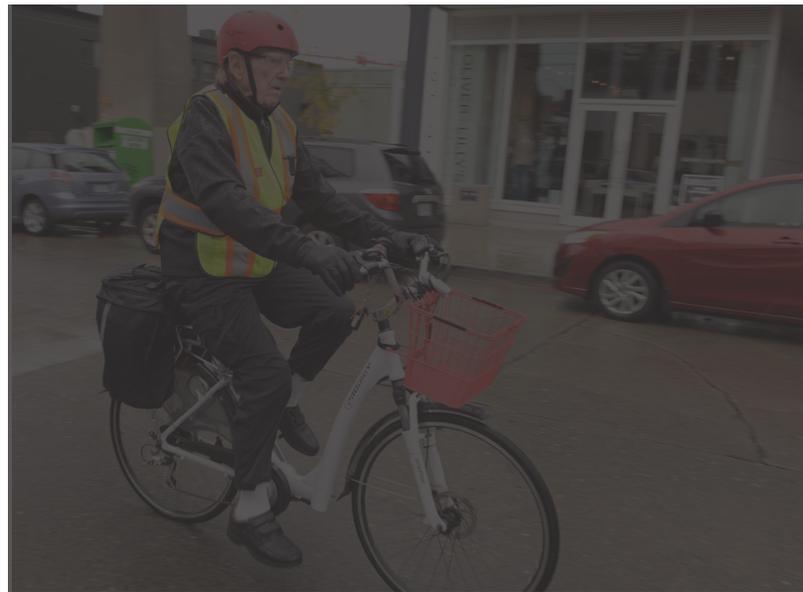




SOUTH JERSEY ELECTRIC VEHICLE RESOURCE GUIDE

JULY 2023



**CROSS
COUNTY
CONNECTION**

TRANSPORTATION MANAGEMENT ASSOCIATION

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ABOUT

CROSS COUNTY CONNECTION TMA



PROVIDING SUSTAINABLE TRANSPORTATION SOLUTIONS FOR SOUTHERN NEW JERSEY

Cross County Connection is the designated Transportation Management Association (TMA) for the seven-county Southern New Jersey region: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Salem. Cross County Connection assists local governments, schools, businesses, social service organizations, residents and employees with mobility needs by fostering the implementation and use of sustainable transportation modes.

Cross County Connection TMA was formally incorporated in 1989 through the efforts of a group of Southern New Jersey business leaders, local government officials, and representatives from the New Jersey Department of Transportation (NJDOT) and New Jersey Transit Corporation (NJ TRANSIT) to address mobility issues in the region and reduce the number of vehicles on state and local roadways.

Our partners include:

- The Federal Highway Administration
- NJ Department of Transportation
- NJ TRANSIT
- PATCO
- North Jersey Transportation Planning Authority
- Delaware Valley Regional Planning Commission
- South Jersey Transportation Planning Organization
- South Jersey Transportation Authority
- Local and County Governments
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CONTENTS

INTRODUCTION	1
Helpful Resources Included	2
EV Terminolgy & Definitions	2
PUBLIC CONSUMERS	4
EV Purchase	
Incentives	4
At-Home Charging	
Stations	6
BUSINESS & COMMERCIAL REAL ESTATE	7
Office & Warehouse Properties	7
Retail Properties	8
Multi-Unit Residential Properties	9
EV Charging Station Incentives & Grants	10
Business Fleets	11
SCHOOLS	12
Federal Grant Programs	12
State Programs	13
PUBLIC AND PARATRANSIT BUS SYSTEMS	14
Case Study: NJ TRANSIT	14
Shuttles, Para, & Community Transit	15
Transit EV Incentive & Grant Programs	15
LOCAL GOVERNMENTS	16
Public Charging Stations	16
Public Sector Fleets	21
E-Bikes	23
What is an E-Bike?	23
Municipal E-Bike Laws	24
APPENDIX A - Electric Vehicle Information Resources	25
APPENDIX B - EV Charging Station & Fleet Grant & Financial Incentive Programs	29

INTRODUCTION

Electric vehicles (EVs) are now common on South Jersey's roads. As of December 2022, there were 91,515 plug-in EVs registered in New Jersey. In 2017, just five years earlier, there were 6,163. It is estimated that there will be 330,000 EVs on NJ's roads by 2025 and 2 million by 2035. The market is continuing to grow, with well over 1.6 million plug-in EVs sold in the U.S. between 2020 and 2022. GM, Ford, Volkswagen, Mercedes, and Volvo have announced plans to feature an all-EV lineup sometime between 2030 and 2035.

Both the state and federal governments have been highly supportive of this shift, creating programs to expand the charging network and make purchasing an EV more affordable. At the federal level, the Inflation Reduction Act (IRA) created \$43 billion in tax credits for consumers to purchase new EVs, and the Infrastructure Investments and Jobs Act (IIJA) set aside more than \$30 billion in EV-related investments. This includes \$7.5 billion put towards improving EV charging infrastructure. The State of New Jersey is providing subsidies for the purchase or lease of EVs and has created grant programs to purchase, install, and maintain charging stations. Also, state law now requires municipalities to incorporate EV charging station installation into their zoning, permitting, and redevelopment processes.



To help navigate this rapidly changing landscape, Cross County Connection has provided this EV Resource Guide, which provides information to assist a variety of audiences – the public, property developers, real estate companies, businesses, local governments, schools, and public transit agencies. Each will find information on grants, incentives, and general resources that best help them. This guide is intended to help each audience transition to the region's electric transportation present and future.

- For consumers considering purchasing an EV, this guide contains sections on federal and state EV purchase incentives and information on charging station options.
- For businesses and local governments, there are sections on EV fleets and charging stations, including funding opportunities as well as locations where publicly accessible charging is most needed.
- For school districts, this guide details the funding opportunities for alternatively fueled school buses.
- And for public transit agencies, this guide contains sections on securing funding for electric buses and examples of successful e-bus deployments.

HELPFUL RESOURCES INCLUDED

Hyperlinks are included in the [blue text](#) which the reader can click on to navigate to the cited resources, financial incentives, and grant programs. Resources and finance programs listed in each section are tailored to each audience. However, there are additional resources that the readers can use to make informed decisions regarding EVs and their associated charging infrastructure.

EV Resource and Funding Program Tables

For more information on the resources and programs covered in this guide, visit the appendices at the end of this report. Guide users can see what each resource, incentive or grant program covers, which audience(s) it applies to, and the types of projects and activities covered. The *EV Information Resource Table*, found in Appendix A, provides a larger list of helpful resources and guides to assist with exploring available vehicles, charging stations, and planning considerations.

The *EV Grants and Incentives Table*, found in Appendix B, lists a variety of sources that have been used to fund EV charging stations and fleets. This includes federal, state, and local utility programs that help cover costs associated with purchasing EVs, as well as charging station procurement and installation.

Electric Vehicle Registrations and Charging Infrastructure Map

Cross County Connection has developed an online interactive map as a supplement to the Electric Vehicle Resource Guide. [The South Jersey Electric Vehicle Registrations and Charging Infrastructure Map](#) is a way to visualize where residents are embracing EVs, existing charging station locations, and additional information to help EV owners find charging stations, but also help local governments and private sector businesses plan the future locations of an expanded regional charging network.

EV TERMINOLGY & DEFINITIONS



Terms will be used throughout this guide that may be unfamiliar to some. To help, here is a list of those that will be mentioned frequently.

Plug-in electric vehicle (PEV) – A battery-powered vehicle that can be plugged in for charging. There are two types – battery electric vehicles (BEV) and plug-in hybrid vehicles (PHEV).

Battery electric vehicle (BEV) - Powered solely by an electric motor that draws power from a battery plugged in to charge.

The plug-in hybrid (PHEV) – Powered by both an internal combustion engine (ICE) and an electric motor that draws power from a battery that is plugged in to charge.

Level 1 charging – Plugging into a standard 120-volt outlet. Typically, adds 3-5 miles of range per hour.

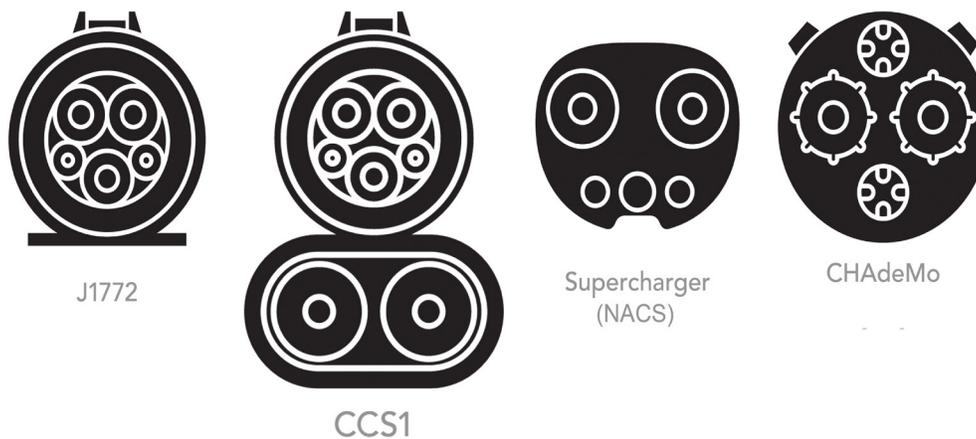
Level 2 charging – Plugging into a 240-volt outlet, the same used for large household appliances such as an oven, washer/dryer, or refrigerator. Typically, adds 10-20 miles of range per hour.

Level 3/DC fast charging – The fastest level of EV charging, using outlets between 480 and 900 volts, capable of reaching 80% capacity in 20-30 minutes of charging.

Electric Vehicle Supply Equipment (EVSE) – The equipment and software used to supply power to EVs for charging – i.e. the charging station and its components.

Charging Station – The EV equivalent of a gas pump. It supplies the power to the EV through a port. Stations can have multiple ports to serve more than one vehicle at the same time.

Port – The part of the charger that connects to the EV. The charging station may have more than one port to concurrently charge multiple vehicles. Ports may have multiple connectors to accommodate different EV makes and models for Level 3 charging - NACS, CCS, or CHAdeMO.



North American Charging Standard (NACS) – The charging connector type used by Tesla. Anticipated to become the uniform standard in North America as GMC, Ford, Volvo, and Rivian have committed to switching to NACS in the next few years.

Combined Charging System (CCS) – The Level 3 charging connection standard that is currently accepted by the federal government. Includes an integrated J1772 socket for Level-1 and Level-2 charging.

