

# *What the Coming Wave of Electric Vehicles Means for Georgia: Effects on Gas Stations & Brownfield Implications*

GBA 2023 Seminar





# More Charging











EV  
Rideshare  
and Taxi

Kaptyn



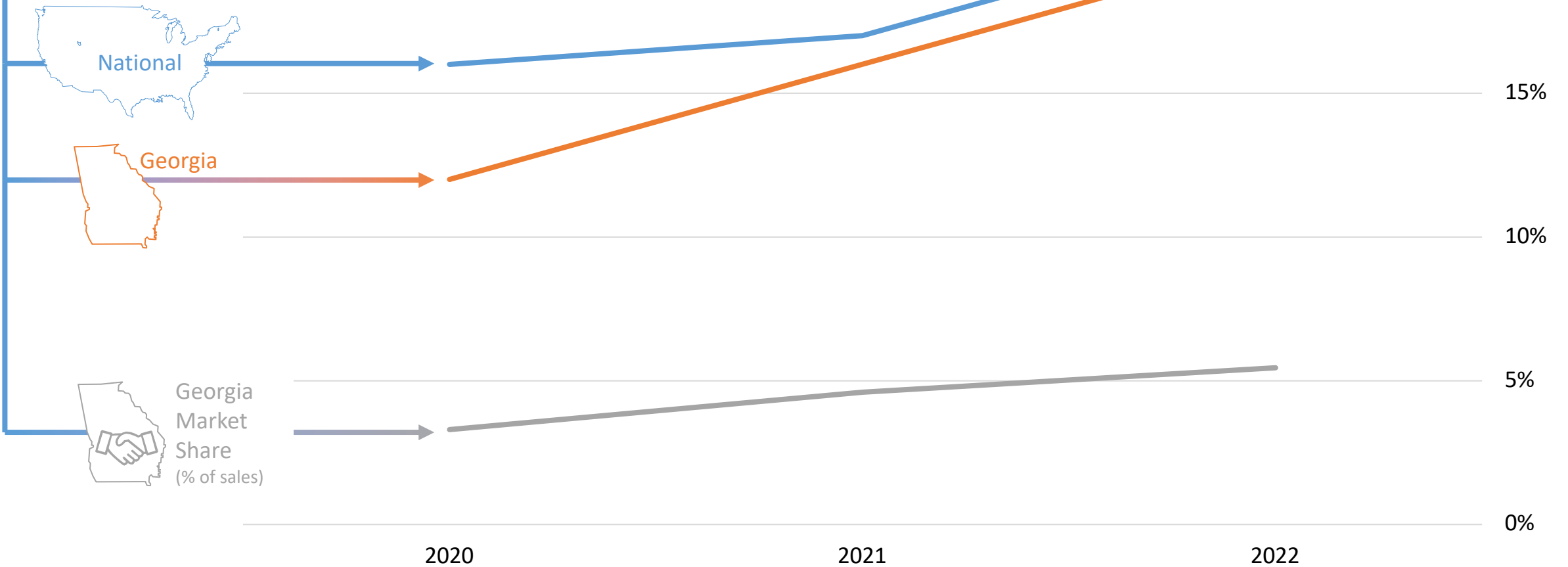
Utility, Government,  
Port, Commercial,  
Delivery





## EV Intenders

15x more likely to  
buy an EV



Sources: Escalent EVForward™ 2020-2022, Alternative Fuels Data Center, <https://www.autosinnovate.org/resources/electric-vehicle-sales-dashboard> + EVAdoption, LLC





