ADVANCES IN LIGHT DUTY VEHICLES AND INFRASTRUCTURE

AUGUST 16, 2023

ROBERT GLASER
PRESIDENT, NC AUTO DEALERS ASSN

SUSTAINABLE FLEET TECHNOLOGY CONFERENCE

A CONSUMER/ DEALER PERSPECTIVE

AVAILABILITY OF EVS AT HISTORIC LEVEL

30 DIFFERENT EVS AVAILABLE AT DEALERSHIPS TODAY!!

EVAdoption.Com as of March 31, 2023

EVS AVAILABLE IN THE PAST.....

1895 Sturgis Morrison

1902 Studebaker Electric

1931 Detroit Electric

1950 Frank Kurtis EV

1978 GM Electro ‘Vette

1997 Toyota Rav 4 EV

AVAILABILITY OF EVS AT HISTORIC LEVEL

Audi Q4 e-tron
Audi Q4 e-tron Sportback Quattro
BMW i3
Cadillac Lyriq
Chevrolet Bolt EUV
Chevrolet Bolt EV
Ford F-150 Lightning
Ford Mustang Mach-E
Genesis GV 60/70
Hyundai Ioniq 5
Hyundai Ioniq 6
Hyundai Kona Electric
Kia EV6
Kia Niro Electric
Jaguar I Pace
Lexus RZ450e
Mazda MX-30 EV
Mercedes Benz EQB
Mercedes Benz EQE
MINI Cooper SE
Nissan Ariya
Nissan LEAF
Nissan LEAF Plus
Polestar
Porshe Taycan
Subaru Solterra
Toyota bZ4X
Volkswagen ID.4
Volvo C40 Recharge
Volvo XC40 Recharge

DEALERS ARE "ALL IN" FOR EVS

"LOCAL DEALERSHIPS HAVE INVESTED MORE THAN

$5 BILLION NATIONWIDE, AND GETTING READY FOR

EV'S, FROM CHARGING STATIONS TO EQUIPMENT TO TRAINING EMPLOYEES AND TECHNICIANS." -- NADA, JULY 2023

$ 5,000,000,000

DEALERS ARE "ALL IN" FOR EVS

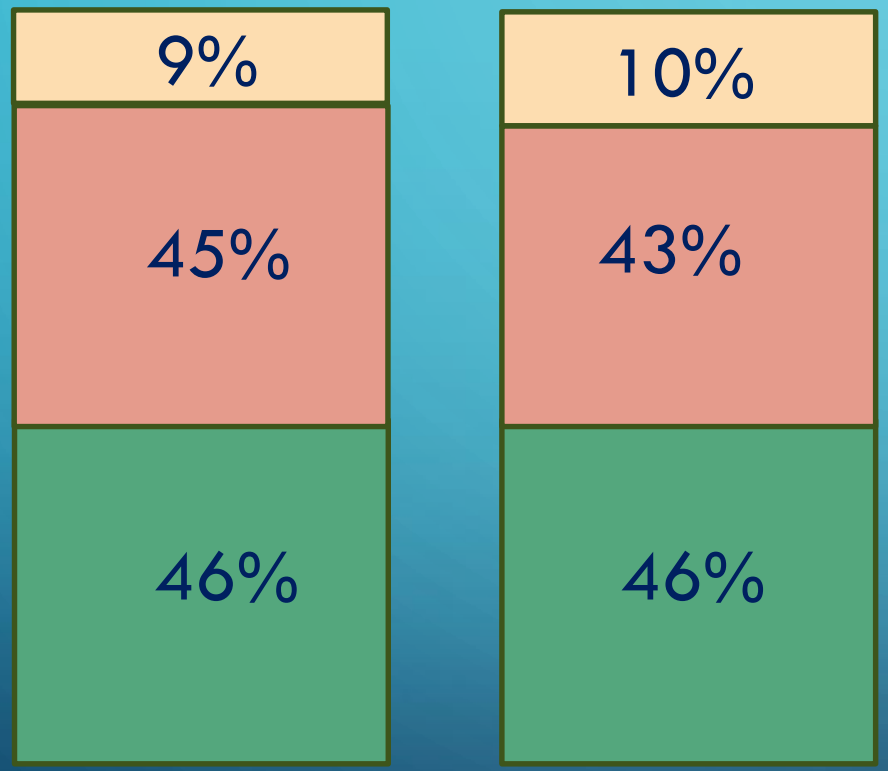
82%

OF NEW CAR DEALERS ARE REQUIRED BY THEIR OEM TO MAKE AN EV INVESTMENT.

COX AUTOMOTIVE – JUNE 2023

DEALERS ARE PREPARED FOR EVS!

