List of References

Advanced Clean Fleets Regulation
California Air Resources Board

Date of Release: August 30, 2022 Date of Hearing: October 27, 2022

The following documents are the technical, theoretical, or empirical studies, reports, or similar documents relied upon in proposing these regulatory amendments, identified as required by Government Code, section 11346.2, subdivision (b)(3). Additionally, each appendix References the documents upon which it relies, as required by Government Code, section 11346.2, subdivision (b)(3).

Note: Each "Explanatory Footnote" is a footnote containing explanatory discussion rather than referencing specific documents relied upon.

A. Initial Statement of Reasons

- 1. The ACT regulation is comprised of California Code of Regulations (Cal. Code Regs.) title 13, sections 1963, 1963.1, 1963.2, 1963.3, 1963.4, 1963.5, 2012, 2012.1, and 2012.2.
- 2. The Omnibus regulation is comprised of Cal. Code Regs., title 13, sections 1900, 1956.8, 1961.2, 1965, 1968.2, 1971.1, 1971.5, 2035, 2036, 2111 through 2119, 2121, 2123, 2125 through 2131, 2133, 2137, 2139, 2139.5, 2140 through 2149, 2166, 2166.1, 2167 through 2170, 2423, and 2485; and Cal. Code Regs., tit. 17 sections 95662 and 95663.
- 3. The rulemaking action for the HD I/M regulation has not yet been completed; the proposed HD I/M regulation is comprised of Cal. Code Regs., tit. 13, sections 2193, 2195, 2195.6, 2196 through 2196.8, 2197 through 2197.3, and 2198 through 2199.1.
- 4. Assembly Bill 617 (C. Garcia, Stats. 2017, ch. 136).
- 5. Senate Bill 100 (De León, Stats. 2018, ch. 312).
- 6. California Air Resources Board, 2020 Mobile Source Strategy, October 28, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/2021-12/2020_Mobile_Source_Strategy.pdf, last accessed August 2022).
- 7. California Air Resources Board, 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy), 2022 (web link: https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy, last accessed August 2022).
- 8. California Air Resources Board, *The AB 32 Scoping Plan (draft)*, 2022 (web link: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents, last accessed August 2022).
- 9. California Air Resources Board, Battery Electric Truck and Bus Energy Efficiency Compared to Conventional Diesel Vehicles, 2018 (Web Link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/act2019/appg.pdf, last accessed August 2022).
- 10. Assembly Bill 2061 (Frazier, Stats. 2018, ch. 580).
- 11. North American Council for Freight Efficiency, *Lightweighting*, 2021 (Web link: https://nacfe.org/technology/lightweighting-2/, last accessed August 2022).
- 12. North American Council for Freight Efficiency, *Making Sense of Heavy-Duty Hydrogen Fuel Cell Tractors*, 2021 (Web link: https://nacfe.org/wp-

- content/uploads/2020/12/NACFE-Guidance-on-Hydrogen-Fuel-Cell-Tractors-FINAL-121620.pdf, last accessed August 2022).
- 13. California Energy Commission, Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment, 2021 (web link: https://efiling.energy.ca.gov/getdocument.aspx?tn=238853, last accessed August 2022).
- 14. California Public Utility Commission, *Clean Energy and Pollution Reduction Act of 2015 (SB 350)*, 2022 (web link: https://www.cpuc.ca.gov/sb350/, last accessed August 2022).
- 15. California Energy Commission, EnergIIZE Commercial Vehicles, 2022 (web link: https://energiize.org/, last accessed August 2022).
- 16. Environmental Defense Fund, Charged-Up Analysis of the Jobs, Investments and Companies in the Zero Emissions Medium and Heavy Duty Vehicle Supply Chain Economy, 2021 (web link: https://www.edf.org/sites/default/files/documents/National%20MHD-ZEV-Supply-Chain-Analysis%2010.27.21_0.pdf, last accessed August 2022).
- 17. California Air Resources Board, 2021 Annual Evaluation of Fuel Cell Electric Vehicle Deployment and Hydrogen Fuel Station Network Development, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/2021-09/2021_AB-8_FINAL.pdf, last accessed August 2022).
- 18. Nikola, Nikola Announces Locations of Three California Hydrogen Dispensing Stations, Continued Scaling of Infrastructure, 2022 (web link: https://nikolamotor.com/press_releases/nikola-announces-locations-of-three-california-hydrogen-dispensing-stations-continued-scaling-of-infrastructure-192, last accessed August 2022.
- 19. California Public Utilities Commission, *Decision 20-06-017: Actions to Accelerate Microgrid Deployment and Other Resiliency Solutions*, June 11, 2020 (web link: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M340/K748/3407489 22.PDF, last accessed August 2022).
- 20. California Air Resources Board, *Revised Proposed 2016 State Strategy for the State Implementation Plan*, 2017 (web link: https://ww3.arb.ca.gov/planning/sip/2016sip/rev2016statesip.pdf, last accessed August 2022).
- 21. "Low-income communities" is defined in Health and Safety Code section 39713(d)(2) (added by Assembly Bill 1550 (Gomez, Stats. 2016, ch.369)).
- 22. United States Census Bureau, 2002 Vehicle Inventory and Use Survey, 2002 (web link: https://www2.census.gov/library/publications/economic-census/2002/vehicle-inventory-and-use-survey/ec02tv-us.pdf, last accessed August 2022).
- 23. California Department of Transportation, *CalTrans Truck Survey*, 2018 (web link: http://www.scag.ca.gov/committees/CommitteeDocLibrary/mtf012319_CAVIUS .pdf, last accessed August 2022).

- 24. California Air Resources Board, *Large Entity Reporting Data*, 2021 (web link: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks/large-entity-reporting, last accessed August 2022).
- 25. California Air Resources Board, *Draft Advanced Clean Trucks Total Cost of Ownership Discussion Document*, 2019 (web link: https://ww3.arb.ca.gov/regact/2019/act2019/apph.pdf, last accessed August 2022).
- 26. Atlas Public Policy, Assessing Financial Barriers to Adoption of Electric Trucks, 2020 (web link: https://atlaspolicy.com/wp-content/uploads/2020/02/Assessing-Financial-Barriers-to-Adoption-of-Electric-Trucks.pdf, last accessed August 2022).
- 27. Hydrogen Council, *Path to Hydrogen Competitiveness A Cost Perspective*, 2020 (web link: https://hydrogencouncil.com/wp-content/uploads/2020/01/Path-to-Hydrogen-Competitiveness_Full-Study-1.pdf, last accessed August 2022).
- 28. ICF International, Comparison of Medium-Duty and Heavy-Duty Technologies in California, 2019 (web link: https://caletc.aodesignsolutions.com/assets/files/ICF-Truck-Report_Final_December-2019.pdf, last accessed August 2022).
- 29. North American Council for Fuel Efficiency, *Regional Haul*, 2019 (web link: https://nacfe.org/regional-haul/, last accessed August 2022).
- 30. North American Council for Fuel Efficiency, *Viable Class 7/8 Electric, Hybrid, and Alternative Fuel Tractors*, 2019 (web link: https://nacfe.org/future-technology/viable-class-7-8/, last accessed August 2022).
- 31. University of California Los Angeles, Zero-Emission Drayage Trucks Challenges and Opportunities for the San Pedro Bay Ports, 2019 (web link: https://innovation.luskin.ucla.edu/wp-content/uploads/2019/10/Zero_Emission_Drayage_Trucks.pdf, last accessed August 2022).
- 32. Union of Concerned Scientists, Ready to Work Now is the Time for Heavy-Duty Electric Vehicles, 2019 (web link: https://www.ucsusa.org/sites/default/files/2019-12/ReadyforWorkFullReport.pdf, last accessed August 2022).
- 33. New York Times, Can Anyone Satisfy Amazon's Craving for Electric Vans?, 2022 (web link: https://www.nytimes.com/2022/01/18/technology/amazon-electric-vans.html, last accessed August 2022).
- 34. Lightning eMotors, DHL Express Deploys Nearly 100 New Lightning Electric Delivery Vans in U.S., 2021 (web link: https://lightningemotors.com/dhl-express-deploys-lightning-electric-vans-in-us/, last accessed August 2022).
- 35. Reuters, U.S. Postal chief commits to 10% of new delivery fleet as electric vehicles, 2021 (web link: https://www.reuters.com/technology/us-postal-chief-commits-10-new-delivery-fleet-electric-vehicles-2021-02-24/, last accessed August 2022).

- 36. CNN, U.S. Postal Service says at least 40% of new delivery trucks will be electric, 2022 (web link: https://www.cnn.com/2022/07/20/business/usps-electric-vehicle/index.html, last accessed August 2022).
- 37. Multi-State Medium- and Heavy-Duty Zero Emission Vehicle Memorandum of Understanding. (web link: https://www.energy.ca.gov/sites/default/files/2020-08/Multistate-Truck-ZEV-Governors-MOU-20200714_ADA.pdf, last accessed August 2022).
- 38. Regional Electric Vehicle Midwest Coalition, Memorandum of Understanding Between Illinois, Indiana, Michigan, Minnesota, and Wisconsin. (web link: https://www.michigan.gov/-/media/Project/Websites/leo/REV_Midwest_MOU_master.pdf?rev=6dd781b5a 4eb4551b3b3a5b875d67fb9#:~:text=THIS%20MEMORANDUM%20OF%20UN DERSTANDING%20(%E2%80%9CMOU,the%20%E2%80%9CParticipating%20S tates%E2%80%9D), last accessed August 2022).
- 39. Memorandum of Cooperation between the Government of Canada and the Government of the State of California of the United States of America concerning Climate Action and Nature Protection. (web link: https://www.canada.ca/en/services/environment/weather/climatechange/climate-e-plan/reduce-emissions/memorandum-cooperation-canada-california-climate-action-nature-protection.html, last accessed August 2022).
- 40. Transport Canada, *Zero-emission vehicles*, 2022, (web link: https://tc.canada.ca/en/road-transportation/innovative-technologies/zero-emission-vehicles, last accessed August 2022).
- 41. Drive to Zero, *Pledge Partners*, 2022, (web link: https://globaldrivetozero.org/about/pledge-partners/, last accessed August 2022).
- 42. Transportation Decarbonisation Alliance, *TDA Members*, 2022 (web link: https://tda-mobility.org/tda-members/, last accessed August 2022).
- 43. ZEV Transition Council, 2022 (web link: https://zevtc.org/the-council/members/, last accessed August 2022).
- 44. CALSTART, Zero-emission Technology Inventory (ZETI) Analytics, 2020 (web link: https://globaldrivetozero.org/tools/zeti-analytics/, last accessed August 2022).
- 45. Bloomberg, China's New Energy Heavy Trucks Will See More Growth in 2022, 2022 (web link: https://www.bloomberg.com/news/articles/2022-02-01/china-s-new-energy-heavy-trucks-will-see-more-growth-in-2022 last accessed August 2022).
- 46. ACEA, All new trucks sold must be fossil free by 2040, agree truck makers and climate researchers, 2020 (web link: https://www.acea.auto/press-release/all-new-trucks-sold-must-be-fossil-free-by-2040-agree-truck-makers-and-climate-researchers/, last accessed August 2022).
- 47. The ICT regulation is comprised of Cal. Code Regs., tit. 13, sections 2023 to 2023.11.
- 48. The ASB regulation is comprised of Cal. Code Regs., tit. 17, sections 95690.1 to 95690.8.

- 49. The Zero-Emission Powertrain regulation is comprised of Cal. Code Regs., tit. 13, section 1956.8. and tit. 17 section 95663.
- 50. Amazon, Amazon's custom electric delivery vehicles are starting to hit the road, February 3, 2021 (web link: https://www.aboutamazon.com/news/transportation/amazons-custom-electric-delivery-vehicles-are-starting-to-hit-the-road, last accessed August 2022).
- 51. United Parcel Service, *UPS invests in Arrival, accelerates fleet electrification with a commitment to purchase up to 10,000 electric vehicles,* January 29, 2020 (web link: https://about.ups.com/ca/en/newsroom/press-releases/sustainable-services/ups-invests-in-arrival-accelerates-fleet-electrification-with-order-of-10-000-electric-delivery-vehicles.html, last accessed August 2022).
- 52. Walmart, Walmart To Purchase 4,500 Canoo Electric Delivery Vehicles To Be Used for Last Mile Deliveries in Support of Its Growing eCommerce Business, July 12, 2022 (web link: https://corporate.walmart.com/newsroom/2022/07/12/walmart-to-purchase-4-500-canoo-electric-delivery-vehicles-to-be-used-for-last-mile-deliveries-in-support-of-its-growing-ecommerce-business, last accessed August 2022).
- 53. FedEx, Charging Ahead: FedEx Receives First All-Electric, Zero-Tailpipe Emissions Delivery Vehicles from BrightDrop, December 17, 2021, (web link: https://newsroom.fedex.com/newsroom/brightdropev600/, last accessed August 2022).
- 54. United States Postal Service, USPS Places Order for 50,000 Next Generation Delivery Vehicles; 10,019 To Be Electric, March 24, 2022 (web link: https://about.usps.com/newsroom/national-releases/2022/0324-usps-places-order-for-next-gen-delivery-vehicles-to-be-electric.htm, last accessed August 2022).
- 55. The On-Road Heavy-Duty Diesel-Fueled Public and Utility Fleet regulation is comprised of Cal. Code Regs., tit. 13, sections 2022 and 2022.1.
- 56. The Drayage Truck regulation is comprised of Cal. Code Regs., tit. 13, section 2027.
- 57. The Truck and Bus regulation is comprised of Cal. Code Regs., tit. 13, section 2025.
- 58. California Air Resources Board, *Truck and Bus Regulation Final Compliance Deadline*, 2022 (web link: https://ww2.arb.ca.gov/sites/default/files/2022-06/tbcompliancedeadline_ADA.pdf, last accessed August 2022).
- 59. The ASB regulation is comprised of Cal. Code Regs., tit. 17, sections 95690.1 to 95690.8.
- 60. The federal Phase 2 GHG regulations are comprised of Title 40, Code of Federal Regulations, Parts 85, 86, 600, 1033, 1036, 1037, 1039, 1065, 1066, and 1068) (81 Federal Register 73478 (October 25, 2016).
- 61. The California Phase 2 GHG regulation is comprised of Cal. Code Regs., tit. 13, sections 1956.8, 1961.2, 1965, 2036, 2037, 2065, 2112, and 2141, and tit. 17, sections 95300 to 95311, 95662 and 95663.

- 62. The ACT regulation is comprised of California Code of Regulations (Cal. Code Regs.) title 13, sections 1963, 1963.1, 1963.2, 1963.3, 1963.4, 1963.5, 2012, 2012.1, and 2012.2.
- 63. The Omnibus regulation is comprised of Cal. Code Regs., title 13, sections 1900, 1956.8, 1961.2, 1965, 1968.2, 1971.1, 1971.5, 2035, 2036, 2111 through 2119, 2121, 2123, 2125 through 2131, 2133, 2137, 2139, 2139.5, 2140 through 2149, 2166, 2166.1, 2167 through 2170, 2423, and 2485; and Cal. Code Regs., tit. 17 sections 95662 and 95663.
- 64. The TRU regulation is comprised of Cal. Code Regs., tit.13, sections 2477 through 2477.24.
- 65. The ACC1 regulation is comprised of Cal. Code Regs. tit. 13, sections 1900, 1956.8, 1960.1, 1961, 1961.4, 1962.1 through 1962.8, 1965, 1968.2, 1968.5, 1969, 1976, 1978, 2037, 2038, 2062, 2112, 2139, 2140, 2145, 2147, 2235, and 2317.
- 66. The rulemaking action for the proposed ACC II regulation is not yet complete. The proposed ACC II regulation would be comprised of Cal. Code Regs., tit. 13, sections 1900, 1961.2 through 1961.8, 1962.2, 1962.3, 1965, 1968.2, 1969, 1976, 1978, 2037, 2038, 2112, 2139, 2140, 2147, 2317, and 2903.
- 67. AB 739 (Chau, Stats. 2017, ch. 639); Public Resources Code section 25722.11.
- 68. The rulemaking action for the HD I/M regulation has not yet been completed; the proposed HD I/M regulation is comprised of Cal. Code Regs., tit. 13, sections 2193, 2195, 2195.6, 2196 through 2196.8, 2197 through 2197.3, and 2198 through 2199.1.
- 69. California HVIP, ZE Refuse vehicles available in HVIP, 2022 (web link: https://californiahvip.org/vehicle-category/refuse/, last accessed August 2022).
- 70. SB 1403 (Lara, Stats. 2018, ch. 370). Health and Safety Code Section 39719.2.
- 71. SB 1204 (Lara, Stats. 2014 Ch. 524). Health and Safety Code Section 39719.2.
- 72. California Air Resources Board, Carl Moyer Program, 2022 (web link: https://ww2.arb.ca.gov/resources/fact-sheets/carl-moyer-program, last access August 2022).
- 73. AB 617 (C. Garcia, Stats. 2017 ch. 136). Health and Safety Code Sections new sections 39607.1, 40920.6, 40920.8, 42411, 42705.5,44391.2, amendments to sections 42400, 42402.
- 74. California Air Resources Board, *Proposition 1B: Goods Movement Emission Reduction Program*, 2022 (web link: https://ww2.arb.ca.gov/our-work/programs/proposition-1b-goods-movement-emission-reduction-program, last accessed August 2022).
- 75. California Air Resources Board, *Community Air Protection Program Communities*, 2022 (web link: https://ww2.arb.ca.gov/capp-communities, last accessed August 2022).
- 76. California Air Resources Board, *Truck Loan Assistance Program*, 2022 (web link: https://ww2.arb.ca.gov/our-work/programs/truck-loan-assistance-program, last accessed August 2022).

- 77. SB 350 (De León, Stats. 2015, ch. 547). Health and Safety Code new section 44258.5. Labor Code new sections 25302.2 and 25327. Public Utilities Code section new sections 237.5, 400, 454.51, 454.52, 454.55, 454.56, 9621, and 9622. Amendments to Labor Code sections 1720, 25310, and 25943; amendments to Public Utilities Code 337, 352, 359, 359.5, 365.2, 366.3, 399.4, 399.11,399.12,399.13, 399.15, 399.16, 399.18, 399.21, 399.30, 701.1,740.8,740.12, 9505, and 9620.
- 78. California Energy Commission, Energy Commission Announces Nation's First Incentive Project for Zero-Emission Truck and Bus Infrastructure, 2021 (web link: https://www.energy.ca.gov/news/2021-04/energy-commission-announces-nations-first-incentive-project-zero-emission-truck, last accessed August 2022).
- 79. California Energy Commission, CEC Approves \$384 Million Plan to Accelerate Zero-Emission Transportation, 2020 (web link: https://www.energy.ca.gov/news/2020-10/cec-approves-384-million-plan-accelerate-zero-emission-transportation, last accessed August 2022).
- 80. State Of California, *California State Budget FY 2022-23*v, 2022 (weblink: https://www.ebudget.ca.gov/FullBudgetSummary.pdf, last accessed August 2022).
- 81. Cal. Code Regs. tit. 13, section 1900(b)(6).
- 82. Cal. Code Regs. tit. 13, section 1900(b)(13).
- 83. Advanced Fuels Data Center, *Vehicle Weight Classes & Categories*, 2012 (web link: https://afdc.energy.gov/data/10380, last accessed August 2022).
- 84. SpecialtyResearch.net, *Truck Body Manufacturing in North America*, 2018 (web link: https://www.specialtyresearch.net/, last accessed August 2022).
- 85. Oak Ridge National Laboratory, 2016 Vehicle Technologies Market Report, 2017 (web link: https://tedb.ornl.gov/wp-content/uploads/2019/04/2016_Vehicle_Technologies_Market_Report.pdf, last accessed August 2022).
- 86. California Air Resources Board, *Large Entity Reporting Data*, 2021 (web link: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks/large-entity-reporting, last accessed August 2022).
- 87. California Air Resources Board, *Large Entity Reporting Data*, 2021 (web link: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks/large-entity-reporting, last accessed August 2022).
- 88. California Air Resources Board, *EMFAC 2021 Database*, 2021 (web link: https://arb.ca.gov/emfac/, last accessed August 2022).
- 89. San Pedro Bay Ports, 2018 Feasibility Assessment for Drayage Trucks, 2020 (web link: https://cleanairactionplan.org/download/222/other-documents/5029/final-drayage-truck-feasibility-assessment.pdf, last accessed August 2022).
- 90. CALSTART, Performance Parameters for Drayage Trucks Operating at the Ports of Los Angeles and Long Beach, 2013 (web link: https://calstart.org/wp-content/uploads/2018/10/I-710-Project_Key-Performance-Parameters-for-Drayage-Trucks.pdf, last accessed August 2022).

- 91. Port of Long Beach, Fueling the Future Fleet: Assessment of Public Truck Charging and Fueling Near the Port of Long Beach, 2021 (web link: https://polb.com/download/379/zero-emissions/12744/final-polb-charging-study-12-sep-2021.pdf, last accessed August 2022).
- 92. CALSTART, How Zero-Emission Heavy-Duty Trucks Can Be Part of the Climate Solution, 2021 (web link: https://globaldrivetozero.org/site/wp-content/uploads/2021/05/How-Zero-Emission-Heavy-Duty-Trucks-Can-Be-Part-of-the-Climate-Solution.pdf, last accessed August 2022).
- 93. California Energy Commission, *2127 Report*, 2021 (web link: https://efiling.energy.ca.gov/getdocument.aspx?tn=238853, last accessed August 2022).
- 94. California Air Resources Board, *Draft 2022 State Strategy for the State Implementation Plan*, 2022 (web link: https://ww2.arb.ca.gov/sites/default/files/2022-01/Draft_2022_State_SIP_Strategy.pdf, last accessed August 2022).
- 95. California Energy Commission, See projects awarded through GFO-20-605 BESTFIT Innovative Charging Solutionsv, 2020 (web link: https://www.energy.ca.gov/solicitations/2020-08/gfo-20-605-bestfit-innovative-charging-solutions, last accessed August 2022).
- 96. California Air Resources Board, 2021 Annual Evaluation of Fuel Cell Electric Vehicle Deployment and Hydrogen Fuel Station Network Development, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/2021-09/2021_AB-8_FINAL.pdf, last accessed August 2022).
- 97. CHARIN, CharIN and the Megawatt Charging System, 2022 (web link: https://www.charin.global/technology/mcs/, last accessed August 2022).
- 98. AB 841 (Ting, Stats, 2020, ch. 372). Public Utilities Code new sections 740.18, 740.19, 740.20, 1600, 1601, 1610 through 1618, 1620 through 1627, 1630 through 1633, 1640. Amendments to Public Utilities Code section 740.12.
- 99. International Council on Clean Transportation, 2019 Annual Report, 2019 (web link: https://theicct.org/sites/default/files/ICCT-AnnualReport-2019.pdf, last accessed August 2022).
- 100. California Department of Housing and Community Development, 2019 California Green Building Standards Code, Title 24, Part 11, California Code of Regulations, 2019 (web link: https://www.hcd.ca.gov/calgreen, last accessed August 2022).
- 101. California Air Resources Board, *The AB 32 Scoping Plan (draft)*, 2022 (web link: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents, last accessed August 2022).
- 102. SB 100 (De León, Stats. 2018 ch. 312). Public Utilities Code new section 454.53, amendments to Public Utilities Code sections 399.11,399.15, and 399.30.
- 103. California Energy Commission, 2021 SB 100 Joint Agency Report, Achieving 100 Percent Clean Electricity in California: An Initial Assessment, 2021 (web link: https://www.energy.ca.gov/publications/2021/2021-sb-100-joint-agency-report-achieving-100-percent-clean-electricity, last accessed August 2022).

- 104. California Air Resources Board, *The AB 32 Scoping Plan (draft)*, 2022 (web link: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents, last accessed August 2022).
- 105. California Public Utilities Commission 2022, Decision Adopting 2021 Preferred System Plan Rulemaking 20-05-003, 2021 (web link: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M449/K173/4491738 04.PDF, last accessed August 2022).
- 106. AB 2127 (Ting, Stats. 2018 ch. 365). Public Resources Code section 25229.
- 107. California Public Utilities Commission, *Resource Adequacy Homepage*, 2022 (web link: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/resource-adequacy-homepage, last accessed August 2022).
- 108. California Public Utilities Commission, *Electric System Reliability Annual Reports*, 2022 (web link: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/electric-reliability/electric-system-reliability-annual-reports, last accessed August 2022).
- 109. California Public Utilities Commission, *Resiliency and Microgrids*, 2022 (web link: https://www.cpuc.ca.gov/resiliencyandmicrogrids, last accessed August 2022).
- 110. Rocky Mountain Institute, Fueling the Transition: Accelerating Cost-Competitive Green Hydrogen, 2021 (web link: https://rmi.org/insight/fueling-the-transition-accelerating-cost-competitive-green-hydrogen, last accessed August 2022).
- 111. AB 8 (Perea, Stats. 2013, ch. 401). Health and Safety Code new section 43018.9, repeal section 44299, amendments to Health and Safety Code sections 41081, 44060.5,44125, 44225, 44249, 44270.3,44271,44272, 44273, 44274, 44275,44280, 44281,44282,44283,44287,44299.1, and 44299.2; amendments to Public Resources Code section 42885 and 42889; amendments to Vehicle Code sections 9250.1, 9250.2, 9261.1, and 9853.6.
- 112. California Air Resources Board, 2021 Annual Evaluation of Fuel Cell Electric Vehicle Deployment and Hydrogen Fuel Station Network Development, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/2021-09/2021_AB-8_FINAL.pdf, last accessed August 2022).
- 113. SoCal Gas, Angeles Link Shaping The Future With Green Hydrogen, 2022 (web link: https://www.socalgas.com/sustainability/hydrogen/angeles-link, last accessed August 2022).
- 114. Hyundai, Hyundai's XCIENT Fuel Cell Hitting the Road in California, 2021 (https://www.hyundainews.com/en-us/releases/3362, last accessed August 2022).
- 115. CaFCP, Fuel Cell Electric Trucks A Vision for Freight Movement in California and beyond, 2021, (web link: https://cafcp.org/blog/california-fuel-cell-partnership-envisions-70000-heavy-duty-fuel-cell-electric-trucks-supported#:~:text=Sacramento%2C%20California%E2%80%94Today%2C%20the,by%20200%20heavy%2Dduty%20truck, last accessed August 2022).

