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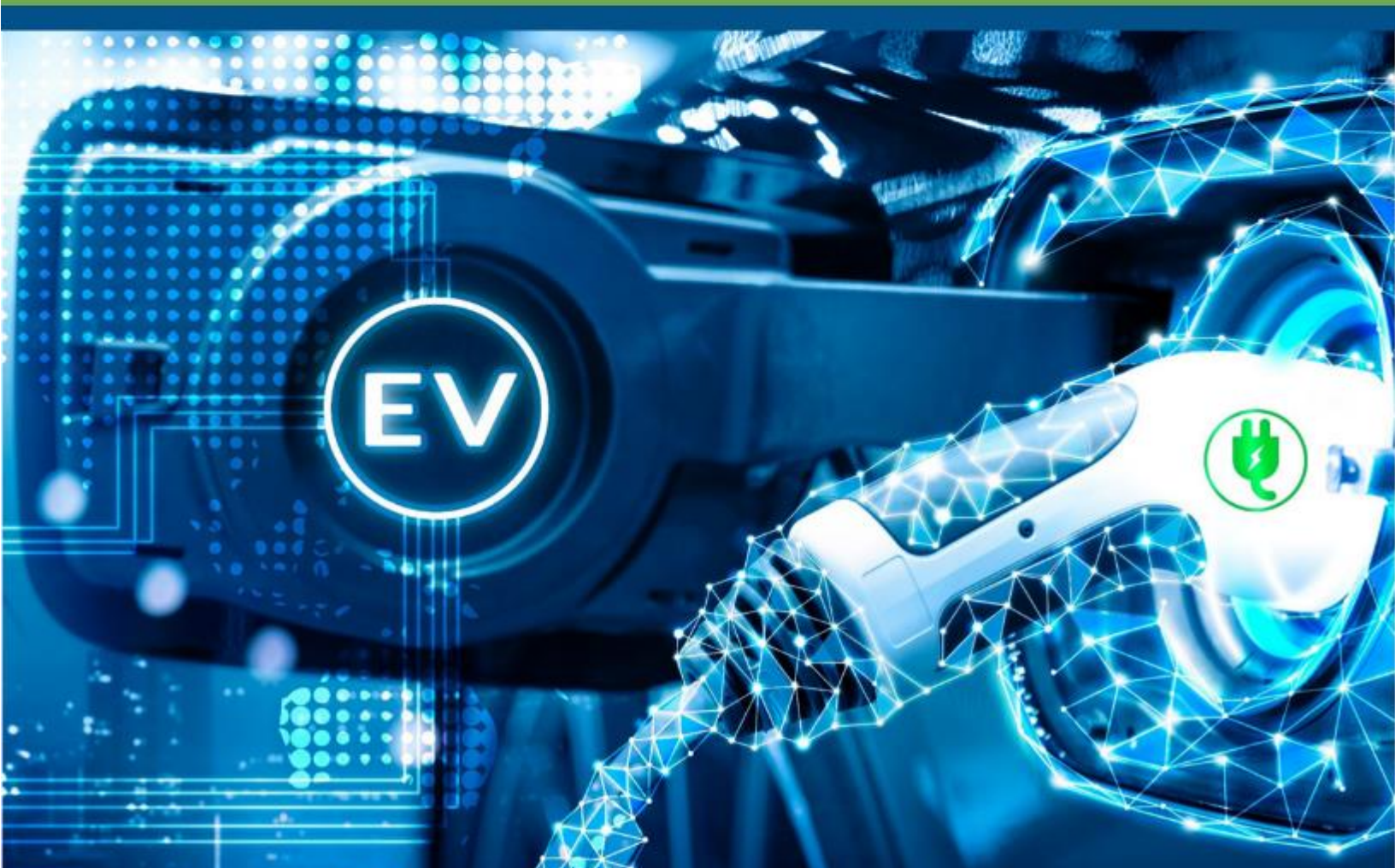
FY24 State Plan for Electric Vehicle (EV) Infrastructure Deployment



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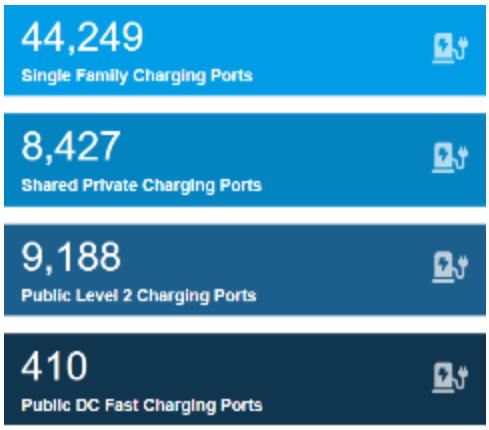
Executive Summary

As part of the Infrastructure Investment and Jobs Act (IIJA), the Rhode Island Department of Transportation (RIDOT) will be receiving $22.9 million over 5 years under the U.S. Department of Transportation (USDOT) Federal Highway Administration (FHWA) National Electric Vehicle Infrastructure (NEVI) Formula Program to establish an interconnected network to facilitate data collection, access, and reliability. The purpose of this State Plan is to describe how Rhode Island intends to use the funds following the NEVI Formula Program Guidance.

RIDOT partnered with the Rhode Island Office of Energy Resources (OER) and the Rhode Island Department of Environmental Management (DEM) to update this document, the Fiscal year 2024 State Plan for Electric Vehicle (EV) Infrastructure Deployment.

Existing charging stations have been deployed across the state over the past 10 years. About 300 publicly accessible charging stations in the state are operated by different public and private entities.[1] As of July 1, 2022, when our FY23 State Plan was released, there are almost 6,000 EVs in Rhode Island.[2] As of July 21, 2023, when our FY24 State Plan is under development, Rhode Island has 8,226 ZEVs registered in the state[3]. This is a 37% increase in one year.



The United States has a goal to have 50% of all vehicles sold each year to zero-emission by 2030. If 15% of the cars on the road are EVs by 2030, Rhode Island needs over 9,000 Public Level 2 and 410 Public DC Fast Charging Port chargers according to the USDOT Alternative Fuels Data Center.[4]

The Program will be used not only to build out main corridors but also to help coordinate the use of all direct current fast charger (fast charging stations, DCFC) stations, workforce development, and plan maintenance and upgrades.

The State of Rhode Island has one designated Alternative Fuel Corridor (AFC), Interstate 95, that was prioritized for investment. For Phase 1, the Ashaway and Warwick Park & Rides will have two new DCFCs installed at each location. Ashaway is within a mile of the Connecticut border, and Warwick is less than 20 miles from the Massachusetts border. Both stations are critical to national connectivity and are within a mile of Interstate 95. When the State of Rhode Island commissions at least one of these Park & Ride locations, Rhode Island has then satisfied the federal requirements for corridor build-out.

After the Secretary of Transportation certifies the corridor, Rhode Island will prioritize the funding strategically to fill gaps in the market, support our transportation network, develop the local workforce, and serve the most Rhode Islanders possible while balancing the impact on the grid, coastal areas, and rural access. Rhode Island will use the funds to create value for the public, to decrease driver anxiety regarding fast EV charging station availability, and as a proof of concept to help local businesses enter the market with fast EV charging stations.

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[1] https://afdc.energy.gov/stations/#/analyze?region=US-RI&fuel=ELEC

[2] https://ridemgis.maps.arcgis.com/apps/webappviewer/index.html?id=f164da525c77463b98cf55b72950beb7

[3] https://ridemgis.maps.arcgis.com/apps/webappviewer/index.html?id=f164da525c77463b98cf55b72950beb7

[4] https://afdc.energy.gov/evi-pro-lite, assuming 15% of all light-duty vehicles in 2030 based on 823,100 vehicles registered in RI as of 2021

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List of Acronyms and Abbreviations

ADA	Americans with Disabilities Act
AFC	alternative fuel corridor
BEV	battery-electric vehicle
CMAQ	Congestion Mitigation and Air Quality Improvement
CMP	Congestion Management Process
DAC	disadvantaged community
DCFC	direct current fast charger
DEM	Department of Environmental Management
DOA	Department of Administration
DOE	U.S. Department of Energy
EC4	Executive Climate Change Coordinating Council
EPA	U.S. Environmental Protection Agency
EV	electric vehicle
EVSE	electric vehicle supply equipment
FCEV	fuel cell electric vehicle
FHWA	Federal Highway Administration
FY	fiscal year
IIJA	Infrastructure Investment and Jobs Act
kg/day	kilogram(s) per day
kW	kilowatt(s)
MoU	Memorandum of Understanding
NECSEMA	New England Convenience Store and Energy Marketers Association
NESCAUM	Northeast States for Coordinated Air Use Management
NEVI	National Electric Vehicle Infrastructure
OCPP	Open Charge Point Protocol
OER	Office of Energy Resources
PHEV	plug-in hybrid electric vehicle
PZEVF	Partners for a Zero-Emission Vehicle Future
RIAC	Rhode Island Airport Corporation
RIDOT	Rhode Island Department of Transportation
RIPTA	Rhode Island Public Transit Authority
USDOT	U.S. Department of Transportation
ZEV	zero-emission vehicle

1. Introduction

Rhode Island is excited to present this update to the Rhode Island State Plan for Electric Vehicle Infrastructure Deployment ("the Plan," "Rhode Island EVSE Plan") for strategies to help build out the state's electric vehicle (EV) charging infrastructure. Although it is the smallest state in the nation, Rhode Island has over a million residents. The Providence metropolitan area, the Interstate 95 corridor, connects Connecticut and the tri-state area to Massachusetts, serving as the gateway to New England for commuters, seasonal travelers, and freight traffic.

The RI Office of Energy Resources is the lead agency in charge of managing the NEVI RI EV Infrastructure Plan in partnership with the RI Department of Transportation (RIDOT) and the RI Department of Environmental Management (RIDEM).

As part of the Infrastructure Investment and Jobs Act (IIJA), RIDOT dedicated $3.38 million of the prior year's funding to support the building out the state's electric vehicle supply equipment (EVSE) charging infrastructure on Interstate 95, prioritizing Rhode Island's designated Alternative Fuel Corridor (AFC) along the Interstate Highway System. The U.S. Department of Transportation (USDOT) apportionment of Highway Infrastructure Program funds for the National Electric Vehicle Infrastructure (NEVI) Program provides Rhode Island with $22.9 million over 5 years.

The Plan follows the Federal Highway Administration (FHWA) format provided at www.driveelectric.gov by the U.S. Joint Office of Energy and Transportation. In addition to the U.S. Joint Office of Energy and Transportation guidance, our overarching strategy for EV charging infrastructure is to use federal funds to provide the most benefit for the public and to create a sustainable, efficient, and equitable transportation system network.

1.1 Updates from the Prior Plan

Since the approval of the plan, the State of Rhode Island has worked collaboratively to support NEVI. We have continued to welcome stakeholder feedback, work with other state agencies, and engaged with the US Joint Office. This document includes relevant reference material for the plan from our previously published Plan, and each section with unique information is highlighted in red (as seen in this section header) for new material. Below is a bulleted list of the sections of the Plan which have been updated from the prior fiscal year's Plan:

- Updates from the Prior Plan (this section)
- Memoranda of Understanding
- Interagency Working Group
- Community Engagement Outcomes Report
- Tribal Engagement
- Utility Engagement
- Site-Specific Public Engagement
- Status of Contracting Process
- Awarded Contracts
- Scoring Methodologies
- Plan for Compliance with Federal Requirements
- Alternative Fuel Corridors (AFC) Designations
- Existing Charging Stations
- Planning Charging Stations
- Planning Towards a Fully Built-Out Determination
- Equity Considerations (Section)
- Labor and Workforce Considerations

- Physical Security & Cybersecurity
- Program Evaluation

Additional material may have been slightly updated, altered, or moved to provide a better reading experience for the public and easier review by the US Joint Office moving forward. Some material describing our 2022/2023 approach has been updated, streamlined, and eliminated, while available here for full review and reference.

2. State Agency Coordination

Rhode Island is highly engaged with other state and local agencies working collaboratively to develop this Plan. To incorporate the extensive EVSE efforts and knowledge in Rhode Island, we established a working group. Within this group, there are two participant categories:

1. Interagency Working Group; Core team members who contributed to and reviewed the Plan
2. Technical advisory committee members who are advisers to the Plan (further defined in Section 3.1)

Rhode Island also meets with the neighboring state agencies, Massachusetts and Connecticut DOTs to ensure network connectivity. Interstate 95 was of prime importance because it is the only designated AFC in Rhode Island and is shared between the three estates. The three neighboring states discussed their immediate plans, stakeholder outreach, and ongoing initiatives to improve the public's future-proof systems and improve reliability. We continue to meet to discuss plan progress, lessons learned, and the best way to serve the regional needs of the public through the national Joint Office.

In addition to the coordination below, Rhode Island meets regularly with the other states to discuss steps taken to improve the public's access to EV charging, follow NEVI Formula Program Guidance, and maximize opportunities to utilize US-made EV supply equipment.

