

Minnesota: Electric Vehicle Briefing

February 18, 2021



ALLIANCE
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BMW GROUP

BOSCH



cruise

DENSO



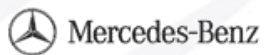
HONDA



ISUZU



local motors



NISSAN



Panasonic

PORSCHE

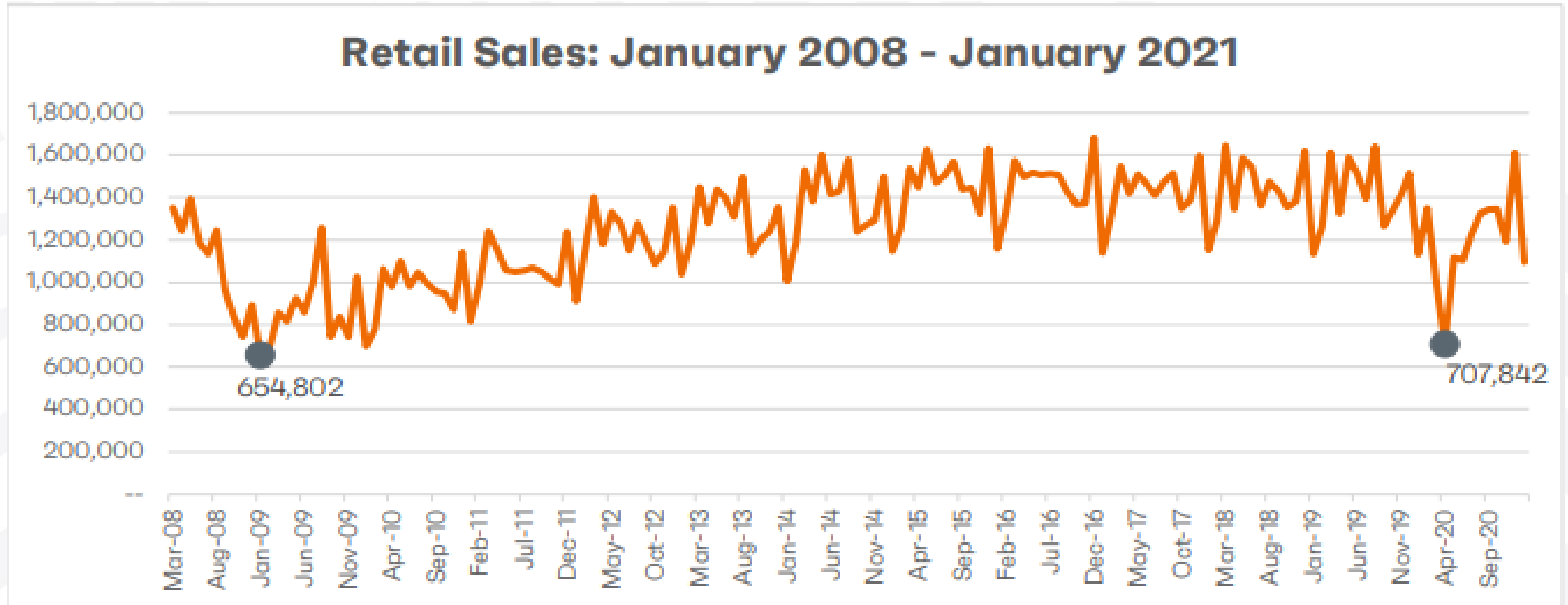


TOYOTA



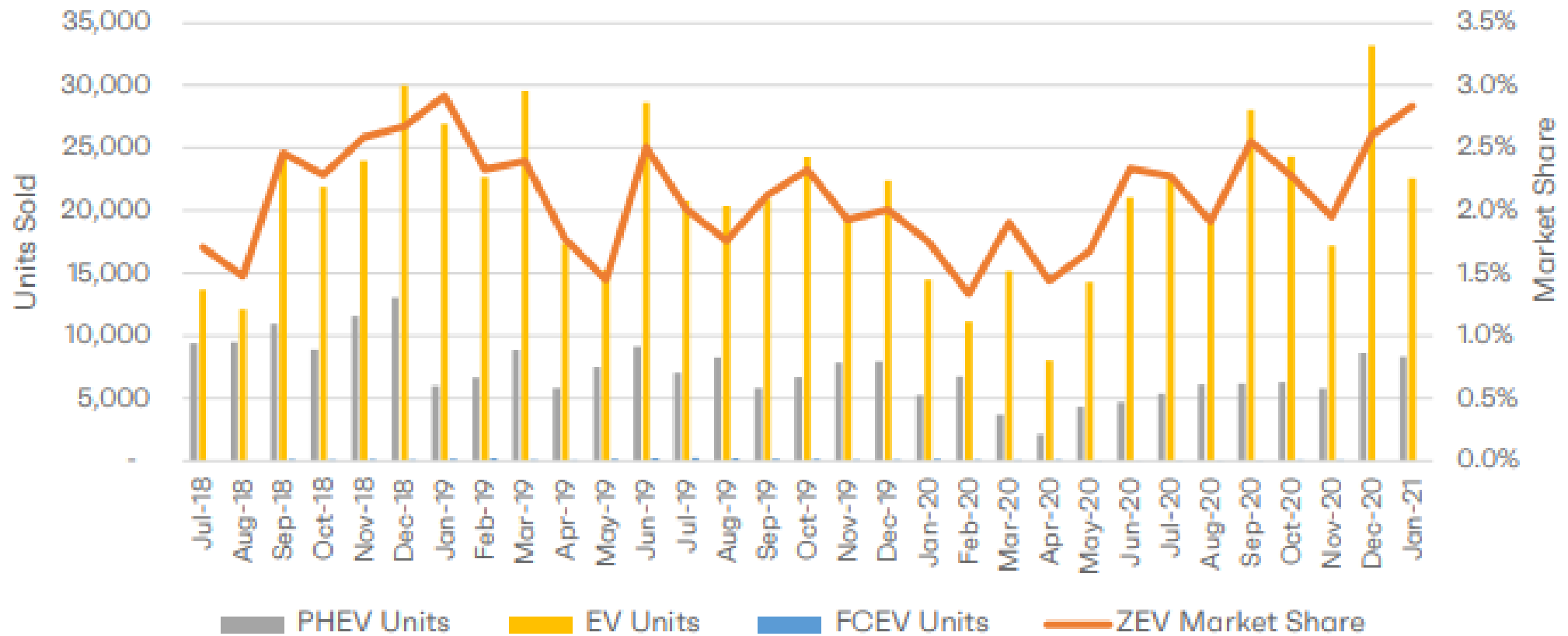
Reading the Meter – Vehicle Sales Trends

