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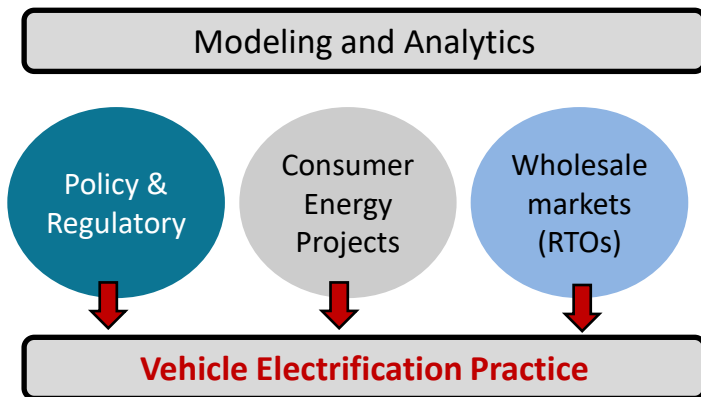
# STATE OF THE STATE:

## Electric Vehicles



# Who We Are

CHARGEVC | NJ  
BETTER TRAVEL, STRONGER GRID.



## What we will do

- Accelerate and expand EV adoption in NJ.
- Develop and promote **programs and policies**.

## How we do it

- **RESEARCH** necessary to inform programs and policies.
- Diverse coalition with unified voice for **ADVOCACY**.

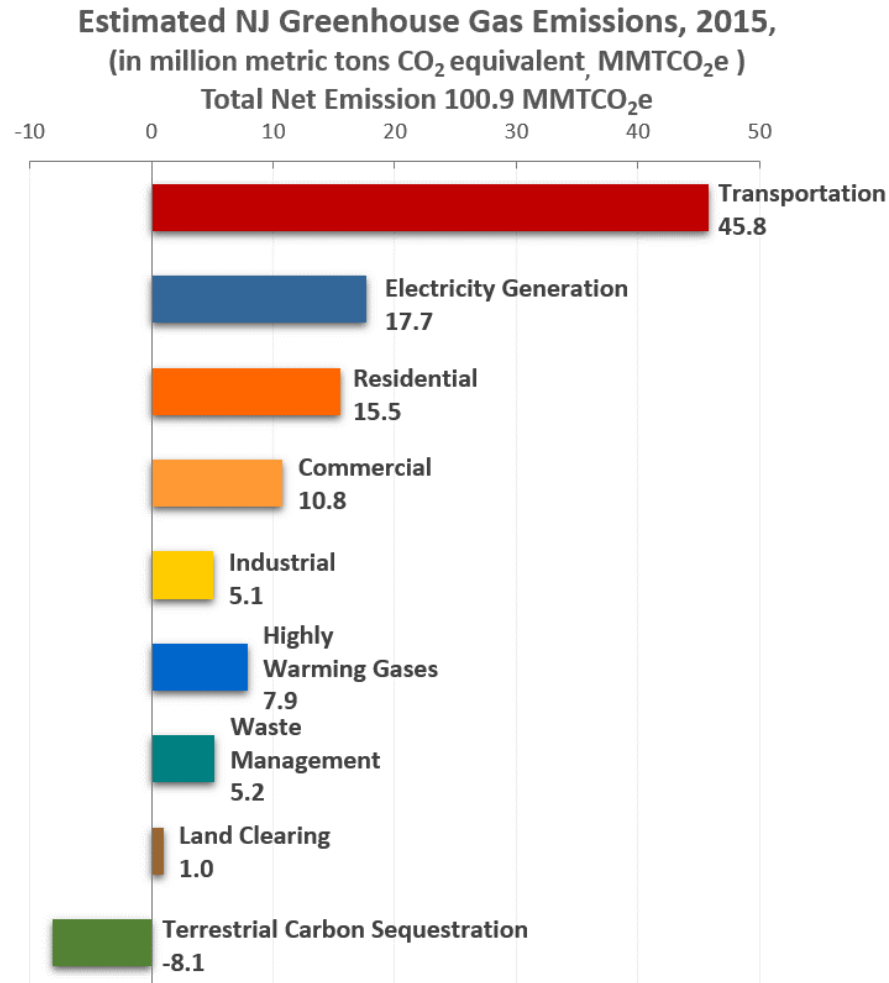
## State-based approach

- Local market participants, for local action, based on local conditions.