- 116. PNNL 2020. Kintner-Meyer, Michael, et al, Electric Vehicles at Scale Phase I Analysis: High EV Adoption Impacts on the Western U.S. Power Grid. Pacific Northwest National Laboratory, 2020 (web link: https://www.pnnl.gov/sites/default/files/media/file/EV-AT-SCALE_1_IMPACTS_final.pdf, last accessed August 2022).
- 117. US DRIVE 2019, Summary Report on EVs at Scale and the U.S. Electric Power System. U.S. Driving Research and Innovation for Vehicle Efficiency and Energy Sustainability (DRIVE), 2019 (web link: https://www.energy.gov/sites/prod/files/2019/12/f69/GITT%20ISATT%20EVs%2 0at%20Scale%20Grid%20Summ ary%20Report%20FINAL%20Nov2019.pdf, last accessed August 2022).
- 118. Muratori et al 2021. Matteo Muratori et al, "The rise of electric vehicles—2020 status and future expectations," 2021 (web link: https://iopscience.iop.org/article/10.1088/2516- 1083/abe0ad/pdf, last accessed August 2022).
- 119. DOE 2019.
- 120. AB 841 (Ting 2020).
- 121. CPUC, "Electricity Rates and Cost of Fueling." California Public Utilities Commission, 2022 (web link: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/transportation-electrification/electricity-rates-and-cost-of-fueling, last accessed August 2022).
- 122. CPUC, California Public Utilities Commission. Proposed Decision: Order Instituting Rulemaking to Modernize the Electric Grid for a High Distributed Energy Resources Future, 2022 (web link: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/transportation-electrification/electricity-rates-and-cost-of-fueling, last accessed August 2022).
- 123. CPUC, CPUC Takes Action to Modernize Electric Grid for High Distributed Energy Resources Future, 2022 (web link: https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-takes-action-to-modernize-electric-grid-for-high-distributed-energy-resources-future, last accessed August 2022).
- 124. CallSO, "Impacts of renewable energy on grid operations," 2017 (web link: https://www.caiso.com/documents/curtailmentfastfacts.pdf, last accessed August 2022).
- 125. PNNL 2020.
- 126. Ibid.
- 127. International Renewable Energy Agency, Innovation Outlook: Smart charging for Electric Vehicles (Abu Dhabi: International Renewable Energy Agency, 2019 (web link: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/May/IRENA_Innovation_Outlook _EV_smart_charging_2019.pdf, last accessed August 2022).
- 128. Zhang et al 2018a. Zhang J, Jorgenson J, Markel T and Walkowicz K, "Value to the grid from managed charging based on California's high renewables study" IEEE Trans. Power Syst. 34 831–40, 2019 (web link: https://www.osti.gov/pages/servlets/purl/1494793, last accessed August 2022).

- 129. Governor's Office of Business and Economic Development, *Electric Vehicle Charging Station Permit Streamlining Fact Sheet*, 2022 (web link: https://business.ca.gov/industries/zero-emission-vehicles/plug-in-readiness/, last accessed August 2022).
- 130. California Energy Commission, Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment, 2021 (web link: https://efiling.energy.ca.gov/getdocument.aspx?tn=238853, last accessed August 2022).
- 131. SB 643 (Archuleta, Stats. 2021 ch. 646). Health and Safety Code section 43871.
- 132. California Department of Transportation and California Energy Commission, Final Project Report: "Installation of Electric Vehicle Charging Stations," January 2020, Document No. CEC-2020-014, 2020 (web link: https://www.energy.ca.gov/sites/default/files/2021-05/CEC-600-2020-014.pdf, last accessed August 2022).
- 133. HartEnergy, NextEra Energy, BlackRock Pitch \$650 Million EV Charging Network, 2022 (web link: https://www.hartenergy.com/exclusives/nextera-energy-blackrock-pitch-650-million-ev-charging-network-198664, last accessed August 2022).
- 134. Chevron, *Iwatani Agreement 30 Hydrogen Stations in CA Chevron.com,* 2022 (web link: https://www.chevron.com/newsroom/2022/q1/chevron-iwatani-announce-agreement-to-build-30-hydrogen-fueling-stations-in-california, last accessed August 2022).
- 135. CAFCP, California Fuel Cell Partnership Hydrogen Stations map, 2022 (web link: https://cafcp.org/stationmap, last accessed August 2022).
- 136. Plug Power Inc., Plug Power to Build Largest Green Hydrogen Production Facility on the West Coast, 2021 (web link: https://www.ir.plugpower.com/press-releases/news-details/2021/Plug-Power-to-Build-Largest-Green-Hydrogen-Production-Facility-on-the-West-Coast-2021-9-20/default.aspx, last accessed August 2022).
- 137. Bloomberg, Battery Pack Prices Fall to an Average of \$132/kWh, But Rising Commodity Prices Start to Bite, 2021 (web link: https://about.bnef.com/blog/battery-pack-prices-fall-to-an-average-of-132-kwh-but-rising-commodity-prices-start-to-bite/, last accessed August 2022).
- 138. Thomas-Built Buses, Highland Electric Fleets and Thomas Built Buses Sign Agreement to Make Electric School Buses an Affordable Option Today, 2022 (web link: https://thomasbuiltbuses.com/resources/news/highland-electric-fleets-and-thomas-built-2022-03-17/, last accessed August 2022).
- 139. Inside EVs, Ford F-150 Lightning Is Priced Much Like Gas F-150, But How?, 2021. (web link: https://insideevs.com/news/520495/ford-f150-lightning-pricing-interview/, last accessed August 2022).
- 140. SB 372 (Leyva, Stats. 2021 ch. 369). Health and Safety Code sections 44274.10 to 44274.15.
- 141. Charged, Volvo Trucks' Next-Gen VNR Electric Offers Enhanced Range and Additional Configurations, 2022 (web link:

- https://chargedevs.com/newswire/volvo-trucks-next-gen-vnr-electric-offers-enhanced-range-and-additional-configurations/, last accessed August 2022).
- 142. PACCAR, PACCAR Extends Zero Emissions Leadership with Schneider Electric and Faith Technologies to Provide Comprehensive Battery Charging Solutions, 2020 (web link: https://www.paccar.com/news/current-news/2020/paccar-extends-zero-emissions-leadership-with-schneider-electric-and-faith-technologies-to-provide-comprehensive-battery-charging-solutions/, last accessed August 2022).
- 143. WattEV, WattEV Orders 50 Volvo VNR Electric Trucks, 2022 (web link: https://www.wattev.com/post/wattev-orders-50-volvo-vnr-electric-trucks, last accessed August 2022).
- 144. CALSTART, Zero-Emission Technology Inventory, 2021 (web link: https://globaldrivetozero.org/tools/zero-emission-technology-inventory/, last accessed August 2022).
- 145. Volvo Trucks, *The Volvo VNR Electric*, 2022. (weblink: https://www.volvotrucks.us/trucks/vnr-electric/, last accessed August 2022).
- 146. Ford, 2022 Ford F-150 Lightning, 2022. (web link: https://www.ford.com/trucks/f150/f150-lightning-electric-truck/, last accessed August 2022).
- 147. Freightliner, *eCascadia*. (web link: https://freightliner.com/trucks/ecascadia/specifications/, last accessed August 2022).
- 148. United States Census Bureau, 2002 Vehicle Inventory and Use Survey, 2002 (web link: https://www2.census.gov/library/publications/economic-census/2002/vehicle-inventory-and-use-survey/ec02tv-us.pdf, last accessed August 2022).
- 149. California Air Resources Board, Advanced Clean Trucks Regulation Appendix E: Zero Emission Truck Market Assessment, 2019 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/act2019/appe.pdf, last accessed August 2022).
- 150. E3, EVGrid: Electric Vehicle Grid Impacts Model, 2019 (web link: https://www.ethree.com/tools/electric-vehicle-grid-impacts-model-2/, last accessed August 2022).
- 151. M.J. Bradley and Associates, MJB&A Analyzes State-Wide Costs and Benefits of Plug-in Vehicles in Five Northeast and Mid-Atlantic States, 2017. (web link: https://www.mjbradley.com/reports/mjba-analyzes-state-wide-costs-and-benefits-plug-vehicles-five-northeast-and-mid-atlantic, last accessed August 2022).
- 152. AB 2061 (Frazier, Stats. 2018 ch. 580). Amendments to Business and Professions Code section 12725, and Vehicle Code section 35551.
- 153. World Electric Vehicle Journal, From Cell to Battery System in BEVs: Analysis of System Packing Efficiency and Cell Types, 2020 (web link: https://www.mdpi.com/2032-6653/11/4/77, last accessed August 2022)

- 154. European Commission, Circular Economy Perspectives for the Management of Batteries used in Electric Vehicles, 2019 (web link: https://publications.jrc.ec.europa.eu/repository/handle/JRC117790, last accessed August 2022).
- 155. European Commission, Circular Economy Perspectives for the Management of Batteries used in Electric Vehicles, 2019 (web link: https://publications.jrc.ec.europa.eu/repository/handle/JRC117790, last accessed August 2022).
- 156. US Department of Energy, Fuel Cell and Battery Electric Vehicles Compared, 2014 (web link: https://www.energy.gov/sites/default/files/2014/03/f9/thomas_fcev_vs_battery_evs.pdf, last accessed August 2022).
- 157. California Legislature, *Assembly Bill No. 2061*, 2022 (web link: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220A B2061, last accessed August 2022).
- 158. Lawrence Berkeley National Laboratory, Why Regional and Long-Haul Trucks are Primed for Electrification Now, 2021 (web link: https://eta-publications.lbl.gov/sites/default/files/updated_5_final_ehdv_report_033121.pd f, last accessed August 2022).
- 159. NACFE, Confidence Report: Lightweighting, 2021 (web link: https://nacfe.org/wp-content/uploads/2021/02/Lightweighting-Confidence-Report-Feb2021.pdf, last accessed August 2022).
- 160. U.S. EPA, *Greenhouse Gas Emissions Model (GEM) User Guide*, 2011 (web link: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100BOPV.PDF?Dockey=P100BOPV.PDF, last accessed August 2022).
- 161. NACFE, Guidance Report: Electric Trucks-Where They Make Sense, 2018 (web link: https://nacfe.org/downloads/full-report-electric-trucks/, last accessed August 2022).
- 162. Tesla, 2020 Impact Report, 2020 (web link: https://www.tesla.com/ns_videos/2020-tesla-impact-report.pdf, last accessed August 2022).
- 163. NACFE, Guidance Report: Medium-Duty Electric Trucks Cost of Ownership, 2018 (web link: https://nacfe.org/wp-content/uploads/2018/10/medium-duty-electric-trucks-cost-of-ownership.pdf, last accessed August 2022).
- 164. NACFE, Guidance Report: Electric Trucks-Where They Make Sense, 2018 (web link: https://nacfe.org/downloads/full-report-electric-trucks/, last accessed August 2022).
- 165. California Air Resources Board, LER statewide aggregated data, 2022 (web link: https://ww2.arb.ca.gov/sites/default/files/2022-02/Large_Entity_Reporting_Aggregated_Data_ADA.pdf, last accessed August 2022).
- 166. California HVIP, HVIP Eligible Vehicles, 2022 (web link: https://californiahvip.org/vehiclecatalog/, last accessed August 2022).

- 167. HDT Trucking Info, Meritor to Begin Commercial Electric Powertrain Production, 2021 (web link: https://www.truckinginfo.com/10136025/meritor-to-begin-commercial-electric-powertrain-production, last accessed August 2022).
- 168. AB 32 (Núñez, Stats. 2006, ch. 488); Health & Saf. Code sections 38500 et seq.
- 169. Office of Governor Edmund G. (Jerry) Brown Jr., *Executive Order B-16-2012*, 2012 (web link: https://www.ca.gov/archive/gov39/2012/03/23/news17472/index.html, last accessed August 2022).
- 170. Governor's Interagency Working Group on Zero-Emission Vehicles, 2013 ZEV Action Plan: A roadmap toward 1.5 million zero-emission vehicles on California roadways by 2025, 2013 (web link: http://opr.ca.gov/docs/Governors_Office_ZEV_Action_Plan_(02-13).pdf, last accessed August 2022).
- 171. SB 605 (Lara, Stats. 2014, ch. 523); Health & Saf. Code section 39730.
- 172. SB 1383 (Lara, Stats. 2016, ch. 395); Health & Saf. Code sections 39730.5 through 39730.8, and Public Resources Code sections 42652 through 42654.
- 173. California Air Resources Board, Sustainable Freight Pathways to Zero and Near-Zero Emissions Discussion Document, 2015 (web link: https://ww2.arb.ca.gov/sites/default/files/2020-09/Sustainable%20Freight%20Pathways%20to%20Zero%20and%20Near-Zero%20Emissions%20Discussion%20Document.pdf, last accessed August 2022).
- 174. California Air Resources Board, *Board Resolution 14-2*, 2014 (web link: https://www.arb.ca.gov/board/res/2014/res14-2.pdf, last accessed August 2022).
- 175. State of California Executive Order signed by Governor Edmund G. (Jerry) Brown Jr., *Executive Order B-32-15*, 2015 (web link: https://www.ca.gov/archive/gov39/2015/07/17/news19046/index.html, last accessed August 2022).
- 176. SB 32 (Pavley, Stats. 2016, ch. 249); Health & Saf. Code section 38566.
- 177. California Air Resources Board, Revised 2016 State Strategy for the State Implementation Plan, 2016 (web link: https://ww3.arb.ca.gov/planning/sip/2016sip/rev2016statesip.pdf, last accessed August 2022).
- 178. SB 1 (Beall, Stats. 2017, ch. 5). Govt. Code: repeal Sections 63048.66, 63048.67, 63048.7, 63048.75, 63048.8, 63048.65, and 63048.85; add new sections 14033, 14110, 14526.7, 14556.41, 14460, 14461, 14526.7, 14556.41, 16321, and 63048.65; amend section 14526.5; Health & Saf. Code add Section 43021; Public Utilities Code: amend Section 99312.1, and add Sections 99312.3, 99312.4, and 99314.9; Revenue & Taxation Code amend Sections 6051.8, 6201.8, 7360, 8352.4, 8352.5, 8352.6, and 60050; to add Sections 7361.2, 7653.2, 60050.2, and 60201.4 to, and to add Chapter 6 (commencing with Section 11050) to Part 5 of Division 2 of, the Revenue and Taxation Code; Streets and Highways Code: amend Sections 2104, 2105, 2106, and 2107, add

- Sections 2103.1 and 2192.4, add Article 2.5 (commencing with Section 800) to Chapter 4 of Division 1 of, and to add Chapter 2 (commencing with Section 2030) and Chapter 8.5 (commencing with Section 2390) to Division 3 of, the Streets and Highways Code; Vehicle Code: amend Section 4156, add Sections 4000.15 and 9250.6.
- 179. 42 U.S.C. § 2000d et seq.
- 180. Office of Governor Edmund G. (Jerry) Brown Jr., Governor Brown Takes Action to Increase Zero-Emission Vehicles, Fund New Climate Investments, 2018 (web link: https://www.ca.gov/archive/gov39/2018/01/26/governor-brown-takes-action-to-increase-zero-emission-vehicles-fund-new-climate-investments/index.html, last accessed August 2022).
- 181. State of California Executive Order signed by Governor Edmund G. (Jerry) Brown Jr., *Executive Order B-55-18*, 2018 (web link: https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf, last accessed August 2022).
- 182. Signed by Edmund G. (Jerry) Brown Jr., *Governor's Letter to Chair Nichols*, 2018 (web link: https://ww2.arb.ca.gov/sites/default/files/2020-06/zero_emission_fleet_letter_080118_ADA.pdf, last accessed August 2022).
- 183. State of California Executive Order signed by Governor Gavin Newsom, Executive Order N-19-19, 2019 (web link: https://catc.ca.gov/-/media/ctc-media/documents/ctc-codes/execorder-n-19-19-a11y.pdf, last accessed August 2022).
- 184. California Air Resources Board, *Resolution 20-19*, 2020 (web link: https://ww3.arb.ca.gov/regact/2019/act2019/finalres20-19.pdf, last accessed August 2022).
- 185. California Air Resources Board, *Press Release 20-18 15 states and the District of Columbia join forces to accelerate bus and truck electrification*, 2020 (web link: https://ww2.arb.ca.gov/news/15-states-and-district-columbia-join-forces-accelerate-bus-and-truck-electrification, last accessed August 2022).
- 186. Washington, Oregon, New York, New Jersey, and Massachusetts have all adopted the ACT regulation.
- 187. State of California Executive Order signed by Governor Gavin Newsom, *Executive Order N-79-20*, 2020 (web link: https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf, last accessed August 2022).
- 188. SB 44 (Skinner, Stats. 2019, ch. 297) (weblink: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200S B44, last accessed August 2022).
- 189. California Air Resources Board, 2020 Mobile Source Strategy, April 23, 2021. (web link: https://ww2.arb.ca.gov/sites/default/files/2021-12/2020_Mobile_Source_Strategy.pdf, last accessed August 2022).
- 190. California Air Resources Board, *Draft 2022 State Strategy for the State Implementation Plan*, 2022 (web link: https://ww2.arb.ca.gov/sites/default/files/2022-01/Draft_2022_State_SIP_Strategy.pdf, last accessed August 2022).

- 191. Office of Environmental Health Hazard Assessment, *CalEnviroScreen 4.0*, 2021 (web link: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30, last accessed August 2022).
- 192. California Air Resources Board, 2016 Mobile Source Strategy, 2016 (web link: https://ww3.arb.ca.gov/planning/sip/2016sip/2016mobsrc.pdf, last accessed August 2022).
- 193. California Air Resources Board, *California Greenhouse Gas Emission Inventory*, 2022 (web link: https://www.arb.ca.gov/cc/inventory/data/data.htm, last accessed August 2022).
- 194. California Air Resources Board, 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy), 2022 (web link: https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy, last accessed August 2022).
- 195. California Air Resources Board, LCFS Guidance 20-04 Requesting EER-Adjusted Carbon Intensity Using a Tier 2 Pathway Application Energy Efficiency Ratio, 2020 (web link: https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/guidance/lcfsguidance_20-04.pdf, last accessed August 2022).
- 196. California Air Resources Board, *LCFS ZEV Infrastructure Crediting*, 2022 (web link: https://ww2.arb.ca.gov/resources/documents/lcfs-zev-infrastructure-crediting, last accessed August 2022).
- 197. STEPS Program UC Davis, Jaffee et al. "The Feasibility of Renewable Natural Gas as a Large-Scale, Low Carbon Substitute Contract No. 13-307, 2016 (web link: https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/past/13-307.pdf, last accessed August 2022).
- 198. US EIA website on data for natural gas consumption by end use. (web link: https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SCA_a.htm, last accessed August 2022).
- 199. CARB, EMFAC, 2021 (web link: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools-emfacsoftware-and, last accessed August 2022).
- 200. California Legislative Information, SB-1383 Short-lived climate pollutants: methane emissions: dairy and livestock: organic waste: landfills, 2016 (web link: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160S B1383, last accessed August 2022).
- 201. CalRecycle, California's Short-Lived Climate Pollutant Reduction Strategy, 2016 (web link: https://calrecycle.ca.gov/organics/slcp/, last accessed August 2022).
- 202. SB 1440 (Hueso, Stats. 2018 ch. 739). Pub. Utilities Code sections 650 and 651.
- 203. California Public Utilities Commission, *Decision Implementing Senate Bill 1440 Biomethane Procurement Program*, 2022 (web link: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M454/K335/4543350 09.PDF, last accessed August 2022).
- 204. California Air Resources Board, *History of CARB*, 2022 (web link: https://ww2.arb.ca.gov/about/history, last accessed August 2022).

- 205. California Air Resources Board, *Truck and Bus Regulation*, 2022 (web link: https://ww2.arb.ca.gov/our-work/programs/truck-and-bus-regulation, last accessed August 2022).
- 206. California Air Resources Board, *Heavy-Duty Omnibus Regulation*, 2022 (web link: https://ww2.arb.ca.gov/rulemaking/2020/hdomnibuslownox, last accessed August 2022).
- 207. California Air Resources Board, Facts about the Low NOx Heavy-Duty Omnibus Regulation, 2022 (web link: https://ww2.arb.ca.gov/sites/default/files/classic/msprog/hdlownox/files/HD_N Ox_Omnibus_Fact_Sheet.pdf, last accessed August 2022).
- 208. California Air Resources Board, *Heavy-Duty Inspection and Maintenance Program*, 2022 (web link: https://ww2.arb.ca.gov/our-work/programs/heavy-duty-inspection-and-maintenance-program, last accessed August 2022).
- 209. CEC Energy Almanac, *Transportation Natural Gas in California*, 2016 (web link: https://ww2.energy.ca.gov/almanac/transportation_data/cng-lng.html, last accessed August 2022).
- 210. International Council on Clean Transportation, A comparison of NOx emissions from heavy-duty diesel, natural gas, and electric vehicles, 2021 (web link: https://theicct.org/sites/default/files/publications/low-nox-hdvs-compared-sept21.pdf, last accessed August 2022).
- 211. SB 1440 (Hueso, Stats. 2018 ch. 739). Pub. Utilities Code sections 650 and 651.
- 212. SB 1477 (Stern, Stats. 2018, ch. 378).
- 213. California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, 2017 (web link: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf, last accessed August 2022).
- 214. California Public Utilities Commission, *Decision Implementing Senate Bill 1440 Biomethane Procurement Program*, 2022 (web link: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M454/K335/4543350 09.PDF, last accessed August 2022)
- 215. California Public Utilities Commission Rulemaking 19-01-011, Phase III decision eliminating gas line extension allowances, ten-year refundable payment option, and fifty percent discount payment option under gas line extension rules. (web link: https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M496/K415/496415627.PD
- 216. California Air Resources Board, *Technical Analysis of End of Useful Life Scenarios Statewide*, 2022 (web link: https://ww2.arb.ca.gov/resources/documents/technical-analysis-end-useful-life-scenarios-statewide, last accessed August 2022).
- 217. California Air Resources Board, *Technical Analysis of End of Useful Life Scenarios South Coast*, 2022 (web link: https://ww2.arb.ca.gov/resources/documents/technical-analysis-end-useful-life-scenarios-south-coast, last accessed August 2022).

- 218. Contractor's report will be made available during the 15-day changes since the estimated release date is just beyond the September 2, 2022 release of this ISOR. For background, the 200 vehicle in-use study is an extramural contract funded through the California Energy Commission and Southern California Gas Company (\$2.5 million) with minor funding provided by the South Coast Air Quality Management District (\$0.6 million) and California Air Resources Board (\$0.25 million).
- 219. California Air Resources Board, *In-Use Emission Performance of Heavy-Duty Natural Gas Vehicles Lessons Learned from 200 Vehicle Project, 2021* (web link: https://ww2.arb.ca.gov/sites/default/files/2021-04/Natural_Gas_HD_Engines_Fact_Sheet.pdf, last accessed August 2022).
- 220. California Air Resources Board (CARB), *Title 13 Final Regulation Order*, 2020 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2020/hdomnibuslownox/froa-1.pdf, *last accessed August 2022*).
- 221. California Air Resources Board, 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy), 2022 (web link: https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy, last accessed August 2022).
- 222. U.S. Department of Energy, *All-Electric Vehicles*, 2022 (web link: https://afdc.energy.gov/vehicles/electric_basics_ev.html, last accessed August 2022).
- 223. California Air Resources Board, Advanced Clean Trucks Regulation Appendix G: Battery Electric Truck and Bus Energy Efficiency Compared to Conventional Diesel Vehicles, 2019 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/act2019/appg.pdf, last accessed August 2022).
- 224. U.S. EPA, Integrated Science Assessment for Particulate Matter (Issue EPA/600/R-19/188), 2019 (web link: https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=347534, last accessed August 2022).
- 225. United States Environmental Protection Agency, *Integrated Science Assessment for Oxides of Nitrogen Health Criteria, EPA/600/R-15/068*, 2016 (web link: http://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=526855, last accessed August 2022).
- 226. World Health Organization, International Agency for Research on Cancer, IARC: Diesel Engine Exhaust Carcinogenic, 2012 (web link: https://www.iarc.who.int/news-events/iarc-diesel-engine-exhaust-carcinogenic/, last accessed August 2022).
- 227. California Air Resources Board, *CARB's Methodology for Estimating the Health Effects of Air Pollution* (web link: https://ww2.arb.ca.gov/resources/documents/carbs-methodology-estimating-health-effects-air-pollution, last accessed August 2022).

- 228. Fann N, Fulcher CM, Hubbell BJ., The influence of location, source, and emission type in estimates of the human health benefits of reducing a ton of air pollution, Air Quality, Atmosphere & Health, 2:169-176, 2009 (web link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2770129/, last accessed August 2022).
- 229. Fann N, Baker KR, Fulcher CM., Characterizing the PM2.5-related health benefits of emission reductions for 17 industrial, area and mobile emission sectors across the U.S., Environ Int.; 49:141-51, 2012 (web link: https://www.sciencedirect.com/science/article/pii/S0160412012001985, last accessed August 2022).
- 230. Fann N, Baker K, Chan E, Eyth A, Macpherson A, Miller E, Snyder J., Assessing Human Health PM2.5 and Ozone Impacts from U.S. Oil and Natural Gas Sector Emissions in 2025, Environ. Sci. Technol. 52 (15), pp 8095–8103, 2018 (web link: https://pubs.acs.org/doi/abs/10.1021/acs.est.8b02050, last accessed August 2022).
- 231. CARB conducted a similar analysis, incorporated here by reference, in a recent SRIA document for the large fuel demand reductions associated with the proposed Advanced Clean Cars 2 Regulation. See California Air Resources Board, Advanced Clean Cars II SRIA, 2022 (web link: https://www.dof.ca.gov/forecasting/economics/major_regulations/major_regulations_table/documents/ACCII-SRIA.pdf, last accessed August 2022).
- 232. Phillips 66, Phillips 66 Plans to Transform San Francisco Refinery into World's Largest Renewable Fuels Plant, 2020 (web link: https://investor.phillips66.com/financial-information/news-releases/news-release-details/2020/Phillips-66-Plans-to-Transform-San-Francisco-Refinery-into-Worlds-Largest-Renewable-Fuels-Plant/default.aspx, last accessed August 2022).
- 233. BiodieselMagazine.com, Marathon proceeds with renewables conversion at Martinez refinery, 2021 (web link: https://biodieselmagazine.com/articles/2517427/marathon-proceeds-with-renewables-conversion-at-martinez-refinery, last accessed August 2022).
- 234. U.S. EPA, Appendix B: Mortality Risk Valuation Estimates, Guidelines for Preparing Economic Analyses (240-R-10-001), 2010 (web link: https://www.epa.gov/sites/default/files/2017-09/documents/ee-0568-22.pdf, last accessed August 2022).
- 235. U.S. EPA, An SAB Report on EPA's White Paper Valuing the Benefits of Fatal Cancer Risk Reduction (EPA-SAB-EEAC-00-013), 2000 (web link: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100JOK2.PDF?Dockey=P100JOK2.PDF, last accessed August 2022).
- 236. Chestnut, L. G., Thayer, M. A., Lazo, J. K. and Van Den Eeden, S. K., The Economic Value Of Preventing Respiratory And Cardiovascular Hospitalizations, Contemporary Economic Policy, 24: 127–143, 2006 (web link: https://onlinelibrary.wiley.com/doi/abs/10.1093/cep/byj007, last accessed August 2022).

