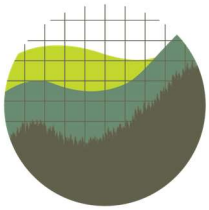

Institute *for*
Policy Integrity
NEW YORK UNIVERSITY SCHOOL OF LAW

October 15, 2021

To: U.S. Postal Service

Subject: Valuation of Emissions in Draft Environmental Impact Statement for Purchase of Next Generation Delivery Vehicles (Document No. 2021-18302)

The Institute for Policy Integrity at New York University School of Law (Policy Integrity)[1] respectfully submits the following comments on the U.S. Postal Service's above-referenced draft Environmental Impact Statement (EIS). Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy. Policy Integrity previously commented in this docket during the scoping stage.[2]

In the draft EIS, the Postal Service proposes to purchase at least 10% battery electric vehicles (BEVs) as part of its fleet of new postal delivery vehicles over the next 10 years. The Postal Service further commits to "accelerat[ing] its electric vehicle strategy . . . if its financial condition changes."[3] While it reasonably defers a final decision on the precise energy portfolio of its fleet to await additional information, **the Postal Service should carefully assess evolving information on the environmental benefits of additional electrification, as well as changes in cost and cost savings—as it considers its commitment to BEV powertrains over the coming years.** This draft EIS takes several key steps in the right direction, but the Postal Service can improve upon its analysis in the following ways:

- **The Postal Service acted appropriately by considering monetized climate impacts**. However, the valuations that the Postal Service adopted are currently being reviewed by the Interagency Working Group on the Social Cost of Greenhouse Gases (Working Group) and are expected to increase in the coming months to reflect the latest science and economics. The Postal Service should **conduct additional sensitivity analyses around lower discount rates**, as the Working Group suggests; **coordinate with the Working Group** to assess how forthcoming updates might impact the Postal Service's analysis; and institute a process to **ensure that future evaluations of the fleet composition during the decade-long procurement process incorporate the latest social cost of greenhouse gases values**.

[1] This document does not purport to represent the views, if any, of New York University School of Law.

[2] Inst. for Pol'y Integrity, Comment Letter on Consideration of Greenhouse Gas Emissions and Omission of All Zero-Emission Alternative in Upcoming Environmental Impact Statement (Apr. 5, 2021), https://policyintegrity.org/documents/Comments_on_Purchase_of_Next_Generation_Delivery_Vehicles_04.05.21.pdf.

[3] U.S. Postal Serv., *Draft Environmental Impact Statement: Next Generation Delivery Vehicle Acquisitions* 3-1 (2021).

- **The Postal Service should give due consideration to the public-health benefits of BEVs from reduced local pollution in any monetized weighing of costs and benefits.** The Postal Service can monetize local air-pollution emissions using per-ton estimates from EPA. In rolling out electric vehicles, moreover, the Postal Service should **give priority to overburdened and underserved dense communities that stand to benefit the most from reductions in ambient air pollution**. Such populations can be identified using EPA's EJSCREEN tool.
- **The Postal Service should consider the benefits of option value and leading by example.** There is value in waiting for more information about how the net costs of BEVs may decrease over time while more environmental benefits of emissions reductions become quantifiable. The Postal Service should position itself to preserve the option of increasing its fleet mix toward 100% BEVs. **Prioritizing the purchase of BEVs, consistent with the minimum goal of at least 10% BEVs, will help preserve the option to ramp up purchasing in the future. Prioritizing the purchase of BEVs will also use the government's purchasing power to lead by example**, which can help correct market failures that have caused an underinvestment in research in BEV technologies.
- **The Postal Service should adjust how it presents costs and benefits such that they are easily comparable**, to facilitate sound and transparent decisionmaking. In particular, the Postal Service should disclose its discount rate for future cost savings and ensure that rate is consistent with current guidance.

In finalizing its analysis and considering its vehicle fleet over the coming decade, the Postal Service should also be mindful of the Biden administration's emphatic support for promoting electric vehicles. In one Executive Order, for instance, the President expressed a goal of "lead[ing] the world on clean and efficient cars and trucks," including by pushing for 50% of new light-duty passenger cars and trucks emitting no pollution by 2030.[4] The President similarly proposed raising standards for medium- and heavy-duty vehicles within the next several years.[5] Moreover, as part of his government-wide approach to climate policy, the President specifically singled out "vehicles of the United States Postal Service" as a priority as the government seeks to procure more "clean and zero-emission vehicles."[6] Such investments in vehicle electrification will likely spur the recent trend of technological innovations that further reduce the cost of zero-emission vehicles.[7]

Given this administration's commitment to electric-vehicle procurement—and because the Postal Service's 10% floor on BEV procurement may be below analogous requirements that are promulgated for the private sector—the Postal Service should ensure that the affected public understands the source of any such inconsistencies, and it should **regularly update its analysis and reevaluate its BEV procurement in future years. The agency should focus particularly on how it plans to amend its stances if zero-emission vehicles become cheaper over time or if their environmental benefits are recognized to be greater than current monetized values**

[4] Exec. Order No. 14,037 § 1, 86 Fed. Reg. 43,583, 43,583 (Aug. 10, 2021).

