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House Oversight and Accountability Committee Subcommittee on Economic Growth, Energy Policy, and Regulatory Affairs Hearing on "Driving Bad Policy: Examining EPA's Tailpipe Emissions Rules and the Realities of a Rapid Electric Vehicle Transition"

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Thank you, Chair Fallon, Ranking Member Bush, and members of the subcommittee. I appreciate the opportunity to appear today to provide testimony on the benefits of electrifying the vehicle fleet and updating greenhouse gas standards for vehicles.

Reducing emissions from the transportation sector is a huge opportunity to improve public health, fight climate change, and build domestic supply chains.

Transportation is the No. 1 source of greenhouse gas emissions, and passenger and heavyduty vehicles are the largest contributors within transportation. In addition to carbon pollution, heavy-duty vehicles emit or contribute to ozone, particulate matter, nitrogen oxides, sulfur oxides, carbon monoxide, and air toxics, all of which are especially harmful to children's developing bodies.¹ Fortunately, automakers and governments are investing in cleaner vehicles, and stronger vehicle emission standards can help solidify this progress.

Last December, the Environmental Protection Agency (EPA) finalized standards to reduce nitrous oxide emissions from heavy-duty vehicles that will save thousands of lives, and in April 2023, the EPA proposed new greenhouse gas standards for light- and medium-duty vehicles² and heavy-duty vehicles³ for model years 2027–2032. The greenhouse gas standards are technology-neutral and can be met through a variety of technologies, including: improved efficiency, conventional hybrids, plug-in hybrids, or electric vehicles (EVs), battery or fuel cell. Because of their lower costs, EVs are an attractive, cost-effective way to comply with these rules, and a likely compliance pathway could result in 67 percent of new light-duty vehicle sales being electric by 2032 and between 25 percent and 50 percent of new heavy-duty vehicles electrifying, depending on the vehicle class.

Both proposed greenhouse gas rules would deliver hundreds of billions of dollars in net benefits, including avoided deaths and hospitalizations and fuel savings. New light-duty vehicle standards from the EPA will cut pollution from light-duty vehicles by more than 56 percent⁴ in 2030, and EV buyers can expect to save an average of \$7,800–\$11,800 over the life of the vehicle. The heavy-duty standards would reduce emissions equivalent to eliminating all greenhouse gas emissions from the entire current U.S. transportation sector for a whole year. Heavy-duty vehicle owners can expect to see significant net savings from electrification and recoup any additional upfront costs in fewer than three years for most vehicle classes.⁵

The world is moving to cleaner fuels and EVs, and the United States can be a leader in policy, technology development, and vehicle sales.

Without strong climate, labor, and industrial policy that positions the United States to be a leader in EV technology and production, the United States will lose out to global competitors, especially China, which has been investing heavily in EV technology and manufacturing. The United States is now taking the necessary actions to catch up to the competition and make up for lost time through the combination of strong vehicle standards from the EPA; charging infrastructure investment from the Infrastructure Investment and Jobs Act (IIJA), also known as the bipartisan infrastructure law; and the investments from the Inflation Reduction Act to onshore manufacturing and build a robust domestic supply chain.

Inflation Reduction Act and IIJA investments are making EVs more affordable for low- and middle-income households, whether they are buying a new or used vehicle, and are supporting manufacturing and procurement of electric trucks, buses, and charging infrastructure. Through two consumer-facing credits, charging investments, automotive manufacturing investments, and tax incentives for every stage of battery manufacturing, from critical mineral production through processing to assembly, these investments are setting a productive and competitive course for the United States. A few key examples include:

- The Inflation Reduction Act incentivizes apprenticeships and prevailing wages through the qualifying advanced energy project credit⁶ (Section 48C) and the alternative fuel vehicle refueling property credit⁷ (Section 30C) to support new construction jobs that pay well and prepare the American workforce for growth professions.
- The Advanced Manufacturing Production Tax Credit⁸ (Section 45X) supports domestically produced clean energy components, including battery components and critical minerals.
- The full tax credit for new EVs for consumers (Section 30D)⁹ is only available for vehicles that: 1) are assembled in North America; 2) have an increasing percentage (40 percent now, 80 percent by 2027) of the critical minerals utilized in battery components that are extracted or processed in the United States or a free trade agreement country or recycled in North America; 3) have the majority of battery components sourced in North America (increasing from 50 percent now to 100 percent in 2028); and 4) contain no battery components or critical minerals from any foreign entity of concern (starting in 2024 and 2025, respectively).
- The Inflation Reduction Act creates the new 25E tax credit for previously owned clean vehicles. The credit provides up to \$4,000 for the purchase of a used clean vehicle. Importantly, the credit can also be transferred, allowing those with lower tax liability to still benefit from the credit.
- The Inflation Reduction Act creates the new 45W commercial clean vehicle credit. The credit provides up to \$7,500 for the purchase of a new clean vehicle under 14,000 pounds or up to \$40,000 for vehicles weighing more than 14,000

pounds. The credit can also be monetized by tax-exempt entities.

- The Inflation Reduction Act authorizes \$1.29 billion for the U.S. Postal Service (USPS) to purchase zero-emissions delivery vehicles. Another \$1.71 billion is authorized to support the purchase, design, and installation of charging and other required infrastructure. In December 2022, the USPS announced plans to deploy 66,000 EVs by 2028.
- The Infrastructure Investment and Jobs Act created the Clean School Bus Program housed at the Environmental Protection Agency. The program will provide \$5 billion over 5 years (FY 2022-2026) to replace school buses with low and zero emission models.¹⁰
- IRA invests \$3 billion to support the manufacture of eligible vehicles and components under the Advanced Technology Vehicle Manufacturing (ATVM) Loan Program.¹¹ IRA also removes the \$25 billion cap on ATVM loans. The program provides direct loans for manufacturing facilities that produce light-, medium-, and heavy-duty vehicles, locomotives, and maritime vessels.
- IRA provides the Department of Energy's Loan Program Office \$250 billion in increased loan authority. That brings the loan program office to \$387 billion in loan authority to finance innovative clean energy technologies.¹²
 IRA provides \$3 billion through the Neighborhood Access and Equity Grant Program to increase access to mobility that is safe, affordable, and equitable. The program sets aside \$1.3 billion for grants to economically disadvantaged or underserved communities.¹³
- Inflation Reduction Act invests \$4 billion¹⁴ to support the purchase of heavy-duty zero-emissions vehicles, charging infrastructure, and workforce training, including at ports.

EVs provide significant benefits to consumers and public health

Electrifying the vehicle fleet provides many advantages over internal combustion engines, including climate and health benefits; a more resilient and flexible electric grid; a more secure and stable energy supply; and consumer savings on fuel and maintenance.

1. EVs are better for the climate and public health

Even with the current grid, greenhouse gas emissions from driving an EV are on average 63 percent to 66 percent lower¹⁵ than gas-powered vehicles. EVs also have lower emissions than gasoline-powered vehicles in 99 percent of the counties¹⁶ in the United States, and this will only further improve as the grid continues to lower its emissions. These emissions savings from driving more than make up for any difference in manufacturing emissions, leading to net savings within <u>21,000 miles for sedans and 18,000 miles for pickup trucks</u>—a savings rate that will continue to improve as the industry decarbonizes. Thanks to the lower pollution from EVs, electrifying transportation and energy generation would avoid 110,000¹⁷ premature deaths in the United States between 2020 and 2050.

2. EVs can enhance grid services and reliability and emergency response

EVs plugged into the grid can act as battery storage for the grid. A National Renewable Energy Laboratory study¹⁸ found that EV-managed charging delivered benefits, including decreased emissions, improved reliability, and lower power system costs. The study also found that EV-managed charging could provide thousands of dollars of value per EV every year. One of the potential grid services EVs can provide includes backup power or heating, as demonstrated recently in Texas blackouts and Florida power outages.¹⁹ California's recent Clean Car standards are expected to put 14 million EVs on the road by 2035; with vehicle-to-grid design and integration, the collective battery capacity²⁰ of those EVs could power all the homes in California for three days.