- 237. U.S. EPA., Technical Support Document (TSD) for the Final Revised Cross-State Air Pollution Rule Update for the 2008 Ozone Season NAAQS: Estimating PM2.5- and Ozone-Attributable Health Benefits (EPA-HQ-OAR-2020-0272), 2021 (web link: https://www.epa.gov/sites/default/files/2021-03/documents/estimating_pm2.5-_and_ozone-attributable_health_benefits_tsd_march_2021.pdf, last accessed August 2022).
- 238. Ibid.
- 239. Ibid.
- 240. Ibid.
- 241. International Agency for Research on Cancer (a division of the World Health Organization), *Press Release N° 213, IARC: Diesel Engine Exhaust Carcinogenic*, 2012 (web link: https://www.iarc.who.int/wp-content/uploads/2018/07/pr213_E.pdf, last accessed August 2022).
- 242. Environmental Science & Technology, Ambient and Emission Trends of Toxic Air Contaminants in California, 2015 (web link: https://pubs.acs.org/doi/full/10.1021/acs.est.5b02766, last accessed August 2022).
- 243. California Air Resources Board, *Overview: Diesel Exhaust & Health | California Air Resources Board*, (web link: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health, last accessed August 2022).
- 244. California Air Resources Board, Inhalable Particulate Matter and Health (PM2.5 and PM10) | California Air Resources Board, (web link: https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health, last accessed August 2022).
- 245. U.S. EPA, Health and Environmental Effects of Particulate Matter (PM) | Particulate Matter (PM) Pollution | US EPA, (web link: https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm, last accessed August 2022).
- 246. U.S. EPA, Integrated Science Assessment for Particulate Matter (EPA/600/R-19/188), 2019 (web link: https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=347534#tab-3, last accessed August 2022).
- 247. World Health Organization, Regional Office for Europe. Review of Evidence on Health Aspects of Air Pollution-REVIHAAP Project: Technical Report, 2013 (web link: https://www.euro.who.int/en/health-topics/environment-and-health/air-quality/publications/2013/review-of-evidence-on-health-aspects-of-air-pollution-revihaap-project-final-technical-report, last accessed August 2022).
- 248. California Air Resources Board, Overview: Diesel Exhaust & Health | California Air Resources Board, (web link: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health, last accessed August 2022).
- 249. U.S. EPA, Integrated Science Assessment for Particulate Matter (EPA/600/R-19/188), 2019 (web link: https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=347534#tab-3, last accessed August 2022).
- 250. Ibid.

- 251. Ibid.
- 252. Ibid.
- 253. Ibid.
- 254. U.S. EPA, Integrated Science Assessment (ISA) for Ozone and Related Photochemical Oxidants, Issue EPA/600/R-20/012, 2020 (web link: https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=348522, last accessed August 2022).
- 255. Gharibi H, Entwistle MR, Ha S, Gonzalez M, Brown P, Schweizer D, Cisneros R., Ozone pollution and asthma emergency department visits in the Central Valley, California, USA, during June to September of 2015: a time-stratified case-crossover analysis, J Asthma, 2019 Oct;56(10):1037-1048. doi: 10.1080/02770903.2018.1523930. Epub 2018 Oct 9. PMID: 30299181.
- 256. U.S. EPA, Integrated Science Assessment (ISA) for Ozone and Related Photochemical Oxidants Issue EPA/600/R-20/012, 2020 (web link: https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=348522, last accessed August 2022).
- 257. Ibid.
- 258. California Air Resources Board, *Draft 2022 State Strategy for the State Implementation Plan*, 2022 (web link: https://ww2.arb.ca.gov/sites/default/files/2022-01/Draft_2022_State_SIP_Strategy.pdf, last accessed August 2022).
- 259. California Air Resources Board, In-Use Emission Performance of Heavy-Duty Natural Gas Vehicles: Lessons Learned from 200 Vehicle Project, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/2021-04/Natural_Gas_HD_Engines_Fact_Sheet.pdf, last accessed August 2022).
- 260. California Air Resources Board, Staff Report: ARB Review of the San Joaquin Valley 2016 Plan for the 2008 8-Hour Ozone Standard, 2016 (web link: https://www.arb.ca.gov/planning/sip/planarea/2016sjv/staffreport.pdf, last accessed: April 2022).
- 261. California Air Resources Board, State Implementation Plan Attainment Contingency Measures for the San Joaquin Valley 15 ug/m Annual PM2.5 Standard, 2017 (web link: https://www.arb.ca.gov/planning/sip/sjvpm25/2017contingency/2017_sjv_contingency_staffreport.pdf, last accessed: April 2022).
- 262. California Air Resources Board, *Draft 2022 State Strategy for the State Implementation Plan*, 2022 (web link: https://ww2.arb.ca.gov/sites/default/files/2022-01/Draft_2022_State_SIP_Strategy.pdf, last accessed August 2022).
- 263. California Air Resources Board, *Mobile Source Strategy*, 2020 (web link: https://ww2.arb.ca.gov/sites/default/files/2021-12/2020_Mobile_Source_Strategy.pdf, last accessed August 2022).
- 264. California Air Resources Board, *Overview: Diesel Exhaust & Health*, 2020 (web link: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health, last accessed August 2022).
- 265. (Lara, Stats. 2016, Chapter 395)

- 266. California Air Resources Board, *Short-Lived Climate Pollutant Reduction Strategy*, 2017 (web link: https://ww2.arb.ca.gov/sites/default/files/2020-07/final_SLCP_strategy.pdf, last accessed August 2022).
- 267. California Air Resources Board, *Short-Lived Climate Pollutant Reduction Strategy*, 2017 (web link: https://ww2.arb.ca.gov/sites/default/files/2020-07/final_SLCP_strategy.pdf, last accessed August 2022).
- 268. California Air Resources Board, 2016 Mobile Source Strategy, 2016, (web link: https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.pdf, last accessed August 2022).
- 269. California Air Resources Board, *California Ambient Air Quality Standards*, 2016(web link: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards, last accessed August 2022).
- 270. Institute of Transport Economics, *Experiences from Battery-Electric Truck Users in Norway*, 2020 (web link: https://www.mdpi.com/601754, last accessed August 2022).
- 271. Bose Corporation, The impact of different seats and whole-body vibration exposures on truck driver vigilance and discomfort, 2017 (web link: https://doi.org/10.1080/00140139.2017.1372638, last accessed August 2022).
- 272. RAND Corporation, Evaluating the Impact of Whole-Body Vibration (WBV) on Fatigue and the Implications for Driver Safety, 2015 (web link: www.rand.org/t/rr1057, last accessed August 2022).
- 273. National Library of Medicine, *Potential air toxics hot spots in truck terminals and cabs*, 2012 (web link: https://pubmed.ncbi.nlm.nih.gov/23409510/, last accessed August 2022).
- 274. SoCalGas, SoCalGas Highlights Successful First Year Results for Fuel Cells at Company Facilities, 2022 (web link: https://newsroom.socalgas.com/stories/socalgas-highlights-successful-first-year-results-for-fuel-cells-at-company-facilities, last accessed August 2022).
- 275. University of California at Los Angeles, *Carbon-Optimal and Carbon-Neutral Supply Chains*, 2011 (web link: https://escholarship.org/uc/item/3s01b6pg, last accessed August 2022).
- 276. California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, 2017 (web link: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf, last accessed August 2022).
- 277. Office of Management and Budgets, *Circular A-4*, 2003 (web link: https://www.transportation.gov/sites/dot.gov/files/docs/OMB%20Circular%20N o.%20A-4.pdf, last accessed August 2022).
- 278. National Academies of Sciences, Engineering, Medicine, Valuing Climate Damages: Updating Estimation of Carbon Dioxide, 2017 (web link: http://www.nap.edu/24651, last accessed August 2022).
- 279. Interagency Working Group on the Social Cost of Carbon, Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 13990, 2021 (web link: https://www.whitehouse.gov/wp-

- content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMet haneNitrousOxide.pdf, last accessed August 2022).
- 280. Intergovernmental Panel on Climate Change, *IPCC webpage*, 2022 (web link: https://www.ipcc.ch/, last accessed August 2022).
- 281. Environmental Protection Agency, *Social Cost of Carbon Fact Sheet*, 2016 (web link: https://www.epa.gov/sites/default/files/2016-12/documents/social_cost_of_carbon_fact_sheet.pdf, last accessed August 2022).
- 282. U.S. Energy Information Administration, *California State Energy Profile*, 2022 (web link: https://www.eia.gov/state/print.php?sid=CA, last accessed August 2022).
- 283. ICCT, Transition to a Global Zero-Emission Vehicle Fleet: A Collaborative Agenda for Governments, 2015 (web link: https://theicct.org/sites/default/files/publications/ICCT_GlobalZEVAlliance_201 509.pdf, last accessed August 2022).
- 284. California Energy Commission, 2021 Total System Electric Generation, 2021 (weblink: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation, last accessed August 2022).
- 285. SB 350 (De León, Stats. 2015, ch. 547).
- 286. SB 100 (De León, Stats. 2018 ch. 312).
- 287. SB 1505 (Lowenthal, Stats. 2006, ch.877). Health and Saf. Code sections 43868 and 43869.
- 288. California Air Resources Board, 2021 Annual Evaluation of Fuel Cell Electric Vehicle Deployment and Hydrogen Fuel Station Network Development, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/2021-09/2021_AB-8_FINAL.pdf, last accessed August 2022).
- 289. California Air Resources Board, 2021 Annual Evaluation of Fuel Cell Electric Vehicle Deployment and Hydrogen Fuel Station Network Development, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/2021-09/2021_AB-8_FINAL.pdf, last accessed August 2022).
- 290. Department of Energy, *All-Electric Vehicles*, (web link: https://www.fueleconomy.gov/feg/evtech.shtml, last accessed August 2022).
- 291. U.S. Department of Energy Hydrogen Program, *Hydrogen Fuel Cells*, (web link: https://www.californiahydrogen.org/wp-content/uploads/files/doe_fuelcell_factsheet.pdf?msclkid=3dc431a0b5fb11ecb af6a8ab4b1ad0b4, last accessed August 2022).
- 292. ICCT, Transition to a Global Zero-Emission Vehicle Fleet: A Collaborative Agenda for Governments, 2015 (web link: https://theicct.org/sites/default/files/publications/ICCT_GlobalZEVAlliance_201 509.pdf, last accessed August 2022).
- 293. Health and Safety Code section 39711 tasks CalEPA with identifying DACs based on "geographic, socioeconomic, public health, and environmental hazard criteria." CalEPA uses CalEnviroScreen to score California communities based

- on environmental pollution burden and socio-economic indicators. Its updated DAC Designations, released May 3, 2022, include the twenty-five percent highest-scoring census tracts. CalEPA, California Climate Investments to Benefit Disadvantaged Communities, 2022 (web link: https://calepa.ca.gov/envjustice/ghginvest/, last accessed August 2022).
- 294. Office of Environmental Health Hazard Assessment, *CalEnviroScreen 4.0*, 2022 (web link: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40, *last accessed August 2022*).
- 295. AB 617 (Garcia, Stats. 2017 Ch. 136).
- 296. California Air Resources Board, *Community Air Protection Program*, 2022 (web link: https://ww2.arb.ca.gov/capp, last accessed August 2022).
- 297. California Air Resources Board, Zero Emission Vehicle Manufacturing in California, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/2021-08/MapofZeroEmissionOEMs.pdf, last accessed August 2022).
- 298. EV Hub, Where are the EV jobs?, 2022 (web link: https://www.atlasevhub.com/weekly_digest/where-are-the-ev-jobs/, last accessed August 2022).
- 299. GO-Biz, California Zero-Emission Vehicle Market Development Strategy, 2021 (web link: https://static.business.ca.gov/wp-content/uploads/2021/02/ZEV_Strategy_Feb2021.pdf, last accessed August 2022).
- 300. PG&E, Clean Transportation, 2022 (web link: https://www.pgecorp.com/corp_responsibility/reports/2021/pr05_clean_transportation.html, last accessed August 2022).
- 301. California Air Resources Board and California Energy Commission Joint Agency Staff Report on AB 8: 2021 Annual Assessment of Time and Cost Needed to Attain 100 Hydrogen Refueling Stations in California, December 2021. (weblink: https://www.energy.ca.gov/sites/default/files/2021-12/CEC-600-2021-040.pdf).
- 302. California Fuel Cell Partnership Station Map website: https://cafcp.org/stationmap.
- 303. ESL Power Systems, Inc., *Homepage*, 2022 (web link: https://eslpwr.com/, last accessed August 2022).
- 304. California Energy Commission, *IDEAL Workforce Pilot*, 2021 (web link: https://www.energy.ca.gov/solicitations/2021-10/gfo-21-602-ideal-zevworkforce-pilot, last accessed August 2022).
- 305. California Public Utilities Commission, *Rule 21 Interconnection*, 2021 (web link: https://www.cpuc.ca.gov/Rule21/, last accessed August 2022).
- 306. ScienceDirect, Vehicle to Grid, 2019 (web link: https://www.sciencedirect.com/topics/engineering/vehicle-to-grid, last accessed August 2022).
- 307. Ford, F-150 Lightning ™ General Product Frequently Asked Questions, 2022 (web link: https://www.ford.com/support/how-tos/owner-resources/f-150-lightning/f-150-lightning-product-frequently-asked-questions/#11, last accessed August 2022).

- 308. California Air Resources Board, *EMFAC 2021 Database*, 2021 (web link: https://arb.ca.gov/emfac/, last accessed August 2022).
- 309. M.J. Bradley & Associates, *Electric Vehicle Market Status Update*, 2021 (web link: https://www.mjbradley.com/sites/default/files/EDF_EV_Market_Report_January _2021_Update_0.pdf, last accessed August 2022).
- 310. Electrek Co, *Tesla Cybertruck pre-orders rise to over 650,000, says new report,* 2020 (web link: https://electrek.co/2020/06/22/tesla-cybertruck-pre-orders-rose-over-650000-report/, last accessed August 2022).
- 311. Trucks.com, Everything We Know About the Tesla Semi Truck, 2019 (web link: https://www.trucks.com/2019/09/05/everything-we-know-about-the-tesla-semi-truck/, last accessed August 2022).
- 312. CNBC, Elon Musk suggests Tesla has received 250,000 pre-orders for its Cybertruck, 2020 (web link: https://www.cnbc.com/2019/11/27/elon-musk-suggests-tesla-received-250000-pre-orders-for-cybertruck.html, last accessed August 2022).
- 313. Elektrek, Ford F-150 Lightning reservations surpass 160,000 during pre-production, 2021 (web link: https://electrek.co/2021/11/03/ford-f-150-lightning-reservations-surpass160000-during-pre-production/, last accessed August 2022).
- 314. The Verge, Amazon will order 100,000 electric delivery vans from EV startup Rivian, Jeff Bezos says, 2019 (web link: https://www.theverge.com/2019/9/19/20873947/amazon-electric-delivery-van-rivian-jeff-bezos-order, last accessed August 2022).
- 315. Inside EVs, Reservation Numbers Reveal Rivian R1T Has 30,000 Buyers Waiting, 2020 (web link: https://insideevs.com/news/437341/rivian-r1t-30-thousand-reservations/, last accessed August 2022).
- 316. Elektrek, Lordstown claims more than 100,000 pre-orders for its electric pickup truck, 2021 (web link: https://electrek.co/2021/01/11/lordstown-over-100000-pre-orders-electric-pickup-truck/, last accessed August 2022).
- 317. Bloomberg, Nikola Founder Builds \$7.4 Billion Fortune Off Free Truck Orders, 2020 (web link: https://www.bloomberg.com/news/articles/2020-06-12/nikola-founder-builds-7-4-billion-fortune-off-free-truck-orders, last accessed August 2022).
- 318. Nikola, Nikola Receives Landmark Order of 2500 Battery Electric Waste Trucks from Republic Services, 2020 (web link: https://nikolamotor.com/press_releases/nikola-receives-landmark-order-of-2500-battery-electric-waste-trucks-from-republic-services-91, last accessed August 2022).
- 319. M.J. & Bradley, EV Market Update January 2021, 2021 (web link: https://www.mjbradley.com/sites/default/files/EDF_EV_Market_Report_January _2021_Update_0.pdf, last accessed August 2022).
- 320. Arrival, UPS invests in Arrival and Orders 10,000 Generation 2 Electric Vehicles, 2020 (web link: https://arrival.com/news/ups-invests-in-arrival-and-orders-10000-generation-2-electric-vehicles, last accessed August 2022).

- 321. CNBC, GM looks to increase electric Hummer production as reservations top 65,000, exceeding expectations, 2022 (web link: https://www.cnbc.com/2022/03/29/gm-looks-to-increase-hummer-ev-production-as-reservations-top-65000.html, last accessed August 2022).
- 322. Biznes Alert, *Electric car for tough guys*, 2017 (web link: https://translate.google.com/translate?sl=auto&tl=en&u=https://biznesalert.pl/bollinger-b1-samochod-elektryczny/, last accessed August 2022).
- 323. Inside EVs. Canadian National Railway Orders Lion Electric Trucks, 2020 (web link: https://insideevs.com/news/442185/canadian-national-railway-orders-lion-electric-trucks, last accessed August 2022).
- 324. Inside EVs. *Lion Electric Scores Largest Truck Order to Date*, 2021 (web link: https://insideevs.com/news/497182/lion-electric-largest-truck-order/, last accessed August 2022).
- 325. Inside EVs, Bimbo Orders More EV Trucks from Motiv After Successful Pilot, 2020 (web link: https://insideevs.com/news/453800/bimbo-orders-more-evtrucks-motiv/, last accessed August 2022).
- 326. BYD, BYD Delivers 100th Battery Electric Truck in the United States, 2020 (web link: https://en.byd.com/news/byd-delivers-100th-battery-electric-truck-in-the-united-states/, last accessed August 2022).
- 327. BYD, Anheuser Busch Names BYD Sustainable Suppler of the Year, 2020 (web link: https://en.byd.com/news-posts/anheuser-busch-names-byd-sustainable-supplier-of-the-year, last accessed August 2022).
- 328. Maersk, Maersk to deploy 300 electric trucks in partnership with Einride, 2022 (web link: https://www.maersk.com/news/articles/2022/03/24/maersk-to-deploy-300-electric-trucks-in-partnership-with-einride, last accessed August 2022).
- 329. Lightning eMotors, Lightning eMotors Reports Financial Results for Second Quarter 2021, 2021 (web link: https://lightningemotors.com/20120-2/, last accessed August 2022).
- 330. GreenPower, GreenPower Receives Order for Additional 100 EV Stars from Green Commuter, 2020 (web link: https://greenpowermotor.com/10-100-ev-stars-green-commuter/, last accessed August 2022).
- 331. Phoenix Motorcars, *Phoenix Motorcars Announces Order for 50 Zero-Emissions Utility Shuttles by LR Group of Companies*, 2016 (web link: https://www.phoenixmotorcars.com/phoenix-motorcars-announces-order-for-50-zero-emissions-utility-shuttles-zeus-by-lr-group-of-companies/, last accessed August 2022).
- 332. FleetOwner, *Volvo Trucks Lands Largest VNR Electric Order*, 2021 (web link: https://www.fleetowner.com/running-green/press-release/21161426/volvo-trucks-lands-largest-vnr-electric-order, last accessed August 2022).
- 333. USPS, USPS Places Order for 50,000 Next Generation Delivery Vehicles; 10,019 To Be Electric, 2022 (web link: https://about.usps.com/newsroom/national-releases/2022/0324-usps-places-order-for-next-gen-delivery-vehicles-to-be-electric.htm, last accessed August 2022).

- 334. National Renewable Energy Laboratory, *BAE/Orion Hybrid Electric Buses at New York City Transit*, 2008 (web link: https://afdc.energy.gov/files/pdfs/42217.pdf, last accessed August 2022).
- 335. California Air Resources
 Board, https://www.dof.ca.gov/forecasting/economics/major_regulations/major
 _regulations_table/documents/ACCII-SRIA.pdf, 2022 (web
 link: https://www.dof.ca.gov/forecasting/economics/major_regulations/major_re
 gulations_table/documents/ACCII-SRIA.pdf, last accessed August 2022).
- 336. California Air Resources Board, Fiscal Year 2017-18 Zero- and Near Zero-Emission Freight Facilities Project Solicitation - List of Applications Received and Project Summaries, 2018 (web link: https://ww2.arb.ca.gov/ourwork/programs/low-carbon-transportation-investments-and-air-qualityimprovement-program/low, last accessed August 2022).
- 337. The total cumulative emissions reductions for PM2.5 and NOx are converted from tons per day into years and assumes 312 operational days per year. Due to rounding errors, the 2024-2050 cumulative totals differ very slightly when compared to the sum values listed.
- 338. National Renewable Energy Laboratory (NREL), BAE/Orion Hybrid Electric Buses at New York City Transit, A Generational Comparison, 2008, (web link: https://afdc.energy.gov/files/pdfs/42217.pdf, last accessed August 2022).
- 339. SB 100 (De León, Stats. 2018 ch. 312).
- 340. Pacific Northwest National Laboratory, Electric Vehicles at Scale Phase I Analysis: High EV Adoption Impacts on the Western U.S. Power Grid, 2020 (web link: https://www.pnnl.gov/sites/default/files/media/file/EV-AT-SCALE_1_IMPACTS_final.pdf, last accessed August 2022).
- 341. Delegates to the First National People of Color Environmental Leadership Summit, The Principles of Environmental Justice (EJ), 1991 (web link: https://www.ejnet.org/ej/principles.html, last accessed August 2022)
- 342. California Air Resources Board, Report: 2001-12-13 Policies and Actions for Environmental Justice (ca.gov), 2001 (web link: https://www.arb.ca.gov/ch/programs/ej/ejpolicies.pdf?_ga=2.30332095.187847 8371.1648486124-354412339.1596474861, last accessed August 2022).
- 343. Office of Environmental Health and Hazard Assessment, *Analysis of Race/Ethnicity and CalEnviroscreen 4.0 Scores*, 2021 (web link: https://oehha.ca.gov/media/downloads/calenviroscreen/document/calenviroscreen40raceanalysisf2021.pdf, last updated July 2022).
- 344. California Air Resources Board, A Method to Prioritize Sources for Reducing High PM2.5 Exposures in Environmental Justice Communities in California. CARB Research Contract Number 17RD006, 2019 (web link: https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/past/17rd006.pdf, last accessed August, 2022).
- 345. Ibid.
- 346. California Health and Safety Code sections 40920.6, 42 42402, 39607.1, 40920.8, 42411, 42705.5, and 44391.2, Division 26, Assembly Bill No. 617,

- Nonvehicular Air Pollution: Criteria Air Pollutants and Toxic Air Contaminants, 2017 (web link:
- https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180A B617, last accessed August 2022).
- 347. California Air Resources Board, *Community Air Protection Blueprint*, 2018 (web link: https://ww2.arb.ca.gov/sites/default/files/2018-08/final_draft_community_air_protection_blueprint_august_2018_1.pdf, last accessed August 2022).
- 348. California Air Resources Board, *EMFAC 2021 Database*, 2021 (web link: https://arb.ca.gov/emfac/, last accessed August 2022).
- 349. Inflation Reduction Act of 2022, H.R. 5376, 117 Cong. (2021-2022).
- 350. California Air Resources Board, *EMFAC 2021 Web Database*, 2021 (web link: https://arb.ca.gov/emfac/emissions-inventory/, last accessed August 2022).
- 351. California Department of Tax and Fee Administration, *Taxable Diesel Gallons* 10 Year Report, 2022 (web link: https://www.cdtfa.ca.gov/taxes-and-fees/Diesel-10-Year-Report.xlsx, last accessed August 2022).
- 352. California Air Resources Board, Appendix F: Emissions Inventory Methods and Results for the Proposed Advanced Clean Trucks Regulation, 2019 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/act2019/appf.pdf, last accessed August 2022).
- 353. California Air Resources Board, *LCTI: NorCAL Zero-Emission Regional and Drayage Operations with Fuel Cell Electric Trucks*, 2022 (web link: https://ww2.arb.ca.gov/lcti-norcal-zero-emission-regional-and-drayage-operations-fuel-cell-electric-trucks, last accessed August 2022).
- 354. California Air Resources Board, *LCTI: Fast-Track Fuel Cell Truck*, 2022 (web link: https://ww2.arb.ca.gov/lcti-fast-track-fuel-cell-truck, last accessed August 2022).
- 355. California Air Resources Board, *LCTI: Fuel Cell Hybrid Electric Delivery Van Deployment*, 2022 (web link: https://ww2.arb.ca.gov/lcti-fuel-cell-hybrid-electric-delivery-van-deployment, last accessed August 2022).
- 356. California Air Resources Board, *LCTI*: Next Generation Fuel Cell Delivery Van Deployment, 2022 (web link: https://ww2.arb.ca.gov/lcti-next-generation-fuel-cell-delivery-van-deployment, last accessed August 2022).
- 357. California Air Resources Board, *LCTI: Port of Los Angeles "Shore to Store" Project*, 2022 (web link: https://ww2.arb.ca.gov/lcti-port-los-angeles-shore-store-project, last accessed August 2022).
- 358. California HVIP, *Incentives for Clean Trucks and Bus*, 2022 (web link: https://californiahvip.org, last accessed August 2022).
- 359. Hyundai Truck & Bus, Hyundai Motor Details Plans to Expand into U.S. Market with Hydrogen-powered XCIENT Fuel Cells at ACT Expo, 2022 (web link: https://trucknbus.hyundai.com/hydrogen/en/pr-center/newsroom/news-20220524?sn=BL00200410, last accessed August 2022).
- 360. Volvo Group, The Volvo Group and Daimler Truck form Joint Venture for Large Production of Fuel Cells, 2020 (web link: https://www.volvogroup.com/en/news-and-media/news/2020/apr/news-3640568.html, last accessed August 4, 2022).

