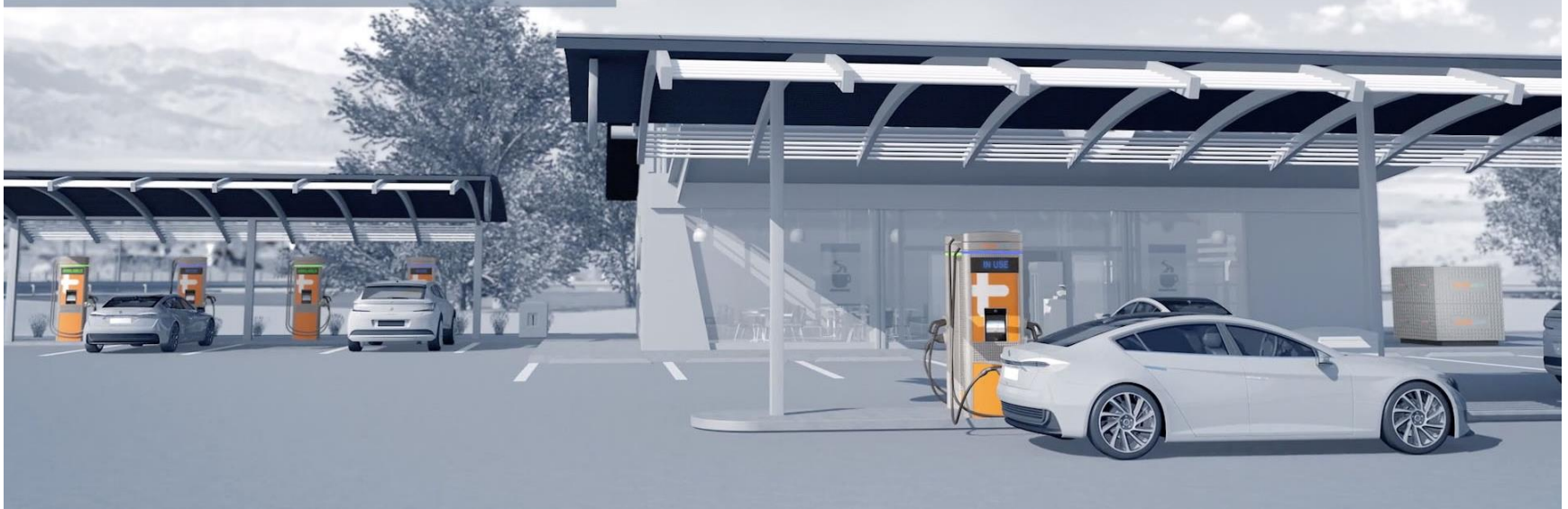




Be the electric
destination of choice

NJGCA Electric Vehicle Charging Overview



NJGCA House Keeping Slide

- + **Please make sure your line is muted**
- + For technical problems, please email Michelle Horowitz Jackson at michelle@njgca.org
- + Enter questions in the **chat box** of your dashboard
- + If your question is not answered today, please email michelle@njgca.org

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The Future of Mobility Is Electric