[5] *See id.* §§ 2–4, 86 Fed. Reg. at 43,583–84.

[6] Exec. Order No. 14,008 § 205(b)(2), 86 Fed. Reg. 7624, 7624 (Jan. 27, 2021).

[7] *See* Colin McKerracher et al., BloombergNEF, *Electric Vehicle Outlook 2021*, https://perma.cc/6946-MTJE (reporting that lithium-ion battery packs' prices fell 89% between 2010 and 2020, and an additional 13% in 2020).

indicate. While the Postal Service's analysis is already commendable in key respects, the steps outlined in this letter would further solidify the rigor of the Postal Service's analysis and position the agency to rationally assess the mix of BEV and internal combustion engine (ICE) vehicles as it learns additional information over time.

I. The Postal Service Appropriately Applied Social Cost of Greenhouse Gas Metrics to Help Contextualize Each Alternative's Climate Impacts.

In an earlier comment letter, submitted in response to the Notice of Intent relating to this EIS, Policy Integrity urged the Postal Service to monetize the social cost of greenhouse gases in order to contextualize this procurement's potential climate impacts.[8] As noted in that prior comment letter, NEPA's "hard look" requirement not only allows for, but frequently demands, that agencies apply the social cost of greenhouse gases. This is because the environmental effects of greenhouse gas emissions are not well reflected by the mere quantified tonnage those emissions themselves. Rather, the relevant effects that the Post Service must disclose and contextualize are the incremental climate impacts caused by those emissions. As documented more extensively in Policy Integrity's earlier comment, the social cost metrics represent the best tool available for rigorously assessing and contextualizing the significance of those incremental impacts.[9]

That the Postal Service followed this recommendation and monetized the social cost of greenhouse gases—including the costs of methane and nitrous oxide as well as the costs of carbon dioxide—is therefore appropriate and consistent with best practice. In doing so, the Postal Service stands as a model for other federal agencies in recognizing that monetizing climate-related impacts can contribute to a clear understanding of how, and how much, an agency's proposed actions will affect climate change.

The Postal Service's use of the social cost of greenhouse gases in this EIS is part of an emerging trend of agencies rigorously quantifying and monetizing the costs that greenhouse gas emissions impose, including under NEPA. As noted in Policy Integrity's prior comment, that trend reflects the Biden administration's stated priorities. For instance, the Working Group, a coordinated effort among twelve federal agencies and White House offices, has recommended best practices and estimates since 2010 for using the social cost of greenhouse gases,[10] and reaffirmed its commitment to those figures this past February.[11] In its February 2021 technical support document, moreover, the Working Group specifically highlighted the use of the social cost values in NEPA analyses.[12]

Similarly, in Executive Order 13,990, President Biden recognized that the social cost of greenhouse gases could be applied to a wide range of agency processes, including "decision-making, budgeting, and procurement."[13] That Executive Order provided a deadline of September

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[8] *See* Inst. for Pol'y Integrity, *supra* note 2, at 1–4.

[9] *See id.* at 3 and sources cited therein.

[10] *See* Interagency Working Grp. on the Soc. Cost of Carbon, *Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866* (2010).

[11] *See* Interagency Working Grp. on the Soc. Cost of Greenhouse Gases, *Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide—Interim Estimates Under Executive Order 13,990* (2021) [hereinafter *2021 TSD*].

[12] *Id.* at 12.

[13] Exec. Order No. 13,990 § 5(b)(ii)(C), 86 Fed. Reg. 7037, 7040 (Jan. 25, 2021).

1, 2021 for the Working Group to "provide recommendations . . . regarding . . . where the [social cost of greenhouse gases] should be applied."[14] The Postal Service should heed those updates when the Working Group releases them and cite any relevant portions of the Working Group's guidance as further support for its decision to monetize greenhouse gas emissions.

II. The Postal Service Should Consider Lower Discount Rates in Additional Sensitivity Analyses, and Coordinate with the Working Group as It Updates Its Estimates of the Social Cost of Greenhouse Gases.