The increased electric load is marginal compared with the size of the grid, especially when charging is timed to maximize excess capacity. By 2030, the expected increase in EVs will only increase the electric load by 1 percent,²¹ and if sound charging policies are deployed, no new power plants will be needed. Workplace charging and well-timed home charging can eliminate the need for new power plants²² while also increasing the value and efficiency of solar and wind energy, which can produce excess energy when EVs could charge. Looking further ahead, a fully electrified light-duty fleet would only increase electricity demand by 1 percent per year, which is well below the historical 3.2 percent average annual growth rate for electricity generation over the past 70 years.²³

3. Electrifying transportation has national security benefits

The adoption of EVs displaced 95,890 barrels²⁴ of oil per day in the United States in 2021. This is equivalent to 52 percent²⁵ the amount of oil the United States imported from Russia that year. Why should we continue depending on foreign petrostate dictators for oil when we can generate electricity here at home? Electricity is a more diverse energy source that is homegrown and has greater price stability compared with gasoline and diesel. According to the U.S. Department of Energy,²⁶ "The multiple fuel sources used to generate electricity results in a more secure energy source for the electrified portion of the transportation sector." Last year, gasoline prices rose 10 times faster than electricity prices.²⁷ The EPA's proposed standards for light- and medium-duty vehicles are likely to save consumers \$1.3 trillion in gasoline costs between 2027 and 2055.

4. EVs save consumers money, and EV prices are already dropping

Many EVs already save consumers money. Switching to an EV can save the average driver up to \$2,600, per year according to Consumer Reports.²⁸ EVs cost an average of 60 percent less²⁹ to fuel than gas-powered vehicles and 50 percent less³⁰ to maintain. When gas prices are high (\$4.31/gallon), EVs save \$150 to \$216³¹ per month compared with gas-powered vehicles, and even when gas prices are low, annual EV fueling costs are \$470 to \$790 less³² compared with a gas-powered vehicle. These cost savings are significant, especially for rural households who spend more of their budget on transportation, drive further distances, and pay more in car

maintenance costs. In fact, a Union of Concerned Scientists study³³ showed that rural households may save twice as much from switching to an EV compared with their urban counterparts. While some EVs are still slightly more expensive upfront than their gasoline-powered counterparts, Inflation Reduction Act incentives have moved expected EV price parity³⁴ from 2027–2028 to 2023–2025, and monthly savings are realized immediately for vehicles that are financed.

Even without the Inflation Reduction Act's tax credits for new and used EVs, EV prices have dropped 7.5 percent³⁵ compared with last year. The average transaction price for an EV in April 2023 was \$10,096 lower than a year ago, and EV sales are increasing—up 26 percent in April, year over year.³⁶ The new tax credits for EVs assembled in North America provide up to an additional \$7,500 off new, nonluxury vehicles, and low- and moderate-income buyers can save \$4,000 on used EVs.³⁷ Automakers currently producing vehicles that qualify³⁸ for the new vehicle tax credit include: Cadillac, Chevrolet, Chrysler, Ford, Jeep, Lincoln, Rivian, Tesla, and Volkswagen.

Good policy can ensure the transition to EVs is successful

The United States cannot afford to be left behind on electrification while the rest of the world transitions to cleaner technologies. To beat out global competition and avoid the worst impacts of climate change, we must move forward with technological and policy solutions that support working Americans and equitable access to EVs to ensure a just transition and a safer, more secure world for ourselves and future generations. The following solutions are essential for a just transition.

1. Support good jobs and unionization

Between August 16, 2022, and January 31, 2023, EV and battery manufacturing announced 87,131 new jobs,³⁹ and over the past eight years, companies have announced investments totaling more than \$120 billion in EV manufacturing, creating approximately 143,000 new jobs.⁴⁰ The percentage of domestic content in EVs⁴¹ increased steadily between 2013 and 2021, with EVs achieving an average of 45 percent domestic content in 2021. But "jobs numbers" alone are not sufficient to declare success. "Good jobs" have career growth potential, familysustaining wages and benefits, and the free and fair choice to unionize, and many Inflation Reduction Act investments align with supporting good jobs in the construction sector and domestic manufacturing. Pro-labor policies, such as those in the Inflation Reduction Act, should be extended to investments in manufacturing to include mandates or preferences for labor peace agreements and assurances of family-sustaining wages⁴² and benefits. This will help ensure that manufacturing companies that share the benefits of increased domestic production help realize the promise of good jobs throughout the EV and battery supply chains. It is also incumbent on the industry-from the companies that helped start the auto industry to newer ones-to not push down working standards, but instead partner with unions to lift up the livelihoods of the people who will build America's EV future.

