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Mr. Davon Collins, Environmental Counsel
United States Postal Service
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NRDC's Comments on the U.S. Postal Service's Draft Economic Impact Statement for Purchase of Next Generation Delivery Vehicles

Dear Mr. Collins,

The Natural Resources Defense Council ("NRDC") appreciates the opportunity to comment on the U.S. Postal Service's ("USPS") Draft Economic Impact Statement ("DEIS") for Purchase of Next Generation Delivery Vehicles ("NGDV").[1] NRDC is a national non-profit organization founded in 1970 dedicated to protecting public health and the environment, with 1.3 million members and activists nationwide and more than 14,000 members and 51,000 activists in Massachusetts. NRDC works in both state and federal forums to reduce emissions from both the transportation and electric sectors.

While updating the majority of USPS's delivery fleet over the next ten years is vital to public safety, minimizing fuel and maintenance costs, reducing greenhouse gas ("GHG") emissions, and addressing air pollution, the current proposal falls woefully short, does not reflect the best available vehicle technology, and violates the National Environmental Policy Act ("NEPA"). Our comments highlight the arbitrary and capricious manner in which the DEIS was developed, which ultimately relied on inaccurate data and analysis. We recommend the DEIS be rejected and that the Environmental Protection Agency ("EPA") direct USPS to resubmit their proposal with more accurate, up-to-date modeling and technical details.

[1] United States Postal Service, Draft Environmental Impact Statement United States Postal Service: Next Generation Delivery Vehicle Acquisitions, August 2021. (Hereafter "DEIS"). Available at: https://uspsngdveis.com/

I. The DEIS is Deeply Flawed and Should be Rejected

The USPS manages one of the largest civilian fleets in the world.[2] Unfortunately, the delivery vehicle fleet is operating, on average, six years beyond its expected service life, and many of these vehicles do not have safety and standard features common and required today, such as seatbelt reminders and air conditioning.[3,4] Clearly upgrading the delivery vehicle fleet is long overdue.

Meanwhile, the transportation sector is the largest source of GHG emissions in the United States[5] and a significant source of air pollution. Replacing USPS's antiquated delivery fleets represents a unique opportunity for the federal government to take meaningful action to address climate change and reduce pollution from the transportation sector. The Biden administration has made strides to reduce pollution from this sector, including bold proposals to expand the countries plug-in battery electric vehicles ("BEVs"). BEVs emit zero tailpipe emissions and therefore help to improve air quality. For vehicles that frequent residential areas, such as the USPS's delivery vehicles, BEVs can help to improve community health through reduced fossil fuel emissions.

Unfortunately, the DEIS misses a critical opportunity to increase the number of BEVs in the fleet by only guaranteeing a minimum of 10 percent of new delivery vehicles will be BEVs. However, this determination is based on obsolete data, ignores the latest vehicle technology advancements, inflates costs, and misrepresents benefits. Failure to maximize the number of BEVs in the USPS fleet will lock in decades of fossil fuel vehicles operating in communities across America, resulting in higher maintenance and fuel costs, worse air quality, and increased climate impacts.

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[2] USPS operates 231,541 vehicles in the United States. *See* United States Postal Service, *Postal Facts.* Available at: https://facts.usps.com/postal-service-has-more-than-200000-vehicles/

[3] DEIS at 2-2.

[4] The expected life of USPS Long Life Vehicles are 24 years, but all of these vehicles current have between 25-31 years of service. *See*: Office of Inspector General, USPS. *Audit Report: Delivery Vehicle Acquisition Strategy*, Table 1. August 2020. Available at: https://www.uspsoig.gov/sites/default/files/document-library-files/2020/19-002-R20.pdf.
(maximum expected life of a COTS body is 12 years compared to 20 for the NGDV) LLVs have an estimated life of 24 years, and some are more than 30 years old.