# Electric Vehicles 101

## ❑ Why Electric Vehicles Matter?



## ❑ What Are They?

*There are now over  
100 LDV-PEV  
models available*

### LDV: Light-Duty Vehicles

#### Plug-In Electric Vehicles (PEVs)



#### Not an Electric Vehicle

##### Hybrid

- NO PLUG
- Very Small Battery
- Prius



##### Plug-In Hybrid Electric Vehicle

- PHEV
- Electric supplements fuel
- Small to medium battery
- ~20 - 50 miles electric range
- Prius Prime, Chevy Volt

##### Battery Electric Vehicle

- BEV and ZEV
- All electric
- Large battery
- 150 - 350 miles range
- Tesla, Mach-E, Ford 150

## ❑ How Are Electric Vehicles “Fueled”?

Most Charging Happens Where Cars Stay Parked  
(mostly at home, sometimes at work,” ~95% of energy)



### Level Two:

- 240 Volts AC – usually requires electric upgrade
- 10-20 miles of range per hour of charging
- Primary use in home and work



### Level One:

- 110 Volts AC
- Plugs into a typical wall outlet
- 1-6 miles of range per hour of charge
- Most basic option included on all vehicles

Charging “En-Route”  
(when needed, ~5% of energy)



**Public Chargers,  
Especially DC Fast  
Chargers, Address  
Key Range Anxiety  
Adoption Barriers**

### DC Fast Charge:

- 80% full within 15-30 minutes
- Public stations, specialized use

# EV Market Snapshot

## **EV Law: Establishes Goals for EVs**

- At least 330,000 registered light-duty PEVs in the state by 2025
- At least 2 million registered EVs by 2035
- At least 85% of all LDVs sold/leased be electric by 2040