- 361. Trucks.com, *Hino Debuts XL8 Fuel Cell Heavy-Duty Truck Prototype*, 2021 (website: https://www.trucks.com/2021/08/31/hino-xl8-fuel-cell-truck-prototype/, last accessed August 2022)
- 362. California Air Resources Board, New Vehicle Cost Analysis, 2021.
- 363. United States Environmental Protection Agency, Final Rule for Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles Phase 2, 2016 (web link: https://www.govinfo.gov/content/pkg/FR-2016-10-25/pdf/2016-21203.pdf, last accessed August 2022).
- 364. California Air Resources Board, Public Hearing to Consider the Proposed Heavy-Duty Engine and Vehicle Omnibus Regulation and Associated Amendments Staff Report: Initial Statement of Reasons, 2020 (web link: https://ww3.arb.ca.gov/regact/2020/hdomnibuslownox/isor.pdf, last accessed August 2022).
- 365. Argonne National Laboratory, Fuel Economy and Cost Estimates for Mediumand Heavy-Duty Vehicles, 2019 (web link: https://publications.anl.gov/anlpubs/2021/02/165815.pdf, last accessed August 2022).
- 366. Argonne National Laboratory, 2021 Vehicle Technology Benefit Analysis Medium- and Heavy-Duty Vehicles Assumptions, 2021 (web link: https://anl.app.box.com/s/ml0vlag8merv5xb2jjt5f901cl6rbu38, last accessed August 2022).
- 367. Strategic Analysis, *Fuel Cell Systems Analysis*, 2021 (web link: https://www.hydrogen.energy.gov/pdfs/review21/fc163_james_2021_o.pdf, last accessed August 2022).
- 368. Strategic Analysis, *Hydrogen Storage Cost Analysis*, 2021 (web link: https://www.hydrogen.energy.gov/pdfs/review21/st100_james_2021_o.pdf, last accessed August 2022).
- 369. Bloomberg New Energy Finance, Battery Pack Prices Fall to an Average of \$132/kWh, But Rising Commodity Prices Start to Bite, 2021 (web link: https://about.bnef.com/blog/battery-pack-prices-fall-to-an-average-of-132-kwh-but-rising-commodity-prices-start-to-bite/, last accessed August 2022).
- 370. National Academies of Sciences, Engineering, and Medicine, Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy 2025-2035, 2021 (web link: https://www.nap.edu/read/26092/chapter/1, last accessed August 2022).
- 371. Advance Clean Trucks, *Large Entity Reporting Results, 2021* (web: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks/large-entity-reporting, last accessed August 2022).
- 372. International Council on Clean Transportation, Estimating electric vehicle charging infrastructure costs across major U.S. metropolitan areas, 2019 (web link: https://theicct.org/sites/default/files/publications/ICCT_EV_Charging_Cost_201 90813.pdf, last accessed August 2022).
- 373. AB 841 (Ting, Stats. 2020, ch. 372).

- 374. California Air Resources Board, Infrastructure Cost Analysis, 2021.
- 375. Alternative Fuels Data Center, Charging Infrastructure Operation and Maintenance, 2021 (web link: https://afdc.energy.gov/fuels/electricity_infrastructure_maintenance_and_operation.html, last accessed August 2022).
- 376. GM, GM Plans to Broaden Electrification, Expanding Fuel Cells Beyond Vehicles, 2022 (web link: https://media.gm.com/media/us/en/gm/home.detail.html/content/Pages/news/us/en/2022/jan/0119-hydrotec.html, last accessed August 2022).
- 377. EDF, California Heavy-Duty Fleet Electrification Summary Report, 2021 (web link: http://blogs.edf.org/energyexchange/files/2021/03/EDF-GNA-Final-March-2021.pdf, last accessed August 2022).
- 378. California Department of Tax and Fee Administration, *California City & County Sales & Use Tax Rates*, 2022 web link: https://cdtfa.ca.gov/taxes-and-fees/sales-use-tax-rates.htm, *last accessed August 2022*).
- 379. Transit Agency Subcommittee-Lifecycle Cost Modelling Subgroup, Report of Findings, 2017.
- 380. Fuel economy, as defined in the Energy Policy and Conservation Act of 1975 (EPCA), does not apply to BEVs. See 49 U.S.C. §§ 32901(10 & 11) (defining "fuel" as gasoline, diesel oil, or other "liquid or gaseous fuel" that needs conserving and defining "fuel economy" as the average number of miles traveled by an automobile per gallon of gasoline or its equivalent). Moreover, note that medium- and heavy-duty on-highway vehicles are not "automobiles" as defined in 49 U.S.C. § 32901(a)(3) (4-wheeled vehicles rated under 10,000 lb. GVWR, excluding work trucks (vehicles rated between 8,500 to 10,000 lb. GVWR and not medium-duty passenger vehicles as defined in 40 C.F.R. § 86.1803-01).
- 381. California Air Resources Board, *Battery-Electric Truck and Bus Efficiency Compared to Diesel Vehicles*, 2018 (web link: https://ww2.arb.ca.gov/sites/default/files/2018-11/180124hdbevefficiency.pdf, last accessed August 2022).
- 382. Penn State LTI Bus Research and Testing Center, *Motor Coach Industries D45 CRTeLE*, 2020 (web link: http://apps.altoonabustest.psu.edu/buses/reports/522.pdf?1608733416, last accessed August 2022).
- 383. Penn State LTI Bus Research and Testing Center, *GreenPower Motor Company EV Star*, 2020 (web link: http://apps.altoonabustest.psu.edu/buses/reports/515.pdf?1603821665, last accessed August 2022).
- 384. California Energy Commission, *Transportation Energy Demand Forecast*, 2021 (web link: https://efiling.energy.ca.gov/GetDocument.aspx?tn=240934, last accessed August 2022).
- 385. -Energy Information Administration, *Annual Energy Outlook 2021*, 2021 (web link: https://www.eia.gov/outlooks/aeo/data/browser/#/?id=3-AEO2021®ion=1-9 , last accessed August 2022).

- 386. California Air Resources Board, *Battery-Electric Truck and Bus Charging Calculator*, 2021 (web link: https://ww2.arb.ca.gov/resources/documents/battery-electric-truck-and-bus-charging-cost-calculator, last accessed August 2022).
- 387. Southern California Edison, Communication via email with Alexander Echele in April 2019.
- 388. Electrify America, *Pricing and Plans for EV Charging*, 2021 (web link: https://www.electrifyamerica.com/pricing/, last accessed August 2022).
- 389. California Energy Commission, *Transportation Energy Demand Forecast*, 2021 (web link: https://efiling.energy.ca.gov/GetDocument.aspx?tn=240934, last accessed August 2022).
- 390. Energy Information Administration, *Annual Energy Outlook 2021*, 2021 (web link: https://www.eia.gov/outlooks/aeo/data/browser/#/?id=3-AEO2021®ion=1-9, last accessed August 2022).
- 391. California Energy Commission, *Transportation Energy Demand Forecast*, 2021 (web link: https://efiling.energy.ca.gov/GetDocument.aspx?tn=240934, last accessed August 2022).
- 392. U.S Energy Information Administration, *Short-Term Energy Outlook December*, 2021 (web link: https://www.eia.gov/outlooks/steo/archives/Dec21.pdf, last accessed August 2022).
- 393. U.S. Energy Information Administration, *Short-Term Energy Outlook March*, 2022 https://www.eia.gov/outlooks/steo/archives/Mar22.pdf, last accessed August 2022).
- 394. U.S. Energy Information Administration, *Annual Energy Outlook 2019-2022, Table 3 Energy Prices by Sector and Sources, Pacific Region*, 2022 (web link: https://www.eia.gov/outlooks/aeo/, last accessed August 2022).
- 395. Argonne National Laboratory, Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool, 2020 (web link: https://greet.es.anl.gov/afleet, last accessed August 2022).
- 396. California Air Resources Board, *LCFS Credit Price Calculator*, 2021(web link: https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/dashboard/creditvalu ecalculator.xlsx, last accessed August 2022).
- 397. SB 1505 (Lowenthal, Stats. 2006 ch. 877).
- 398. Argonne National Laboratory, Comprehensive Total Cost of Ownership Quantification for Vehicles with Different Size Classes and Powertrains, 2021 (web link: https://www.arb.ca.gov/regact/2018/ict2018/appg.pdfhttps://www.arb.ca.gov/regact/2018/ict2018/
 - https://www.arb.ca.gov/regact/2018/ict2018/appg.pdfhttps://www.arb.ca.gov/msprog/bus/maintenance_cost.pdf, last accessed August 2022).
- 399. Department of Energy, *Batteries: 2020 Annual Progress Report*, 2020 (web link: https://www1.eere.energy.gov/vehiclesandfuels/downloads/VTO_2020_APR_Batteries_compliant_.pdf, last accessed August 2022).
- 400. BYD, *The BYD K9*, 2019 (web link: https://en.byd.com/wp-content/uploads/2019/07/4504-byd-transit-cut-sheets_k9-40_lr.pdf, last accessed August 2022).

- 401. New Flyer, *Xcelsior Charge*, 2019 (web link: https://www.newflyer.com/site-content/uploads/2019/06/Xcelsior-CHARGE-web.pdf, last accessed August 2022).
- 402. Proterra, Catalyst: 40 Foot Bus Performance Specifications, 2019 (web link: https://mk0proterra6iwx7rkkj.kinstacdn.com/wp-content/uploads/2019/06/Proterra-Catalyst-40-ft-Spec-Sheet.pdf, last accessed August 2022).
- 403. Steinbuch, *Tesla Model S Degradation Data*, 2015 (web link: https://steinbuch.wordpress.com/2015/01/24/tesla-model-s-battery-degradation-data/, last accessed August 2022).
- 404. Ricardo, Economics of Truck TCO and Hydrogen Refueling Stations, 2016 (web link: https://cafcp.org/sites/default/files/8_Economics-of-Hydrogen-Refueling-Stations-Ricardo_CaFCP-Bus-Team-meeting-Aug2016.pdf, last accessed August 2022).
- 405. California Department of Motor Vehicles, *California New Vehicle Fees*, 2021 (web link: https://www.dmv.ca.gov/portal/dmv/detail/portal/feecalculatorweb, last accessed August 2022).
- 406. Internal Revenue Service, *Publication 946 (2020), How To Depreciate Property*, 2020 (web link: https://www.irs.gov/pub/irs-pdf/p946.pdf, last accessed August 2022).
- 407. Franchise Tax Board, *Business Tax Rates*, 2021 (web link: https://www.ftb.ca.gov/file/business/tax-rates.html, last accessed August 2022).
- 408. Internal Revenue Service, *Publication 542, Corporation*, 2021 (web link: https://www.irs.gov/publications/p542, last accessed August 2022).
- 409. Forerunner Insurance Group, What does Average semi truck insurance costs for owner operators?, 2018 (web link: https://www.forerunnerinsurance.com/what-does-average-semi-truck-insurance-costs-for-owner-operators/, last accessed August 2022).
- 410. Commercial Truck Insurance HQ, Average Semi Truck Insurance Cost, 2019 (web link: https://www.commercialtruckinsurancehq.com/average-semi-truckinsurance-cost, last accessed August 2022).
- 411. Strong Tie Insurance, Why You Need a Commercial Semi Truck Insurance Coverage, 2021 (web link: https://www.strongtieinsurance.com/semi-truck-insurance/, last accessed August 2022).
- 412. Transit Agency Subcommittee-Lifecycle Cost Modeling Subgroup, Report of Findings, 2017.
- 413. U.S. Bureau of Labor Statistics, Occupational Outlook Handbook
 - Diesel Service Technicians and Mechanics, 2021 (web link: https://www.bls.gov/ooh/installation-maintenance-and-repair/diesel-service-technicians-and-mechanics.htm, last accessed August 2022).
- 414. Nissan Motor Corporation, *Nissan LEAF batteries to light up Japanese town*, 2018 (web link: https://newsroom.nissan-global.com/releases/180322-01-e?lang=en-US&la=1&downloadUrl=%2Freleases%2F180322-01-e%2Fdownload, last accessed August 2022).

- 415. BMW Group, BMW Group, Northvolt and Umicore join forces to develop sustainable life cycle loop for batteries (web link: https://www.press.bmwgroup.com/global/article/detail/T0285924EN/bmwgroup-northvolt-and-umicore-join-forces-to-develop-sustainable-life-cycle-loop-for-batteries, last accessed August 2022).
- 416. Electrification Coalition, *Electrifying Freight: Pathways to Accelerating the Transition*, 2020 (web link: https://www.electrificationcoalition.org/wp-content/uploads/2020/11/Electrifying-Freight-Pathways-to-Accelerating-the-Transition.pdf, last accessed August 2022).
- 417. SB 1 (Beall, Stats. 2017, ch. 5).
- 418. SB 1383 (Lara, Stats. 2016, ch. 395).
- 419. National Renewable Energy Laboratories. March 2015. Building a Business Case for Compressed Natural Gas in Fleet Applications. (web link: https://afdc.energy.gov/files/u/publication/business_case_cng_fleets.pdf, last accessed August 2022).
- 420. Clean Fuel Connection. Permitting CNG and LNG Stations Best Practices Guide for Host Sites and Local Permitting Authorities. (web link: https://www.baaqmd.gov/~/media/files/strategic-incentives/alt-fuels/cng-and-lng-best-practices-9-30-14-final.pdf, last accessed August 2022).
- 421. SB 1440 (Hueso, Stats. 2018 ch. 739).
- 422. SB 350 (De León, Stats. 2015, ch. 547).
- 423. CAPTI. March 2021. Climate Action Plan for Transportation Infrastructure (web link: https://calsta.ca.gov/-/media/calsta-media/documents/capti-2021-calsta.pdf, last accessed August 2022).
- 424. California Air Resources Board, California's 2022 Climate Change Scoping Plan, Appendix E: Sustainable Communities, 2022 draft (web link: https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp-appendix-e-sustainable-and-equitable-communities_0.pdf, last accessed August 2022).
- 425. Counties can adopt a sales tax increase for transportation programs. The passage of a local sales tax measure requires 2/3 of local voter approval, generally lasting 20 to 30 years. Twenty-five counties have implemented sales tax measures for their transportation needs; and 4 transit authorities have approved permanent local tax measures.
- 426. Department of General Services, *California State Fleet*, 2015-2021, 2022 (web link: https://data.ca.gov/dataset/1b31c08e-b1a7-4459-8aef-41cfff61fc5e/resource/362ad8ca-1b50-4542-88e5-5973cf729c7f/download/fleet-asset-management-system-open-data-2015-2021.csv, last accessed August 2022).
- 427. California State Controller's Office, *User Utility Tax Revenue and Rates*, 2017 (web page: https://sco.ca.gov/Files-ARD-Local/LocRep/2016-17 Cities UUT.pdf, last accessed August 2022).
- 428. County of Los Angeles v. State of California (1987) 43 Cal.3d 46, 56.
- 429. San Diego Unified School Dist. v. Commission on State Mandates (2004) 33 Cal.4th 859, 877.

- 430. County of Los Angeles v. State of California, 43 Cal.3d. 46, 58.
- 431. Department of General Services, *California State Fleet*, 2015-2021, 2022 (web link: https://data.ca.gov/dataset/1b31c08e-b1a7-4459-8aef-41cfff61fc5e/resource/362ad8ca-1b50-4542-88e5-5973cf729c7f/download/fleet-asset-management-system-open-data-2015-2021.csv, last accessed August 2022).
- 432. California Air Resources Board, Advanced Clean Cars II Proposed Amendments to the Low Emission, Zero Emission, and Associated Vehicle Regulations: Standardized Regulatory Impact Analysis, 2022 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/accii/appc1.pdf, last accessed August 2022).
- 433. REMI, *Models*, 2022 (web link: https://www.remi.com/model/pi/, last accessed August 2022).
- 434. SB 617 (Calderon, Stats. 2011, ch. 496); Gov. Code section 65850.52.
- 435. California Legislature, *Senate Bill 617*, October 2011(web link: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120S B617, last accessed August 2022).
- 436. California Department of Finance, Chapter 1: Standardized Regulatory Impact Analysis for Major Regulations Order of Adoption, December 2013(web link: https://dof.ca.gov/wp-content/uploads/Forecasting/Economics/Documents/Order_of_Adoption-12012013.pdf, last accessed August 2022).
- 437. California Department of Finance, Economic Research Unit. National Economic Forecast Annual & Quarterly. Sacramento: California, November 2021. (web link: https://dof.ca.gov/wp-content/uploads/Forecasting/Economics/Documents/United-States-Economic-Forecast-MR-2022-23.xlsx, last accessed August 2022).
- 438. California Department of Finance, Economic Research Unit. California Economic Forecast Annual & Quarterly. Sacramento: California, November 2021 (web link: https://dof.ca.gov/wp-content/uploads/Forecasting/Economics/Documents/California-Economic-Forecast-MR-2022-23.xlsx, last accessed August 2022).
- 439. California Department of Finance, Economic Research Unit. National Deflators: Calendar Year averages: from 1929, April 2021. Sacramento: California, January 2022 (web link: https://dof.ca.gov/wp-content/uploads/Forecasting/Economics/Documents/Implicit-Price-Deflators-CY.xlsx, last accessed August 2022).
- 440. California Department of Finance, Demographic Research Unit. Report P-3: Population Projections, California, 2010-2060 (Baseline 2019 Population Projections; Vintage 2020 Release) Sacramento: California, July 2021 (web link: https://dof.ca.gov/forecasting/demographics/projections/, last accessed August 2022).
- 441. Refer to Section G: Macroeconomic Appendix for a full list of REMI inputs for this analysis.

- 442. Based on REMI Policy Insight Plus (v 2.4.1), California's share of national output is 2.3 percent for motor vehicle parts manufacturing. (3,363) in 2019.
- 443. A gross margin 10.5 percent is used, based on the average gross margin of small and medium gasoline stations (NAICS 4471) from *Bizminer*, 2022 (web link: https://www.bizminer.com/, last accessed August 2022).
- 444. The sign of the change in personal income per capita differs from overall personal income due to population growth changes estimated by the REMI model as a result of the proposed ACF regulation.
- 445. SB 32 (Pavley, Stats. 2016, ch. 249).
- 446. AB 1493 (Pavley, Stats. 2002, ch. 200).
- 447. SB 100 (De León, Stats. 2018 ch. 312).
- 448. AB 1493 (Pavley, Stats. 2002, ch. 200).
- 449. The total cumulative emissions reductions for PM2.5 and NOx are converted from tons per day into years and assumes 312 operational days per year. Due to rounding errors, the 2024-2050 cumulative totals differ very slightly when compared to the sum values listed.
- 450. California Council for Economic and Environmental Balance, Re:Comments on Advanced Clean Fleets Proposed ACF regulation and Alternatives for the Environmental Analysis, 2021 (web link: https://www.arb.ca.gov/lists/comattach/29-acf-comments-ws-UDNUMVUxUGZWMlcl.pdf, last accessed August 2022).
- 451. California Air Resources Board, Heavy-Duty Omnibus: Appendix D Emissions Inventory and Results for the Proposed Amendments, 2020 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2020/hdomnibuslownox/appd.pdf, last accessed August 2022).
- 452. 20 undersigned environmental, Environmental justice, health, science-based advocacy, and labor organizations letter to CARB, September 27, 2021 (web link: https://www.arb.ca.gov/lists/com-attach/64-acf-comments-ws-AGNXPII+AD4BYgBu.pdf, last accessed August 2022).
- 453. Memorandum of Understanding on Zero-Emission Medium- and Heavy-Duty Vehicles. (web link: https://globaldrivetozero.org/site/wp-content/uploads/2021/12/Global-MOU-ZE-MHDVs-signed-20-Dec-21.pdf, last accessed August 2022).
- 454. Truck and Engine Manufacturers Association, *Letter to CARB*, October 29, 2021 (web link: https://www.arb.ca.gov/lists/com-attach/105-acf-comments-ws-V2VUYlBjVjRSC1Bh.pdf, last accessed August 2022).
- 455. California Trucking Association, *Letter to CARB*, October 29, 2021 (web link: https://www.arb.ca.gov/lists/com-attach/126-acf-comments-ws-AGNQIgFhBHoLbFIm.pdf, last accessed August 2022).
- 456. Owner-Operator Independent Driver Association, *Comment letter to CARB*, October 29, 2021 (web link: https://www.arb.ca.gov/lists/com-attach/118-acf-comments-ws-BjRVYwY1UTMAKFBh.pdf, last accessed August 2022).
- 457. SB 1383 (Lara, Stats. 2016, ch. 395).

- 458. CARB, *EMFAC*, 2021 (web link: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools-emfacsoftware-and, last accessed August 2022).
- 459. CEC Energy Almanac, *Transportation Natural Gas in California*, 2019 (web link: https://ww2.energy.ca.gov/almanac/transportation_data/cng-lng.html, last accessed August 2022).
- 460. International Council on Clean Transportation, A comparison of NOx emissions from heavy-duty diesel, natural gas, and electric vehicles, 2021 (web link: https://theicct.org/sites/default/files/publications/low-nox-hdvs-compared-sept21.pdf, last accessed August 2022).
- 461. SB 1440 (Hueso, Stats. 2018 ch. 739).
- 462. California Public Utilities Commission, *Decision 22-02-025 Implementing SB 1440 Biomethane Procurement Program*, 2022 (web link: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M454/K335/4543350 09.PDF, last accessed August 2022).
- 463. STEPS Program, Institute of Transportation Studies, UC Davis, *The Feasibility of Renewable Natural Gas as a Large-Scale, Low Carbon Substitute*, 2016 (web link: https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/past/13-307.pdf, last accessed August 2022).
- 464. California Air Recourses Board, Draft AB 32 Scoping Plan. Data for this chart taken from AB 32 GHG Inventory Sectors Modeling Data Spreadsheet, 2022 (web link: https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp-PATHWAYS-data-E3.xlsx, last accessed August 2022).
- 465. CARB, Public Hearing to Consider The Proposed Advanced Clean Trucks Regulation Resolution 20-19, 2020 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/board/res/2020/res20-19.pdf, last accessed August 2022).
- 466. Western States Trucking Association, *letter to CARB*, September 27, 2021 (web link: https://www.arb.ca.gov/lists/com-attach/63-acf-comments-ws-UiVSJwB1UGIBKglq.pdf, last accessed August 2022).
- 467. SB 1 (Beall, Stats. 2017, ch. 5).
- 468. Advanced Clean Fleets Coalition, *letter to CARB*, September 8, 2021 (web link: https://www.arb.ca.gov/lists/com-attach/47-acf-comments-ws-VCBcKAZyBzdQPQJd.pdf, last accessed August 2022).
- 469. The total cumulative emissions reductions for PM2.5 and NOx are converted from tons per day into years and assumes 312 operational days per year. Due to rounding errors, the 2024-2050 cumulative totals differ very slightly when compared to the sum values listed.
- 470. California Air Resources Board, *Advanced Clean Fleets Meetings and Events*, 2022 (web link: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets/advanced-clean-fleets-meetings-events, last accessed August 2022).
- 471. California Air Resources Board, *Advanced Clean Fleets Regulation*, 2021 (web link: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets, last accessed August 2022).

- 472. TruckStop, *Proposed ACF regulations, 2021* (web link: https://ww2.arb.ca.gov/sites/default/files/truckstop/azregs/futureregs.html, last accessed August 2022).
- 473. TruckStop, ZEV TruckStop, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/truckstop/zev/zevinfo.html, last accessed August 2022).
- 474. California Air Resources Board, Notice of Public Workshop Meeting to Discuss the Proposed Advanced Clean Fleets Regulation, 2021 (web link: https://ww2.arb.ca.gov/resources/documents/mailout-msc-21-2103, last accessed August 2022).
- 475. California Air Resources Board, Notice of Public Workshop to Discuss the Proposed Advanced Clean Fleets Regulation, 2021 (https://content.govdelivery.com/accounts/CARB/bulletins/2f6a894, last accessed August 2022).
- 476. California Air Resources Board, Cost Data and Methodology Discussion Document, 2020 (https://ww2.arb.ca.gov/sites/default/files/2020-12/201207costdisc_ADA.pdf, last accessed August 2022).
- 477. California Air Resources Board, Advanced Clean Fleets Draft Regulation and Comments, 2021 (https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets/advanced-clean-fleets-draft-regulation-and-comments, last accessed August 2022).
- 478. California Air Resources Board, Updated Draft Regulatory Text for the Advanced Clean Fleets Regulation Now Available for Public Comment, 2022 (https://content.govdelivery.com/accounts/CARB/bulletins/3142c5f, last accessed August 2022).
- 479. California Air Resources Board, *CARB Environmental Justice Blog*, 2021 (web link: http://carbej.blogspot.com/2021/10/new-zero-emission-truck-regulation-will.html, last accessed August 2022).
- 480. California Air Resources Board, *CARB Tribal Relations*, 2022 (web link: https://ww2.arb.ca.gov/tribal-relations, last accessed August 2022).
- 481. California Air Resources Board, *CARB TruckStop Zero-Emission Vehicles*, 2021 (web link: http://ww2.arb.ca.gov/sites/default/files/truckstop/zev/zevinfo.html, last accessed August 2022).
- 482. Senator Levya, *letter to CARB*, October 27, 2021 (web link: https://ww2.arb.ca.gov/resources/documents/senator-leyva-letter-regarding-diesel-vehicle-turnover, last accessed August 2022).

B. Appendix C-1 Standardize Regulatory Impact Assessment

1. California Air Resources Board, *Revised Proposed 2016 State Strategy for the State Implementation Plan*, 2017 (web link: https://ww3.arb.ca.gov/planning/sip/2016sip/rev2016statesip.pdf, last accessed January 2022).