*At Savannah port –  
For EV truck use*





*Tybee Island  
Community charger -  
Built & owned by  
Georgia Power*





*Portable, moveable  
charger*





*Jimmy Carter  
National Historical  
Park –  
Free charging*





*EV bus  
charging*





*EV boat*





*Americus courthouse -  
Free charging*





*City of Sandersville -  
Level 2 charging*



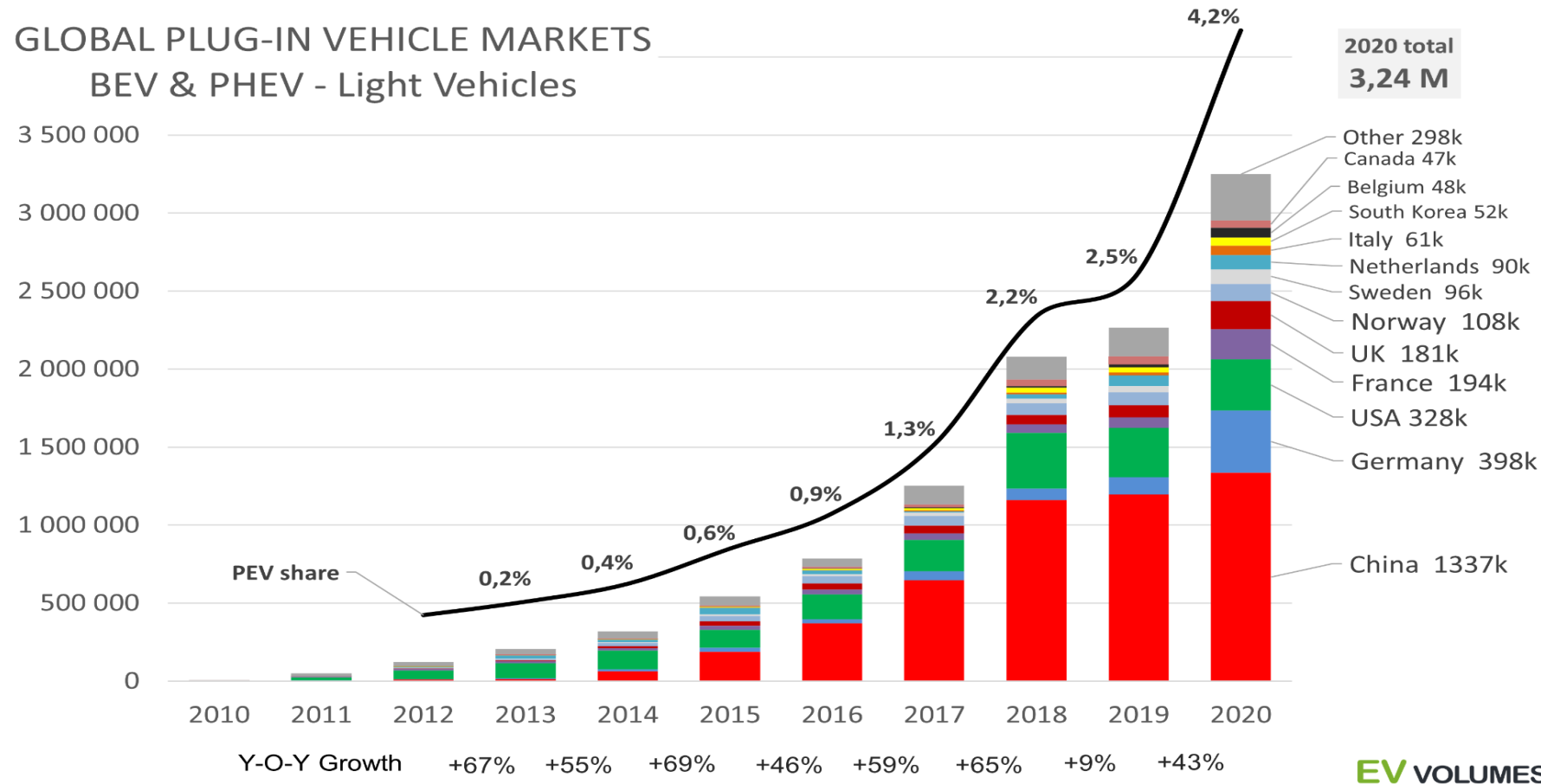
# *Overall Trends*

- *Increasing electric vehicle (EV) production & use*
  - Biden administration – By 2030, goal for 50% of new cars sold in U.S. to be zero emission
  - 1.9M EVs in operation in U.S. (as of October 2022) – 0.7% of 281M vehicles in operation
  - By 2030, goal for 500,000 public EV chargers/ports in U.S.
- *Potential for redevelopment & repurposing of gas station sites*
  - Per U.S. EPA, believed that 50% of approximately 450,000 U.S. Brownfields are affected by petroleum contamination