2. Support U.S. manufacturing and supply chains to compete with China

President Joe Biden's investment agenda including the Inflation Reduction Act, the IIJA, and the CHIPS and Science Act, will be critical to building out the manufacturing of parts and components of EVs, as well as to the crucial mineral processing capacity within the United States and its democratic allies, and to securing the supply chains that produce and use critical minerals. While China has invested heavily in processing capacity, it does not dominate the global reserves of raw materials, and the opportunity to build out domestic and international supply chains onshoring and "friend-shoring" is enormous. Inflation Reduction Act provisions bolster the competitiveness of U.S. companies by requiring domestic⁴³ EV assembly, incentivizing the manufacturing of core parts and components, and critical mineral sourcing within the United States and with free trade partners,⁴⁴ which does not include China. China, North Korea, Iran, and Russia are each a "foreign entity of concern,"⁴⁵ and critical minerals sourced from these countries are excluded⁴⁶ from EV subsidies and credits. The Inflation Reduction Act directly prioritizes clean energy projects on American soil and reduces U.S. reliance on China⁴⁷ by bringing component manufacturing and critical mineral supply chains to the United States. As part of the onshoring of new jobs and facilities and friend-shoring of critical mineral processing, the United States must also ensure that we maintain and strengthen high environmental, public health, and labor standards to uphold the livelihoods hard won by unions and to win back the social license to operate mines and processing facilities.

3. Finalize strong greenhouse gas standards for vehicles

The EPA's proposed light-duty and heavy-duty vehicle standards are very achievable and provide net benefits. In fact, the standards could be even stronger—to be technology-forcing and accelerate clean vehicle deployment—but instead, they appear to closely line up with market trends and automaker investments that are already underway. Analysis from the International Council on Clean Transportation⁴⁸ finds that the Inflation Reduction Act and California's Advanced Clean Cars II⁴⁹ standards are likely to drive EV sales to 67 percent by 2032, even without standards from the EPA. Federal standards give the clear signal that market trends will continue and positions the United States as a leader rather than a laggard in developing and deploying EVs. Delaying or weakening these rules and policies supporting a smooth transition to EVs would set back efforts to fight climate change and put the United States at a competitive disadvantage.

4. Build convenient charging infrastructure

Since 2020, the number of EV chargers available to the public has increased 40 percent,⁵⁰ and that number will continue to rise as private retail,⁵¹ gas stations,⁵² automakers, and local governments⁵³ continue to invest in EV infrastructure. For example, 7-Eleven, the largest convenience store chain in the United States, is adding chargers across the country and Canada and has committed to expand access: "Once the network's expansion is complete,

7-Eleven will have one of the largest and most compatible fast-charging networks of any retailer in North America ... and make EV charging available to neighborhoods that have, until now, lacked access."⁵⁴ Earlier this year, the Biden-Harris administration announced new standards⁵⁵ for federally supported chargers that boost workforce standards and ensure reliability and ease of use. The bipartisan infrastructure law invests \$7.5 billion⁵⁶ in EV charging focused on highway corridors, while the Inflation Reduction Act tripled the maximum tax credit⁵⁷ for the installation of charging equipment for businesses.

Conclusion

Climate and worker-forward policy can align with global trends, automaker investments, and consumer demand to put the United States in the lead to accelerate EVs while ensuring good jobs, lowering both consumer costs and pollution, fostering a more resilient economy, and preventing the worst impacts of climate change.

Thank you for the opportunity to be here today. I look forward to your questions.

Endnotes

⁴ U.S. Environmental Protection Agency, "Biden-Harris Administration Proposes Strongest-Ever Pollution Standards for Cars and Trucks to Accelerate Transition to a Clean-Transportation Future," Press release, April 12, 2023, available at https://www.epa.gov/newsreleases/biden-harris-administration-proposes-strongest-ever-pollution-standards-cars-and.

⁶ Legal Information Institute, "26 U.S. Code § 48C - Qualifying advanced energy project credit," available at https://www.law.cornell.edu/uscode/text/26/48C (last accessed May 2023).