Among New Car and Truck Dealers



Not at All Prepared

Prepared

Very Prepared

90-91%

Dealers Prepared for EVs

COX AUTOMOTIVE – JUNE 2023

Fuel Savings and Ownership Efficiency are top reasons for Consumer EV Consideration

REASONS FOR CONSIDERING AN EV (% mentioned)

COX AUTOMOTIVE – JUNE 2023

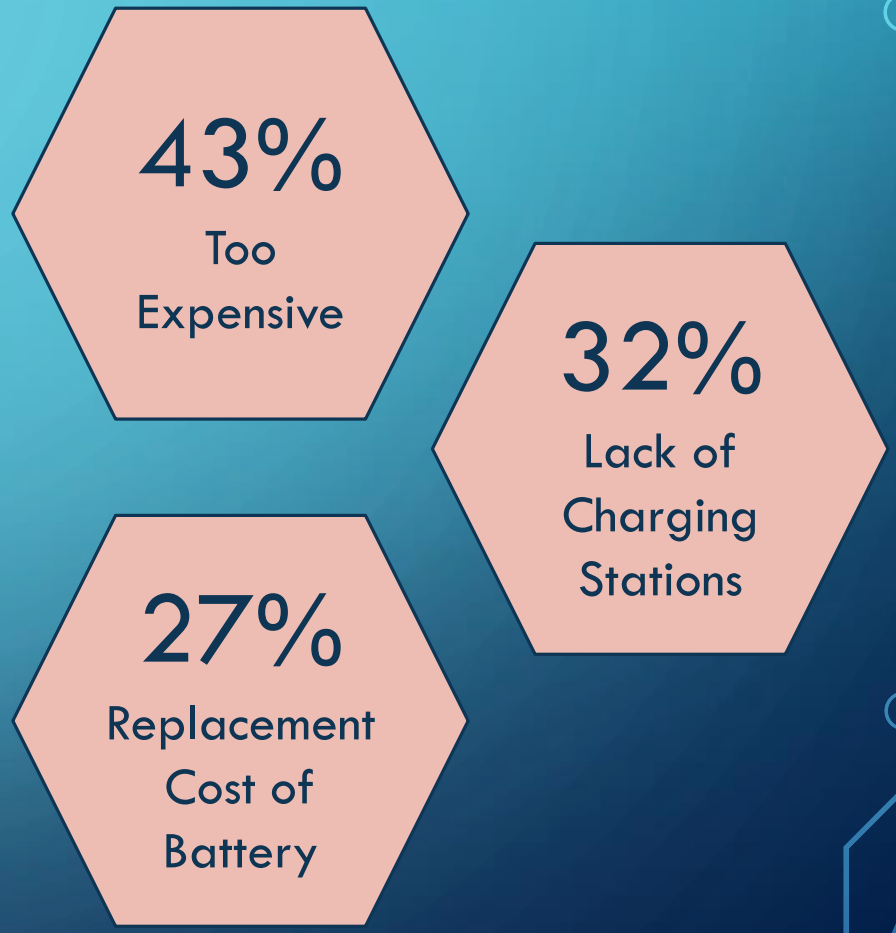
EV CONSIDERATION

% of Consumers Considering a BEV within the Next 12 months (New and Used)

