ZETA | ZERO EMISSION TRANSPORTATION ASSOCIATION

August 14, 2023

Mr. Davon Collins
Environmental Counsel
United States Postal Service
475 L'Enfant Plaza SW
Washington, DC 20260

RE: Notice of Availability of Draft Supplemental Environmental Impact Statement for Next Generation Delivery Vehicles Acquisitions
Submitted via Electronic Mail to: NEPA@USPS.gov.

The Zero Emission Transportation Association (ZETA) is an industry-backed coalition of over 60 member companies advocating for 100% electric vehicle (EV) sales. ZETA is committed to enacting policies that drive EV adoption, create hundreds of thousands of jobs, dramatically improve public health, and significantly reduce emissions. Our coalition spans the entire EV supply chain and includes vehicle manufacturers, charging infrastructure manufacturers and network operators, battery manufacturers and recyclers, electricity providers, critical minerals producers, and fleet operators, among others.

We thank the United States Postal Service (USPS) for the opportunity to comment on its Notice of Availability of Draft Supplemental Environmental Impact Statement (SEIS) for Next Generation Delivery Vehicles Acquisitions: 2023-13941. This comment will analyze USPS's updated analysis related to its next-generation delivery vehicle (NGDV) procurement and the efficacy of its responses to prior stakeholder engagement. **Given battery electric vehicles' (BEVs) marked cost savings and high potential for reducing greenhouse gas (GHG) emissions, ZETA strongly urges USPS to analyze fleet scenarios that result in BEV penetrations higher than 62%.**

We remain concerned by the ongoing decision-making process taking place at USPS. USPS has repeatedly backtracked on its public commitments and has demonstrated an apparent unwillingness to give meaningful consideration to expert feedback from the public, other federal agencies, and USPS's own inspector general. Despite efforts by USPS to continue doubting the feasibility of BEVs to meet its fleet needs, ZETA remains optimistic that the undeniable health, environmental, and economic benefits of a fully electric USPS NGDV fleet remain within reach.

Background

ZETA has been engaged in USPS fleet electrification since the early stages of the process.

In February 2021, U.S. Senator Martin Heinrich (D-NM) along with 12 fellow Senators sent a letter to President Biden with recommendations on how best to drive federal electric vehicle (EV) procurement and adoption.[1] **ZETA responded to the Senate letter with our press release "The Right Time To Electrify The U.S. Postal Service," championing the lawmakers and advocating for USPS electrification.[2]**

In March 2021, ZETA published an article on our website, "A Roadmap for U.S. Postal Service Electrification."[3] The article outlined the unique case for USPS electrification and called into question inconsistencies in Postmaster General DeJoy's testimony before Congress on February 24, 2021—notably vehicle cost estimates, charging cost estimates, and claims of an alleged swappable drive train vehicle.

On August 26, 2021, USPS released a Draft Environmental Impact Statement for the Purchase of Next Generation Delivery Vehicles.[4] ZETA swiftly responded on September 1, 2021, with a press release, "United States Postal Service's Environmental Impact Statement Cooks the Books and Demonstrates A Clear Bias Against Electric Vehicles."[5] **On October 12, 2021, ZETA submitted a public comment drawing attention to apparent flaws in the United States Postal Service's Draft Environmental Impact Statement.** ZETA recommended that USPS procure a new, at least 90% battery-electric delivery fleet. In this comment, ZETA asserted that the USPS's preference for a majority gas-powered delivery fleet was based on incorrect cost estimates, an insufficient dedication to emissions reductions, and imprecise projections about future infrastructure developments.[6]

In December 2021, USPS published its Final EIS and in February 2022, it published its Record of Decision (ROD)[7] analyzing the potential effects of purchasing, over ten years, 50,000 to 165,000 purpose-built, right-hand-drive (RHD) vehicles—NGDVs—to replace existing delivery vehicles that are beyond the end of their service life. In this original proposal, USPS committed to electrifying merely 10% of the new fleet nationwide.

On April 5, 2022, ZETA's former Executive Director, Joe Britton, testified before the U.S. House of Representatives Committee on Oversight and Reform. The hearing examined the benefits, opportunities, and challenges of electrifying the USPS delivery fleet. At this hearing, ZETA

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[1] Heinrich, Martin, et. al. 21 February 2021. Letter to President Biden. United States Sente, Washington, D.C. https://www.heinrich.senate.gov/imo/media/doc/Ltr%20to%20President%20Biden%20on%20EV%20Procurement%20-%2002122021[2].pdf

[2] ZETA. 15 Feburary 2021. "The Right Time To Electrify The U.S. Postal Service." ZETA. https://www.zeta2030.org/news/the-right-time-to-electrify-the-u-s-postal-service

[3] Fleming, Kelly, PhD. March 2021. "A Roadmap for U.S. Postal Service Electrification." ZETA. https://www.zeta2030.org/insights/zeta-insights-a-roadmap-for-u-s-postal-service-electrification

[4] United States Postal Service. August 26, 2021."Notice of availability of draft environmental impact statement." Federal Register. https://www.federalregister.gov/documents/2021/08/26/2021-18302/notice-of-availability-of-draft-environmental-impact-statement-for-purchase-of-next-generation

[5] ZETA. 1 September 2021. "United States Postal Service's Environmental Impact Statement Cooks the Books and Demonstrates A Clear Bias Against Electric Vehicle." ZETA. https://www.zeta2030.org/news/united-states-postal-services-environmental-impact-statement-cooks-the-books-and-demonstrates-a-clear-bias-against-electric-vehicles

[6] ZETA. October 12, 2021. "Public comments on USPS Notice of Availability of Environmental Impact Statement." Electronically Submitted

[7] United States Postal Service. 23 February 2022. "Record of Decision And Record of Environmental Consideration." USPS. https://uspsngdveis.com/documents/USPS%20NGDV%20Acquisitions%20NEPA%20Record%20of%20Decision_2.23.22.pdf

called attention to issues in the Final Environmental Impact Statement (FEIS) including charging cost, vehicle specifications, ICE NGDV inefficiency, gas price assumptions, and benefits of electrification. ZETA urged USPS to reconsider the NGDV contract and 10% BEV commitment.[8]