[5] United States Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks*. Available at: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks

II. The USPS' Proposal is Arbitrary and Capricious

The USPS' DEIS is arbitrary and capricious because the agency's calculations are unsubstantiated, ignore the best available information and industry standards, do not consider technological progress over the course of the contract, do not appropriately value BEV benefits, and fail to consider all reasonable alternatives.

a. The Agency's Calculations are Unsubstantiated

The agency puts forth three explanations for why BEVs are not a larger share of the proposed fleet: insufficient charging infrastructure, incompatible route length or type, and cost. However, other than stating these claims, the DEIS lacks any substantive calculations or supportive analysis.

i. Charging Infrastructure

The DEIS acknowledges that charging infrastructure is needed to support the USPS electric fleet. USPS claims that "for BEVs, interior and exterior construction to accommodate charging infrastructure and charging stations would be needed."[6] However, the agency then acknowledges that "[s]pecific Postal Service facility locations where new vehicles would be deployed and where alterations may be needed are not known at this time."[7] USPS argues that the cost of charging infrastructure is a reason to limit the deployment of BEV NGDV. However, "[t]he extent and types of alterations necessary for each Postal Service facility location are not known at this time."[8] The ease and cost of installing infrastructure are largely location-specific, depending on the existing distribution system, the number of desired charging stations, supportive utility programs, and local permitting processes. Additionally, the total number of charging stations that will be needed to support this fleet is likely lower than USPS projects due to vehicles sharing charging stations and other considerations, such as how often the vehicles will need to charge.

[6] DEIS at 4-4.
[7] *Ibid.*
[8] *Ibid.*

One charging station per vehicle may be excessive and contrary to how real-world BEV charging would occur due to the anticipated vehicle use cases and charging needs of the fleet. According to the DEIS, the average USPS delivery vehicle travels around 21 miles per day,[9] and that "BEV NGDV would be expected to discharge around 20 percent of battery capacity under average conditions because of the low average delivery route mileage."[10] The proposal's BEVs have an expected range of 70 miles on a single charge, suggesting that the vehicle will use about 14 miles of range a day, and on average, a BEV could charge once every 3 or 4 days without depleting the battery. USPS wrongly states that "actual mileage is expected to be significantly less because of the frequent and repetitive starts and stops required for business and residential delivery."[11] In fact, depending on the vehicle's use, the range could increase due to regenerative braking converting friction into energy.[12] Therefore, USPS could rotate the charging of vehicles based on their battery levels. However, it is important to note that, as discussed in more detail below, the actual ranges of these vehicles will be higher than 70 miles per charge once USPS updates its analysis with non-obsolete data.

The DEIS states that USPS' NGDV requirements "include the ability to charge to a minimum driving range of 70 miles within eight hours."[13] However, based on the data that USPS has provided, even with a fully depleted battery, using a standard Level 2 charger—found in many homes and grocery store parking lots—the proposed BEVs could charge within 10 hours. Moreover, since 84 percent of the USPS delivery fleet travels less than 32 miles per day, most BEVs could easily recharge to the "minimum driving range of 70 miles" within 8 hours.[14]

Since the agency failed to evaluate where BEVs would be deployed and which facilities would need to be altered, the agency clearly does not understand whether charging infrastructure is actually a barrier to using BEVs.

ii. Route Length and Type

[9] DEIS at F-5 Note (7).
[10] DEIS at 3-2
[11] DEIS at 4-33.
[12] Jessica Shea Choksey, *What is Regenerative Braking?*, J.D. Power, January 2021. Available at: https://www.jdpower.com/cars/shopping-guides/what-is-regenerative-braking
[13] DEIS at 3-2.
[14] *Ibid.*

The agency claims that 12,500 routes cannot be electrified based on the assumed 70-mile range of BEVs. Assuming a 70-mile range reflects current battery technology (it does not) and that battery technology will not improve over the ten-year life of the contract (it will), 12,500 unsuitable routes for BEVs represents less than 6 percent of all USPS delivery routes. Consequently, at least 94 percent of the current 231,579 USPS delivery routes are well suited for electrification. Thus, the agency's proposed minimum deployment of 10 percent BEV new delivery vehicles appears baseless given their overwhelming suitability.