While the social cost valuations currently endorsed by the Working Group are appropriate to use as conservative estimates and have been applied in dozens of previous agency actions,[15] they are also widely agreed to underestimate the full social costs of greenhouse gas emissions due to the presence of omitted damages and recent evidence on intergenerational discount rates.[16] With the Working Group in the midst of updating its recommended valuations to incorporate the latest available science and economics, the Postal Service should present additional analysis of climate costs at lower discount rates—as suggested in the Working Group's recent technical support document—and coordinate with the Working Group to ensure that any updates to the social cost valuations are taken into consideration as part of the Postal Service's ongoing consideration of vehicle electrification in the coming years.

In this draft EIS, the Postal Service cites the Working Group's most recent technical support document when providing a range of discount rates between 2.5% and 5%.[17] While that technical support document endorses that range of discount rates on a short-term, interim basis,[18] it goes on to explain that considerable evidence now exists that intergenerational consumption discount rates—the relevant rates to apply for policies with strong intergenerational impacts, like climate change—are actually well below 2.5%, potentially in the range of 1–2%.[19] That conclusion is well in line with extensive recent research.[20] For this reason, the Working Group acknowledges that its current social cost valuations "likely underestimate societal damages from [greenhouse gas] emissions"[21] and recommends that agencies "consider conducting additional sensitivity analysis using discount rates below 2.5%."[22] The Working Group is currently

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[14] *Id.* § 5(b)(ii)(C), 86 Fed. Reg. at 7040.

[15] Peter Howard & Jason A. Schwartz, *Think Global: International Reciprocity as Justification for a Global Social Cost of Carbon*, 42 COLUM. J. ENV'T L. 203, 270–84 (2017) (listing all uses through mid-2016).

[16] *2021 TSD*, *supra* note 11, at 4 (acknowledging that current social cost valuations "likely underestimate societal damages from [greenhouse gas] emissions"). Richard L. Revesz et al., *Global Warming: Improve Economic Models of Climate Change*, 508 NATURE 173 (2014) (explaining that the Working Group's values, though methodically rigorous and highly useful, are very likely underestimates) (note that co-author Kenneth Arrow is a Nobel Prize winning economist).

[17] *DEIS*, *supra* note 3, at 4-18.

[18] *See 2021 TSD*, *supra* note 11, at 4.

[19] *Id.* at 16–21 (surveying literature).

[20] *See, e.g.*, Peter Howard & Jason A Schwartz, Inst. for Policy Integrity, *About Time: Recalibrating the Discount Rate for the Social Cost of Greenhouse Gases* 8–10 (2021) (reporting such research and concluding that "the best empirical estimate of the discount rate based on long-term interest rates in the current period is under 1%—and is likely to remain under 2% or less for the foreseeable future") (a version of this report, titled *Valuing the Future: Legal and Economic Considerations for Updating Discount Rates*, is forthcoming in the *Yale Journal on Regulation*).

[21] *Id.* at 4.

[22] *Id.* at 21.

evaluating the discount rate (among other issues) as it performs a full assessment of its social cost valuations to reflect the latest scientific and economic research—a task that it has been ordered to complete by January 2022.[23] Given these strong signals, it appears likely that, in that update, the Working Group will lower its recommended discount rates, and thereby increase its recommended social cost valuations. In the meantime, the Working Group suggests conducting further sensitivity analyses using lower discount rates. (Note also that, for similar reasons, the Postal Service should disclose and may need to reconsider the discount rate it uses for comparing costs and cost savings; see *infra* Section V.)

The fact that the Working Group's recommended values are likely to change in the coming months—plausibly with lower discount rates that reveal higher valuations of climate impacts—suggests that the interim values applied by the Postal Service in this draft EIS likely underestimate the true climate impacts of the considered alternatives. Moving forward, the Postal Service should take two steps to ensure that it does not undervalue the true climate benefits of BEVs when selecting the energy mix of its delivery fleet.

First, if the Working Group releases its updated values before the Postal Service finalizes this EIS, the Postal Service should use those updated values. If the Postal Service finalizes this EIS before the Working Group updates its social cost valuations, the Postal Service should conduct additional sensitivity analysis using lower discount rates than those that it has already applied—perhaps 2% and 1%[24]—to reflect state-of-the-art literature on the topic and to anticipate the likely updates by the Working Group. To do so, the Postal Service could look to the "value of carbon" estimates from the New York State Department of Environmental Conservation (DEC), which applied a 2% discount rate as its central value but otherwise used the Working Group's modeling inputs.[25]

To illustrate the impact of a more complete assessment of possible discount rates, consider that by moving from a 2.5% discount rate to a 2% rate, the climate benefit of the "100% BEV" alternative over the no-action alternative in operational year 2030 increases from $71 million to over $112 million.[26] Put differently, use of a 2% discount rate reveals the climate benefit in 2030 of pursuing the all-BEV alternative to be about 1.6 times greater than the agency

[23] Exec. Order No. 13,990 § 5(b)(ii)(B), 86 Fed. Reg. 7037, 7040 (Jan. 25, 2021).