On June 6, 2022, USPS announced its Intent To Prepare a Supplement to the Next Generation Delivery Vehicles Acquisitions FEIS.[9] USPS proposed to consider three new areas: the impacts of route network optimization and refinement on its delivery fleet operations, the need to accelerate the replacement of its aged and high-maintenance Long Life Vehicles (LLVs) and Flexible Fuel Vehicles (FFVs), and the potential consequences of replacing other aged and high-maintenance non-LLV/FFV delivery vehicles, including personally owned vehicles (POVs). **On July 15, 2022, ZETA submitted a public comment urging USPS to remedy errors it had previously made—and failed to correct—in its FEIS and ROD.** ZETA provided market data and insights to help USPS analyze its three new considerations.[10]

On August 15, 2022, ZETA joined 19 other stakeholders and coalition partners urging the USPS to further electrify its fleet for public health and environmental justice. Signees included California Electric Transportation Coalition, CALSTART, Center for Biological Diversity, Chispa LCV, CleanAirNow, Coltura, Dream.Org, Earthjustice, Ecology Center, Elders Climate Action, Environmental Defense Fund, GreenLatinos, IndigoJLD, League of Conservation Voters, Pacific Environment, Peoples Collective for Environmental Justice, Plug In America, Sierra Club, and the West Long Beach Association.

On December 20, 2022, USPS announced a commitment to 100% BEV acquisitions after 2026 as part of its plan to acquire 106,480 new NGDVs and/or commercial-off-the-shelf vehicles (COTS). The announcement also included a commitment to ensuring that 75% (45,000) of the NGDVs will be BEVs and 21,000 will be BEV COTS.[11]

On June 20, 2023, USPS released a Draft SEIS outlining an updated fleet acquisition plan. In the draft, USPS put forth the following proposed Fleet Acquisition Scenarios.

- **Alternative 1** (Preferred Alternative)**:** Mixed Fleet (NGDV and COTS Vehicles) with 62% BEV Commitment (within Six Years),
- **Alternative 2:** NGDV Only Fleet with 62% BEV Commitment (within Eight Years), and

[8] ZETA. 5 April 2022. "ZETA Executive Director Joe Britton Urges United States Postal Service To Electrify in House Committee on Oversight and Reform Hearing." ZETA. https://www.zeta2030.org/news/zeta-executive-director-joe-britton-urges-united-states-postal-service-to-electrify-in-house-committee-on-oversight-and-reform-hearing

[9] United States Postal Service. 10 June 2022. "Notice of Intent To Prepare a Supplement to the Next Generation Delivery Vehicles Acquisitions Final Environmental Impact Statement." Federal Register. https://www.federalregister.gov/documents/2022/06/10/2022-12581/notice-of-intent-to-prepare-a-supplement-to-the-next-generation-delivery-vehicles-acquisitions-final

[10] ZETA. 15 July 2022. Public Comment RE: Re: "Notice of Intent To Prepare a Supplement to the Next Generation Delivery Vehicles Acquisitions Final Environmental Impact Statement" Zero Emission Transportation Association. Submitted Electronically

[11] Hampel, Carrie. 21 December 2022. "USPS to deploy 66,000 EVs by 2028." Electricdrive.com. https://www.electrive.com/2022/12/21/usps-to-deploy-66000-evs-by-2028/

- **No-Action Alternative:** Maintain Decision from 2022 NGDV Record of Decision (ROD) (i.e., Purchase 50,000 to 165,000 NGDV over Ten Years, with 10% BEV Minimum).

While USPS may be able to meet the December 2022 commitment under the above scenarios by acquiring the planned ICE NGDVs before 2026, such vehicles would contribute to on-road emissions for decades to come. Additionally, USPS failed to provide any analysis of fleet acquisition scenarios higher than 62% while providing insufficient justification for its proposed maximum BEV plan.

In doing so, USPS inadequately responded to stakeholder input from the Environmental Protection Agency (EPA), White House Council on Environmental Quality (CEQ), USPS Office of the Inspector General (OIG), United States Congress, environmental advocates, and industry groups including ZETA—all of which previously noted how the FEIS's errors misinformed USPS's decision-making process, resulting in a decision that will lock in generations of fossil fuel-powered mail delivery. This decision, if left unchanged, will leave all Americans worse off. USPS has a unique and important opportunity to reexamine and correct these deficiencies through this SEIS.

We believe this comment will help USPS to justify a Proposed Action that will facilitate rapid electrification of its fleet. Electrifying the USPS delivery fleet would dramatically reduce GHG emissions, boost public health, and comply with President Biden's recent executive order to fully electrify the federal fleet—which specifically requires USPS electrification.[12]

Analysis

I. Alternative 1 (Preferred Alternative) – Mixed Fleet with Increased BEV Commitment

Draft SEIS presents Alternative 1—62% BEV fleet acquisition—as the preferred electrification scenario. Alternative 1 commits to acquiring a total of 106,480 vehicles over six years at the following mix:

- 60,000 NGDVs (75% BEVs, for a total of 45,000 electric models);
- 14,500 RHD COTS ICE vehicles, and
- 31,980 LHD/RHD COTS Vehicles or NGDVs, 66% of which (~21,106 vehicles) will be BEVs.

Under Alternative 1, USPS plans to acquire approximately:

[12] The White House. 27 January 2021. "Executive Order on Tackling the Climate Crisis at Home and Abroad." WH.gov. https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/

- 66,106 BEVs
- 40,373 ICEVs

Alternative 2 also electrifies 62% of the Postal fleet, but limits its vehicle acquisitions to NGDVs over eight years at the following mix:

- 66,230 BEV NGDVs
- 40,250 ICEV NGDVs

To meet the December 20, 2022 commitment of 100% BEV acquisitions after 2026, all ICEVs outlined in both Alternatives would have to be acquired in the next three years.