Reading the Meter – All Vehicle Sales

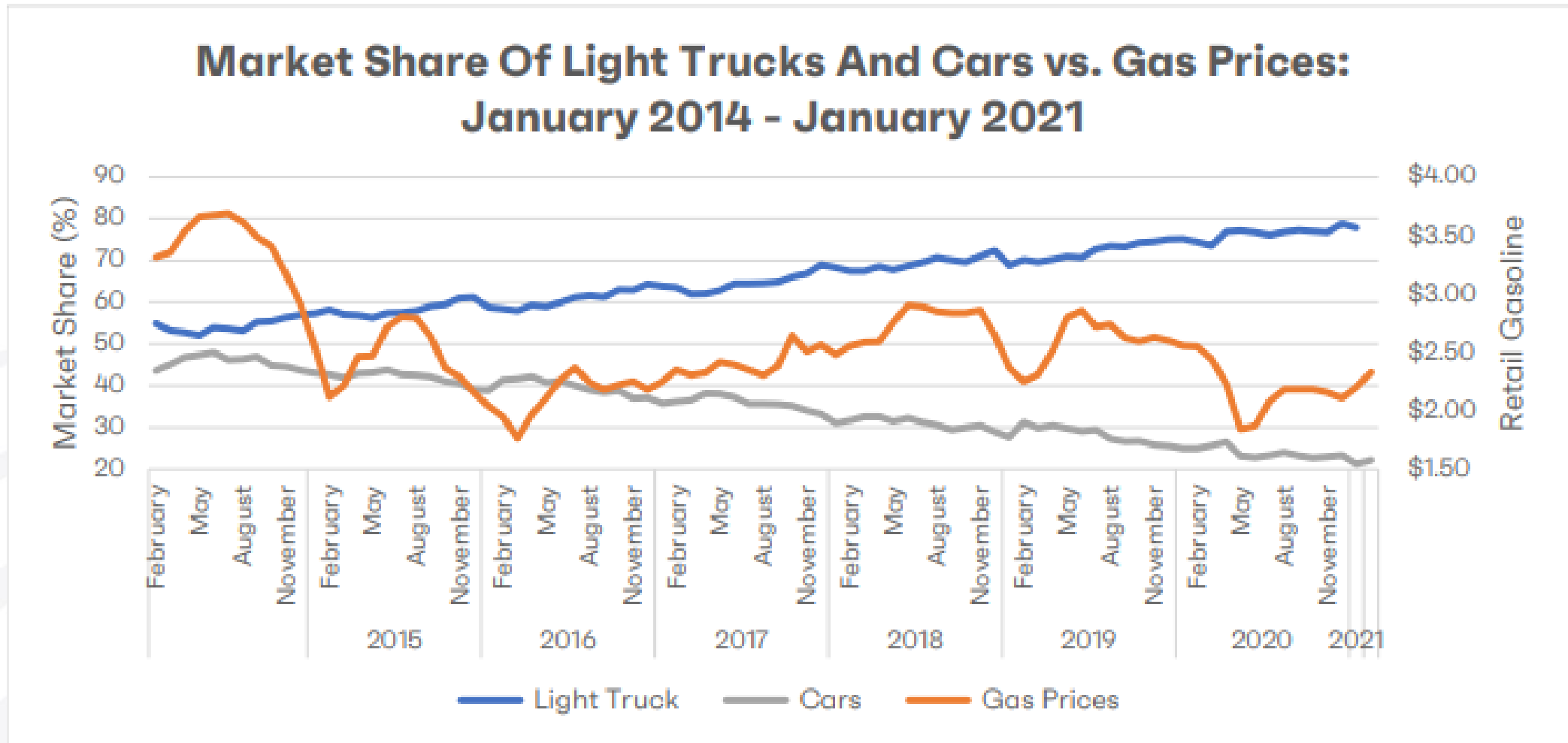


Reading the Meter – ZEV Sales

**ZEV Sales And Percentage Of All Volume:
July 2018 - January 2021**



What's Driving the Market?