iii. Cost

The DEIS repeatedly references cost as a major constraint on the agency and that the BEV NGDVs have a higher total cost of ownership ("TCO") compared to the internal combustion engine ("ICE") NGDVs. However, other than a brief description of the variables informing the TCO and a single chart showing the topline cost numbers between ICE and BEV NGDVs, no additional detail cost calculation detail is provided. Some of the identified cost variables are recognizable, such as "costs for vehicle purchase," "estimated fuel and utility costs, and maintenance," but others are vague, including items such as "freight," "pre-delivery production costs," "technical data packages." Moreover, Appendix C of the DEIS, where "[r]elevant cost data are presented," is three pages and contains no additional information on the TCO calculation other than a chart outlining what a TCO analysis could include. Appendix C also offers little insight into TCO calculations performed during the competitive procurement process other than to generally say the USPS "evaluated proposals to determine which offeror provided the Postal Service with the best value by weighing technical evaluation factors/risk and the Total Cost of Ownership (TCO)." This statement belies rigor, objectivity, or rationality.

Meanwhile, the DEIS claims that the "Postal Service would 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." However, without knowing each variable's underlying cost assumptions, neither the TCO can be validated nor can a blanket entreaty for "additional funding" be contextualized. Further, the claim that a change in the agency's finances would enable greater BEV deployment undermines the agency's earlier argument that route characteristics and operational use are limiting factors.

b. The Agency Likely Ignored the Best Available Data and Industry Standards

i. Latest TCO Research

Numerous studies have compared the TCOs of BEV and ICE medium- and heavy-duty vehicles, and while estimates vary, the overwhelming consensus is that short-haul Class 2b-3 BEV delivery vehicles are at or very near TCO parity with their ICE counterpart.[15] In fact, this segment is often referenced as the most cost-effective electrification opportunity in the near term.[16] For example, a recent comprehensive TCO analysis by the California Air Resources Board ("CARB")[17] found that BEV Class 2b cargo vans—similar to the proposed NGDVs—without incentives will save fleets almost $5,000 over the vehicles' life in 2025. Moreover, these savings are expected to grow as BEV technology matures through 2030.[18] The analysis also found that in 2025 a BEV cargo van's cost savings exceeds the higher up-front price differential in as early as year eight of operation, indicating that BEVs can recoup their higher purchase prices relatively quickly.[19] Notably, the CARB analysis includes charging infrastructure costs in the TCO.

The main factors contributing to favorable TCOs for BEV Class 2b cargo vans are lower relative service, maintenance, and fuel costs over the vehicle's lifetime. Since BEV's cost savings compared to ICE vehicles are strongly influenced by the number of operational years, longer-life BEVs, such as the proposed NGDVs, can expect to realize even higher returns on investment. Yet contrary to the best available information, the DEIS advances a TCO comparison showing substantially higher costs for BEV NGDVs, while acknowledging that "BEVs are generally more mechanically reliable than ICE vehicles and would require less scheduled maintenance" and that "the BEV Hypothetical Maximum [] would have a beneficial impact on

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[15] Goldman School of Public Policy, University of California Berkeley, *2035 The Report, Transportation, Plummeting Costs and Dramatic Improvements in Batteries can Accelerate our Clean Transportation Future*, April 2021. Available at: https://www.2035report.com/transportation/; Chad Hunter et al, *Spatial and Temporal Analysis of the Total Cost of Ownership for Class 8 Tractors and Class 4 Parcel Delivery Trucks*, National Renewable Energy Laboratory, September 2021. Available at: https://www.nrel.gov/docs/fy21osti/71796.pdf; ICF International, *Comparison of Medium- and Heavy-Duty Technologies in California*, December 2019. Available at: https://caletc.com/assets/files/ICF-Truck-Report_Final_December-2019.pdf

[16] Jimmy O'Dea, *Ready for Work, Now Is the Time for Heavy-Duty Electric Vehicles*, December 2019. Available at: https://www.ucsusa.org/sites/default/files/2019-12/ReadyforWorkFullReport.pdf

[17] California Air Resources Board, *Draft Advanced Clean Fleets Total Cost of Ownership Discussion Document*, September 9, 2021. Available at: https://ww2.arb.ca.gov/sites/default/files/2021-08/210909costdoc_ADA.pdf

[18] 2025 was the earliest year modeled in the analysis. Given the substantial relative savings in 2025, it is appropriate to assume that battery electric Class 2b cargo vans are likely cost-competitive on a TCO basis with their ICE counterparts well before 2025.