⁷ Interagency Working Group on Coal and Power Plan Communities and Economic Revitalization, "Alternative Fuel Vehicle Refueling Property Credit - 26 U.S. Code § 30C," available at https://energycommunities.gov/funding-opportunity/alternative-fuelvehicle-refueling-property-credit-26-u-s-code-¤-30c/ (last accessed May 2023). ⁸ Legal Information Institute. "26 U.S. Code § 45X - Advanced manufacturing production credit," available at

https://www.law.cornell.edu/uscode/text/26/45X (last accessed May 2023).

⁹ IRS, "Credits for New Clean Vehicles Purchased in 2023 or After," available at https://www.irs.gov/credits-deductions/credits-fornew-clean-vehicles-purchased-in-2023-or-after (last accessed May 2023). ¹⁰ U.S. Environmental Protection Agency, "Clean School Bus Program," available at <u>https://www.epa.gov/cleanschoolbus</u> (last

accessed May 2023).

¹¹ U.S. Department of Energy, Loan Program Office, "Advanced Technology Vehicles Manufacturing Loan Program," available at https://www.energy.gov/lpo/advanced-technology-vehicles-manufacturing-loan-program.

¹² U.S. Department of Energy, Loan Program Office, "Inflation Reduction Act of 2022," available at

https://www.energy.gov/lpo/inflation-reduction-act-2022.

¹³ U.S. Department of Transportation, "Biden-Harris Administration Announces First-Ever Awards from Program to Reconnect Communities," Press release, February 28, 2023, available at https://www.transportation.gov/briefing-room/biden-harrisadministration-announces-first-ever-awards-program-reconnect-communities. ¹⁴ U.S. Environmental Protection Agency, "Clean Ports Program," available at <u>https://www.epa.gov/inflation-reduction-act/clean-</u>

ports-program (last accessed May 2023). ¹⁵ Maxwell Woody and others, "The role of pickup truck electrification in the decarbonization of light-duty vehicles," *Environmental*

Research Letters 17 (3) (2022), available at https://doi.org/10.1088/1748-9326/ac5142. ¹⁶ Ibid.

¹⁷ American Lung Association, "Zeroing in on Healthy Air" (Washington: 2022), available at

https://www.lung.org/getmedia/13248145-06f0-4e35-b79b-6dfacfd29a71/zeroing-in-on-healthy-air-report-2022.pdf.

¹⁸ National Renewable Energy Laboratory, "Aligning Utilities and Electric Vehicles, for the Greater Grid," January 10, 2022, available at https://www.nrel.gov/news/program/2022/aligning-utilities-electric-vehicles-for-greater-grid.html.

¹⁹ Ira Boudway, "After Natural Disasters, Electric Vehicles Come to the Rescue," *Bloomberg*, November 7, 2022, available at https://www.bloomberg.com/news/features/2022-11-07/how-electric-cars-can-provide-backup-power-in-emergencies

²⁰ Max Baumhefner, "How Electric Cars and Trucks Improve Grid Reliability," Natural Resources Defense Council, September 8, 2022, available at https://www.nrdc.org/bio/max-baumhefner/how-electric-cars-and-trucks-improve-grid-reliability.

²¹ Hauke Engel and others, "The potential impact of electric vehicles on global energy systems | McKinsey," April 2018. https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/the-potential-impact-of-electric-vehicles-on-global-

energy-systems. ²² David L. Chandler, "Minimizing electric vehicles' impact on the grid," Massachusetts Institute of Technology, March 15, 2023, available at https://news.mit.edu/2023/minimizing-electric-vehicles-impact-grid-0315

²³ Chris Harto, "Blog: Can the Grid Handle EVs? Yes!", Consumer Reports, May 10, 2023, available at

http://advocacy.consumerreports.org/research/blog-can-the-grid-handle-evs-yes/. ²⁴ David Gohlke and others, "Assessment of Light-Duty Plug-in Electric Vehicles in the United States, 2010 – 2021" (Lemont, IL: Argonne National Laboratory, 2022), available at https://publications.anl.gov/anlpubs/2022/11/178584.pdf.