CHAdeMO – A Japanese Level-3 charging standard currently being phased out in North America.

Financial Incentive – A non-competitive rebate or tax credit that can be applied to lower the costs of an EV, charging station, or charging station installation.

Grant – A funding program that requires an application where financial support is typically awarded to projects selected through a competitive process.

E-Micromobility – Small, low-speed electric-powered personal transportation devices such as e-bikes and e-scooters.



PUBLIC CONSUMERS

The benefits of EVs are known. They improve air quality locally, have lower maintenance costs, and have more torque than comparable ICE vehicles, making them enjoyable to drive. However, many potential EV owners' concerns can be a barrier to widespread adoption. These are the higher costs of vehicles and range anxiety, the fear of running out of power. There are solutions to address these concerns including purchase incentives and programs to support charging station installation – both at home and in public locations.

EV PURCHASE INCENTIVES

For the public consumer, a significant barrier to switching to an electric vehicle is the cost. The average cost of a new ICE vehicle is approximately \$49,000, while the average cost of a BEV is \$61,000. Federal and state incentives are available to offset some of these costs and make EVs, both BEVs and PHEVs, a more attractive option when purchasing a vehicle. New Jersey has one of the strongest incentive packages available.

Federal EV Purchase Incentives

The Inflation Reduction Act of 2022 created three new tax credit programs for the purchase of EVs: the [New Clean Vehicle Tax Credit](#), the [Used Clean Vehicle Tax Credit](#), and the [Commercial Clean Vehicle Tax Credit](#) (covered in the Commercial Developers and Business section of this guide).

New Clean Vehicle Tax Credit

The [New Clean Vehicle Tax Credit](#) provides up to a \$7,500 tax credit for the purchase of a new plug-in electric vehicle. This includes both PHEV and BEV options. This program made significant changes to the previous federal tax incentives in terms of which vehicles qualified for the credit and the requirements to be eligible for the full \$7,500 credit. These changes went into effect on January 1, 2023.



Under the previous EV tax credit program, once a manufacturer had sold 200,000 EVs, those vehicles were no longer eligible for the rebate. For example, as it was one of the first high-volume sellers of EVs, Tesla's eligibility ended in January 2020. However, as a result of the Inflation Reduction Act, the 200,000-vehicle cap is lifted. The updated incentive program is now based on the country where the vehicle had its final assembly, how much it costs, and the income(s) of those applying for the credit.

As of January 1, 2023, to be eligible for the \$7,500 credit, the vehicle must:

- Have undergone final assembly in North America
- Not exceed a manufacturer-suggested retail price (MSRP) of:
 - \$80,000 for vans, sport-utility vehicles, and pickup trucks
 - \$55,000 for other vehicles

The purchaser's eligibility to receive the credit is based on their income, as follows:

- Individuals with Adjusted Gross Incomes (AGI) of \$150,000 or less
- Heads-of-household with an AGI of \$225,000 or less, or
- Joint filers with an AGI of \$300,000 or less

More information on the New Clean Vehicle Tax Credit, including a [list of qualified vehicles](#), can be accessed on the [IRS website](#). This list will be subject to frequent updates as more vehicles come into compliance.

Used Clean Vehicle Tax Credit

As of January 1, 2023, those who purchase a used EV may be eligible for a Used Clean Vehicle tax credit—equaling 30 percent of the sales price, up to a maximum credit of \$4,000.

To qualify, the purchaser must:

- Be an individual who bought the vehicle for use and not for resale
- Not be the original owner
- Not be claimed as a dependent on another person's tax return
- Not have claimed another Used Clean Vehicle Credit in the 3 years before the purchase date

In addition, the purchaser's modified adjusted gross income (AGI) may not exceed:

- \$150,000 for married couples filing jointly or a surviving spouse
- \$112,500 for heads of households
- \$75,000 for all other filers

The vehicle must:

- Cost \$25,000 or less
- Have a model year at least two years earlier than the calendar year when bought
- Have a gross vehicle rating of fewer than 14,000 pounds
- Have a battery capacity of at least 7-kilowatt hours
- Be purchased from a car dealer who reports information at the time of sale to the purchaser and the IRS



More information on the Used Clean Vehicle Credit, including a [list of qualified vehicles](#), can be accessed on the [IRS website](#).

New Jersey State Purchase Incentives

State incentives apply to new vehicle purchases that can be combined with federal incentives. These include:

- A rebate of up to \$4,000, depending on battery range, for those purchasing or leasing an eligible EV
- Exemption from new vehicle sales tax

ChargeUp New Jersey

[ChargeUp New Jersey](#) provides NJ residents an incentive of up to \$4,000 for purchasing or leasing new battery and plug-in hybrid EVs. The total rebate is determined by the range of the vehicle using battery power alone. BEVs will receive a higher credit compared to PHEVs. The total incentive amount for an eligible vehicle is \$25 per mile of EPA-rated all-electric range, as determined by [fuelconomy.gov](#) up to \$4,000 for vehicles with an MSRP under \$45,000, or up to \$2,000 for vehicles with an MSRP between \$45,000 and \$55,000.

This ChargeUp New Jersey incentive can be paired with the federal tax credit, but, unlike the federal program, the incentive can be applied instantly at the auto dealership at the point of sale. A list of EVs eligible for the ChargeUp New Jersey incentive can be found [here](#).

Zero Emission Vehicles Sales Tax Exemption

In addition to the \$4,000 incentive, the State of New Jersey waives the sales tax on zero-emission vehicles (ZEVs). The exemption does not apply to EV hybrids and plug-in hybrids.

AT-HOME CHARGING STATIONS

Consumers can install EV infrastructure in their homes, or charge outside the home. The NJ Department of Environmental Protection has published the [NJ Public EV Charging Locator](#), providing information on locations where EV owners can charge their vehicle. This resource breaks down the locations by charging level type, making it extremely useful for EV owners who are planning trips of all lengths within the state.

Similarly, PSE&G published their [EV Hosting Capacity Map](#). This resource provides geographic information on available load capacity throughout New Jersey for installing EV charging stations in the PSE&G service area. This is especially useful for consumers looking to install Level 2 charging stations on their property.

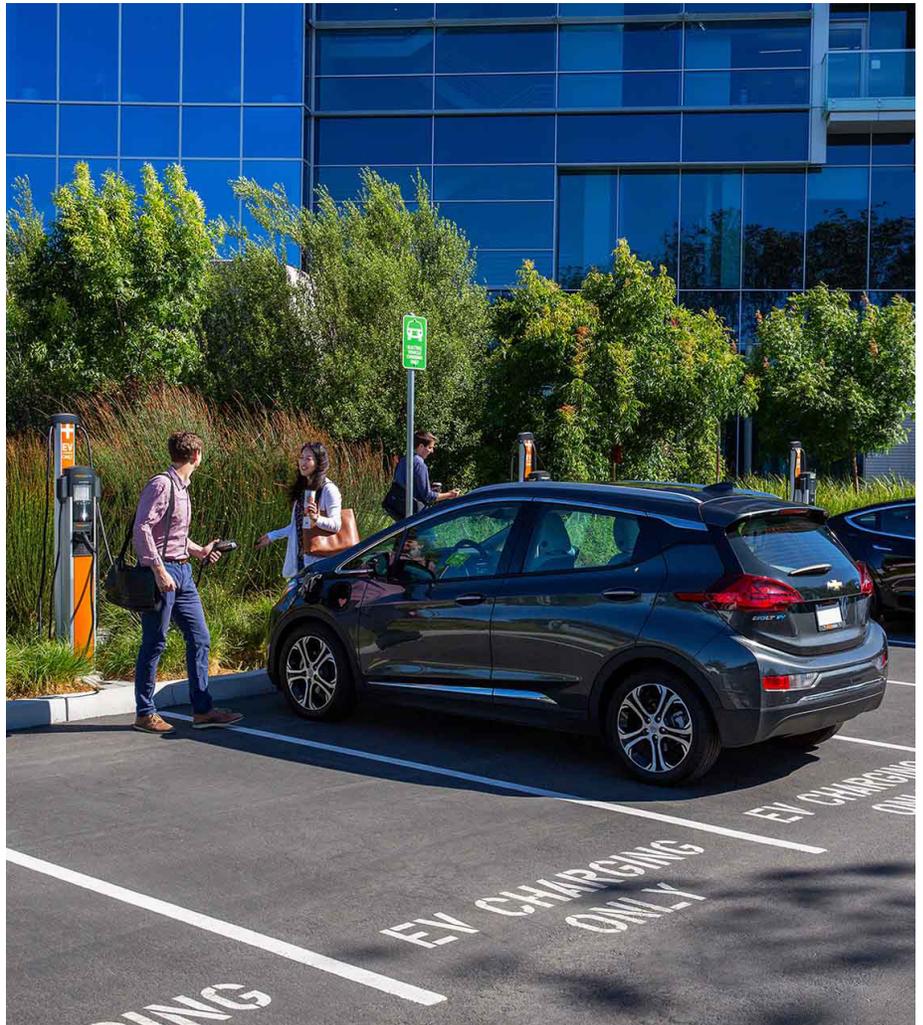
[Plug Star Shopping Assistant](#) provides information through interactive quizzes on which EV model may be the best fit for interested consumers. Information is also provided on the proper charging station to install based on the EV model chosen.

Level 2 home charging stations can be purchased from car manufacturers and EV charging station companies. It is highly recommended to hire an electrician to evaluate your home's electrical system and install the charging station.



BUSINESS & COMMERCIAL REAL ESTATE

Commercial property developers and real estate companies will benefit from installing EV charging stations on their properties. This includes residential, retail, office, and warehousing. Even if EV charging is not an immediate demand of potential tenants, it soon will be as NJ moves towards an electrified transportation future. Tenants will want EV charging stations to attract and retain employees. Multi-family housing residents, lacking a garage, will want the capability of switching to EVs. Retail businesses will want the customer traffic that charging stations bring. Warehousing will move towards EV fleets as more vehicle options become available that reduce their operations and maintenance costs.



There are some initial considerations to research before installing charging stations on commercial properties:

- *Electrical Capacity*—Property managers must determine if the building has the needed additional electrical capacity to support charging stations. If not, an assessment needs to be undertaken to determine the feasibility and costs of increasing electrical capacity.
- *Cost Recovery*—Property managers should determine if individual users would be required to pay for charging station use or whether the increased utility cost be factored into the rent, or some other form of payment required from the tenant(s).