[19] *Id.*

energy use through reduction in fuel consumption as the BEV NGDV would not require gasoline, saving about 135 million gallons of fuel annually." Lacking additional information showing how the agency arrived at a higher TCO for BEVs and contradicting statements made in the DEIS, it is reasonable to assume the agency excluded the latest information from the cost assessment.

ii. Current State of BEV Technology

The DEIS claims that the proposed battery-electric NGDV weighing 8,877 pounds ("lbs") with a 95 kilowatt-hour ("kWh") battery can travel about 70 miles on a single charge. Confusingly, the DEIS also claims that a commercial-off-the-shelf ("COTS") BEV weighing 9,428 lbs with a 67 kWh battery has a 108-mile range. Since the COTS BEV and battery electric NGDV use similar battery chemistries, the larger 95 kWh battery in the lighter vehicle should have a longer range than the smaller 67 kWh battery in the heavier vehicle. Further, commercially available Class 3 BEVs with similar battery sizes have much longer ranges than what is included in the DEIS. For example, the Ford Lightning Electric Transit Cargo Van is available with a 140-mile range 86 kWh battery or 170-mile range 105 kWh battery.[20] Both versions can fully charge in under three hours using a DC fast charger. Again, this demonstrates how the proposal is premised on questionable and incorrect data, inaccurately representing the capabilities and benefits of BEV technology.

III. The Agency Failed to Evaluate BEV Deployment Over the Contract Schedule

The DEIS provides no details on the timeline of vehicle purchases and replacements other than a brief paragraph in Section 3-1 stating that acquisitions would occur over ten years starting in 2023, and "The actual timeline and quantities of NGDV purchased and delivery vehicle types replaced would be contingent upon the Postal Service's operational needs, including individual carrier route needs, and financial position." However, given the expected improvements in BEV technology detailed above, the timing of vehicle replacements and purchases are a crucial factor in the technical and cost assessment.

[20] Lightning eMotors, *Lightning Electric Transit Cargo Van*. Available at: https://californiahvip.org/wp-content/uploads/2021/07/FT3-43-86Cargo_specsheet_2021.pdf

As suggested by Table 2 in Appendix C of the DEIS, USPS has detailed data on which LLVs are the oldest and incurring the highest maintenance costs and thus should presumably be the highest priority to replace. By cross-referencing this data with a brief analysis of which routes would be easiest to electrify, USPS could outline a schedule vehicle replacement and coupled BEV deployment that maximizes cost reduction benefits. Identifying easy to electrify routes could be based on a few simple variables such as route length, duty cycle, and operational environment.

Incorporating staggered deployment over the next ten years as BEV technology improves and upfront costs decline will more accurately reflect the long-term benefits of BEVs. By first replacing vehicles on routes well suited for electrification—which are the vast majority of routes according to the DEIS—the USPS can maximize BEV cost-saving benefits through lower fuel and maintenance costs while strategically delaying BEV deployment for the tiny portion of routes currently harder to electrify.

IV. The Agency Insufficiently Quantified BEV Benefits

BEVs are a flexible charging load that can be leveraged for grid benefit. Because battery-electric NGDV charging would occur overnight when people are sleeping, and there is spare capacity on the grid, they would spread the costs of maintaining the system over a greater volume of electricity sales, reducing the per-kilowatt-hour price of electricity to the benefit of all customers. In coordination with delivery route needs and combined with managed charging, battery-electric NGDVs that are stationary when renewable generation peaks could provide significant opportunities to lower the cost of meeting renewable energy goals. High levels of renewable energy penetration could result in “negative valleys” (requiring excess renewable energy to be exported or curtailed) but managed BEV charging could reduce or eliminate negative valleys, obviating the need to export excess renewable generation or curtailment.