[24] *2021 TSD*, *supra* note 11, at 16–21 (surveying literature suggesting ranges this low).

[25] N.Y. Dep't of Env't Conservation, *Establishing a Value of Carbon: Guidelines for Use by State Agencies* 16–18 (2020), https://www.dec.ny.gov/docs/administration_pdf/vocfguid.pdf. Pursuant to DEC's estimates, at a discount rate of 2%, social cost valuations for year 2020 emissions equal $125 per ton of carbon dioxide, $2,782 per ton of methane, and $44,727 per ton of nitrous oxide. *Id.* at 3. *See also* N.Y. Dep't of Env't Conservation & Res. for the Future, *Estimating the Value of Carbon: Two Approaches* (2020) (explaining considerations and methodology).

[26] To derive this figure, because the draft EIS does not report emissions figures for each greenhouse gas it assesses (namely carbon dioxide, methane, and nitrous oxide), Policy Integrity divided the "total social cost" figures for each gas from Table F-8.c by the "social cost per ton" figures for each gas from Table F-8.a, all for operational year 2030. That yielded an estimate that, compared to the status quo, the "100% BEV" alternative would abate 596,839 tons of carbon dioxide, 1,380 tons of methane, and 439 tons of nitrous oxide. (Policy Integrity did not round these "tons abated" figures to whole numbers in its actual calculations.) To generate a total social cost for each gas, it then multiplied those "tons abated" by the estimated social cost per ton of each gas in 2030 at a 2% discount rate, using data from DEC. *See* N.Y. State Dep't of Env't Conservation, *Establishing a Value of Carbon: Guidelines for Use by State Agencies* app. (2021), https://perma.cc/WRC9-ZUL2. Policy Integrity then summed the social cost of each gas to generate the figure presented here. Consistent with the Postal Service's calculations in this draft EIS, Policy Integrity did not discount future costs to their present values, but rather presents the undiscounted figures as of the year of emissions.

currently calculates as its high-end estimate. Moving to a 1% discount rate—which lies within the range that the Working Group deems plausible[27]—reveals a climate benefit relative to the no-action alternative of over $344 million in the year 2030, which is 4.8 times greater than Postal Service's current high-end estimate.[28] The analogous benefit figures compared to the no-action alternative for operational year 2050 are approximately $143 million and $387 million under 2% and 1% discount rates, respectively.[29] These estimates are several times higher than the analogous figures under a 3% discount rate of about $50 million for operational year 2030 and $70 million for operational year 2050, revealing the significance of considering the full range of reasonable discount rates.[30]

Second, even after finalizing this EIS, the Postal Service should adopt the Working Group's updated estimates when those are released in 2022, and it should institute a process to continue to reassess the energy mix of its delivery fleet based on those updated climate-damage estimates. Because this draft EIS does not purport to commit definitively to acquiring a particular mix of powertrains, but rather leaves that decision open to future assessment,[31] it is important that the Postal Service keep abreast of new updates from the Working Group and give due weight to that information in its continued assessments of optimal powertrain mixtures over the coming years. While the Postal Service suggests that future reevaluations will be based on updated cost information only,[32] it is equally important that the agency incorporate incoming evidence on the benefits of additional electrification.

III. The Postal Service Should Monetize the Costs of Other Pollutants Using Established Valuations Used by Other Agencies, and It Should Prioritize the Rollout of BEVs in Dense, Underserved Communities that Will Most Benefit from Reductions in Local Air Pollution.

While the Postal Service properly monetizes the social cost of greenhouse gases, not all emitted pollutants from this action are greenhouse gases. Many non-greenhouse gas pollutants, or "local" pollutants, have measurable and substantial impacts, including to human life and health. For instance, local pollutants like sulfur dioxide, particulate matter, and nitrous oxides impose serious adverse health effects, including asthma and heart disease, on nearby populations.[33] These consequences are especially pronounced for populations already subject to high levels of pollution, which tend to include a disproportionate share of minority, low-income, and otherwise underserved groups. These groups are both more likely to be already exposed to

[27] *See 2021 TSD*, *supra* note 11, at 16–21 (surveying literature suggesting ranges this low).

[28] To derive this figure, Policy Integrity followed the same steps described *supra* note 26, except that it used figures corresponding to a 1% discount rate rather than a 2% one.

[29] To derive these figures, Policy Integrity followed the same steps described *supra* notes 26 and 28, except that it used figures corresponding to a 2050 rather than 2030.

