxics Rule (MATS), also reduced emissions of pollutants that form fine particles. Most of the monetized benefits for that rule came from the particle pollution reductions where the data and methodology for calculating particle pollution benefits are well established. However, this was not because there were no benefits from reductions in targeted pollutants but because there are not as strong data or methodologies to calculate and monetize those benefits. For example, the RIA calculates the value of lost IQ points in children exposed to mercury before birth but it does not calculate the value of other known effects of mercury exposure including other neurologic effects, developmental delays, memory deficiencies, immunotoxic effects and others. Nor does the RIA calculate the benefits from reductions of other targeted pollutants.[6]

The notice invites comment on the notion that that co-benefits should not be counted in a cost-benefit analysis or the risk management process. However, this would give the public the mistaken view that the rule has little benefit. But, of course, the co-benefits of a rule are real and would flow directly from a given rule, whether or not it is the principal focus of the rule. Counting co-benefits is called for under EPA's current economic analysis guidelines, and under OMB Circular A-4 which governs regulatory analysis under E.O. 12866. It is also the consensus view of the economics profession.[7] We also point out that EPA routinely counts the co-costs of its regulations -- for example, the risks of driving lighter-weight cars to meet fuel efficiency standards. EPA does not suggest that co-costs not be counted, even while suggesting that EPA change its methods and stop counting co-benefits.

Again, we see that in the name of "transparency," EPA is contemplating concealing from the public the true benefits of environmental regulations. We can be even more specific. Proposals to exclude co-benefits, and to

[5] EPN will file separate comments on that proposal: https://www.environmentalprotectionnetwork.org/wp-content/uploads/2018/08/EPN-Censored-Science-Comments-8.10.18.pdf

[6] US EPA, Regulatory Impact Analysis for the Final Mercury and Air Toxic Standards, p.4-64 to 4-79. December 2011, https://www3.epa.gov/ttn/ecas/regdata/RIAs/matsriafinal.pdf

[7] Even analysts who have policy concerns about adopting rules which pass a net benefits test only because of their co-benefits, agree that co-benefits should be counted. See Susan Dudley et al., Journal of Benefit-Cost Analysis, Volume 8, Issue 2, Summer 2017 (pp. 187-204).

exclude consideration of certain scientific studies in the name of "transparency," are not being made to advance abstract economic or scientific principles. They have a specific target: EPA's ability to fully recognize the value of reductions in emissions of PM. The benefits of PM reduction play an important part in EPA's regulatory approach because PM is the pollutant for which EPA has some of its strongest scientific evidence and is best able to quantify the results of regulation. Precluding EPA from relying on PM-based co-benefits would undermine the economic case for many rules under the Clean Air Act. Failure to include these benefits would ignore immense public health costs in terms of both premature mortality and morbidity. It is apparent that this ANPRM, and the proposal on science transparency, are simply different ways of undermining EPA's ability to establish regulations that fully protect human health and the environment, while benefiting a particular constituency in industry. This is not a legitimate reason to revisit the entire way in which EPA's many statutes consider costs and benefits.

In short, the theory and practice of cost-benefit analysis is clear in its position that all relevant and properly characterized effects, both costs and benefits, must be included in the analysis. There is no room for selective exclusion of legitimate, documented benefits simply because current practice does not produce the outcomes that are desired by policymakers or by a particular industry sector.

Ensuring that benefits are fully counted

To the extent that EPA considers "net benefits" in making regulatory decisions, it must make equal effort to ensure that all regulatory benefits are considered, including both monetized and non-monetized benefits, and that criteria beyond economic efficiency (e.g., distributional considerations) receive adequate attention. As was discussed above, there is a tendency to underestimate benefits of environmental regulation because many benefits are difficult to quantify (and especially to monetize) even though they are real and tangible. A tremendous amount of science is needed to assign numbers to the benefit of reducing many pollutants and, as a result, many of the benefits of regulation are unquantified in EPA cost-benefit analyses. Inevitably, decision-making tends to give disproportionate weight to monetized factors.

The MATS rule discussed above, is one example of this tendency. The rule was criticized on the ground that its direct benefits were low relative to its costs. However, the RIA did not calculate the monetized value of many known effects of mercury exposure including neurologic effects, developmental delays, memory deficiencies, immunotoxic effects and others. Nor did the RIA calculate the benefits from reductions of targeted pollutants other than mercury.

Similarly, environmental justice is often overshadowed by efficiency considerations in benefit-cost analysis and procedural rule-making. Rural, poor, and minority communities often bear a disproportionate burden in terms of pollution and hazardous waste, and the benefits of pollution abatement for environmental justice considerations are best measured qualitatively. Incorporating distributional effects into cost-benefit and RIAs would better serve these communities.

At the same time, decision makers should bear in mind that future technological advances are not reflected in regulatory cost estimates, which can lead to overestimated costs. In the George W. Bush Administration the federal government recognized that costs of environmental regulation have, in the case of multiple rules, been *overestimated* because technological advances and "learning by doing" tend to reduce compliance costs over time.[8]

Retrospective Analysis

The notice asks whether EPA should engage to a greater degree in "retrospective" analysis of benefits and costs – that is, evaluate the actual effects of its rules after they are issued. We would strongly encourage doing so. Many agencies make extensive efforts to evaluate the impacts of their programs, but EPA does so less frequently (particularly with regard to actual compliance costs). Such evaluation can both help EPA refine and improve its programs over time, but can also inform the analysis of future rules. For example, some research has indicated that costs incurred in practice generally turned out to be lower than those estimated before rules were issued (including estimates from neutral analysts), and this might inform future cost analysis.[9] It is important to note, however, that committing to such evaluation now would not require any reopening of EPA's cost-benefit guidelines. We agree that there can be challenges to doing such analysis but believe that even incomplete information would be an improvement over the current situation. We also note that such evaluation will be more straightforward if it is designed into the rule at the time of issuance – for example, establishing procedures up front to measure outcomes including authority to collect such data under the Paperwork Reduction Act.

Conclusion

We suggest that EPA reject the misguided concepts raised in this notice and reevaluate how it is proceeding. We have serious doubts above regarding EPA's authority to issue any rule that would impose uniform cost analysis approaches and decision criteria across multiple statutes. In addition, the ANPRM does not demonstrate that there is any need for broad reconsideration of how EPA performs benefit cost analysis. Moreover, approaches raised in this notice would have the effect of excluding benefits information which economic theory dictates should be included in cost-benefit analyses, and these approaches could be used to justify less stringent health and environmental protections. This notice invites poor solutions to problems that are non-existent or ill-defined.

Thank you for this opportunity to comment.

[8] EPA, Final Ozone NAAQS Regulatory Impact Analysis, EPA-452/R-08-003 March 2008. See Section 5.4, "Technology Innovation and Regulatory Cost Estimates."

[9] See Morgenstern , Cropper and Fraas, "Looking Backward to Move Regulations Forward," *Science* 31 March 2017: Vol. 355, Issue 6332, pp. 1375-76; DOI:10:1126/science.aaj1469; EPA, Final Ozone NAAQS Regulatory Impact Analysis, EPA-452/R-08-003, March 2008 (Section 5.4, "Technology Innovation and Regulatory Cost Estimates").

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