²⁵ U.S. Energy Information Administration, "Frequently Asked Questions (FAQs): How much petroleum does the United States import and export?", https://www.eia.gov/tools/faqs/faq.php?id=727&t=6 (last accessed May 2023).

²⁶ U.S. Department of Energy, "Alternative Fuels Data Center: Electric Vehicle Benefits and Considerations," available at https://afdc.energy.gov/fuels/electricity_benefits.html (last accessed May 2023). ²⁷ Karin Kirk, "Driving with electricity is much cheaper than with gasoline," Yale Climate Connections, June 2, 2022, available at

http://yaleclimateconnections.org/2022/06/driving-with-electricity-is-much-cheaper-than-with-gasoline/. ²⁸ Chris Harto and Quinta Warren, "New Consumer Reports analysis shows rising gas prices ramp up savings for EV owners,"

Consumer Reports, Press release, March 10, 2022, available at https://advocacy.consumerreports.org/press_release/newconsumer-reports-analysis-shows-rising-gas-prices-ramp-up-savings-for-ev-owners/. ²⁹ Chris Harto, "Electric Vehicle Ownership Costs: Today's Electric Vehicles Offer Big Savings for Consumers" (Yonkers, NY:

Consumer Reports, 2020), available at https://advocacy.consumerreports.org/wp-content/uploads/2020/10/EV-Ownership-Cost-Final-Report-1.pdf.

³⁰ Ibid.

³¹ Harto and Warren, "New Consumer Reports analysis shows rising gas prices ramp up savings for EV owners."

¹ U.S. Environmental Protection Agency, "Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles: Phase 3: Draft Regulatory Impact Analysis" (Washington: 2023), pp. 368–375, available at https://www.epa.gov/system/files/documents/2023-0d23004.pdf.

² U.S. Environmental Protection Agency, "Proposed Rule: Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles," available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/proposedrule-multi-pollutant-emissions-standards-model (last accessed May 2023).

³ Ibid.

⁵ U.S. Environmental Protection Agency, "Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles: Phase 3."

³² Harto, "Electric Vehicle Ownership Costs."

⁴ Peter Slowik and others, "Analyzing the Impact of the Inflation Reduction Act on Electric Vehicle Uptake in the United States" (San Francisco: Energy Innovation: Policy and Technology LLC and Washington: International Council on Clean Transportation, 2023), available at https://theicct.org/wp-content/uploads/2023/01/ira-impact-evs-us-jan23.pdf.

³⁵ Camila Domonoske, "Why car prices are still so high — and why they are unlikely to fall anytime soon," NPR, March 18, 2023, available at https://www.npr.org/2023/03/18/1163278082/car-prices-used-cars-electric-vehicles-pandemic.

³⁶ Sean Tucker, "Average New Car Price Holds Steady; Incentives Rising," Kelley Blue Book, May 10, 2023, available at https://www.kbb.com/car-news/average-new-car-price-holds-steady-incentives-rising/.

IRS, "Used Clean Vehicle Credit," available at https://www.irs.gov/credits-deductions/used-clean-vehicle-credit (last accessed May 2023).

³⁸ U.Ś. Department of Energy, "Tax Incentives: Plug-in Electric and Fuel Cell Electric Vehicles Purchased in 2023 or After," available at https://www.fueleconomy.gov/feg/tax2023.shtml (last accessed May 2023

³⁹ The Clean Energy Plan, "Home," available at https://thecleanenergyplan.com/ (last accessed May 2023).

⁴⁰ Environmental Defense Fund, "U.S. Electric Vehicle Manufacturing Investments and Jobs: Characterizing the Impacts of the Inflation Reduction Act after 6 Months" (Washington: 2023), available at https://blogs.edf.org/climate411/files/2023/03/State-Electric-Vehicle-Policy-

Landscape.pdf?_gl=1*1ayz5nh*_ga*MTU1MDk10DM0Ny4xNjc2MDQx0DI5*_ga_2B3856Y9QW*MTY30DgxMTEyNi4yNS4wLjE2N zg4MTExMjYuNjAuMC4w* ga Q5CTTQBJD8*MTY3ODgxMTEyNi4yNS4wLjE2Nzg4MTExMjYuNjAuMC4w. ⁴¹ Gohlke and others, "Assessment of Light-Duty Plug-in Electric Vehicles in the United States, 2010 – 2021."

