

**DOCKETED**

<b>Docket Number:</b>	23-IEPR-03
<b>Project Title:</b>	Electricity and Gas Demand Forecast
<b>TN #:</b>	248589
<b>Document Title:</b>	Presentation - UC Davis Electric Vehicle Research Center
<b>Description:</b>	3.D Gil Tal, Institute of Transportation Studies, UC Davis
<b>Filer:</b>	Raquel Kravitz
<b>Organization:</b>	University of California, Davis, Institute of Transportation Studies
<b>Submitter Role:</b>	Public Agency
<b>Submission Date:</b>	1/27/2023 4:31:19 PM
<b>Docketed Date:</b>	1/27/2023

# UC Davis Electric Vehicle Research Center

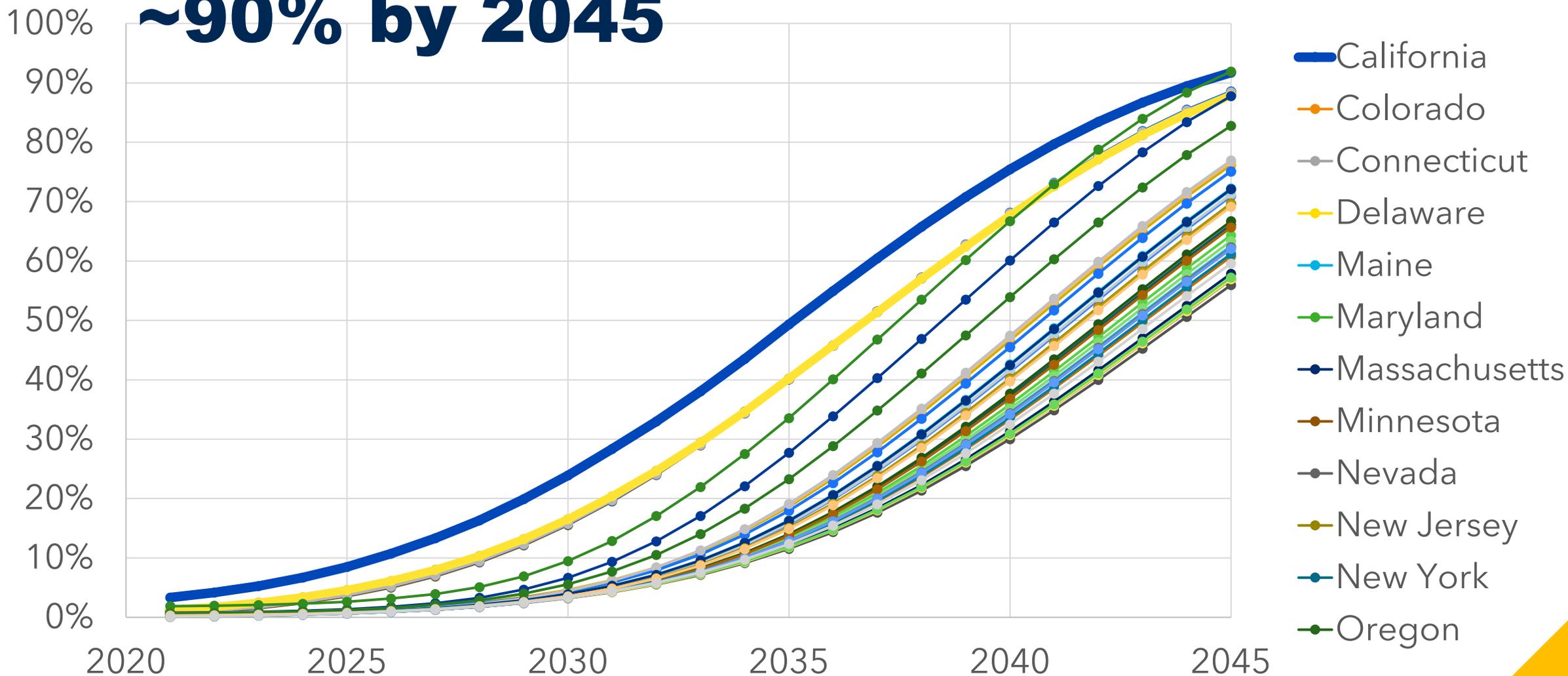
1/19/2023

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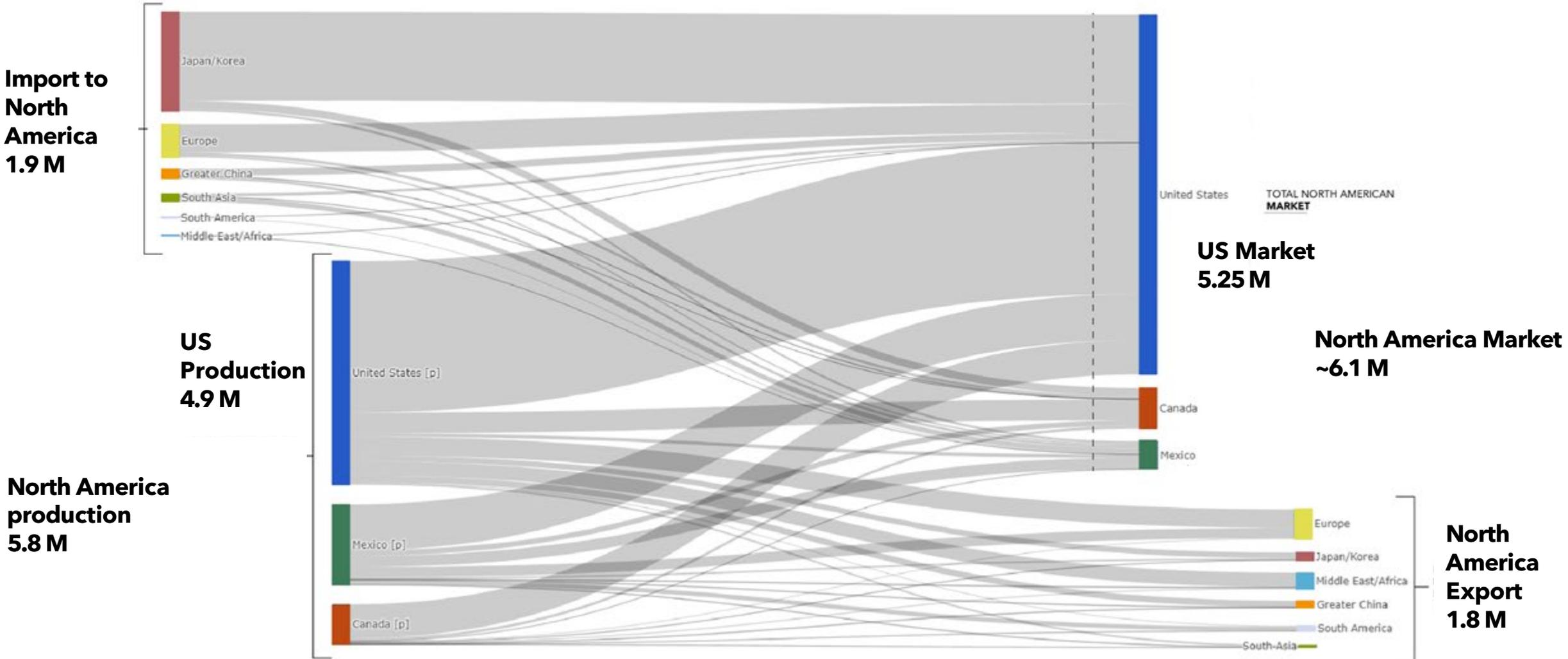
Director, EV Research Center