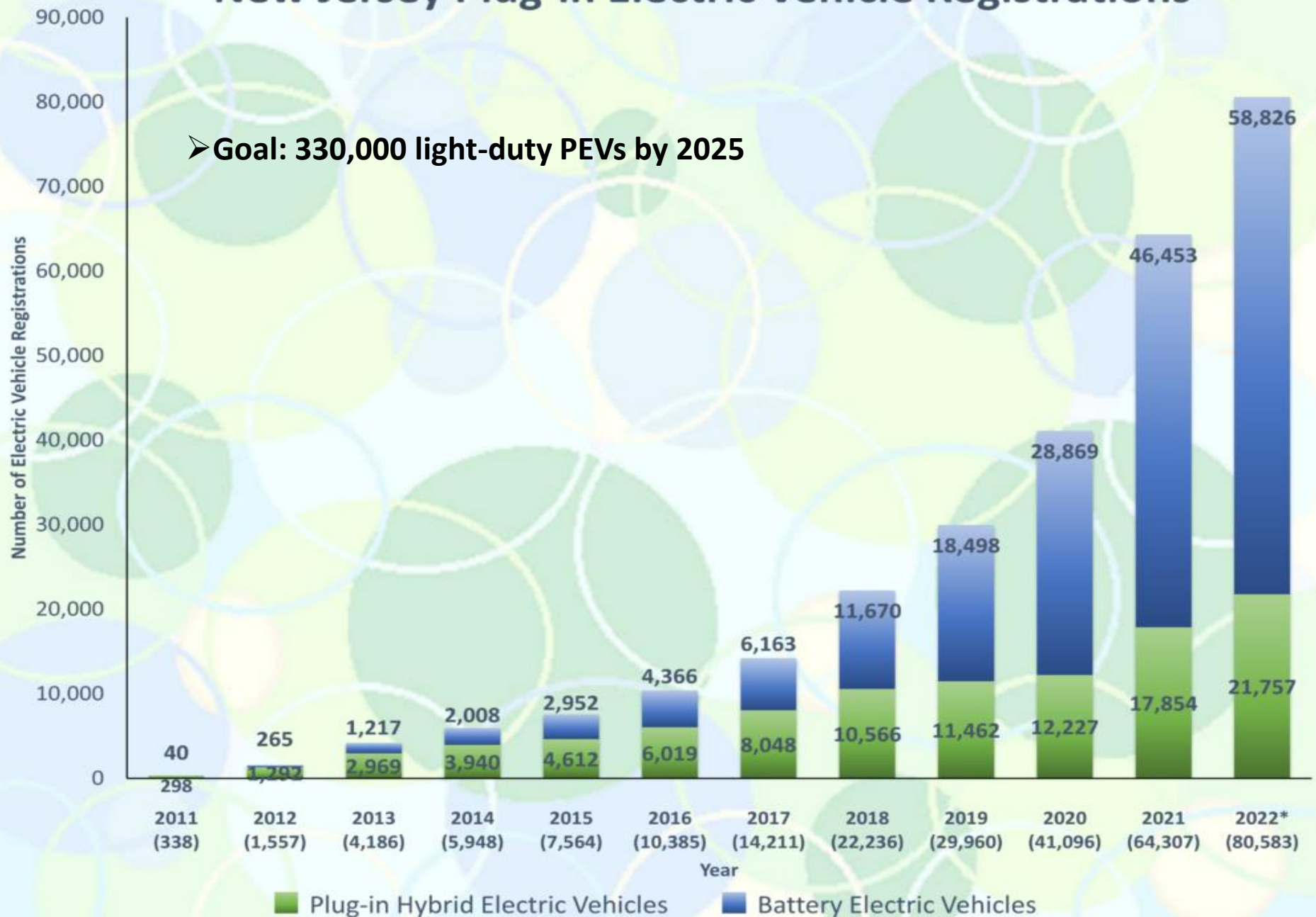


## **EV Law: Establishes Goals for EV Charging Infrastructure**

- At least 400 publicly accessible DC Fast chargers in at least 200 locations by 2025
  - with specific requirements including the capability of providing at least 150 kWh of power
- At least 1,000 publicly accessible Level 2 chargers by 2025

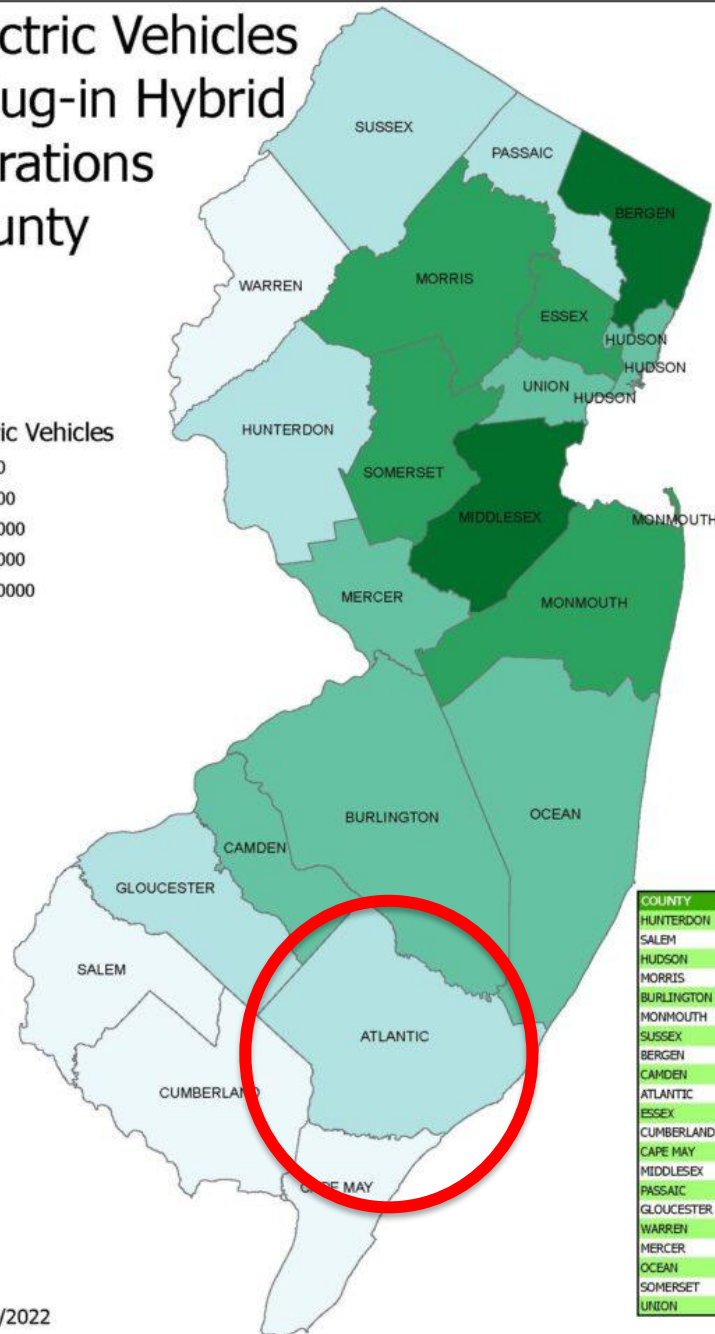
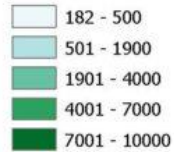
# New Jersey Plug-in Electric Vehicle Registrations