[30] *See DEIS*, *supra* note 3, at 4-22 tbl.4-6.6. Specifically, compared to a 3% discount rate, a 2% discount rate yields benefits figures that are 2.3 times greater in operation year 2030 and 2.1 times greater in operational year 2050. And a 1% discount rate discount rate yields benefits figures that are 6.9 times greater in operation year 2030 and 5.6 times greater in operational year 2050.

[31] *See id.* at 3-1 to 3-2, 3-4.

[32] *Id.* at 3-1 (stating that the agency will "accelerate its electric vehicle strategy by increasing the percentage of BEV powertrains if its financial condition changes or it receives additional funding for this purpose").

[33] *See* Jeffrey Shrader et al., Inst. for Pol'y Integrity, *Valuing Pollution Reductions: How to Monetize Greenhouse Gas and Local Air Pollutant Reductions from Distributed Energy Resources* 19–21 (2018); RICHARD L. REVESZ & JACK LIENKE, STRUGGLING FOR AIR: POWER PLANTS AND THE "WAR ON COAL" 10–11 (2016).

pollutants and are likely to suffer worse health consequences from a given amount of exposure.[34] But this draft EIS does not monetize, or even qualitatively discuss, these pollutants' impacts.

The Postal Service should give due consideration to the public-health benefits of BEVs from reduced local pollution in any monetized weighing of costs and benefits. To do so, it should monetize the costs that local pollutants impose. As Policy Integrity explained in its prior comments in the context of greenhouse gas emissions, NEPA's "hard look" standard counsels agencies to do more than merely quantifying emission volumes. Instead, agencies should assess the actual impact of those emissions, including on public health and welfare. In that vein, the U.S. Supreme Court has called disclosing impacts the "key requirement of NEPA" and held that each agency must make those disclosures in a way that "brings those effects to bear on [the agency's] decisions."[35] Indeed, local pollutants' effects are often quite serious; for instance, the World Bank estimates that, in 2016, the health-related costs to the United States owing to fine particulate matter ($PM_{2.5}$) totaled 3.4% of national gross domestic product.[36] And, as especially relevant to this draft EIS, the transportation sector is one of the biggest sources of pollutants, like fine particulate matter and nitrogen oxides, that significantly endanger public health.[37] Nearly half of Americans live in areas with harmful levels of these pollutants, and as many as 50,000 premature deaths occur every year in the United States from motor vehicle emissions of these substances.[38]

Monetizing the impacts of local pollution from this procurement decision is especially important given that the Postal Service has already quantified a number of costs and benefits in this draft EIS. The Postal Service evidently recognizes that quantifying and monetizing environmental impacts can give those values a critical context that would otherwise be difficult to understand and easy to ignore. What is more, as discussed in Part V of these comments, the Postal Service justifies its preferred alternative—acquiring at least 10% BEVs—largely on the grounds that the costs of additional BEVs would, according to the agency's current estimates,

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[34] *See* U.S. Env't Prot. Agency, *Technical Guidance for Assessing Environmental Justice in Regulatory Analysis* 15 (2016), https://perma.cc/3HFN-FB3V ("[D]ue to a range of existing physical, chemical, biological, social, and cultural factors, population groups of concern may be more exposed to environmental toxins, or may suffer greater ill effects from exposures of similar magnitude, because they may have a compromised ability to cope with and/or recover from such exposures.").

[35] *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 96 (1983).

[36] World Bank Grp., *The Global Health Cost of Ambient $PM_{2.5}$ Air Pollution* 59 tbl.5. (2020), https://perma.cc/2YS5-7C2L.

[37] *See* Env't Def. Fund, *Clean Cars, Clean Air, Consumer Savings: 100% New Zero Emission Vehicle Sales by 2035 Will Deliver Extensive Economic, Health and Environmental Benefits to All Americans* 4 (2021), https://perma.cc/8URR-U67Y.

[38] *See* David Farnsworth et al., *Cleaner by the Mile: Electric Trucks Can Have Outsized Environmental and Health Benefits*, Utility Drive (Apr. 14, 2021), https://perma.cc/FAF4-VM5M (citing Fabio Caiazzo et al., *Air Pollution and Early Deaths in the United States. Part I: Quantifying the Impact of Major Sectors in 2005*, 79 Atmospheric Env't 198 (2013)); *see also* Env't Def. Fund, supra note 37, at 4 (attributing more than 20,000 premature American deaths to the transportation sector every year).

outweigh the monetized climate benefits.[39] Omitting from that calculation large categories of benefits, such as health benefits from local pollutants, risks skewing this balance.