All In: Industry Commitment to ZEVs

The Industry is “All In” on ZEVs

Powertrain Options

16
BEV

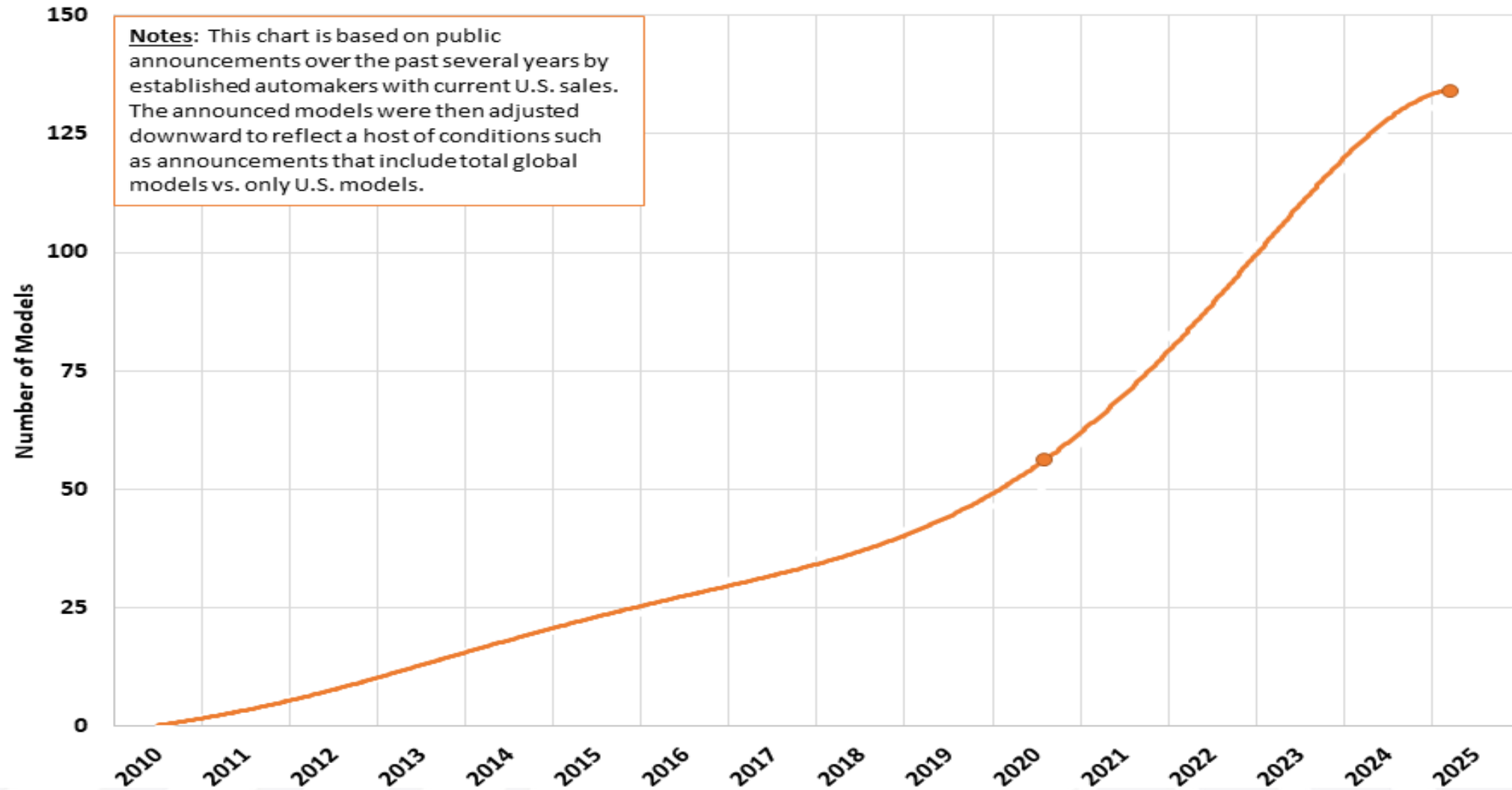
25
PHEV

3
Fuel Cell

- More than 40 models of plug-in hybrid (PHEV), fully electric (BEV), and fuel cell electric vehicles (FCEV) are available now to consumers — and more are on the way.
- Our industry’s investments in vehicle electrification are not slowing; investments are expected to reach over \$250 billion globally by 2023.
- With availability of models increasing rapidly, there will be more options to meet a wider variety of customer needs, and in general, all states – especially those with EV incentives and growing infrastructure investments – will have more available EVs for sale.
- At the same time, ongoing improvements have led to cleaner and more efficient light-duty vehicles; fuel economy has increased 30% since 2004, and tailpipe criteria emissions are over 99% cleaner than the 1960’s.