Moreover, as battery electric NGDVs age, their emissions will decline further as they plug into an increasingly clean electric system. In contrast, emissions from ICE NGDVs will grow as their emission control systems degrade and deteriorate over time.

These additional BEV benefits, while substantial, were neglected in the DEIS, further prejudicing the proposal against battery electric NGDVs.

V. The Agency Failed to Evaluate All Reasonable Alternatives

As stated above, the 12,500 routes that USPS claims are unsuitable for BEVs represent less than 6 percent of all USPS delivery routes. Since at least 94 percent of the current 231,579 USPS delivery routes are well suited for electrification, the choice to only evaluate alternatives for which BEVs make up zero, ten, or one hundred percent of new NGDVs was arbitrary. Instead, the agency should have selected alternatives based on a data-driven electrification feasibility assessment using the most up-to-date information alongside route and fleet characteristics. At a minimum, the DEIS should have considered an alternative for 94 percent BEVs and 6 percent ICE NGDVs.

VI. The Emission Reduction Analysis is Deeply Flawed and Deficient

The DEIS fails to address the urgency of transitioning to zero-emission vehicles, such as BEVs, or describe the inequitable harm caused by ICE vehicle pollution. Further, when emission reductions from BEVs are quantified, the agency grossly undervalues them in the final proposed action. Additionally, the DEIS fails to monetize the air quality benefits and ignores the impact new ICE vehicles will have on locking in higher emissions over the lifetime of these long-life assets.

a. The Agency Failed to Analyze the Proposal's Emission Impact

Although the DEIS provides a basic comparison of emission reduction benefits from the proposed action and alternatives, it completely lacks any significant analysis. This is a glaring omission given the size of the proposed purchase and the longevity of the anticipated vehicle turnover rate.

ICE vehicles emit large quantities of nitrogen oxide ("NOx") pollution, which contributes to the formation of both particulate matter ("PM") pollution and ozone (i.e., smog).[21] NOx and

[21] EPA, *Nitrogen Dioxide (NO_2) Pollution*, https://www.epa.gov/no2-pollution (last accessed July 28, 2021).

PM emissions are toxic and dangerous to those closest to the source of pollution; exposure to fossil fuel exhaust can lead to premature death and other devastating health impacts, including asthma and respiratory impacts,[22] pregnancy complications and adverse reproductive outcomes,[23] cardiac and vascular impairments,[24] and heightened cancer risk.[25] Finally, ICE vehicles generate GHG emissions that contribute to global climate change, which exacerbates local air quality issues through various means; climate-driven increases in ozone are predicted to cause premature deaths, hospital visits, lost school days, and acute respiratory symptoms, and wildfires made more frequent and more severe by climate change further increase emissions of particulate matter and ozone precursors resulting in additional adverse local health outcomes.[26] Emission from ICE vehicles disproportionately impacts low-income communities and communities of color that often live near freeways, ports, railyards, warehouses, and other facilities that generate significant levels of localized vehicle exhaust.[27] Yet none of these life-or-death impacts are evaluated in the DEIS, further demonstrating the agency's analysis deficiencies.

[22] Stephanie Lovinsky-Desir et al., *Air pollution, urgent asthma medical visits and the modifying effect of neighborhood asthma prevalence*, 85 Pediatric Research 36 (Oct. 2018), *available at* https://doi.org/10.1038/s41390-018-0189-3; Gayan Bowatte et al., *Traffic related air pollution and development and persistence of asthma and low lung function*, 113 Env't Int'l 170 (Apr. 2018), *available at* https://www.sciencedirect.com/science/article/pii/S0160412017319037.

