

DOCKETED

Docket Number:	18-EVI-01
Project Title:	California Plug-in Electric Vehicle Infrastructure Projections
TN #:	223616
Document Title:	Harnessing Data to Grow Fast Charging
Description:	EVgo powerpoint presentation
Filer:	Tami Haas
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	5/30/2018 8:37:27 AM
Docketed Date:	5/30/2018



Harnessing Data to Grow Fast Charging

Benjamin Austin, Director of Product Management

May 23rd, 2018



EVgo: America's Largest Public Fast Charging Network

Mission:

- To ensure that convenient, reliable fast charging infrastructure is available to meet the needs of a rapidly electrifying transportation sector.

EVgo is scaling rapidly:

- 1,050+ 50kW DC Fast Chargers (500 in California)
- 66 markets, reaching 60% of US Pop.



EVgo is powering the EV revolution:

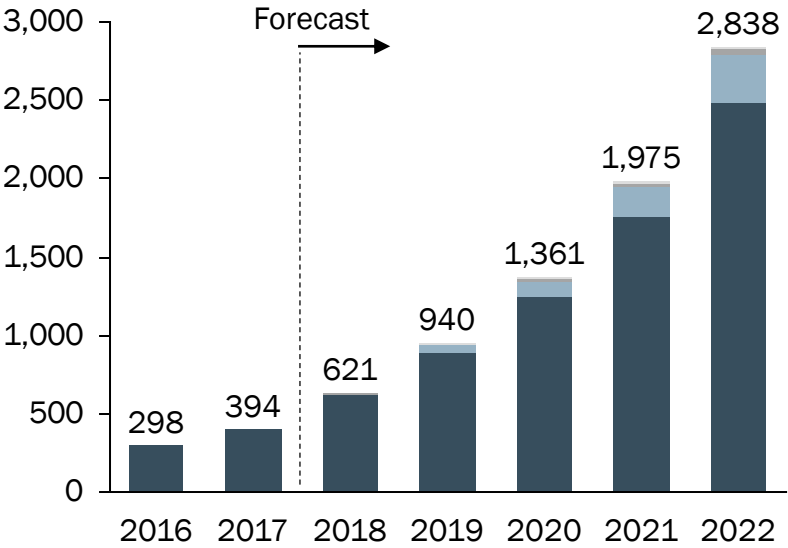
- 75,000+ customers
- 1.1M charging sessions in 2017
- Enabling 40M+ all-electric miles

Trusted Partnerships With Market Leaders:

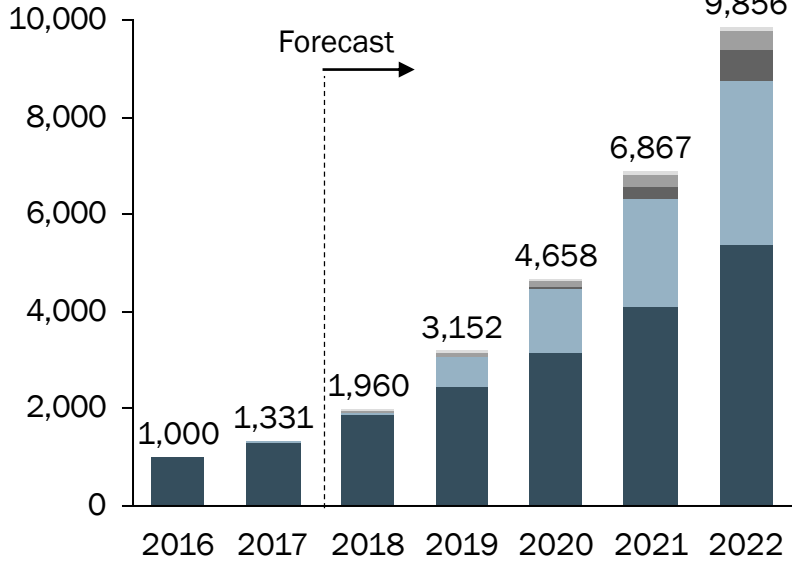


BEV Ridesharing is about to explode, with high mileage/kWh needs and heavy reliance on DC fast charging infrastructure

