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Mr. Davon Collins, Environmental Counsel

United States Postal Service

475 L'Enfant Plaza SW, Office 6606

Washington, DC 20260-6201

NRDC's Comments on the U.S. Postal Service's Notice of Intent to Prepare a Supplemental Environmental Impact Statement to the Next Generation Delivery Vehicles Acquisitions Final Environmental Impact Statement

Dear Mr. Collins:

The Natural Resources Defense Council (NRDC) appreciates the opportunity to comment on the U.S. Postal Service's (USPS) Notice of Intent to Prepare a Supplement to the Next Generation Delivery Vehicles Acquisitions Final Environmental Impact Statement (SEIS).¹ NRDC is a national non-profit organization founded in 1970 dedicated to protecting public health and the environment, with more than 3 million members and activists nationwide. NRDC works in both state and federal forums to reduce emissions from both the electric sector and transportation sector, the latter of which is a sector that accounts for the largest share of greenhouse gas (GHG) emissions in the United States. Additionally, this sector is responsible for emissions of large quantities of health-harming air pollutants, like nitrogen oxides (NOx), which contribute to the formation of particulate matter pollution and ground-level ozone, and lead to soot and smog.

In January of 2015, the Postal Service began the process of replacing its aging delivery vehicle fleet of roughly 212,000 vehicles. This fleet is largely comprised of vehicles that were specifically designed and built for the Postal Service's delivery operations, in the case of some vehicles, over 30 years ago. This process unlocked a key opportunity for the Postal Service to

¹ 87 Fed. Reg. 35,581 (June 10, 2022); 87 Fed. Reg. 43,561 (July 21, 2022) (extending public comment period).

substantially mitigate the harmful transportation-related pollution caused by its operations. Instead of embracing this and prioritizing investments in the electrification of its fleet, the Postal Service issued funding and a ten-year contract to Oshkosh Defense (“Oshkosh”) for the purchase of up to 90 percent of internal combustion engine (ICE) vehicles, doing so prior to conducting the National Environmental Policy Act (NEPA) mandated evaluation of the environmental impacts of this action.

The Postal Service’s replacement of its aging delivery fleet over the next ten years is vital to public safety, minimizing fuel and maintenance costs, reducing GHG emissions, and addressing air pollution. For this reason, NRDC welcomes the opportunity to provide comment on additional considerations that should be addressed in a SEIS, as the Postal Service expands the criteria for the vehicles it intends to replace alongside the planned replacement of the Long Life Vehicles (LLV) and Flexible Fuel Vehicles (FFV), that the agency previously sought comment on in its August 2021 NGDV Draft Environmental Impact Statement (DEIS).

The way in which the Postal Service conducted its original environmental review was deficient at every step. The agency received comments and feedback from multiple entities critical on this very point, urging them to avoid issuing a final decision that would be based on obsolete data, would ignore the latest in vehicle technology advancements, would make use of inflated costs, and would misrepresent benefits. Despite this, on January 7, 2022, the Postal Service issued the NGDV FEIS committing to the purchase plan laid out in the preferred alternative. Then in the months following this decision, the agency proceeded to alter its “preferred alternative” multiple times to adjust the mix of ICE and Battery Electric Vehicle (BEV) powertrains in the NGDV contract from 10 percent, to 20 percent, to not less than 50 percent of a smaller acquisition of NGDVs, further highlighting the baselessness on which its original analysis lied upon. Although these continuous shifts have gone in the right direction, they continue to make clear that the concerns shared by multiple parties about the agency’s previously preferred procurement strategy were merited, including that the current commitments would have also been possible under the agency’s previous financial condition and that this would have been known by the agency much earlier had a more thorough review been conducted initially.

Additionally, since most of NRDC's comments on the deficiencies within the DEIS for the Purchase of NGDVs were inadequately addressed by the Postal Service when they previously engaged in this acquisition process, this submission will also include additional information to both supplement our original comments on the DEIS and to provide new information to the record.

Failure to maximize the number of battery electric vehicles (BEVs) in the Postal Service's 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. Therefore, the Postal Service must use the supplemental review process to redo the original NGDV procurement environmental review to improve accuracy and comply with NEPA requirements and address the additional considerations it has identified since issuing the NGDV FEIS and Record of Decision.

The Postal Service Needs to Redo the NGDV EIS

The Postal Service manages one of the largest civilian fleets in the world.² It owns and operates a fleet of roughly 212,000 delivery vehicles, most of which were designed and built specifically for the agency. These purpose-built vehicles have exceeded their expected service lives, average over \$5,000 per vehicle in annual maintenance costs, and lack basic safety features such as airbags and anti-lock brakes. Shifting delivery needs, including increases in parcels and decreases in letter volume, also no longer match the purpose for which the vehicles were designed.

For these reasons, it is important that the Postal Service replace these vehicles, but only do so after fully conducting a NEPA-compliant environmental review, that makes use of accurate and current data and supported assumptions and trends, and that evaluates reasonable alternatives to its "Preferred Alternative," as described in the NGDV FEIS. The Postal

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/>

Service’s original analysis failed to do this, as pointed out in our comments filed on October 18, 2021, for the NGDV DEIS, as well as by others.

For example, since NRDC submitted comments on the DEIS, the Postal Service has received correspondence from both the U.S. Environmental Protection Agency (EPA)³ and the White House Council on Environmental Quality (CEQ)⁴ – two federal entities with expertise in conducting environmental analyses – expressing serious concerns about the USPS’ procurement process and its flawed approach to its environmental review for the NGDV contract.

EPA found that the Postal Service’s DEIS was “inadequate and preclude[d] meaningful consideration of the proposed action and alternatives,” and directed the Postal Service to address several deficiencies it identified and to make a new DEIS available for public. Certain deficiencies identified by the EPA included the fact that the contract was awarded prior to the NEPA process, that critical features of the contract were not disclosed in the EIS, that certain data and economic assumptions were missing in the EIS, and that the EIS failed to consider a single feasible alternative to the proposed action.