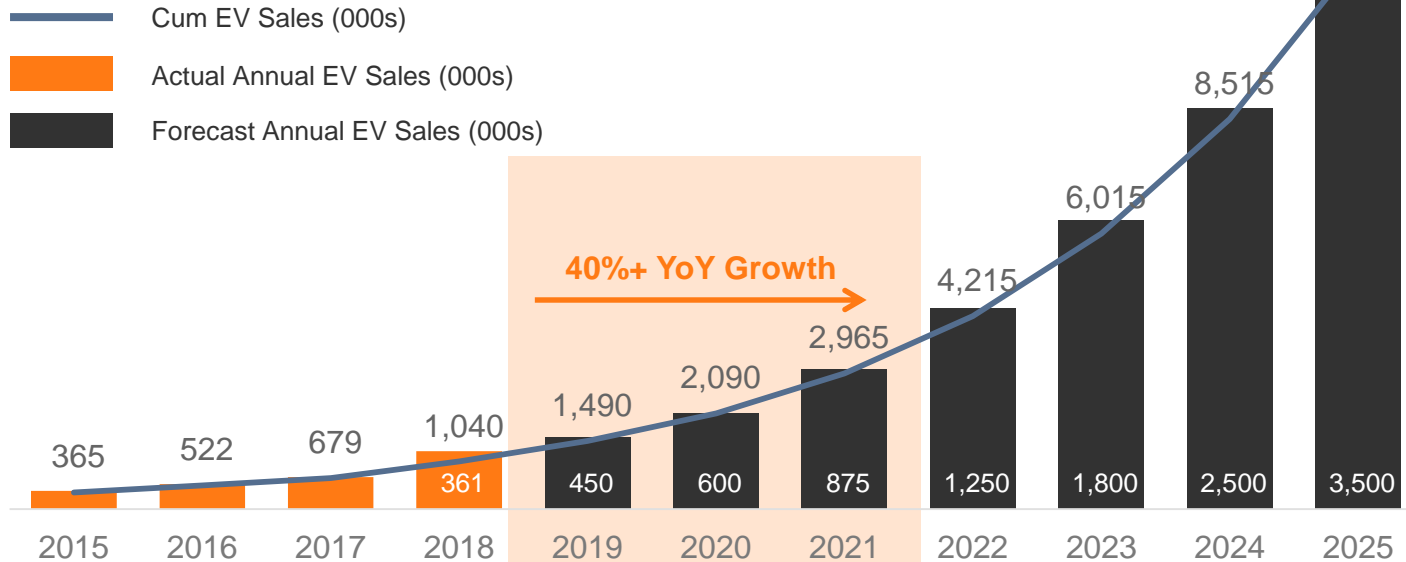


By 2040, 54% of new car sales and 33% of the global car fleet will be electric.

—Electric Vehicle Outlook 2017, Bloomberg New Energy Finance

More drivers are choosing electric

US Plug-in Vehicle Sales

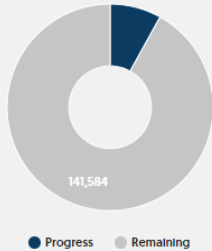


Source: EVvolumes.com

North Eastern State ZEV 2025 Minimum Requirements

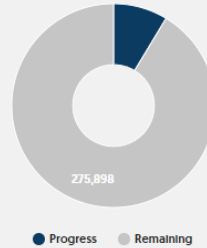
CT

To date, Connecticut's progress toward meeting the 2025 ZEV sales requirement has reached 8.1%.



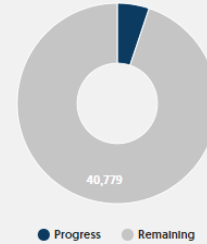
MA

To date, Massachusetts's progress toward meeting the 2025 ZEV sales requirement has reached 8.6%.



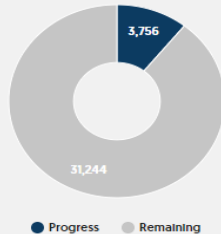
RI

To date, Rhode Island's progress toward meeting the 2025 ZEV sales requirement has reached 5.2%.



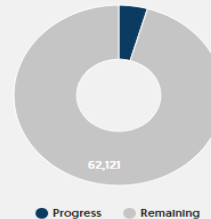
VT

To date, Vermont's progress toward meeting the 2025 ZEV sales requirement has reached 11%.



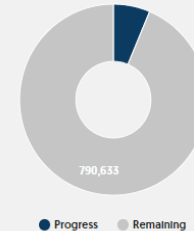
ME

To date, Maine's progress toward meeting the 2025 ZEV sales requirement has reached 4.4%.



NY

To date, New York's progress toward meeting the 2025 ZEV sales requirement has reached 6.3%.



New Jersey is Poised to Lead US Electrification

New Jersey aims for 330k registered zero-emission vehicles by 2025, looks to become an East Coast EV leader

Phil Dzikiy - Jun. 5th 2019 2:08 pm ET @phildzikiy



- + Not including Tesla
- + 330,000 vehicles is an anticipated minimum expectations
- + 2035: Murphy administration recommendation of 100% of cars electric – NJ DEP
- + Factors expediting this goal
 - Auto manufacturer electrification
 - State policies
 - City permitting requirements
 - Ride-sharing/taxis
 - Company goals
 - Consumer experience

The Biggest Electrification Experiment Evidence - Tesla



- + In early market (2015), Tesla saw minimal charging
- + Tesla sees 1,000-4,000 sessions monthly (2020)
- + Universal vehicle vs Tesla vehicle
BEV market is about to flip (due to sheer volume of other manufacturers)
- + 400 new electric models models by 2024