ZETA commends USPS for substantially increasing the number of vehicles it plans to electrify. However, **ZETA strongly believes that USPS should conduct an analysis of fleet electrification scenarios significantly higher than the current Alternatives.**

II. 3-2.1 Urgent Need to Replace

USPS focuses on the challenges of near-term electrification in the Draft SEIS. In Section 3-2.1, USPS outlines an updated justification for its continuously limited BEV commitment.[13] USPS states that they cannot electrify higher than 62% of their overall fleet due to limited COTS BEV availability, arguing that the need to replace existing LLVs is too urgent to justify a larger electric mix. Later in the Draft SEIS, USPS repeatedly points to Section 3-2.1 when responding to stakeholder public comments that suggest USPS assess the feasibility of 95-100% BEV scenarios.

In making this argument, USPS fails to provide sufficient data regarding how this justifies a 62% BEV fleet maximum specifically. USPS does not provide data regarding how many vehicles need to be imminently replaced sooner than BEVs can be acquired. Nor does it clarify how many of the vehicles needing immediate replacement service routes longer than those USPS have determined BEVs have the range to serve. The Draft SEIS also fails to provide information regarding what specific delivery constraints faced by Ford (the only manufacturer USPS has considered for BEV COTS vehicles) and the wide array of other BEV COTS transit vehicle manufacturers, that would prevent USPS from acquiring greater than 62% BEVs.

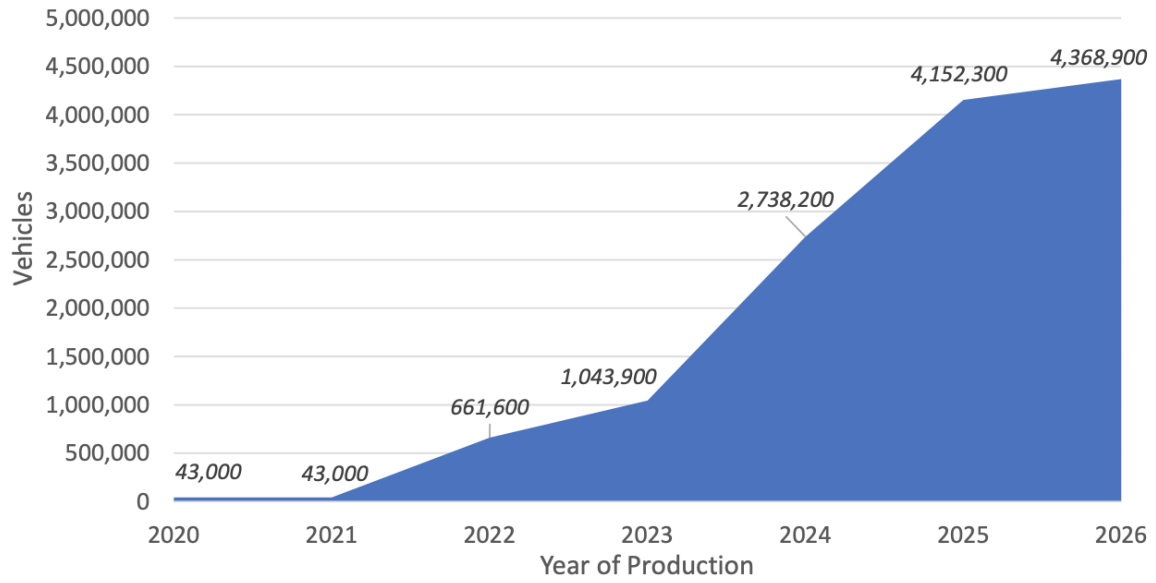
Although USPS has committed to 100% BEV acquisitions after 2026, the SEIS focuses on the challenges of near-term electrification. As such, in order to assess the feasibility of a more rapid USPS transition to an all-BEV fleet, it is critical to first review the projected growth in vehicle model availability and the domestic capacity to manufacture such vehicles. The United States is

[13] USPS Draft SEIS 3-2.1 Urgent Need to Replace. page 3-1.

in the midst of a domestic manufacturing renaissance due in part to BEV incentives in the IRA and IIJA.

Research from the Environmental Defense Fund illustrates the rapid growth in BEV manufacturing capacity over the next three years. EDF found that because of the Inflation Reduction Act and the Infrastructure Investments and Jobs Act, electric vehicle manufacturing capacity through 2026 will expand substantially. Figure 1 below demonstrates that by 2026, 4.3 million BEVs are projected to be produced before the time of USPS's commitment to 100% BEV acquisitions. For reference, that equals about one-third of all new vehicles sold in the U.S. in 2022.[14]

Figure 1. Estimated EV manufacturing capacity following passage of the IRA and BIL 2020-2026.[15]



With ambitious electrification goals, OEMs are investing heavily in domestic EV manufacturing. EVs are already being produced domestically. In the first quarter of 2023, American factories produced 39% more EVs than the same period the year before.[16] USPS's argument that near-term electrification is infeasible does not reflect the impending market reality of EV production through 2026.

[14] EDF. 4 March 2023. "Report Finds Investments in U.S. Electric Vehicle Manufacturing Reach $120 Billion, Create 143,000 New Jobs," Environmental Defense Fund.) https://www.edf.org/media/report-finds-investments-us-electric-vehicle-manufacturing-reach-120-billion-create-143000
[15] U.S. Electric Vehicle Manufacturing Investments and Jobs
[16] Stock, Kyle. 10 May 2023. "Five New EV Models Drive Up North American Factory Production," Bloomberg. https://www.bloomberg.com/news/articles/2023-05-10/five-new-ev-models-drive-up-north-american-factory-production#xj4y7vzkg

As referenced previously, the market for zero-emission commercial vehicles is expanding rapidly with availability up around 30% in the past three model years.[17] Globally, the most robust model-availability growth comes from zero-emission cargo vans and heavy-duty trucks, growing 56% and 87% year-over-year respectively between 2021 and 2022.[18] Today there are at least fourteen heavy-duty Class 7 and 8 electric trucks and an additional eight electric heavy-duty yard tractors on the market in the U.S. Additionally, complimentary state and federal policies that drive emissions reductions and contribute to the acceleration of corporate sustainability commitments can be expected to drive rapid, continued growth in new model availability over the 2024-2026 time frame including models that meet the diverse needs of the USPS fleet.