➤ Goal: 330,000 light-duty PEVs by 2025



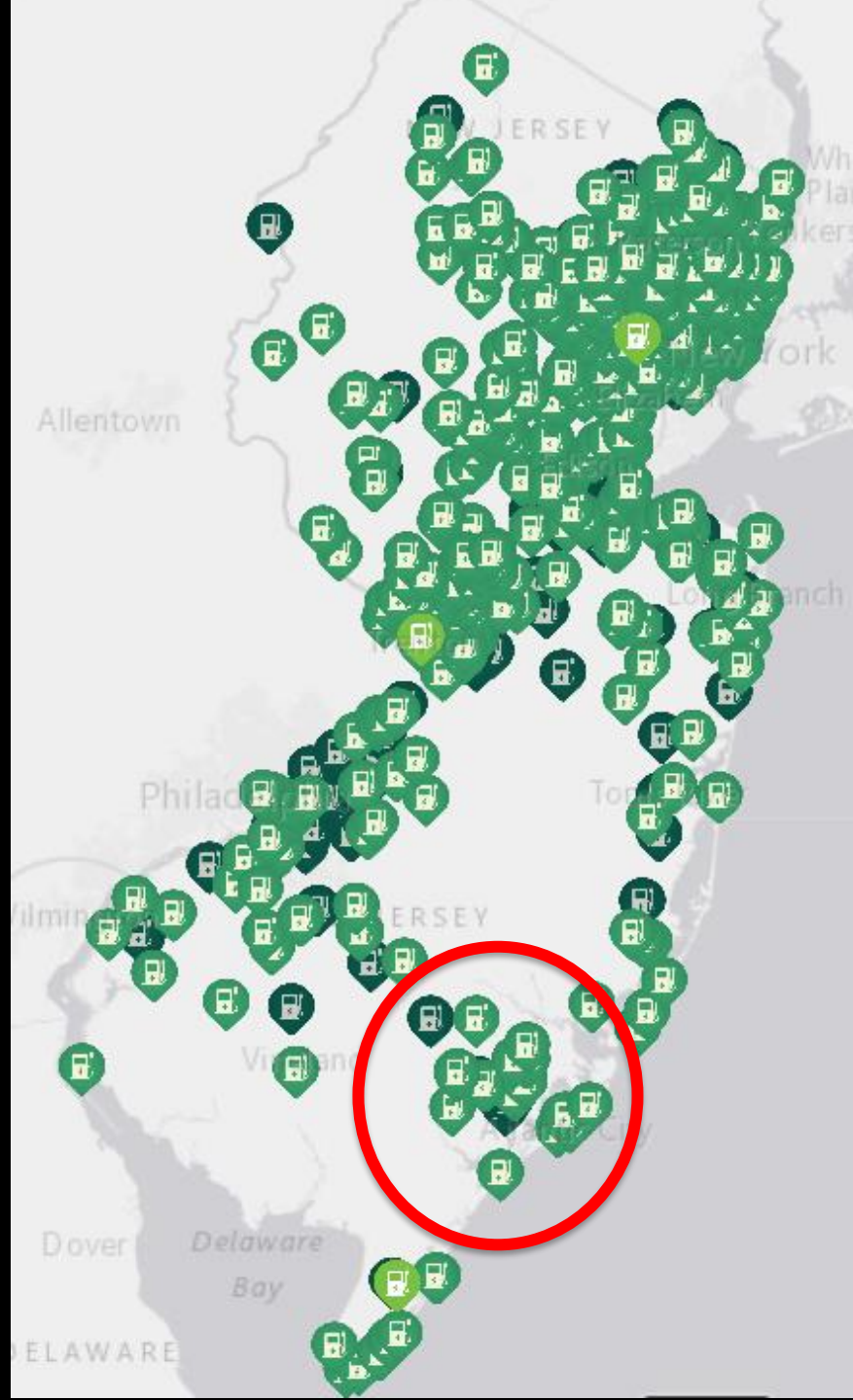
# NJ Electric Vehicles and Plug-in Hybrid Registrations by County