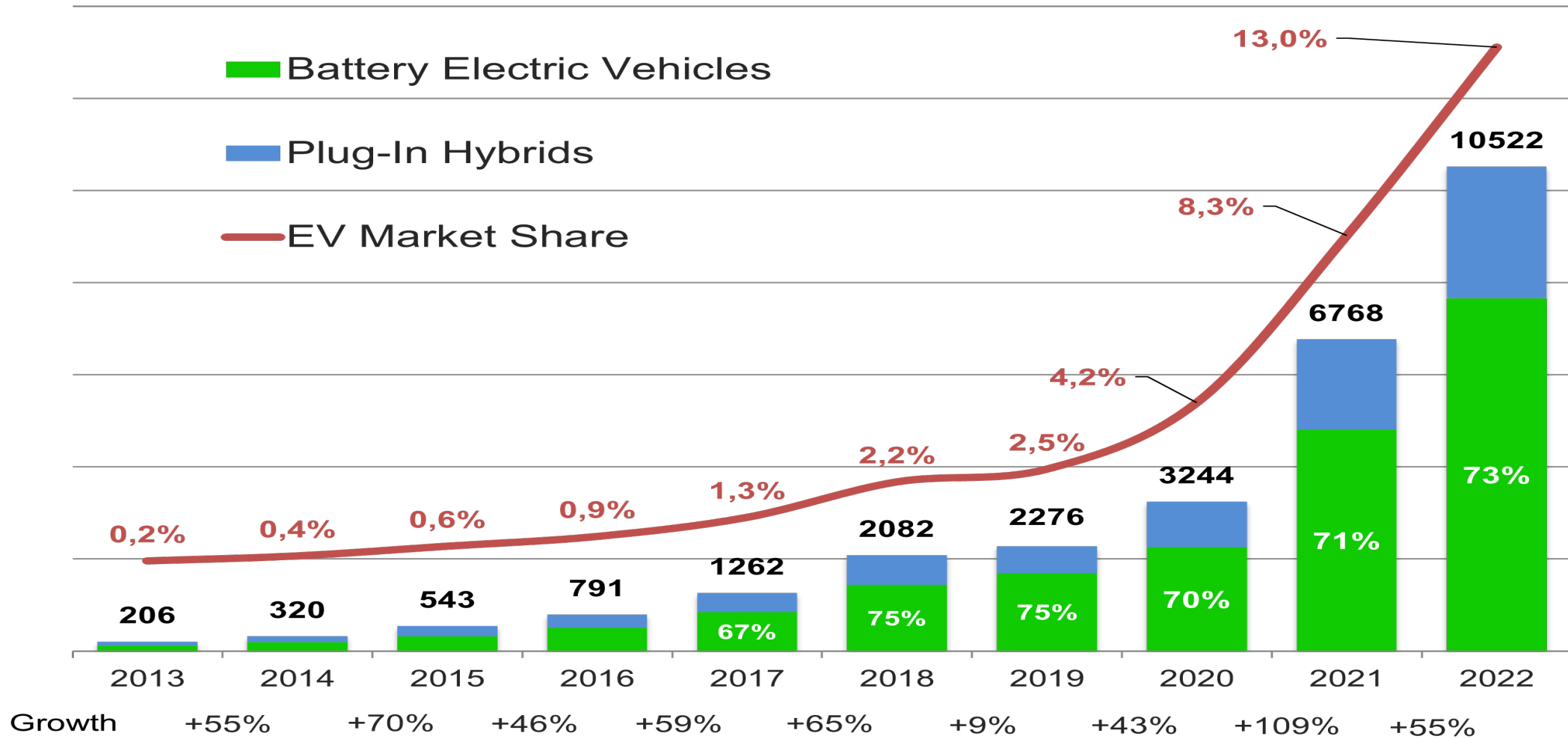
# The future of cars is electric – but how soon is this future? (FTI Consulting)