2.1 Memoranda of Understanding

There are a few Memoranda of Understanding (MoU) supporting NEVI. The *Multi-State Medium- and Heavy-Duty Zero Emission Vehicle Memorandum of Understanding* (MoU) was signed by Rhode Island and supports 100 percent ZEVs by 2035.
There is also an MOU between the RIDOT and OER which is on file with Joint Office. This MOU enables the OER to lead and administer the NEVI Program alongside RIDOT.

2.2 Interagency Working Group

The NEVI Core Team provides direct feedback in updating this Plan, including other interagency and public engagement efforts. This group started to meet in May 2022 and meets monthly to continue to support this Plan and NEVI development into 2027. The core team also consults with the State's Executive Climate Change Coordinating Council (EC4) for discussion and feedback on EVSE plans.

The NEVI Core Team includes the following agencies:

- Rhode Island Office of Energy Resources (OER)
- Rhode Island Department of Transportation (RIDOT)
- Rhode Island Department of Environmental Management (DEM)

3. Public Engagement

Providing effective communication channels for questions, concerns, and suggestions and obtaining stakeholder input are vital in building and supporting an effective EV network. Rhode Island plans to broaden its current stakeholder distribution list to include ongoing stakeholder outreach with the general public; governmental entities; federally recognized Tribes; labor organizations; private sector and industry representatives; representatives of the transportation and freight logistics industries; state public transportation agencies; and urban, rural, and underserved or disadvantaged communities. The focus is to ensure that the deployment, installation, operation, and use of EV charging infrastructure achieve equitable and fair benefits.

Stakeholder and public feedback is welcome throughout this Plan development and in the future. The EV Charging Stations webpage, https://www.dot.ri.gov/projects/EVCharging/index.php, includes a form for active feedback. All material has been posted to the landing page. Based on these meetings, the Rhode Island core team has connected with public members to solicit immediate feedback. We are committed to working with the public to help connect resources and near-term opportunities.

Stakeholders Involved in Plan Development

- Federal
  - Federal Highway Administration

  - National Renewable Energy Laboratory
  - U.S. Joint Office of Energy and Transportation
  - Volpe National Transportation Systems Center
- Governor's Office
- Rhode Island Executive Climate Change Coordinating Council (EC4)
- Rhode Island State Agencies
  - Rhode Island Airport Corporation (RIAC)
  - Rhode Island Department of Administration (DOA)
  - Rhode Island Department of Health
  - Rhode Island Department of Labor and Training
  - Rhode Island Division of Capital Asset Management and Maintenance
  - Rhode Island Division of Motor Vehicles
  - Rhode Island Division of Statewide Planning
  - Rhode Island Emergency Management Agency
  - Rhode Island Office of Accounts and Control
  - Rhode Island Public Utilities Commission and Division of Public Utilities and Carriers
- Quasi-public Agencies
  - Quonset Development Corporation
  - Rhode Island Coastal Resources Management Council
  - Rhode Island Commerce Corporation
  - Rhode Island Infrastructure Bank
  - Rhode Island Public Transit Authority (RIPTA)
- Community-based Organizations
  - Clean Fuels Alliance America
  - Environmental Council of Rhode Island
  - Green Energy Consumers Alliance
  - Ocean State Clean Cities Coalition
  - Rhode Island Environmental Education Association
  - Rhode Island League of Cities and Towns
- Regional Organizations
  - Georgetown Climate Center
  - New England Convenience Store and Energy Marketers Association (NECSEMA)
  - Northeast States for Coordinated Air Use Management (NESCAUM)
  - Partners for a Zero Emission Vehicle Future (PZEVF)
  - Transportation and Climate Initiative
- Utilities
  - Rhode Island Energy (formerly National Grid)
- Tribes
  - Mashantucket (Western) Pequot Tribal Nation
  - Narragansett Indian Tribe
  - Wampanoag Tribe of Gay Head (Aquinnah)
- Private-sector Operators
  - ChargePoint

3.1 Public Outreach

Rhode Island must manage stakeholder expectations and communicate key messages to meet the outreach objectives. RIDOT developed immediate tools to help communicate the NEVI Plan and longer-term strategies to explain and solicit feedback from the community and stakeholders. RIDOT has launched a project website located here: https://www.dot.ri.gov/projects/EVCharging/index.php.

In addition to the RIDOT webpage, OER launched a dedicated RI NEVI Program page at www.energy.ri.gov/rinevi. As the lead agency, this website presents announcements, summarizes the IIJA, Rhode Island's role, and a Road Map of past and upcoming events. This included the RI State Agency announcement for Phase 1 of NEVI and a link to the Request for Quotations (RFQ) for installing two additional DCFC electric vehicle charging stations at two locations near I-95.

3.2 Community Engagement Outcomes Report

Per 23 CFR 680.112 (d), Rhode Island plans to include a community engagement outcomes report and include a description of the community engagement activities conducted as part of the development and approval of the most recently-approved Plan, including engagement with disadvantaged communities.

3.2.1 FY22/23 Community Engagement for Electric Vehicle Infrastructure Deployment Development and Adoption

The FY22/23 Rhode Island EVSE Plan federally approved plan was a collaborative effort, building on over a decade of innovation, research, outreach, planning, policy implementation, and investment in our clean transportation system. As part of the development process, Rhode Island coordinated and hosted stakeholder engagement sessions to discuss the state agency's role in the federal funding rollout. In 2022, Rhode Island created a schedule of milestones (Figures 1 and 2):

Step 1: Identify the EVSE Needs for Rhode Island	April to June 2022
Step 2: Program Funding and Eligibility	May to July 2022
Step 3: Collaboration and Stakeholder Engagement	May to Aug. 2022
Workshop 1: Stakeholder Working Group	June 9, 1:30 PM
Workshop 2: Public Session A	June 22, 10:30 AM
Workshop 3: Public Session B	June 22, 1:30 PM
Workshop 4: Public Session C	June 23, 3:00 PM
Workshop 5: Public & Stakeholder Electric Vehicle Infrastructure Deployment Plan Review Session	July 14, 11:00 AM
Step 4: Plan Submittal	July 21, 2022
Step 5: Federal Approval and Award	Oct. 2022

While on a limited schedule, Rhode Island engaged with the public early and hosted stakeholder engagement sessions to explain the federal funding, NEVI requirements, current EV charging stations, and priorities. The stakeholder engagement sessions successfully hosted over 60 participants from various industries and asked questions about future maintenance and operation. After the first workshop, Rhode Island received critical feedback from a user at an EV DCFC station along Interstate 95 who experienced payment and operating errors. This is important because our public has issues with the existing stations, which impacts their anxiety about relying on EVSE. We followed up and increased our awareness of shared experience and perception. The Green Energy Consumers Alliance also offered feedback that Rhode Island includes specific questions in stakeholder engagement to facilitate more participation. Rhode Island thanks the public and stakeholders for all feedback provided to date. A copy of the public survey can be found attached as Appendix B. All feedback was insightful to the design of this EVSE Plan.

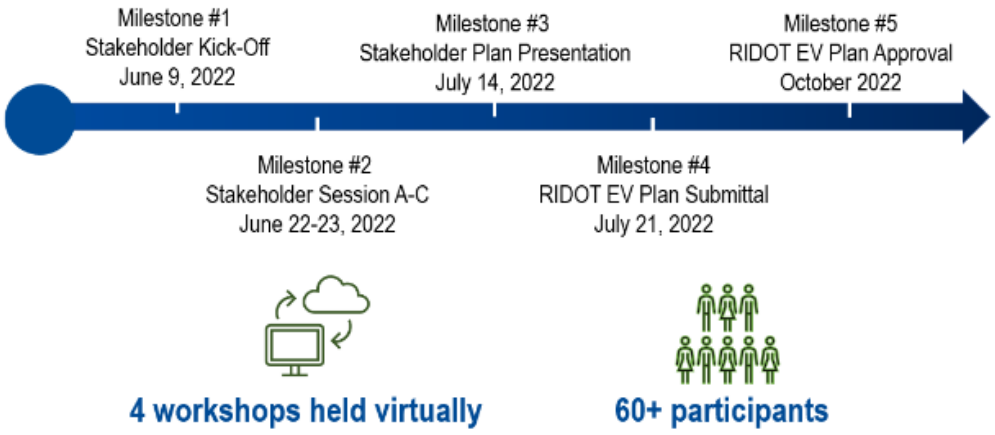


Figure 1: Rhode Island State Plan Electric Vehicle Infrastructure Deployment Milestones

Beyond the implementation and annual updates, Rhode Island's intended role is to facilitate NEVI Formula Program funding spending. This is the beginning of long-term stewardship by Rhode Island to provide a better EV charging experience for the public. We will have more opportunities for public feedback.

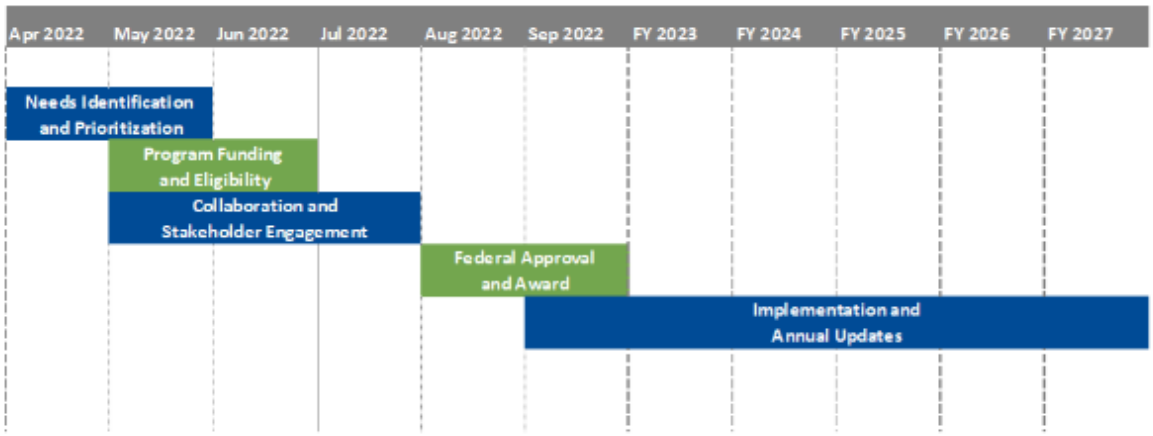


Figure 2: Long-term Rhode Island State Plan Electric Vehicle Infrastructure Deployment Schedule

3.2.2 FY24 Community Engagement Outcomes Report

Since the federal approval of the FY22/23 Rhode Island State Plan, the State has continues to engage the community and municiaplities in discussions with electric vehicle charging stations. They cover all corners of Rhode Island and include urban and suburban areas. To date, the State of Rhode Island has coordinated with:

- Central Falls
- East Providence
- Lincoln
- Newport
- North Kingstron
- Pawtucket
- Providence
- Warren
- Westerly

Coordinating with these communtiies accounts for a majority of the states largest communities. In addition to the municiaplities, the State has coordinated with the following Community Based Organizations (CBO)s:

- Rhode Island Environmental Education Association (RIEEA);
- the Racial and Environmental Justice Committee (REJC); and
- the Green Energy Consumers Alliance (GECA).

Charging Ahead aims to raise awareness and promote the EV adoption in disadvantaged communities. To achieve these goals, RIDOT and OER will collaborate with several CBOs to develop a tailored effort, including the Rhode Island Environmental Education Association (RIEEA); the Racial and Environmental Justice Committee (REJC); and the Green Energy Consumers Alliance (GECA). Through their expertise, community connections, and available resources, RIDOT and OER will implement a range of activities that include live in-person outreach events, webinars, and listening sessions. Our states specifically includes two established municipal efforts which had been considering applying for their own funding before joining the statewide effort, in North Kingstown and Newport. This includes

- 43 sites (51%) in Disadvantaged Communities (DACs) as defined by Justice40.
- 72 municipally-owned charging sites.
- 11 State-owned charging sites, including those owned and managed by RIDOT and the RIDEM.

Highlights of this program will include:

- Education and Outreach | RIDOT and OER will partner with CBOs to conduct targeted, equitable outreach to promote EV ownership and use as well as the development of EV infrastructure in disadvantaged communities.

Charging Ahead has presented an equity analysis which evaluates whether a project will create proportional impacts and remove transportation related disparities to all populations in a project area. At least 40% of the benefits of charging ahead are located in DACs | RIDOT and its partners have conducted and will continue to conduct equity assessment of the benefits of Charging Ahead that is based on DOT's Disadvantaged Census Tracts. Specifically, proposed project sites for our CFI Grants arelocated

within Disadvantaged Census Tracts will be prioritized in order to ensure that the benefits of this effort help to address transportation-related disparities among Rhode Island communities. Of the identified sites, 51% are located in DACs, as are 51% of the chargers (and thus at least 51% of the investment, given that the Education, Outreach, and Workforce Development efforts will be almost entirely focused on these areas).