OFFICE & WAREHOUSE PROPERTIES

Workplaces are ideal EV charging station locations, especially since, outside of the home, people park their cars the longest while at work. EV charging stations benefit employers by demonstrating a commitment to environmental sustainability, attracting prospective hires, and offering a perk for current employees. Considering this, current and potential tenants will find commercial properties with EV charging stations desirable.

The Employer/Tenants Role

Property owners should solicit the assistance of their tenants to determine the demand for EV charging stations and guidelines on the administration of usage. The U.S. Department of Energy’s [Clean Cities Workplace Charging Toolkit](#) is an excellent resource guide that property owners and their tenants can use for this purpose. This guide assists with assessing station demand, managing worksite charging, and promoting and educating employees on EVs and their benefits.

A sample of best practices includes:

- *Request tenants conduct an Employee Survey*—Employee surveys gauge interest and need for workplace charging stations. The U.S. Department of Energy’s [Alternative Fuels Data Center](#) is a good resource for employee surveys.
- *Set Clear Policy Guidelines*—A clear policy regarding EV charging station usage is needed. This policy needs to address the administration, registration, station sharing, and pricing/cost of using the charging stations. A staff member needs to be designated to manage the charging stations and interact with tenants and their employees.
- *Consult with experts*—Property owners need to consult with experts before installation to ensure potential issues are addressed before they become problems. These experts include utility companies, electrical contractors, charging infrastructure providers, and building or property management companies.

RETAIL PROPERTIES

EV charging stations benefit shopping centers by attracting more customers. According to [Property Manager Insider](#), a leading online resource for property and facility managers, EV drivers actively seek parking lots with charging stations. While waiting 30 minutes or more for their vehicle to charge at a shopping center, it is likely EV drivers would patronize retailers, adding to the shopping center’s overall value. Level 3 Stations’ faster charging makes them a good choice for retail. Properties along major highways and interstate corridors are especially ideal locations and are eligible for dedicated state and federal grants directed towards priority corridors.



MULTI-UNIT RESIDENTIAL PROPERTIES

Multi-Unit Dwellings (MUD) that do not include individual garages can attract and retain residents by providing dedicated EV parking spots with charging stations. These properties will also be attractive to environmentally conscious residents. Providing access to charging is important to both encourage the continued growth in EV adoption and also to provide equitable access to these residents as EVs become more common and affordable. To illustrate this importance, MUDs, with four or more units, are the only residential properties eligible for grant funding through NJDEP's It Pay\$ to Plug In program.



The following factors must be considered before installing EV charging stations at residential properties:

- *Logistics*— Will EV parking spaces be assigned to residents, deeded to the residential unit, or first-come, first-served?
- *Number of EV Parking Spaces*— In addition to assessing current demand, future demand should be considered. As EVs become more mainstream in NJ, residential properties need to be prepared to add new parking spaces with EV charging stations.
- *Cost recovery*— If the property owner desires to recover the costs of installing EV charging stations and the cost of electricity, a decision needs to be made before installation regarding how this will be accomplished. Possible approaches include building a payment system into the individual charging stations, including the cost into the rental rate or purchase price of a unit, or including the cost into a homeowner's association fee.

The U.S. Department of Energy's Alternative Fuels Data Center provides [online resources](#) for multi-family housing owners assessing the need for EV charging stations. These resources include a [guide](#) to charging station installation and templates for surveying residents' current and future interest in EVs.

EV CHARGING STATION PURCHASE INCENTIVES & GRANTS

New Jersey provides property owners with numerous incentives and grant programs to assist with the cost of installing EV charging stations.

[NJDEP's It Pay\\$ to Plug In Program](#) — This New Jersey Department of Environmental Protection (NJDEP) program is open to businesses, governments, non-profit organizations, educational institutions, and owners of multi-unit dwellings. Successful applicants are provided up to a maximum of \$750 per Level 1 charging port and \$4,000 per Level 2 charging port.

- Level 1 and 2 charging stations are eligible at workplaces, multi-unit dwellings (MUD), and public places
- Level 3 charging stations are eligible if they are located in public locations on priority corridors. NJDEP's [Community Fast Charger Solicitation Mapping Tool](#) helps determine the locations that are a priority for fast charging and will be most competitive when applying for an It Pay\$ to Plug In grant.

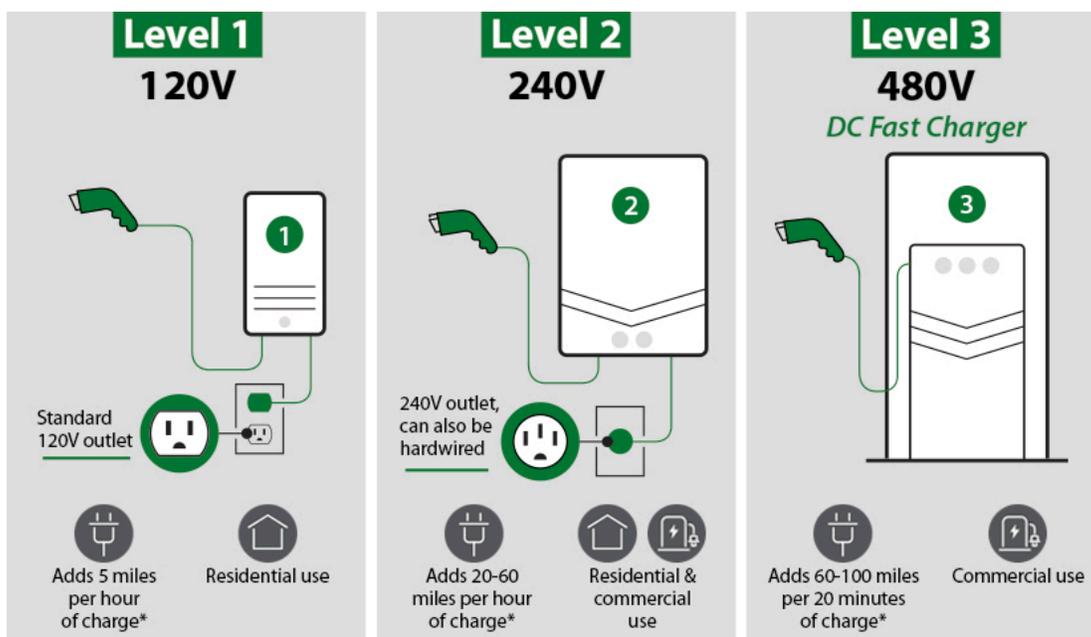
[Atlantic City Electric's EVSmart Program](#) – Commercial properties and multi-family housing properties, located within Atlantic City Electric's service territory, are eligible for up to \$6,700 per port for multi-family properties and up to \$4,500 at a workplace. For DC Fast charging stations, ideal for retail properties, this subsidy goes up to \$60,000.

[PSE&G's Electric Vehicle Charging Program](#) – PSE&G's commercial property customers are eligible for an on-bill credit of up to \$7,500 per charging station, with a max of \$30,000, toward the cost required to upgrade facilities to install Level 2 smart charging stations. For DC Fast charging stations, the credit increases to \$25,000, with a maximum of \$100,000.

[NJBPU Multi-Unit Dwelling EV Charger Incentive](#) — This NJ Board of Public Utilities program provides up to \$4,000 toward the purchase of a Level 2 EV charging station; the funding amount increases to \$6,000 if the multi-unit dwelling is located in an overburdened community.

[USDA's Rural Business Development Grant Program](#) — The purpose of this program is to improve economic conditions in rural areas by providing technical assistance that will enhance the operation of rural transportation systems.

Other state and federal programs help offset the cost of installing charging stations and purchasing EVs. A list is provided in this guide's *Grant and Incentives Table*.



* Estimated. Actual charge times may vary.

BUSINESS FLEETS

Corporate EV fleets are a growing trend as businesses look to reduce their carbon footprint and save money on fuel costs. EVs offer several advantages over traditional gasoline-powered vehicles, including lower operating costs, reduced emissions, and quieter operation.

Factors to consider when transitioning to a corporate EV fleet include:

- Type of vehicles appropriate for the business.
- Availability of existing or planned charging stations.
- Capacity of a business facility's electrical system to charge an EV fleet.
- Financial analysis to determine cost savings on fuel and maintenance of fueled fleet vs EV fleet.

Vehicle manufacturers are increasing the availability and types of electric vehicles that are attractive to businesses. The light-duty vehicles available for general business include the Tesla Model 3, Chevy Bolt, and Nissan Leaf. Additionally, automakers are starting to offer larger pick-up trucks and SUVs, a lucrative market in the United States. Examples include the Ford 150 Lightning and the Chevy Silverado EV. As for handling cargo and delivery, the Ford E-Transit accounts for 73% of electric van sales. Penske Truck Leasing [recently ordered 750](#) to add to its work fleet.



Commercial Clean Vehicles Program

The Inflation Reduction Act of 2022 has updated guidelines for the Commercial Clean Vehicles Credit program, impacting both individuals and businesses. The Commercial Clean Vehicles Credit is available to any taxpayer who purchases a qualified commercial clean vehicle for business use. If the EV has a gross vehicle weight rating of less than 14,000 pounds, the credit is limited to \$7,500. For heavier commercial vehicles that exceed this threshold, the maximum available credit is raised to \$40,000.

The amount of the Commercial Clean Vehicles Credit is the lesser of the following options:

1. 30% of the taxpayer's tax basis
2. The incremental cost of the vehicle. Incremental cost is defined as the excess of the EV's purchase price, over the price of a solely gasoline-or-diesel-powered vehicle comparable in size and use to the EV purchased.

A list of eligible EV models and manufacturers can be accessed [here](#).

Additional details on the Commercial Clean Vehicles Credit program can be accessed on the [IRS website](#).

SCHOOLS

By transitioning to electric school buses (ESBs), school districts can support student health, improve air quality, and advance social equity. As vehicles with zero tailpipe emissions, ESBs reduce students' air pollution exposure. ESBs can also contribute to correcting environmental injustices in underserved communities. For these reasons, school districts would find ESBs to be a worthwhile investment.

The World Resource Institute notes that as of October 2022, over twenty ESB models are currently available. ESBs typically have a range of 75 to 210 miles and can lower fleets' operation and maintenance costs. An ESB costs approximately \$250,000 at the low end, and approximately \$450,000 at the high end. Blue Bird, Thomas Built Buses, and Lion Electric respectively are the top three leading ESB manufacturers.