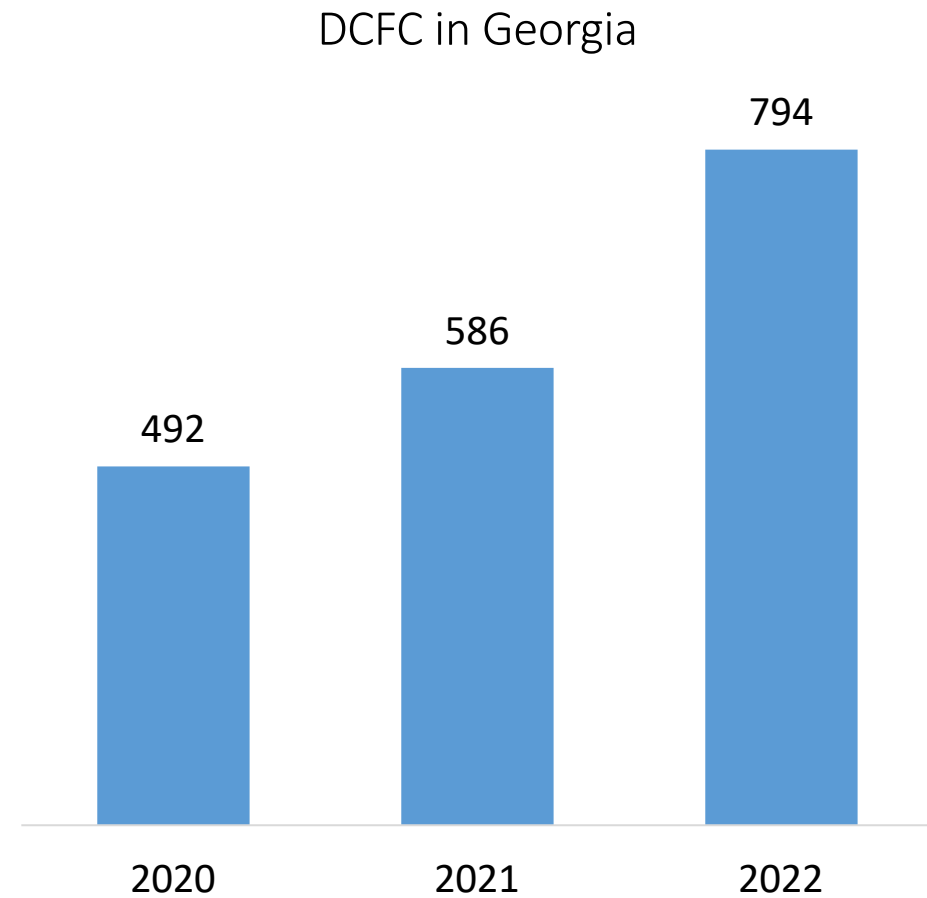
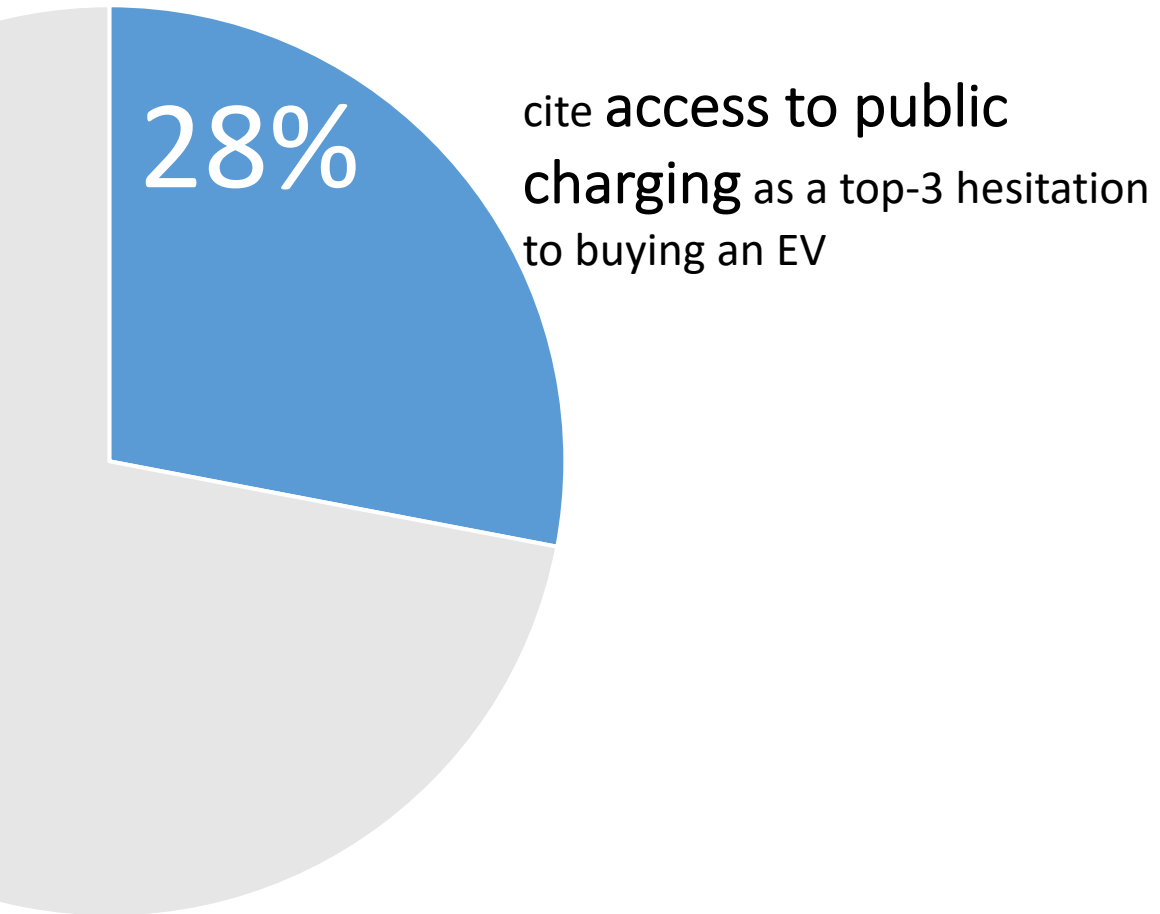
# GLOBAL BEV & PHEV SALES ('000s)