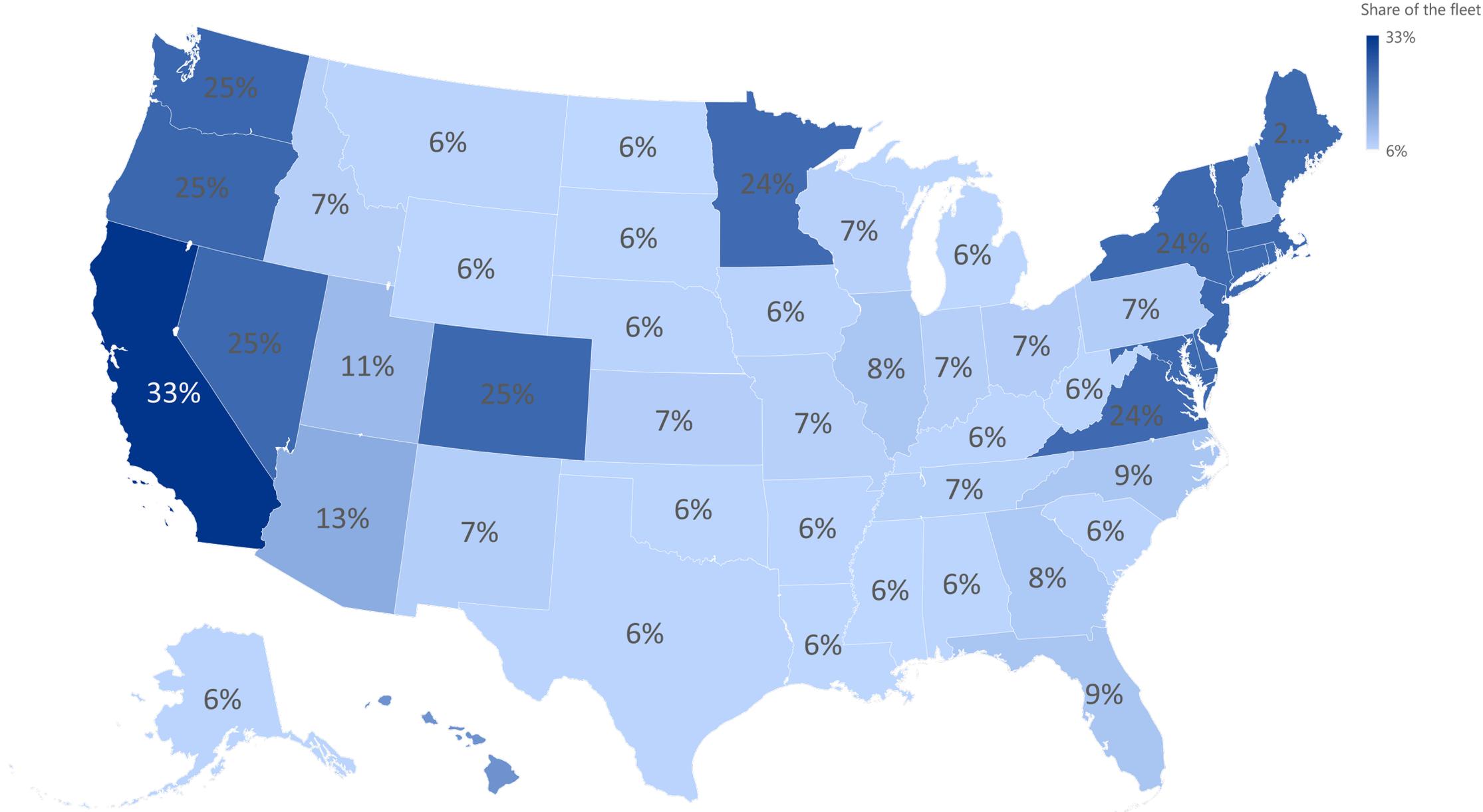
# California will electrify half the fleet by 2035, All ZEV state will reach ~90% by 2045



# North