2022 --- 51%

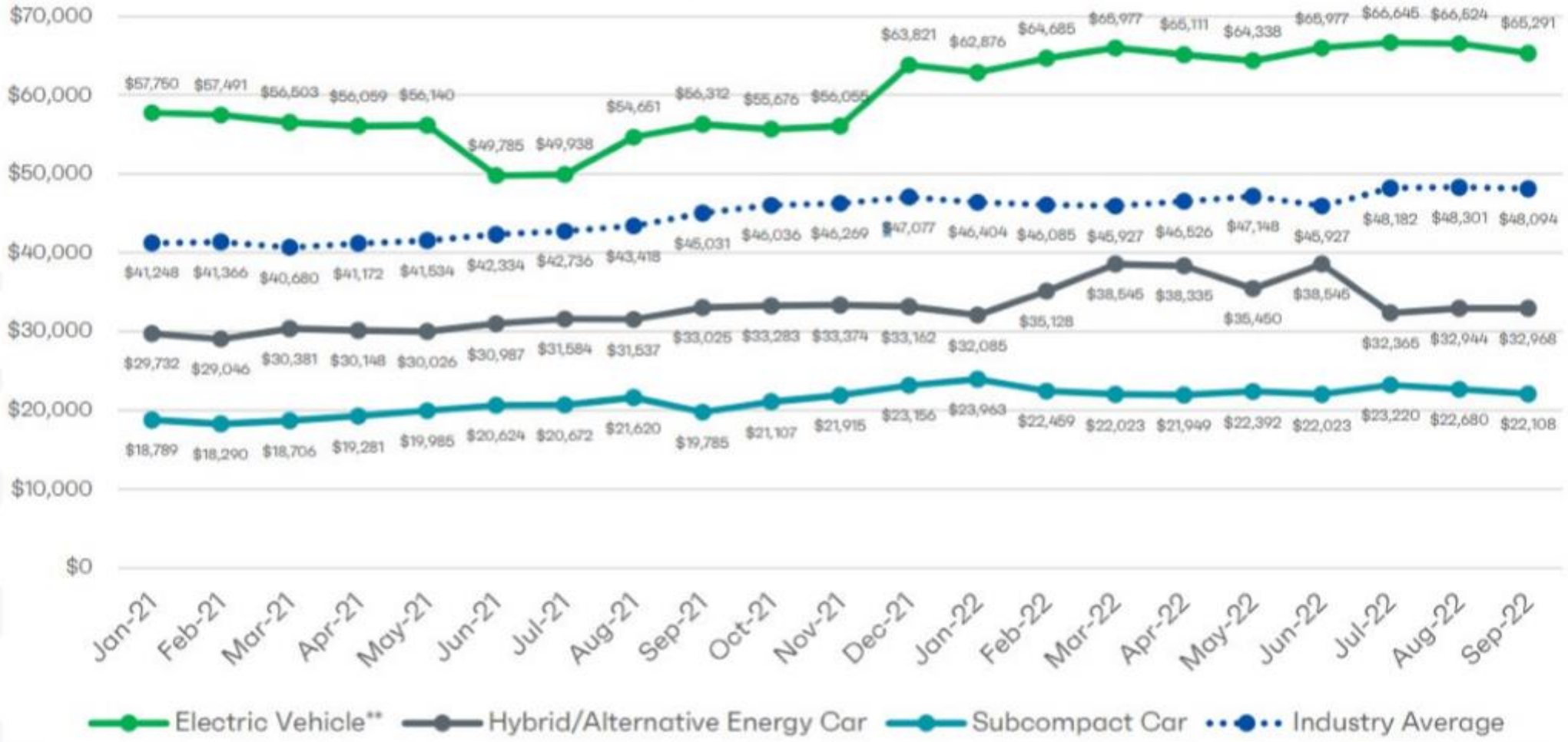
vs 38% in 2021

BARRIERS



COX AUTOMOTIVE – JUNE 2023

Transaction Prices by Segment



PRICE OF AN EV IS AN ISSUE!