FEDERAL GRANT PROGRAMS

As of October 2022, the EPA has awarded the Atlantic City School District \$1,525,000 to purchase five ESBs. The EPA has also awarded the Bridgeton City School District \$790,000 to purchase two. The EPA's new [Clean School Bus Rebate Program](#) is the source of these funds. Part of the Bipartisan Infrastructure Law, the Clean School Bus Rebate Program funds ESBs in low-income, rural, and tribal communities. This program is the primary source of funding for ESBs nationwide, where over 5,600 ESBs have been committed.



The Clean School Bus Program

The EPA's new Clean School Bus (CSB) Program will provide \$5 billion over the next five years (FY 2022-2026) to replace existing school buses with zero-emission and low-emission models. The EPA solicited rebate applications for \$500 million through the 2022 Clean School Bus Rebates as the first funding opportunity and expects to award \$400 million in CSB funding through 2023. Applications open April 24 and close August 22, 2023.

Eligible Activities

Eligible activities include the replacement of existing internal-combustion engine (ICE) school buses with electric, propane, or compressed natural gas (CNG) school buses, as well as the purchase of electric vehicle supply equipment (EVSE) infrastructure and installations.

There are requirements that buses must meet to be eligible to be replaced or to be eligible as a replacement. To be replaced, a bus should: be the model year 2010 or older and diesel-powered; have a gross vehicle weight rating of 10,001 lbs. or more; be operational; and have provided bus service to a public school district for at least 3 days/week on average during the 2022/2023 school year.

For an ESB to be eligible as a replacement, the new bus should be EPA-certified model year 2021 or newer; have a gross vehicle weight rating of 10,001 lbs. or more; and serve the school district for at least five years from the date of delivery.

Charging infrastructure, including make-ready costs and electrical vehicle supply equipment (EVSE), are also eligible for funding support. Make-ready costs covered include installation costs such as trenching, wiring and electrical upgrades, labor, and permitting. Eligible EVSE can be Level 2 or 3 charging equipment, or vehicle-to-grid (V2G) enabled equipment. V2G technology enables energy to be pushed back to the power grid from the battery of an EV. The program also covers design and engineering.

Eligible Entities

Applications will be considered from state and local governmental entities that provide bus service, including public school districts, eligible contractors, nonprofit school transportation associations, and tribal organizations.

Important Considerations

School districts considering switching to alternatively fueled buses should consider the technical knowledge required by mechanics to maintain the new vehicles. This may necessitate training or hiring a new maintenance service. Charging or refueling facilities will also need to be installed where the buses are parked.

STATE PROGRAMS

In New Jersey, Governor Murphy recently signed legislation allocating NJDEP up to \$45 million for ESB grant funding. As of August 2022, this statewide [Electric School Bus Program](#) will issue \$15 million in grants during its first year. Up to \$30 million has been allocated for the program's second and third years combined. NJDEP will award grants annually to at least six school districts or bus contractors. Application details for this program, however, could not be located.

The World Resource Institute's [Electric School Bus Initiative](#) also provides a [clearinghouse](#) of ESB funding and financing opportunities. In South Jersey, these opportunities include the following:

- [NJ Zero-Emission Incentive Program](#)—funded by NJ Economic Development Authority
- [NJ Clean Fleet Incentive Program](#)—funded by the NJ Board of Public Utilities



PUBLIC AND PARATRANSIT BUS SYSTEMS



Public transit companies are in the early stages of using electric buses as part of their fleets. The continued growth of electrified transit systems will have significant positive impacts including reducing air pollution, noise pollution, and greenhouse gas emissions. Electrified bus fleets will improve the air quality and quality of life for people, especially those living in denser urban and suburban areas. Transit agencies also benefit, as EV buses are more cost-effective in the long run since electricity is less expensive than fossil fuels and electric motors are more efficient than internal combustion engines.

There are national and local examples from transit agencies that have adopted electric buses in their public transit systems, and as battery technology improves, we can expect to see more electric buses on the road in the coming years. Some national and local examples highlighted below are informative to regional, county, and local transit providers exploring an electric future.

CASE STUDY: NJ TRANSIT

In October 2022, NJ TRANSIT publicly introduced its [first battery-electric bus](#)—a major step towards the agency’s goal of transitioning to a 100% zero-emission fleet by 2040. Eight battery-electric buses were purchased for \$10 million from [New Flyer of America](#). The purchase was made with funds obtained from pollution-based lawsuits including a nationwide settlement with Volkswagen for its bypassing of emissions equipment on its cars.

These eight buses are being used on routes serving the City of Camden and neighboring South Jersey municipalities. This region has been selected for the EV bus pilot because of its flat terrain and because the City of Camden has, compared to other parts of New Jersey, been disproportionately impacted by climate change. Electric buses are operating along the following bus routes:

- 450—Camden to Cherry Hill Mall
- 451—Camden to Voorhees Town Center
- 452—Camden to 36th Street Station River-LINE
- 453—Camden to Ferry Avenue PATCO
- 455—Cherry Hill Mall to Woodbury and Paulsboro
- 457—Camden to Moorestown Mall
- 459—Voorhees Town Center to Camden County College and Avandale Park & Ride



To accommodate the battery-electric buses, NJ TRANSIT's Newton Avenue Bus Garage in Camden

was renovated to include eight charging stations and other EV-related modifications, including a new electric substation. This is the first electric bus charging equipment to be installed in New Jersey. Eventually, the plan is to double the number of stations at the Newton Avenue facility.

NJ TRANSIT will evaluate EV performance during 2023 before deploying additional zero-emission buses in other parts of the state. Factors that NJ TRANSIT will be paying attention to include passenger volume, road conditions, and weather-related impact on bus battery range. The pilot will also involve training for drivers and first responders on how the bus operates. NJ TRANSIT is currently surveying and assessing its sixteen bus garages statewide to identify the technology upgrades needed to support EV buses.

SHUTTLES, PARA, & COMMUNITY TRANSIT

EVs are being used on smaller para- and community transit systems as well. The Berks Area Regional Transportation Authority in Pennsylvania deployed the United States' [first-ever electric paratransit shuttle](#) in 2013. On a full charge, this Ford E-450 shuttle bus has an expected range of up to 100 miles. Most paratransit EVs tend to be built on the Ford E-450, Ford Transit, or GMC Savana platforms.

As of 2022, Everett Transit in Everett, Washington has converted its paratransit fleet almost entirely to EVs. Likewise, in Santa Cruz County, California, two existing gas-powered paratransit shuttles, operated by a nonprofit organization called Community Bridges, have been replaced with two 16-seat EV shuttles equipped with wheelchair lifts, using funding from California Climate Investments.

TRANSIT EV INCENTIVE & GRANT PROGRAMS

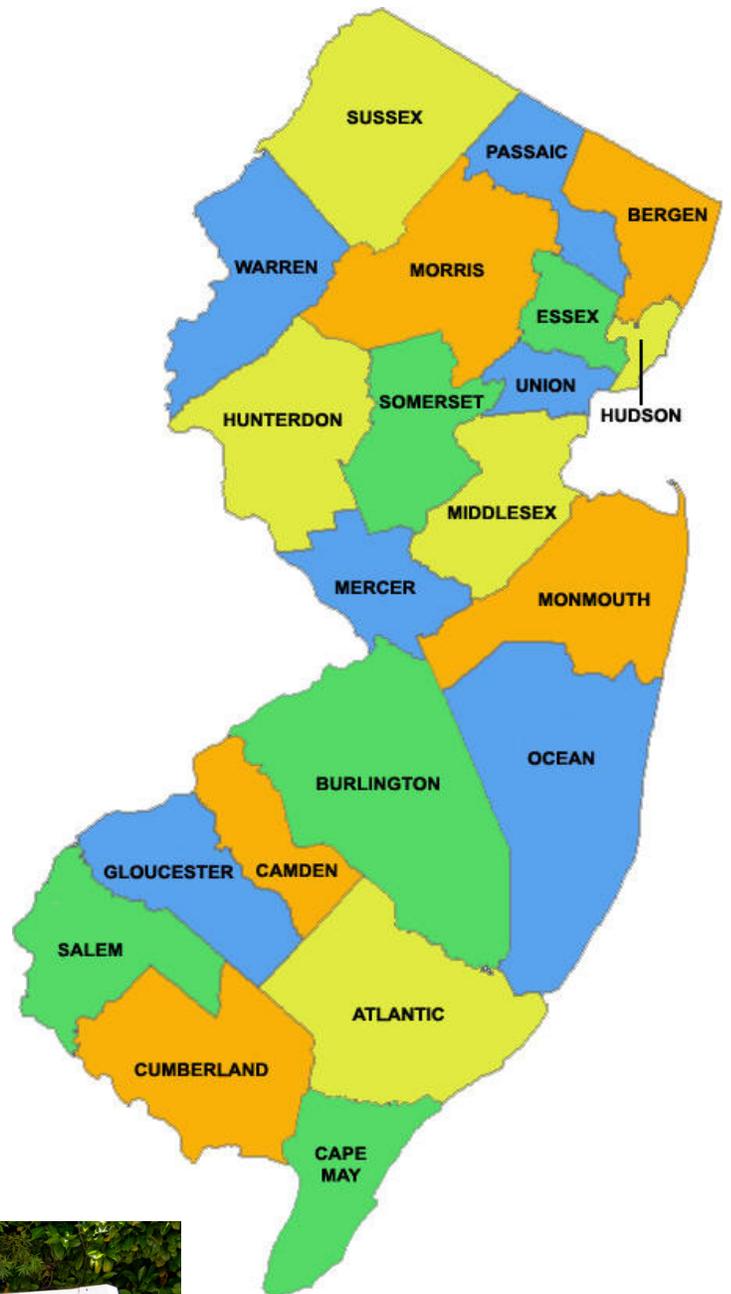
A variety of funding opportunities are available to assist transit agencies with purchasing EVs. For example, the Federal Transit Administration coordinates a [Low or No Emission Vehicle Program](#) to provide funds for transit agencies to purchase EVs, build EV facilities, or convert existing buses to electric. The U.S. Public Interest Research Group has also published a [guide](#) to securing funds for electric buses. At the state level, transit agencies interested in EVs can benefit from the [Zero Emissions Vehicle Tax Exemption](#) and the [NJ Zero Emission Vehicle Incentive Program](#).