The USPS Office of Inspector General states that "adoption of electric vehicles by USPS and other federal agencies would send a strong signal to the market, helping to drive the development of electric vehicle technology, boost the domestic supply chain, and support the installation of needed charging infrastructure."[19] ZETA once again echoes this sentiment and urges USPS to drive fleet electrification forward by working with an expanded number of manufacturers to electrify the nation's postal fleets. In the subsequent section, we provide an assessment of USPS's vehicle specification data along with existing BEV COTS alternatives excluded from the Draft SEIS.

III. 3-3 NGDV Specifications

In Section 3-3, USPS provides vehicle specification data for battery electric NGDVs and ICE NGDVs. In ZETA's July 15, 2022 comments on USPS's NOI to prepare a SEIS, ZETA called attention to these vehicle specifications, which were used to calculate crucial fleet acquisition components such as upfront cost, charging, route suitability, payload, etc. ZETA notes that in the Draft SEIS, the vehicle specifications for the USPS NGDV BEV still do not reflect technology on the market best suited for transit. As discussed further below, ZETA is reemphasizing and updating its previous assessment of the NGDV vehicle specifications, given USPS's updated fleet scenarios.

ZETA commends USPS for the addition of clarifying information regarding key concerns about the model NGDVs. Specifically, the Draft SEIS includes clarifying information regarding battery chemistry and range.

The Draft SEIS clarified that the 70-mile range assumption reflects USPS's estimation of vehicle range at the end of useful life.[20] USPS also provided additional information regarding battery

[17] Stock, Kyle. 10 May 2023. "Five New EV Models Drive Up North American Factory Production," Bloomberg. https://www.bloomberg.com/news/articles/2023-05-10/five-new-ev-models-drive-up-north-american-factory-production#xj4y7vzkg
[18] MacDonnell, Owen; Qiu, Yin; et. al. October 2022. "Zero-Emission Truck and Bus Market Update." CALSTART. https://globaldrivetozero.org/site/wp-content/uploads/2022/10/ZE_TruckBus_update.pdf
[19] Office of Inspector General. March 17, 2022. 'Electric Delivery Vehicles and the Postal Service.' Report Number RISC-WP-22-003. https://www.uspsoig.gov/sites/default/files/reports/2023-01/RISC-WP-22-003.pdf, page 7
[20] USPS Draft SEIS at Table 3-3.1 NGDV Specifications, page 3-5

chemistry that states that the BEV NGDV uses a 94kWh Nickel Manganese Cobalt Battery (NMC).[21] A 94kWh NMC battery is needlessly large and drives up the per-unit cost of electrification.

ZETA urges USPS to work with its contracted manufacturer to consider lithium iron phosphate (LFP) batteries for the NGDVs. As evident in Figure 2, LFP batteries have greater longevity, are considerably less expensive, have greater thermal resilience, and are materially more sustainable.[22] While LFPs are less energy dense, which means a lower range, they require 2.5x the number of battery cycles before range depletion. This benefit makes LFPs well-suited to serve USPS's Universal Service Mission at maximum vehicle power for longer than the described battery. Furthermore, the average USPS route is 24 miles—still substantially shorter than the range of LFP delivery vehicles. For example, the Rivian EDV electric delivery trucks deployed by Amazon have a 120-mile range.[23]

Figure 2. Battery Comparison: Lithium Iron Phosphate versus Nickel Manganese Cobalt

	LFP	NMC
Cathode Material[24]	Lithium, Iron, Phosphate	Lithium, Nickel, Manganese, Cobalt
Average Cost (May 2022)[25]	~$151/kWh	~$180/kWh
Energy Density[26]	160 Wh/kg	200 Wh/kg
Discharge Cycles (until 80% capacity)	2,500	1,000
Thermal Runaway	518°F	410°F

IV. 3-3.3.1 COTS Vehicle Specifications

In previous comments, ZETA and other stakeholders requested that USPS consider alternatives to its NGDV and provided examples of other fleet vehicles. USPS responded to this on page B-315 of the Draft SEIS saying:

[21] USPS Draft SEIS at Table 3-3.1 NGDV Specifications, page 3-5
[22] Di Grande, Tessa. 29 May 2023. "4 Benefits of LFP Batteries for EVs." Visual Capitalist. https://www.visualcapitalist.com/sp/4-benefits-of-lfp-batteries/
[23] Feder, Joel. January 3, 2023. 'Rivian EDV: All about electric vans for Amazon and beyond.' Green Car Reports. https://www.greencarreports.com/news/1138310_rivian-edv-specs
[24] Di Grande, Tessa. 29 May 2023. "4 Benefits of LFP Batteries for EVs." Visual Capitalist. https://www.visualcapitalist.com/sp/4-benefits-of-lfp-batteries/
[25] Krishna Muthu. 21 July 2022. "The EV battery chemistry debate just got more complicated." Fast Markets. https://www.fastmarkets.com/insights/the-ev-battery-chemistry-debate-just-got-more-complicated
[26] Battery Knowledge. February 2023. "NMC vs LFP: safety and performance in operation." Power Up.https://powerup-technology.com/nmc-vs-lfp-safety-and-performance-in-operation/#:~:text=The%20highest%20densities%20are%20clearly,260Wh%2Fkg%20for%20NMC%20ones

"As part of its normal fleet management practice, the Postal Service continually considers and evaluates potential vehicle offerings from multiple suppliers, including through market research and pilot programs. With respect to this Draft SEIS, see also Section 3-3 (Alternative 1 (Preferred Alternative) – Mixed Fleet with Increased BEV Commitment), which describes how our Preferred Alternative includes a mix of three different vehicle models, made by three different manufacturers."[27]

The Draft SEIS provides a chart where it assesses a:

1. Mercedes Metris (RHD COTS ICE Vehicle)
2. ProMaster (LHD COTS ICE Vehicle)
3. Ford E-Transit (LHD COTS BEV)

The USPS states in the footnotes of this chart that *"The Postal Service has not tested COTS BEVs for transit and delivery travel to date"*[28] and USPS only includes an analysis of Ford, despite a swiftly growing range of BEV transit vehicle model availability.