The automotive industry is moving to electric



Double Model 3 production and reveal the Model Y this year



20 all-electric cars by 2023



30 BEV and PHEV models by 2025



10+ new all-electric vehicles by 2022 and plans to electrify entire Mercedes-Benz portfolio



44 electrified Hyundai/Kia/Genesis models by 2025



16 fully electric vehicles and 40 electrified vehicles through 2022



First all-electric compact SUV (Macan) and third EV after Taycan and Cross Turismo (planned for 2019, 2020)



Every Jaguar and Land Rover launched from 2020 will be electrified



Almost 70 new electric models by 2028



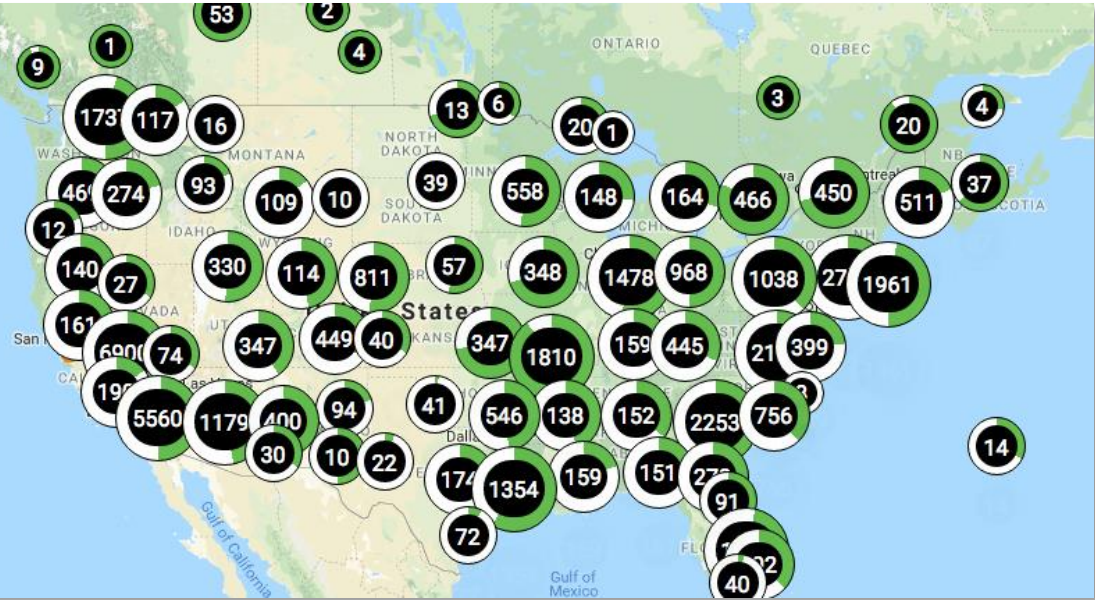
50% of Volvo Cars' sales volume to be fully electric by 2025 and plans a hybrid or full-electric powertrain for all models

Who is ChargePoint?

Largest EV fueling network in North America

62% of Fortune Top 50 companies use ChargePoint

60% of 2019 Fortune 100 Best Companies to Work For[®] use ChargePoint



Every 2 secs

A driver plugs into ChargePoint

67,000+

Public / Semi-Public / Commercial Ports

1,278+

DC Ports

1 Billion+

Electric miles have been driven on the ChargePoint network

www.fortune.com/fortune500/list/

www.greatplacetowork.com/best-workplaces/100-best/2019

EV Charging Basics



Level 1



Level 2



DC Fast

Electrical Specs

110 – 120 Volts AC
12 – 16 Amps
(home appliance)

208/240 Volts AC
32 Amps
(home washer/dryer,
commercial standard)

208 to 480 Volts DC
70 – 125 Amps
(commercial standard)