In October 2023, the State of Rhode Island plans to release a new public survey and incorporate the results into Phase 2 planning and future EV plans.

3.3 Tribal Engagement

The Narragansett Reservation Tribal Lands is located near the south coast of Rhode Island. In addition to tribal engagement, Rhode Island plans to engage with the Narragansett Indian Tribe regarding departmental input. In addition to drivers, Rhode Island plans to reach out to the Department of Adult Vocational Training, Community Planning and National Resources, and emergency management The State of Rhode Island also intends to reach out to the Mashantucket Pequot Tribal Nation and Wampanoag Tribal of Gay Head for engagement. There have not been specific engagement activities to date beyond general public engagement.

3.4 Utility Engagement

Rhode Island has a single power utility, Rhode Island Energy. We have engaged Rhode Island Energy since the inception of NEVI, through Phase 1 Development and Service Requests as well as planning. Rhode Island has also started discussions with RI Energy to collaborate on a map that provides the load/capacity as green, yellow, or red dots, on tbd locations identified over the "Phase 2" process. This effort is similar to other states that have these maps on their NEVI websites. (e.g. CA, MD, MN, OH, TX). [5]

3.5 Site- Specific Public Engagement

For new and existing Phase 1 locations along Interstate 95 and Phase 2 locations, Rhode Island plans to make the public aware of the stations by pushing the map data out and engaging local businesses and communities, to encourage site-specific public engagement. The state of Rhode Island encouraged public engagement and public comments on "ideal locations" for EV charging infrastructure once we establish the program guidance for Phase 2. By gathering suggestions from the public, Rhode Island can compile a priority list to identify immediate gaps in the state reported by users. In addition, as a state, we can focus on disadvantaged communities to ensure equitable distribution.

4. Plan Vision and Goals

Under the NEVI Formula Program, the formula funding provides for DCFC stations to be located less than 50 miles apart, to be within 1 mile of a federally designated vehicle AFC, and to have at least four chargers supporting a speed of 150 kW with a total electric capacity of at least 600 kW.

Rhode Island intends to provide all current and future EV drivers with increased confidence that they can make short and long trips without running out of fuel and mitigate range anxiety. RIDOT's **vision** for this Plan is **to have a safe and connected transportation system network that encourages EV adoption through improved public infrastructure supporting Rhode Island's climate, equity, and safety goals.**

We are committed to following the national guidance combined with our local needs and expertise to provide the best possible transportation system network. To help guide our systems engineering process, our stakeholders have developed a high-level description of **overall goals** as follows:

1. **Improve Local Access to EV Charging**
2. **Deliver National Connectivity**
3. **Focus on Equitable Access and Justice40 Communities**
4. **Aid Rural Areas**
5. **Help EV Workforce Development**.
6. **Reduce Emissions**
7. **Support Coastal Development**

[5] https://systemdataportal.nationalgrid.com/RI/

4.1 5-Year Program and Beyond

As part of this Plan, the federal template requires RIDOT to set a quantified target. To set this target, we reviewed the political priorities, available data, overall market impact, the Ocean State's needs, and what we have control over. Our initial goal was **to fully build out Rhode Island's only Alternative Fuel Corridor (AFC), Interstate 95, with two new electric vehicles DC Fast Chargers at the Warwick and Ashaway Park & Ride Locations, meeting the NEVI requirements.** Once completed later this year, Phase 1 will result in a total of eight DC Fast Chargers (Level 3) and six Dual-Port Level 2 charging stations located at the Park & Rides along the I-95 in Rhode Island. After Phase 1 is complete, Rhode Island plans to use NEVI Formula Program funds for EV charging infrastructure on any public road or other publicly accessible location in Phase 2. There will be a public stakeholder process to solicit feedback before Phase 2 begins. As the program matures, we will establish more metrics, as discussed in Section 13, Program Evaluation.

5. Contracting

As previously stated, Rhode Island plans to contract with private entities, including small business participation for Phase 1 and Phase 2. For Phase 1, the State of RI plans to issue two RFQs in August, one for construction and one for equipment for DCFC at the Park & Ride locations. The contractors selected will be responsible for all aspects of the project's execution.

For Phase 2, Rhode Island plans to implement a competitive grant program that will involve legal agreements with the grant recipients to install, operate, and maintain fast EV charging stations throughout Ocean State. Working with the private sector, Rhode Island can use the funds in the near term and include contract requirements for operations and maintenance, including uptime. Rhode Island will reserve funds and make contract obligations to ensure 97 percent uptime, considering a re-release of the contract should a contractor not be able to meet its obligations. Rhode Island is also considering multiple site operators to promote competition. In addition to the contracting mechanism, Rhode Island will explore a value-based procurement strategy that includes Justice40[6] benefits as a critical scoring mechanism for grant application approval.

In addition to deployment activities, Rhode Island may contract for data collection, analysis, and stakeholder outreach to continue supporting the program. This outreach will focus on communities and contractors in places where EV charging infrastructure will be installed.

5.1 Status of Contracting Process

For FY24 Plan Update, the State of RI plans to issue two RFQs in August 2023, one for construction and one for equipment for DCFC at the Park & Ride locations.

5.2 Awarded Contracts

To date, there are no awarded contracts.

5.3 Scoring Methodologies Utilized

For Phase 1 RFQ, the costs to complete the project will be considered if the respondents can meet state qualifiatifcations for background, cybersecurity and to meet the state wide requirements for Information Technocolguy and Cyber and Privacy Insurnace.

Phase 2 criteria is still under development by the State of RI.

5.4 Plan for Compliance with Federal Requirements

The contract work follows all statutory and regulatory requirements that are applicable, including:

- Chapter 1 of Title 23, United States Code, and the requirements of 2 CFR part 200. This includes the applicable requirements of 23, United States Code, and Title 23, Code of Federal Regulations, such as the applicable Buy America requirements at 23 U.S.C. 313 and Build America, Buy America Act (Pub. L. No 117-58, div. G sections 70901– 70927).
- American with Disabilities Act of 1990 (ADA)
- Title VI of the Civil Rights Act of 1964
- The Uniform Relocation Assistance and Real Property Acquisition Act
- The National Environmental Policy Act of 1969 (NEPA)

[6] https://www.whitehouse.gov/omb/briefing-room/2021/07/20/the-path-to-achieving-justice40/

Phase 1, will include requirements for contractors to comply with 23 U.S.C., 23 CFR 680, and all applicable requirements under 2 CFR 200. For Phase 2, these requirements will be included in a public Guidance Document and contractors shall have to comply for grant funding and any reimbursement.

6. Civil Rights

The State of Rhode Island will ensure compliance with State and Federal civil rights laws, including Title VI of the Civil Rights Act and accompanying USDOT regulations, the Americans with Disabilities Act, and Section 504 of the Rehabilitation Act. No person on the grounds of race, color, national origin, sex, age, disability, low income, or limited English proficiency, as provided by Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1987, will be excluded from, denied the benefits of, or be otherwise subjected to discrimination under this Program and Plan. This will be according to all federal, State, and local regulations and statutes to ensure compliance with State and federal civil rights laws, including Title VI of the Civil Rights Act and accompanying USDOT regulations, the ADA Section 504 of the Rehabilitation Act.

7. Existing and Future Conditions Analysis

Rhode Island borders Connecticut, Massachusetts, and the Atlantic Ocean, with over a million residents. The state terrain along the ocean leads from coastal lowlands, including Aquidneck Island and Jamestown, into rural woodlands. Rhode Island experiences all four weather seasons, with large ranges of temperatures daily and annually and considerably diverse weather over short periods. The DEM reports that "annual precipitation averages 42 to 46 inches over most of the State, with a tendency for decreasing amounts from west to east. . . . The average annual snowfall in Rhode Island increases from about 20 inches on Block Island and along the southeast shores of Narragansett Bay to 40 to 55 inches in the western third of the state."[7] The National Oceanic and Atmospheric Administration National Centers for Environmental Information released a state climate summary for Rhode Island in 2022, stating that "temperatures in Rhode Island have risen almost 4°F since the beginning of the 20th century." Annual precipitation has increased since 1985, with the highest number of extreme events between 2004 and 2014. The sea level has also risen 9 inches faster than the global average.[8] This is a critical time to reduce Ocean State emissions negatively impacting climate change.

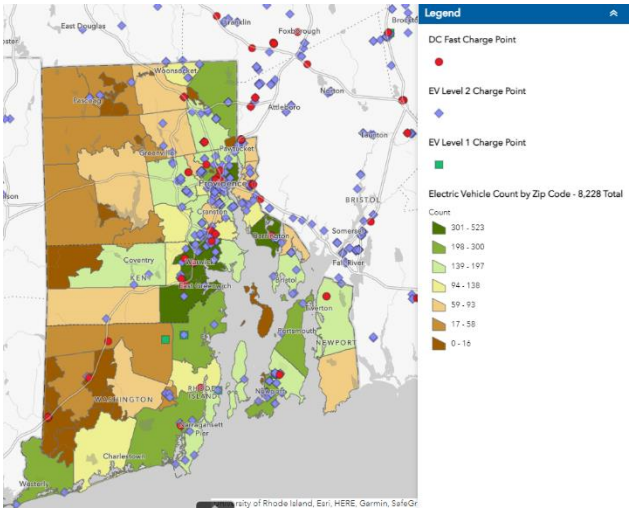


Figure 3: Rhode Island Electric Vehicle Registration by County Map

According to data from the DEM, as of July 2023, there are 8,226 registered EVs in Rhode Island[9]. Since February 2022, there are twice as many EVs, even with supply chain, delivery, and economic issues.

As of March 2022, 16 states, including Rhode Island, have adopted California's regulations that require the manufacturers to deliver a certain annual percentage of ZEVs to Rhode Island, increasing to 100 percent ZEV by 2035.[10] sales of a certain number of ZEVs by 2035. In the near term, the governor has set a target of 43,000 ZEVs by 2025.[11] Rhode Island has also announced its intent to adopt California's ACT Rule, which requires manufacturers to deliver an increasing percentage of their annual sales as ZEVs.[12] We strive to make sales of all medium- and heavy-duty vehicles ZEVs by no later than 2050.

[7] http://www.dem.ri.gov/climate/climate-overview-ri.php

[8] https://statesummaries.ncics.org/chapter/ri/

[9] https://ridemgis.maps.arcgis.com/apps/webappviewer/index.html?id=f164da525c77463b98cf55b72950beb7

[10] https://ww2.arb.ca.gov/our-work/programs/zero-emission-vehicle-program/about

[11] https://energy.ri.gov/sites/g/files/xkgbur741/files/documents/Transportation/Rhode-Island-ZEV-Action-Plan-Final-2016.pdf

[12] https://www.nescaum.org/documents/mhdv-zev-mou-20220329.pdf/

7.1 State Geography, Terrain, Climate, and Land Use Patterns

The U.S. Census Bureau most recently defined rural as "any population, housing, or territory NOT in an urban area."[13] A significant portion of Rhode Island meets rural area measurements. An image file has been included that was used as a reference for rural counties using U.S. Census data (Figure 4).[14] Including routes for potential EVSE in these rural areas allows RIDOT financial contributions to lower fuel costs and costs of ownership, promote economic development, reduce emissions, and support partnerships to increase future benefits. Adding EVSE infrastructure is necessary to support rural areas.

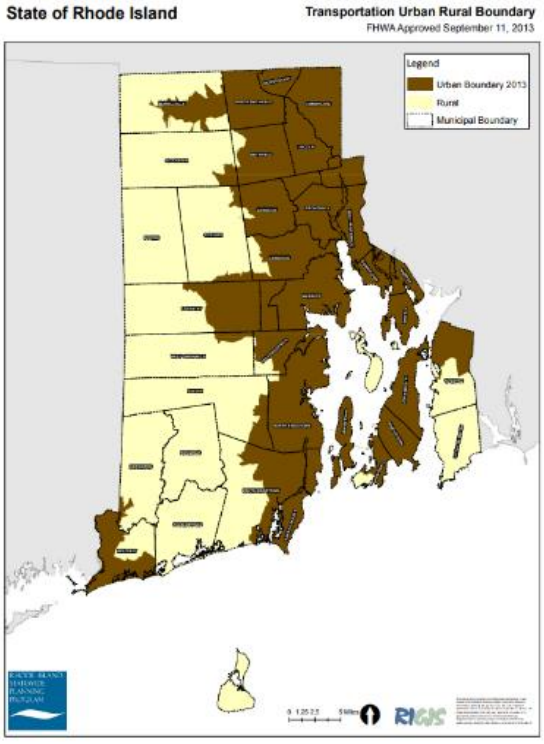


Figure 4: Rhode Island Rural and Urban Areas Map

The Rhode Island State Climatologist defines the state's geography, climate, and terrain as follows:

"[Rhode Island] extends for 50 miles in a north-south direction and has an average width of about 30 miles. The total area, including Block Island some 10 miles offshore, is 1,214 square miles.