In our previous comment, ZETA also provided information on alternative LDH COTS BEV models. Although USPS announced it would purchase 9,250 Ford E-Transit Vans, we believe there is room for USPS to further take advantage of market availability:

- Rivian is also building its delivery vans in the United States at its plant in Normal, Illinois, and at its forthcoming plant near Atlanta, Georgia. Its three delivery vehicles—the EDV 500, 700, and 900 (named for the cubic feet of storage available in each vehicle)—boast 120–150 mile ranges with a yet-to-be-specified battery size.[29] While OIG reported that Rivian's delivery vehicles have reduced ranges than advertised (especially in adverse weather conditions), it is worth noting that OIG's source was referring to an uninsulated prototype vehicle rather than the final model.[30]

- Canoo's Lifestyle Delivery Vehicle (LDV) and larger Multipurpose Delivery Vehicle (MPDV) 1 and MPDV2 will have multiple battery pack sizes available, but even their smallest size will be sufficient for USPS's needs. The smaller LDV has an 80 kWh battery and will achieve 250 miles of range for 3.13 miles per kWh. And weighing in at a gross vehicle weight of 5,730 pounds, the MPDV1 and 2 are equipped with 40 kWh batteries (at minimum) that deliver 170 and 110 miles of range, respectively (for ratios of 4.25 and 2.75 miles per kWh).[31]

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[27] United States Postal Service. 20 June 2023. "DRAFT Supplemental Environmental Impact Statement, United States Postal Service Next Generation Delivery Vehicle Acquisitions." Federal Register. https://uspsngdveis.com/documents/USPS%20Draft%20SEIS%20for%20NGDV%20Acquisitions%20-%20June%202023%20-%20Compiled.pdf

[28] USPS Draft SEIS footnote (2) under Table 3-3.2 at 3.3.1 COTS Vehicle Specifications, page 3-6

[29] Ruffo, Gustavo Henriquee. 7 February 2022. 'Rivian Delivery Vans Will Have Three Derivatives - EDV 500, 700, and 900.' Auto Evolution. https://www.autoevolution.com/news/rivian-delivery-vans-will-have-three-derivatives-edv-500-700-and-900-180976.html

[30] Reuters. 19 November. 2021. Rivian's electric van for Amazon raises battery power doubts.' Reuters.https://www.reuters.com/technology/rivians-electric-van-amazon-raises-battery-power-doubts-information-2021-11-19/

[31] Canoo. 17 December 2020. Canoo Unveils Fully-Electric Multi-Purpose Delivery Vehicle to Offer Best-in-Class Total Cost of Ownership.' Canoo. Los Angeles, California. https://www.press.canoo.com/press-release/mpdv#:~:text=The%20two%20vehicle%20variants%2C%20multi,20%25%20to%2

- The General Motors-brand BrightDrop produces the Zevo 600, which will use a 165 kWh battery to achieve a 250-mile range (1.52 miles per kWh). The Zevo 600 is much heavier than the proposed BEV NGDV.[32] BrightDrop's smaller Zevo 400 will be produced beginning in 2023.

ZETA is not the only stakeholder to have provided USPS with evidence of ample COTS BEV alternatives. In a letter to the agency regarding fleet electrification, The California Air Resources Board provided USPS with a chart outlining twenty-seven COTS vehicle alternatives.[33]

In Section 3-6.3, USPS states that it eliminated an all-COTS BEV acquisition from its plan because it *" has no similar contractual guarantee of BEV availability in the COTS market – only our best estimates based on outreach to potential suppliers – the Postal Service believes that having a significant proportion of NGDV in our fleet strategy represents the best guarantee of fleet electrification over the near term."*[34]

We believe that based on the existing range of COTS BEV models, USPS could further electrify its vehicle fleet by engaging in COTS BEV contracts that would guarantee electrification in the near term. Notably, considering the existence of a U.S.-manufactured RHD COTS BEV model by manufacturer Tropos, USPS's intent to procure 14,500 RHD ICEVs should be reevaluated.

- Tropos, partnered with Panasonic and started production of its RHD optional BEV delivery vehicles. Tropos has both RH and LH drive vehicles already in production, has met with USPS' engineering team and met all specifications, and has been in beta testing with Purolator of Canada for over a year, who is replacing the exact same vehicle as USPS, for the exact same reasons. Tropos is ready to ship fleets, and they use Level 1 or Level 2 charging, have a variety of ranges, from 90 miles to over 250 miles, and clearly operate in very cold weather in Canada. In fact, Tropos just sold several to Purolator in July 2023 for testing.

Electrification of the 14,5000 RHD vehicles is not only feasible given today's market availability but would increase USPS's electrification to 75% of the overall fleet.

V. 3-2.2 Route Suitability

USPS Routes

[32] Seabaugh, Christopher. 19 May 2022. "5 Things We Learned Driving the 2022 BrightDrop Zevo 600." Motortrend. https://www.motortrend.com/reviews/2022-brightdrop-zevo-600-quick-drive-facts/#:~:text=Fast%2DCharge%20Capable%20
[33] USPS Draft SEIS, Letter from CARB, page 274
[34] USPS Draft SEIS 3-6.3 Acquisition of All COTS Delivery Vehicles, page 3-9

As discussed in Section 3-1.1 of the NGDV FEIS, "*the Postal Service requires the BEVs we purchase to be capable of driving at least 70 miles on a single charge."*[35] In the FEIS, USPS justified its Proposed Action to procure a 90% ICEV and 10% BEV NGDV fleet by claiming that BEVs are incapable of handling the route distance or weather conditions on up to 12,500 of the USPS's 232,000 routes.[36] Yet 12,500 routes is less than 5.4% of the USPS's total routes. In other words, despite USPS's finding that 94.6% of routes are suitable for electrification, it proceeded to initially propose a 90% ICEV and 10% BEV fleet. USPS boosted its commitment to 20% BEVs in its first tranche of orders and to 62% in the Draft SEIS.[37] Based on the USPS's—arguably suspicious—70-mile range, BEVs are able to service 95% of USPS routes. Based on this metric alone, the analysis should have been run for the acquisition of a 95% BEV alternative.