Range Per Hour of Charging

~3 – 5 miles

~12 – 25 miles

100 - 200 miles +

Typical Time for Full Charge¹

18+ hours

~2 - 4 hours

~15 - 45 mins

Not practical for today's EV
batteries and driver expectations

Align with charging at home,
around town, and between towns

Full Range Hardware Portfolio

Residential and Commercial – AC



Home
7 kW

CPF25
7 kW

CPF32
7.4 kW

CT4000
7 kW

CP4100
22 kW

CP4300
22 kW

Commercial – DC



CPE250
62.5 kW

Express Plus
500 kW



First EV charging stations
to be ENERGY STAR®
certified

Modular approach simplifies
service and repairs, minimizing
down-time

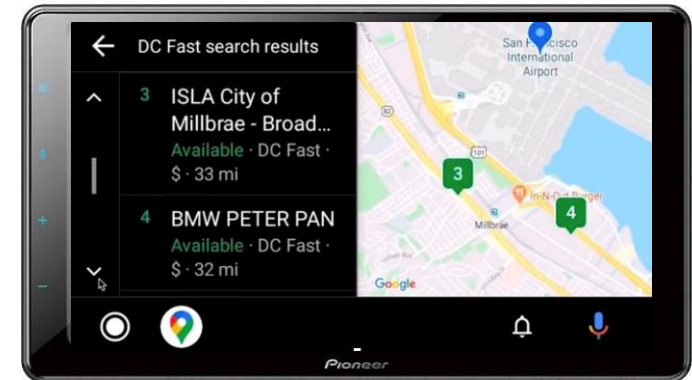
The New Fueling Network

Reduce Expenses and Generate Direct & Indirect Income

Home	Fleet	Workplace	Multi-Family Homes	Commercial Property	Parking	Retail & Hospitality
						
GAIN GREATER CONTROL & VISIBILITY	LOWER COST OF TRANSPORTATION	ATTRACT & RETAIN TALENT	ATTRACT & RETAIN RESIDENTS & TENANTS	ATTRACT NEW CUSTOMERS	INCREASE SALES	
<ul style="list-style-type: none">+ Track usage and expenses+ Charge during off-peak hours+ Achieve sustainability goals	<ul style="list-style-type: none">+ Meet government mandates and regulations+ Reduce operating expenses with lower fueling and maintenance costs+ Achieve sustainability goals+ Proactively manage expenses+ Manage power in a grid-friendly way	<ul style="list-style-type: none">+ Increase employee satisfaction+ Improve productivity+ Achieve sustainability goals+ Provide pricing controls to support your business goals	<ul style="list-style-type: none">+ Increase average rent and property value+ Provide valued amenity+ Meet emerging state and city regulations+ Achieve sustainability goals	<ul style="list-style-type: none">+ Drive revenue+ Provide differentiating amenity	<ul style="list-style-type: none">+ Attract new and repeat customers+ Increase shopping time+ Boost customer satisfaction+ Achieve sustainability goals+ Integrate with loyalty programs	

In-Vehicle Experience

- + Automakers have been integrating ChargePoint station information since 2012
- + Drivers benefit from Google Maps & Apple Car Play Integration
- + Apple iOS14 update integrates ChargePoint

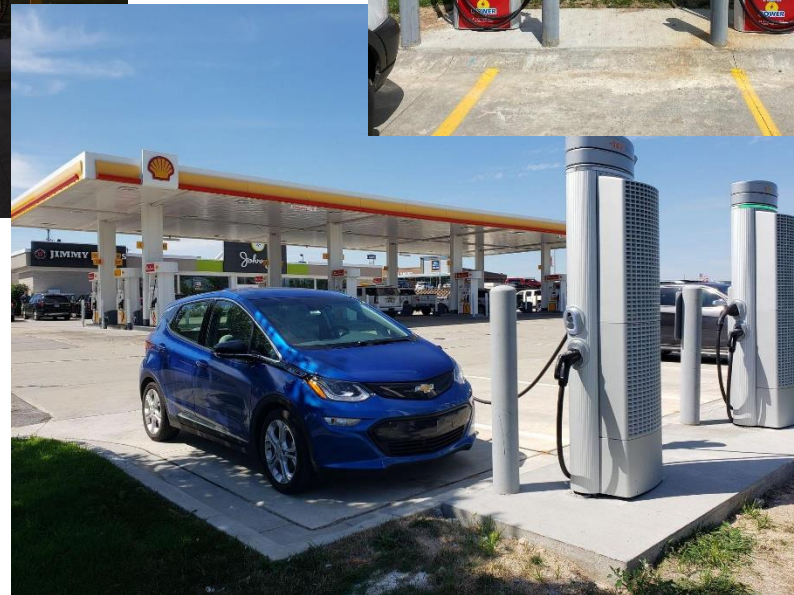


Charging is Part of the 21st Century Fueling Market



- + Emerging customer base of EV drivers are looking for charging convenience stores and transportation fueling locations
- + Easily adaptable to current operations
- + Highly flexible technology tailored to individual sites, controllable locally or regionally
- + Puts the next generation of fueling in the hands of the market's leading providers