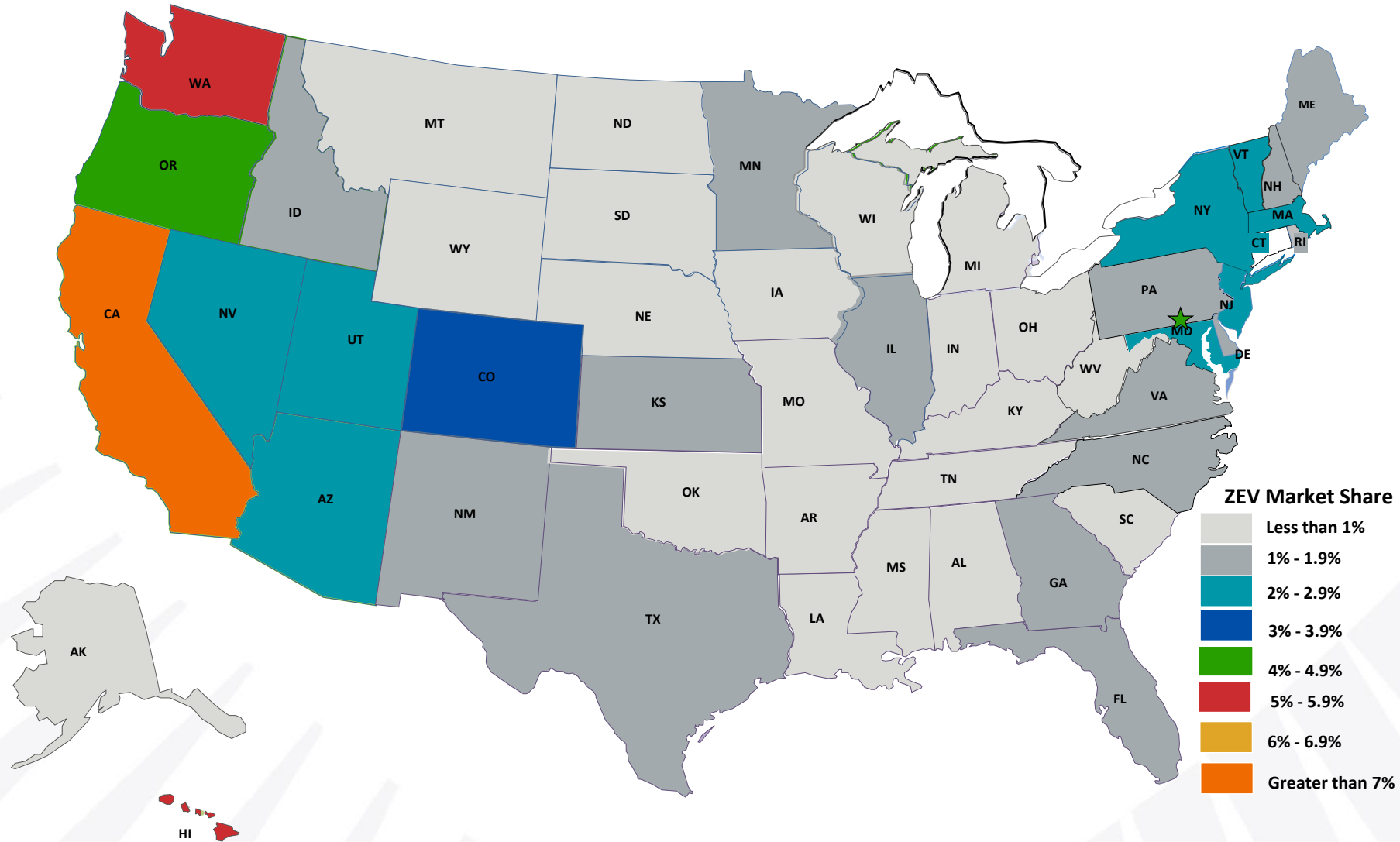
Automakers Bringing More ZEVs to the Market!