Following the release of the FEIS, EPA determined that the Postal Service’s FEIS was inconsistent with the requirements of NEPA and its implementing regulations, specifically highlighting deficiencies, such as the FEIS not disclosing essential information underlying the key analysis of Total Cost of Ownership (TCO), in addition to finding fault with the analysis’ underestimated GHG emissions, its failure to consider more environmentally protective feasible alternatives, and that the analysis inadequately considered impacts on communities with environmental justice concerns.⁵ CEQ also found similar deficiencies, and on February 2, 2022, sent a letter to the Postal Service communicating “grave concerns” with the adequacy of the

³ Arroyo, Vicki. “EPA Letter to USPS.” Washington: U.S. EPA, February 2, 2022. <https://context-cdn.washingtonpost.com/notes/prod/default/documents/cb839d93-acf3-4390-8106-508a98e25b48/note/2b41bc0f-ccdb-4107-b59c-afdbd475640c.#page=1>

⁴ Mallory, Brenda. “CEQ Letter to USPS.” Washington: White House Council on Environmental Quality, 2 Feb. 2022. https://www.whitehouse.gov/wp-content/uploads/2022/02/USPS_letter_02022022.pdf

⁵ Arroyo (n3).

agency's environmental review for the procurement of its NGDVs and echoed EPA's calls for a SEIS.⁶

Additionally, the U.S. Postal Service's Office of Inspector General ("Inspector General") released a March 2022 report⁷ that detailed the suitability and benefits of electric vehicles for the USPS' long-term delivery needs. This report arrived at conclusions on route suitability, potential long-term cost savings, and other conclusions that ran contrary to those in the Postal Service's Record of Decision which rejected a higher percentage of BEV deployment as being a viable option – a point the Postal Service has since backtracked on. Most notably, the Inspector General's report affirmed that "electric vehicle technology is capable of meeting the Postal Service's needs," and that the adoption of electric delivery vehicles could save the agency money in the long-term,⁸ especially given that the total cost of ownership of electric fleets is lowered by the lower maintenance costs of BEVs compared to ICE vehicles, the increased uptime for the overall fleet, and the assortment of financial incentives that exist at the state and federal level to promote electric powertrain technology – especially in the medium- and heavy-duty sectors.

Furthermore, lawmakers in Congress have also raised numerous concerns with the EIS and the overall process that the Postal Service engaged in when conducting its initial analysis. These concerns resulted in congressional oversight actions – including an April 5, 2022, U.S. House of Representatives Oversight and Reform Committee hearing,⁹ public statements from lawmakers urging the agency to reevaluate its flawed analysis, a congressional oversight committee letter requesting the Inspector General review the Postal Service's compliance with NEPA,¹⁰ and other actions to try and seek a remedy for their concerns. While many of these

⁶ Mallory (n4).

⁷ "RISC Report on Electric Delivery Vehicles and the Postal Service." Arlington: Office of the Inspector General USPS, March 17, 2022. <https://www.uspsoig.gov/sites/default/files/document-library-files/2022/RISC-WP-22-003.pdf>

⁸ Ibid., 1.

⁹ "It's Electric: Developing the Postal Service Fleet of the Future." It's Electric: Developing the Postal Service Fleet of the Future. House Committee on Oversight and Reform, April 5, 2022. <https://oversight.house.gov/legislation/hearings/it-s-electric-developing-the-postal-service-fleet-of-the-future>.

¹⁰ "Letter to USPS on NGDV EIS and NEPA Compliance." Washington: House Committee on Oversight and Reform, March 14, 2022. <https://oversight.house.gov/sites/democrats.oversight.house.gov/files/2022-03-14.CBM%20et%20al.%20to%20Whitcomb-USPS%20IG%20re%20USPS%20NEPA%20Compliance.pdf>

concerns appeared to go ignored by Postal Service leadership, the concerns related to the agency's compliance with NEPA during the procurement process did make its way up, and the Inspector General indicated in its report that the office will be doing additional work in response to the request.

The Postal Service has not revoked the record of decision or Final EIS, and work continues under the contract with Oshkosh. This ongoing work unlawfully limits the alternatives available to the Postal Service in the SEIS. According to Oshkosh, the Postal Service *cannot modify* its initial order of 5,000 delivery vehicles to be produced in the first year of the contract, and that initial batch will consist of 4,000 gas-powered vehicles and 1,000 electric vehicles.¹¹ That irretrievable commitment of resources forecloses the Postal Service from considering a 100% electric fleet as an alternative in the SEIS process. If the Postal Service intends to purchase 50,000 vehicles from Oshkosh under this SEIS process, as it has announced,¹² the maximum percentage of EVs in that fleet could only be 92%. However, the Postal Service should consider a 100% EV alternative for the 50,000 NGDVs to comply with NEPA's requirement to evaluate alternatives. Additionally, Oshkosh has explained that the Postal Service has only until March 2023 to modify the mix of EVs and gas-powered vehicles for the remaining 45,000 vehicles in the order without causing production delays.¹³ Unless the Postal Service can complete the SEIS before that time or takes actions to change that deadline, such as by revoking the record of decision, the Postal Service may have further locked in its decision on the vehicle mix before completing the legally required NEPA review.

The flawed record of decision did repeatedly make one important point that the Postal Service should now honor—that the “Postal Service will acquire more BEV NGDVs should additional funding become available.”¹⁴ In the FEIS, the Postal Service explained that

¹¹ See Quigley Decl., ¶ 18, *NRDC v. DeJoy*, No. 22-cv-3442-AT, ECF No. 42 (S.D.N.Y. July 12, 2022).

¹² “Next Generation Delivery Vehicle (NGDV) Supplemental Environmental Impact Statement Scoping.” U.S. Postal Service, July 20, 2022. <https://uspsngdveis.com/>.

¹³ See Quigley Decl., ¶ 18.

¹⁴ ROD at 1-2; see also *id.* at 2 (“the acquisition of more BEV NGDV should additional funding become available”); *id.* at 3 (“[T]he Postal Service has ensured flexibility to increase the number of BEVs purchased to account for changing circumstances, such as the receipt of additional funding from whatever source.”); *id.* at 5 (describing flexibility to purchase more EVs “through the receipt of additional funding”).

“additional funding” could close the gap to allow for a fully electric fleet, noting a \$2.3 to \$3.3 billion gap.¹⁵ And the Postal Service explained it “would accelerate its electric vehicle strategy by increasing the percentage of BEV powertrains if . . . it receives additional funding for this purpose.”¹⁶ According to the FEIS, the Postal Service would be able to “reduce environmental impacts . . . through the acquisition of more BEV NGDVs should additional funding become available.”¹⁷ Upon passage of the Inflation Reduction Act, the \$3 billion in additional funding the Postal Service indicated it needed to go fully electric and reduce the environmental impacts of its fleet was allocated for this purpose.¹⁸ The Postal Service must stick to its word and use this funding to increase its percentage of electric vehicles; and even on the flawed original analysis this amount should be sufficient for the Postal Service to adopt a fully electric delivery fleet, rather than the 40 percent BEV fleet the agency expects it will procure. To be clear, all of this additional funding from Congress should be supplementary to the funding needed to meet the Postal Service’s commitment of 40 percent BEVs, rather than supplant the funding the agency previously dedicated to hitting this minimum fleet mix target.