"There are three topographical divisions of the State. A narrow coastal plain lies along the south shore and Narragansett Bay with an elevation of less than 100 feet. A second division lies to the north and east of the Bay with gently rolling uplands of up to 200 feet elevation. The western two-thirds of Rhode Island consists of predominantly hilly uplands of 200 to 600 feet elevation but rising to a maximum of 800 feet above sea level in the northwest corner of the State. . . .

"The chief characteristics of Rhode Island's climate may be summarized as follows: (1) equitable distribution of precipitation among the four seasons; (2) large ranges of temperature both daily and annually; (3) great differences in the same season of different years; and (4) considerable diversity of the weather over short periods. These characteristics are modified by nearness to the Bay or ocean, elevation, and nature of the terrain. . . .

"Annual precipitation averages 42 to 46 inches over most of the State, with a tendency for decreasing amounts from west to east. It varies from about 40 inches in the immediate southeastern Bay area and Block Island to 48 inches in the western uplands. . . .

"The average annual snowfall in Rhode Island increases from about 20 inches on Block Island and along the southeast shores of Narragansett Bay to 40 to 55 inches in the western third of the State. Areas near the western and northern shores of the Bay, including greater Providence, have an average range of 25 to 30 inches of snow per year. During mild winters, these snowfall totals can be significantly less."[15]

[13] https://mtgis-portal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=49cd4bc9c8eb444ab51218c1d5001ef6

[14] http://www.planning.ri.gov/img/Transp_Urban_Rural_boundary_Map_1.pdf

[15] http://www.dem.ri.gov/climate/climate-overview-ri.php

Land Use Patterns

The Ocean State is home to beautiful beaches, metropolitan areas, historic buildings, green spaces, and residential neighborhoods. Our land is a limited resource, and helping manage the land use for Rhode Island while planning is an essential public service to ensure that how we arrange our communities meets our needs. Rhode Island's current population and housing density are among the highest in the country, yet the state also ranks high in forested land. According to the Department of Planning, *Vision 2025 Rhode Island Land Use Policies and Plan*, "75 percent of the population resides in a 40-mile-long urban/suburban corridor along the shores of Narragansett Bay and the valleys of the Blackstone and Pawtuxet rivers. This corridor contains nearly all of the public infrastructure, major transportation routes, and institutional and cultural centers. . . . R.I. Division of Planning's most recent profile of statewide land use, *Land Use Trends 1970-1995*, found that in those 25 years, Rhode Island developed its land at a rate much higher than historic trends. It took over 300 years to develop the first 20 percent of the state's land, and only 25 more years to develop another 9 percent." Since 1995, there have been vacant lots, redevelopment property projects, and land conversation investments. Sprawl continues. "About 30 percent of the land that was undeveloped in 1995" was developed by 2005. "In some of the more rapidly developing communities, building activity has consumed as much as 75 percent of vacant land."[16] Figure 5 was provided as part of the Long-Range Transportation Plan[17] to illustrate the state's population density. Most of the population lives near Providence, relying on the roadway network for critical needs.

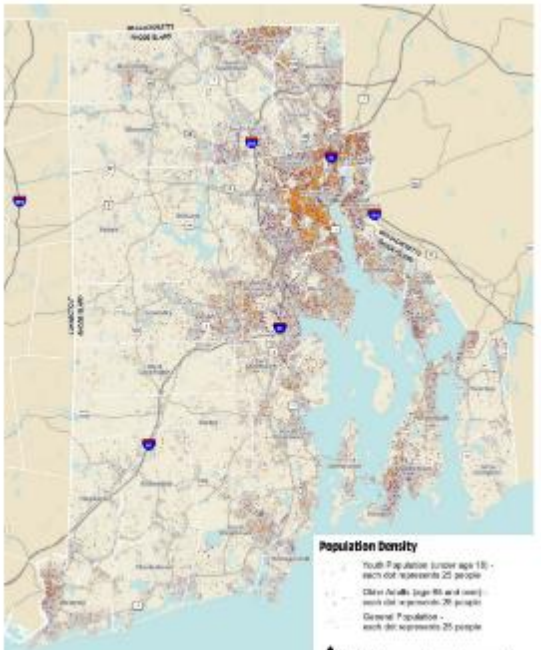


Figure 5: Rhode Island Population Density Map

7.2 State Travel Patterns, Public Transportation Needs, Freight, and Other Supply Chain Needs

Travel Patterns

Most Rhode Islanders rely on their vehicles to travel to work, school, recreation, utility trips, and other locations. In 2016, 85 percent of people in Rhode Island drove alone to work, compared with the national average of 76 percent. Less than 3 percent of the public used public transportation. Due to the state's population density and car-centric nature, we experience congestion. Many segments of the interstates and freeways during peak travel hours surround the Greater Providence, Cranston, and Warwick areas. Rhode Island has access to travel time and reliability data.[18]

The areas in Figure 6 highlighted in yellow and red experienced high congestion levels. These data are from 2017 to reflect pre-COVID-19 traffic patterns. Traffic patterns have fluctuated, but the state does typically experience congestion on these routes.[19] These are also daily traffic patterns. The Rhode Island DOA Congestion Management Process (CMP) Final Plan states, "The Providence Metro region is the most congested area in the state with roughly 10 percent of all highways within the CMP network congested during a typical morning peak hour and 17 percent of all highways congested during a typical evening peak hour. . . . The average congestion levels among all highways within the Providence Metro region vary between 15 and 20 percent throughout the year. The congestion level within the City of Providence is higher, varying between 35 and 55 percent of highways identified as congested. The higher levels of congestion appear in

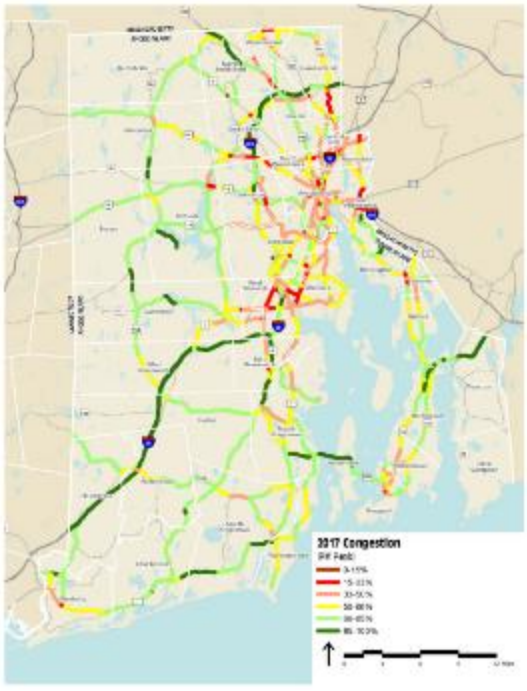


Figure 6: Rhode Island Congestion Map

[16] https://planning.ri.gov/sites/g/files/xkgbur826/files/documents/121/lu_exec.pdf

[17] https://planning.ri.gov/sites/g/files/xkgbur826/files/documents/trans/2020/Final-LRTP-December-2020.pdf

[18] https://planning.ri.gov/sites/g/files/xkgbur826/files/documents/trans/2020/Final-LRTP-December-2020.pdf

[19] https://planning.ri.gov/sites/g/files/xkgbur826/files/documents/trans/2020/Final-LRTP-December-2020.pdf

spring and fall while the congestion during the summer months appears to be lower. This may be related to schools and colleges and universities being open during spring and fall."[20] Because the Providence area, inside Interstate 295, is the most densely populated, the congestion along these roadways will continue to increase into the future.

In the summertime, Rhode Island experiences a rush of traffic to the coastal communities along the ocean. Washington, Bristol, and Newport Counties all have tourist areas that experience congestion and safety issues due to the large influx of tourists and automobiles in the summer. Roadways such as Route 1, Route 4, Route 114, Route 138, and Route 24 in Massachusetts experience traffic volumes much greater than average at lower speeds.[21] The CMP Final Plan noted that these roadways still experience more traffic during weekdays, host local commuting traffic, and are critical pathways connecting the state. Despite inflation and rising gas prices, Rhode Island anticipates increasing vehicles traveling to the Ocean State for vacation, Newport music festivals, sports, and other special events this summer.

Figure 7 displays the Rhode Island Energy heat map for available vehicle fleet transportation and distribution feeders. The Rhode Island electric distribution circuits shown on this map are color-coded based on their most recent annually forecasted percent loading, with the specific year identified in the map legend (for example, 2019 Load/Feeder Rating). This map identifies where additional capacity is expected to exist and can accommodate the beneficial electrification of high-efficiency heat pumps and EVs. This helps EV infrastructure developers identify locations on the National Grid electric distribution network.[22] Based on our review of the Rhode Island Energy data and maps, even during the July 4th, 2022, holiday, with peak seasonal travel and electricity usage, the distribution feeders did not appear to exceed 70 percent load. This suggests there is capacity in the network for additional load in the near term.

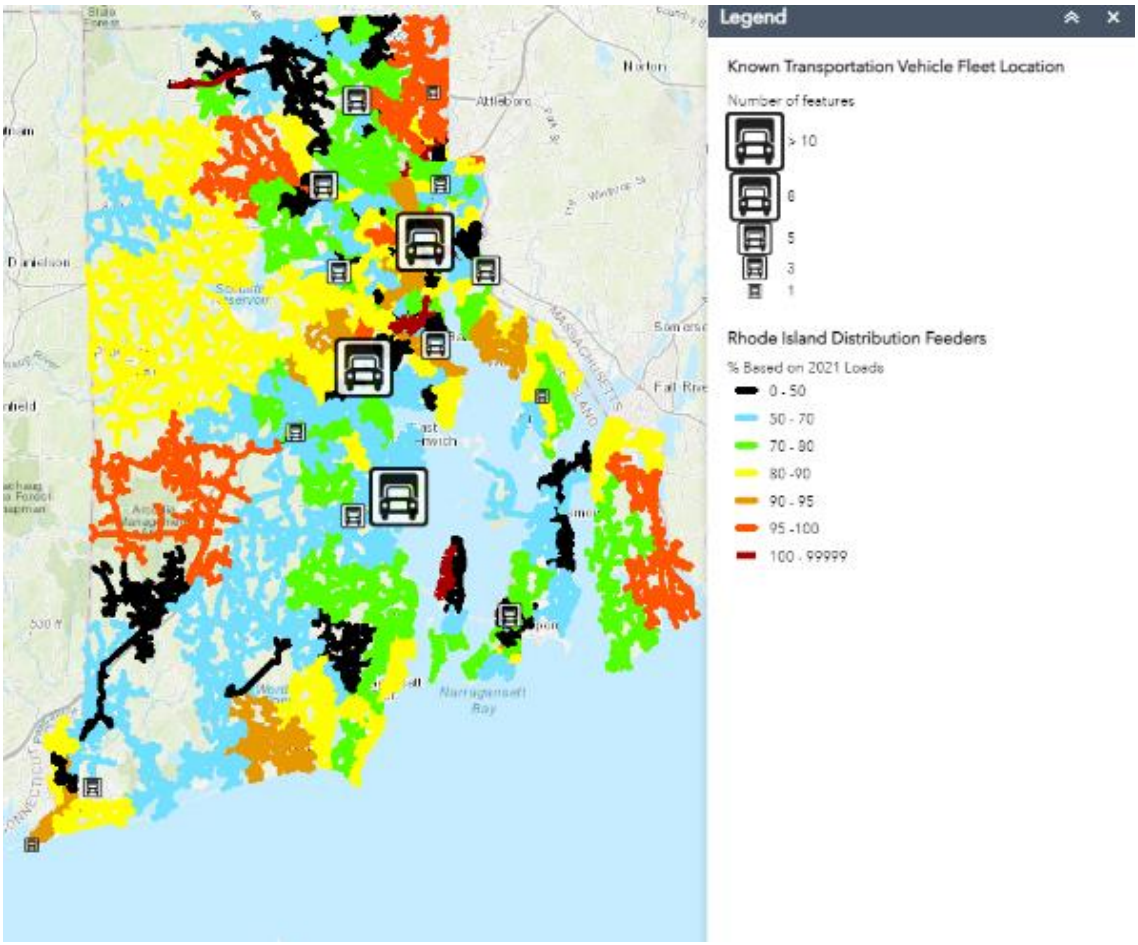


Figure 7: Vehicle Traffic and Rhode Island Distribution Feeders Capacity Map

[20] https://planning.ri.gov/sites/g/files/xkgbur826/files/documents/LRTP/Congestion-Management-Process.pdf

[21] https://www.rigis.org/maps/traffic-counts

[22] https://ngrid.apps.nationalgrid.com/NGSysDataPortal/RI/index.html

Public Transportation

The public transportation offered in Rhode Island includes the local RIPTA bus network, MBTA Commuter Rail, and Amtrak Northeast. RIPTA serves 36 of the 38 communities, operates 7 days a week, and provides ADA-compliant paratransit services statewide. The RIPTA service includes stops at 32 Park n' Ride facilities. In 2020, RIPTA provided fixed-route bus service for 13,026,356 trips. RIPTA has conducted an electric bus pilot and ordered 14 new electric buses. The agency is committed to helping reduce emissions with more confidence as funding and the longer vehicle range is reliable.[23] RIPTA has long-term plans based on population and employment demand to continue serving the communities' needs best.