## Total Electric Vehicles



COUNTY	Total Electric Vehicles
HUNTERDON	1245
SALEM	182
HUDSON	3121
MORRIS	4828
BURLINGTON	2869
MONMOUTH	5733
SUSSEX	771
BERGEN	9363
CAMDEN	3132
ATLANTIC	1074
ESSEX	5538
CUMBERLAND	305
CAPE MAY	455
MIDDLESEX	7048
PASSAIC	1866
GLOUCESTER	1251
WARREN	423
MERCER	3934
OCEAN	3063
SOMERSET	4078
UNION	3229

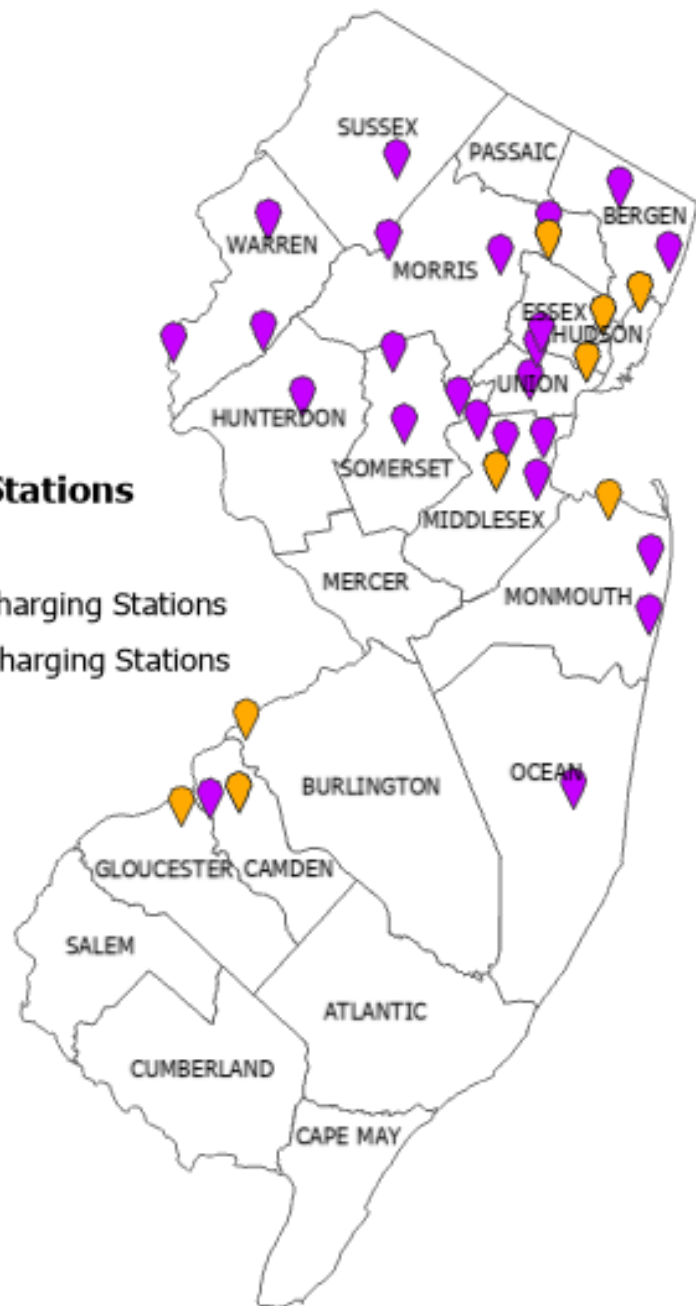
UPDATED: 4/21/2022



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### Charging Stations >150kW

- Existing Charging Stations
- Planned Charging Stations



➤ Goal: 400 DC Fast Chargers in at least 200 locations by 2025

## EV Market Snapshot

- Governor Murphy Action
  - Significant goals for EV adoption and charging infrastructure
- Federal Action
  - Infrastructure Investments and Jobs Act: \$104.4M available for NJ over 5 years

National Electric Vehicle Infrastructure (NEVI) Formula Program

- Inflation Reductions Act: up to a total tax credit of \$7,500 per vehicle

with provisions for final assembly, critical mineral, battery component sourcing, MSRP, income caps, and the 200,000-vehicle cap per manufacturer.

## EV Market Snapshot

- Big commitments by global OEMS
  - General Motors, Honda, Mercedes-Benz, and Nissan have committed to being 100% electric
- Significant consumer interest
  - 71% of Americans expressed some level of interest in buying or leasing an EV.





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