For these reasons and more, it is important that the Postal Service correct the original analysis and the underlying assumptions in that analysis, including by revoking the record of decision and Final EIS to avoid unlawfully limiting the range of alternatives in the SEIS process, prior to beginning its review of new considerations that have developed that affect its overall fleet procurement strategy.

¹⁵ FEIS at i.

¹⁶ *Id.* at 3-1.

¹⁷ *Id.* at 7-1.

¹⁸ See *Inflation Reduction Act of 2022*. Bill (2022). Sec. 70002

Potential Delivery Network Refinements and Route Optimization Efforts

One of the considerations that the Postal Service seeks comment on is the following:

“In response to potential delivery network refinements and route optimization efforts being considered for the postal delivery network, the SEIS would analyze the potential impacts to the delivery fleet from such changes, including whether the changed route length and characteristics warrant an increase in the minimum number of BEV NGDVs to be procured under the Proposed Action set forth in the FEIS.”

As the Postal Service prepares to acquire a new delivery fleet, make refinements to its current delivery network and routes, and begin to analyze the potential environmental impacts of the updated preferred alternative for its procurement strategy, the agency should take a thorough look at the considerable variation among delivery routes and other factors (such as route length, local energy prices, the ratio of charges to vehicles and other points raised in these comments) that can make a route either more or less suitable to BEV deployment. For example, in Table 2 in Appendix C of the FEIS, the Postal Service 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.¹⁹ By cross-referencing this data with an analysis of which routes are easiest to electrify, the Postal Service could outline a vehicle replacement schedule coupled with 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.

Additionally, incorporating staggered deployment over the next ten to fifteen years as BEV technology improves and upfront costs decline will more accurately reflect the long-term benefits of BEVs. We are pleased that the Postal Service has acknowledged this and intends to keep this in mind as a part of the agency’s updated procurement strategy, since as correctly noted by the agency, there will be changes to the cost profile and market availability of current

¹⁹ “Final Environmental Impact Statement.” Washington: United States Postal Service, December 2021. https://uspsngdveis.com/documents/USPS+NGDV+FEIS_Dec+2021.pdf

and future BEV technology.²⁰ This is especially notable given the steps that the United States has taken towards addressing battery supply chain challenges, such as invoking the Defense Production act to secure the critical minerals supply chains needed for BEV batteries, and the billions in federal-level investments via legislation, like the bipartisan Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act of 2022 (IRA), to accelerate and support domestic battery supply chains. Actions like these will reduce the gap between supply and demand and will positively impact the price of BEVs, making them increasingly cost-competitive on a total cost of ownership basis compared to ICE vehicles.²¹

The agency should also make use of a BEV deployment strategy that prioritizes replacing vehicles on suitable routes in environmental justice communities and in communities with air quality concerns, as well as on routes well suited for electrification—of which are the vast majority of Postal Service routes according to the FEIS and the Inspector General’s analysis. Doing this will allow the Postal Service the ability to maximize BEV cost-saving benefits through lower fuel and maintenance costs and target these benefits to the communities that need it most, while also strategically delaying BEV deployment for the miniscule portion of routes currently harder to electrify. Now that the Postal Service has indicated the SEIS will only analyze 50,000 NGDVs and 34,500 commercially available vehicles, it is even more important that the Postal Service prioritize deployment of EVs to environmental justice communities and to explain the criteria the Postal Service is using to determine where to deploy these vehicles.

With or without the additional considerations, the Postal Service’s delivery fleet procurement warrants an increase in the percentage of BEV NGDVs. In the Postal Service’s Record of Decision, the agency put forth explanations for why BEVs would not be a larger share of the proposed fleet, citing insufficient charging infrastructure, incompatible route length or type, and cost, but never backed these claims with substantive calculations or supportive

²⁰ We are concerned, however, that the Postal Service may not actually be able to take advantage of these changes because it has left in place the contract with Oshkosh Defense for the purchase of up to 165,000 vehicles, according to the USPS’s presentation at the August 8, 2022, public hearing. The Postal Service must consider alternatives through this SEIS process that would allow it to take advantage of lower BEV costs on future orders.

²¹ “*Global Supply Chains of EV Batteries.*” International Energy Agency, July 2022.

<https://iea.blob.core.windows.net/assets/4eb8c252-76b1-4710-8f5e-867e751c8dda/GlobalSupplyChainsofEVBatteries.pdf>

analysis. As previously noted, once the record of decision was issued, the agency then proceeded to continuously increase the percentage of the BEV mix.

For this reason, we find the agency's proposed deployment of a total of 40 percent new battery electric delivery vehicles to appear baseless, especially given the fact that this number has changed multiple times since the record of decision was released and each time vague reasons, like "delivery network and route optimization improvements" were listed as the rationale, with zero specifics provided. These specifics must be provided in the SEIS. The agency also claimed that the ultimate number, configuration, and timing of the NGDVs procured would depend on the final needs of the Postal Service and the supplier's production and delivery capabilities without analyzing other reasonable alternative mixes of powertrains. This baselessness is even more apparent when paired with Inspector General's analysis, which points to the overwhelming suitability of electric vehicles to meet the Postal Service's needs for delivery vehicles and to do so in a manner that could save the agency money in the long term – at least for certain delivery routes. Given this, the agency should certainly be capable of looking at and planning for the procurement of fleet mixes that are significantly higher than 40 percent – especially since Congress has allocated more funding towards this cause.

Additionally, in its original review, the Postal Service claimed that the timing, type, and number of NGDVs and their deployment were based on the "best available current information" for the preparation of the FEIS, but we know this is not accurate since the inaccurate assumptions the agency makes in its analysis on battery range alone refute this. For example, in the Postal Service's Record of Decision, the agency claimed that 12,500 routes could not be electrified based on the assumed 70-mile range of BEVs. First, the average Postal Service delivery route is 24 miles and only two percent of delivery routes are 70 miles or longer.²² Second, even with if a 70-mile range reflects current battery technology (which it does not) and that battery technology will not improve over the ten-year life of the contract (which it will), BEV technology is still more than capable of meeting the Postal Service's requirements for

²² "RISC Report on Electric Delivery Vehicles and the Postal Service." Arlington: Office of the Inspector General USPS, March 17, 2022. <https://www.uspsoig.gov/sites/default/files/document-library-files/2022/RISC-WP-22-003.pdf>

delivery vehicles. Specifically, to this point, EPA has data going back 10 model years that shows the consistent trend in the increase in battery range - starting at just 68 miles in 2011 and not climbing above 200 miles until the 2016 model year. Although this data was specific to light-duty, the trend it illustrates is the same across vehicle classes²³ Third, 9 percent of the Postal Service's delivery routes are between 40 miles and 70 miles long and the Inspector General predicts that these routes would be good candidates for BEVs, due to the likely cost savings per-mile compared to the NGDV ICE vehicles that could be deployed on this route.²⁴ And now the Postal Service is only proposing to analyze the purchase of 84,500 new vehicles through this SEIS, which allows the Postal Service to avoid any route-length limitations from a small number of routes that exceed 70 miles.

