

The Road to Zero Emissions

President Biden’s Vehicle Fleet Pledge



President Biden’s recent Executive Order 14008, “Tackling the Climate Crisis at Home and Abroad,” establishes a task force to plan for procurement of American-made “clean and zero-emission vehicles” for federal, state, local, and tribal government fleets.

Government fleets will be positioned as early adopters of the new wave of clean vehicles, particularly electric vehicles (EVs). In this way, fleets will help stimulate demand for EVs and lead the way for decarbonization of the U.S. transportation sector.

What are the Impacts to Government Fleets?



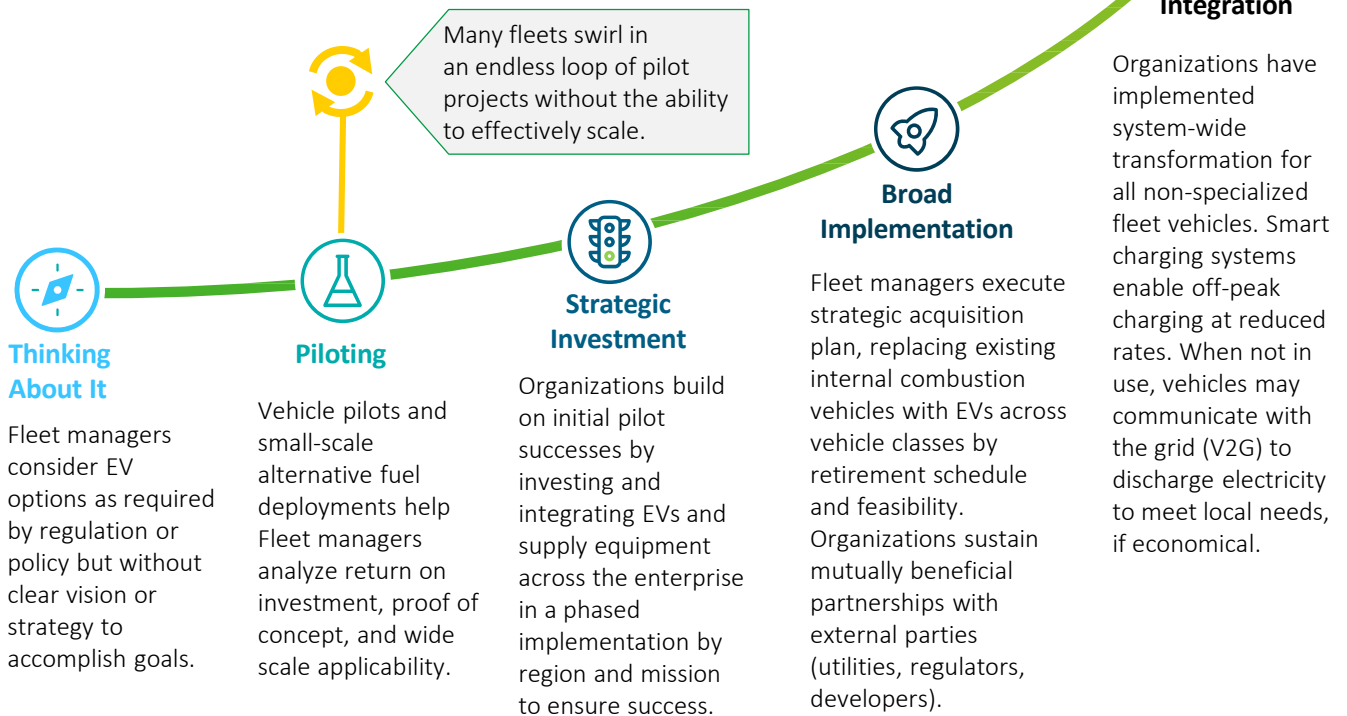
Deloitte expects that EVs, in addition to being a necessary component of any strategy to minimize US impacts on climate change, will become the optimal fleet vehicle as battery performance and costs improve and charging infrastructure expands.

Electrifying the government fleet will by no means be a quick or easy task. In fiscal year 2019, the federal fleet operated just 3,215 EVs out of the total fleet of 645,047 vehicles, or 0.5% of the fleet. Comprehensive EV implementation for federal, state, local, and tribal governments will require a paradigm shift in fleet planning and operations.