Estimated Number of FCEV, BEV, and PHEV Models

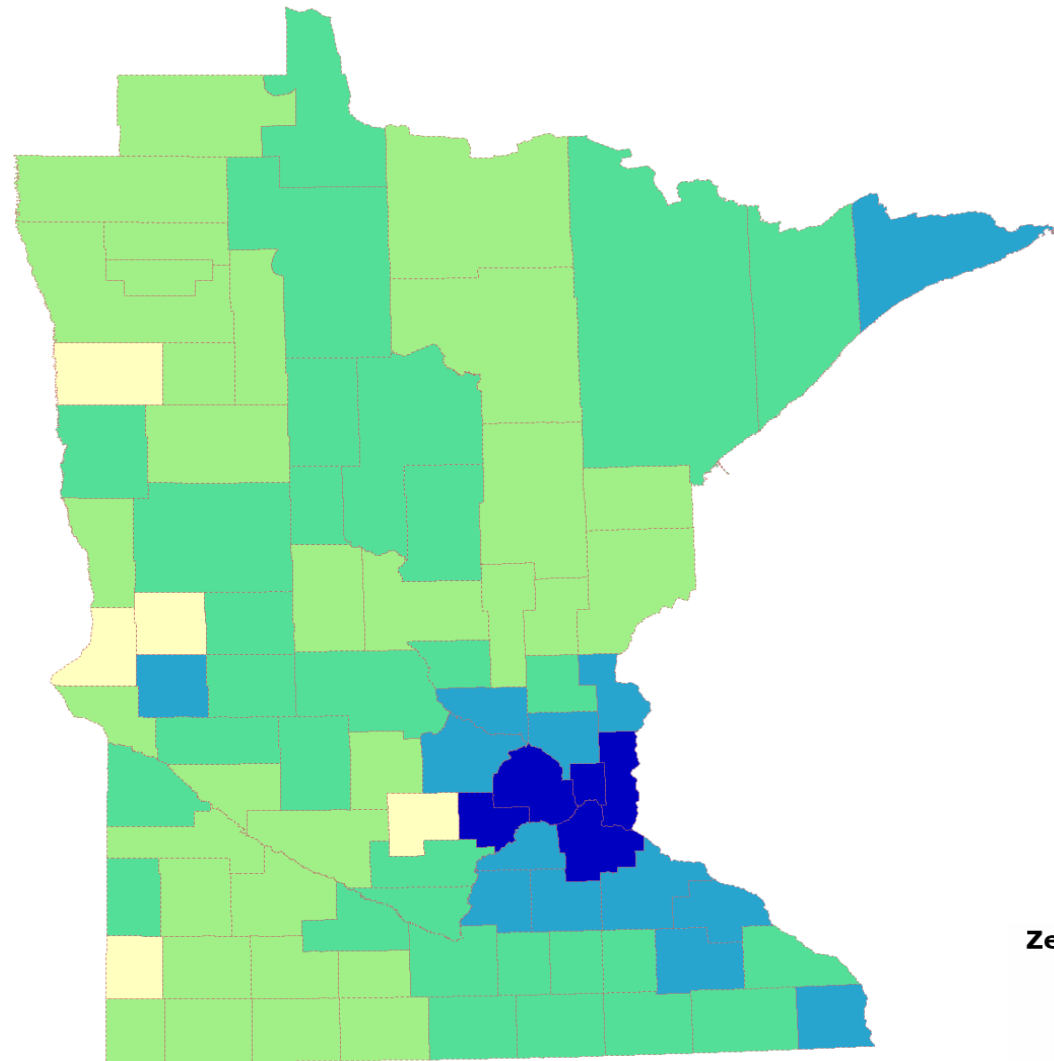


Minnesota's ZEV Market

ZEV Sales Market Share By State: January – August 2020



Where are ZEVs Selling in Minnesota?