The Inspector General's report also asserts that of the roughly 177,000 routes served by Postal Service-owned delivery vehicles across the country, that only around 2,600 of these routes (1.5 percent of the total) may be poorly suited to electric vehicle deployment because they are longer than the assumed 70-mile range of an electric NGDV or include terrain limitations like steep slopes, which can reduce the range of a fully charged battery. This again reaffirms the point that BEVs are more than capable of meeting the Postal Service's requirements for delivery vehicles – and certainly at a higher composition of the fleet than the agency originally committed to.

One of the gravest of errors in the Postal Service's original analysis, were the assumptions on BEV range, which are simply wrong. There are currently multiple commercial "off-the-shelf" (COTS) van-type (class 2b-3) vehicles on the market that are similar in size to a postal delivery vehicle and are rated to reach at least 100 miles on a single charge,²⁵ certainly enough to warrant some consideration for the delivery routes that far exceed the average. Unfortunately, the Postal Service claims that in its original analysis they "considered" and

²³ Edelstein, Stephen. "EPA Finds Median Range of EVs Dropped in 2021." Green Car Reports, January 17, 2022. https://www.greencarreports.com/news/1134758_epa-finds-median-range-of-evs-dropped-in-2021#:~:text=The%20median%20range%20of%20new,in%20a%20short%20blog%20post.

²⁴ "RISC Report on Electric Delivery Vehicles and the Postal Service." Arlington: Office of the Inspector General USPS, March 17, 2022. <https://www.uspsoig.gov/sites/default/files/document-library-files/2022/RISC-WP-22-003.pdf>

²⁵ Ibid., 5.

rejected all COTS van-types, reasoning that because they were all left-hand-drive (LHD) vehicles, they could not support curb-side delivery. These initial claims are also walked back in the agency's notice of intent to conduct an SEIS, as the Postal Service now shares that it intends to acquire up to 20,000 left hand-drive COTS vehicles within the next two years, to be more responsive to "dynamic market conditions" and a "critical need to accelerate the replacement of aged and high-maintenance LLVs and FFVs in the near term." The Postal Service also shares that this procurement will include "as many BEVs as are commercially available and consistent with [the agency's] delivery profile." In doing this, the agency should make available the underlying data and assumptions it uses to evaluate how many of the 20,000 COTS vehicles are consistent with its delivery profile and the agency should clearly address and share details on the limitations on the current market availability for BEVs that they believe warrants the procurement of up to 14,500 right-hand drive COTS ICE vehicles, rather than COTS BEVs or purpose-built NGDV BEVs. Based on the Postal Service's July announcement, only about 8,800 of these COTS vehicles, or 25 percent of the COTS portion of the fleet, would be EVs. The Postal Service must consider higher percentage EV fleets for the COTS purchase of the analysis. Additionally, the Postal Service must explain how long it plans to use the COTS vehicles for. It is unclear from the July announcement what the Postal Service expects the vehicle life will be for COTS vehicles and whether these purchases are intended to be stopgap measures or longer-term investments.²⁶

The Postal Service at the very least must properly consider alternatives that would acquire BEVs for all routes under 70 miles and alternatives that would use hybrids or COTS electric vehicles with longer battery ranges to serve appropriate routes longer than 70 miles, and we reiterate that the Postal Service should consider these alternatives in the SEIS process—particularly now that the Postal Service is evaluating a smaller number of vehicles, which allows it to avoid any route-length limitations. We appreciate that, per the Notice of Intent these comments are responding to, that the acquisition of LHD COTS are a consideration that are

²⁶ According to the Postal Service's analysis in the Final EIS, "the body and frame of COTS ICE have been found to last eight to 12 years on average, while the body and frame of the NGDVs are designed to last a minimum of 20 years." FEIS at iv.

once again under review in the SEIS, as the Postal Service seeks to accelerate its replacement of the aged and high-maintenance LLV and FFVs.²⁷ The Postal Service should also consider an alternative for EVs that use different battery sizes, such as a smaller battery size for vehicles deployed in areas with short routes and a larger battery size for vehicles deployed in areas with long routes, to minimize EV cost.

Additionally, the FEIS claims that the proposed battery electric NGDVs weighing 8,877 pounds (lbs) with a 95 kilowatt-hour (kWh) battery can travel about 70 miles on a single charge. Confusingly, the FEIS 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 NGDVs 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 FEIS. 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.²⁸ Both versions can fully charge in under three hours using a DC fast charger and are commercially available. Additionally, General Motors has made commercially available an all-electric delivery van called the BrightDrop Zevo 600 which also boasts a significant range at around 250 miles on a full charge and is in use by FedEx. Again, this demonstrates how the Postal Service's original analysis is premised on questionable and incorrect data, inaccurately representing the capabilities and benefits of BEV technology. The Postal Service must correct these deficiencies and use current information on these costs and trends to conduct an adequate SEIS review.

There are also various case studies and examples of battery technology meeting postal service needs in parts of the world that experience extreme environmental conditions that have historically been seen as unfavorable to BEV technology. One example is Posten Norge, the

²⁷ "Notice of Intent to Prepare a Supplement to the Next Generation Delivery Vehicles Acquisitions FEIS." Federal Register. United States Postal Service, June 10, 2022. <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>.

²⁸ Lightning eMotors, *Lightning Electric Transit Cargo Van*. Available at: https://californiahvip.org/wp-content/uploads/2021/07/FT3-43-86Cargo_specsheet_2021.pdf

Norwegian postal service, which continues to make investments towards going fully electric, including in regions of the country that experience frigid weather year-round (with average highs in the negative degrees Celsius range).²⁹

As the Postal Service ponders the first of its considerations for comment, it should consider our comments above, as well as make available for comment in the resulting SEIS, specific details of the potential delivery network refinements and route optimization efforts the agency intends to explore. Only by making this information available can the public provide the best information and data to help address the question of potential impacts to the delivery fleet from such changes.

Charging Infrastructure Considerations

The cost and strategic siting of charging infrastructure is an important consideration to determine the percentage of the fleet mix of BEV and ICE NGDVs for procurement and deployment purposes.