EPA called on USPS to conduct updated route optimization efforts to increase the numbers of BEVs in the 50,000 NGDV, 20,000 LHD COTS, and 14,5000 RHD COTS proposals. EPA "recommended that the Postal Service use this new route optimization effort to, among other things, update previous assumptions about TCO, taking account of regional variation in fuel prices, the effects of updated projections for annual miles traveled on depreciation, and potential impacts to insurance premiums." In response to this comment, USPS stated that they are no longer assessing fleet acquisition from a TCO perspective and rather looking at upfront cost. This is not an acceptable response to a necessary assessment that would increase transparency around USPS's ability to electrify a greater number of vehicles.

BEVs in Extreme Weather

In the Draft SEIS, USPS stated that *"routes with significant snowfall, cold weather, or challenging terrain will be prioritized for the deployment of all-wheel drive vehicles, which are likely to have ICE powertrains."*[38] The need for all-wheel drive is an insufficient reason for limiting the share of BEVs in the USPS fleet. While all-wheel drive vehicles may be more likely to have ICE powertrains, USPS neglected to consider existing all-wheel drive delivery vehicle models with EV powertrains. The General Motors-brand BrightDrop produces the Zevo 600, which includes all-wheel drive and uses a 165 kWh battery to achieve a 250-mile range (1.52 miles per kWh).[39] Both Fedex[40] and Walmart[41] are implementing these BEV delivery vans in scenarios calling for all-wheel drive capabilities and given BEV delivery vehicles are available with all-wheel drive capabilities, they should therefore be included in USPS analysis.

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[35] USPS Draft SEIS 3-2.2 Route Suitability, page 3-2
[36] USPS Final EIS 3-1.1 NGDV Powertrains Available, page 3-2. https://uspsngdveis.com/documents/USPS+NGDV+FEIS_Dec+2021.pdf
[37] USPS Draft SEIS 3-1 Summary of Alternatives Considered in Detail, page 3-1
[38] USPS Draft SEIS 3-3.1 NGDV Acquisition, page 3-4
[39] Seabaugh, Christopher. 19 May 2022. "5 Things We Learned Driving the 2022 BrightDrop Zevo 600." Motortrend. https://www.motortrend.com/reviews/2022-brightdrop-zevo-600-quick-drive-facts/#:~:text=Fast%2DCharge%20Capable%20
[40] Holland, Frank. 17 December 2021. "FedEx gets first of 500 electric trucks from GM's EV unit in a major advance for green logistics." CNBC. https://www.cnbc.com/2021/12/17/fedex-gets-first-of-500-electric-trucks-from-gms-ev-unit-in-move-to-green-logistics.html
[41] General Motors. January 2022. "BrightDrop Announces Walmart as New EV Customer and Expands Collaboration with FedEx at CES." General Motors. https://news.gm.com/newsroom.detail.html/Pages/news/us/en/2022/jan/ces/0105-brightdrop.html

VI. 3-2.3 Financial Considerations

TCO versus Upfront cost

Industry consensus is that total cost of ownership (TCO)—not up-front cost—is the appropriate metric for evaluating electric vehicle fleet purchases. Despite this, USPS states that *"due to the improved financial situation resulting from the Inflation Reduction Act, assessment for acquisition scenarios is based on upfront cost, rather than 'best value.'"*[42] USPS also falsely states that, before charging infrastructure, BEVs are 40% more expensive than ICEVs.

The election of up-front cost as the method for price comparison is unacceptable. In ZETA's previous comment, we provided ample evidence of the cost savings associated with USPS fleet electrification. In choosing to assess fleet acquisition through up-front price assessments, USPS deliberately ignores the well-known savings associated with BEV ownership over the lifetime of the vehicle.

In our previous comment, ZETA provided substantial evidence supporting TCO analysis, saying:

> "Due to their greatly reduced maintenance requirements, BEVs provide significant savings over time, even if their upfront costs can be higher than those of ICEVs.[43] This is true in the medium- and heavy-duty vehicle sector as well.[44] **TCO should be the most important cost-related consideration for an entity with the organizational scale and vast time-horizons of USPS."**[45]

First, BEVs deliver substantial cost savings on fuel and maintenance, and this point is particularly important for USPS to consider, given the extraordinary maintenance costs of its current delivery fleet. A recent study conducted by Argonne National Lab posited that maintenance and repair costs are particularly important to consider while evaluating TCO.[46] Though a vehicle's TCO depends on several factors, such as the region, driving characteristics, and fuel prices, EVs are consistently cheaper to own than gas-powered cars. Typical drivers can expect to save between $6,000 and $12,000 over a vehicle's lifetime by switching to a BEV.[47] These savings are magnified in rural areas where drivers travel an average of 38% more miles than urban drivers and even further magnified across an entire fleet of vehicles.[48]