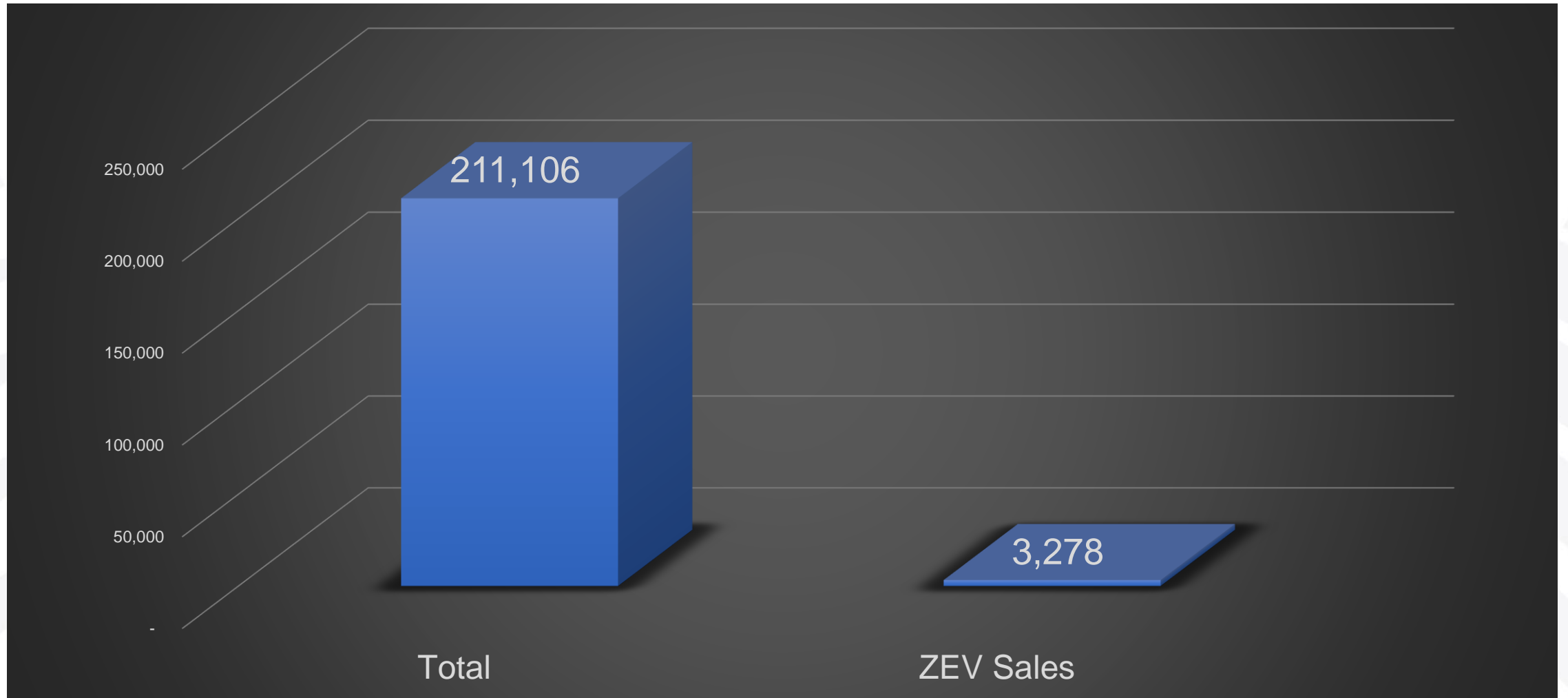


Zero Emission Vehicles Per 10,000 Residents

- Less than 1
- Between 1 and 5
- Between 5 and 10
- Between 10 and 25
- Between 25 and 50

Compiled by Alliance For Automotive Innovation, registered vehicles as of January 1, 2020