In the Postal Service's FEIS the agency claimed that "for BEVs, interior and exterior construction to accommodate charging infrastructure and charging stations would be needed."³⁰ However, the agency then acknowledged 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."³¹ The analysis claimed that the cost of charging infrastructure was a reason to limit the deployment of BEV NGDVs. However, the agency also claimed that "[t]he extent and types of alterations necessary for each Postal Service facility location [were] not known at [that] time."³² The ease and cost of installing infrastructure is largely location-specific, depending on the existing distribution system, the number of desired charging stations, supportive utility programs, and local permitting processes. Since the agency's original analysis failed to evaluate

²⁹ Toll, Micah. "Regenerative Braking: How It Works and Is It Worth It in Small EVs?" Electrek, April 24, 2018. <https://electrek.co/2018/04/24/regenerative-braking-how-it-works/>.

³⁰ FEIS at 4-4.

³¹ *Ibid.*

³² *Ibid.*

where BEVs would be deployed and which facilities would need to be altered, its claims that charging infrastructure is a barrier to the procurement and use of a substantial amount of BEVs is unsupported. This fact is further affirmed by the agency's claims in its Notice of Intent that an SEIS needs to be conducted given the "potential delivery network refinements and route optimization efforts" being considered, among other considerations. And with the announcement that the Postal Service now "intends to pursue a multiple step acquisition process" and therefore "anticipates evaluating and procuring smaller quantities of vehicles over shorter time periods,"³³ it is even more important for the Postal Service to consider alternatives, impacts, and costs based on where it intends to employ the delivery vehicles, both NGDV and COTS, that it intends to acquire and deploy through the SEIS.

Additionally, the total number of charging stations that will be needed to support this fleet is likely lower than the Postal Service projected, especially since vehicles can share charging stations and due to other considerations like the frequency of which the vehicles will need to charge. According to the Inspector General's report, the Postal Service only considered a one-to-one ratio of chargers to vehicles – an assumption not previously disclosed in the DEIS or FEIS. As that report demonstrates, it is possible that vehicles on many of the routes would not need to plug into a charger each night, and so one charging station per vehicle may be excessive and contrary to how real-world BEV charging would occur for an electrified Postal Service Fleet. In addition, even if every vehicle required charging every night, dual charging stations are readily available where one station can charge two vehicles simultaneously on one circuit. The Inspector General's report also makes note that the General Services Administration (GSA), the federal agency that leases out the vehicles used most in federal program fleets – although not the Postal Service – has determined that agencies do not need a one-to-one charger ratio for vehicles that do not require a full charge every night.³⁴

³³ 87 Fed. Reg. at 43,561.

³⁴ "RISC Report on Electric Delivery Vehicles and the Postal Service." Arlington: Office of the Inspector General USPS, March 17, 2022. <https://www.uspsoig.gov/sites/default/files/document-library-files/2022/RISC-WP-22-003.pdf>

For example, the Postal Service’s own estimates show that a NGDV with an electric powertrain would deplete only 20 percent of battery capacity on an average route. In the agency’s EIS, it stated that the average USPS delivery vehicle travels around 21 miles per day,³⁵ 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.”³⁶ The agency’s analysis also assumes an expected BEV range of 70 miles on a single charge and suggests that the vehicle will use about 14 miles of range a day. So, on average, a BEV as considered in the Postal Service’s analysis could charge once every 3 or 4 days without depleting the battery. Even though the Inspector General’s report assumes a 24-mile average postal delivery route, the conclusion is still the same – a one-to-one ratio of chargers to vehicles is excessive. Therefore, the Postal Service could rotate the charging of vehicles based on their battery levels. However, it is important to note that, as discussed in more detail throughout these comments, the actual ranges of these vehicles will be higher than 70 miles per charge.

Additionally, the Postal Service incorrectly asserted in its FEIS that “actual mileage is expected to be significantly less because of the frequent and repetitive starts and stops required for business and residential delivery.”³⁷ This is not accurate. In fact, depending on the vehicle’s use, the range could increase due to regenerative braking converting friction into energy,³⁸ especially given the fact that regenerative braking is actually more effective in frequent “stop-and-go” situations where there is repeated braking. Additionally, the Postal Service’s FEIS asserts that “low vehicle speed and precision stops required for delivery operations would minimize the opportunity to capture energy through regenerative braking.” While it is true that lower driving speed means less energy can be captured, this is just a product of natural physics, since a slower moving vehicle means less kinetic energy to convert. This shouldn’t be an excuse to dismiss this technology, especially since it still offers additional maintenance benefits that should be considered by the agency in its review. There are also

³⁵ EIS at G-2.

³⁶ EIS at 3-2

³⁷ EIS at 4-38.

³⁸ 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>

various factors and operating conditions that influence regenerative braking performance at low speeds. Given this, it is important that the Postal Service’s SEIS thoroughly review the considerations that impact the efficiency of regenerative braking at low speeds and that it conducts an analysis to detect the lowest speed threshold at which regenerative braking is effective in the BEVs under consideration, prior to making assumptions or decisions around this that influences the mix of BEV to ICE powertrains the agency acquires.³⁹

The Postal Service’s Record of Decision also states that its NGDV requirements “include the ability to charge to a minimum driving range of 70 miles within eight hours.”⁴⁰ However, based on the data that the Postal Service 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 4 to 10 hours.⁴¹ Moreover, since 84 percent of the Postal Service’s delivery fleet travels less than 32 miles per day, most BEVs could easily recharge to the “minimum driving range of 70 miles” well below or within 8 hours.⁴²

Because of these considerations, the Postal Service should consider alternatives for vehicle procurement that involve different charger-to-vehicle ratios for EVs, such as a 1-charger-for-1.5 vehicles or 1-charger-per-2 vehicles alternative, to make sure that the Postal Service considers the lowest cost, feasible versions of EV procurement. The Inspector General report explained that the EIS did not consider such alternatives; the SEIS should correct that deficiency.

³⁹ Heydari, Shoeib. “Maximizing Energy Harvesting in Electric Vehicles through Optimal Regenerative Braking Utilization.” Dissertation, ScholarWorks, 2020. https://scholarworks.unr.edu/bitstream/handle/11714/7668/Heydari_unr_0139D_13326.pdf?sequence=1&isAllowed=y

⁴⁰ FEIS at 3-2.