[23] Jun Wu et al., *Association Between Local Traffic-Generated Air Pollution and Preeclampsia and Preterm Delivery in the South Coast Air Basin*, 117 Envtl. Health Persp. 1773 (Nov. 2009), *available at* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2801174/; Qi Yan et al., *Maternal serum metabolome and traffic-related air pollution exposure in pregnancy*, 130 Env't Int'l 104872 (2019), *available at* https://doi.org/10.1016/j.envint.2019.05.066; Li Fu et al., *The associations of air pollution exposure during pregnancy with fetal growth and anthropometric measurements at birth: a systematic review and meta-analysis*, 26 Envtl. Sci. and Pollution Res. 20137 (2019), *available at* https://doi.org/10.1007/s11356-019-05338-0.

[24] Kimberly Berger et al., *Associations of Source-apportioned Fine Particles with Cause-specific Mortality in California*, 29 Epidemiology 639 (Sept. 2018), *available at* https://pubmed.ncbi.nlm.nih.gov/29889687/; Stacey Alexeef et al., *High-resolution mapping of traffic related air pollution with Google street view cars and incidence of cardiovascular events within neighborhoods in Oakland, CA*, 17 Envtl. Health (May 2018), *available at* https://doi.org/10.1186/s12940-018-0382-1; J.E. Hart et al., *Ischaemic Heart Disease Mortality and Years of Work in Trucking Industry Workers*, 70 Occupational and Envtl. Med. 523 (Aug. 2013), *available at* https://pubmed.ncbi.nlm.nih.gov/22992341/.

[25] Cal. Air Res. Bd., Cal. EPA, *Supplement to the June 2010 Staff Report on Proposed Actions to Further Reduce Diesel Particulate Matter at High-Priority California Railyards* (July 5, 2011), *available at* http://www.arb.ca.gov/railyard/commitments/suppcomceqa070511.pdf; Press Release, Int'l Agency for Res. on Cancer, Diesel Engine Exhaust Carcinogenic (June 12, 2012), *available at* https://www.iarc.who.int/wp-content/uploads/2018/07/pr213_E.pdf; L. Benbrahim-Tallaa *et al*, *Carcinogenicity of Diesel-Engine and Gasoline-Engine Exhausts and Some Nitroarenes*, 13 The Lancet Oncology 663 (June 2012), *available at* http://doi.org/10.1016/S1470-2045(12)70280-2.

[26] Neal Fann et al., *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment* at Ch. 3 (U.S. Global Change Res. Program 2016), *available at* https://health2016.globalchange.gov/air-quality-impacts; Health and Envtl. Impacts Division, EPA, *Quantitative Health Risk Assessment for Particulate Matter* (June 2010), *available at* https://www3.epa.gov/ttn/naaqs/standards/pm/data/PM_RA_FINAL_June_2010.pdf.

[27] Arlene Rosenbaum et al., *Analysis of Diesel Particulate Matter Health Risk Disparities in Selected US Harbor Areas*, 101 Am. J. Pub. Health 217 (Dec. 2011), *available at* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3222501/; Michelle Bell & Keita Ebisu, *Environmental inequality in exposures to airborne particulate matter components in the United States,* 120 Envtl. Health Persp. 1699 (Dec. 2012), *available at* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3546368/.

b. The Agency's Emission Reduction Calculations Appear Irrelevant to the Final Proposal

The DEIS includes the emission reduction calculations in Section 4-6.3. The following highlighted totals compare the proposal to the 100% BEV alternative:

Table 4-6.2
Net Aggregated (Direct and Indirect) Air Emission Changes (90% ICE NGDV and 10% BEV NGDV) Calculated Based on MOVES, eGRID, and GREET Models

Air Emissions	VOC (tpy)	NOx (tpy)	CO (tpy)	$PM_{2.5}$ (tpy)	PM_{10} (tpy)	SO_2 (tpy)	CO_2e (MT)
New 90% ICE NGDV	880.29	1,186.20	929.60	91.75	294.00	822.14	995,643
New 10% BEV NGDV	NA[1]	41.27	NA[1]	5.59	NA[1]	38.10	46,748
Replaced Vehicles (LLVs/FFVs/Metris)	-1,903.42	-3,570.48	-12,081.32	-148.19	-378.47	-915.03	-1,332,698
Net (Total)	**NA[1]**	**-2,343**	**NA[1]**	**-51**	**NA[1]**	**-55**	**-290,306**