⁴² Aurelia Glass, David Madland, and Karla Walter, "Prevailing Wages Can Build Good Jobs Into America's Electric Vehicle Industry" (Washington: Center for American Progress, 2022), available at https://www.americanprogress.org/article/prevailing-wages-canbuild-good-jobs-into-americas-electric-vehicle-industry/.

⁴³ IRS, "Section 30D New Clean Vehicle Credit," Federal Register 88 (73) (2023): 23370–23383, available at https://www.federalregister.gov/documents/2023/04/17/2023-06822/section-30d-new-clean-vehicle-credit.

⁴⁴ Office of the U.S. Trade Representative, "Free Trade Agreements," available at http://ustr.gov/trade-agreements/free-tradeagreements (last accessed May 2023).

⁴⁵ Infrastructure Investment and Jobs Act, Public Law 117-58, Title 42 - SUBCHAPTER II—SUPPLY CHAINS FOR CLEAN ENERGY TECHNOLOGIES (n.d.), 117th Cong., 1st sess. (November 15, 2021), available at

https://www.govinfo.gov/content/pkg/USCODE-2021-title42/pdf/USCODE-2021-title42-chap162-subchapII-sec18741.pdf.

⁴⁶ David E. Bond, Matt Solomon, Ian Saccomanno, "US Treasury Department Publishes Proposed Guidance on Clean Vehicle Tax Credits," White & Case LLP, April 18, 2023, available at https://www.whitecase.com/insight-alert/us-treasury-department-publishesproposed-guidance-clean-vehicle-tax-credits.

The White House, "FACT SHEET: Biden-Harris Administration Announces New Clean Energy Projects to Revitalize Energy Communities, Support Coal Workers, and Reduce Reliance on Competitors Like China," Press release, April 4, 2023, available at https://www.whitehouse.gov/briefing-room/statements-releases/2023/04/04/fact-sheet-biden-harris-administration-announces-newclean-energy-projects-to-revitalize-energy-communities-support-coal-workers-and-reduce-reliance-on-competitors-like-china/.

⁴⁸ Slowik and others. "Analyzing the Impact of the Inflation Reduction Act on Electric Vehicle Uptake in the United States." ⁴⁹ California Air Resources Board, "Advanced Clean Cars II Regulations: All New Passenger Vehicles Sold in California to be Zero Emissions by 2035," available at https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii (last accessed May 2023). ⁵⁰ The White House, "FACT SHEET: Biden-Harris Administration Announces New Standards and Major Progress for a Made-in-

America National Network of Electric Vehicle Chargers," Press release, February 15, 2023, available at

https://www.whitehouse.gov/briefing-room/statements-releases/2023/02/15/fact-sheet-biden-harris-administration-announces-newstandards-and-major-progress-for-a-made-in-america-national-network-of-electric-vehicle-chargers/. ⁵¹ Dan Avery, "12 Places That Offer EV Charging While You Shop," CNET, April 19, 2023, available at

https://www.cnet.com/roadshow/news/12-places-that-offer-ev-charging-while-you-shop/. ⁵² Anne LeZotte, "GM and Pilot Company to Build Out Coast-to-Coast EV Fast Charging Network," Pilot Flying J, available at https://pilotflyingi.com/press-release/19335 (last accessed May 2023).

⁵³ U.S. Department of Transportation, "Site Hosts," available at https://www.transportation.gov/rural/ev/toolkit/ev-partnershipopportunities/site-hosts (last accessed May 2023). ⁵⁴ Avery, "12 Places That Offer EV Charging While You Shop."

⁵⁵ The White House, "FACT SHEET: Biden-Harris Administration Announces New Standards and Major Progress for a Made-in-America National Network of Electric Vehicle Chargers."

56 Ibid.

⁵⁷ Legal Information Institute. "26 U.S. Code § 30C - Alternative fuel vehicle refueling property credit," available at https://www.law.cornell.edu/uscode/text/26/30C (last accessed May 2023).

³³ Daniel Gatti, "Rural Drivers Can Save the Most From Clean Vehicles," The Equation, December 13, 2018, available at https://blog.ucsusa.org/daniel-gati/clean-vehicles-save-rural-drivers-money/.