87% Open to buying fully on line

80% Will do most or all of the purchase online in the future

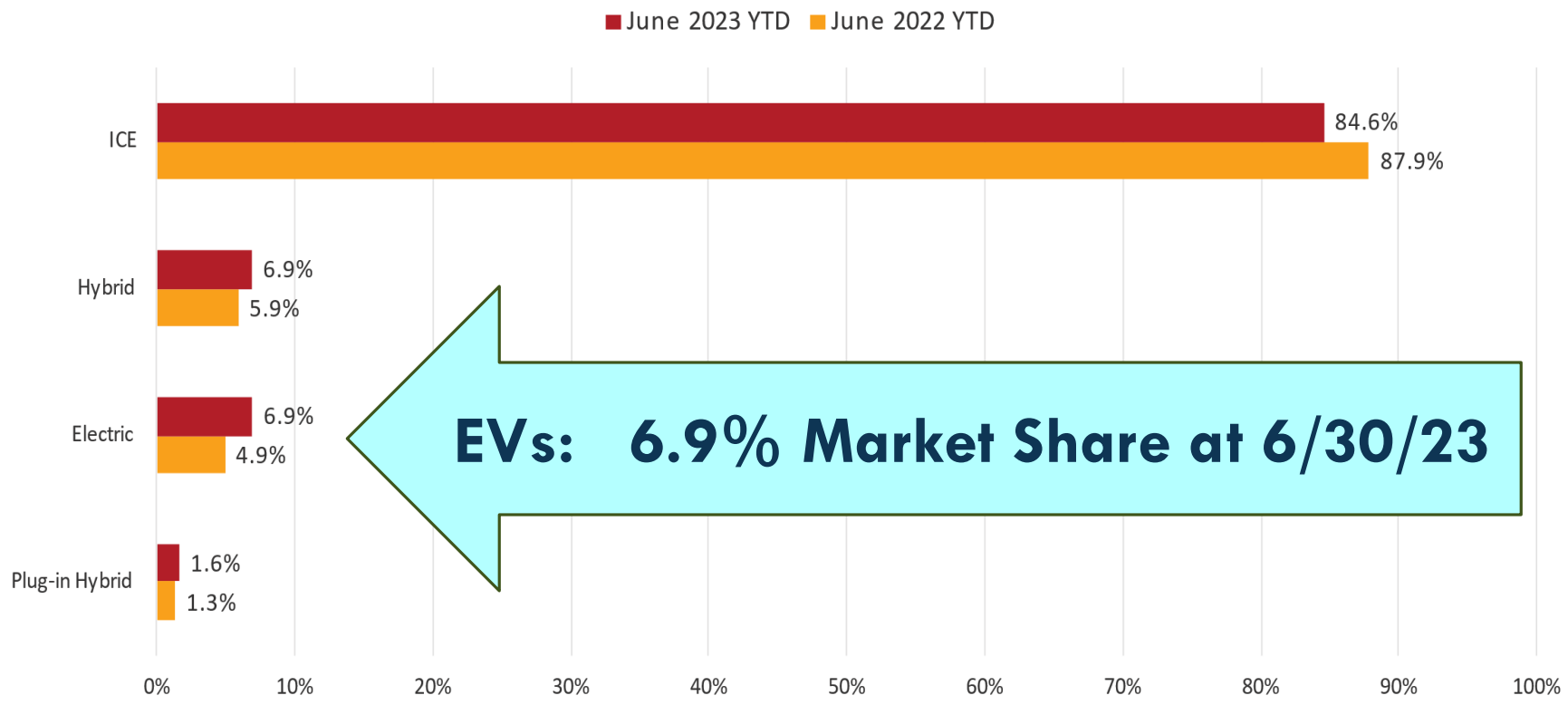
AS OF 12/31/22

$61,448
Average cost of EV

$45,578
Average cost of ICE vehicle

$51,990
Pro Trim F-150 Lightning
TODAY!

Powertrain Market Share – June 2023 YTD



Source: Wards Intelligence

EVS ARE STACKING UP ON DEALERSHIP LOTS

Days Supply of Inventory on Dealership Lots

ALL VEHICLES

6/30/23 — 53 Day Supply

6/30/22 — 38 Day Supply

EVs

6/30/23 — 103 Day Supply

6/30/22 — 43 Day Supply

COX AUTOMOTIVE – JUNE 2023

“CAR DEALERS DO NOT WANT TO SELL EVS!”

“CAR DEALERS DO NOT WANT TO SELL EVS!”

FALSE

Key Takeaways

Local dealers are all in on EVs

EVs are here to stay!

Demand for EVs is slowing

EV Prices will come down!

Stable Infrastructure is long term key

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2023 - Sustainable Fleet Technology Conference

August 16th, 2023

Electrification Investment Plan

- **$35 Billion investment by 2025**
- **50% U.S. BEV sales by 2030**
- **100% carbon neutrality by 2038**
- **5 Battery Gigafactories (2 in North America Kokomo, Windsor)**
- **Battery Partnerships with:**
  - LG Energy
  - Samsung
  - ACC (Automotive Cells Company)
  - Factorial
  - Vulcan Energy Resources

TAKE CARE OF OUR CUSTOMERS IN A SUSTAINABLE WAY

EASY

Charging solutions

SUSTAINABLE

Battery lifecycle

AVAILABLE

Guarantee supply of EV components & raw materials

Dealer Network

- 2,600 Dealers in the United States
- 78% Response Rate
- Full Analysis of Dealer Location
  - Utility Service Upgrades
  - Electric Infrastructure Changers
  - Educating Dealership Staff
  - Construction Coordination for Charging Installation
  - Financial Assistance

OEM Network

Seven major global automakers – Stellantis, BMW Group, General Motors, Honda, Hyundai, Kia, Mercedes-Benz Group

- 30,000 high-powered charge points in urban/highway locations
- Charging stations will offer 2 types of connectors:
  - Combined Charging System (CCS)
  - North American Charging Standard (NACS)
- First stations are scheduled to open in the summer of 2024

Stellantis PHEV Vehicles Today

PHEV products for MY 2023

- **NEW Dodge Hornet**
- Pacifica PHEV
- Grand Cherokee 4XE
- Wrangler 4XE

RAM 1500 REV

All-electric 2025 Ram 1500 REV sets new industry benchmark with its powerful combination of range, towing, payload and charge time.

Late-2024 Launch Timing.