Monetizing local pollution would be fairly straightforward, as reliable valuations already exist and are in use by other agencies.[40] The draft EIS already reports much of the data needed, including the emissions rates and volumes of various local pollutants.[41] To monetize those emission volumes, the Postal Service could use available estimates in the literature, such as valuations supplied in a regulatory impact analysis (RIA) by EPA of the costs per ton of local pollutants from trucks.[42] While EPA's figures do not focus on tailpipe emissions from the Postal Service's delivery vehicles in particular, the costs per ton for other medium- and heavy-duty vehicles should be translatable to delivery vehicles. And while EPA developed its figures for an RIA, not an EIS, using cost figures developed originally for RIAs is appropriate in EISs when doing so is the best method to disclose the impacts of the action in question, as illustrated by the Postal Service's usage here of the social cost of greenhouse gases.[43] With, at most, some simple modifications,[44] the Postal Service could conduct a similar analysis for local pollutants.

While EPA's monetized values represent average costs across the whole country,[45] the impacts of local pollution can vary greatly across geographic regions and populations.[46] For instance, adding more local pollutants to dense urban areas that are already highly polluted would likely cause much greater health impacts than adding local pollutants to sparser and less-polluted areas. These health impacts can be particularly pronounced for overburdened and underserved communities with pre-existing risk factors. Geographic and population-sensitive granularity of this sort could be particularly relevant to the Postal Service, which must decide not only how many BEVs to procure but also where to deploy those vehicles. The Postal Service can use established methodologies and models to conduct this sort of valuation, including, among others, EPA's BenMAP tool.[47]

To minimize the public health impacts from its vehicle fleet, the Postal Service should prioritize the deployment of BEVs in dense, underserved communities that stand to benefit the most from reductions in local pollution. The Postal Service should consider the proximity of

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[39] *See DEIS*, *supra* note 3, at 4-37 (justifying the Postal Service's preferred alternative on the basis that buying 100% new BEVs "is significantly more expensive," and noting that the social cost of greenhouse gases that would be averted is comparatively small).

[40] *See, e.g.*, Shrader et al., *supra* note 33, at 22–24.

[41] *DEIS*, *supra* note 3, at 4-18 to 4-28.

[42] *See* U.S. Env't Prot. Agency, EPA-420-R-16-900, *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2: Regulatory Impact Analysis*, at 8-44 tbl.8-12 (2016), https://perma.cc/Z9EF-C5HT [hereinafter *EPA RIA*].

[43] *See* Jayni Foley Hein & Natalie Jacewicz, *Implementing NEPA in the Age of Climate Change*, 10 MICH. J. ENV'T & ADMIN. L. 1, 59 (2020) (noting that Obama-era agencies "frequently used the social cost of greenhouse gases . . . in regulatory impact analyses . . . and sometimes in NEPA analyses," and arguing for its broader use in NEPA analyses).

[44] For instance, the Postal Service should update figures presented in 2013 dollars to account for inflation.

[45] *See EPA RIA*, *supra* note 42, at 8-43.

[46] *See* Matt Bitner et al., Inst. for Pol'y Integrity, *Making the Most of Distributed Energy Resources: Subregional Estimates of the Environmental Value of Distributed Energy Resources in the United States* 8 (2020), https://policyintegrity.org/files/publications/Making_the_Most_of_Distributed_Energy_Resources.pdf (reporting that the value of distributed energy resources, which mitigate local pollution, "can vary significantly by subregion").

[47] *See* Shrader et al., *supra* note 33, at 22–24.

different sources of pollution—e.g., tailpipe, refueling, refineries, and electric generating units—to sensitive populations. To identify such populations, the Postal Service can make use of EPA's EJSCREEN tool, an environmental justice mapping and screening tool that identifies environmentally burdened local populations based on environmental and demographic indexes, including ambient pollution levels, traffic volume, and proximity to hazardous sites.[48]

Monetizing the health and environmental effects of local pollutants may be especially helpful to compare the effects from different pollutants: for example, replacing some existing vehicles may reduce nitrogen oxides more, while replacing others may reduce particulate matter more.[49] However, in any such comparisons, the Postal Service should bear in mind that not all significant effects from local pollutants are currently reflected in available monetization metrics.

IV. The Postal Service Should Consider the Benefits of Preserving Option Value and Leading by Example by Frontloading the Purchase of Electric Vehicles.

The Postal Service should put itself in the best position to preserve its flexibility around determining its final fleet mix. Fortunately, as the draft EIS explains, "[t]he production contract is flexible and allows the Postal Service to continue to evaluate opportunities for electrification for any order placed throughout its ten-year period."[50] This flexibility is valuable, and the Postal Service should consider and discuss the benefits of preserving that flexibility.