In addition to the bus system, there are six municipal ferry terminals throughout the state in Providence, Newport, Bristol, Portsmouth, North Kingstown, and New Shoreham.

Freight Network

Freight is a critical component of the supply chain, employment, and contributor to greenhouse gas emissions. At this point, our understanding of the NEVI guidelines refers to installing infrastructure to be publicly available or to accommodate multiple different duty vehicles. For example, RIDOT may choose to install chargers that would accommodate medium-duty and heavy-duty vehicles. DEM anticipates the adoption of California's ACT Rule, which requires the sale of at least 30 percent of ZEV trucks by 2030 (depending on vehicle classification). By model year 2025, ZEV truck sales will need to be 55 percent of Class 2b to 3 truck sales, 75 percent of Class 4 to 8 truck sales, and 40 percent of truck tractor sales. The freight pathways through Rhode Island impact our network. We must now consider this impact when planning EVSE infrastructure for the Ocean State.

Interstate 95 is the hub of freight delivery and commuter traffic throughout the state, connecting intermodal facilities at Rhode Island T.F. Green International Airport, Port of Providence, and Port of Davisville. Additional truck corridors running north to the south include Interstate 295, Route 4, and Route 146. The main rail freight corridor is the Amtrak Northeast Corridor. The marine shipping corridor is Narragansett Bay via the Port of Davisville within the Quonset Business Park and the Port of Providence. East–west freight corridors are primarily limited to truck freight on Interstate 195, Route 6, and Route 44. In addition, rail connects Rhode Island to the national and Canadian rail networks through interchanges in Massachusetts, Connecticut, and New York.[24] Figure 8, prepared by RIDOT as part of the 2022 Freight and Goods Movement Plan,[25] illustrates the freight network, including the ports and Rhode Island T.F. Green International Airport. The Port of Davisville/Quonset Business Park and the Port of Providence are active international gateways.

Figure 8: Rhode Island Map of Freight and Port Network

7.3 Alternative Fuel Corridor (AFC) Designations

The existing AFCs (Table 1) were nominated during the first five rounds of the corridor designations. Following FHWA.gov, Interstate 95 is a designated AFC interstate, and Route 6 is a designated AFC U.S. Route/Highway. Interstate 95 was nominated in its entire length, from mile marker 0 at the Connecticut border to mile marker 43.2 at the Massachusetts state border. Interstate 95 includes Warwick, Cranston, Providence, and Pawtucket metropolitan areas, and three counties: Washington, Kent, and Providence. US 6 was also nominated as an essential link for moving freight and goods throughout the state and region for hydrogen. The routes are displayed using federal tools online at driveelectric.gov as well. Presenting the existing corridors is to illustrate the current corridor status. No other corridors were nominated as part of the Round 6 nomination period. Interstate infrastructure is critical to the national build-out for Massachusetts and Connecticut connectivity.

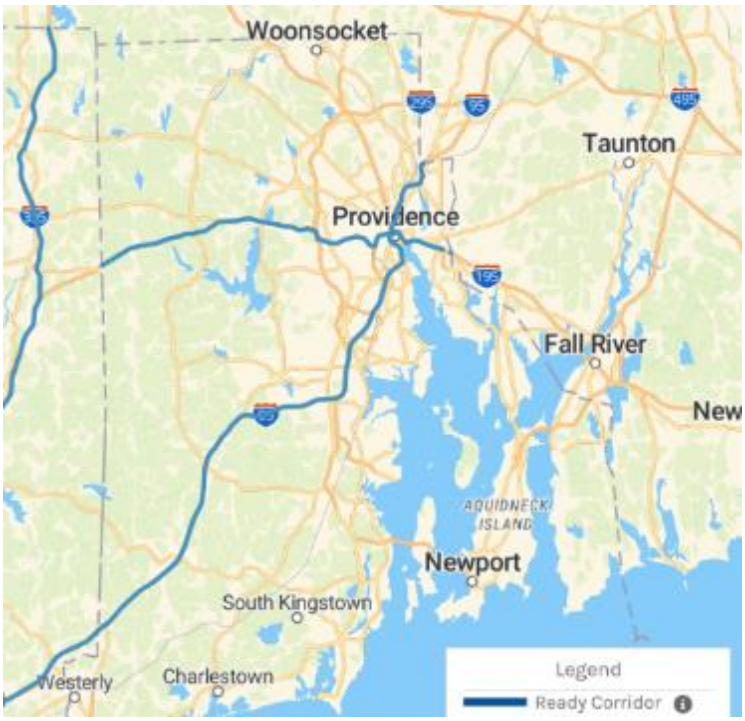
[23] https://www.ripta.com/electric-bus/

[24] https://planning.ri.gov/planning-areas/transportation/freight-planning

[25] https://planning.ri.gov/sites/g/files/xkgbur826/files/2022-06/2022_RI_Interim_Freight_Plan_Update_6_1_22.pdf

Table 1: Current Alternative Fuel Corridors

Alternative Fuel	Details	Map
Electric Vehicle Ready Corridor	Interstate 95 Start: 0 mi End: 43.2 mi Interstate 195 Start: 0 mi End: 0.7 mi	
Compressed Natural Gas Ready Corridor	Interstate 95 Start: 0 mi End: 43.2 mi	

Alternative Fuel	Details	Map
Hydrogen Pending Corridor	Interstate 95 Start: 0 mi End: 43.2 mi Route 6/ Interstate 195 Start: 0 mi End: 25.31 mi	

There are currently no corridors designated as liquefied natural gas or propane ready or pending corridors.

There are three propane stations open to the public during the daytime hours at different U-Haul facilities. One of the three, U-Haul in Warwick, Rhode Island, is within 5 miles of Interstate 95.[26]

7.4 Existing Charging Stations

Existing charging stations have been deployed in the state over the past 10 years. There are about 300 charging stations in the state fielded and operated by different public and private entities.[27] The USDOT apportionment of Highway Infrastructure Program funds will be used not only to build out main corridors but also to help coordinate the use of all these stations and plan maintenance and upgrades. RIDOT funded an earlier EV charging station pilot project with 12 charging stations in two locations off Interstate 95. As a result of the IIJA, new formulas, and discretionary programs will be implemented for our state to strategically deploy EV infrastructure for publicly accessible EV charging and other alternative fuel infrastructure in designated AFCs.

Table 2 and Figure 9 include existing charging stations within a mile of Interstate 95, Rhode Island's Ready Corridor, that meet DCFC along Interstate 95. Appendix A includes a full list of DCFC and Level 2 stations along Interstate 95.

Table 2: Existing Locations near AFC Interstate 95 as of July 20, 2023[28]

Station ID	Station Name	Charger Level	Route	Location	No. of EV Connectors	EV Network	Meets 23 CFR 680	Counts Towards Fully Built Out Determination
167864	Walmart	DCFC	Interstate 95	51 Silver Spring Street, Providence RI	4	Electrify America		
165561 165635	DOT Hopkinton	DCFC	Interstate 95	400 Main St, Ashaway, RI 02833	4*	ChargePoint Network	✓	✓
165560 181115	DOT RT117	DCFC	Interstate 95	292 Centerville Rd, Warwick, RI 02886	4*	ChargePoint Network	✓	✓

[26] https://afdc.energy.gov/stations#/find/nearest?fuel=LPG

[27] https://afdc.energy.gov/stations#/find/nearest?fuel=ELEC

[28] https://afdc.energy.gov/stations#/find/nearest?fuel=ELEC

Station ID	Station Name	Charger Level	Route	Location	No. of EV Connectors	EV Network	Meets 23 CFR 680	Counts Towards Fully Built Out Determination
204944	Ocean State Harley-Davidson	DCFC	Interstate 95	435 Nooseneck Hill Rd. Exeter, RI	1	ChargePoint Network		
49711	Speedcraft Nissan	DCFC	Interstate 95	885 Quaker Ln, West Warwick, RI	1	Non-Networked		
221087	Balise Chevrolet	DCFC	Interstate 95	1338 Post Rd Warwick RI	1	Non-Networked		
72476	Whole Foods	DCFC	Interstate 95	151 Sockanosset Cross Rd, Cranston RI	1	ChargePoint Network		
165228	Ocean State Harley-Davidson	DCFC	Interstate 95	35 Albany Rd, Warwick, RI	1	ChargePoint Network		
198373	Hilton Garden Inn	DCFC	Interstate 95	220 India St, Providence RI	1	EVgo Network		
151843	Providence Place	DCFC	Interstate 95	1 Providence Pl, Providence Ri	1	Volta		
102400	East Greenwich Square - Tesla Supercharger	DCFC	Interstate 95	1000 Division Street, East Greenwich RI	8	Tesla		
202687	Capital Good Fund	DCFC	Interstate 95	333 Smith St. Providence, RI	1	ChargePoint Network		
217373 192734 192735	Steingold Volvo Cars	DCFC	Interstate 95	1001 Roosevelt Ave, Pawtucket, RI	2	ChargePoint Network		

**to be completed as part of Phase 1*

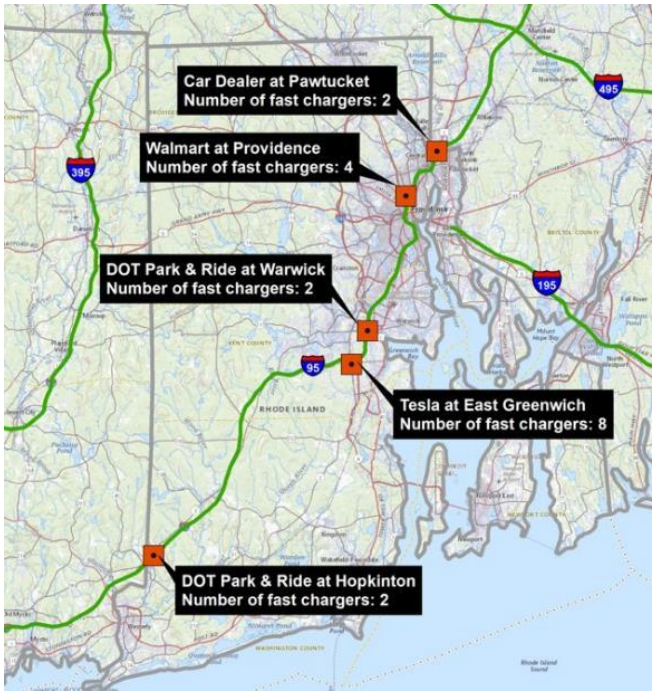


Figure 9: Rhode Island AFC and Existing DCFC Stations Map

7.5 Known Risks and Challenges

There are risks and challenges in the market and infrastructure to deliver our Plan completion. EV availability has been a known issue, with many of the newest and most affordable EVs on backlog. During the pandemic, chip production has experienced pent-up demand and limitations, impacting the inventory. In spring 2022, with soaring gas prices and a lack of car inventory, the EV market depleted.

Based on our discussions with Rhode Island Energy, increasing the EV load can present uncertainty for planning and grid operations. We are working with the utility to mitigate the risk of transformer shortages. We will engage with Rhode Island Energy throughout all plans and take advantage of the public-facing distribution maps for planning. In addition, increasing the station density near Tesla locations may be a risk as the Tesla devices become public-facing. To deploy infrastructure on additional corridors, our challenge is to reach the rural and seasonal communities in the near term to reach most of the public while balancing private market deployments. Attracting operations and maintenance providers or contractors may be challenging due to our small number of EVSE devices, but we feel this may be an advantage to allow the workforce to ramp up to meet the market's demand. A practical rollout along Interstate 95 in the near term helps alleviate the risk that direct revenues from providing charging services might not cover the cost of installation and operation of the equipment, or technologies might become obsolete.

For our vendors and contractors, the Buy America requirements may make procurement challenging for grant awardees. Rhode Island will meet with charging manufacturers to determine who considers their infrastructure as American and how to identify the label requirements for "Buy America." Rhode Island weather and coastal elements may also present issues in providing consistent and reliable service. RIDOT is aware of these issues and challenges, and we will work with the contractors and vendors to complete our projects on time and within budget while meeting the NEVI requirements.

8. EV Charging Infrastructure Deployment

Our overarching strategy for EV charging is to use federal funds to provide the most benefit for the public to decrease driver range anxiety and support adoption. Our state is uniquely dense, with short-run segments supporting local, regional, seasonal, and freight traffic. We have an existing network based on the previous investments born from but not limited to the Volkswagen settlement, Rhode Island Energy, charger programs, and Park 'n Ride facilities. Our state agencies have invested in exploring and promoting incentives, performing outreach, and improving reliability.