LOCAL GOVERNMENTS

Counties and municipalities play an important role in the encouragement and use of EVs within their jurisdictions. The installation of EV charging stations on public property creates a more comfortable EV environment for residents, employees, and visitors. Additionally, the conversion of municipal and county fleets to EVs will reduce fleet costs, improve air quality, and reduce the carbon footprint of the public entity. Local governments that embrace EV technology are viewed as environmentally friendly, and therefore desirable communities in which to live, work, and visit.

PUBLIC CHARGING STATIONS

Public charging stations are a convenient means for EV owners to recharge their vehicles while on the go. This has two primary benefits for municipalities. One, providing charging stations in downtowns and shopping centers can attract customers, benefiting local businesses. Two, it reduces residents' "range anxiety" - the fear of running out of power and being stranded - thus overcoming a significant barrier to widespread EV adoption. To create the reliable network of charging stations needed for the mass adoption of EVs, South Jersey's local governments need to be involved with the installation of charging stations and ensuring they are included in the planning and permitting approval processes.





The following are charging station-related practices to consider to encourage the use of EVs in the community:

- Offer free parking for electric vehicles in designated spots, located in areas with paid lots or meters
- Use wayfinding signage to clearly indicate where charging stations are located and to also direct traffic to them
- Use only Level 2 or DC fast charging stations in public areas to make short-term parking a viable option to sufficiently recharge. Level 1 charging stations may be appropriate for municipal fleet vehicles that are parked overnight or for longer durations.
- Install networked charging stations which can track usage to better evaluate impact and inform future installations
- Ensure all appropriate departments understand and adhere to the New Jersey Department of Community Affairs (NJCA) [Model Statewide Municipal Electric Vehicle \(EV\) Ordinance](#), which per state law, all municipalities must follow as of September 1, 2022

NJCA Statewide Municipal Electric Vehicle (EV) Ordinance

The NJCA [Model Statewide Municipal Electric Vehicle \(EV\) Ordinance](#) requires municipalities to designate EV charging stations as a permitted accessory use in all zoning or use districts. The ordinance also includes all associated installation and parking requirements. The statewide ordinance supersedes any previous municipal requirements associated with EV charging stations and EV parking.

The ordinance intends to ensure that municipalities require the installation of EV charging stations and parking spaces in a consistent manner. Municipalities may not change any part of the ordinance related to installation and parking requirements but may make changes to the “Reasonable Standards” portion of the ordinance that covers topics including sightline, setback requirements, and other health- and safety-related specifications.



Some of the key provisions included in the ordinance are as follows:

- Municipalities may not make changes to any section of the model ordinance other than the Reasonable Standards section, which can be adjusted to fit a location’s needs and context. These standards include:
 - Size and location of accessible EVSE and make-ready parking spaces
 - EV-only parking, violations, use of time limits
 - Safety Issues - lighting, setbacks, mounting of EVSE, cord management system, etc.
 - Signage (regulatory and wayfinding)
 - Usage fees
 - EVSE (the charging station) or make-ready parking spaces shall be considered permitted accessory use and permitted accessory structure in all zoning or use districts and shall not require a variance.
 - The ordinance applies to existing buildings and new buildings. If existing, it shall not require site plan approval and shall be approved through the issuance of a zoning permit.
 - Parking spaces with EVSE or make-ready shall count as at least 2 parking spaces in the calculation of minimum required parking spaces.
 - To secure site plan approval for multi-unit residential projects with five or more units, including mixed-use development, the requirements are:
 - ◊ Immediately upon construction: 15% of parking spaces shall be make-ready and 1/3 of those shall have EVSE installed
 - ◊ Within 3 years: install EVSE in an additional 1/3 of the original 15%
 - ◊ Within 6 years: install EVSE in the final 1/3 of the original 15%
 - ◊ Overall, at least 5% of EVSE must be accessible for people with disabilities



- For all other non-residential projects involving a parking lot or garage, the minimum number of spaces required to be make-ready are as follows:
 - ◊ 50 or fewer: one
 - ◊ 51-75: two
 - ◊ 76-100: three
 - ◊ 101-150: four, with at least one being accessible to persons with disabilities
 - ◊ 150+: 4% of total spaces, 5% of which shall be accessible to persons with disabilities
 - ◊ Retail-specific properties with 25 or fewer spaces are not subject to these requirements
- For all project types, the municipality may encourage (but not require) additional EVSE or make-ready parking spaces.

For a full copy, visit the NJDCA’s Division of Local Planning Services (LPS) website: www.nj.gov/dca/divisions/lps. The ordinance is subject to change, so it is important to check its content regularly.

EV Charging Station Resources and Guides for Local Governments

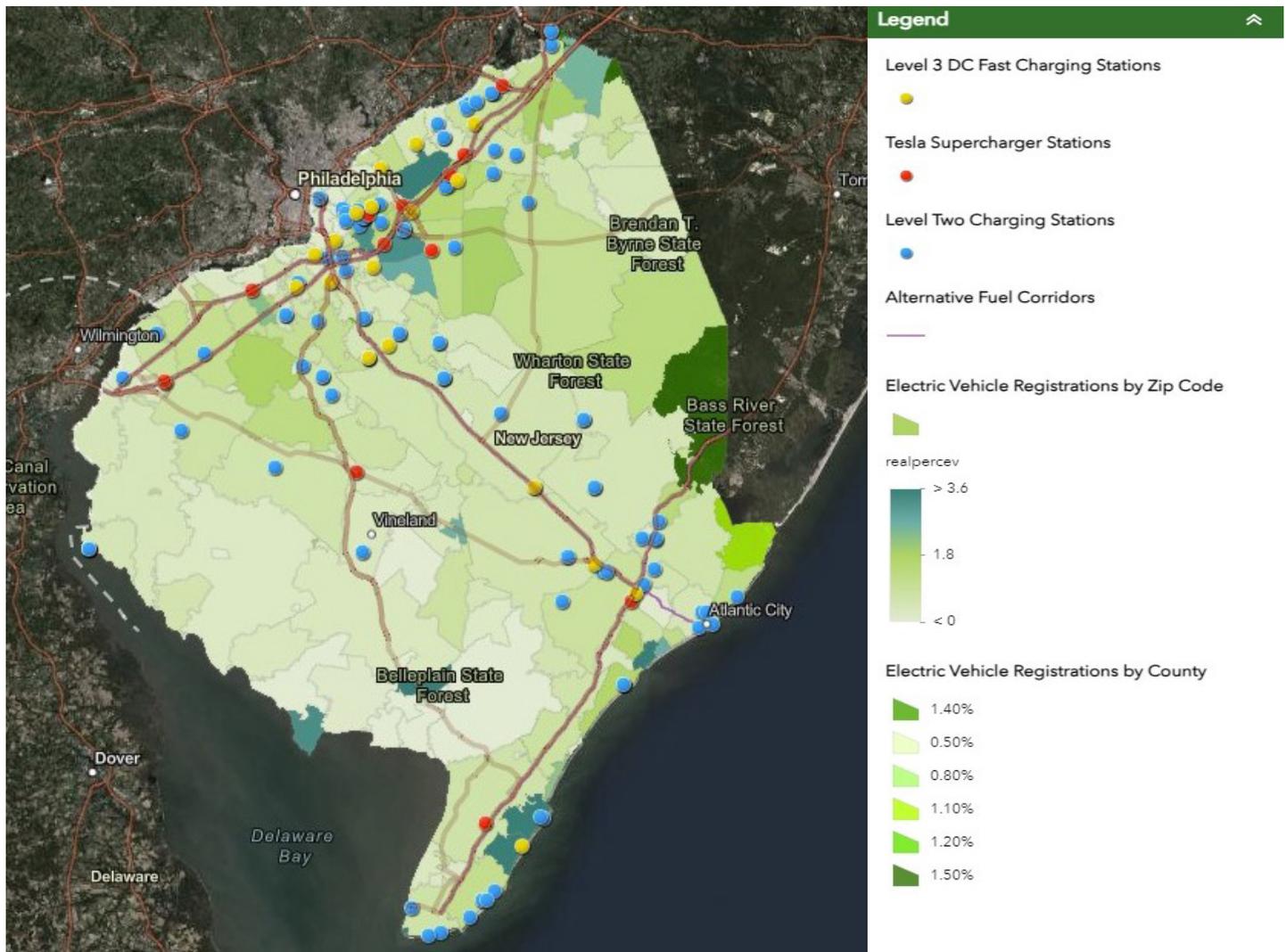
NJDEP in collaboration with NJDCA and NJBPU has published the “[Charge Up Your Town](#)” guide, which has a dedicated section on installing charging stations. This provides information on selecting the types of charging stations to install, costs, electrical power needs, etc. Similarly, [PSE&G](#) and [Atlantic City Electric](#) have published maps and information on charging capacity to assist municipalities with where to install charging stations.

North Jersey Transportation Planning Authority (NJTPA) has published a [webpage](#) with a plethora of information useful to municipalities interested in installing EV charging stations in their jurisdictions. Topics covered include installing charging stations, streamlining the EV charging station permitting process, and more.

The Delaware Valley Regional Planning Commission (DVRPC) similarly has resources on how to [purchase charging stations and more](#).

Another helpful resource for charging station installation is the [EV Siting and Design Guidelines](#) publication from the USDOE. These resources are especially useful for municipalities that are new to this realm of infrastructure and want to implement it on a large scale.

Cross County Connection’s [South Jersey Electric Vehicle Registrations and Charging Infrastructure Map](#) visualizes the data on existing charging infrastructure and funding programs tied to specific geographies to help local governments plan future charging station locations.



Charging Station Funding and Incentive Programs for Local Governments

New Jersey State Agencies and utility companies offer grant and incentive programs to assist with purchasing and installing EV charging stations. There are programs to support municipalities, counties, and even businesses with their efforts to expand New Jersey's charging station network.

- [New Jersey's Clean Energy Program](#) gives guidance on a variety of incentive programs open to municipalities.
- [NJBPUS EV Tourism Program](#) allocates grants for locations where EV charging infrastructure will spur the local tourism economy.
- [Atlantic City Electric's EVSmart Program](#) provides funding for eligible municipalities in their service area for making the installation of EV charging stations more affordable.

Federal funding is also available to local governing bodies and public authorities through a variety of grant programs with a priority on expanding electric vehicle infrastructure.