Table 4-6.5
Net Aggregated (Direct and Indirect) Air Emission Changes (100% BEV NGDV) Calculated Based on MOVES, eGRID, and GREET Models

Air Emissions	VOC (tpy)	NO_x (tpy)	CO (tpy)	$PM_{2.5}$ (tpy)	PM_{10} (tpy)	SO_2 (tpy)	CO_2e (MT)
New 100% BEV NGDV	NA[1]	412.71	NA[1]	55.94	NA[1]	381.01	467,485
Replaced Vehicles (LLVs/FFVs/Metris)	-1,903.42	-3,570.48	-12,081.32	-148.19	-378.47	-915.03	-1,332,698
Net (Total)	**NA[1]**	**-3,158**	NA[1]	**-92**	NA[1]	**-534.01**	**-865,213**

It is immediately apparent that the air pollution reduction benefits from the 100% BEV NGDV alternative are exponentially greater than the current proposed action of 90% ICE NGDVs and 10% BEV NGDVs. In some instances, emission reductions from going completely battery-electric are as high as ten times greater than the current proposal. Also immediately evident is the omission of reduction benefits from BEVs for several potent pollutants—notably volatile organic compounds ("VOC") and PM_{10}. The agency simply blames this omission on the shortcomings of the eGRID model used and offers no additional analysis.

It is unacceptable to ignore these harmful air pollutants that have significant public health implications. To make matters worse, the emission calculations appear irrelevant to the agency's determination of the final proposed action. This is evidenced, in part, by the fact that the air pollution reduction benefits are not monetized or contextualized (e.g., identifying and

valuing avoided hospital visitations, avoided respiratory and cardiovascular diseases, avoided premature mortality, etc.), which would further demonstrate the benefits of BEVs relative to ICE NGDVs.

c. The Agency's Methodology for Calculating Emission Reductions is Flawed

In the DEIS, the emissions reduction impacts of all other alternatives were considered based on the emissions produced by the No-Action Alternative (i.e., the current fleet) such that the total emissions "saved" from removing the old vehicles currently in use was subtracted from the total emissions added from the new ICE or BEV vehicles. This methodology resulted in a negative emissions value for every alternative examined, which is a dangerous way of viewing the reality of aging vehicle replacement.

The No-Action Alternative should not be a relevant base case for emission savings because implementing this option would jeopardize USPS's ability to fulfill its duties since the current vehicles continue to age beyond their lifespan and incur higher and higher annual maintenance costs. Moreover, the current fleet risks the safety of USPS employees due to the older vehicles' deficient safety systems.

The actual evaluation involves (a) choosing a ratio of new BEVs to ICE vehicles purchased and (b) choosing between LHD COTS, RHD COTS, or RHD NGDVs. Vehicle replacement within the USPS fleet is not an option but a necessity, as demonstrated by USPS's commitment to purchasing 37,768 RHD COTS not currently sold in the US from 2020-2023 to meet immediate new vehicle and vehicle replacement needs and "sustain delivery operations until NGDV production."[28] Therefore, the emission reduction calculation should not include a subtracted value of emissions eliminated by removing existing vehicles from the road since that has been and will continue to be done regardless of the final decisions on options (a) and (b). Instead, the base case option from which emissions should be considered is the result of replacing the planned vehicles with new ICE COTS vehicles, and any emissions impact from other options should be evaluated against this base case.

[28] Office of Inspector General, USPS. *Audit Report: Delivery Vehicle Acquisition Strategy*, August 2020. Available at: https://www.uspsoig.gov/sites/default/files/document-library-files/2020/19-002-R20.pdf.