2025 RAM 1500 REV

AVAILABLE Q4, 2024

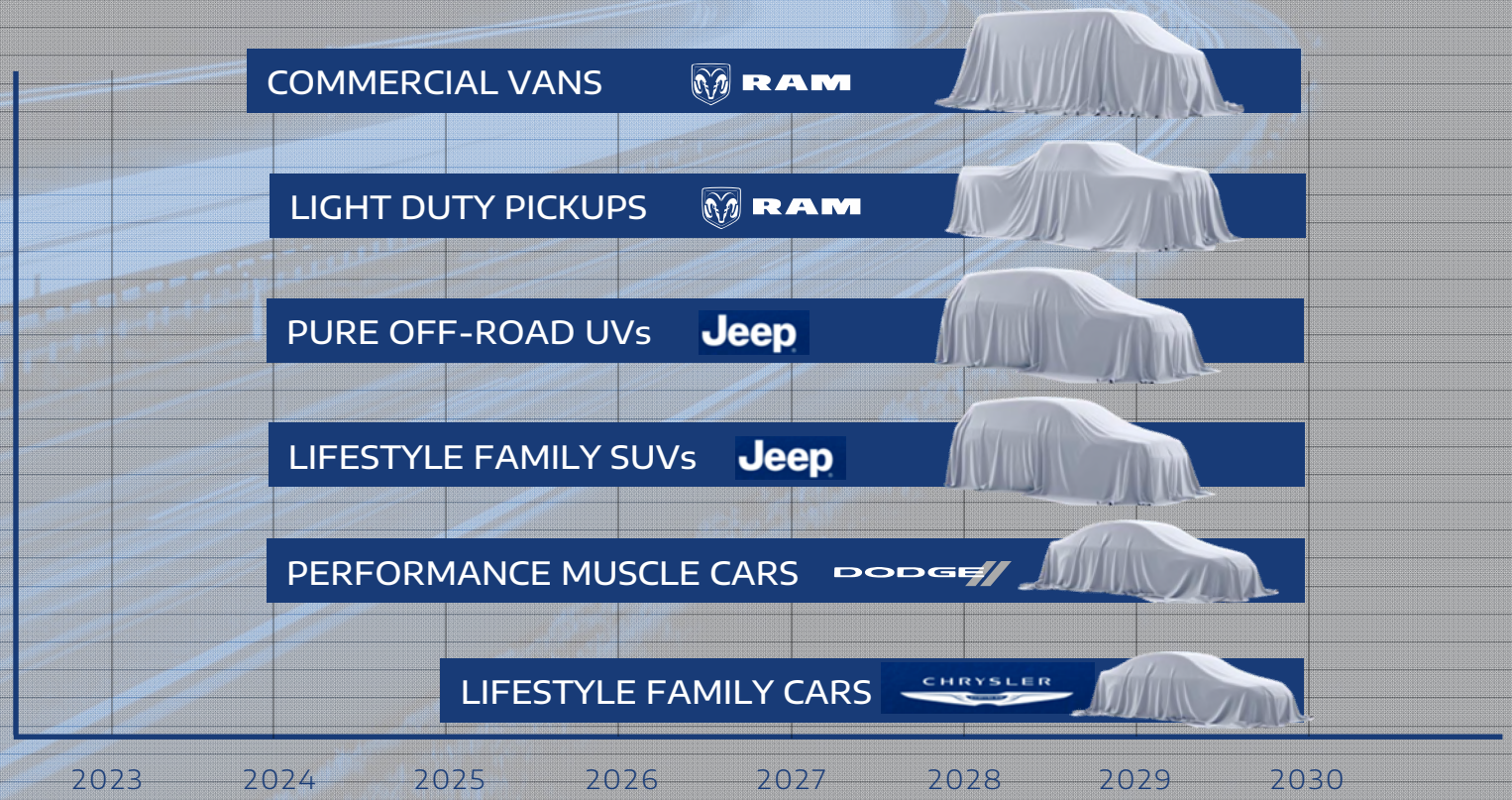
Performance Key Features:

- Standard 350- mile range
- 500-Mile Range with optional battery
- Available home energy charging
- Up to 14,000 lbs Towing
- Up to 2,700 lbs Payload
- 15.0 cu-ft of Frunk Volume
- 654 Horsepower
- 620 lb-ft Torque
- 4.4s 0-60 MPH

Driver's side charge port with LED illumination

Can add up to a targeted 110 miles of range in approximately 10 minutes with 800-volt DC fast charging at up to 350 kW.

ON TRACK WITH BEV ROLLOUTS IN THE U.S.



U.S. BEV PORTFOLIO 25+ VEHICLES BY 2030

Unlock your Power Potential

An EV Fast Charging + Energy Storage Company

Prepared For:

Sustainable Fleet Technology Conference & Expo 2023

Prepared By:

Brian Bradford

Chief Commercial Officer

jule
powered by ecamion

Jule is the leader in grid optimized EV fast charging

Our battery integrated chargers can amplify grid power from as little as 30 kW to 150 kW

Products + Services

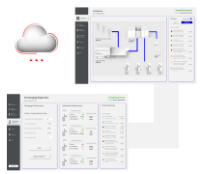
Electric Vehicle Fast-Charging
Fleet + Transit Fast-Charging
Battery Energy Storage

jule | Chargers

- Up to 300 kW Charging Speed
- Fast charging independent of grid connection
- Lower OpEx

jule | Hub

- Mitigate Demand Charges
- Energy Arbitrage
- Integration with onsite solar or wind