- [Charging and Fueling Infrastructure \(CFI\) Grant Program](#) awards Community and Corridor Grants to expand publicly accessible EV charging infrastructure.
- [Strengthening Mobility and Revolutionizing Transportation \(SMART\) Grants Program](#) funds the planning and implementation of advanced systems to improve transportation efficiency.
- [Rebuilding American Infrastructure with Sustainability and Equity \(RAISE\) Grant Program](#) provides funding to improve surface transportation infrastructure, with high priority given to zero-emission vehicle infrastructure.
- [Community Facilities Grant Program](#) allocates funding for the development of essential community facilities, including transportation facilities and EVSE, in rural and disadvantaged communities.



PUBLIC SECTOR FLEETS

EVs have lower operating costs than traditional gasoline vehicles. Incorporating EVs into municipal fleets can save on fuel costs, maintenance, and repairs. These savings can be placed elsewhere in the municipal budget to address other priorities.

There are light-duty EV options that can be used for municipal business that does not require a large vehicle. Runnemede Township uses a Chevy Bolt for municipal purposes that require travel. [New York City purchased 184 Ford Mustang Mach-E SUVs](#) for law enforcement and emergency response use that will go into service in June 2023. Bargersville, Indiana's police department [introduced a Tesla Model 3 as a squad car in 2019](#), making it one of the first departments to use a fully electric patrol vehicle. Cost savings have led the department to purchase eight more, estimating that the Model 3 costs \$60 in fuel and maintenance costs per month, as opposed to \$550 per month for their ICE vehicles. The Bargersville police chief is using the cost savings to hire more officers in a town that has more than doubled in size in ten years from 4,000 people in 2010 to over 10,000 in 2021.



Medium- and heavy-duty EVs that can be used for more intensive activities like trash collection, public works, and school transportation are coming on the market. Well-known brands such as Mack, Peterbilt, and Kenworth offer fully electric truck options. Santa Cruz, CA, [purchased a Mack LR® electric trash collection vehicle](#) using \$600,000 in state grant funding that went into operation in March 2023. The truck's charging station cost roughly \$190,000 and used state funding to cover 80%, costing the city only \$40,000. This cost will be quickly negated by savings on fuel and maintenance.

EV Fleet Cost Savings Calculations

Resources are available to help determine cost savings when procuring EVs for a municipal fleet. For example, the Electrification Coalition has developed a [Dashboard for Rapid Vehicle Electrification \(DRVE\) Tool](#), which enables users to compare the costs of existing conventional fleet vehicles with the costs of EV alternatives.

Some resources can help municipalities save money through the EV procurement process. According to [NJDEP](#), EVs can be purchased through NJ State Cooperative Purchasing Contracts, which ensure compliance with state regulations, speed up the procurement process, and save municipalities money through volume-driven cost reductions. EVs eligible to be purchased through this state program include:

- 2022 Chevrolet Bolt EV
- 2022 Nissan Leaf S
- 2022 Ford Escape SE Plug-in Hybrid
- 2022 Toyota Prius Prime Plug-in Hybrid



Another noteworthy resource is the [Climate Mayors EV Purchasing Collaborative](#), which currently includes over 250 cities, counties, transit agencies, port authorities, and colleges and universities committed to purchasing over 4,000 EVs. The Collaborative also provides training and information on best practices to assist municipalities as they transition to EV fleets.

EV Fleet Funding and Incentive Programs

A variety of funding opportunities are available for municipalities seeking to purchase EV fleets. In New Jersey, the NJ Board of Public Utilities coordinates a [Clean Fleet Vehicle Incentive Program](#), which provides municipalities with \$4,000 toward the purchase of a battery EV. Awards are given in the form of a reimbursement, based on proof of purchase of a new eligible EV. [Overburdened municipalities](#), as defined by the Office of Clean Energy Equity, are eligible to receive a 50% bonus incentive. In the Clean Fleet Vehicle Incentive Program, the maximum number of EVs eligible for funding is based on the municipality’s population as indicated below:

Table 1 – NJ Clean Vehicle Incentive Program, Municipal Vehicle Purchase Limits

POPULATION	MAXIMUM EV PURCHASE LIMITS
Under 20,000	Four
20,001 - 50,000	Ten
50,001 - 100,000	Fourteen
Over 100,000	Twenty

E-BIKES

Recent years have seen significant growth in the popularity of a different kind of EV – e-bikes. Americans purchased close to [one million](#) in 2021. Their ability to replace short car trips makes them an attractive option for many commuters and recreational riders alike. State and local governments have seen the benefits of e-bikes and established rebate programs to lower costs. E-bikes can lead to increased levels of biking, reduce congestion, and improve air quality. They also could be a transportation option for lower-income populations that cannot afford a car.



WHAT IS AN E-BIKE?

An e-bike is a bicycle with an electric motor that assists the rider with pedaling. Depending on the model, an e-bike can have a range between 20 to 100 miles and be fully charged in 3-6 hours when plugged into a standard household 110v socket.

There are two types of low-speed e-bikes on the market, Class 1 and Class 2. Class 1 e-bikes, often called “pedal assist”, require the rider to pedal for the electric motor to activate. Class 2 bikes feature a throttle that allows the motor to be engaged without pedaling. Both Class 1 and 2 e-bikes operate under the same laws as standard bicycles, and have a maximum allowed speed of 20 MPH. There are also Class 3 e-bikes, which are considered motorized bicycles in New Jersey. These are not permitted to use bike lanes or trails. A quality, serviceable e-bike will [cost around \\$1,500](#).

Tools for Equity

Due to their increased speed, range, and ease of use compared to a standard bicycle, e-bikes can significantly expand users’ access to employment and essential services. This is especially true for those with low incomes, as they are more likely to rely on walking, cycling, and public transit. One [survey of more than 11,000 consumers](#) found that nearly 40% of those who own an e-micromobility vehicle use them to commute. E-micromobility refers to using small EVs that operate at speeds lower than 30 MPH including e-bikes, e-scooters, and e-mopeds.

E-Bike Battery Risks

E-Bikes use lithium-ion batteries, the same kind used in cellphones or laptops. However, there are manufacturers that produce inferior low-cost batteries that do not meet nationally recognized safety standards. Only e-bikes with UL certification should be used. A high-quality lithium-ion battery [costs around \\$750](#) on its own, and features a [Battery Management System \(BMS\)](#) which prevents overcharging of the battery cells and prolongs the battery's lifespan. They are also certified by a [Nationally Recognized Testing Laboratory \(NRTL\)](#), meaning they are aligned with rigorous safety standards and are completely safe to use. Batteries which lack BMS and safety certification are more likely to malfunction and could catch fire or explode. Due to the fire risk, New York City has banned the sale of e-bikes that do not have a UL certified battery.

MUNICIPAL E-BIKE LAWS

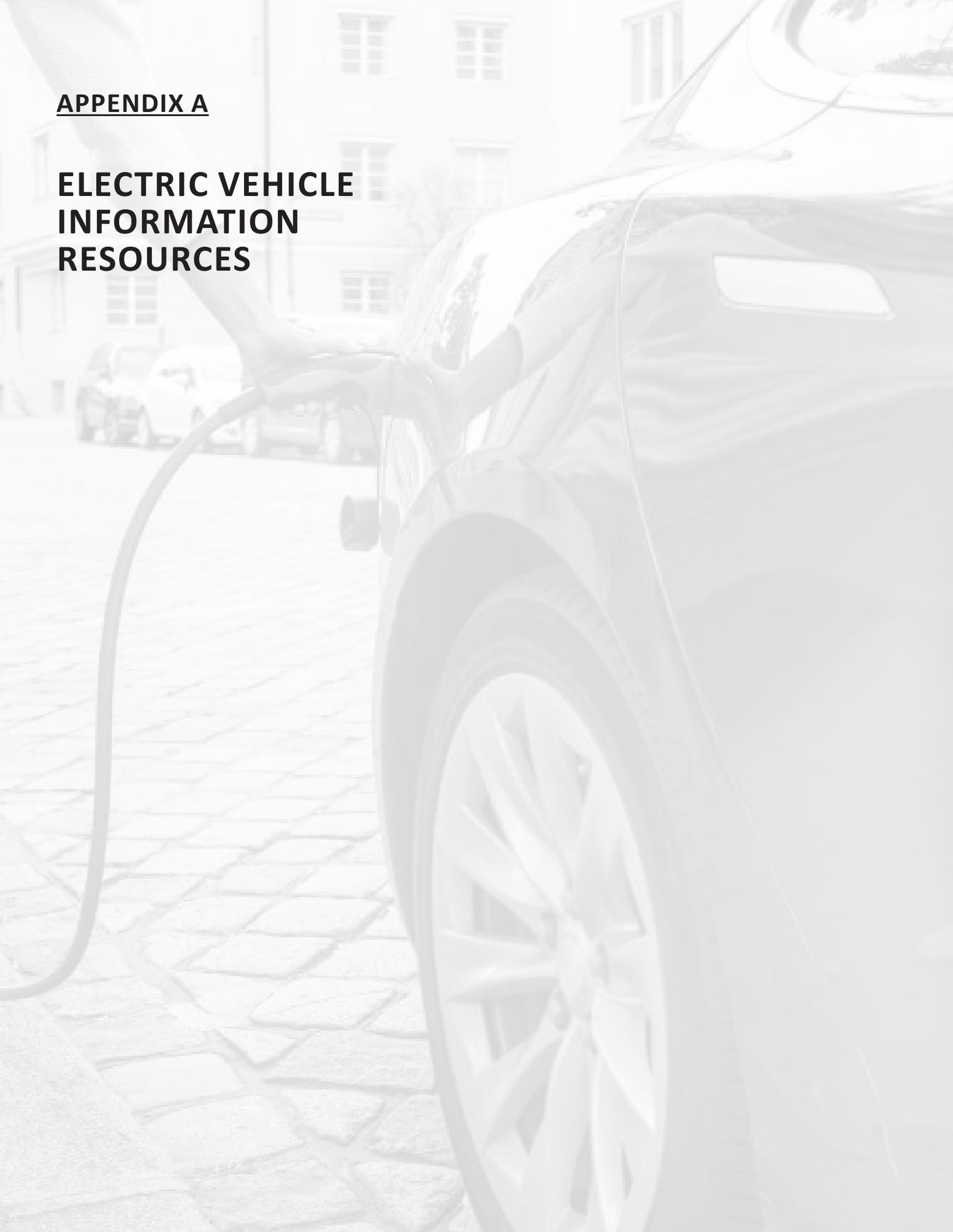
Individual municipalities of New Jersey have the right to approve their own regulations on e-bike use. This means that a policy could, for example: impose speed limits for e-bikes; require e-bikes be officially registered with the community; require helmets on e-bike riders; ban e-bikes in specific areas; or ban the use of e-bikes entirely.