VII. Issues with the NEPA Process and Oshkosh Award

Before completing the DEIS, the USPS awarded the contract to Oshkosh Defense, LLC ("Oshkosh"), likely biasing the proposal. Additionally, evidence from before Oshkosh won the contract suggests that the company is unsuitable for BEV manufacturing.

a. The Agency Prejudged the NEPA Process

The National Environmental Policy Act ("NEPA") requires agencies to complete an Environmental Impact Statement before taking a proposed action. However, the USPS's DEIS was drafted after USPS awarded the production contract to Oshkosh. As such, the DEIS is susceptible to prejudgment, possibly biasing the proposal, and should be voided.

b. Oshkosh is Incapable of Producing a Cost-Competitive BEV

Given Oshkosh's lack of expertise with BEVs, the options presented by the company will naturally favor ICE vehicles. Oshkosh's own 2020 SEC filing says as much: "many manufacturers foresee sales of electric-powered vehicles and mobile equipment becoming increasingly important to their businesses, and we may not have the expertise or resources to successfully address these pressures on a cost-effective basis or at all… competition from others could make our specialty vehicles or mobile equipment less desirable in the marketplace."[29] This is critical because, in Fiscal Year 2019, USPS spent $706.2 million to maintain 141,057 LLVs[30] and approximately $500 million on fuel.[31] Since USPS relies on stamps and service fees for revenue, and there has been a nearly 50 percent decline in the amount of first-class mail delivered since 2001[32] while the number of addresses served continues to rise, the USPS has operated at a loss since 2007.[33] Therefore, long-term cost-saving opportunities should be of the utmost value to the agency. Fleet electrification provides an incredible opportunity for USPS to lower its annual

[29] United States Securities and Exchange Commission, *Commission file number 1-31371*, Page 22. Available at: https://www.sec.gov/Archives/edgar/data/0000775158/000156459020054491/osk-10k_20200930.htm.
[30] Office of Inspector General, USPS. *Audit Report: Delivery Vehicle Acquisition Strategy*, August 2020. Available at: https://www.uspsoig.gov/sites/default/files/document-library-files/2020/19-002-R20.pdf.
[31] David Roberts, *A No-Brainer Stimulus Idea: Electrify USPS Mail Trucks*. April 2020. Available at: https://www.vox.com/energy-and-environment/2020/4/22/21229132/usps-coronavirus-electrify-postal-trucks.
[32] United States Postal Service, *First-Class Mail Volume Since 1926.* Available at: https://about.usps.com/who-we-are/postal-history/first-class-mail-since-1926.htm.
[33] Tyler Powell and David Wessel, *How is the U.S. Postal Service Governed and Funded?* Brookings, August 2020. Available at: https://www.brookings.edu/blog/up-front/2020/08/26/how-is-the-u-s-postal-service-governed-and-funded/.

operation and maintenance costs. But, to accurately evaluate the cost- competitiveness of a made-to-order battery-electric NGDV, USPS should have appropriately considered manufacturers capable of designing and building BEVs.

VIII. Conclusion

USPS manages one of the world's largest civilian fleets, and the analysis presented in the DEIS for replacing much of this fleet is deeply flawed.

The DEIS is arbitrary and capricious. Calculations of charging infrastructure needs and costs, route electrification feasibility, and BEVs TCO are unsubstantiated, ignore currently available data and technology, improperly calculate emission reduction benefits, and fail to incorporate those benefits into the determination of the proposed action. In addition, these calculations fail to include purchase and replacement schedules. Given the rapid improvements in BEV technology and the deterioration of USPS's current fleet, these calculations should be a critical factor in the decision-making process. Finally, to accurately compare the costs of BEV and ICE NGDVs, USPS should have appropriately considered manufacturers' capabilities to design and build BEVs. Unfortunately, these flaws taken together dramatically tilt the scale against BEVs in favor of ICE NGDVs.

The agency drafted the DEIS after awarding the contract to Oshkosh, possibly biasing the proposal. Therefore, we ask that the USPS correct the errors in their analysis and present these corrections in a DEIS that complies with NEPA regulations and draws conclusions appropriately based on the long-term stability of USPS finances, the environment, and public health.

Sincerely,

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