Specifically, there is a benefit in waiting to make a decision, to gather information and resolve uncertainty over time. Currently, there is uncertainty about the costs, cost savings, and benefits of purchasing more electric vehicles; production costs may decrease over time, cost savings may increase, and more environmental and health benefits may become quantifiable in the future. Because waiting to make a final decision on the fleet mix will allow the Postal Service to acquire new information that reduces uncertainty, there is "option value" in waiting to make a decision.[51] The Postal Service should consider the option value of its available alternatives.

Given its preference to purchase *at least* 10% BEVs, the alternative that will preserve the most flexibility to potentially increase that goal over time would be to start by prioritizing the purchase of BEVs. Specifically, since the Postal Service plans to purchase 50,000 to 165,000 vehicles, at least 10% of which will be BEVs, the Postal Service may want to begin by planning to purchase at least 5,000 to 16,500 BEVs first. That will preserve the option—and all the associated option value—of reconsidering over time what portion of the remaining vehicles might also be BEVs.

Prioritizing the purchase of BEVs also has the benefit of using the government's purchasing power to lead by example and correct market failures. The market for electric vehicles—in the medium- and heavy-duty sectors, as well as in the light-duty sector—faces a variety of market failures that prevents the optimal development and sale of more efficient, cleaner, battery-powered vehicles.[52] Manufacturers face first-mover disadvantages and network

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[48] *See Environmental Justice Indexes in EJSCREEN*, U.S. Env't Prot. Agency, https://perma.cc/JC5T-MG92.

[49] *See DEIS*, *supra* note 3, at F-15 tbls.F-4.c to F-4.e.

[50] *Id.* at 3-1.

[51] *See* Off. of Mgmt. & Budget, *Circular A-4*, at 39 (2003), https://perma.cc/X8JM-YZMT.

[52] *See* Rachel Rothschild & Jason A. Schwartz, Inst. for Pol'y Integrity, *Tune Up: Fixing Market Failures to Cut Fuel Costs and Pollution from Cars and Trucks* (2021), https://policyintegrity.org/files/publications/Tune_Up_Fixing_Market_Failures_to_Cut_Fuel_Costs.pdf.

externalities that cause them to underinvest in the research necessary to develop better, cheaper, more efficient new vehicle technologies. Government, institutional, corporate, and individual consumers in the medium- and heavy-duty sectors also face market failures, including market power, split incentives, first-mover disadvantages, information asymmetries, and network externalities. These market failures mute the demand for more efficient vehicles.[53]

Just as government regulations can help overcome these market failures and deliver benefits to the whole marketplace, so can the government's purchasing power. By prioritizing the purchase of more battery-powered vehicles, the Postal Service can help catalyze research and development in the marketplace, which can help lower the costs and increase the net benefits of future purchase throughout the transportation sector. And by stimulating the development of more efficiency vehicles, the Postal Service will thereby help contribute to emissions reductions throughout the transportation sector as well. The Postal Service should consider the economic and environmental benefits that will stem from helping to overcome these market failures by using the purchasing power of the government to lead by example.

V. The Postal Service Should Present Costs and Benefits in a Standardized, Comparable Way and Should Disclose Key Assumptions Like the Discount Rate.

In the draft EIS, the Postal Service notes that, by its estimates, purchasing all BEVs would be "significantly more expensive, [by] $2.3 billion," than purchasing 90% ICE vehicles and 10% BEVs.[54] In comparison, it notes that the agency's "most favorable [social cost of greenhouse gas] calculations"—that is, the social cost values at a 2.5% discount rate which, as explained above, likely undervalue true climate impacts—purchasing all BEVs "result in an approximately $61 million [social cost of greenhouse gas] benefit" in operational year 2050 " and approximately $46 million" in climate benefits in operational year 2030."[55] Largely for those reasons, the Postal Service notes a preference for the "10% BEV" option.[56]

While agencies are not required to conduct formal cost-benefit analyses under NEPA,[57] they must broadly balance beneficial and adverse impacts.[58] Indeed, courts have historically held that NEPA "mandates at least a broad, informal cost-benefit analysis," which—while not necessarily rising to the level of a *formal* cost-benefit analysis—must nevertheless be "full[]," "accurate[]," and "objective[]."[59] When agencies choose to weigh beneficial and adverse impacts explicitly in EISs—as the Postal Service has done here by comparing costs and benefits to select its preferred alternative—they should ensure to the extent possible that their weighing is rational and balanced, as NEPA requires of any analysis.