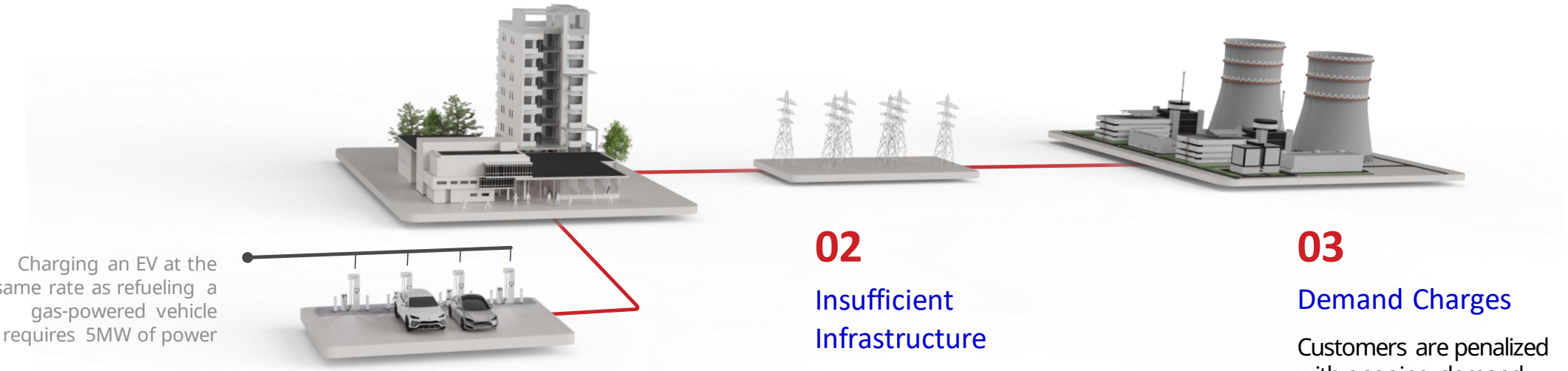
jule | Link

- Monitor asset usage, diagnostics, and performance
- Data collection and analytics provides repository of data to optimize operations

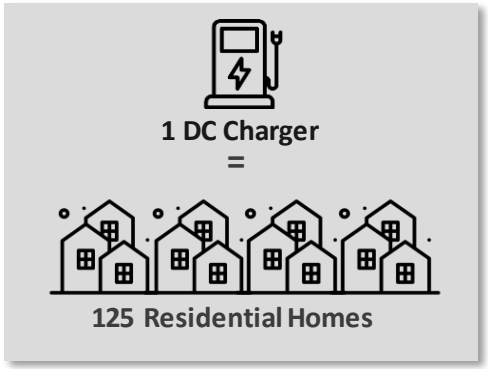
CURRENT DEPLOYMENTS

Manufacturing: Canada (current), USA (future)
Deployments: USA & Canada

EV Charging is Grid Constrained



Charging an EV at the same rate as refueling a gas-powered vehicle requires 5MW of power



01

Transition to EV Charging

Seamless EV adoption requires infrastructure to support "gas station" mentality

02

Insufficient Infrastructure

The grid will need timely and costly upgrades to support the power requirements of fast charging

E.g. Installing a 300 kW Charger cost between **$162,586** USD in infrastructure upgrades[1] and can cause up to a **12-month** delay[2]

03

Demand Charges

Customers are penalized with ongoing demand charges to request high power for EV charging

E.g. Customer must pay an additional **$23/kW** USD per month[3]

(1) National Electric Vehicle Infrastructure Formula Program Annual Report: Plan Year 2022-2023 (driveelectric.gov)
(2) *The costs and challenges of installing corridor DC Fast Chargers in California – ScienceDirect*
(3) *PG&E Demand Charges*

EV Range Has Improved & Behavior is Shifting

With EV battery capacity demanding more and more power as they are catching up to its ICE alternatives, the need for level 3 infrastructure is ever more critical. This is further emphasized with driver charging behaviors resembling that of phone charging more and more

Time to charge F-150 Lightning from 20% to 80% SOC:

	Level 2	Level 3
98 kWh 230 miles	8h49	30 min
130 kWh 300 miles	11h48	36 min

ICE
Drivers on average fill-up on **gas 1 time per week**

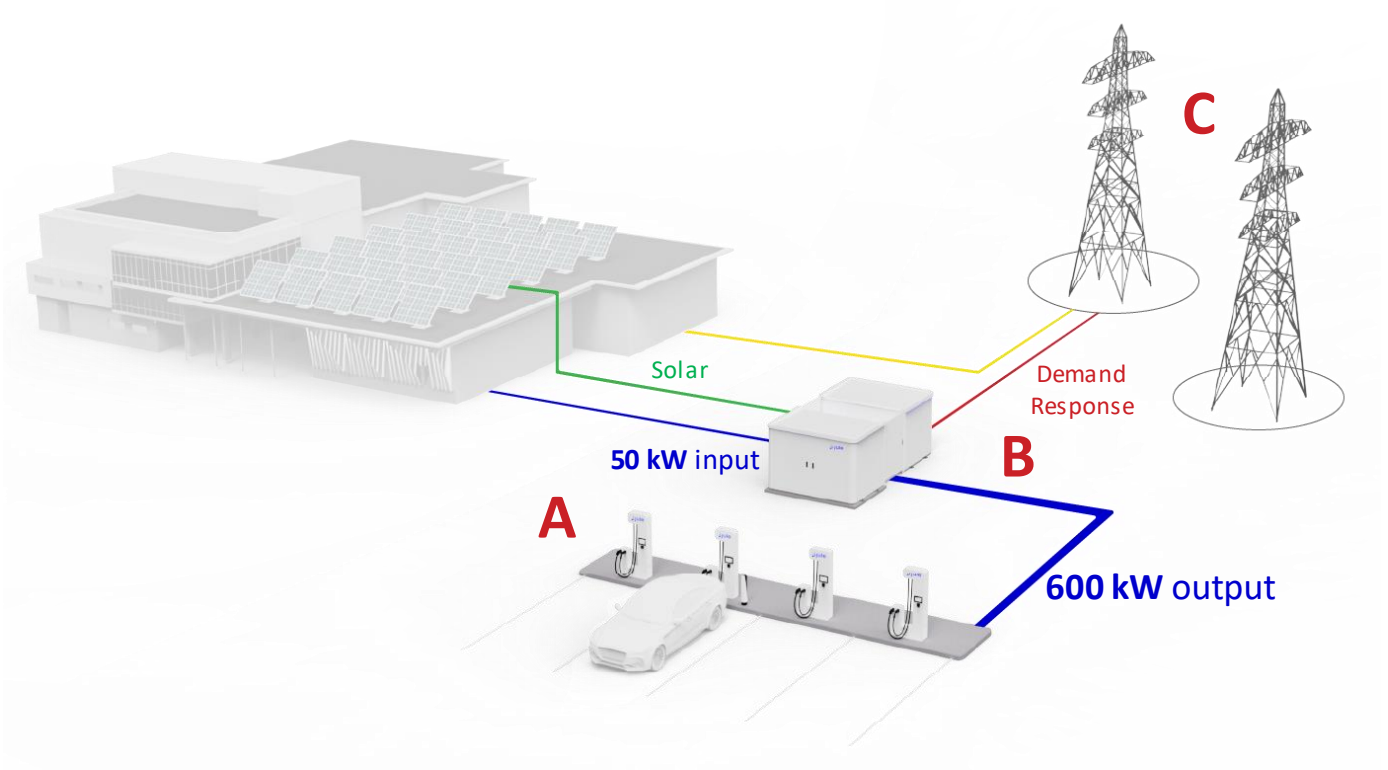
EV
Drivers on average charge their cars **3 times per week**

Convenient and fast charging locations will be critical to ensure EV adoption

Sustainability | Free Full-Text | Impact of the Light-Duty Vehicles’ Storage and Travel Demand on the Sustainable Exploitation of Available Resources and Air Pollution Abatement (mdpi.com); https://www.remodelormove.com/how-many-times-does-the-average-person-fill-up-their-gas-tank-per-month/; https://www.phonearena.com/news/oneplus-charging-survey-interesting_id143606; https://www.statista.com/statistics/1180985/electric-cars-charging-frequency-germany/

Battery Systems Optimize the Grid Challenge

- Reduced deployment time & utility connection costs
- Ultra-fast charge in 15 minutes
- Reduced operating costs
- Connection in highly congested areas
- Multi-car simultaneous charging
- Next-gen ready