- 2. United States Census Bureau, 2002 Vehicle Inventory and Use Survey, 2002 (web link: https://www2.census.gov/library/publications/economic-census/2002/vehicle-inventory-and-use-survey/ec02tv-us.pdf, last accessed January 2022).
- 3. California Department of Transportation, *CalTrans Truck Survey, 2018* (web link: http://www.scag.ca.gov/committees/CommitteeDocLibrary/mtf012319_CAVIUS .pdf, last accessed January 2022).
- 4. California Air Resources Board, *Draft Advanced Clean Trucks Total Cost of Ownership Discussion Document*, 2019 (web link: https://ww3.arb.ca.gov/regact/2019/act2019/apph.pdf, last accessed January 2022).
- 5. Atlas Public Policy, Assessing Financial Barriers to Adoption of Electric Trucks, 2020 (web link: https://atlaspolicy.com/wp-content/uploads/2020/02/Assessing-Financial-Barriers-to-Adoption-of-Electric-Trucks.pdf, last accessed January 2022).
- 6. Hydrogen Council, *Path to Hydrogen Competitiveness A Cost Perspective*, 2020 (web link: https://hydrogencouncil.com/wp-content/uploads/2020/01/Path-to-Hydrogen-Competitiveness_Full-Study-1.pdf, last accessed January 2022).
- 7. ICF International, Comparison of Medium-Duty and Heavy-Duty Technologies in California, 2019 (web link: https://caletc.aodesignsolutions.com/assets/files/ICF-Truck-Report_Final_December-2019.pdf, last accessed January 2022).
- 8. North American Council for Fuel Efficiency, *Regional Haul*, 2019 (web link: https://nacfe.org/regional-haul/, last accessed January 2022).
- 9. North American Council for Fuel Efficiency, *Viable Class 7/8 Electric, Hybrid, and Alternative Fuel Tractors*, 2019 (web link: https://nacfe.org/future-technology/viable-class-7-8/, last accessed January 2022).
- University of California Los Angeles, Zero-Emission Drayage Trucks Challenges and Opportunities for the San Pedro Bay Ports, 2019. (web link: https://innovation.luskin.ucla.edu/wpcontent/uploads/2019/10/Zero_Emission_Drayage_Trucks.pdf, last accessed January 2022)
- 11. Union of Concerned Scientists, Ready to Work Now is the Time for Heavy-Duty Electric Vehicles, 2019 (web link: https://www.ucsusa.org/sites/default/files/2019-12/ReadyforWorkFullReport.pdf, last accessed January 2022).
- 12. CALSTART, Zero-emission Technology Inventory (ZETI) Analytics, 2020 (web link: https://globaldrivetozero.org/tools/zeti-analytics/, last accessed January 2022).
- 13. New York Times, Can Anyone Satisfy Amazon's Craving for Electric Vans?, 2022 (web link: https://www.nytimes.com/2022/01/18/technology/amazon-electric-vans.html, last accessed January 2022).

- 14. Lightning eMotors, DHL Express Deploys Nearly 100 New Lightning Electric Delivery Vans in U.S., 2021 (web link: https://lightningemotors.com/dhl-express-deploys-lightning-electric-vans-in-us/, last accessed January 2022).
- 15. Reuters, U.S. Postal chief commits to 10% of new delivery fleet as electric vehicles, 2021 (web link: https://www.reuters.com/technology/us-postal-chief-commits-10-new-delivery-fleet-electric-vehicles-2021-02-24/, last accessed January 2022
- 16. CALSTART, Zero-emission Technology Inventory (ZETI) Analytics, 2020 (web link: https://globaldrivetozero.org/tools/zeti-analytics/, last accessed January 2022).
- 17. California Air Resources Board, Fleet Rule for Public Agencies and Utilities, 2005 (web link: https://ww2.arb.ca.gov/our-work/programs/fleet-rule-public-agencies-and-utilities, last accessed January 2022).
- 18. California Air Resources Board, *Drayage Trucks at Seaports & Railyards*, 2007 (web link: https://ww2.arb.ca.gov/our-work/programs/drayage-trucks-seaports-railyards, last accessed January 2022).
- 19. California Air Resources Board, *Truck and Bus Regulation*, 2008 (web link: https://ww2.arb.ca.gov/our-work/programs/truck-and-bus-regulation, last accessed January 2022).
- 20. California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, 2000 (web link: https://ww2.arb.ca.gov/sites/default/files/classic/diesel/documents/rrpfinal.pdf, last accessed January 2022).
- 21. California Air Resources Board, *Innovative Clean Transit*, 2018 (web link: https://ww2.arb.ca.gov/our-work/programs/innovative-clean-transit, last accessed January 2022).
- 22. California Air Resources Board, *Zero-Emission Airport Shuttle*, 2019 (web link: https://ww2.arb.ca.gov/our-work/programs/zero-emission-airport-shuttle, last accessed January 2022).
- 23. United States Environmental Protection Agency, Final Rule for Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles Phase 2, 2016 (web link: https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf, last accessed January 2022).
- 24. California Air Resources Board, Staff Report: Initial Statement of Reasons for Proposed Rulemaking Proposed California Greenhouse Gas Emission Standards for Medium- and Heavy-Duty Engines and Vehicles and Proposed Amendments to the Tractor-Trailer GHG Regulation, 2017 (web link: https://www.arb.ca.gov/regact/2018/phase2/isor.pdf, last accessed January 2022).
- 25. California Air Resources Board, *Advanced Clean Trucks*, 2020 (web link: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks, last accessed January 2022).
- 26. California Air Resources Board, *Heavy-Duty Low-NOx Omnibus ISOR*, 2021 (web link: https://ww3.arb.ca.gov/regact/2020/hdomnibuslownox/isor.pdf, last accessed January 2022).

- 27. U.S. EPA, National Ambient Air Quality Standards, February 10, 2021 (web link: https://www.epa.gov/criteria-air-pollutants/naaqs-table, last accessed January 2022).
- 28. California Air Resources Board, 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy), 2022 (web link: https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy, last accessed January 2022).
- 29. California Air Resources Board, *2020 Mobile Source Strategy*, 2020 (web link: https://ww2.arb.ca.gov/resources/documents/2020-mobile-source-strategy, last accessed January 2022).
- 30. Apte JS, Chambliss SE, Tessum CW, Marshall JD, A method to prioritize sources for reducing highPM2.5 exposures in environmental justice communities in California, CARB research contract number 17rd006, 2019 (web link: https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/past/17rd006.pdf, last accessed January 2022).
- 31. Morello-Frosch R, Zuk M, Jerrett M, Shamasunder B, Kyle AD, *Understanding* the cumulative impacts of inequalities in environmental health: Implications for policy, Health affairs (Project Hope) 30:879-887, 2011 (web link: https://pubmed.ncbi.nlm.nih.gov/21555471/, last accessed January 2022).
- 32. OEHHA, Tracking and evaluation of benefits and impacts of greenhouse gas limits in disadvantaged communities: Initial report, 2017 (web link: https://oehha.ca.gov/media/downloads/environmental-justice/report/oehhaab32report020217.pdf, last accessed January 2022).
- 33. Propper R, Wong P, Bui S, Austin J, Vance W, Alvarado Á, et al., Ambient and emission trends of toxic air contaminants in California, Environmental Science & Technology 49:11329-11339, 2015 (web link: https://pubs.acs.org/doi/abs/10.1021/acs.est.5b02766, last accessed January 2022).
- 34. Pastor M, Sadd J, Hipp J., Which came first? Toxic facilities, minority move-in, and environmental justice, Journal of urban affairs 23:1-1, 2001 (web link: https://www.tandfonline.com/doi/abs/10.1111/0735-2166.00072, last accessed January 2022).
- 35. Office of Environmental Health Hazard Assessment, *CalEnviroScreen 4.0*, October 20, 2021. (web link: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30, last accessed January 2022).
- 36. California Air Resources Board, 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy), 2022 (web link: https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy, last accessed January 2022).
- 37. Office of Governor Edmund G. (Jerry) Brown Jr., *Executive Order B-16-2012*, 2012 (web link:

- https://www.ca.gov/archive/gov39/2012/03/23/news17472/index.html, last accessed January 2022).
- 38. Governor's Interagency Working Group on Zero-Emission Vehicles, 2013 ZEV Action Plan: A roadmap toward 1.5 million zero-emission vehicles on California roadways by 2025, 2013 (web link: http://opr.ca.gov/docs/Governors_Office_ZEV_Action_Plan_(02-13).pdf, last accessed January 2022).
- 39. California Health and Safety Code § 39730, Division 26, Senate Bill No. 605, Short-lived climate pollutants, September 21, 2014 (web link: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140S B605, last accessed January 2022).
- 40. California Health and Safety Code § 39730, Division 30, Senate Bill No. 1383, Short-lived climate pollutants: methane emissions: dairy and livestock: organic waste: landfills, September 19, 2016 (web link: http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160SB 1383, last accessed January 2022).
- 41. California Air Resources Board, Sustainable Freight Pathways to Zero and Near-Zero Emissions Discussion Document, 2015 (web link: https://ww2.arb.ca.gov/sites/default/files/2020-09/Sustainable%20Freight%20Pathways%20to%20Zero%20and%20Near-Zero%20Emissions%20Discussion%20Document.pdf, last accessed January 2022).
- 42. California Air Resources Board, *Board Resolution 14-2*, 2014 (web link: https://www.arb.ca.gov/board/res/2014/res14-2.pdf, last accessed January 2022).
- 43. State of California Executive Order signed by Governor Edmund G. (Jerry) Brown Jr., *Executive Order B-32-15*, 2015 (web link: https://www.ca.gov/archive/gov39/2015/07/17/news19046/index.html, last accessed January 2022).
- 44. Office of Governor Edmund G. (Jerry) Brown Jr., Governor Brown Takes Action to Increase Zero-Emission Vehicles, Fund New Climate Investments, 2018 (web link: https://www.ca.gov/archive/gov39/2018/01/26/governor-brown-takes-action-to-increase-zero-emission-vehicles-fund-new-climate-investments/index.html, last accessed January 2022).
- 45. State of California Executive Order signed by Governor Edmund G. (Jerry) Brown Jr., *Executive Order B-55-18*, 2018 (web link: https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf, last accessed January 2022).
- 46. Signed by Edmund G. (Jerry) Brown Jr., *Governor's Letter to Chair Nichols*, 2018 (web link: https://ww2.arb.ca.gov/sites/default/files/2020-06/zero_emission_fleet_letter_080118_ADA.pdf, last accessed January 2022).
- 47. State of California Executive Order signed by Governor Gavin Newsom, *Executive Order N-19-19*, 2019 (web link: https://catc.ca.gov/-/media/ctc-media/documents/ctc-codes/execorder-n-19-19-a11y.pdf, last accessed January 2022).

- 48. California Air Resources Board, *Resolution 20-19*, 2020 (web link: https://ww3.arb.ca.gov/regact/2019/act2019/finalres20-19.pdf, last accessed January 2022).
- 49. California Air Resources Board, *Press Release 20-18 15 states and the District of Columbia join forces to accelerate bus and truck electrification*, 2020 (web link: https://ww2.arb.ca.gov/news/15-states-and-district-columbia-join-forces-accelerate-bus-and-truck-electrification, last accessed January 2022).
- 50. Washington, Oregon, New York, New Jersey, and Massachusetts have all adopted the ACT regulation.
- 51. State of California Executive Order signed by Governor Gavin Newsom, *Executive Order N-79-20*, 2020 (web link: https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf, last accessed January 2022).
- 52. California Air Resources Board, *Revised Draft 2020 Mobile Source Strategy*, April 23, 2021. (web link: https://ww2.arb.ca.gov/sites/default/files/2021-04/Revised_Draft_2020_Mobile_Source_Strategy.pdf, last accessed January 2022)
- 53. California Code of Regulations § 2000-2004, Division 3, Standardized Regulatory Impact Assessment for Major Regulations. (web link: https://govt.westlaw.com/calregs/Document/IAA1C7210595511E3BFC8D5B36 15C797F?viewType=FullText&originationContext=documenttoc&transitionType =CategoryPageItem&contextData=(sc.Default)&bhcp=1#co_anchor_IA8F81D2 F7A734A449389719B2F838650, last accessed January 2022).
- 54. California Air Resources Board, *EMFAC 2021 Database*, 2021 (web link: https://arb.ca.gov/emfac/, last accessed January 2022).
- 55. M.J. Bradley & Associates, *Electric Vehicle Market Status Update*, 2021 (https://www.mjbradley.com/sites/default/files/EDF_EV_Market_Report_January _2021_Update_0.pdf, last accessed January 2022)
- 56. Electrek Co, *Tesla Cybertruck pre-orders rise to over 650,000, says new report* 2020 (https://electrek.co/2020/06/22/tesla-cybertruck-pre-orders-rose-over-650000-report/, last accessed January 2022)
- 57. Trucks.com, Everything We Know About the Tesla Semi Truck, 2019 (https://www.trucks.com/2019/09/05/everything-we-know-about-the-tesla-semi-truck/, last accessed January 2022)
- 58. CNBC, Elon Musk suggests Tesla has received 250,000 pre-orders for its Cybertruck, 2020 (https://www.cnbc.com/2019/11/27/elon-musk-suggests-tesla-received-250000-pre-orders-for-cybertruck.html, last accessed January 2022)
- 59. Elektrek, Ford F-150 Lightning reservations surpass 160,000 during preproduction, 2021 (https://electrek.co/2021/11/03/ford-f-150-lightningreservations-surpass160000-during-pre-production/, last accessed January 2022)
- 60. The Verge, Amazon will order 100,000 electric delivery vans from EV startup Rivian, Jeff Bezos says, 2019

- (https://www.theverge.com/2019/9/19/20873947/amazon-electric-delivery-van-rivian-jeff-bezos-order, last accessed January 2022).
- 61. Inside EVs, Reservation Numbers Reveal Rivian R1T Has 30,000 Buyers Waiting, 2020 (https://insideevs.com/news/437341/rivian-r1t-30-thousand-reservations/, last accessed January 2022).
- 62. Elektrek, Lordstown claims more than 100,000 pre-orders for its electric pickup truck, 2021 (https://electrek.co/2021/01/11/lordstown-over-100000-pre-orders-electric-pickup-truck/, last accessed January 2022)
- 63. Bloomberg, *Nikola Founder Builds \$7.4 Billion Fortune Off Free Truck Orders*, 2020 (https://www.bloomberg.com/news/articles/2020-06-12/nikola-founder-builds-7-4-billion-fortune-off-free-truck-orders, last accessed January 2022)
- 64. Nikola, Nikola Receives Landmark Order of 2500 Battery Electric Waste Trucks from Republic Services, 2020 (https://nikolamotor.com/press_releases/nikolareceives-landmark-order-of-2500-battery-electric-waste-trucks-from-republic-services-91, last accessed January 2022)
- 65. M.J. & Bradley, EV Market Update January 2021, 2021 (https://www.mjbradley.com/sites/default/files/EDF_EV_Market_Report_January _2021_Update_0.pdf, last accessed January 2022).
- 66. Arrival, UPS invests in Arrival and Orders 10,000 Generation 2 Electric Vehicles, 2020 (https://arrival.com/news/ups-invests-in-arrival-and-orders-10000-generation-2-electric-vehicles, last accessed January 2022)
- 67. Elektrek, GMC Hummer EV receives surprising number of pre-orders, and GM is looking to increase production, 2021 (https://electrek.co/2020/12/21/gmc-hummer-ev-surprising-number-pre-orders-increase-production/, last accessed January 2022)
- 68. Biznes Alert, *Electric car for tough guys*, 2017 (https://translate.google.com/translate?sl=auto&tl=en&u=https://biznesalert.pl/bollinger-b1-samochod-elektryczny/, last accessed January 2022)
- 69. Inside EVs. Canadian National Railway Orders Lion Electric Trucks, 2020 (https://insideevs.com/news/442185/canadian-national-railway-orders-lion-electric-trucks, last accessed January 2022)
- 70. Inside EVs. Lion Electric Scores Largest Truck Order to Date, 2021 (https://insideevs.com/news/497182/lion-electric-largest-truck-order/, last accessed January 2022)
- 71. Inside EVs, Bimbo Orders More EV Trucks from Motiv After Successful Pilot, 2020 (https://insideevs.com/news/453800/bimbo-orders-more-ev-trucks-motiv/, last accessed January 2022)
- 72. BYD, BYD Delivers 100th Battery Electric Truck in the United States, 2020 (https://en.byd.com/news/byd-delivers-100th-battery-electric-truck-in-the-united-states/, last accessed January 2022)
- 73. BYD, Anheuser Busch Names BYD Sustainable Suppler of the Year, 2020 (https://en.byd.com/news-posts/anheuser-busch-names-byd-sustainable-supplier-of-the-year, last accessed January 2022)

- 74. Lightning eMotors, Lightning eMotors Reports Financial Results for Second Quarter 2021, 2021 (https://lightningemotors.com/20120-2/, last accessed January 2022)
- 75. GreenPower, GreenPower Receives Order for Additional 100 EV Stars from Green Commuter, 2020 (https://greenpowermotor.com/10-100-ev-stars-green-commuter/, last accessed January 2022)
- 76. Phoenix Motorcars, Phoenix Motorcars Announces Order for 50 Zero-Emissions Utility Shuttles by LR Group of Companies, 2016 (https://www.phoenixmotorcars.com/phoenix-motorcars-announces-order-for-50-zero-emissions-utility-shuttles-zeus-by-lr-group-of-companies/, last accessed January 2022)
- 77. FleetOwner, Volvo Trucks Lands Largest VNR Electric Order, 2021 (https://www.fleetowner.com/running-green/press-release/21161426/volvo-trucks-lands-largest-vnr-electric-order, last accessed January 2022)
- 78. California Air Resources Board, *Advanced Clean Fleets Meetings and Events*, 2021 (https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets-meetings-events, last accessed January 2022)
- 79. California Air Resources Board, Notice of Public Workshop Meeting to Discuss the Proposed Advanced Clean Fleets Regulation, 2021 (Notice of Public Workshop Meeting to Discuss the Proposed Advanced Clean Fleets Regulation, 2021 (https://ww2.arb.ca.gov/resources/documents/mailout-msc-21-2103, last accessed January 2022).
- 80. California Air Resources Board, Notice of Public Workshop to Discuss the Proposed Advanced Clean Fleets Regulation, 2021 (https://content.govdelivery.com/accounts/CARB/bulletins/2f6a894)
- 81. California Air Resources Board, *Advanced Clean Fleets*, 2021 (https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets, last accessed January 2022)
- 82. California Air Resources Board, Cost Data and Methodology Discussion Document, 2020 (https://ww2.arb.ca.gov/sites/default/files/2020-12/201207costdisc_ADA.pdf, last accessed January 2022).
- 83. California Air Resources Board, Advanced Clean Fleets Draft Regulation and Comments, 2021 (https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets/advanced-clean-fleets-draft-regulation-and-comments, last accessed January 2022)
- 84. California Air Resources Board, *CARB Environmental Justice Blog*, 2021 (web link: http://carbej.blogspot.com/2021/10/new-zero-emission-truck-regulation-will.html, last accessed January 2022).
- 85. California Air Resources Board, *CARB TruckStop Zero-Emission Vehicles*, 2021 (web link: http://ww2.arb.ca.gov/sites/default/files/truckstop/zev/zevinfo.html, last accessed January 2022).
- 86. California Air Resources Board, 2016 State Strategy for the State Implementation Plan, 2017 (web link:

- https://ww3.arb.ca.gov/planning/sip/2016sip/rev2016statesip.pdf, last accessed January 2022).
- 87. California Air Resources Board, *California Ambient Air Quality Standards* (web link: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards, last accessed January 2022).
- 88. California Air Resources Board, *Nitrogen Dioxide and Health* (web link: https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health, last accessed January 2022).
- 89. California Air Resources Board, *Inhalable Particulate Matter (PM 2.5 and PM10)* (web link: https://ww3.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm, last accessed January 2022).
- 90. California Air Resources Board, 2016 Mobile Source Strategy, 2016 (web link: https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.pdf, last accessed January 2022).
- 91. California Air Resources Board, *Draft 2020 Mobile Source Strategy*, 2020 (web link: https://ww2.arb.ca.gov/sites/default/files/2020-11/Draft_2020_Mobile_Source_Strategy.pdf, last accessed January 2022).
- 92. California Air Resources Board, *EMFAC*, 2021 (web link: https://arb.ca.gov/emfac/, last accessed April 2022).
- 93. National Renewable Energy Laboratory, *BAE/Orion Hybrid Electric Buses at New York City Transit* (web link: https://afdc.energy.gov/files/pdfs/42217.pdf, last accessed January 2022).
- 94. California Air Resources Board, Advanced Clean Cars II SRIA, 2022 (web link: https://www.dof.ca.gov/forecasting/economics/major_regulations/major_regulations_table/documents/ACCII-SRIA.pdf, last accessed January 2022).
- 95. The Sustainable Communities and Climate Protection Act of 2008 (SB 375) requires CARB to develop and set regional targets for GHG emissions reductions from passenger vehicles. CARB has set regional targets, indexed to years 2020 and 2035, to help achieve significant additional GHG emissions reductions from changed land use patterns and improved transportation in support of the State's climate goals, as well as in support of statewide public health and air quality objectives.
- 96. California Air Resources Board, *California Greenhouse Gas Emissions for 2000 to 2019*, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/classic/cc/ca_ghg_inventory_trends_2 000-2019.pdf, last accessed January 2022).
- 97. Phillips 66, Phillips 66 Plans to Transform San Francisco Refinery into World's Largest Renewable Fuels Plant, 2020 (web link: https://investor.phillips66.com/financial-information/news-releases/news-release-details/2020/Phillips-66-Plans-to-Transform-San-Francisco-Refinery-into-Worlds-Largest-Renewable-Fuels-Plant/default.aspx, last accessed January 2022).
- 98. BiodieselMagazine.com, Marathon proceeds with renewables conversion at Martinez refinery, 2021 (web link:

- https://biodieselmagazine.com/articles/2517427/marathon-proceeds-with-renewables-conversion-at-martinez-refinery, last accessed January 2022)
- 99. California Air Resources Board, California's 2017 Climate Change Scoping Plan, 2017 (web link: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf, last accessed January 2022)
- 100. California Air Resources Board, SB 350 Electricity Sector Greenhouse Gas Planning Targets | California Air Resources Board, (web link: https://ww2.arb.ca.gov/our-work/programs/sb350, last accessed January 2022)
- 101. California Energy Commission, SB 100 Joint Agency Report (web link: https://www.energy.ca.gov/sb100, last accessed January 2022)
- California Air Resources Board, Pathways Scenario Modeling 2022 Scoping Plan Update, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/2021-12/Revised_2022SP_ScenarioAssumptions_15Dec.pdf, last accessed January 2022)
- 103. California Air Resources Board, California's 2017 Climate Change Scoping Plan, 2017 (web link: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf, last accessed January 2022).
- 104. Office of Management and Budgets, *Circular A-4*, 2003 (web link: https://www.transportation.gov/sites/dot.gov/files/docs/OMB%20Circular%20N o.%20A-4.pdf, last accessed January 2022).
- 105. National Academies of Sciences, Engineering, Medicine, Valuing Climate Damages: Updating Estimation of Carbon Dioxide, 2017 (web link: http://www.nap.edu/24651, last accessed January 2022).
- 106. Interagency Working Group on the Social Cost of Carbon, Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 13990, 2021 (web link: https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMet haneNitrousOxide.pdf, last accessed January 2022).
- 107. Intergovernmental Panel on Climate Change, *IPCC webpage*, (weblink: https://www.ipcc.ch/, last accessed January 2022)
- 108. Environmental Protection Agency, *Social Cost of Carbon Fact Sheet*, 2016, (weblink: https://www.epa.gov/sites/default/files/2016-12/documents/social_cost_of_carbon_fact_sheet.pdf, last accessed January 2022)
- 109. Institute of Transport Economics, *Experiences from Battery-Electric Truck Users in Norway*, 2020 (web link: https://www.mdpi.com/601754, last accessed January 2022).
- 110. Bose Corporation, The impact of different seats and whole-body vibration exposures on truck driver vigilance and discomfort, 2017 (web link: https://doi.org/10.1080/00140139.2017.1372638, last accessed January 2022).