Rhode Island's designated AFC for EVs is Interstate 95. There is EV signage currently along the interstate. This is a critical roadway, and the NEVI Formula Program funding cannot be used outside designated AFCs until the Secretary of Transportation certifies that Interstate 95 is built out.

The initial focus for Phase 1 is for states to strategically deploy two additional DCFCs each at two existing Park & Ride Locations, that have existing DCFC chargers. These locations are within a mile of Interstate 95 and satisfy the NEVI build-out requirements.

After Phase 1 is complete, Rhode Island will use NEVI Formula Program funds for EV charging infrastructure on any public road or other publicly accessible location as part of Phase 2.

8.1 Funding Sources

While preparing this Plan, we reviewed potential federal formulas and discretionary funds related to alternative fuel infrastructure. A full list of federal and state programs and details can be found in Appendix D from our FY 23 Plan here.

Rhode Island's NEVI Program Funds for FY 2022–2026 is $22.9M; $3.4M was apportioned in FY 2022, then a yearly average of $4.7M will be apportioned in FY 2023–2026. For the Phase 1 efforts, the Park & Ride's two additional DCFCs at each location, the RIDOT will provide 20% of the project funding and 80% from the Federal NEVI Program Funds.

For Phase 2, Rhode Island plans to partner with the private sector to provide 20% or more and the Federal NEVI Program Funds will provide up to 80% of the project costs.

8.2 Planned Charging Stations

Rhode Island plans to release two RFQs in August 2023. The scope of work for this RFQs includes installing two DCFCs with the capability to charge four electric vehicles at 150 kW simultaneously at the Ash Way Park & Ride Location: Ash Way Park & Ride, 400 Main St, Hopkinton, RI, and two DCFC with the capability to charge four electric vehicles at 150 kW simultaneously at the Warwick Park & Ride Location: Rt 117 Park N Ride 292 Centerville Rd, RI 117, Warwick RI. The work includes all necessary permits, power improvements, site preparations, concrete pads, bollards, equipment installation, end-to-end data monitoring,

electrical connection, signage, striping, data collection, and reporting, As-Built final designs, and associated civil work as well as testing and training support for two locations.

There are currently two DCFCs and three Level 2 chargers in Ashaway. It is near the Connecticut border, and RIDOT Park 'n Ride locations in rural areas of the Ocean State can help seasonal travelers. On the Interstate 95 corridor, this station is key to national connectivity, and Connecticut does not have an existing station near this border or near-term plans to build one. The second location will be at the Route 117 Park 'n Ride facility in Warwick, Rhode Island. There are two DCFCs and three Level 2 chargers at this facility. Both upgraded locations will continue to be owned by the State of Rhode Island. Based on initial research, increasing the fast chargers by two at each station in the next year should meet the public's demand at these locations. After initial upgrades and contract requirements are in place for data collection, RIDOT will assess the current stations' usage as frequently as monthly and annually. If the power network can support the growing need, we believe larger stations with more capacity will benefit the public.

Table 3: Stations Under Construction

State EV Charging Location Unique ID	Route	Location	Number of Ports	Estimated Year Operational	Estimated Cost	NEVI Funding Sources	New Location or Upgrade?
There are currently no stations under construction for the FY24 plan. In the future, the state of Rhode Island plans to update this table as the NEVI Program matures.							

Table 4: Planned Stations

State EV Charging Location Unique ID	Route	Location	Number of Ports	Estimated Year Operational	Estimated Cost	NEVI Funding Sources	New Location or Upgrade?
TBD	AFC I 95	400 Main St, Ashaway, RI	4 DCFC	2024	$1.2M	FY22/23	Upgrade
TBD	AFC I-95	292 Centerville Rd, Warwick, RI	4 DCFC	2024	$1.2M	FY22/23	Upgrade

Figure 10: Rhode Island Planned FY22/23 EVSE Deployments & Upgrades

8.3 Planning Towards a Fully Built-Out Determination

As soon as **one out of the two** locations has been successfully upgraded, Rhode Island will satisfy the requirements for Interstate 95 as a fully built-out Alternative Fuel Corridor for Interstate 95. As stated, Interstate 95 is Rhode Island's only AFC corridor.

9. Implementation

Rhode Island strategies for implementation and spending USDOT apportionment of Highway Infrastructure Program funds are summarized in this section. As public agencies, we have experience releasing competitive contracts with clear Civil Rights Act requirements, reliability, and performance specifications. The EV market is growing, as a result of demand that splits from our typical role. To serve the public without becoming an energy provider, we are looking at new strategies to implement the funds creatively and practically. This includes working with interested private businesses, networks, and emerging technologies solutions.

9.1 Strategies for EVSE Operations & Maintenance

Our Plan reserves a budget for every station's operations and maintenance expenditures. Rhode Island is open to strategies that weigh the risk and reward for external versus internal employees performing maintenance of the devices. Currently, RIDOT uses a contractor to service roadside devices such as cameras, message board signs, field devices, associated commutations, and power infrastructure. Contracts released by Rhode Island operations and maintenance encourages local workforce participation. In the event of a grant application for operations and maintenance, the recipient will have contractual obligations to ensure station performance, data reporting for usage, uptime, and user satisfaction and to enforce idling fees.

9.2 Strategies for Identifying Electric Vehicle Charger Service Providers and Station Owners

We have heard from the local convenience stores and plan to invite the group to the table to discuss practical next steps in meeting NEVI requirements under Rhode Island contract documents. We are also communicating with local interested business owners and entities to increase EVSE devices. For Phase 2, Rhode Island is open to strategies to help identify EV charger service providers and station owners.

9.3 Strategies for EVSE Data Collection & Sharing

Our Plan reserves $500,000 to hire internal and external consultants and purchase data if necessary. Rhode Island's strategies combine listening to public priorities with data-driven solutions. Data collection and sharing are paramount to optimizing investment, and sharing information among agencies allows us to react to public needs. Rhode Island will work with the U.S. Joint Office of Energy and Transportation to ensure our contracts require a data management plan that satisfies the NEVI requirements and specifications. At a minimum, Rhode Island will require the following data to be available in real-time:

- Location
- Status
- Connector types and availability, including ADA information for ports
- Power level
- Reliability
- Pricing ($/mi, $/kWh, or $/min)

Rhode Island will ensure that the data collected from the program are available to the public, consultants, operators, potential partners, and policymakers to continue identifying policy positions to barriers to installing fast chargers.

9.4 Strategies to Address Resilience, Emergency Evacuation, Snow Removal/Seasonal Needs

Seasonal and coastal areas in Rhode Island are experiencing more frequent and intense storms, impacting water levels and power availability. While planning to support evacuation routes and seasonal communities, the locations of the EVSE devices will be as resilient as possible to natural and human elements. The fast EV charging stations will be essential resources, and the State will need to include alternative fuel vehicles and EV infrastructure in its emergency response and preparedness plan. In line with our Rhode Island Statewide Climate Resilience Action Strategy, microgrids may provide some critical station infrastructure backup. In the future, when more emerging technologies are available, battery backup systems and solar and bi-directional charging capabilities may impact our strategies and improve the infrastructure response during extreme weather

conditions. RIDOT evacuation routes and flooding plains need to be considered. Snow removal from fast EV charging stations will be included as a requirement for RIDOT contracts to operate and maintain the Park & Ride facilities.

9.5 Strategies to Promote Strong Labor, Safety, Training, and Installation Standards

Rhode Island shall meet or exceed the FHWA minimum standards that address NEVI infrastructure workforce certification and safety requirements. We have reserved $500,000 to invest in local EV workforce development. In addition, Rhode Island will ensure that vendors selected under this Plan will focus on safety in all aspects of station development, installation, and maintenance. Rhode Island will work with local groups and universities to promote training and employment opportunities. Rhode Island also includes background, training, and certification criteria for vendor evaluation in the solicitation process.

10. Equity Considerations

Unequal benefits from the transportation and energy systems have prevented disadvantaged communities and businesses belonging to members of those communities from equitably enjoying the benefits of investments. Equity is considered through our Plan to address burdens from transportation and energy systems, which have been disproportionately borne by disadvantaged communities. The Plan will be used to support objectives identified in the February 10, 2022, Memorandum on National Electric Vehicle Infrastructure (NEVI) Formula Program Guidance[29] and Executive Order 14008: Tackling the Climate Crisis at Home and Abroad, establishing the Justice40 initiative, and will target at least 40 percent of the benefit of program spending toward disadvantaged communities (DACs). This analysis also considers State-recognized Rhode Island Enterprise zones, which are transportation infrastructure designations based on several distress criteria, including poverty, unemployment, and median household and per capita incomes.[30] We have overlapped the federal Justice40 communities with the statewide Enterprise zones to identify overlap in the results and gaps between the two assessments (Figure 11). Most Justice40 communities are in the northern portion of the state, around the Providence metropolitan area, including one in Bristol County. Most Justice40 communities also travel along the Interstate 95 corridor, our AFC roadway. Increasing access to these corridors and areas provides benefits in improving air quality and public health and eliminating the barrier to EV charging. These locations will be prioritized in Phase 2, the DAC locations will receive additional consideration in the scoring criteria.

[29] https://www.convenience.org/Media/Daily/2022/Feb/11/1-WhiteHouse-Release-5-Billion-Plan-EV-Charging_GR/90d_nevi_formula_program_guidance_Feb2022.pdf

[30] https://www.rigis.org/datasets/enterprise-zones/explore?location=41.777380%2C-71.336181%2C10.64

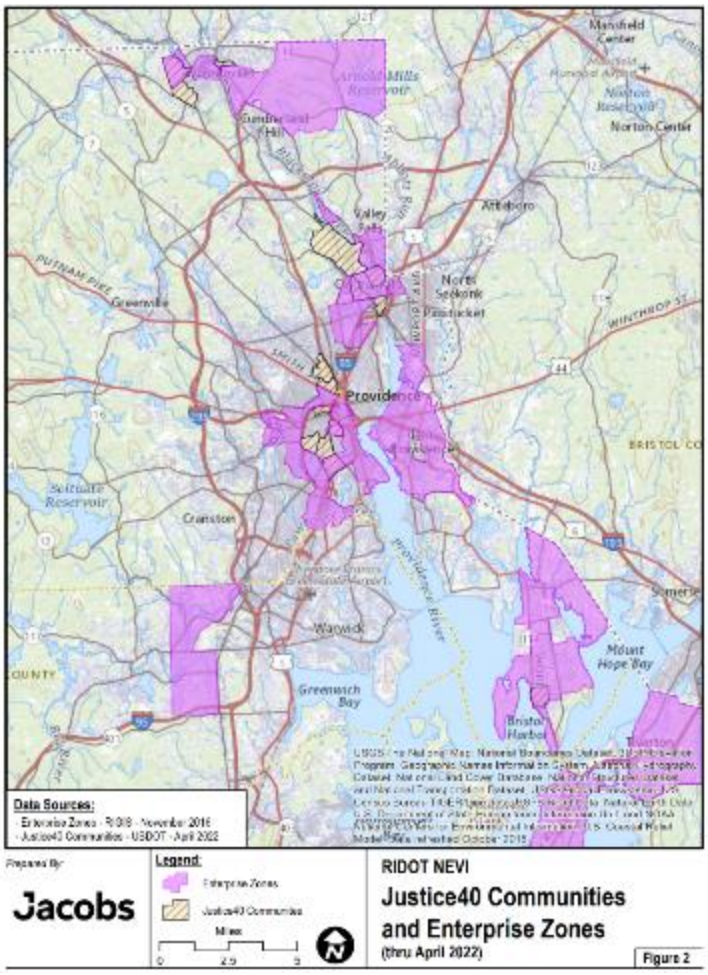


Figure 11: Rhode Island Justice40 Communities and Enterprise Zones

10.1 Identification and Outreach to Disadvantaged Communities (DACs) in the State

Since the approval of the FY 22/23 Plan, the OER has hired a dedicated Environmental Justice (EJ) Program Manager whos responsible for meeting with CBOs and providing assistance with community outreach. This role also includes climate justice hours every month to meet with members from DACs and CBOs. Through their respective Equity Action Plans, DOE, USDOT, and the U.S. Environmental Protection Agency (EPA) have prioritized the following:

- Expanding access
- Data integrity
- Wealth creation
- Power of community
- Stakeholder engagement
- Interventions

Table 5 summarizes the Justice40 considerations, the relevant Rhode Island stakeholder groups and engagement tactics to reach disadvantaged communities. “Justice40 Considerations” are the listed priorities that we should consider. “RI Relevant Stakeholders Groups” are based on the categories previously established in the NEVI Stakeholder List. “Engagement Tactics” are various tactics that can be used to meet the listed priorities while engaging the stakeholders. These were generated based on Rhode Island’s unique needs based on the Bipartisan Infrastructure Law and the EPA Equity Action Plan.