An outright ban of e-bikes is an extreme measure, and not recommended, as e-bikes have great potential to increase access to employment opportunities for residents of disadvantaged communities, specifically those for which owning a car is not convenient or even possible. They can also give seniors and persons with disabilities who are unable to operate standard bicycles the opportunity to exercise and expand and meet their travel needs without a car. It is important for municipalities to implement forward-thinking policies which take into consideration the positive impacts e-bikes can have on equity and accessibility and strike a balance between safety regulation and travel independence for many.



APPENDIX A

**ELECTRIC VEHICLE
INFORMATION
RESOURCES**



Name of Resource	Source	Applicable Audience(s)	Description	Link
EV Load Capacity Map	Atlantic City Electric	Municipalities, Schools, Property Developers, General Audiences	Provides geographic information on available load capacity for installing EV charging stations in the Atlantic City Electric service area.	EV Load Capacity Map Atlantic City Electric - An Exelon Company
Dashboard for Rapid Vehicle Electrification	Atlas Public Policy	Municipalities, Businesses, Property Developers	Assists in EV fleet procurement with information to evaluate the financial and environmental trade-offs of options for going electric. Exce;-based tool to compare a variety of factors involved in EV procurement.	Dashboard for Rapid Vehicle Electrification (DRVE) – Atlas Public Policy (atlaspolicy.com)
PlugStar Shopping Assistant	Charge Up NJ & Center for Sustainable Energy	General Audiences	Provides information to help potential EV buyers determine which EV vehicles are the best fit for them. This resource also guides buyers to incentive programs both by vehicle type and location. There are also links to incentive guides and sites.	PlugStar Shopping Assistant
EV Savings Calculator	ChargEVC	General Audiences	Estimates the amount of money that one could save per year by switching to an EV.	Electric Vehicle Savings Calculator ChargEVC
Climate Mayors EV Purchasing Collaborative	Climate Mayors and Sourcewell	Municipalities	Online procurement portal for municipalities working towards implementing EV fleets. This also includes vehicles that are not on NJ's procurment list such as medium and heavy duty trucks.	Drive EV Fleets Climate Mayors
Drive Change, Drive Electric	Drive Electric US	General Audiences	Provides information and interactive quizzes on how to decide what model is the best fit for potential buyers and current EV newsletters.	Drive Change. Drive Electric. (driveelectricus.com)
Selection and Placement of EV Chargers	DVRPC	Municipalities, Businesses, Property Developers, General Audience	Resources on types of chargers and charging stations, including citing of charging stations.	Selection and Placement of PEV Chargers DVRPC
Resources to Purchase PEVs and Charging Equipment	DVRPC	Municipalities, Businesses, Property Developers, General Audience	Provides guidance on federal, private, and state EV procurement and incentive-related resources, including NJ.	Resources to Purchase PEVs and Charging Equipment DVRPC

Name of Resource	Source	Applicable Audience(s)	Description	Link
Contacts for EV Assistance	DVRPC	Municipalities, Businesses, Property Developers, General Audience	A list of contacts for those inquiring about any EV-related matters from NJ organizations.	Contacts For Assistance DVRPC
Charge Up NJ	NJ Clean Energy	General Audiences, Car Dealerships	Information on incentives up to \$4,000 for the adoption of EVs and hybrid vehicles for residents of NJ looking to purchase or lease an EV. Explains step by step how to claim incentives for buyers, information for dealers, and information on going electric.	Home Charge Up New Jersey (njcleanenergy.com)
NJ Electric Vehicles Incentives Programs	NJ Clean Energy	Municipalities, Businesses, Property Developers	Lists and explains EV incentives programs in New Jersey - Charge Up NJ, MUD Charger incentive, EV Tourism, Clean Fleet EV Incentive Program, Utility Programs, Guide applications and their deadlines.	Electric Vehicle Incentive Programs NJ OCE Web Site (njcleanenergy.com)
Drive Green	NJ Department of Environmental Protection	Municipalities, Schools, General Audiences	Provides a wide range of information on EV funding opportunities, and a large number of links to related EV websites and tools. For anyone in NJ who wants to purchase an EV or learn about installing EV infrastructure, the Drive Green website is an excellent place to start.	NJDEP Drive Green website
NJ Public EV Charging Locator	NJ Department of Environmental Protection	General Audiences	A map depicting public EV charging locations currently available in New Jersey	NJ Public Electric Vehicle (EV) Charging Locator (arcgis.com)
"Charge Up Your Town" Guide	NJDEP, NJDCA, and NJBPU	Municipalities	A guide that assists municipalities with implementing NJ's statewide EV ordinance, installing EV charging stations, and learning about relevant financial incentive opportunities.	Best Management Practices to Ensure Your Town is EV Ready (nj.gov)
Alternative Fuel Vehicle Readiness Guidebook	North Jersey Transportation Planning Authority	Municipalities	Guides designing and conducting alternative fuel vehicle readiness planning efforts at the community level.	https://dep.nj.gov/wp-content/uploads/drivegreen/pdf/alternativefuelvehicle.pdf
EV Resources for NJ Local Governments and Businesses	North Jersey Transportation Planning Authority	Municipalities, Businesses, Property Developers	Supports municipalities and businesses with purchasing EV fleets, installing EV charging stations, and streamlining the EV charging station permitting process.	Electric Vehicle Resources (arcgis.com)

Name of Resource	Source	Applicable Audience(s)	Description	Link
EV Hosting Capacity Map	PSE&G	Municipalities, Schools, Property Developers, general Audiences	Provides geographic information on available load capacity for installing EV charging stations in teh PSE&G service area.	EV Hosting Capacity Map - PSE&G (pseg.com)
Make Your Town EV Friendly	Sustainable Jersey	Municipalities and Green Teams	Sustainable Jersey action items include guidance on DCA Model Ordinance incorporation into local code, updating land use ordinance, amending municipal plans, and posting permitting applications and inspection processes on municipal websites.	Actions - Sustainable Jersey
EV Charging Justice40 Map	U.S. Department of Transportation and U.S. Department of Energy	Municipalities, Schools	Provides information on how the locations of existing and proposed EV charging stations align with disadvantaged communities nationwide. Supports the federal goal of ensuring that clean transportation investments benefit underserved areas.	Electric Vehicle Charging Justice40 Map (arcgis.com)
Siting and Design Guidelines	USDOE Clean Cities, Transportation & Climate Initiative	Municipalities, Businesses	Signage and wayfinding info for EV charging stations, site, and design of EV supply equipment for municipalities and other organizations to use as a guide.	EV Siting and Design Guidelines.pdf (transportationandclimate.org)
EV Infrastructure Planning for Rural Areas	U.S. Department of Transportation	Municipalities, Individuals	Outlines planning and implementation principles for EV-related technology in rural areas that are typically focused on EVSE.	EV Infrastructure Planning for Rural Areas US Department of Transportation
Individual Benefits of Rural Vehicle Electrification	U.S. Department of Transportation	General Audiences	Highlights the benefits of EV technology in rural areas, including e-bikes and electric micro-mobility.	Individual Benefits of Rural Vehicle Electrification US Department of Transportation
New Jersey Model Statewide Municipal EV Ordinance	New Jersey Department of Community Affairs	Municipalities	The Model Statewide Municipal Electric Vehicle (EV) Ordinance requires that Electric Vehicle Supply/ Service Equipment (EVSE) and Make-Ready parking spaces be designated as a permitted accessory use in all zoning or use districts and establishes associated installation and parking requirements related to EVSE in New Jersey’s 565 municipalities. The model statewide ordinance is mandatory and became effective in all municipalities upon NJDCA publication on September 1, 2021.	NJDCAs Model Statewide Municipal EV Ordinance website

APPENDIX B

EV CHARGING STATION & FLEET GRANT & FINANCIAL INCENTIVE PROGRAMS

Note that some of these grant programs have specific application periods that may have passed. Information is provided to assist in the event the program is continued in subsequent fiscal years. Additional programs or newly issued guidance on existing programs will be updated as needed.

Name	Funding Agency	Eligible Applicants	Category	Eligible Activities	Grant/Incentive Amount	Website
Charge Up New Jersey Incentive	NJBPU	General Public	Personal Vehicle/ EVSE	Purchase of light-duty electric vehicles and at-home charging infrastructure.	\$4,000 for the lease or purchase of new low or zero-emission vehicles including battery and electric plug-in hybrids.	Home Charge Up New Jersey (njcleanenergy.com)
Multi-Unit Dwelling (MUD) EV Charger Incentive	NJBPU	Property Owners, Municipalities	EVSE	Purchase and installation of electric vehicle charging infrastructure for eligible networked level-2 equipment	Up to \$4,000 towards the purchase of a dual-port, networked level-2 charging station, and \$6,000 towards the purchase of a level-2 EV charging station in an NJDEP-identified overburdened municipality .	Electric Vehicle Incentive Programs NJ OCE Web Site (njcleanenergy.com)
EV Tourism Grant	NJBPU	Municipalities, Businesses	EVSE	The charging station grant program is limited to key NJ tourism sites, landmarks, and other areas of interest ranging from boardwalks, parks, overnight lodging establishments, and more.	Up to \$5,000 for eligible networked level-2 charging stations and up to \$50,000 for a DC fast charging station. Can apply for up to six level-2 charging stations and two DC fast charging stations.	EV Tourism Program - Application for FY23 - Round 1 (njcleanenergy.com)
Clean Fleet EV Incentive Program	NJBPU	Local schools, Municipalities, State Agencies/Boards/ Commissions, State Universities, Community Colleges, County Government, Municipal Utility Authorities	Fleets	An incentive that supports local and state governments to transition their fleets to EVs.	\$4,000 towards the purchase of EVs, \$5,000 for public level-2 charging stations, and \$4,000 towards the purchase of EV fleet level-2 charging stations. Overburdened municipalities are eligible for bonus incentives.	EVs - Clean Fleet Application for FY 23 updated (njcleanenergy.com)
Zero Emission Vehicle Tax Exemption	State of NJ	Nonprofits, Municipalities, Businesses, Individual Residents	Fleets	New or used Zero Emission vehicles sold, rented, or leased. Eligible vehicles include light, medium, and heavy-duty vehicles. List of eligible vehicles found on the NJDEP Drive Green Program website.	Exemption from State Sales and Use Tax.	NJDEP Drive Green Sales and Use Tax Exemption (dep.nj.gov)