- 111. RAND Corporation, Evaluating the Impact of Whole-Body Vibration (WBV) on Fatigue and the Implications for Driver Safety, 2015 (web link: www.rand.org/t/rr1057, last accessed January 2022).
- 112. National Library of Medicine, *Potential air toxics hot spots in truck terminals and cabs*, 2012 (web link: https://pubmed.ncbi.nlm.nih.gov/23409510/, last accessed January 2022).
- 113. University of California at Los Angeles, *Carbon-Optimal and Carbon-Neutral Supply Chains*, 2011 (web link: https://escholarship.org/uc/item/3s01b6pg, last accessed January 2022).
- 114. U.S. EPA, Integrated Science Assessment for Particulate Matter (Issue EPA/600/R-19/188), 2019 (web link: https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=347534, last accessed January 2022).
- 115. United States Environmental Protection Agency, *Integrated Science Assessment for Oxides of Nitrogen Health Criteria, EPA/600/R-15/068*, 2016 (web link: http://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=526855, last accessed January 2022).
- 116. California Air Resources Board, *CARB's Methodology for Estimating the Health Effects of Air Pollution*, 2022 (web link: https://ww2.arb.ca.gov/resources/documents/carbs-methodology-estimating-health-effects-air-pollution, last accessed January 2022).
- 117. Fann N, Fulcher CM, Hubbell BJ., The influence of location, source, and emission type in estimates of the human health benefits of reducing a ton of air pollution, Air Quality, Atmosphere & Health, 2:169-176, 2009 (web link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2770129/, last accessed January 2022).
- 118. Fann N, Baker KR, Fulcher CM., Characterizing the PM2.5-related health benefits of emission reductions for 17 industrial, area and mobile emission sectors across the U.S., Environ Int.; 49:141-51, 2012 (web link: https://www.sciencedirect.com/science/article/pii/S0160412012001985, last accessed January 2022).
- 119. Fann N, Baker K, Chan E, Eyth A, Macpherson A, Miller E, Snyder J., Assessing Human Health PM2.5 and Ozone Impacts from U.S. Oil and Natural Gas Sector Emissions in 2025, Environ. Sci. Technol. 52 (15), pp 8095–8103, 2018 (web link: https://pubs.acs.org/doi/abs/10.1021/acs.est.8b02050, last accessed January 2022).
- 120. California Air Resources Board, Fiscal Year 2017-18 Zero- and Near Zero-Emission Freight Facilities Project Solicitation - List of Applications Received and Project Summaries, 2018 (web link: https://ww2.arb.ca.gov/ourwork/programs/low-carbon-transportation-investments-and-air-qualityimprovement-program/low, last accessed April 2022)
- 121. CARB conducted a similar analysis, incorporated here by reference, in a recent SRIA document for the large fuel demand reductions associated with the proposed Advanced Clean Cars 2 Regulation. See California Air Resources Board, Advanced Clean Cars II SRIA, 2022 (web link:

- https://www.dof.ca.gov/forecasting/economics/major_regulations/major_regulations_table/documents/ACCII-SRIA.pdf, last accessed January 2022).
- 122. Phillips 66, Phillips 66 Plans to Transform San Francisco Refinery into World's Largest Renewable Fuels Plant, 2020 (web link: https://investor.phillips66.com/financial-information/news-releases/news-release-details/2020/Phillips-66-Plans-to-Transform-San-Francisco-Refinery-into-Worlds-Largest-Renewable-Fuels-Plant/default.aspx, last accessed January 2022).
- 123. BiodieselMagazine.com, Marathon proceeds with renewables conversion at Martinez refinery, 2021 (web link: https://biodieselmagazine.com/articles/2517427/marathon-proceeds-with-renewables-conversion-at-martinez-refinery, last accessed January 2022)
- 124. U.S. EPA, Appendix B: Mortality Risk Valuation Estimates, Guidelines for Preparing Economic Analyses (240-R-10-001), 2010 (web link: https://www.epa.gov/sites/default/files/2017-09/documents/ee-0568-22.pdf, last accessed January 2022).
- 125. U.S. EPA, An SAB Report on EPA's White Paper Valuing the Benefits of Fatal Cancer Risk Reduction (EPA-SAB-EEAC-00-013), 2000 (web link: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100JOK2.PDF?Dockey=P100JOK2.PDF, last accessed January 2022).
- 126. Chestnut, L. G., Thayer, M. A., Lazo, J. K. and Van Den Eeden, S. K., The Economic Value Of Preventing Respiratory And Cardiovascular Hospitalizations, Contemporary Economic Policy, 24: 127–143, 2006 (web link: https://onlinelibrary.wiley.com/doi/abs/10.1093/cep/byj007, last accessed January 2022).
- 127. California Air Resources Board, *EMFAC 2021 Web Database*, 2021 (web link: https://arb.ca.gov/emfac/emissions-inventory/, last accessed January 2022).
- 128. California Department of Tax and Fee Administration, *Taxable Diesel Gallons 10 Year Report*, 2021 (web link: https://www.cdtfa.ca.gov/taxes-and-fees/Diesel-10-Year-Report.xlsx, last accessed December 2021).
- 129. California Air Resources Board, Appendix F: Emissions Inventory Methods and Results for the Proposed Advanced Clean Trucks Regulation, 2019 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/act2019/appf.pdf, last accessed January 2022).
- 130. California Air Resources Board, New Vehicle Cost Analysis, 2021.
- 131. United States Environmental Protection Agency, Final Rule for Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles Phase 2, 2016 (web link: https://www.govinfo.gov/content/pkg/FR-2016-10-25/pdf/2016-21203.pdf, last accessed January 2022).
- 132. California Air Resources Board, Public Hearing to Consider the Proposed Heavy-Duty Engine and Vehicle Omnibus Regulation and Associated Amendments Staff Report: Initial Statement of Reasons, 2020 (web link: https://ww3.arb.ca.gov/regact/2020/hdomnibuslownox/isor.pdf, , last accessed January 2022).

- 133. Argonne National Laboratory, Fuel Economy and Cost Estimates for Mediumand Heavy-Duty Vehicles, 2019 (web link: https://publications.anl.gov/anlpubs/2021/02/165815.pdf, last accessed December 2021).
- 134. Argonne National Laboratory, 2021 Vehicle Technology Benefit Analysis Medium- and Heavy-Duty Vehicles Assumptions, 2021 (web link: https://anl.app.box.com/s/ml0vlag8merv5xb2jjt5f901cl6rbu38, last accessed December 2021).
- 135. Strategic Analysis, *Fuel Cell Systems Analysis*, 2021 (web link: https://www.hydrogen.energy.gov/pdfs/review21/fc163_james_2021_o.pdf, last accessed December 2021).
- 136. Strategic Analysis, *Hydrogen Storage Cost Analysis*, 2021 (web link: https://www.hydrogen.energy.gov/pdfs/review21/st100_james_2021_o.pdf, last accessed December 2021).
- 137. National Academies of Sciences, Engineering, and Medicine, Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy 2025-2035, 2021 (web link: https://www.nap.edu/read/26092/chapter/1, last accessed December 2021).
- 138. Advance Clean Trucks, Large Entity Reporting Results (web: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks/large-entity-reporting, last accessed January 2022)
- 139. International Council on Clean Transportation, Estimating Electric Vehicle Charging Infrastructure Costs Across Major U.S. Metropolitan Areas, 2019. (web link: https://theicct.org/sites/default/files/publications/ICCT_EV_Charging_Cost_201 90813.pdf, last accessed January 2022).
- 140. Alternative Fuels Data Center, Charging Infrastructure Operation and Maintenance, 2021 (web link: https://afdc.energy.gov/fuels/electricity_infrastructure_maintenance_and_operation.html, last accessed January 2022).
- 141. GM, GM Plans to Broaden Electrification, Expanding Fuel Cells Beyond Vehicles, 2022 (web link: https://media.gm.com/media/us/en/gm/home.detail.html/content/Pages/news/us/en/2022/jan/0119-hydrotec.html, last accessed January 2022)
- 142. EDF, California Heavy-Duty Fleet Electrification Summary Report, 2021 (web link: http://blogs.edf.org/energyexchange/files/2021/03/EDF-GNA-Final-March-2021.pdf, last accessed January 2022)
- 143. Based on the tax rate data from California Department of Tax and Fee Administration: https://cdtfa.ca.gov/taxes-and-fees/sales-use-tax-rates.htm
- 144. Fuel economy, as defined in the Energy Policy and Conservation Act of 1975 (EPCA), does not apply to BEVs. See 49 U.S.C. §§ 32901(10 & 11) (defining "fuel" as gasoline, diesel oil, or other "liquid or gaseous fuel" that needs conserving and defining "fuel economy" as the average number of miles traveled by an automobile per gallon of gasoline or its equivalent). Moreover,

- note that medium- and heavy-duty on-highway vehicles are not "automobiles" as defined in 49 U.S.C. 32901(a)(3) (4-wheeled vehicles rated under 10,000 lb. GVWR, excluding work trucks (vehicles rated between 8,500 to 10,000 lb. GVWR and not medium-duty passenger vehicles as defined in 40 CFR section 86.1803-01).
- 145. California Air Resources Board, Battery Electric Truck and Bus Efficiency Compared to Diesel Vehicles (web link: https://ww2.arb.ca.gov/sites/default/files/2018-11/180124hdbevefficiency.pdf, last accessed January 2022).
- 146. Penn State LTI Bus Research and Testing Center, *Motor Coach Industries D45 CRTeLE*, 2020 (web link: http://apps.altoonabustest.psu.edu/buses/reports/522.pdf?1608733416, last accessed January 2022).
- 147. Penn State LTI Bus Research and Testing Center, *GreenPower Motor Company EV Star*, 2020 (web link: http://apps.altoonabustest.psu.edu/buses/reports/515.pdf?1603821665, last accessed January 2022).
- 148. California Energy Commission, *Transportation Energy Demand Forecast*, 2021 (web link: https://efiling.energy.ca.gov/GetDocument.aspx?tn=240934, last accessed January 2022).
- 149. Energy Information Administration, *Annual Energy Outlook 2021*, 2021 (web link: https://www.eia.gov/outlooks/aeo/data/browser/#/?id=3-AEO2021®ion=1-9, last accessed December 2021).
- 150. California Air Resources Board, *Battery-Electric Truck and Bus Charging Calculator*, 2021 (web link: https://ww2.arb.ca.gov/resources/documents/battery-electric-truck-and-bus-charging-cost-calculator, last accessed December 2021).
- 151. Southern California Edison, Communication via email with Alexander Echele in April 2019.
- 152. Electrify America, *Pricing and Plans for EV Charging*, 2021 (web link: https://www.electrifyamerica.com/pricing/, last accessed January 2022).
- 153. California Energy Commission, *Transportation Energy Demand Forecast*, 2021 (web link: https://efiling.energy.ca.gov/GetDocument.aspx?tn=240934, last accessed January 2022).
- 154. Energy Information Administration, *Annual Energy Outlook 2021*, 2021 (web link: https://www.eia.gov/outlooks/aeo/data/browser/#/?id=3-AEO2021®ion=1-9, last accessed December 2021).
- 155. California Energy Commission, *Transportation Energy Demand Forecast*, 2021 (web link: https://efiling.energy.ca.gov/GetDocument.aspx?tn=240934, last accessed January 2022).
- 156. U.S Energy Information Administration, Short-Term Energy Outlook. December 2021, last accessed August 2022). April 13, 2022. https://www.eia.gov/outlooks/steo/archives/Dec21.pdf

- 157. U.S. Energy Information Administration, Short-Term Energy Outlook. March 2022, last accessed August 2022). April 13, 2022. https://www.eia.gov/outlooks/steo/archives/Mar22.pdf
- 158. U.S. Energy Information Administration, Annual Energy Outlook 2019-2022, Table 3 Energy Prices by Sector and Sources, Pacific Region. Available at: https://www.eia.gov/outlooks/aeo/
- 159. Argonne National Laboratory, Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool. (https://greet.es.anl.gov/afleet, last accessed January 2022)
- 160. California Air Resources Board, *LCFS Credit Price Calculator*, 2021(web link: https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/dashboard/creditvalu ecalculator.xlsx, last accessed January 2022).
- 161. Argonne National Laboratory, Comprehensive Total Cost of Ownership Quantification for Vehicles with Different Size Classes and Powertrains (web link: https://www.arb.ca.gov/regact/2018/ict2018/appg.pdfhttps://www.arb.ca.gov/msprog/bus/maintenance_cost.pdf, last accessed January 2022)
- 162. Department of Energy, *Batteries: 2020 Annual Progress Report*, 2020 (web link: https://www1.eere.energy.gov/vehiclesandfuels/downloads/VTO_2020_APR_Batteries_compliant_.pdf, last accessed December 2021).
- 163. BYD, *The BYD K9*, 2019 (web link: https://en.byd.com/wp-content/uploads/2019/07/4504-byd-transit-cut-sheets_k9-40_lr.pdf, last accessed January 2022)
- 164. New Flyer, *Xcelsior Charge*, 2019 (web link: https://www.newflyer.com/site-content/uploads/2019/06/Xcelsior-CHARGE-web.pdf, last accessed January 2022)
- 165. Proterra, Catalyst: 40 Foot Bus Performance Specifications, 2019 (web link: https://mk0proterra6iwx7rkkj.kinstacdn.com/wp-content/uploads/2019/06/Proterra-Catalyst-40-ft-Spec-Sheet.pdf, last accessed January 2022)
- 166. Steinbuch, *Tesla Model S Degradation Data*, 2015 (web link: https://steinbuch.wordpress.com/2015/01/24/tesla-model-s-battery-degradation-data/, last accessed January 2022)
- 167. Ricardo, Economics of Truck TCO and Hydrogen Refueling Stations, 2016(web link: https://cafcp.org/sites/default/files/8_Economics-of-Hydrogen-Refueling-Stations-Ricardo_CaFCP-Bus-Team-meeting-Aug2016.pdf)
- 168. California Department of Motor Vehicles, *California New Vehicle Fees*, 2021 (web link: https://www.dmv.ca.gov/portal/dmv/detail/portal/feecalculatorweb, last accessed January 2022).
- 169. Internal Revenue Service, *Publication 946 (2020), How To Depreciate Property*, 2020 (web link: https://www.irs.gov/pub/irs-pdf/p946.pdf, last accessed January 2022).
- 170. Franchise Tax Board, *Business Tax Rates*, 2021 (web link: https://www.ftb.ca.gov/file/business/tax-rates.html, last accessed January 2022).

- 171. Internal Revenue Service, *Publication 542, Corporation*, 2021 (web link: https://www.irs.gov/publications/p542, last accessed January 2022).
- 172. Forerunner Insurance Group, What does Average semi truck insurance costs for owner operators?, 2018 (web link: https://www.forerunnerinsurance.com/what-does-average-semi-truck-insurance-costs-for-owner-operators/, last accessed January 2022).
- 173. Commercial Truck Insurance HQ, Average Semi Truck Insurance Cost, 2019 (web link: https://www.commercialtruckinsurancehq.com/average-semi-truckinsurance-cost, last accessed January 2022).
- 174. Strong Tie Insurance, Why You Need a Commercial Semi Truck Insurance Coverage, 2021 (web link: https://www.strongtieinsurance.com/semi-truck-insurance/, last accessed January 2022).
- 175. Transit Agency Subcommittee-Lifecycle Cost Modeling Subgroup, Report of Findings, 2017.
- 176. U.S. Bureau of Labor Statistics, Occupational Outlook Handbook Diesel Service Technicians and Mechanics, 2021 (web link: https://www.bls.gov/ooh/installation-maintenance-and-repair/diesel-service-technicians-and-mechanics.htm, last accessed January 2022).
- 177. Nissan Motor Corporation, *Nissan LEAF batteries to light up Japanese town*, 2018 (web link: https://newsroom.nissan-global.com/releases/180322-01-e?lang=en-US&la=1&downloadUrl=%2Freleases%2F180322-01-e%2Fdownload, last accessed January 2022).
- 178. BMW Group, BMW Group, Northvolt and Umicore join forces to develop sustainable life cycle loop for batteries (web link: https://www.press.bmwgroup.com/global/article/detail/T0285924EN/bmwgroup-northvolt-and-umicore-join-forces-to-develop-sustainable-life-cycle-loop-for-batteries, last accessed January 2022).
- 179. Electrification Coalition, *Electrifying Freight: Pathways to Accelerating the Transition*, 2020 (web link: https://www.electrificationcoalition.org/wp-content/uploads/2020/11/Electrifying-Freight-Pathways-to-Accelerating-the-Transition.pdf, last accessed January 2022).
- 180. California Energy Commission, Energy Commission Announces Nation's First Incentive Project for Zero-Emission Truck and Bus Infrastructure, 2021 (web link: https://www.energy.ca.gov/news/2021-04/energy-commission-announces-nations-first-incentive-project-zero-emission-truck, last accessed January 2022).
- 181. California Energy Commission, CEC Approves \$384 Million Plan to Accelerate Zero-Emission Transportation, 2020 (web link: https://www.energy.ca.gov/news/2020-10/cec-approves-384-million-plan-accelerate-zero-emission-transportation, last accessed January 2022).

- 182. Counties can adopt a sales tax increase for transportation programs. The passage of a local sales tax measure requires 2/3 of local voter approval, generally lasting 20 to 30 years. Twenty-five counties have implemented sales tax measures for their transportation needs; and four transit authorities have approved permanent local tax measures.
- 183. California State Controller's Office, *User Utility Tax Revenue and Rates*, 2017 (web page: https://sco.ca.gov/Files-ARD-Local/LocRep/2016-17 Cities UUT.pdf, last accessed January 2022).
- 184. For further information and model documentation see: https://www.remi.com/model/pi/
- 185. California Legislature, Senate Bill 617. October 2011.
- 186. California Department of Finance, Chapter 1: Standardized Regulatory Impact Analysis for Major Regulations Order of Adoption. December 2013.
- 187. California Department of Finance. Economic Research Unit. National Economic Forecast Annual & Quarterly. Sacramento: California. November 2021.
- 188. California Department of Finance. Economic Research Unit. California Economic Forecast Annual & Quarterly. Sacramento: California. November 2021.
- 189. California Department of Finance. Economic Research Unit. National Deflators: Calendar Year averages: from 1929, April 2021. Sacramento: California. January 2022.
- 190. California Department of Finance. Demographic Research Unit. Report P-3: Population Projections, California, 2010-2060 (Baseline 2019 Population Projections; Vintage 2020 Release). Sacramento: California. July 2021.
- 191. Refer to Section G: Macroeconomic Appendix for a full list of REMI inputs for this analysis.
- 192. Based on REMI Policy Insight Plus (v 2.4.1), California's share of national output is 2.3 percent for motor vehicle parts mfg. (3363) in 2019.
- 193. A gross margin 10.5 percent is used, based on the average gross margin of small and medium gasoline stations (NAICS 4471) from *Bizminer* (https://www.bizminer.com/).
- 194. The sign of the change in personal income per capita differs from overall personal income due to population growth changes estimated by the REMI model as a result of the proposed regulation.
- 195. Senate Bill 617, Calderon. State government: Financial and administrative accountability. October 6, 2011 (web link: http://dof.ca.gov/Forecasting/Economics/Major_Regulations/SB_617_Rulemaking_Documents/documents/Section%202000%20ISOR%201%20sb_617_bill_20111006_chaptered.pdf, last accessed January 2022).
- 196. California Council for Economic and Environmental Balance, Re:Comments on Advanced Clean Fleets Proposed Regulation and Alternatives for the Environmental Analysis, 2021 (web link: https://www.arb.ca.gov/lists/com-

- attach/29-acf-comments-ws-UDNUMVUxUGZWMlcI.pdf, last accessed January 2022).
- 197. California Air Resources Board, Heavy-Duty Omnibus: Appendix D Emissions Inventory and Results for the Proposed Amendments, 2020 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2020/hdomnibuslownox/appd.pdf, last accessed January 2021).
- 198. California Air Resources Board, Proposed Heavy-Duty Inspection and Maintenance Regulation Appendix F: Further Details on Costs and Economic Analysis, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2021/hdim2021/appf.pd f, last accessed January 2022).
- 199. Argonne National Laboratory, *AFLEET Tool*, 2020 (web link: https://greet.es.anl.gov/afleet_tool, last accessed January 2022).
- 200. Utilimarc, ½ Ton Pickup Truck Data, 2015 (web link: https://www.utilimarc.com/blog/report-12-ton-pickup-truck-data/, last accessed January 2022).
- 201. Access LA, Access LA Fleet Design, 2016 (web link: https://www.sacog.org/sites/main/files/file-attachments/access_la_life_cycle.pdf, last accessed January 2022)
- 202. National Renewable Energy Laboratory, FedEx Express Gasoline Hybrid Electric Delivery Truck Evaluation: 12-Month Report, 2011 (web link: https://www.nrel.gov/docs/fy11osti/48896.pdf, last accessed January 2022).
- 203. National Renewable Energy Laboratory, *Thirty-Six Month Evaluation of UPS Diesel Hybrid-Electric Delivery Vans*, 2012 (web link: https://www.nrel.gov/docs/fy12osti/53503.pdf, last accessed January 2022).
- 204. National Renewable Energy Laboratory, Eighteen-Month Final Evaluation of UPS Second Generation Diesel Hybrid-Electric Delivery Vans, 2012 (web link: https://www.nrel.gov/docs/fy12osti/55658.pdf, last accessed January 2022).
- 205. National Renewable Energy Laboratory, *UPS CNG Test Fleet,* 2002 (web link: https://www.nrel.gov/docs/fy02osti/31227.pdf, last accessed January 2022)
- 206. National Renewable Energy Laboratory, Coca-Cola Refreshments Class 8 Diesel Electric Hybrid Tractor Evaluation: 13-Month Final Report, 2012. (web link: https://www.nrel.gov/docs/fy12osti/53502.pdf, last accessed January 2022).
- 207. M.J. Bradley & Associates, New York City Commercial Refuse Truck Age Out Analysis, 2013 (web link: https://www.mjbradley.com/sites/default/files/EDF-BIC-Refuse-Truck-Report-2013.pdf, last accessed January 2022).
- 208. Bloomberg, What Tesla's Big Rig Must Do to Seduce Truckers, 2017 (web link: https://www.bloomberg.com/news/articles/2017-11-15/what-tesla-s-semi-truck-must-do-to-seduce-truckers, last accessed January 2022)
- 209. American Truck Research Institute, *An Analysis of the Operational Costs of Trucking: 2018 Update*, 2018. (web link: https://truckingresearch.org/wp-content/uploads/2018/10/ATRI-Operational-Costs-of-Trucking-2018.pdf, last accessed January 2022).

210. Fleet Advantage, *Mitigating Rising M&R Costs for Class-8 Truck Fleets*, 2018 (web link: http://info.fleetadvantage.com/mitigating-rising-fleet-maintenance-and-repair-costs-for-class-8-trucks, last accessed January 2022).

C. Appendix C-3 Summary and Response to Department of Finance Standard Regulatory Impact Assessment

- 1. California Department of General Services. *California State Fleet*, 2015-2020. (web link: https://data.ca.gov/dataset/california-state-fleet June 2, 2022). Accessed June 20, 2022).
- 2. CARB, Large Entity Reporting Data, 2021 (web link: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks/large-entity-reporting, last accessed May 2022).

D. Appendix D Environmental Analysis

- 1. As defined in SB 1 (2017), the useful life of a vehicle shall be 800,000 vehicle miles traveled or 18 years from the model year the engine and emission control system are first certified for use in self-propelled commercial motor vehicles by the state board or other applicable state and federal agencies.
- 2. Per CCR Section 1963, Title 13, an NZEV is a hybrid electric vehicle that is capable of a minimum all-electric range of equal to or exceeding criteria specified in 17 CCR Section 95663(d) (through the 2029 model year) and 75 miles (starting with the 2030 model year) electric energy stored on-board the vehicle.
- 3. California Air Resources Board, *Sustainable Freight Action Plan*, 2016 (web link: https://ww2.arb.ca.gov/sites/default/files/2019-10/CSFAP_FINAL_07272016.pdf, last accessed August 2022).
- 4. California Air Resources Board, *Mobile Source Strategy*, 2016. (web link: https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.pdf, last accessed August 2022).
- 5. California Air Resources Board, ZEV Action Plan Update, 2018 (web link: https://static.business.ca.gov/wp-content/uploads/2019/12/2018-ZEV-Action-Plan-Priorities-Update.pdf, last accessed August 2022).
- 6. Governor Brown, Governor's letter to Chair Nichols Signed by Edmund G. (Jerry) Brown Jr, 2018 (web link: https://www.arb.ca.gov/msprog/zero_emission_fleet_letter_080118.pdf?utm_m edium=email&utm_source=govdelivery, last accessed August 2022).
- 7. U.S. Environmental Protection Agency. 2016. Final Rule for Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles Phase 2. Final Rule, 2016 (web link: https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf, last accessed August 2022).

- 8. California Air Resources Board, *Advanced Clean Cars Rulemaking Package*, 2012 (web link: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program, last accessed August 2022).
- 9. California Air Resources Board, 2018 ZEV Action Plan Update, 2018 (web link: https://static.business.ca.gov/wp-content/uploads/2019/12/2018-ZEV-Action-Plan-Priorities-Update.pdf, last accessed August 2022).
- 10. California Legislature, Assembly Bill No. 2061, 2022 (web link: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220A B2061, last accessed August 2022).
- 11. California Public Utilities Commission, General Rulemaking Proceeding for Developing Regulations, Guidelines, and Policies for Implementing SB 350 and AB 802, 2017 (web link: https://www.energy.ca.gov/rules-and-regulations/energy-suppliers-reporting/clean-energy-and-pollution-reduction-act-sb-350#:~:text=What%20Does%20SB%20350%20Do,%2C%20biomass%2C%20ge othermal%20and%20others, last accessed August 2022).
- 12. "Near-zero-emissions vehicle" or "NZEV" means a vehicle as defined in title 13, CCR section 1963(c)(16) that is capable of operating like a ZEV using electricity stored on-board the vehicle for a minimum number of miles, or "all-electric range," as specified and tested in accordance with section 1037.150p(2)(ii) of "California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles," as last amended September 9, 2021.
- 13. "Near-zero-emissions vehicle" or "NZEV" means a vehicle as defined in title 13, CCR section 1963(c)(16) that is capable of operating like a ZEV using electricity stored on-board the vehicle for a minimum number of miles, or "all-electric range," as specified and tested in accordance with section 1037.150p(2)(ii) of "California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles," as last amended September 9, 2021.
- 14. BYD, *Buy America*,, 2022 (web link: https://en.byd.com/news/buy-america/,last accessed August 2022).
- 15. California Energy Commission, Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment, 2021 (web link: https://efiling.energy.ca.gov/getdocument.aspx?tn=238853, last accessed August 2022).
- 16. California Fuel Cell Partnership, A Vision for Freight Movement in California and Beyond, 2021 (web link: https://cafcp.org/blog/california-fuel-cell-partnership-envisions-70000-heavy-duty-fuel-cell-electric-trucks-supported#:~:text=Sacramento%2C%20California%E2%80%94Today%2C%20t he,by%20200%20heavy%2Dduty%20truck, https://efiling.energy.ca.gov/getdocument.aspx?tn=238853, last accessed August 2022).
- 17. California Fuel Cell Partnership, A Vision for Freight Movement in California and Beyond, 2021 (web link:https://cafcp.org/blog/california-fuel-cell-partnership-

- envisions-70000-heavy-duty-fuel-cell-electric-trucks-supported#:~:text=Sacramento%2C%20California%E2%80%94Today%2C%20the,by%20200%20heavy%2Dduty%20truck, last accessed August 2022).
- 18. Separate from the CEQA baseline discussed in this paragraph and used throughout this EA, a second baseline analysis was also evaluated by CARB to determine differences in the analysis and results if the Heavy-Duty Inspection and Maintenance (HD I/M) regulation is approved. This analysis is in the Modified Baseline Analysis Appendix of the ACF ISOR, Appendix I and presents a scenario that anticipates the HD I/M regulation being finalized prior to implementation of the proposed regulation. Only NOx and PM exhaust emissions are incrementally affected under the Modified Baseline because HD I/M is expected to have minimal impact on PM brake wear and GHG emissions. As such, the analysis presented within this EA is considered reasonably conservative and appropriate for the purposes of evaluating the potential physical environmental impacts of the Proposed Project. The HD I/M regulation is considered as part of the cumulative impact analysis provided in Section K of this EA.
- 19. U.S. Geological Survey. n.d, *Mineral Commodity Summaries Lithium*, 2017 (web link: https://d9-wret.s3.us-west-2.amazonaws.com/assets/palladium/production/atoms/files/myb1-2017-lithi.pdf, last accessed August 2022).
- 20. Mineral Education Coalition. n.d, *Periodic Table of Elements, Platinum*, 2022 (web link: https://mineralseducationcoalition.org/elements/platinum/, last accessed August 2022).
- 21. Glaister, B and Mudd, G, The environmental costs of platinum PGM mining and sustainability: Is the glass half-full or half-empty, 2010 (web link: https://www.sciencedirect.com/science/article/abs/pii/S0892687509003045, last accessed August 2022).
- 22. California Energy Commission. 2021. Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment. (web link: https://efiling.energy.ca.gov/getdocument.aspx?tn=238853, last accessed August 2022).
- 23. California Air Resources Board, 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy), 2022 (web link: https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy, last accessed August 2022).
- 24. California Fuel Cell Partnership, A Vision for Freight Movement in California and Beyond, 2021 (web link: https://cafcp.org/blog/california-fuel-cell-partnership-envisions-70000-heavy-duty-fuel-cell-electric-trucks-supported#:~:text=Sacramento%2C%20California%E2%80%94Today%2C%20t he,by%20200%20heavy%2Dduty%20truck, last accessed August 2022).
- 25. Arnold and Porter, Hydrogen Fuel Stations in California: A Practical Guide to Permitting and CEQA Review, 2015, (web link: https://www.arnoldporter.com/en/perspectives/publications/2015/04/~/media/7457d6dc9bd7491f8aff1289ab4457e0.ashx, last accessed August 2022).