U.S. BEV VIO, 2016-2022F*
Thousands of BEVs, by vehicle-type



U.S. BEV Total kWh, 2016-2022F*
Millions of kWh, by vehicle type



CAGR (2018-2022F)

Semi-Trucks	N/A
Single Trucks	110%
Buses	58%
Ride-Share	219%
Light Duty Personal	42%

Ride-sharing accounts for a disproportionate amount of total kWh

CAGR (2018-2022F)

Single Trucks	110%
Buses	58%
Semi-Trucks	N/A
Ride-Share	196%
Light Duty Personal	30%

*Source: BNEF, IEA, Inside EVs, Federal Highway Administration, Proterra, Seeking Alpha, EVgo IP



Ridesharing and Fast Charging: The Perfect Match

Fueling and Total Ownership Cost Savings

- 70,000 mi/year equate to \$5,300 in savings (CA DC Fast vs Avg ICE sedan)
- Total cost of ownership less than ICE, even without subsidies*

DC Fast: the best and only viable option for rideshare:

- Time is money... no time to sit 6+ hours on an L2
- Most drivers don't have access to home or work charging
- High mileage rideshare requires daily fast charging

In urban areas/rideshare hot spots, it all pencils out

- High utilization, clear path to profitability
- Our urban utilization exploding, and leading to new opportunities like the **Maven Dedicated Network**



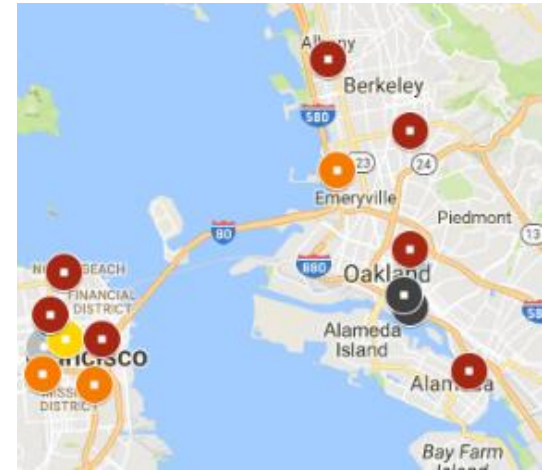
Note: Today's avg Gas Price in CA of \$3.75/gal

Source: *Johnson, Charlie and Walker, Jonathan *Peak Car Ownership*. Rocky Mountain Institute (RMI), 2017; **DOE

Harnessing Data to Grow a Profitable Fast Charging Business

Utilization = Revenue

- Many urban fast chargers approaching peak capacity
- DC Fast in low-utilization areas still essential, with support
- **Data to Inform:** EVgo utilization data, presence of fleet/rideshare, additional public data (e.g., rebates), BEV adoption projections, and EVI-Pro can all help predict future utilization... but there are always trends we cannot predict



Using data to sharpen our cost modeling

- Anticipated utilization data helping us better model future energy costs
- Additional capex/opex support from public and private stakeholders

Using customer & utilization data to inform our new retail pricing

California ▾ See fast charging rate for your region

PAY AS YOU GO No Monthly Fee	MEMBERSHIP Unlock Our Lowest Rate
REGISTER NOW >	BECOME A MEMBER >
DC Fast Charging \$0.20/minute	DC Fast Charging \$0.15/minute
45-Minute Session Length	45-Minute Session Length 6am-8pm 60-Minute Session Length 8pm-6am
No Commitment	\$9.99/Month, Cancel Anytime 66 minutes of fast charging included
Level 2 Charging \$1.50/hour	
No Session Fee	
No Setup or Termination Fees	

Goal: A customer-centric pricing plan

- Scour all data sources: (Facebook, EV owner groups, Plugshare etc.)
- Lower prices across US
- Solve for all customer pain points (session time limits, session fees etc.)
- Ensure the value prop for EV adoption is there while still ensuring path to profitability

Result:

- Longer session times, elimination of session fees, monthly credits
- No cost barrier to entry
- Regional pricing, ensuring cheaper or as cheap as ICE in all our metro regions
- Very happy customers