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[42] USPS Draft SEIS 3.2.3 Financial Considerations, page 3-2
[43] Harto, Chris. October 2020. "Electric Vehicle Ownership Costs: Today's Electric Vehicles Offer Big Savings for Consumers." Consumer Reports. https://advocacy.consumerreports.org/wp-content/uploads/2020/10/EV-Ownership-Cost-Final-Report-1.pdf
[44] Gonzalez, Leilani; Olenicheva, Sofya; Brungard, Eva; LeHane, Rianna. January 2022. "Medium- and Heavy-Duty Electrification: Weighing the Opportunities and Barriers to Zero-Emission Fleets." ZETA. https://www.zeta2030.org/white-paper-medium-and-heavy-duty-electrification-weighing-the-opportunities-and-barriers-to-zero-emission-fleets
[45] ZETA. 15 July 2022. Pubic Comment RE: Re: "Notice of Intent To Prepare a Supplement to the Next Generation Delivery Vehicles Acquisitions Final Environmental Impact Statement" Zero Emission Transportation Association. Submitted Electronically
[46] Burhman, Andrew; Gohlke, David; Rush, Luke; et. al. April 2021. "Comprehensive Total Cost of Ownership Quantification for Vehicles with Different Size Classes and Powertrains." Argonne Nationak Laboratory. https://publications.anl.gov/anlpubs/2021/05/167399.pdf
[47] "Electric Vehicles Save Consumers Money," Consumer Reports, (June 2023) https://advocacy.consumerreports.org/wp-content/uploads/2023/06/CR_EVSavings_FACTSHEET_6.2023.pdf
[48] "Clean Transportation Strategies for Rural Communities in the Northeast and MidAtlantic States," Union of Concerned Scientists, (November 2020) https://www.ucsusa.org/sites/default/files/2020-11/rural-transportation-opportunities.pdf

Notably, the average maintenance costs for a BEV are 50% lower than those for a comparable ICEV.[49] BEVs have significantly fewer components that require regular maintenance like engine oil, transmission fluid, and air filters. According to Argonne National Laboratory, the maintenance costs for a BEV averages 6.1 cents per mile, compared to 10.1 cents per mile for a similar ICEV.[50] That means vehicles driven 10,000 miles per year can save $400 per year, totaling $2,000 over five years. Over a vehicle's lifetime, savings can average nearly $4,600 on maintenance costs alone by transitioning away from driving a gas vehicle.[51]

USPS's former TCO analysis featured several assertions that would have to be rectified in an updated calculation. The claim that BEVs have a higher total cost of ownership than fossil fuel-powered delivery vehicles conflicts with nearly every other existing independent analysis. For example, Atlas Public Policy suggests that full electrification could save USPS $4.3 billion over the vehicles' lifetimes.[52] Atlas also found that 97% of USPS delivery vehicles can be electrified at a lower total cost of ownership than comparable fossil fuel-powered vehicles. OIG also determined USPS could cost-effectively electrify much of its fleet.[53]

When USPS issued its RoD, it also cited that it would continue to evaluate its financial resources. The Postmaster General recently remarked that electrifying the full delivery fleet would cost approximately $3.3 billion more than procuring an updated fossil fuel-powered fleet (or, $11.6 billion versus $9.3 billion).[54] While this number is a high overestimate, it is nevertheless a small fraction of the nearly $50 billion that USPS saved due to the passage of the Postal Service Reform Act of 2022.[55] Through the IRA, the USPS was allocated $3 billion for electric vehicle delivery fleet procurement and associated infrastructure.[56] The short-term solvency of USPS is no longer in doubt, and its financial situation is drastically different than it was when the RoD was issued.

Finally and most explicitly, USPS should reassess its projected costs for gasoline. The FEIS showed that USPS selected an extremely low fuel cost point from which it modeled its future gasoline price projections. USPS based its benchmark gasoline cost on the October 12, 2020 national average, when gasoline costs $2.19 per gallon. This peak-pandemic price was near a

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[49] Heisel, Rebecca. 16 Nivember 2020. "Consumer Reports Study Finds Electric Vehicle Maintenance Costs Are 50% Less Than Gas-Powered Cars," Great Plains Institite. https://betterenergy.org/blog/consumer-reports-study-finds-electric-vehicle-maintenance-costs-are-50-less-than-gas-powered-cars/

[50] Burhman, Andrew; Gohlke, David; Rush, Luke; et. al. April 2021. "Comprehensive Total Cost of Ownership Quantification for Vehicles with Different Size Classes and Powertrains." Argonne Nationak Laboratory. https://publications.anl.gov/anlpubs/2021/05/167399.pdf

[51] "EVs Offer Big Savings Over Traditional Gas-Powered Cars," Consumer Reports, (October 8, 2020) https://www.consumerreports.org/hybrids-evs/evs-offer-big-savings-over-traditional-gas-powered-cars/

[52] Di Filippo, James; Nigro, Nick; Satterfield, Charles. August 2021. "Federal Fleet Electrification Assessment." Atlas Public Policy. https://atlaspolicy.com/wp-content/uploads/2021/09/Federal_Fleet_Electrification_Assessment.pdf

[53] Office of Inspector General. 17 March 2022. "Electric Delivery Vehicles and the Postal Service." United States Postal Service. https://www.uspsoig.gov/sites/default/files/document-library-files/2022/RISC-WP-22-003.pdf

[54] Small, Jalen. 22 February 2022. "Is Louis DeJoy's Plan for New Gas Post Office Truck Fleet the Last Straw?" Newsweek. https://www.newsweek.com/louis-dejoys-plan-new-gas-post-office-truck-fleet-last-straw-1681429

[55] Unruh, Chip. 4 March 2022. "Congress Poised to Put 'Stamp of Approval' on Bipartisan Postal Reform." Office of Senator Sheldon Whitehouse. https://www.whitehouse.senate.gov/news/release/congress-poised-to-put-stamp-of-approval-on-bipartisan-postal-reform-#:~:

[56] Inflation Reduction Act Sec. 70002 United States Postal Service Fleet Electrification, p. 717 https://www.congress.gov/bill/117th-congress/house-bill/5376/text

5-year low.[57] Due to the inherent volatility of the fossil fuel market, no American can purchase gasoline for anything close to $2.19 per gallon today. This low-estimate modeling dramatically drove down USPS's long-term fuel cost assessments. Electricity is far cheaper than gasoline, and its price is far more stable because electricity is not subject to foreign supply chain interruptions. OIG reiterated this fact, writing in a report that, "Since 2000, gasoline and other petroleum products have experienced significant price fluctuations. Electricity prices, on the other hand, tend to show only cyclical price variations from summer months to winter months."[58] ZETA recently published a report showing that across the country, ICEVs are 3–5 times more expensive to drive per mile than BEVs. In many states, some ICEVs are 6 times more expensive to drive.[59]

USPS must assess electric vehicle acquisition from a Total Cost of Ownership perspective that improves upon its previous methodology. The presence of additional federal funding through the IRA and the BIL does not warrant an up-front cost assessment.