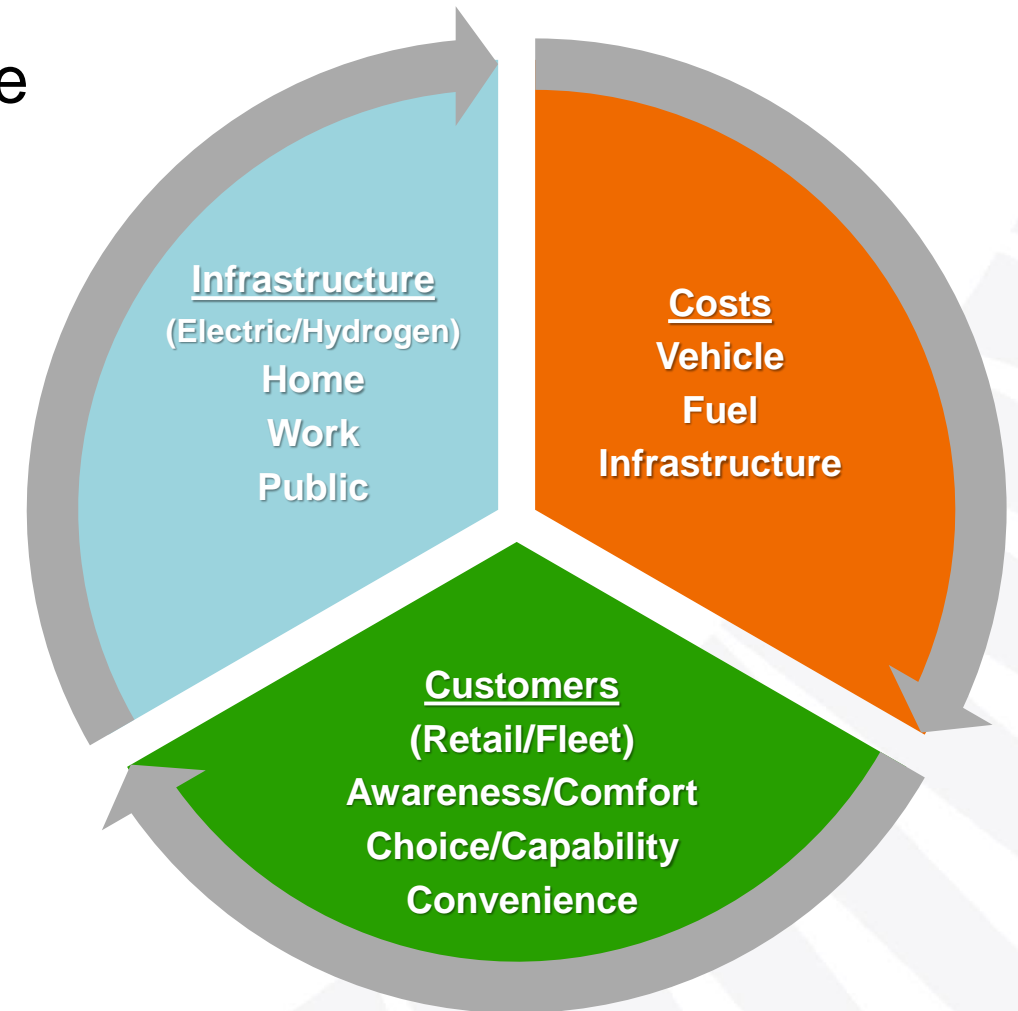
2020 Auto Sales in Minnesota



Industry and the States – A Shared Commitment

Electric Vehicle Future

- Governments and automakers around the world focused on electrification
- Goals can only be achieved with a coordinated, comprehensive, and sustained effort by all stakeholders
- Broad electrification must address infrastructure, costs, and customers
- Auto Innovators developing policies to align vehicle deployment with supportive measures



The Auto Industry is Committed to an Electrified Future

- Automakers are committed to electrification of personal transportation
- Automakers will actively support necessary complementary policies:
 - Incentives
 - Infrastructure
 - Fleet purchase requirements that match sales requirements
 - Low carbon fuel standard
 - Building codes
 - Streamlined infrastructure permitting
 - R&D to reduce costs
- Automakers will actively support targeted consumer education programs including public and private fleet purchase requirements

Minnesota Needs to Act Now

Auto Innovators highly recommends adoption of complementary EV policies in Minnesota

- Purchase incentives - EVs go to markets with the most supportive conditions
- State programs that educate and encourage consumers and fleets to buy electric
- State fleet purchase requirements
- Utility investments in infrastructure
- Cleaner, more renewable grid
- EV-ready requirements for all new buildings
- Decarbonization of fuels through a low carbon fuels programs and using its revenue to fund vehicle rebates and infrastructure
- More electric charging infrastructure along major roadways
- Funding a network of hydrogen stations – Minnesota lacks California’s three available fuel cell electric vehicles due to a lack of infrastructure.
- Reduced tolls and HOV lane use for EVs



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Transforming Personal Mobility