Table 5: Equitable Engagement Considerations

Justice40 Considerations	RI Relevant Stakeholders Groups	Engagement Tactics
Bipartisan Infrastructure Law		
Underserved Communities	Community-Based Organization Regional Organization Public and Quasi-Public Agencies	Identify and survey needs Public Outreach
Clean Drinking Water	N/A	N/A
High-Speed Internet	N/A	N/A
Environmental Justice	Community-Based Organization Native American Tribe	Be intentional and inclusive with awareness and education
Zero Emissions	Public and Quasi-Public Agencies Regional Organizations	Technical assistance, policy analysis, and strategic communications and outreach developing reporting tools and protocols evaluate cost-effective technologies and strategies for the reduction Explore any mitigation opportunities
Workforce Development	Department of Commerce Public and Quasi-Public Agencies	Seasonal Hires Opportunities Campaign for Awareness for Travelers through vacation homes and the hotel industry
	Private Sector Operator	Job Vacancy Listing
	RIDOT	[Note 1] Host Virtual Rooms/Virtual Open Houses Multi-lingual presentations Dedicated email and hotline, **etc**
Environmental Protection Agency (Action Plan)		
Civil Rights	RIDOT	Ensure applicability
Enforcement	Federal Agency	Engage elected officials, as well as relevant government agencies for input, support, and advocacy and to address challenges Target newly appointed representatives and leadership Provide regular updates, talking points, and messaging
Operationalization	Federal Agency Regional Organizations	Advance alert system or warnings for road travelers i.e. AM radio station Multifunctional access such as charging stations, scooter/electric bikes
Environmental Justice	Community-Based Organizations RIDOT	Refer to Note 1

Department of Transportation (Equity Action Plan)		
Wealth Creation	Quasi-Public Agency	Identity S/DB to provide services pre, during, and post Seek a firm with long-term maintenance of facilities i.e. Janitorial or landscape services
	Regional Organizations	Ability to add convenience store or smaller franchise similar to a gas station or rest stop to aide in producing additional jobs
Power of Community	Community-Based Organizations	Engage and inform the public using available and appropriate social media Measure engagement with available analytic tools
Interventions	Regional Organizations	Training and awareness
	Public and Quasi-Public Agencies	
Expanding Access	Regional Organizations	Design and produce materials for electronic and physical distribution to various stakeholders and other interested parties i.e., press kits, handouts, graphics, etc.
	RIDOT	Refer to Note 1
Department of Energy (Equity Action Plan)		
Data	Regional Organizations	Refer to Note 1 Assess any gaps from prior studies and facilitate data-informed decision making
New Applicant Opportunities	Regional Organizations	Provide Multi-lingual applications Post any employment opportunities on various portals
Increase in R&D Funding	Public and Quasi-Public Agencies	Education for capacity building
Tribal & Stakeholder Engagement	Native American Tribes	Pursue speaking engagements for project and agency leadership to further publicize the study
Weatherization	N/A	N/A

10.2 Process to Identify, Quantify, and Measure Benefits to DACs

The project team considered important factors of EVSE deployment that support equitable distribution of benefits informed both by Executive Order 14008 and NEVI guidance, including primarily the following areas:

- Health
- Environmental exposures
- Economic

- Participation
- Energy cost burden
- Capital
- Workforce development
- Energy resilience
- Displacement

In the future, and for the current upgrades, Rhode Island plans to develop a table similar to the one below, utilizing our data collection, White House Guidance for measuring benefits, and Argonne National Laboratory page for Electric Vehicle Charging Equity Considerations and Electric Vehicle Charging Justice40 Map tool.

Table 6: DAC Benefits and Strategies

Benefits Category (examples)	Strategy for Tracking Benefits (Metrics, Baseline, Goals, Data Collection & Analysis Approach, Community Validation)
Improve clean transportation access through the location of chargers;	
Decrease the transportation energy cost burden by enabling reliable access to affordable charging;	Goal: Prioritize direct benefits to DACs Objective: Direct 40 percent of spending to DACs. Data: Estimate future spending in DACs, previous year's spending in DACs (years 2 to 5)
Reduce environmental exposure to transportation emissions;	
Increase parity in clean energy technology access and adoption;	
Increase access to low-cost capital to increase equitable adoption of more costly, clean energy technologies like EVs and EV chargers;	
Increase the clean energy job pipeline, job training, and enterprise creation in disadvantaged communities; Increase energy resilience;	Goal: Prioritize workforce development opportunities within DACs and by DAC members Objective: Increase recruitment to DACs, prioritize equitable investments within DACs Data: Qualitative discussion of activities by various agencies on increasing outreach to DACs Data: Tracts that receive many / high-mileage trips from DACs
Provide charging infrastructure for transit and shared-ride vehicles;	
Increase equitable access to the electric grid; and	
Minimize gentrification-induced displacement resulting from new EV charging infrastructure.	Goal: Gather, through stakeholder outreach, measuring benefits, feedback on current incentives, within-community considerations for citing stations, displacement practices, and other topics. Objective: Continue stakeholder engagement and outreach Data: Summary of comments from stakeholders
Additional Benefits	Goal: Measure indirect benefits Objective: Strengthen measurement techniques to capture indirect benefits to DACs. Data: Tracts located in nonattainment areas that overlap with DACs

11. Labor and Workforce Considerations

Rhode Island is committed to leveraging federal investment to grow the local workforce by fostering training programs focusing on reliability, performance, experience, and diversity in the workforce to maintain the EVSE infrastructure. We understand this is a growing field that needs installers, maintenance technicians, electrical workers, and personnel to serve the industry.

At a minimum, ongoing maintenance will be provided by a licensed EVTIP, and all the workforce installing, maintaining, and operating chargers have appropriate licenses, certifications, and training will comply with 23 CFR 680.106(j). When contracting work to outside entities, Rhode Island is committed to ensuring proper staffing, workforce diversity, local registrations, and training requirements as outlined in the NEVI guidance.

In addition, our qualification-based contracting process will require certain levels of education, years of experience, and certifications. Rhode Island will provide opportunities to contract with disadvantaged business enterprises and women-owned business enterprises as prime contractors or subcontractors. In addition to the contracting mechanism, Rhode Island will explore a value-based procurement strategy and include Justice40 impact as a critical scoring mechanism as we did with the RGP.

OER is applying for the DOE/JOET Drive Electric Grant Opportunity, DE-FOA_0002881, topic area: 2B workforce development. The grant application is a partnership with DLT, Building Futures RI, Roots2Empower, and IBEW and looking to bring ChargerHelp as a committed partner to provide the EVSE Maintenance Technician program into the pre-existing pre-apprenticeship programs through Building Futures RI.

In the future, our agencies will continue to explore opportunities to work with the Rhode Island Department of Labor and Training, local community colleges, technical groups, colleges, and universities to help develop training programs to respond to these work opportunities. We will also explore grant applications to maximize community residents' and stakeholders' local workforce engagement.

12. Physical Security & Cybersecurity

Safety is always Rhode Island's top priority. For physical security, all upgraded stations have overhead lighting and bollards included in the design.

The network connectivity and safety of the fast EV charging station infrastructure need to be considered from a cybersecurity perspective. In 2019, Rhode Island State published a Cybersecurity Strategy.[31] While EVs and fast EV charging stations are not mentioned explicitly, this Plan aligns with the requirements and approach to countering threats. Rhode Island shall follow the FHWA outline for network For cyber security connectivity requirements for charger-to-charger network communication, charging network-to-charging network communication, and charging network-to-grid communication. Our standard requirements will include secure remote monitoring, diagnostics, control, and updates. Proposed network connectivity requirements also would specifically require chargers to be capable of smart charge management and Plug and Charge capabilities by requiring the ability to communicate through Open Charge Point Protocol (OCPP) in tandem with ISO 15118.

Rhode Island EVSE will meet 23 CFR 680, and at a minimum, the devices will meet the following cyber security requirements:

- OCPP1.6 (2.0 preferred)
- UL certified
- Wi-Fi or cellular networking
- Ability to be controlled remotely
- Open ADR 2.0b (or current IEEE 1547)
- Payment Card Industry Data Security Standards in compliance with ISO 15118 to accept payment
- California Senate Bill 327 for Security of Connected Devices

This public service will require a completely different set of deliverables and controls to maintain safety and security for this collaborative ecosystem. This solution must have some key attributes:

1. Maintain competing requirements of both safety and confidentiality
2. Deliver a cost-effective and durable product
3. Allow access and provide services to diverse economic and identity groups
4. Resiliency for power, access, physical, and cybersecurity

Many communities do not have established cybersecurity policies. Cybersecurity expenses can be provided through a base rate allocation, meaning that existing rates cover expenses.

[31] https://admin.ri.gov/sites/g/files/xkgbur536/files/documents/Reports/cybersecurity/RI-Cybersecurity-Strategy-2019.pdf

13. Program Evaluation

Rhode Island will monitor and report the progress of the overall statewide Electric Vehicle AFC network and update this plan annually to address opportunities for improvement. When applicable, this section will provide a summary and assessment of the performance of EV chargers based on data submitted to the Joint Office in compliance with 23 CFR 680.112 (see Section V-B in the NEVI Formula Program Guidance for more information).

To monitor the program, we will ensure performance and contract management to measure contract success and the EV charging network. Rhode Island has existing performance measures and data sources we will leverage to the best of our ability to determine a baseline.

To evaluate the success of the outreach of the program and this Plan, we plan to utilize resources to obtain a contractor to monitor, assess and report each month on the current status of the station and near-term action items delegated from our core working group. Flexibility, data, and stakeholder feedback will be critical in responding to market and public needs changes. As the program matures, the reporting may move to quarterly instead of monthly. Annually, the data will be compiled for assessment and reporting.

In addition to internal measures and overall network impact, Rhode Island is committed to collecting and reporting the FHWA Notice of Proposed Rule-Making metrics in the future, including:

- Climate goals
  - Tracking EV adoption
    - Possible measurements include EV sales, EV registrations, statewide charging hours
  - Approximating greenhouse gas reduction attributed to EV use
  - Localized air quality monitoring
- Promoting equity
  - Demographics of EV registrations, EV sales, and fast EV charging station users based on surveys
  - EVSE education
    - Drive Change. Drive Electric Campaign is already doing this. If this campaign is continued, reach could be amplified across state agencies' outreach efforts.
    - Possible measurements include developing and tracking hits on an informational website, and general surveys.
  - Air quality impacts in DAC
- Diversifying the economy
  - Surveys of business owners within 1 mile of new stations
  - Contractor training programs and employment requirements/data tracking tied to new infrastructure construction contracts
  - Employment and training partnerships with energy providers
- OEM surveys
  - Infrastructure implementation strategy
  - New/improved station usage
  - Maintenance surveys
  - Host location surveys
  - In-person surveys of new station users

14. Discretionary Exceptions

At this time, Rhode Island has not identified the need for any requested exceptions.

Appendix A. Full List of Charging Stations (DCFC, Level 2) as of June 23, 2023[32]

Station ID	Street Address	City	Type	No. of Connectors	EV Network
49706	845 Taunton Ave	East Providence	DC Fast, Level 2	2	Non-Networked
49708	295 E Main Rd	Middletown	DC Fast, Level 2	2	Non-Networked
42016	1041 Eddie Dowling Hwy	North Smithfield	DC Fast, Level 2	2	Non-Networked
49711	885 Quaker Ln	West Warwick	DC Fast, Level 2	2	Non-Networked
165289	283 County Rd	Barrington	DC Fast	1	ChargePoint Network
181041	283 County Rd	Barrington	DC Fast	1	ChargePoint Network
72476	151 Sockanosset Cross Rd	Cranston	DC Fast	1	ChargePoint Network
198359	2611 S County Trl	East Greenwich	DC Fast	1	EVgo Network
204944	435 Nooseneck Hill Rd	Exeter	DC Fast	1	ChargePoint Network
165561	0 NOOSENECK-HILL	Hopkinton	DC Fast	1	ChargePoint Network
165635	0 Nooseneck Hill Rd.	Hopkinton	DC Fast	1	ChargePoint Network
189580	94 George Waterman Rd	Johnston	DC Fast	1	ChargePoint Network
189581	94 George Waterman Rd	Johnston	DC Fast	1	ChargePoint Network
197848	100 Twin River Road	Lincoln	DC Fast	1	ChargePoint Network
197895	100 Twin River Road	Lincoln	DC Fast	1	ChargePoint Network
195726	9 Commerce Dr	Middletown	DC Fast	1	ChargePoint Network
192734	1001 Roosevelt Ave	Pawtucket	DC Fast	1	ChargePoint Network
192735	1001 Roosevelt Ave	Pawtucket	DC Fast	1	ChargePoint Network
217373	1001 Roosevelt Ave	Pawtucket	DC Fast	1	ChargePoint Network
198373	220 India St	Providence	DC Fast	1	EVgo Network
202687	333 Smith St.	Providence	DC Fast	1	ChargePoint Network
85922	1515 Bald Hill Rd	Warwick	DC Fast	1	ChargePoint Network
165228	35 Albany Rd	Warwick	DC Fast	1	ChargePoint Network
165560	Rt117 park and ride	Warwick	DC Fast	1	ChargePoint Network
172279	1515 Bald Hill Rd	Warwick	DC Fast	1	ChargePoint Network
181115	Rt 117 Park&Ride	Warwick	DC Fast	1	ChargePoint Network
167864	51 Silver Spring Street	Providence	DC Fast	4	Electrify America
115510	41 Mary St	Newport	Level 2	1	Tesla Destination
42888	1350 Post Rd	Warwick	Level 2	1	Non-Networked
104757	360 Lincoln Ave	Warwick	Level 2	1	ChargePoint Network
173565	360 Lincoln Ave	Warwick	Level 2	1	ChargePoint Network
173566	360 Lincoln Ave	Warwick	Level 2	1	ChargePoint Network
173567	360 Lincoln Ave	Warwick	Level 2	1	ChargePoint Network
173568	360 Lincoln Ave	Warwick	Level 2	1	ChargePoint Network
173569	360 Lincoln Ave	Warwick	Level 2	1	ChargePoint Network
220713	132 Atlantic Ave	Westerly	Level 2	1	Tesla Destination