⁴¹ U.S. Department of Transportation, assuming a 60-kWh battery being fully discharged and 7- 19 kW, Level 2 charger. <https://www.transportation.gov/rural/ev/toolkit/ev-basics/charging-speeds>

⁴² “RISC Report on Electric Delivery Vehicles and the Postal Service.” Arlington: Office of the Inspector General USPS, March 17, 2022. <https://www.uspsoig.gov/sites/default/files/document-library-files/2022/RISC-WP-22-003.pdf>

Total Cost of Ownership Considerations Require Transparency & More Accurate Data

The Postal Service has repeatedly referred to cost as a major constraint for its fleet upgrade. In its Record of Decision, it states that although it fully recognizes that BEVs would provide environmental benefits compared to ICE vehicles, that the significant cost differential between the BEV and ICE vehicles and the Postal Service's financial condition were some of the determining factors for why the agency decided to move forward with its preferred alternative of purchasing a maximum of 90 percent gas-powered vehicles – a number we acknowledge has since changed per the agency's updated SEIS announcement. Even still, in its original analysis, the agency concluded that the 100 percent BEV alternative would cost \$2.3 to \$3.3 billion more than the agency's original preferred alternative, since the BEV NGDVs had a higher total cost of ownership ("TCO") compared to the internal combustion engine ("ICE") NGDVs.⁴³ However, without knowing each variable's underlying cost assumptions, it is difficult to substantiate that this is in fact the true cost difference between the two technologies. Light number crunching would suggest that the errors the Postal Service made in its calculations are multibillion dollar errors and immediately calls into question their topline number of \$2.3 to \$3.3 billion. For example, research from Atlas Public Policy has shown that electrifying the Postal Service Fleet could yield some \$4.3 billion in savings, so without the Postal Service's exact numbers, their TCO calculations remain questionable.⁴⁴ Further to this point, the agency's analysis assumed gasoline prices at \$2.19 per gallon, based on the nationwide average on October 12, 2020. This amount is well below the \$3.48 that most Americans are paying now, and pales in comparison to the electric equivalent of \$1.35 in fueling costs. Given this, these cost estimates are also gravely inaccurate, understated, and significantly skews the agency's TCO calculations.

Additionally, since the total cost of deploying BEVs instead of ICE vehicles is closely tied to the length of a delivery route, until the Postal Service completes its delivery network refinements and route optimization efforts, it is hard for the agency to appropriately gauge what the true TCO would be for this technology – a feat made even more difficult with the

⁴³ Ibid., 19.

⁴⁴ Di Filippo, James, Nick Nigro, and Charles Satterfield. Rep. Federal Fleet Electrification Assessment. Washington, D.C.: Atlas Public Policy, 2021. <https://atlaspolicy.com/federal-fleet-electrification-assessment/>

agency's use of inflated and obsolete data. For example, the Inspector General's report specifically calls out the Postal Service's model inputs for TCO as having a higher assumed cost for charging infrastructure. The Postal Service's TCO model predicts a cost of \$18,000 per charger based on previous experience installing chargers in 2017 and 2018 and on estimates that it received for additional charger installation in 2018. This differs from the Inspector General's assumed costs of around a total of \$7,300 per level 2 charger.⁴⁵ Additionally, the 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 \$7,210⁴⁶ – a cost closer in alignment with the Inspector General's cost findings.

The Record of Decision and FEIS also failed to provide any details on the timeline of vehicle purchases and replacements, aside from noting that acquisitions would occur over ten years starting in 2023. 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.

The previously mentioned flawed assumptions about the range capabilities of these BEV delivery trucks is important to note, especially given that the most expensive component for an EV is the battery.⁴⁷ The Postal Service's analysis of EV batteries (which will be discussed later in these comments) was flawed in multiple respects, most notably, the assumption that BEV delivery trucks would only be capable of a 70-mile-per-charge range. Not only does this static assumption not account for expected advancements in battery technology over the course of the decade-long contract period, but it does not even reflect current EV battery technology either. BEV cost savings compared to ICE vehicles are also strongly influenced by the number of operational years, longer-life BEVs, such as the proposed NGDVs, can expect to realize even

⁴⁵ "RISC Report on Electric Delivery Vehicles and the Postal Service." Arlington: Office of the Inspector General USPS, March 17, 2022. <https://www.uspsog.gov/sites/default/files/document-library-files/2022/RISC-WP-22-003.pdf>

⁴⁶ Chris Nelder and Emily Rogers, *Reducing EV Charging Infrastructure Costs*, Rocky Mountain Institute, 2019, <https://rmi.org/ev-charging-costs>.

⁴⁷ Arroyo, Vicki. "EPA Letter to USPS." Washington: U.S. EPA, February 2, 2022. <https://context-cdn.washingtonpost.com/notes/prod/default/documents/cb839d93-acf3-4390-8106-508a98e25b48/note/2b41bc0f-ccdb-4107-b59c-afdbd475640c.#page=1>

higher returns on investment. For example, since the total cost of deploying BEVs is tied closely to the delivery route, the longer the route, the more money saved. If the route is long enough, the cost savings will make up for the higher upfront costs of acquiring the BEVs and related charging infrastructure.⁴⁸

There are also numerous studies that 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.⁴⁹ In fact, this segment is often referenced as the most cost-effective electrification opportunity in the near term.⁵⁰ For example, a recent comprehensive TCO analysis by the California Air Resources Board (“CARB”)⁵¹ 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 2030.⁵² 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.⁵³ Notably, the CARB analysis includes charging infrastructure costs in the TCO.

⁴⁸ “RISC Report on Electric Delivery Vehicles and the Postal Service.” Arlington: Office of the Inspector General USPS, March 17, 2022. <https://www.uspsog.gov/sites/default/files/document-library-files/2022/RISC-WP-22-003.pdf>

⁴⁹ 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

⁵⁰ 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>

⁵¹ 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

⁵² 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.

⁵³ *Id.*

Yet contrary to the best available information, some of which was shared in our original comments, the Postal Service advanced a TCO comparison in its FEIS that showed substantially higher costs for BEV NGDVs, even 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 energy use through reduction in fuel consumption, since BEV NGDVs would not require gasoline and would save about 135 million gallons of fuel annually.” Additionally, the claim that a change in the agency’s financial condition would enable greater BEV deployment undermines the agency’s earlier argument that route characteristics and operational use are limiting factors – as addressed earlier in our comments. Even still, it is important that the agency live up to this commitment as it receives additional funding for this purpose, including the \$3 billion in funding that was included in the Inflation Reduction Act (IRA) for the purpose of electrifying the Postal Service’s fleet.