EV Maturity Scale



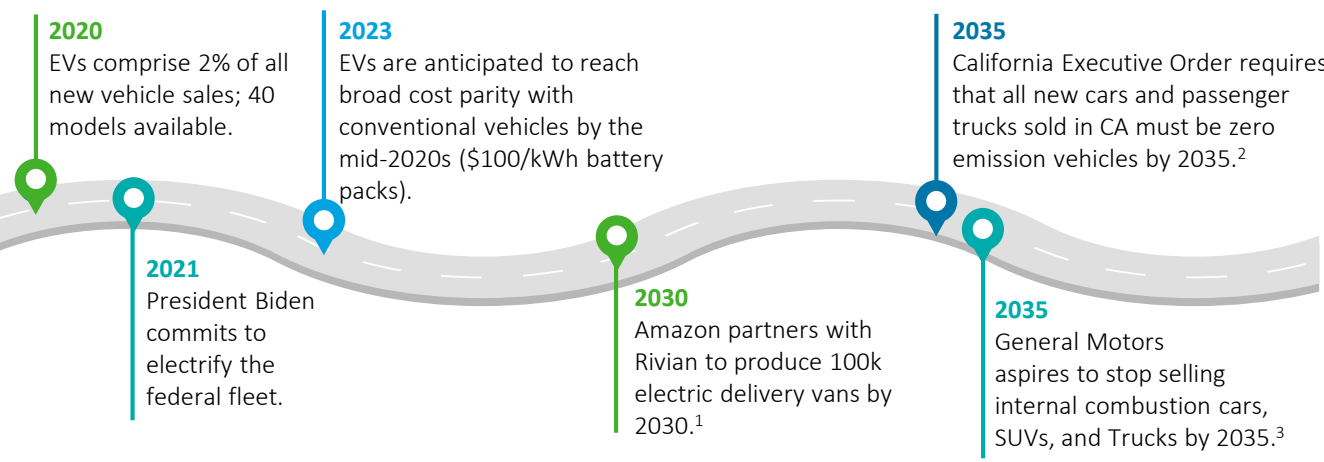
Making the right strategic investments will allow fleet organizations to meet electrification mandates on their own terms, more efficiently, and with better implementation outcomes.



Barriers and Pathways

Barrier	Pathway
 <p>Higher Upfront Cost EVs are historically more expensive to purchase than internal combustion engine (ICE) vehicles.</p>	 <p>Follow Total Cost of Ownership Lower operating expenses (fuel and maintenance) and declining battery costs make EVs competitive with or cheaper than conventional vehicles over the lifecycle. Using a total cost of ownership approach will provide clarity for budget planning.</p>
 <p>Lack of Charging Infrastructure Charging infrastructure is costly and installation can encounter logistical hurdles.</p>	 <p>Collaborate with Partners Organizations can share costs across fleet and facilities programs and reach out to external partners for assistance and incentives, considering electrification as a potential bargaining opportunity.</p>
 <p>EV Adoption Vehicle operators may not embrace EVs based on lack of EV literacy or range anxiety.</p>	 <p>Refine Requirements and Change Behavior EV ranges are becoming comparable with ICE vehicles, and fleet use patterns often show lower than expected range requirements. Strategic communication and training will ensure successful community adoption.</p>
 <p>Limited Models The only available EV models are sedans and smaller SUVs.</p>	 <p>Prepare for Expanded Applications U.S. EV model offerings are anticipated to more than triple between 2021 and 2024, with OEMs adding more options across all weight classes.</p>

Looking Ahead





Past Success

EV Business Case Analysis: US Department of Defense (DoD)
Deloitte developed a business case and road map for EVs to replace DoD’s internal combustion engine fleet vehicles. The study focused on current charging capacity, cost effectiveness of EV deployment, and impacts of electrification to DoD installation energy.

How can Deloitte Support Fleet Electrification?



Deloitte provides a range of services and solutions related to the conversion, management, and optimization of an electric fleet. Deloitte employs a fleet electrification framework, available upon request, to help government agencies bring EVs into their fleets. Our approach recognizes the interdependencies between stakeholder groups, including vehicle operators, property, facilities, and financial management teams.

Requirements and Suitability



Vehicle Allocation Methodology study to determine optimal fleet profile, EV suitability assessment of current fleet usage (trips, mileage, etc.), infrastructure capacity for EV conversion, and opportunities for colocation of renewable power generation and storage

Budgeting and Lifecycle Management



TCO study to establish baseline lifecycle costs, lease versus buy analysis, EV business case analysis to determine fiscal ramifications of EV conversion and supply infrastructure considerations (e.g., DC fast versus level 2 charging)

Strategic Planning



Procurement and deployment planning for EVs and supply equipment, including communications and organizational change management support

Charge Management



Charging load and schedule analysis to identify most cost-effective smart charging programming, including feasibility of vehicle-grid integration

Analytics and Performance Management



Performance dashboarding to track and manage key fleet metrics such as utilization, downtime, and charging times; and analytics to support continual improvement

Policy and Regulatory Compliance



Fleet management policy and governance, including compliance tracking and reporting for acquisitions, utilization, GHG emissions, and petroleum reduction; EV incentives modeling; and negotiations facilitation with utilities and regulators



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¹ Amazon, "[Introducing Amazon's first custom electric delivery vehicle](#)," October 8, 2020.

² State of California, "[Governor Newsom announces California will phase out gasoline-powered cars & drastically reduce demand for fossil fuel in California's fight against climate change](#)," September 23, 2020.

³ LinkedIn, "[General Motors intends to lead the auto industry and the world to a net-zero-carbon future](#)," Mary Barra, Chairman and Chief Executive Officer at General Motors, January 28, 2021.

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