- 26. California Air Resources Board, 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy), 2022 (web link: https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy, last accessed August 2022).
- 27. As noted earlier, grid demand response strategies and rate price signals can mitigate some of the new electricity generation needed to serve increased demand for plug-in electric vehicles.
- 28. California Energy Commission *Renewables Portfolio Standard- Verification and Compliance*, 2022 (web link: https://www.energy.ca.gov/programs-and-topics/programs/renewables-portfolio-standard/renewables-portfolio-standard, last accessed August 2022).
- 29. California Legislature, Senate Bill No. 100, California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases, 2018 (web link: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180S B100, last accessed August 2022).
- 30. California Energy Commission, *Tracking Progress*, 2020 (web link: https://www.energy.ca.gov/sites/default/files/2019-12/renewable_ada.pdf, last accessed August 2022).
- 31. California Air Resources Board, *EMFAC 2021 Database*, 2021 (web link: https://arb.ca.gov/emfac/, last accessed August 2022).
- 32. The total cumulative emissions reductions for $PM_{2.5}$ and NOx are converted from tpd into years and assumes 312 operational days per year. Due to rounding errors, the 2024-2050 cumulative totals differ very slightly when compared to the sum values listed.
- 33. Society of Vertebrate Paleontology. 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources, 2010 (web link: https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf, last accessed August 2022).
- 34. California Energy Commission, Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment, 2021 (web link: https://efiling.energy.ca.gov/getdocument.aspx?tn=238853, last accessed August 2022).
- 35. California Energy Commission, *Medium and Heavy -Duty Vehicle Load Shapes*, 2021 (web link: https://www.energy.ca.gov/sites/default/files/2021-09/5%20LBNL-FTD-EAD-HEVI-LOAD%20Medium-%20and%20Heavy-Duty%20Load%20Shapes_ADA.pdf, last accessed August 2022).
- 36. Tyler H. Ruggles, Jacqueline A. Dowling, Nathan S. Lewis, Ken Caldeira, Opportunities for flexible electricity loads such as hydrogen production from curtailed generation, Advances in Applied Energy, Volume 3, 2021, 100051, ISSN 2666-7924, 2021 (web link: https://doi.org/10.1016/j.adapen.2021.100051, last accessed August 2022).
- 37. European Parliament, Impact of Shale Gas and Shale Oil Extraction on the Environmental and Human Health, 2012 (web link:

- http://www.europarl.europa.eu/document/activities/cont/201312/20131205ATT 75545/20131205ATT75545EN.pdf, last accessed August 2022).
- 38. Kinhal, Vijayalaxmi, How Does Mining Affect the Environment, 2017 (web link: https://greenliving.lovetoknow.com/How_Does_Mining_Affect_the_Environment, last accessed August 2022).
- 39. California Environmental Protection Agency, *Lithium-Ion Car Battery Recycling Advisory Group Final Report*, 2022 (web link: https://calepa.ca.gov/wp-content/uploads/sites/6/2022/05/2022_AB-2832_Lithium-Ion-Car-Battery-Recycling-Advisory-Goup-Final-Report.pdf, last accessed August 2022).
- 40. Nissan *Nissan Gives EV Batteries a Second Life*, 2021 (web link: https://global.nissanstories.com/en/releases/4r, last accessed August 2022).
- 41. South Coast Air Quality Management District, *Draft Guidance Document Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, 2008 (web link: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf, last accessed August 2022).
- 42. As noted earlier, grid demand response strategies and rate price signals can mitigate some of the new electricity generation needed to serve increased demand for plug-in electric vehicles.
- 43. Sepadi, Maasago M., Martha Chadyiwa, and Vusumuzi Nkosi, *Platinum Mine Workers' Exposure to Dust Particles Emitted at Mine Waste Rock Crusher Plants in Limpopo, South Africa*, 2020 (web link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7014327/, last accessed August 2022)
- 44. Zeng, Xianlai, Jinhui Li, and Lili Liu, Solving Spent Lithium-ion Battery Problems in China: Opportunities and Challenges. Renewable and Sustainable Energy Reviews, 52, 1759-1767, 2015 (web link: https://ideas.repec.org/a/eee/rensus/v52y2015icp1759-1767.html, last accessed August 2022).
- 45. Battery University, "BU-304a: Safety Concerns with Li-lon," 2018 (web link: http://batteryuniversity.com/learn/article/safety_concerns_with_li_ion, last accessed August 2022).
- 46. Health and Safety Executive, Fuel Cells: Understand the Hazards, Control the Risks, 2004 (web link: www.thenbs.com/PublicationIndex/documents/details?Pub=HSE&DocID=2785 97, last accessed August 2022).
- 47. Jacoby, M, It's Time to Get Serious About Recycling Lithium-Ion Batteries. Chemical & Engineering News, 2019 (web link: https://cen.acs.org/materials/energy-storage/time-serious-recycling-lithium/97/i28, last accessed August 2022).
- 48. Arnold and Porter, Hydrogen Fuel Stations in California: A Practical Guide to Permitting and CEQA Review, 2015 (web link: https://www.arnoldporter.com/en/perspectives/publications/2015/04/~/media/7457d6dc9bd7491f8aff1289ab4457e0.ashx, last accessed August 2022).

- 49. Health and Safety Executive, Fuel Cells: Understand the Hazards, Control the Risks. 2004 (web link: www.thenbs.com/PublicationIndex/documents/details?Pub=HSE&DocID=2785 97, last accessed August 2022).
- 50. European Parliament, Impact of Shale Gas and Shale Oil Extraction on the Environmental and Human Health, 2012 (web link: http://www.europarl.europa.eu/document/activities/cont/201312/20131205ATT 75545/20131205ATT75545EN.pdf, last accessed August 2022).
- 51. Environmental Health Perspectives, *Salting the Earth, The Environmental Impact of Oil and Gas Wastewater Spills*. Environmental Health Perspectives. 124 (12): pp. A230-A235, 2016. (web link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5132645/, last accessed August 2022).
- 52. Environmental Health Perspectives, *Salting the Earth, The Environmental Impact of Oil and Gas Wastewater Spills*. Environmental Health Perspectives. 124 (12): pp. A230-A235, 2016. (web link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5132645/, last accessed August 2022).
- 53. Friends of the Earth, *Lithium*, 2013 (web link: https://www.foeeurope.org/sites/default/files/publications/13_factsheet-lithium-gb.pdf, last accessed August 2022).
- 54. Nissan, *Nissan Gives EV Batteries a Second Life*, 2021 (web link: https://global.nissanstories.com/en/releases/4r, last accessed August 2022).
- 55. Ambrose, Hanjiro, *The Second Life of Used EV Batteries*, 2020 (web link: https://blog.ucsusa.org/hanjiro-ambrose/the-second-life-of-used-ev-batteries/, last accessed August 2022).
- 56. Ibid
- 57. Wentworth, Adam, Amsterdam Arena installs major new battery storage, 2018 (web link: https://www.climateaction.org/news/amsterdam-arena-installs-major-new-battery-storage, last accessed August 2022).
- 58. Engle H., Hertzke P., and G. Siccardo, Second-life EV batteries: The newest value pool in energy storage, 2019 (web link: https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/second-life-ev-batteries-the-newest-value-pool-in-energy-storage#, last accessed August 2022).
- 59. Lluc Canals Casals et al, Second life batteries lifespan: Rest of useful life and environmental analysis, 2018 (web link: https://www.sciencedirect.com/science/article/pii/S0301479718313124, last accessed August 2022).
- 60. U.S. Geological Survey. 2021. Mineral Commodity Summaries: Lithium. (web link: https://www.usgs.gov/centers/nmic/lithium-statistics-and-information, last accessed August 2022).
- 61. Jaskula, B. W., U.S. Geological Survey Mineral Commodity Summaries: Lithium. U.S. Geological Survey, 2020 (web link:

- https://pubs.usgs.gov/periodicals/mcs2020/mcs2020-lithium.pdf, last accessed August 2022).
- 62. Biden, J. R., Executive Order 14017 of February 24, 2021: America's Supply Chains. Federal Register 86(38):11849–11854, 2021 (web link: https://www.govinfo.gov/content/pkg/FR-2021-03-01/pdf/2021-04280.pdf, last accessed August 2022).
- 63. Schulte, R. F., U.S. Geological Survey Mineral Commodity Summaries: Chromium. U.S. Geological Survey, 2022 (web link: https://pubs.usgs.gov/periodicals/mcs2022/mcs2022-chromium.pdf, last accessed August 2022).
- 64. Schulte, R. F., U.S. Geological Survey Mineral Commodity Summaries: Chromium. U.S. Geological Survey, 2022 (web link: https://pubs.usgs.gov/periodicals/mcs2022/mcs2022-chromium.pdf, last accessed August 2022).
- 65. Petrova, M., "Here's Why Battery Manufacturers Like Samsung and Panasonic and Car Makers Like Tesla Are Embracing Cobalt-Free Batteries," 2017 (web link: https://www.cnbc.com/2021/11/17/samsung-panasonic-and-tesla-embracing-cobalt-free-batteries-.html, last accessed August 2022).
- 66. Shedd, K. B, U.S. Geological Survey Mineral Commodity Summaries: Cobalt. U.S. Geological Survey, 2022 (web link: https://pubs.usgs.gov/periodicals/mcs2022/mcs2022-cobalt.pdf, last accessed August 2022).
- 67. McRae, M. E., U.S. Geological Survey Mineral Commodity Summaries: Nickel. U.S. Geological Survey, 2022 (web link: https://pubs.usgs.gov/periodicals/mcs2022/mcs2022-nickel.pdf, last accessed August 2022).
- 68. Schnebele, E. K., U.S. Geological Survey Mineral Commodity Summaries: Manganese. U.S. Geological Survey, 2022 (web link: https://pubs.usgs.gov/periodicals/mcs2022/mcs2022-manganese.pdf, last accessed August 2022).
- 69. Schulte, R. F., U.S. Geological Survey Mineral Commodity Summaries: Chromium. U.S. Geological Survey, 2022 (web link: https://pubs.usgs.gov/periodicals/mcs2022/mcs2022-chromium.pdf, last accessed August 2022).
- 70. Tolcin, A. C., U.S. Geological Survey Mineral Commodity Summaries: Zinc. U.S. Geological Survey, 2022 (web link: https://pubs.usgs.gov/periodicals/mcs2022/mcs2022-zinc.pdf, last accessed August 2022).
- 71. Altoona Bus Research and Testing Center, *BYD Electric Bus*, 2014 (web link: https://www.altoonabustest.psu.edu/bus-details.aspx?BN=1307, last accessed August 2022).
- 72. Altoona Bus Research and Testing Center, New Flyer of America Model D40 LF, 2006 (web link: https://www.altoonabustest.psu.edu/bus-list.aspx, last accessed August 2022).

- 73. Altoona Bus Research and Testing Center, New Flyer of America C40LF, June 2012 (web link: https://www.altoonabustest.psu.edu/bus-list.aspx, last accessed August 2022).
- 74. California Air Resources Board, Final Environmental Analysis for The Strategy for Achieving California's 2030 Greenhouse Gas Target, 2017 (web link: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2030sp_appf_finalea.pdf, last accessed August 2022).
- 75. California Air Resources Board, *Community Air Protection Blueprint*, 2018 (web link: https://ww2.arb.ca.gov/capp-blueprint, last accessed August 2022).
- 76. California Air Resources Board, *Community Air Protection Blueprint*, 2018 (web link: https://ww2.arb.ca.gov/capp-blueprint, last accessed August 2022).
- 77. California Council for Economic and Environmental Balance, Re:Comments on Advanced Clean Fleets Proposed Regulation and Alternatives for the Environmental Analysis, 2021 (web link: https://www.arb.ca.gov/lists/comattach/29-acf-comments-ws-UDNUMVUxUGZWMlcI.pdf, last accessed August 2022).
- 78. California Air Resources Board, Heavy-Duty Omnibus: Appendix D Emissions Inventory and Results for the Proposed Amendments, 2020 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2020/hdomnibuslownox/appd.pdf, last accessed August 2021).
- 79. California Air Resources Board, *EMFAC 2021 Database*, 2021 (web link: https://arb.ca.gov/emfac/, last accessed August 2022).
- 80. California Energy Commission, Energy Almanac Transportation Natural Gas in California, 2019 (web link: https://ww2.energy.ca.gov/almanac/transportation_data/cng-lng.html, last accessed August 2022).
- 81. International Council on Clean Transportation, A comparison of NOx emissions from heavy-duty diesel, natural gas, and electric vehicles, 2021 (web link: https://theicct.org/sites/default/files/publications/low-nox-hdvs-compared-sept21.pdf, last accessed August 2022).
- 82. California Public Utilities Commission, Decision 22-02-025 Implementing SB 1440 Biomethane Procurement Program, 2022 (web link: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M454/K335/4543350 09.PDF, last accessed August 2022).
- 83. Institute of Transportation Studies, *The Feasibility of Renewable Natural Gas as a Large-Scale, Low Carbon Substitute*, 2016 (web link: https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/past/13-307.pdf, last accessed August 2022).
- 84. California Air Resources Board, *The AB 32 Scoping Plan (draft)*, 2022 (web link: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents, last accessed August 2022).
- 85. California Air Resources Board, Public Hearing to Consider The Proposed Advanced Clean Trucks Regulation Resolution 20-19, 2020 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/board/res/2020/res20-19.pdf, last accessed August 2022).

E. Appendix D Attachment A, Environmental and Regulatory Setting

- 1. U.S. Department of Agriculture, U.S. Forest Resource Facts and Historical Trends, August 2014, last accessed August 13, 2021, https://www.srs.fs.usda.gov/products/marketing/cards/fs-1035.pdf.
- 2. U.S. Department of Agriculture, Ag and Food Statistics: Charting the Essentials, March 13, 2018, last accessed April 17, 2018, https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/.
- 3. California Department of Conservation, Farmland Mapping and Monitoring Program, California Farmland Conversion Report 2015, September 2015, last accessed August 13, 2021, http://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2010-2012/FCR/FCR%202015_complete.pdf.
- 4. California Department of Food and Agriculture, California Agricultural Statistics Review, 2019-2020, last accessed August 13, 2021, https://www.cdfa.ca.gov/Statistics/PDFs/2020_Ag_Stats_Review.pdf.
- 5. California Department of Conservation, The Williamson Act Status Report, 2018–19, last accessed January 25, 2022, https://www.conservation.ca.gov/dlrp/wa/Documents/stats_reports/2018%20WA %20Status%20Report.pdf.
- 6. California Department of Fish and Wildlife, Timberland Conservation Program, last accessed June 9, 2021, https://wildlife.ca.gov/Conservation/Timber.
- 7. California Department of Fish and Wildlife, Summary of Natural Community Conservation Plans, October 2017.
- 8. A summary of the current NAAQS is available at: https://www.epa.gov/criteria-air-pollutants/naaqs-table.
- 9. U.S. Environmental Protection Agency, Ground-Level Ozone Basics, May 5, 2021, last accessed June 1, 2021, https://www.epa.gov/ground-level-ozone-pollution/ground-level-ozone-basics.
- 10. U.S. Environmental Protection Agency, Basic Information about Carbon Monoxide (CO) Outdoor Air Pollution, September 8, 2016, last accessed June 1, 2021, https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution.
- 11. U.S. Environmental Protection Agency, Basic Information about NO2, September 8, 2016, last accessed June 1, 2021, https://www.epa.gov/no2-pollution/basic-information-about-no2.
- 12. U.S. Environmental Protection Agency, Sulfur Dioxide Basics, April 2, 2019, last accessed June 1, 2021, https://www.epa.gov/so2-pollution/sulfur-dioxide-basics.
- 13. U.S. Environmental Protection Agency, Health Effects of Ozone Pollution, May 5, 2021, last accessed June 1, 2021, https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution.

- 14. U.S. Environmental Protection Agency, Ground-Level Ozone Basics, May 5, 2021, last accessed June 1, 2021, https://www.epa.gov/ground-level-ozone-pollution/ground-level-ozone-basics.
- 15. U.S. Environmental Protection Agency, Particulate Matter (PM) Basics, May 6, 2021, last accessed June 1, 2021, https://www.epa.gov/pm-pollution/particulate-matter-pm-basics.
- 16. U.S. Environmental Protection Agency, Health and Environmental Effects of Particulate Matter (PM), May 26, 2021, last accessed June 1, 2021, https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm.
- 17. U.S. Environmental Protection Agency, Basic Information about Lead Air Pollution, January 14, 2021, last accessed June 1, 2021, https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution.
- 18. U.S. Environmental Protection Agency, Basic Information about NO2, September 8, 2016, last accessed June 1, 2021, https://www.epa.gov/no2-pollution/basic-information-about-no2.
- 19. CARB, CEPAM2019 2022 Emission Projections by Summary Category, 2019 (web link: https://ww2.arb.ca.gov/applications/cepam2019v103-standard-emission-tool, last accessed August 2022).
- 20. California Air Resources Board and California Air Pollution Control Officers Association, Risk Management Guidance for Stationary Sources of Air Toxics, July 23, 2015, last accessed August 13, 2021, https://www.arb.ca.gov/toxics/rma/rmgssat.pdf.
- 21. The Nature Conservancy, States of the Union: Ranking America's Biodiversity, April 2002, last accessed August 13, 2021, https://www.researchgate.net/publication/269111849/download.
- 22. California Department of Fish and Wildlife, California State Wildlife Action Plan, September 2015, last accessed August 13, 2021, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=110399&inline.
- 23. Ibid.
- 24. Ibid.
- 25. Ibid.
- 26. Ibid.
- 27. Ibid.
- 28. U.S. Fish and Wildlife Service, Habitat Conservation Plans: Section 10 of the Endangered Species Act, December 2005, last accessed August 13, 2021, https://www.fws.gov/endangered/esa-library/pdf/HCP_Incidental_Take.pdf.
- 29. California Department of Fish and Wildlife, Summary of Natural Community Conservation Plans, October 2017.
- 30. Jones, Klar, California Prehistory: Colonization, Culture, and Complexity, 2007.
- 31. Ibid.
- 32. Ibid.
- 33. Ibid.
- 34. Ibid.

- 35. Moratto, Michael J, California Archaeology, 1984, Print Edition.
- 36. Chartkoff, Joseph L., Kerry K. Chartkoff, The Archaeology of California, 1984, Print Edition.
- 37. Jones, Klar, California Prehistory: Colonization, Culture, and Complexity, 2007.
- 38. Ibid.
- 39. Moratto, Michael J, California Archaeology, 1984, Print Edition.
- 40. Jones, Klar, California Prehistory: Colonization, Culture, and Complexity, 2007.
- 41. Moratto, Michael J, California Archaeology, 1984, Print Edition.
- 42. Chartkoff, Joseph L., Kerry K. Chartkoff, The Archaeology of California, 1984, Print Edition.
- 43. Jones, Klar, California Prehistory: Colonization, Culture, and Complexity, 2007.
- 44. Ibid.
- 45. Ibid.
- 46. Ibid.
- 47. Rolle, W.F., California: A History, 1969, Print Edition.
- 48. Sturtevant, William C, Handbook of North American Indians, Volume 8, California, Heizer, Robert F, 1978, Print Edition.
- 49. Ibid
- 50. Beck, Warren A., Haase. Ynez D., Historical Atlas of California, 1974, Print Edition.
- 51. Staniford, Edward F, The Pattern of California History, 1975, Print Edition.
- 52. Hoover, et al., Historic Spots in California, 2002, Print Edition.
- 53. Sturtevant, William C, Handbook of North American Indians, Volume 8, California, Heizer, Robert F, 1978, Print Edition.
- 54. Hoover, et al., Historic Spots in California, 2002, Print Edition.
- 55. California Department of Transportation, A Historical Context and Archaeological Research Design for Mining Properties in California, 2008, last accessed August 13, 2021, https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/mining-study-a11y.pdf.
- 56. California State Parks. 2013. Sustainable Preservation California's Statewide Historic Preservation Plan 2013-2017. Available: http://ohp.parks.ca.gov/pages/1069/files/SustainablePreservation_CaliforniaStatePlan_2013to2017.pdf.
- 57. Ibid.
- 58. Ibid.
- 59. Ibid.
- 60. Ibid.
- 61. U.S. Energy Information Administration, U.S. Energy Facts Explained, May 14, 2021, last accessed May 24, 2021, https://www.eia.gov/energyexplained/us-energy-facts/.
- 62. Ibid.
- 63. Ibid.
- 64. Ibid.

- 65. U.S. Energy Information Administration, California: State Profile and Energy Estimates, February 18, 2021, last accessed May 14, 2021, https://www.eia.gov/state/?sid=CA.
- 66. California Energy Commission, 2019 Total System Electric Generation, last accessed August 13, 2021, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation.
- 67. Ibid.
- 68. U.S. Environmental Protection Agency, EPA and NHTSA Adopt Standards to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond, August 2016, last accessed August 13, 2021, https://nepis.epa.gov/Exe/ZyPDF.cgi/P100P7NL.PDF?Dockey=P100P7NL.PDF.
- 69. California Energy Commission, ICF International, Combined Heat and Power: Policy Analysis and 2011-2030 Market Assessment, June 2012, last accessed August 13, 2021, https://efiling.energy.ca.gov/GetDocument.aspx?tn=65855.
- 70. Ibid.
- 71. U.S. Geological Survey, Ground Water Atlas of the United States: California, Nevada, 1995, last accessed August 13, 2021, http://pubs.usgs.gov/ha/ha730/ch_b/index.html.
- 72. California Department of Water Resources, California Precipitation, 2014, last accessed August 13, 2021, https://cw3e.ucsd.edu/wp-content/uploads/2015/02/CA_Precip_final.pdf.
- 73. Harden, Deborah R, California Geology, 1997, Print Edition.
- 74. Ibid.
- 75. Ritchie, David, Alexander E. Gates, Encyclopedia of Earthquakes and Volcanoes, 2001, Print Edition.
- 76. California Geological Survey, Earthquake Fault Zones: A Guide for Government Agencies, Property Owners/Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California, 2018, last accessed August 13, 2021, https://www.conservation.ca.gov/cgs/Documents/Publications/Special-Publications/SP 042.pdf.
- 77. Jefferson, George T, Paleontologic Resources and Collections Management Policy, 2004.
- 78. USGS, Divisions of Geologic Time- Major Chronostratigraphic and Geochronologic Units, July 2010, last accessed August 16, 2021, https://pubs.usgs.gov/fs/2010/3059/pdf/FS10-3059.pdf.
- 79. Paleontology Portal, 2003, California, last accessed November 12, 2011, http://paleoportal.org/index.php?globalnav=time_space§ionnav=state&na me=California.
- 80. San Diego Natural History Museum, Ankylosaur, last accessed August 13, 2021, http://www.sdnhm.org/exhibitions/fossil-mysteries/fossil-field-guide-a-z/ankylosaur.
- 81. Ahrens, C. Donald, Meteorology Today: An Introduction to Weather, Climate and the Environment, 2003.