There is another potential cost to the Postal Service from the purchase of gas-powered vehicles—lost revenue. The largest source of the Postal Service’s revenue is from shipping and packages, including from online and traditional retailers. Retailers and consumers seeking to reduce their carbon footprint may choose alternatives to using the Postal Service based on the fleet makeup.⁵⁴ For example, several Package Coalition members – a coalition of businesses which includes Amazon, Etsy, and Zappos, among other businesses with business models relying on affordable and reliable package delivery options – have made commitments signaling that sustainable shipping practices are a priority for their companies and within their business models. Another example of this commitment can be seen in a comment made by the vice president of corporate social responsibility and sustainability at the National Retail Federation, who stated, EVs “reduce the carbon footprint. They meet a consumer desire. They meet the retailer’s desires to go to net zero. That seems like a no-brainer business decision.”⁵⁵ The Postal

⁵⁴ See Andrew Adam Newman, *Gassed mile: How the USPS’s decision not to purchase more electric vehicles could collide with retailers*, Retail Brew (July 15, 2022), <https://www.retailbrew.com/stories/2022/07/15/gassed-mile-how-the-usps-s-decision-not-to-purchase-more-electric-vehicles-could-collide-with-retailers>.

⁵⁵ *Id.*

Service should include the potential for losing revenue from acquiring gas-powered vehicles in its analysis.

To comply with NEPA’s requirements, inform the public, and reach an informed decision on the procurement of NGDVs, the Postal Service must update and disclose the specifics in its total cost of ownership calculation. The Postal Service must use current information on the cost of gasoline and use multiple government projections on future gasoline costs. The Postal Service must disclose information on battery cost assumptions. And the Postal Service must correct and disclose its calculations for maintenance costs of EVs and gas-powered vehicles—according to congressional testimony by staff of the General Services Administration, the Postal Service’s model, maintenance costs for EVs in the EIS were *higher* than those for gas-powered vehicles, which is inconsistent with research, interviews, and Postal Service documents.⁵⁶

The Agency’s Original NGDV Analysis Insufficiently Quantified BEV Benefits

An additional assumption that the agency should factor into its evaluation of its newly identified considerations is that BEVs are a flexible charging load that can provide grid benefits. Because BEV 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, BEV 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. For example, the U.S. Energy Information

⁵⁶ Transcript at 14. <https://docs.house.gov/meetings/GO/GO00/20220405/114593/HHRG-117-GO00-Transcript-20220405.pdf>

Administration's short term energy outlook forecasts increasing percentages of electricity generation coming from renewable sources, mainly due to increasing solar capacity expansions.⁵⁷ 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 Postal Service's initial analysis and further prejudiced the proposal against battery electric NGDVs.

The Postal Service should also include reductions in emissions as a benefit of electric vehicles, which the original EIS did not according to congressional testimony from General Services Administration staff.⁵⁸ Wherever possible, the Postal Service should monetize, analyze, or contextualize the emissions reductions of EVs. And these calculations must be accurate, especially for greenhouse gas emissions, and address the methodological flaws identified by the EPA in its letters on the original EIS.⁵⁹

Thoroughly Analyze the Implications of Procurement on the Postal Service Workforce

As part of the current network, Postal Service delivery vehicles operate from almost 19,000 facility locations around the country. It is important that the Postal Service thoroughly analyze and understand the impact that possible delivery network refinement and route optimization efforts will have on its workforce, in addition to the potential impacts these changes would have to its delivery fleet, especially since the agency's initial and flawed analysis also did not consider impacts from the production, as opposed to the operation, of the Postal Service's custom-built vehicles.

In a May 2022 keynote speech at the National Postal Forum, Postmaster General and CEO Louis DeJoy shared that the Postal Service's initiative to reinvent its delivery network and

⁵⁷ "Short-Term Energy Outlook." U.S. Energy Information Administration (EIA), August 9, 2022. <https://www.eia.gov/outlooks/steo/report/electricity.php>.

⁵⁸ Transcript at 14. <https://docs.house.gov/meetings/GO/GO00/20220405/114593/HHRG-117-GO00-Transcript-20220405.pdf>

⁵⁹ See EPA letter, Feb. 2, 2022, at 8-9: <https://cdxapps.epa.gov/cdx-enepa-ll/public/action/eis/details?eislid=354079>

improve its route structure will touch almost 500 network mail processing locations, 10,000 delivery units, 1,000 transfer hubs, and almost 100,000 carrier routes. Additionally, it was shared that the Postal Service would be aggregating much of its carrier base into Sort and Delivery Centers and that large carrier operations will be placed inside of Postal Service mail processing plants, which will reduce transportation and mail handlings, among other resulting impacts he claims will provide systemwide benefits.⁶⁰ Although the Postal Service asserts that these refinements will not change its retail presence, there isn't any indication given that this will also be the same for its workforce – especially for those employed in the sorting operations at any plants that will be impacted by shifts to larger, modernized facilities. Any thorough review should take this change into account.

Accelerating the Replacement of the Long Life Vehicles (LLV) and Flexible Fuel Vehicles (FFV)

The second consideration that has developed that the SEIS intends to address and requests comment on is the following:

“In response to its need to accelerate the replacement of aged and high-maintenance Long Life Vehicles (LLV) and Flexible Fuel Vehicles (FFV) in furtherance of its Universal Service Obligation, the Postal Service intends to analyze the potential impacts of replacing the remainder of its LLV/FFV fleet with a combination of NGDV and Commercial Off-the-Shelf (COTS) vehicles.”

In the agency's updated Notice of Intent for the SEIS, the Postal Services states that it “proposes to procure within a two-year period: (1) up to 20,000 left-hand drive (LHD) Commercial Off-the-Shelf (COTS) vehicles, including as many BEVs as are commercially available and consistent with [the agency's] delivery profile; and (2) up to 14,500 right-hand drive ICE COTS vehicles.” The Postal Service also states that it anticipates that because of its “critical and

⁶⁰ “Transcript of Postmaster General Louis DeJoy's Keynote Address During the 2022 National Postal Forum.” United States Postal Service, May 18, 2022. <https://about.usps.com/newsroom/national-releases/2022/0518-video-and-transcript-of-pmg-louis-dejoys-keynote-address-during-2022-national-postal-forum.htm>.

immediate need for delivery vehicles to fulfill [its] universal service mission, and the limitations on the current market availability for BEVs that can support [the agency's] daily delivery requirements," that it will be necessary for the agency to procure some ICE vehicles. This statement already indicates a level of bias and prejudice by the agency on the ability of BEV powertrains to meet the agency's immediate needs, and this bias should be avoided during the agency's environmental review. Any thorough analysis by the agency should include a COTS alternative with 100% EVs for whatever number of COTS vehicles it considers purchasing in the SEIS. The agency should also provide details on what consistency within its delivery profile looks like, so that the public can provide thorough comments and recommendations that best satisfies this requirement.

Additionally, the SEIS should provide detailed information about how the COTS vehicle acquisition figures were determined and should take a thorough look at the considerable variation among the qualifying delivery routes and other factors (such as route length, delivery points, local energy prices, the ratio of charges to vehicles and other points raised earlier in these comments) that can make a route either more or less suitable to BEV LHD COTS and BEV NGDV deployment.