Charging Infrastructure

ZETA, along with the Office of Inspector General, Environmental Protection Agency, California Air Resources Board, and other stakeholders find a one-to-one charger-to-vehicle ratio to be both unnecessary and detrimental to maximizing electrification. OIG called attention to this within the USPS context specifically and found that "A smaller number of chargers could significantly reduce upfront costs."[60] OIG reported that a 1:1.5 charging ratio would yield a 6.8% cost reduction. Further, **a 1:2 charging ratio would result in price parity between ICEV and BEV vehicle acquisitions.** Despite this, USPS has chosen to remain firm on a one-to-one charging ratio.

In the Draft SEIS, USPS justifies its choice to reject stakeholder input regarding charging ratio saying, *"a lack of compelling data regarding battery conditioning needs and the impact on battery range from not continuously keeping BEVs connected to their chargers, particularly with respect to battery conditioning energy needs in very hot or very cold climates."*[61] USPS continues stating that it is *"unwilling to risk degrading our BEV ranges and thus compromising our Universal Service Mission."*[62] In a previous report, however, OIG had already found the opposite. OIG stated that:

[57] Gas Buddy. August 2023. "Gas Price Charts: 18 Month Average Retail Price Chart." Gas Buddy. https://www.gasbuddy.com/charts
[58] Office of Inspector General. 17 March 2022. "Electric Delivery Vehicles and the Postal Service." United States Postal Service. https://www.uspsoig.gov/sites/default/files/document-library-files/2022/RISC-WP-22-003.pdf
[59] ZETA. July 2022. "Electric Vehicles Are Far Cheaper To Drive Than Gas-Powered Cars." ZETA. https://8829857.fs1.hubspotusercontent-na1.net/hubfs/8829857/Zeta%20Report%20July.pdf
[60] Office of Inspector General. 17 March 2022. "Electric Delivery Vehicles and the Postal Service." United States Postal Service. https://www.uspsoig.gov/sites/default/files/document-library-files/2022/RISC-WP-22-003.pdf
[61] USPS Draft SEIS Public Comment Response 18, page B-307
[62] USPS Draft SEIS Public Comment Response 18, page B-307

> "rotating vehicles and recharging them every other night (or even less frequently) could be the best strategy for maintaining optimal battery health and maximizing battery lifespan, as each charging cycle puts stress on a battery. For this reason, a lower charger-to-vehicle ratio would not only save infrastructure costs but also preserve battery performance and longevity by potentially extending battery life and delaying battery replacement costs."[63]

Despite this feedback, USPS emphasizes its initial position in Public Comment Response 18 of the Draft SEIS. In the Draft SEIS, USPS adds a reason not to make the adjustment—a lack of resources. USPS claims it does *"not have resources to manage the movement of vehicles that need charging if dedicated chargers are not available - any change from one-to-one will incur additional costs for managing vehicle movement between charging stations across hundreds of sites."*[64]

ZETA questions the legitimacy of USPS's claim that the organization lacks resources to move vehicles to and from chargers. The Postal Service anticipates daily battery discharge between merely 17-29% for the BEV NGDV and 27-45% for BEV COTS. Therefore, switching vehicles from charger to lot could occur as a natural part of already hired drivers parking or charging after a drive, depending on the vehicles' needs. By choosing the one-to-one charging ratio, USPS has selected a scenario in which the upfront cost of EVs is less recoverable over the lifetime of the vehicles and ignored its own Office of Inspector General, the Environmental Protection Agency, ZETA, and other key stakeholders.

Charger Cost

Additionally, USPS assumes they will need to spend ~$18,000 per charger. OIG found this to be an inflated number that substantially increased the overall cost of electrification. OIG instead said they project it should cost $7,300 per charger. ZETA also noted this difference, as did Climate Reality Project, which said: "Rocky Mountain Institute (RMI) authored a 2019 report on charging infrastructure costs that priced a commercial level 2 charger between $2,500 to $4,900, with an outlier of $7,210.46 – a cost closer in alignment with the Inspector General's cost findings."[65] In our previous comment, ZETA drew USPS's attention to The General Services Administration (GSA), which offers bulk purchase agreements for L2 chargers at a fraction of USPS's estimated costs.[66]

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[63] Office of Inspector General. 17 March 2022. "Electric Delivery Vehicles and the Postal Service." United States Postal Service. https://www.uspsoig.gov/sites/default/files/document-library-files/2022/RISC-WP-22-003.pdf
[64] Office of Inspector General. 17 March 2022. "Electric Delivery Vehicles and the Postal Service." United States Postal Service. https://www.uspsoig.gov/sites/default/files/document-library-files/2022/RISC-WP-22-003.pdf
[65] Nelder, Chris; Rogers, Emily. 2019. "Reducing EV Charging Infrastructure Costs", Rocky Mountain Institute. https://rmi.org/ev-charging-costs.
[66] Transportation and Logistic Services."Electric vehicle charging stations." United States General Services Administration. https://www.gsa.gov/buy-through-us/products-services/transportation-logistics-services/fleet-management/fleet-electrification/electric-vehicle-charging-stations?gsaredirect=evse

Conclusion

We again thank USPS for the opportunity to comment on its draft SEIS for NGDV acquisitions. While this SEIS does indicate a positive step forward, we remain concerned by efforts by USPS to contort its modeling and data in order to weave a false narrative around BEV feasibility in the 2024 to 2026 time frame. Given the environmental, public health, and economic benefits of BEVs, we strongly urge USPS to analyze fleet scenarios that result in BEV penetrations higher than 62%.

ZETA thanks you for your attention to these comments and is available should you have any additional questions.

Sincerely,

Albert Gore
Executive Director
Zero Emission Transportation Association