Name	Funding Agency	Eligible Applicants	Category	Eligible Activities	Grant/Incentive Amount	Website
NJ Zero Emission Vehicle Incentive Program	NJEDA	Nonprofits, Municipalities, Businesses, Individual Residents	Fleets	Purchase of new medium and heavy-duty zero-emission vehicles.	The program will provide vouchers with base values ranging between \$20,000 to \$175,000.	NJZIP Program
It Pay\$ to Plug In	NJDEP	State Government Agencies, Municipalities, Schools, Nonprofits, Businesses, Multi-Unit Dwellings	EVSE	Provides grants to offset the cost of purchasing and installing electric vehicle charging stations. Covers Level-1 and Level-2 stations at workplaces for employee use, multi-unit housing for resident use and public places. Covers DC Fast stations in locations where people live and work that are open to public use.	<p>Reimburse up to a maximum of \$750 per Level-1 charging port and \$4,000 per Level-2 charging port.</p> <p>For DC Fast, will reimburse (with a 2 port minimum) up to a maximum of:</p> <ul style="list-style-type: none"> • 50 - 99kW: \$75,000 • 100 - 149kW: \$150,000 • 150kW+: \$200,000 per location 	NJDEP It Pay\$ to Plug In
Atlantic City Electric EV Smart Program	Atlantic City Electric	State Government Agencies, Schools, Nonprofits, Businesses, Multi-Unit Dwellings, Individual Residents	EVSE	Covers "make-ready" costs required to facilitate installation of Level-2 or Level-3 (DC Fast) charging stations within Atlantic City Electric's service area.	<ul style="list-style-type: none"> • Public charging stations - rebates up to \$4,500 per Level-2 charging port. Up to \$60,000 per DC Fast charging port. (2 port maximum per site) • Workplace -rebates up to \$4,500 per level-2 charging port (10 port maximum) • Fleet vehicle charging stations - rebates up to \$2,500 per level 2 charging port (10 port maximum) • Single-family residential - rebates up to \$1,000 for a single level 2 charging port. On a first-come, first-served basis • Multi-family housing - rebates up to \$5,000 per Level-2 charging port, or \$6,700 per 	Atlantic City Electric EV Smart Program

Name	Funding Agency	Eligible Applicants	Category	Eligible Activities	Grant/Incentive Amount	Website
PSE&G Electric Vehicle Charging Program	PSE&G	State Governments Agencies, Schools, Nonprofits, Businesses, Multi-Unit Dwellings, Individual Residents	EVSE	Covers "make-ready" costs required to facilitate installation of level-2 or DC Fast charging stations within the PSE&G service area	<ul style="list-style-type: none"> Residential - on-bill credit of up to \$1,500 per Level-2 charging station Mixed-use commercial - on-bill credit of up to \$30,000 per Level-2 charging station (4 charging station maximum) DC Fast charging - on-bill credit of up to \$25,000 per charging station (4 charging station maximum) 	PSE&G EV Program
Low or No Emission and Grants for Buses and Bus Facilities Competitive Programs	Federal Transit Administration	State and Local Government Authorities	Fleets, EVSE, Make-Ready	Provides funding for the purchase or lease of zero-emission and low-emission transit buses, including acquisition, construction, and leasing of required supporting facilities.	The federal share of eligible capital costs is 80 percent of the net capital project cost, unless the grant recipient requests a lower percentage.	FTA Grants for Buses and Bus Facilities
Clean School Bus (CSB) Program	Environmental Protection Agency	State and Local Government, Public School Districts, Non-Profit Transportation Associations	Fleets, EVSE, Make-Ready	Provides funding for the purchase of zero-emission and low-emission school buses, and for infrastructure costs of required equipment.	Amount depends on District Prioritization and Class of School Bus(es) being replaced. See Page 10 of the following link for detailed information. Clean School Bus Program Grants	Clean School Bus Program Grants
New Clean Vehicle Tax Credit	U.S. Internal Revenue Service	General Public	Personal Vehicle	Eligible applicants: -Individuals with Adjusted Gross Incomes (AGI) of \$150,000 -Head of Households with an AGI of \$225,000 -Joint filers with an AGI up to \$300,000	Provide up to a \$7,500 tax credit for the purchase of a qualifying new EV.	IRS Clean Vehicle Tax Credit

Name	Funding Agency	Eligible Applicants	Category	Eligible Activities	Grant/Incentive Amount	Website
Used Clean Vehicle Tax Credit	U.S. Internal Revenue Service	General Public	Personal vehicle	<p>To qualify, the purchaser must:</p> <ul style="list-style-type: none"> -Be an individual who bought the vehicle for use and not for resale -Not be the original owner -Not be claimed as a dependent on another person's tax return -Not have claimed another used clean vehicle credit in the 3 years before the purchase date <p>The vehicle must:</p> <ul style="list-style-type: none"> -Cost \$25,000 or less -Have a model year at least two years earlier than the calendar year when bought -Have a gross vehicle rating of fewer than 14,000 pounds -Have a battery capacity of at least 7-kilowatt hours -Be bought from a car dealer who reports information at the time of sale to you and the IRS 	<p>Purchaser modified Adjusted Gross Income (AGI) may not exceed:</p> <ul style="list-style-type: none"> -\$150,000 for married filing jointly or a surviving spouse -\$112,500 for heads of households -\$75,000 for all other filers <p>Provides tax credits for purchasing a qualified used EV from a licensed dealer.</p>	<p>Used Clean Vehicle Credit Internal Revenue Service (irs.gov)</p>
Commercial Clean Vehicle Tax Credit	U.S. Internal Revenue Service	Businesses	Fleets	<p>If the EV has a gross vehicle weight rating of less than 14,000 pounds, the credit is limited to \$7,500. For all other vehicles, the credit is limited to \$40,000.</p> <p>The amount of the Commercial Clean Vehicles Credit is either of the following two options, whichever is lesser:</p> <ul style="list-style-type: none"> -30% of the taxpayer's tax basis -The incremental cost of the vehicle (excess of EV purchase price over the price of a solely gas/diesel vehicle). 	<p>Provides tax credits for purchasing qualified commercial EVs from a licensed dealer</p>	<p>IRS Commercial Clean Vehicle Credit</p>

Name	Funding Agency	Eligible Applicants	Category	Eligible Activities	Grant/Incentive Amount	Website
Charging and Fueling Infrastructure (CFI) Competitive Grant Program	U.S. Department of Transportation /Federal Highway Administration	State and Local Government Authorities, MPOs, Public Housing Authority, City/Township Governments, Public /State Higher Education Institutions	EVSE	<p>Community Grants:</p> <ul style="list-style-type: none"> -Must be publicly accessible. -May use funds to contract with a private entity. -Must address environmental justice. See EO 13985 and EO 14008. -Expected to reduce greenhouse gas emissions and to expand or fill gaps in access to publicly accessible infrastructure. -Must be accessible to and usable by individuals with disabilities. <p>Corridor Grants:</p> <ul style="list-style-type: none"> -All the same requirements as listed above, as well as the following: -Located along a designated AFC; EV charging within 1 mile and other alternative fuels within five miles of the AFC. -Must use funds to contract with a private entity. 	<p>Community Grants:</p> <ul style="list-style-type: none"> -Minimum award amount of \$500,000, The maximum award amount of \$15 million. <p>Corridor Grants:</p> <ul style="list-style-type: none"> -Minimum award amount of \$1 million, no maximum award amount. <p>*Both programs require a cost-share where the Federal share shall not exceed 80% of the total project cost. Awardees will provide at least 20% of the total project cost.</p>	CFI Program
Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program	U.S. Department of Transportation	States and Local Government, Municipalities, Public Toll Authority, Public Transit Agencies, MPOs	EVSE	SMART Grant will be used to conduct demonstration projects focused on advanced smart city or community technologies and systems in a variety of communities to improve transportation efficiency and safety. This includes expanding the Smart Grid to develop a programmable and efficient energy transmission and distribution system to support electric vehicle deployment.	The SMART Grants Program includes two stages: Stage 1 Planning and Prototyping Grants and Stage 2 Implementation Grants. USDOT anticipates that only recipients of Stage 1 Planning and Prototyping Grants will be eligible for Stage 2 Implementation Grants and anticipates funding projects of up to \$2,000,000 per project for Stage 1 and up to \$15,000,000 per project	SMART Grant Program

Name	Funding Agency	Eligible Applicants	Category	Eligible Activities	Grant/Incentive Amount	Website
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Program	U.S. Department of Transportation	States and Local Government, Municipalities, Public Authorities, Transit Agencies	EVSE	Funds for the RAISE grant program will be awarded on a competitive basis for surface transportation infrastructure projects with a focus on safety, environmental sustainability, quality of life, mobility and community connectivity, and innovation. High priority is given to projects that incorporate energy-efficient investments, such as electrification and zero-emission vehicle infrastructure.	For capital grants, the BIL specifies that the minimum RAISE grant award is \$5 million in urban areas and \$1 million in rural areas. There is no minimum award amount for planning grants for BIL funds or FY2023 Appropriations Act Funds.	RAISE Grant Program
Rural Business Development Grants	U.S. Department of Agriculture	Rural public entities including, but not limited to: -Towns/ Communities -State Agencies -Non-Profits -Higher Education institutions -Rural Non-Profit Cooperatives	EVSE	The purpose of the program is to improve the economic conditions of Rural Areas by providing technical assistance that will enhance the operation of rural transportation systems. The grant covers a broad scope of Rural Development projects under two categories: Opportunity and Enterprise. EVSE would fall under the Enterprise category which includes the construction or modernization of parking areas, utilities, streets, and roads, and technical assistance and training to improve passenger transportation services and facilities.	-No maximum amount (Opportunity grant limited to 10% of total funding) -No cost-sharing requirement -Enterprise-type grants must be used on projects to benefit small and emerging businesses in rural areas as specified in the grant application.	Rural Business Dev. Grants USDA
Community Facilities Direct Loan & Grant Program	U.S. Department of Agriculture	-Public bodies -Community based Non-Profit cooperations in rural areas (less than 20,000 residents)	EVSE	This program provides affordable funding to develop essential community facilities in rural areas. This includes transportation facilities and other structures supporting rural electrification, both of which include EVSE.	Support between 15 - 75% of project costs depending on population size and median household income of the project area. Rural areas with a higher percentage of household incomes below the poverty line are prioritized to receive more funding.	Comm Facilities Grant NJ