American LDVs 2030: Supply will not be a limiting factor



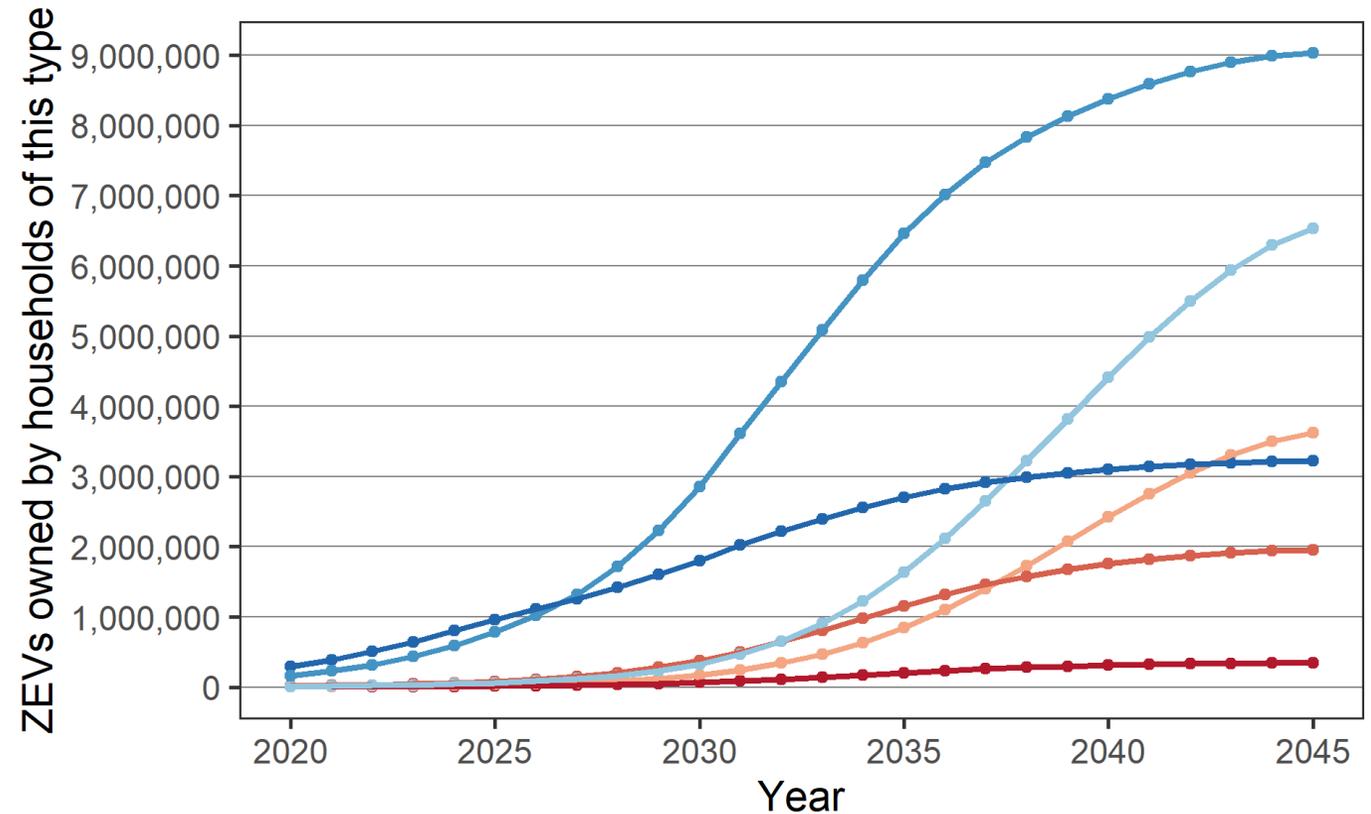
# US EV Fleet share by 2033: California = 33%