In this case, the Postal Service could improve upon its analysis rather simply by reporting costs and benefits in comparable terms. Most notably, the above-mentioned comparison of "$2.3 billion" in marginal costs to "$46 million" or "$61 million" in annual climate benefits, by purchasing 100% BEVs as opposed to only 10%, is misleading and incommensurable in three

[53] *See id.*

[54] *DEIS*, *supra* note 3, at 4-37.

[55] *Id.*

[56] *Id.*

[57] *See, e.g.*, *High Country Conservation Advocs. v. U.S. Forest Serv.*, 52 F. Supp. 3d 1174, 1191 (D. Colo. 2014).

[58] *See, e.g.*, *id.*

[59] *Sierra Club v. Sigler*, 695 F.2d 957, 978–79 (5th Cir. 1983).

key respects. First, the cost figure assumes that the Postal Service will purchase 75,000 new vehicles,[60] whereas the benefits figures assume 165,000 new vehicles.[61] Second, the cost figure represents the total present value of all costs incurred over the program's lifetime, whereas the benefit figures reflect only the greenhouse gas-related benefits that accrue in single operational years (2050 and 2030, respectively). Third, as mentioned above, the benefits figure omits monetizable benefit categories such as local pollutants. In fact, there are multiple other unquantified benefits, including improved safety, improved service, ergonomics, and operational savings, that should be disclosed in any comparison of costs and benefits.[62]

The Postal Service should also disclose more of its inputs and assumptions, especially regarding the comparison of costs versus cost savings. Its cost figures estimate the net present value of twenty years of the purchase price, training expense, infrastructure, energy, and maintenance costs.[63] However, the Postal Service does not disclose either the individual subtotals for the different factors in this calculation, or the assumptions used in its estimation methodology. Among the most critical inputs that should be disclosed is the discount rate applied to future cost savings. The Postal Service should disclose what discount rate it is using and then check to ensure that the rate is appropriate for this kind of purchasing decision. Internal government investments, procurements, lease-purchase decisions, and similar analyses are typically discounted using Treasury rates based on notes or bonds of comparable maturity length. Notably, in recent years, Treasury rates have declined substantially, pushing the discount rates lower. The current *Circular A-94: Appendix C* indicates a discount rate tied to real interest rates on ten-year Treasury notes of -1.1%.[64] The negative discount rate would suggest that, given current interest rates, it may actually be preferable to invest more capital in new vehicles that will deliver future cost savings, rather than save money upfront to put toward the other kinds of investments available to the government.[65] The Postal Service may want to consult with the Office of Management and Budget about the appropriate discount rate to use in this analysis.

The Postal Service should also confirm whether its twenty-year time frame is sufficiently long to capture all important costs and benefits, especially future fuel savings, given that some of its current fleet has been in operation as long as 32 years.[66]

By comparing costs and benefits in this misleading way, the Postal Service makes it difficult for itself, and the affected public, to understand the rationale for and potential impacts of its determination. Simple arithmetical adjustments to report costs and benefits consistently—

[60] *See DEIS*, *supra* note 3, at 3-1 tbl.3-1.1.

[61] *See id.* at F-28 tbls.F-8.b, F-8.c. Making this change, as by reporting the cost of acquiring more 165,000 rather than 75,000 new vehicles, would presumably yield a higher cost figure for the "100% BEV" alternative. But good reason exists to believe that the "100% BEV" alternative's benefits are also greatly undercounted because, as previous sections discuss, lower discount rates and the impacts of local pollutants should, but do not, factor into the Postal Service's analysis.

[62] *See id.* at 1-2.

[63] *Id.* at 3-1.

[64] *OMB Circular No. A-94, Appendix C*, Off. of Mgmt. & Budget, https://perma.cc/R93F-KW26.

[65] *2021 TSD*, *supra* note 11, at 20.

[66] *See DEIS*, *supra* note 3, at ii.

such as using consistent assumptions regarding the number of vehicles purchased and the analytical timeframe—would yield a more rigorous and transparent analysis.

Conclusion

In this draft EIS, the Postal Service appropriately uses the social cost of greenhouse gases to monetize climate impacts. To further improve the rigor of its analysis and promote sound decisionmaking, the Postal Service should conduct sensitivity analysis around lower discount rates and should institute a process to reassess the energy mix of its delivery fleet in the coming years as the Working Group updates the social cost values to incorporate the latest evidence.

The Postal Service can further demonstrate the environmental impacts of different alternatives by using monetized values of local pollution developed by EPA. To minimize health impacts from local pollution, the Postal Service should prioritize the rollout of BEVs in dense, underserved communities that are already subject to high pollution levels. The Postal Service should also consider the option value of waiting to make a final decision as well as the benefits to the marketplace of leading by example, and so may want to prioritize the purchase of whatever minimum share of BEVs it plans to buy.

Sincerely,

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