Fueling Station Examples



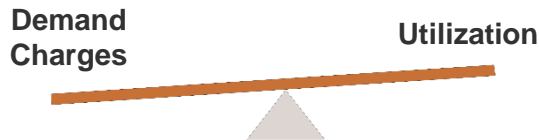
The Business Case for DCFC Ownership

EV Charging Business Model

- Help potential customers understand economics of owning EV charging
- Main levers:
 - Equipment and install costs
 - Electricity costs: (energy and demand charges)
 - Driver revenue: Utilization

Model Output

2020 Utilization		5 Year Utilization and Yield				7 Year Utilization and Yield				10 Year Utilization and Yield			
Sessions / DaySite	Sessions / DayPort	Sessions / DaySite	Sessions / DayPort	NPV	IRR	Sessions / DaySite	Sessions / DayPort	NPV	IRR	Sessions / DaySite	Sessions / DayPort	NPV	IRR
3.0	1.5	15.2	7.6	\$ (48,239)	-20%	24.1	12.1	\$ (6,415)	3%	24.1	12.1	\$ 54,240	15%
4.0	2.0	20.2	10.1	\$ (32,056)	-11%	24.1	12.1	\$ 11,705	8%	24.1	12.1	\$ 72,360	18%
5.0	2.5	24.1	12.1	\$ (17,014)	-3%	24.1	12.1	\$ 26,746	13%	24.1	12.1	\$ 87,401	22%
6.0	3.0	24.1	12.1	\$ (5,894)	2%	24.1	12.1	\$ 37,866	17%	24.1	12.1	\$ 98,522	25%
7.0	3.5	24.1	12.1	\$ 5,103	8%	24.1	12.1	\$ 48,863	21%	24.1	12.1	\$ 109,518	28%
8.0	4.0	24.1	12.1	\$ 12,579	11%	24.1	12.1	\$ 56,339	24%	24.1	12.1	\$ 116,994	30%



Example New Jersey Location

Site: 4 CPE250 DC Fast Chargers

Utility: Jersey Central Power and Light

Model Output

2020 Utilization		5 Year Utilization and Yield				7 Year Utilization and Yield				10 Year Utilization and Yield			
Sessions / Day/Site	Sessions/Day/Port	Sessions / Day/Site	Sessions / Day/Port	NPV	IRR	Sessions / Day/Site	Sessions / Day/Port	NPV	IRR	Sessions / Day/Site	Sessions / Day/Port	NPV	IRR
1.0	0.3	3.5	0.9	\$ (301,258)	#NUM!	6.3	1.6	\$ (320,452)	#NUM!	14.7	3.7	\$ (289,609)	-22%
4.0	1.0	14.0	3.5	\$ (185,586)	-26%	25.3	6.3	\$ (85,392)	-3%	31.7	7.9	\$ 146,968	12%
8.0	2.0	28.1	7.0	\$ (31,356)	1%	31.7	7.9	\$ 138,766	17%	31.7	7.9	\$ 371,126	25%
12.0	3.0	31.7	7.9	\$ 83,476	16%	31.7	7.9	\$ 253,598	28%	31.7	7.9	\$ 485,958	34%
16.0	4.0	34.9	8.7	\$ 128,696	23%	34.9	8.7	\$ 302,193	33%	34.9	8.7	\$ 539,036	39%
20.0	5.0	31.7	7.9	\$ 183,591	33%	31.7	7.9	\$ 353,712	42%	31.7	7.9	\$ 586,072	46%

Net Profit	\$	15,191	\$	34,808	\$	54,709	\$	86,463	\$	114,771	\$	115,713	\$	117,880	\$	117,880	\$	117,880	\$	124,752
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Questions?

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Ryan Bakely: ryan.bakely@chargepoint.com

See you next week! December 9th at 2 PM



—chargepoint®