# Electric Vehicle Adoption By HH type

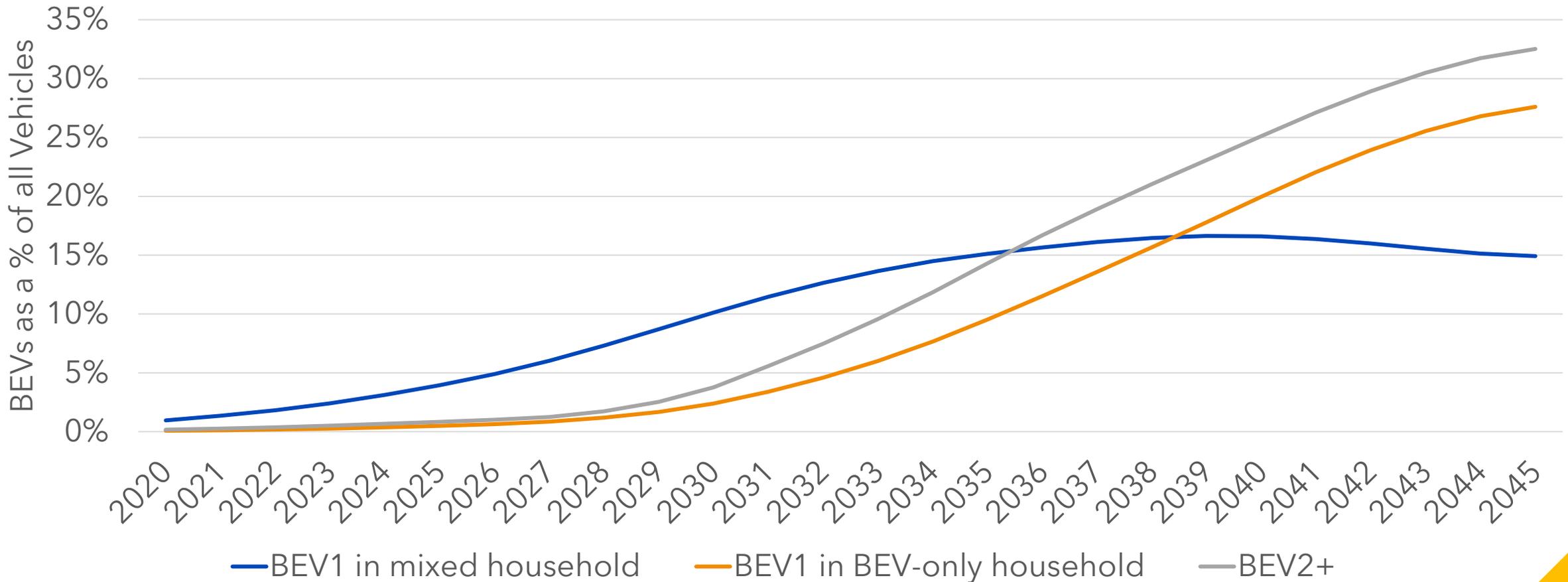
Near-term: Adoption fastest among households that can...