A

DCFC Chargers

Allows customer to fully charge any vehicle

B

Battery Hub

Storage system amplifies power and avoids demand charges

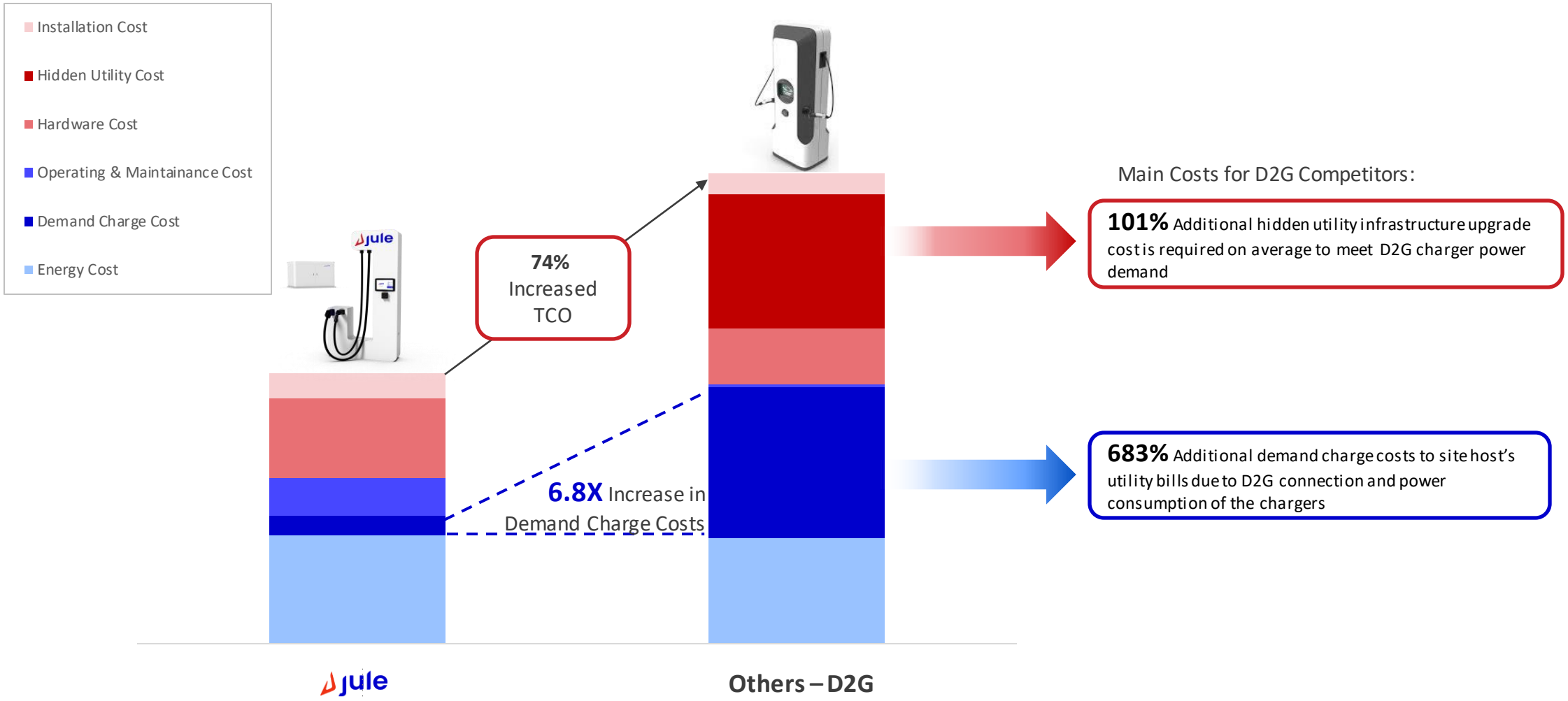
C

Electrical Grid

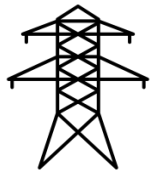
Jule's system provides grid resilience and prevents the need for infrastructure upgrades

10 Year Total Cost of Ownership

While traditional Direct To Grid (D2G) DC fast charging providers appear cheaper due to their lower hardware costs. Over their 10-year lifespan they end up being **74% more expensive** due to hidden utility costs incurred as a byproduct of their installation



In Summary



The electrical grid needs batteries to meet EV charging demand

Regulatory bodies need to take battery systems into consideration

Fast charging infrastructure is critical to the success of EV adoption

APPENDIX

Level 3 Charging is Imperative for EV Refueling

Level 2 Charger

Charging Time

Full charge in typically 4-5 hours

Use Case

Used in locations such as multifamily communities, housing, and office buildings. Drivers charge their EVs while relaxing at home or working during the day

Level 2 Limitations

- Designed for residential areas
- Designed to be used over multiple hours
- Not ideal for urban settings

Level 3 (DCFC) Charger

Charging Time

Full charge in approximately 15-30 minutes

Use Case

Used along busy transportation corridors and by drivers who are on the go and looking to get back on the road as quickly as possible

Level 3 Benefits

- Designed for quick “top ups” comparable to conventional gas stations
- Ideal for high density areas
- Ideal for highway corridors and interstates for long travel

ATOM®
POWER

ATOM POWER

Atom Power's Integrated Offering

Hardware & On-Premise Assets

Level 2 Charging

Level 3 Charging
(2H 2023)

Custom Switchgear
(2H 2023)

Atom Edge

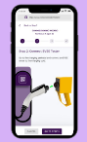
Atom LTE

ATOM CLOUD

(Enterprise Power & Asset Management)

UNLOCKS A NEW LEVEL OF CONTROL, VISIBILITY, & PERFORMANCE.

Integrated Services



Installer App

Atom Site Manager

Atom Power Management

Network Operations Center

Navigating the Transition to Electric Fleets

01

Deploying charging infrastructure
- Charging mix
- Future scale

02

Managing charging infrastructure
- Real-time visibility
- Energy management

03

Ensuring chargers work
- Reliability
- Customer service

ATOM

EV Charging Platform Offering

- **RELIABLE**
- **SCALABLE**
- **SECURE**
- **AFFORDABLE**

Delivered with **100% Customer Presence.**

LET'S GET TO WORK.