

Framework for Change: Zero-emission vehicles will come in waves – global “beachhead” strategy targets applications where zero-emission technology will succeed first

**Beachhead:
Wave 1
Transit**

ZE transit buses
Available now



ZE industrial lifts
Available now



Similar drivetrain and component sizing can scale to early near applications

**Wave 2
Delivery**

Chanje Class 5 Delivery Van
Available now



Orange EV yard tractor
Available now



**Wave 3
Medium Freight, Service**

Freightliner eM2
Demo now
Announced 2021



Kenworth K270E
Pilot now
Production 2020?



Navistar Class 6
Demo now
Production 2021



Expanded supply chain capabilities and price reductions enable additional applications

**Wave 4
Heavy Regional Freight**

Freightliner e-Cascadia
Demo Now; Announced 2021



Volvo VNR
Demo Now
Production late 2020



Tesla demo
Coming 2021?



Steadily increasing volumes and infrastructure strengthen business case and performance confidence

Corridor Longhaul

Nikola FC tractor
Coming 2022?



2020

2021

2022

2023

Appendix D

Heavy-Duty Investment Strategy

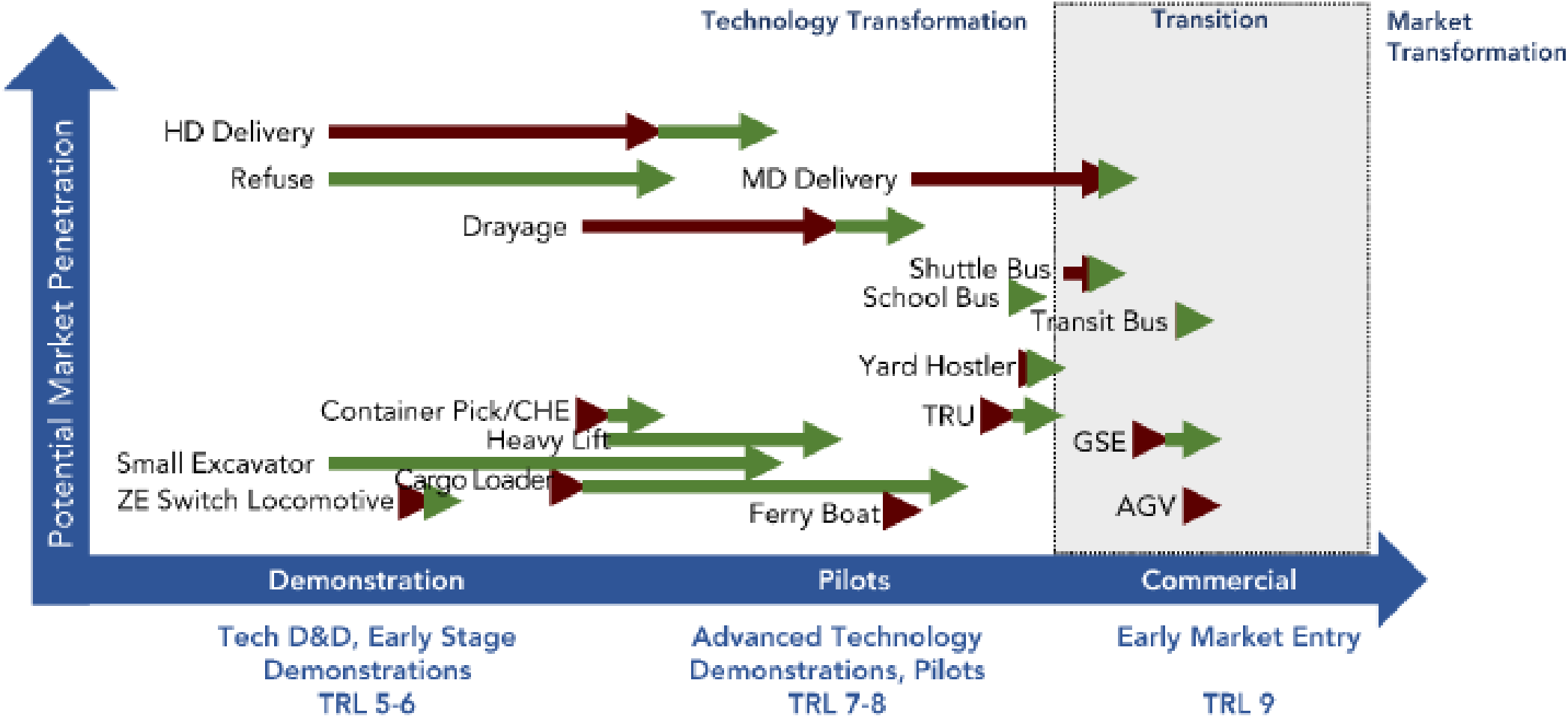
including Fiscal Year 2019-20 Three-Year Recommendations
for Low Carbon Transportation Investments

Updates for FY 2019-20

While the Heavy-Duty Investment Strategy was initially developed independent of mandate, in 2018, the governor signed into law SB 1403 (Lara, Chapter 370, Statutes of 2018), which requires CARB to develop the Heavy-Duty Investment Strategy and Three-Year Recommendations for Low Carbon Transportation Investments. Among other things, SB 1403 directed CARB to produce annually a three-year investment strategy for Low Carbon Transportation and AQIP investments beginning in FY 2019-20. Per SB 1403, the Heavy-Duty Investment Strategy should describe the role of public investments in supporting the demonstration and deployment of advanced technologies, provide an assessment of available funding and the investment needed, and provide a description of CARB's portfolio of investments.

BEV Technology Readiness Levels – 2019 Update

2018 Progress 
 2019 Progress 



ZERO-EMISSION TECHNOLOGY INVENTORY



SELECT A VEHICLE PLATFORM TO EXPLORE



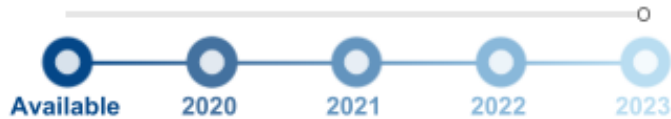
SELECT A REGION

SELECT A VEHICLE MANUFACTURER



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REPORTED VEHICLE AVAILABILITY THROUGH 2023



RESET FILTERS



<https://globaldrivetozero.org/tools/zero-emission-technology-inventory/>



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