EV VOLUMES





# Public charging



Sources: Escalent EVForward™ 2022, Alternative Fuels Data Center



## *Potential effect on gas stations*

- Approx. 145,000 gas stations in U.S. (2020)
- Declining -- In 1994, more than 200,000 gas stations
- **Dunec (FTI):**  
Estimates 50% of U.S. gas stations will retire by 2030
- **Boston Consulting Group:**  
Between 25% - 80% of the fuel retail market could be unprofitable in the next 15 years



# *Gas stations & Brownfields*

- Thousands of expected additional Brownfield sites could be coming
- Prime/key locations
- Who pays for environmental cleanup? Are state UST programs ready?
- Opportunity to envision their future & redevelopment
- Some gas stations expected to evolve to include both fueling & EV





# *Reimagining gas & charging stations – What next generation may look like*



# *Gas station transformations*

- Conversion of Shell gas station in London, UK area to EV charging-only









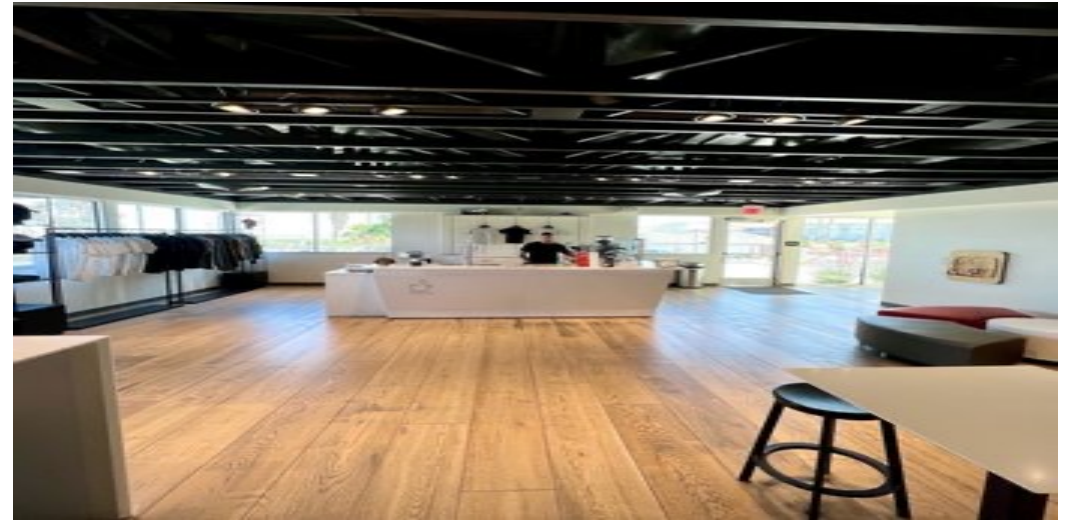






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*Thank you*

- Sources include:

- <https://www.ev-volumes.com/>
- <https://www.autosinnovate.org/resources/electric-vehicle-sales-dashboard>
- U.S. Department of Energy, Alternative Fuels Data Center