Canadian criteria emissions regulations are largely aligned with U.S. requirements; however, the existing ZEV regulations in Quebec and those published in British Columbia in July 2020 are more stringent than those in place in California. Both British Columbia and Quebec have proposed draft amendments to their regulations to increase requirements starting in 2025 and 2026, respectively. The federal government has published draft light-duty ZEV sales requirements through an amendment to the Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations and has also published its intent to develop ZEV sales requirements for heavy-duty vehicles. Other provinces have signaled their interest in light-duty ZEV sales regulations but are awaiting the finalization of the federal ZEV regulations.

Elsewhere, there is a mix of regulations and processes based on U.S. and EU standards. Not all countries have adopted appropriate fuel quality standards to accompany the stringent emission standards adopted. This could lead to compliance problems, particularly if OBD or in-use surveillance requirements are implemented.

Global Developments. In recent years, EPA and CARB have increased their focus on the use of "defeat devices." Defeat devices are elements of design (typically embedded in software) that improperly cause the emission control system to function less effectively during normal on-road driving than during an official laboratory emissions test, without justification. They are prohibited by law in many jurisdictions, and we do not use defeat devices in our vehicles.

Regulators around the world continue to scrutinize automakers' emission testing, which has led to a number of defeat device settlements by various manufacturers. EPA is carrying out additional non-standard tests as part of its vehicle certification program. CARB has also been conducting extensive non-standard emission tests, which in some cases have resulted in certification delays for diesel vehicles. In the past, several European countries have conducted non-standard emission tests and published the results, and, in some cases, this supplemental testing has triggered investigations of manufacturers for possible defeat devices. Testing is expected to continue on an ongoing basis. In addition, plaintiffs' attorneys are pursuing consumer class action lawsuits based on alleged excessive emissions from cars and trucks, which could, in turn, prompt further investigations by regulators.

## Vehicle Fuel Economy and Greenhouse Gas Standards

U.S. Requirements - Light-Duty Vehicles. Federal law requires that light-duty vehicles meet minimum corporate average fuel economy ("CAFE") standards set by the National Highway Traffic Safety Administration ("NHTSA"). Manufacturers are subject to substantial civil penalties if they fail to meet the CAFE standard in any model year, after taking into account all available credits for the preceding five model years and expected credits for the three succeeding model years. The law requires NHTSA to promulgate and enforce separate CAFE standards applicable to each manufacturer's fleet of domestic passenger cars, imported passenger cars, and light-duty trucks.

EPA also regulates vehicle greenhouse gas ("GHG") emissions under the Clean Air Act. Because the vast majority of GHGs emitted by a vehicle are the result of fuel combustion, GHG emission standards are similar to fuel economy standards. Thus, NHTSA and EPA coordinate with each other on their fuel economy and GHG standards, respectively, to avoid potential inconsistencies.

Beginning with the 2012 model year, EPA and NHTSA jointly promulgated harmonized GHG and fuel economy regulations under what came to be known as the "One National Program" ("ONP") framework. California, which had promulgated its own state-specific set of GHG regulations, agreed that compliance with the federal program would satisfy compliance with its own GHG requirements, thereby avoiding a patchwork of potentially conflicting federal and state GHG standards. ONP has required manufacturers to achieve increasingly stringent year-over-year standards.

ONP was envisioned to continue at least through the 2025 model year. In 2020, EPA introduced significantly less stringent fuel economy and GHG standards applicable to model years 2021-2026. The federal government also revoked California's authority to set and enforce its own vehicle GHG standards, as well as the authority of other states that opted in to California's standards. California continued to assert its authority to regulate vehicle GHGs, challenged in court the federal government's preemption actions, withdrew from ONP, and planned to return to enforcing its own state-specific GHG standards.