- 82. Intergovernmental Panel on Climate Change, Climate Change 2007: The Physical Science Basis, 2007, last accessed August 13, 2021, https://www.ipcc.ch/site/assets/uploads/2018/05/ar4_wq1_full_report-1.pdf.
- 83. Intergovernmental Panel on Climate Change, Climate Change 2013: The Physical Science Basis, 2013, last accessed August 13, 2021, https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf.
- 84. California Climate Action Registry, California Climate Action Registry General Reporting Protocol, April 2008, last accessed August 13, 2021, https://www.climateactionreserve.org/wp-content/uploads/videos/GRP_V3_April%202008_FINAL.pdf.
- 85. California Air Resources Board, California Greenhouse Gas Emissions for 2000 to 2018: Trends of Emissions and Other Indicators, 2020, last accessed August 13, 2021, https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf.
- 86. Ibid.
- 87. California Air Resources Board, Short-Lived Climate Pollutant Reduction Strategy, March 2017, last accessed August 13, 2021, https://www.arb.ca.gov/cc/shortlived/meetings/03142017/final_slcp_report.pdf.
- 88. Intergovernmental Panel on Climate Change, Climate Change 2013: The Physical Science Basis, 2013, last accessed August 13, 2021, https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf.
- 89. California Energy Commission, ICF International, Combined Heat and Power: Policy Analysis and 2011-2030 Market Assessment, June 2012, last accessed August 13, 2021, https://efiling.energy.ca.gov/GetDocument.aspx?tn=65855.
- 90. Ibid.
- 91. Ibid.
- 92. California Natural Resources Agency, 2009 California Climate Adaptation Strategy, 2009, last accessed August 13, 2021, http://resources.ca.gov/docs/climate/Statewide_Adaptation_Strategy.pdf.
- 93. Ibid.
- 94. California Department of Water Resources, California's Groundwater (Bulletin 118), 2003, last accessed August 13, 2021, https://water.ca.gov/Programs/Groundwater-Management/Bulletin-118.
- 95. Ibid.
- 96. U.S. Environmental Protection Agency, Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, January 1993, last accessed August 13, 2021, https://www.epa.gov/nps/guidance-specifying-management-measures-sources-nonpoint-pollution-coastal-waters.
- 97. USGS, Lithium Data Sheet, last accessed August 16, 2021, https://pubs.usgs.gov/periodicals/mcs2020/mcs2020-lithium.pdf.
- 98. USGS, Cobalt Data Sheet, 2020, last accessed August 13, 2021, https://pubs.usgs.gov/periodicals/mcs2020/mcs2020-cobalt.pdf.
- 99. Clinkenbeard, John, Smith, Joshua, California Non-Fuel Minerals 2011, 2011, last accessed August 13, 2021,

- https://www.conservation.ca.gov/cgs/Documents/Minerals/california-non-fuel-mineral-production-2011.pdf.
- 100. Caltrans, Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013, last accessed August 13, 2021, https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf.
- 101. Caltrans, California Airport Land Use Planning Handbook, October 2011, last accessed August 13, 2021, https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlanduseplanninghandbook-a11y.pdf.
- 102. Caltrans, Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013, last accessed August 13, 2021, https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf.
- 103. Egan, M. David, Architectural Acoustics, 2007.
- 104. Caltrans, Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013, last accessed August 13, 2021, https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf.
- 105. Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018, last accessed August 13, 2021, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.
- 106. Caltrans, Transportation and Construction Vibration Guidance Manual, April 2020, last accessed August 13, 2021, https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf.
- 107. Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018, last accessed August 13, 2021, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.
- 108. Ibid.
- 109. Ibid.
- 110. Ibid.
- 111. Office of Planning and Research, State of California General Plan Guidelines, 2017, last accessed August 13, 2021, http://www.opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf.
- 112. U.S. Census Bureau, Quickfacts: California; United States, 2021, last accessed January 25, 2022, https://www.census.gov/quickfacts/CA.
- 113. Ibid.
- 114. Bureau of Labor Statistics, Economy at a Glance: United States, last accessed January 25, 2022, https://www.bls.gov/eag/eag.us.htm.

- 115. U.S. Census Bureau, Quickfacts: California; United States, 2019, https://www.census.gov/quickfacts/fact/table/CA,US/RHI825216.
- 116. U.S. Census Bureau, Census: Population and Foreign-Born. February 2001, Volume 8, Number 2, last accessed April 17, 2018, https://migration.ucdavis.edu/mn/more.php?id=2302.
- 117. University of Southern California, New California Population Projection Shows Massive Slowdown, April 24, 2012, last accessed August 13, 2021, https://www.sciencedaily.com/releases/2012/04/120424142117.htm.
- 118. U.S. Census Bureau, Quickfacts: California; United States, 2020, last accessed January 25, 2022, https://www.census.gov/quickfacts/CA.
- 119. Ibid.
- 120. Bureau of Labor Statistics, Databases, Tables & Calculators by Subject, last accessed June 9, 2021, https://data.bls.gov/timeseries/LASST0600000000003.
- 121. California State Parks, A Five-Year Plan for Increasing Park Access, Community-Based Planning, and Health Partnerships through Grants, 2021–2025 Statewide Comprehensive Outdoor Recreation Plan, last accessed January 25, 2022, https://www.parksforcalifornia.org/scorp/2021#executive_summary.
- 122. Kroeber, Alfred L, Handbook of the Indians of California, 1925, Print Edition.
- 123. Sturtevant, William C, Handbook of North American Indians, Volume 8, California, Heizer, Robert F, 1978, Print Edition.
- 124. Ibid.
- 125. Sturtevant, William C, Handbook of North American Indians, Volume 10, Southwest, Ortiz, Alfonso, 1983, Print Edition.
- 126. Sturtevant, William C, Handbook of North American Indians, Volume 11, Great Basin, D'Azevedo, Warren L, 1986, Print Edition.
- 127. Sturtevant, William C, Handbook of North American Indians, Volume 8, California, Heizer, Robert F, 1978, Print Edition.
- 128. Sturtevant, William C, Handbook of North American Indians, Volume 8, California, Heizer, Robert F, 1978, Print Edition.
- 129. Ibid.
- 130. U.S. Census Bureau, Quickfacts: California; United States, 2020, last accessed January 25, 2022, https://www.census.gov/quickfacts/fact/table/CA/RHI325219#RHI325219.
- 131. Native American Heritage Commission, California Native American Heritage Commission Five-Year Strategic Plan 2018-2022, January 19, 2018, last accessed August 13, 2021, http://nahc.ca.gov/wp-content/uploads/2018/04/2018-NAHC-Strategic-Plan.pdf.
- 132. Native American Heritage Center. 2018. Short Overview of California Indian History. Available: http://nahc.ca.gov/resources/california-indian-history/. Accessed December 21, 2018.
- 133. Ibid.
- 134. Ibid.
- 135. Ibid.
- 136. Ibid.

- 137. Ibid.
- 138. Ibid.
- 139. U.S. Bureau of Reclamation, About the Central Valley Project, April 18, 2017, last accessed April 17, 2018, https://www.usbr.gov/mp/cvp/about-cvp.html.
- 140. Ibid.
- 141. California Department of Water Resources, State Water Project, last accessed August 13, 2021, https://water.ca.gov/Programs/State-Water-Project.
- 142. Office of Planning and Research, State of California General Plan Guidelines, 2017, last accessed August 13, 2021, http://www.opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf.
- 143. Abatzoglou, J.T. and A.P. Williams. 2016 (October 16). Impact of anthropogenic climate change on wildfire across western U.S. forests. *Proceedings of the National Academy of Sciences* 113(42):11770-11775.
- 144. Balch, J. K., B. A. Bradley, J. T. Abatzoglou, R. C. Nagy, E. J. Fusco, and A. L. Mahood. 2017 (March 14). Human-started wildfires expand the fire nice across the United States. *Proceedings of the National Academy of Sciences* 114(11):2946-2951.
- 145. Westerling, A. L. 2016. Increasing western US forest wildfire activity: sensitivity to changes in the timing of spring. *Philosophical Transactions of the Royal Society* B 371(1696), 20150178.
- 146. Schoennagel, T., J.K. Balch, H. Brenkert-Smith, P. E. Dennison, B.J. Harvey, M.A. Krawchuck, N. Mietkiewicz, P. Morgan, M. A. Moritz, R. Rasker, M.G. Turner, and C. Whitlock. 2017 (May 2). Adapt to more wildfire in western North American forests as climate changes. *Proceedings of the National Academy of Sciences* 114(18):4582-4590.

F. Appendix D Attachment B. Summary of Environmental Impacts and Mitigation Measures

1. Society of Vertebrate Paleontology. 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. 2010. Available: https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdfhttp://vertpaleo.org/Membership/MemberEthics/SVP_Impact_Mitigation_Guidelines.aspx. Accessed May 20, 2022.

G. Appendix F Emissions Inventory and Results

- 1. Executive Department, State of California, Executive Order N-79-20, 2020 (web link https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf, last accessed August 2020)
- 2. California Air Resources Board (CARB), Zero-Emission On-Road Medium-and Heavy-Duty Strategies, April 2021 (weblink:

- https://ww2.arb.ca.gov/sites/default/files/2021-04/20-016%20Factsheet_ZE%20onroad%20strategies.pdf, last accessed August 2020)
- California Air Resources Board (CARB), Advanced Clean Trucks Regulation, March 2021 (weblink: https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantruckshttps://ww2.arb
 - https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantruckshttps://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks, last accessed August 2020)
- SB 1 (Beall, Stats. 2017, ch. 5). Govt. Code: repeal Sections 63048.66, 63048.67, 4. 63048.7, 63048.75, 63048.8, 63048.65, and 63048.85; add new sections 14033, 14110, 14526.7, 14556.41, 14460, 14461, 14526.7, 14556.41, 16321, and 63048.65; amend section 14526.5; Health & Saf. Code add Section 43021; Public Utilities Code: amend Section 99312.1, and add Sections 99312.3, 99312.4, and 99314.9; Revenue & Taxation Code amend Sections 6051.8. 6201.8, 7360, 8352.4, 8352.5, 8352.6, and 60050; to add Sections 7361.2, 7653.2, 60050.2, and 60201.4 to, and to add Chapter 6 (commencing with Section 11050) to Part 5 of Division 2 of, the Revenue and Taxation Code; Streets and Highways Code: amend Sections 2104, 2105, 2106, and 2107, add Sections 2103.1 and 2192.4, add Article 2.5 (commencing with Section 800) to Chapter 4 of Division 1 of, and to add Chapter 2 (commencing with Section 2030) and Chapter 8.5 (commencing with Section 2390) to Division 3 of, the Streets and Highways Code; Vehicle Code: amend Section 4156, add Sections 4000.15 and 9250.6.
- 5. California Air Resources Board (CARB), *Advanced Clean Cars Program*, June 2022 (weblink: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program, last accessed August 2020)
- 6. California Air Resources Board (CARB), *EMFAC2021*, May 2022 (weblink: https://arb.ca.gov/emfac/https://arb.ca.gov/emfac/, last accessed August 2020)
- 7. California Air Resources Board (CARB), EMFAC2021 Volume III Technical Document, April 2021 (weblink: https://ww2.arb.ca.gov/sites/default/files/2021-03/emfac2021_volume_3_technical_document.pdf, last accessed August 2020)
- 8. The Omnibus regulation is comprised of Cal. Code Regs., title 13, sections 1900, 1956.8, 1961.2, 1965, 1968.2, 1971.1, 1971.5, 2035, 2036, 2111 through 2119, 2121, 2123, 2125 through 2131, 2133, 2137, 2139, 2139.5, 2140 through 2149, 2166, 2166.1, 2167 through 2170, 2423, and 2485; and Cal. Code Regs., tit. 17 sections 95662 and 95663.
- 9. The rulemaking action for the HD I/M regulation has not yet been completed; the proposed HD I/M regulation is comprised of Cal. Code Regs., tit. 13, sections 2193, 2195, 2195.6, 2196 through 2196.8, 2197 through 2197.3, and 2198 through 2199.1.
- California Air Resources Board (CARB), Public Hearing to Consider the Proposed Heavy-Duty Inspection and Maintenance Regulation, Oct 2021 (weblink: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2021/hdim2021/isor, last accessed August 2020)
- 11. The ICT regulation is comprised of Cal. Code Regs., tit. 13, sections 2023 to 2023.11.

- 12. The CHE regulation is comprised of Cal. Code Regs., tit. 13, section 2479.
- 13. California Air Resources Board (CARB), On-Road New Vehicle & Engine Certification Program, June 2021 (weblink: https://www.arb.ca.gov/msprog/onroad/cert/cert.phphttps://www.arb.ca.gov/msprog/onroad/cert/cert.php, last accessed August 2020)
- 14. California Air Resources Board (CARB), Large Entity Fleet Reporting, February 2022 (weblink: https://ww2.arb.ca.gov/sites/default/files/2022-02/Large_Entity_Reporting_Aggregated_Data_ADA.pdf, last accessed August 2020)
- 15. AB 739 (Chau, Stats. 2017, ch. 639); Public Resources Code section 25722.11.
- 16. California Department of Transportation (Caltrans), California Vehicle Inventory and Use Survey Final Report, Volume I Truck Survey, April 2018.
- 17. Dun & Bradstreet®, acquired from internal communication with CARB's Mobile Source Control Division (MSCD). For more information please see: https://www.dnb.com/https://www.dnb.com/.
- 18. California Air Resources Board (CARB), Offroad Zone, 2022 (weblink: https://ww2.arb.ca.gov/sites/default/files/offroadzone/landing/doorsresources.html, last accessed August 2020)
- 19. California Air Resources Board (CARB), TRUCRS Reporting Information and Forms, 2022 (weblink: https://ww2.arb.ca.gov/our-work/programs/truck-bus-regulation/trucrs-reporting-information-and-forms, last accessed August 2020)
- 20. California Air Resources Board (CARB), Advanced Clean Trucks Regulation Staff Report: Initial Statement of Reasons (ISOR), Appendix F: Emissions Inventory Methods and Results for the Proposed Advanced Clean Trucks Regulation, October 2019 (weblink: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/act2019/appf.pdf, last accessed August 2020)
- 21. National Renewable Energy Laboratory (NREL), *BAE/Orion Hybrid Electric Buses at New York City Transit, A Generational Comparison*, March 2008, (weblink: https://afdc.energy.gov/files/pdfs/42217.pdfhttps://afdc.energy.gov/files/pdfs/42217.pdf, last accessed August 2020)

H. Appendix G Total Cost of Ownership Discussion

- 1. California Air Resources Board, *EMFAC 2021*, 2021 (web link: https://arb.ca.gov/emfac/, last accessed September 2021).
- 2. Eastern Research Group, Heavy-Duty Vehicle Accrual Rates: Final Report, 2019 (web link: https://ww2.arb.ca.gov/sites/default/files/2021-03/erg_finalreport_hdv_accruals_20190614_ada.pdf, last accessed August 2021).
- 3. California Department of Transportation, *CalTrans Truck Survey*, 2018 (web link: http://www.scag.ca.gov/committees/CommitteeDocLibrary/mtf012319_CAVIUS .pdf, last accessed May 2021).

- 4. Lawrence Berkeley National Laboratory, Why Regional and Long-haul Trucks are Primed for Electrification Now, 2021 (web link: https://eta-publications.lbl.gov/sites/default/files/updated_5_final_ehdv_report_033121.pd f, last accessed August 2021).
- 5. California Air Resources Board, *New Vehicle Cost Analysis*, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/2021-08/210909costdoc_ADA.pdf, last accessed June 2022).
- 6. National Renewable Energy Laboratory, VICE 2.0: Vehicle and Infrastructure Cash-Flow Evaluation Model, 2014 (web link: https://www.afdc.energy.gov/files/u/publication/VICE_2_0_Jan_17_14.xlsx last accessed June 2022).
- 7. JB Hunt, *Natural Gas in Transportation*, 2014 (web link: https://jbhcdn001.azureedge.net/files/0001723_NATURAL_GAS_WHITE_PAPE R_022014.pdf last accessed June 2022).
- 8. United States Environmental Protection Agency, Final Rule for Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles Phase 2, 2016 (web link: https://www.govinfo.gov/content/pkg/FR-2016-10-25/pdf/2016-21203.pdf, last accessed May 2021).
- 9. California Energy Commission, *Revised Transportation Energy Demand Forecast 2018-2030*, 2017 (web link: https://efiling.energy.ca.gov/getdocument.aspx?tn=235841, last accessed May 2021).
- California Energy Commission, Revised Transportation Energy Demand Forecast 2018-2030, 2017 (web link: https://efiling.energy.ca.gov/getdocument.aspx?tn=235841, last accessed May 2021).
- 11. California Air Resources Board, *Battery-Electric Truck and Bus Charging Calculator*, 2021 (web link: https://ww2.arb.ca.gov/resources/documents/battery-electric-truck-and-bus-charging-cost-calculator, last accessed May 2021).
- 12. Southern California Edison, Communication via email with Alexander Echele in April 2019.
- 13. Electrify America, *Pricing and Plans for EV Charging*, 2021 (web link: https://www.electrifyamerica.com/pricing/, last accessed May 2021).
- 14. Fuel Cell & Hydrogen Energy Association, "Road Map to a US Hydrogen Economy," 2021 (web link: https://www.fchea.org/us-hydrogen-study, last accessed May 2021).
- 15. California Air Resources Board, *Battery Electric Truck and Bus Efficiency Compared to Diesel Vehicles* (web link: https://ww2.arb.ca.gov/sites/default/files/2018-11/180124hdbevefficiency.pdf, last accessed May 2021).
- 16. Penn State LTI Bus Research and Testing Center, *Motor Coach Industries D45 CRTeLE*, 2020 (web link:

- http://apps.altoonabustest.psu.edu/buses/reports/522.pdf?1608733416, last accessed May 2021).
- 17. Penn State LTI Bus Research and Testing Center, *GreenPower Motor Company EV Star*, 2020 (web link: http://apps.altoonabustest.psu.edu/buses/reports/515.pdf?1603821665, last accessed May 2021).
- 18. Argonne National Laboratory, Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool, 2020 (web link: https://greet.es.anl.gov/afleet, last accessed May 2021).
- 19. California Air Resources Board, *LCFS Credit Price Calculator*, 2021(web link: https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/dashboard/creditvalu ecalculator.xlsx, last accessed May 2021).
- 20. SB 1505 (Lowenthal, Stats. 2006, ch.877). Health and Saf. Code sections 43868 and 43869.
- 21. Argonne National Laboratory, *AFLEET Tool*, 2020 (web link: https://greet.es.anl.gov/afleet_tool, last accessed May 2021).
- 22. National Renewable Energy Laboratory, FedEx Express Gasoline Hybrid Electric Delivery Truck Evaluation: 12-Month Report, 2011 (web link: https://www.nrel.gov/docs/fy11osti/48896.pdf, last accessed May 2021).
- 23. National Renewable Energy Laboratory, *Thirty-Six Month Evaluation of UPS Diesel Hybrid-Electric Delivery Vans*, 2012 (web link: https://www.nrel.gov/docs/fy12osti/53503.pdf, last accessed May 2021).
- 24. National Renewable Energy Laboratory, Eighteen-Month Final Evaluation of UPS Second Generation Diesel Hybrid-Electric Delivery Vans, 2012 (web link: https://www.nrel.gov/docs/fy12osti/55658.pdf, last accessed May 2021).
- 25. Bloomberg, What Tesla's Big Rig Must Do to Seduce Truckers, 2017 (web link: https://www.bloomberg.com/news/articles/2017-11-15/what-tesla-s-semi-truck-must-do-to-seduce-truckers, last accessed May 2021).
- 26. American Truck Research Institute, *An Analysis of the Operational Costs of Trucking: 2018 Update*, 2018. (web link: https://truckingresearch.org/wp-content/uploads/2018/10/ATRI-Operational-Costs-of-Trucking-2018.pdf, last accessed May 2021).
- 27. Fleet Advantage, Mitigating Rising M&R Costs for Class-8 Truck Fleets, 2018 (web link: http://info.fleetadvantage.com/mitigating-rising-fleet-maintenance-and-repair-costs-for-class-8-trucks, last accessed May 2021).
- 28. California Air Resources Board, *Literature Review on Transit Bus Maintenance Cost* 2018 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2018/ict2018/appg.pdf, last accessed May 2021).
- 29. Electrification Coalition, *State of the Plug-in Electric Vehicle Market*, 2013 (web link: https://www.pwc.com/gx/en/automotive/industry-publications-and-thought-leadership/assets/pwc-ec-state-of-pev-market-final.pdf, last accessed May 2021).

- 30. Propfe, B. et.al. Cost analysis of Plug-in Hybrid Electric Vehicles including Maintenance & Repair Costs and Resale Values, 2012 (web link: http://www.mdpi.com/2032-6653/5/4/886, last accessed May 2021).
- 31. Taefi, T. et.al. Comparative Analysis of European examples of Freight Electric Vehicle Schemes, 2016 (web link: http://nrl.northumbria.ac.uk/15185/1/Bremen_final_paperShoter.pdf, last accessed May 2021).
- 32. California Air Resources Board, Public Hearing to Consider the Proposed Heavy-Duty Engine And Vehicle Omnibus Regulation and Assocated Regulatory Amendments Staff Report: Initial Statement of Reasons, 2020 (web link: https://ww2.arb.ca.gov/sites/default/files/classic/regact/2020/hdomnibuslowno x/isor.pdf, last accessed May 2021).
- 33. BYD, *The BYD K9*, 2019 (web link: https://en.byd.com/wp-content/uploads/2019/07/4504-byd-transit-cut-sheets_k9-40_lr.pdf, last accessed May 2021).
- 34. New Flyer, *Xcelsior Charge*, 2019 (web link: https://www.newflyer.com/site-content/uploads/2019/06/Xcelsior-CHARGE-web.pdf, last accessed May 2021).
- 35. Proterra, Catalyst: 40 Foot Bus Performance Specifications, 2019 (web link: https://mk0proterra6iwx7rkkj.kinstacdn.com/wp-content/uploads/2019/06/Proterra-Catalyst-40-ft-Spec-Sheet.pdf, last accessed May 2021).
- 36. Ricardo, Economics of Truck TCO and Hydrogen Refueling Stations, 2016 (web link: https://cafcp.org/sites/default/files/8_Economics-of-Hydrogen-Refueling-Stations-Ricardo_CaFCP-Bus-Team-meeting-Aug2016.pdf, last accessed May 2021).
- 37. California Department of Motor Vehicles, *California New Vehicle Fees*, 2021 (web link: https://www.dmv.ca.gov/portal/dmv/detail/portal/feecalculatorweb, last accessed May 2021).
- 38. California Air Resources Board, *Appendix K: Transit Fleet Cost Model*, 2017 (web link: https://www.arb.ca.gov/regact/2018/ict2018/appk-transitfleetcostmodel.xlsx, last accessed July 2021).
- 39. National Renewable Energy Laboratory, VICE 2.0: Vehicle Infrastructure and Cash-Flow Evaluation Model, 2014 (web link: https://afdc.energy.gov/files/u/publication/VICE_2_0_Jan_17_14.xlsx, last accessed July 2021).
- 40. International Council on Clean Transportation, Estimating Electric Vehicle Charging Infrastructure Costs Across Major U.S. Metropolitan Areas, 2019. (web link: https://theicct.org/sites/default/files/publications/ICCT_EV_Charging_Cost_201 90813.pdf, last accessed May 2021).
- 41. Forerunner Insurance Group, What does Average semi truck insurance costs for owner operators?, 2018 (web link: https://www.forerunnerinsurance.com/what-does-average-semi-truck-insurance-costs-for-owner-operators/, last accessed May 2021).

- 42. Commercial Truck Insurance HQ, Average Semi Truck Insurance Cost, 2019 (web link: https://www.commercialtruckinsurancehq.com/average-semi-truckinsurance-cost, last accessed May 2021).
- 43. Strong Tie Insurance, Why You Need a Commercial Semi Truck Insurance Coverage, 2021 (web link: https://www.strongtieinsurance.com/semi-truck-insurance/, last accessed May 2021).
- 44. Internal Revenue Service, *Publication 946 (2020), How To Depreciate Property*, 2020 (web link: https://www.irs.gov/pub/irs-pdf/p946.pdf, last accessed May 2021).
- 45. Franchise Tax Board, *Business Tax Rates*, 2021 (web link: https://www.ftb.ca.gov/file/business/tax-rates.html, last accessed May 2021).
- 46. Internal Revenue Service, *Publication 542, Corporation*, 2021 (web link: https://www.irs.gov/publications/p542, last accessed May 2021).

I. Appendix H-1 -Purpose and Rationale for State and Local Government Fleet Requirements

- 1. SpecialtyResearch.net, Truck Body Manufacturing in North America, June 15, 2018 (weblink: https://www.specialtyresearch.net/, last accessed April 2022)
- 2. SpecialtyResearch.net, Truck Body Manufacturing in North America, June 15, 2018 (weblink: https://www.specialtyresearch.net/, last accessed April 2022)
- 3. United States Census Bureau, *California: 2020 Census*, 2020. (web link: https://www.census.gov/library/stories/state-by-state/california-population-change-between-census-decade.html, last accessed June 2022).
- 4. SpecialtyResearch.net, Truck Body Manufacturing in North America, June 15, 2018 (weblink: https://www.specialtyresearch.net/, last accessed April 2022)
- 5. For more information see CARB's website, https://ww2.arb.ca.gov/our-work/programs/school-buses/regulations-affecting-school-fleets
- 6. For more information see CARB's website, https://ww2.arb.ca.gov/our-work/programs/school-buses/funding-clean-school-buses

J. Appendix H-2 -Purpose and Rationale for High-Priority and Federal Fleet Requirements

- United States Postal Service, USPS Places Order for 50,000 Next Generation Delivery Vehicles; 10,019 To Be Electric, March 24, 2022 (web link: https://about.usps.com/newsroom/national-releases/2022/0324-usps-places-order-for-next-gen-delivery-vehicles-to-be-electric.htm, last accessed April 2022)
- 2. SpecialtyResearch.net, Truck Body Manufacturing in North America, June 15, 2018 (weblink: https://www.specialtyresearch.net/, last accessed April 2022)
- 3. SpecialtyResearch.net, Truck Body Manufacturing in North America, June 15, 2018 (weblink: https://www.specialtyresearch.net/, last accessed April 2022)

- 4. SpecialtyResearch.net, Truck Body Manufacturing in North America, June 15, 2018 (weblink: https://www.specialtyresearch.net/, last accessed April 2022)
- 5. SpecialtyResearch.net, Truck Body Manufacturing in North America, June 15, 2018 (weblink: https://www.specialtyresearch.net/, last accessed April 2022)
- 6. SpecialtyResearch.net, Truck Body Manufacturing in North America, June 15, 2018 (weblink: https://www.specialtyresearch.net/, last accessed April 2022)
- 7. California Government Code, GOV Section 11343.3 (web link: https://codes.findlaw.com/ca/government-code/gov-sect-11343-3.html, last accessed June 2022)
- 8. SpecialtyResearch.net, Truck Body Manufacturing in North America, June 15, 2018 (weblink: https://www.specialtyresearch.net/, last accessed April 2022)
- 9. For more information see CARB's website, https://ww2.arb.ca.gov/our-work/programs/school-buses/regulations-affecting-school-fleets
- 10. For more information see CARB's website, https://ww2.arb.ca.gov/our-work/programs/school-buses/funding-clean-school-buses
- 11. CARB, Battery Electric Truck and Bus Energy Efficiency Compared to Conventional Diesel Vehicles, May 2018 (web link: https://ww2.arb.ca.gov/sites/default/files/2018-11/180124hdbevefficiency.pdf, last accessed June 2022)

K. Appendix I - Modified Baseline Analysis

 California Air Resources Board, Proposed Heavy-Duty Inspection and Maintenance Regulation – Appendix F: Further Details on Costs and Economic Analysis, 2021 (web link: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2021/hdim2021/appf.pd f, last accessed January 2022).