- Afford to purchase new vehicles (High incomes)
- Plug these vehicles in easily (Single family homes)
- Use other vehicles when PEV range is a concern (Own many vehicles)

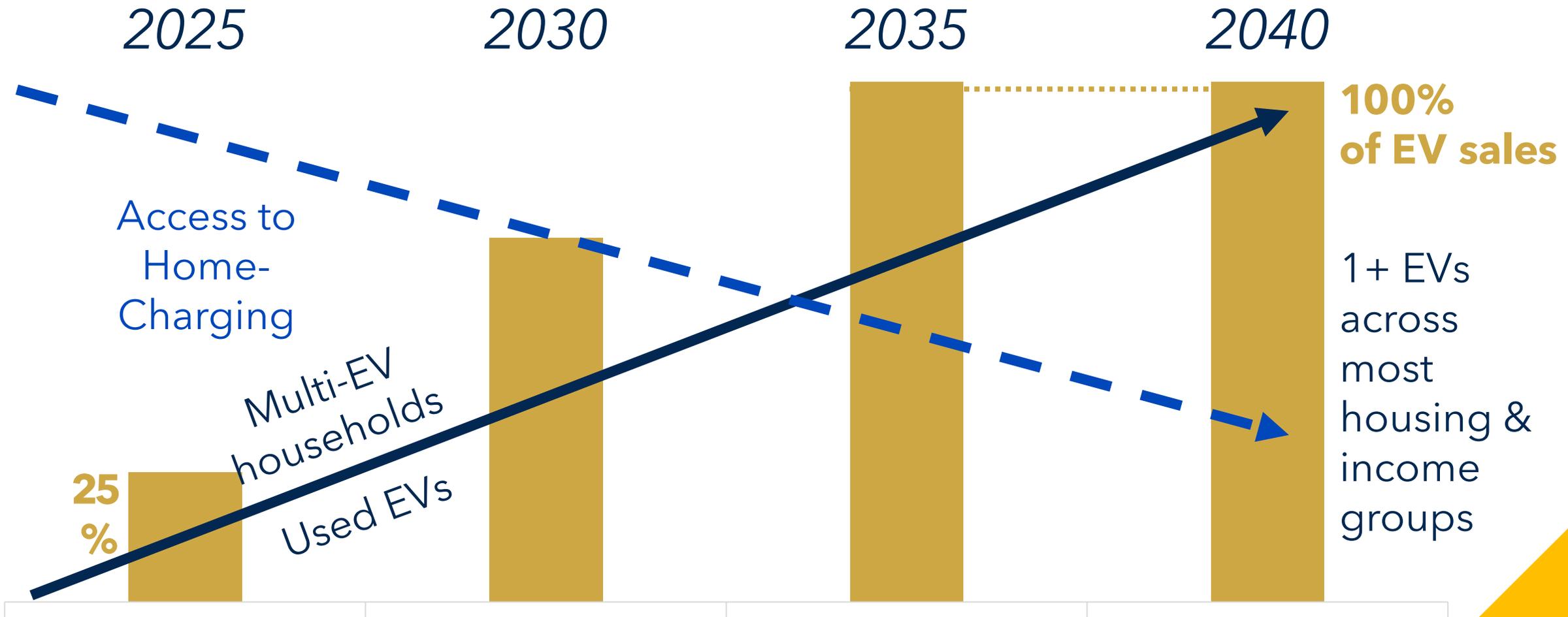


# How Many DCFC are needed, change in ratio overtime

BEV Long-Distance Category (by year, as a fraction of all vehs)



# California Adoption Trajectory



# 2<sup>nd</sup> EV in a household is larger market than MUDs (apartments)



# Which one is Rural California? How do we electrifying it?



1. Vehicle Ownership patterns?
2. Vehicle use patterns?
3. Where can the EV charge?

# Infrastructure deployment level 2 at home: cost and V2G considerations



NEMA5-15 Outlet



# Current Topics

1. Equity
2. Incentives
3. MUDs
4. How many chargers
  1. Where
  2. When
  3. Who will pay for installing
5. Greed impact

# Up coming Topics

1. Used EVs policies
2. Rural and trucks
3. EV only households
4. Cost of charging
5. Dependability
6. **Positive TCO for all, shifting the incentives systems**
7. **Business models for public charging**

# Thank You!

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