Prior delivery acquisition strategy audit reports – such as the one from the Inspector General's office in August of 2020 – concluded that "fleet management best practices and industry standards for vehicle operations showed most commercial fleet acquisition strategies favor standardization or customization of COTS vehicles rather than purpose-build vehicles." This report also notes that the Postal Service has purchased LDH COTS vehicles to replace right-hand and left-hand drive vehicles" within the fleet in the past, noting that employing this acquisition strategy has in the past allowed the Postal Service to keep costs down.⁶¹ As the Postal Service begins its analysis to determine the fleet mix of BEV or ICE COTS powertrains versus BEV or ICE NGDVs to meet the needs of accelerating the replacement of the aged and high-maintenance LLV/FFVs, it should do so making use of updated cost and technological data and assumptions, rather than relying on previous data compiled during prior acquisitions –

⁶¹ Rep. *Audit Report: Delivery Vehicle Acquisition Strategy*. Washington, D.C.: United States Postal Service, 2020. <https://www.uspsoig.gov/sites/default/files/document-library-files/2020/19-002-R20.pdf>

especially as it relates to BEV powertrains, which are increasingly becoming more affordable, continue to increase in range capability year after year, and were likely not evaluated in the previous acquisition strategy along with the ICE, Mild Hybrid or Plug-in Hybrid Electric Vehicles (PHEVs) that were considered.

Assessment of the Environmental Impacts from Replacing other High-Maintenance non-Long Life Vehicles and Flexible Fuel Vehicles

The final consideration that has developed that the SEIS intends to address and requests comment on is the following:

Assessing “the potential impacts from replacing other aged and high-maintenance non-LLV/FFV postal delivery vehicles. This analysis would include consideration of the acquisition of: (1) up to 60,000 right-hand drive non-NGDV purpose-built vehicles with ICE and BEV powertrains to place on routes currently utilizing personally owned vehicles (POVs), for rural route growth, and for routes that require a vehicle less than 111 inches tall; and (2) the acquisition of up to 26,000 left-hand drive COTS with ICE and BEV powertrains to replace existing COTS delivery vehicles that will reach the end of their service lives within the next ten years.”

In the Postal Service’s previous review for the NGDVs, there were serious inadequacies with its analysis of emissions reductions. It failed to address the urgency of transitioning to zero-emission vehicles, such as BEVs, or to describe the inequitable harm caused by ICE vehicle pollution. It is important that in its supplemental review, that the Postal Service addresses this for both the NGDVs procurement to replace the LLV/FFVs and for the vehicle acquisitions related to replacing its non-LLV/FFV fleet.

For example, in the agency’s previous review for the EIS, when emission reductions from BEVs were quantified, the agency grossly undervalued them in the final proposed action. Additionally, the agency’s analysis failed to monetize the air quality benefits and ignored the

impact new ICE vehicles will have on locking in higher emissions over the lifetime of these long-life assets. These mistakes should not be replicated in the agency's SEIS.

Additionally, in the original analysis for the NGDVs procurement, the agency failed to analyze the emission impact of its proposed acquisition plan. The analysis provided a basic comparison of emission reduction benefits from the proposed action and the alternatives considered, but it completely lacked any significant analysis. This was 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 ("NO_x") pollution, which contributes to the formation of both particulate matter ("PM") pollution and ozone (i.e., smog).⁶² Smog and 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,⁶³ pregnancy complications and adverse reproductive outcomes,⁶⁴ cardiac and vascular impairments,⁶⁵ and heightened cancer risk.⁶⁶ Finally, ICE

⁶² EPA, *Nitrogen Dioxide (NO₂) Pollution*, <https://www.epa.gov/no2-pollution> (last accessed July 28, 2021).

⁶³ 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>.

⁶⁴ 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>.

⁶⁵ 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 Env'tl. Med.* 523 (Aug. 2013), available at <https://pubmed.ncbi.nlm.nih.gov/22992341/>.

⁶⁶ 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-*

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.⁶⁷ Emissions 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.⁶⁸ Yet none of these life-or-death impacts were evaluated in the EIS and they must be evaluated in the SEIS for both the NGDV procurement and the vehicles the agency plans to procure to address the second and third considerations raised for vehicle acquisitions related to accelerating the replacement of the LLV/FFVs and non-LLV/FFV postal delivery vehicles.

Additionally, where emission impacts were reviewed in the original analysis, the agency's emission reduction calculations appeared to be irrelevant to the final proposal and made use of flawed methodology. As the Postal Service undergoes its environmental assessment, it is important that it monetize and contextualize the air pollution reduction benefits for various fleet mix scenarios (such as, identifying and valuing avoided hospital visits, avoided respiratory and cardiovascular diseases, avoided premature mortality, etc.), which would further demonstrate the benefits of BEVs relative to ICE NGDVs and further make the case for a higher percentage of BEVs in the fleet mix.

Engine Exhausts and Some Nitroarenes, 13 *The Lancet Oncology* 663 (June 2012), available at [http://doi.org/10.1016/S1470-2045\(12\)70280-2](http://doi.org/10.1016/S1470-2045(12)70280-2).

⁶⁷ 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.

⁶⁸ 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 Ebusu, *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/>.

Conclusion

It is important that Postal Service correct its original analysis and the underlying assumptions in that analysis, prior to beginning its review of any of the new considerations that may have developed that affect its overall fleet procurement strategy, that it is requesting comment on in its Notice of Intent.

The Postal Service missed a critical opportunity with its NGDV acquisition to participate in the whole-of-government approach to take meaningful action to address the transportation sector-related emissions that are impacting our climate and public health. This decision was made following a deeply flawed and deficient environmental review process, that made use of poor and unsubstantiated data and resulted in a contract being awarded in an opaque and non-NEPA-compliant manner. The entire review and the resulting FEIS was arbitrary and capricious, made use of improperly accounted for charging infrastructure needs, costs, and route electrification feasibility, ignored currently available data and technology for its BEV TCO calculations, improperly calculated emission reduction benefits, and failed to incorporate those benefits into the determination of its final action. In addition, the review failed to include purchase and replacement schedules, which should have been a critical factor in the decision-making process, given the rapid improvements in BEV technology and the deterioration of USPS's current fleet. These deficiencies were grave and must be corrected in the SEIS.

Sincerely,

Britt Carmon, Clean Vehicles and Fuels Senior Advocate

Frank Sturges, Attorney

Patricio Portillo, Clean Vehicles and Fuels Senior Advocate

Tom Zimpleman, Senior Attorney

David Pettit, Senior Attorney