[32] https://afdc.energy.gov/stations#/analyze?region=US-RI&country=US

Station ID	Street Address	City	Type	No. of Connectors	EV Network
166900	90 County Rd	Barrington	Level 2	2	ChargePoint Network
181298	90 County Rd	Barrington	Level 2	2	ChargePoint Network
87570	1 Ferry Rd	Bristol	Level 2	2	ChargePoint Network
103499	480 Metacom Ave	Bristol	Level 2	2	ChargePoint Network
166237	1 Colt Dr	Bristol	Level 2	2	ChargePoint Network
53460	84 Inman Rd	Burrillville	Level 2	2	ChargePoint Network
104396	75 Eastern Ave	Burrillville	Level 2	2	ChargePoint Network
104506	240 Harrisville Main St	Burrillville	Level 2	2	ChargePoint Network
173518	75 Eastern Ave	Burrillville	Level 2	2	ChargePoint Network
173534	240 Harrisville Main St	Burrillville	Level 2	2	ChargePoint Network
98858	75 Burlingame State Park Rd	Charlestown	Level 2	2	ChargePoint Network
196247	900 Tiogue Ave	Coventry	Level 2	2	Volta
219763	2405 Nooseneck Hill Rd	Coventry	Level 2	2	ChargePoint Network
98879	93 Midway Rd	Cranston	Level 2	2	ChargePoint Network
144509	1341 Elmwood Ave	Cranston	Level 2	2	ChargePoint Network
155493	50 Independence Way	Cranston	Level 2	2	ChargePoint Network
165084	14 W Rd	Cranston	Level 2	2	ChargePoint Network
173254	93 Midway Rd	Cranston	Level 2	2	ChargePoint Network
175561	50 Independence Way	Cranston	Level 2	2	ChargePoint Network
180973	14 W Rd	Cranston	Level 2	2	ChargePoint Network
196214	315 Harborside Blvd	Cranston	Level 2	2	ChargePoint Network
196215	315 Harborside Blvd	Cranston	Level 2	2	ChargePoint Network
205023	30 Martin St	Cumberland	Level 2	2	ChargePoint Network
205211	30 Martin St	Cumberland	Level 2	2	ChargePoint Network
205716	30 Martin St	Cumberland	Level 2	2	ChargePoint Network
205954	30 Martin St	Cumberland	Level 2	2	ChargePoint Network
149138	111 Peirce St	East Greenwich	Level 2	2	ChargePoint Network
174678	111 Peirce St	East Greenwich	Level 2	2	ChargePoint Network
52591	50 Highland Ave	East Providence	Level 2	2	ChargePoint Network
52816	430 Newport Ave	East Providence	Level 2	2	ChargePoint Network
53042	1011 Veterans Memorial Pkwy	East Providence	Level 2	2	ChargePoint Network
122762	159 Squantum Rd	East Providence	Level 2	2	ChargePoint Network
122763	89 Squantum Rd	East Providence	Level 2	2	ChargePoint Network
191379	20 Newman Ave	East Providence	Level 2	2	ChargePoint Network
191380	27 Newman Ave	East Providence	Level 2	2	ChargePoint Network
207438	2000 Pawtucket Ave. East Providence High School	East Providence	Level 2	2	ChargePoint Network
207439	2000 Pawtucket Ave. East Providence High School	East Providence	Level 2	2	ChargePoint Network
213958	3 Dexter Rd	East Providence	Level 2	2	ChargePoint Network
213959	3 Dexter Rd	East Providence	Level 2	2	ChargePoint Network

Station ID	Street Address	City	Type	No. of Connectors	EV Network
99318	151 Pulaski Rd	Glocester	Level 2	2	ChargePoint Network
181116	0 NOOSENECK-HILL	Hopkinton	Level 2	2	ChargePoint Network
181117	0 NOOSENECK-HILL	Hopkinton	Level 2	2	ChargePoint Network
181118	0 NOOSENECK-HILL	Hopkinton	Level 2	2	ChargePoint Network
143193	10 Memorial Avenue	Johnston	Level 2	2	ChargePoint Network
143200	345 Cherry Hill Rd	Johnston	Level 2	2	ChargePoint Network
147550	1301 Atwood Ave	Johnston	Level 2	2	ChargePoint Network
174186	10 Memorial Avenue	Johnston	Level 2	2	ChargePoint Network
174188	345 Cherry Hill Rd	Johnston	Level 2	2	ChargePoint Network
174653	1301 Atwood Ave	Johnston	Level 2	2	ChargePoint Network
174654	1301 Atwood Ave	Johnston	Level 2	2	ChargePoint Network
174655	1301 Atwood Ave	Johnston	Level 2	2	ChargePoint Network
174656	1301 Atwood Ave	Johnston	Level 2	2	ChargePoint Network
201018	5 East Alumni Ave.	Kingston	Level 2	2	ChargePoint Network
196561	35 Campus Ave.	Kingstown	Level 2	2	ChargePoint Network
196562	36 West Alumni Ave	Kingstown	Level 2	2	ChargePoint Network
196563	36 West Alumni Ave	Kingstown	Level 2	2	ChargePoint Network
52818	622 George Washington Hwy	Lincoln	Level 2	2	ChargePoint Network
117186	3 I-295	Lincoln	Level 2	2	ChargePoint Network
197891	100 Twin River Road	Lincoln	Level 2	2	ChargePoint Network
197892	100 Twin River Road	Lincoln	Level 2	2	ChargePoint Network
197893	100 Twin River Road	Lincoln	Level 2	2	ChargePoint Network
197894	100 Twin River Road	Lincoln	Level 2	2	ChargePoint Network
98853	17 Elizabeth Ln	Middletown	Level 2	2	ChargePoint Network
146793	700 W Main Rd	Middletown	Level 2	2	ChargePoint Network
147221	350 E Main Rd	Middletown	Level 2	2	ChargePoint Network
174533	700 W Main Rd	Middletown	Level 2	2	ChargePoint Network
174574	350 E Main Rd	Middletown	Level 2	2	ChargePoint Network
206769	93 Miantonomi Ave	Middletown	Level 2	2	ChargePoint Network
206770	93 Miantonomi Ave	Middletown	Level 2	2	ChargePoint Network
52819	870 Ocean Rd	Narragansett	Level 2	2	ChargePoint Network
98825	Salty Acres Dr	Narragansett	Level 2	2	ChargePoint Network
98852	254 Great Island Rd	Narragansett	Level 2	2	ChargePoint Network
218079	91 Point Judith Rd	Narragansett	Level 2	2	Volta
98854	85 Fort Adams Dr	Newport	Level 2	2	ChargePoint Network
98856	13 Powel Ave	Newport	Level 2	2	ChargePoint Network
98857	59 Brown and Howard Wharf	Newport	Level 2	2	ChargePoint Network
156082	151 Admiral Kalbfus Rd.	Newport	Level 2	2	ChargePoint Network
156103	151 Admiral Kalbfus	Newport	Level 2	2	ChargePoint Network
163612	1 W Marlborough Street	Newport	Level 2	2	ChargePoint Network

Station ID	Street Address	City	Type	No. of Connectors	EV Network
175639	151 Admiral Kalbfus Rd.	Newport	Level 2	2	ChargePoint Network
180659	1 W Marlborough Street	Newport	Level 2	2	ChargePoint Network
180660	1 W Marlborough Street	Newport	Level 2	2	ChargePoint Network
207284	31 America's Cup Ave	Newport	Level 2	2	Non-Networked
207285	25 America's Cup Ave	Newport	Level 2	2	Non-Networked
98876	20 Gate Rd	North Kingstown	Level 2	2	ChargePoint Network
52820	600 6th Street	North Providence	Level 2	2	ChargePoint Network
206616	1128 Mineral Spring Ave	North Providence	Level 2	2	Volta
86208	I-95	Pawtucket	Level 2	2	ChargePoint Network
183135	39 Central Ave	Pawtucket	Level 2	2	ChargePoint Network
183136	188 Front St	Pawtucket	Level 2	2	ChargePoint Network
189755	766 Broadway	Pawtucket	Level 2	2	ChargePoint Network
189756	766 Broadway	Pawtucket	Level 2	2	ChargePoint Network
189788	1005 Main St	Pawtucket	Level 2	2	ChargePoint Network
194546	368 Cottage St	Pawtucket	Level 2	2	Volta
52595	154 Anthony Rd	Portsmouth	Level 2	2	ChargePoint Network
169177	1 Little Harbor Landing	Portsmouth	Level 2	2	Tesla Destination
52596	51 Washington St	Providence	Level 2	2	ChargePoint Network
52597	1 Capitol Hl	Providence	Level 2	2	ChargePoint Network
62333	299-331 Silver Spring St	Providence	Level 2	2	ChargePoint Network
72465	285 Edith St	Providence	Level 2	2	ChargePoint Network
85915	115-199 Park St	Providence	Level 2	2	ChargePoint Network
98877	470 Harris Ave	Providence	Level 2	2	ChargePoint Network
98880	151 Spruce St	Providence	Level 2	2	ChargePoint Network
99314	60 Dudley St	Providence	Level 2	2	ChargePoint Network
99315	101 Blackstone St	Providence	Level 2	2	ChargePoint Network
99319	175 Summit Ave	Providence	Level 2	2	ChargePoint Network
99346	32 Exchange Terrace	Providence	Level 2	2	ChargePoint Network
104482	44 Hospital Street	Providence	Level 2	2	ChargePoint Network
122819	330 Eddy St	Providence	Level 2	2	ChargePoint Network
143879	50 Park Ln	Providence	Level 2	2	ChargePoint Network
145220	301 Iron Horse Way	Providence	Level 2	2	ChargePoint Network
145454	279 Dexter St	Providence	Level 2	2	ChargePoint Network
146889	Roger Williams Zoo	Providence	Level 2	2	ChargePoint Network
146890	Roger Williams Park Zoo 1000 Elmwood Avenue	Providence	Level 2	2	ChargePoint Network
149555	222 Richmond St	Providence	Level 2	2	ChargePoint Network
149619	86 Valley St	Providence	Level 2	2	ChargePoint Network
149624	166 Valley St	Providence	Level 2	2	ChargePoint Network
153310	600 Mount Pleasant Ave	Providence	Level 2	2	ChargePoint Network
153311	600 Mt. Pleasant Ave	Providence	Level 2	2	ChargePoint Network

Station ID	Street Address	City	Type	No. of Connectors	EV Network
154243	58 Thayer St	Providence	Level 2	2	ChargePoint Network
154244	200 Dyer St	Providence	Level 2	2	ChargePoint Network
154245	1986 Lloyd Ave	Providence	Level 2	2	ChargePoint Network
154303	123 Waterman St	Providence	Level 2	2	ChargePoint Network
154415	5 Edith St	Providence	Level 2	2	ChargePoint Network
155292	347 W Fountain St	Providence	Level 2	2	ChargePoint Network
167382	45 Pleasant Valley Pkwy	Providence	Level 2	2	Blink Network
167384	280 Broad St	Providence	Level 2	2	Blink Network
167549	60 Hartford Ave	Providence	Level 2	2	Blink Network
171221	180 Friendship St	Providence	Level 2	2	ChargePoint Network
171529	1 Capitol Hl	Providence	Level 2	2	ChargePoint Network
172280	115-199 Park St	Providence	Level 2	2	ChargePoint Network
174365	50 Park Ln	Providence	Level 2	2	ChargePoint Network
174432	301 Iron Horse Way	Providence	Level 2	2	ChargePoint Network
174465	279 Dexter St	Providence	Level 2	2	ChargePoint Network
174466	279 Dexter St	Providence	Level 2	2	ChargePoint Network
174722	86 Valley St	Providence	Level 2	2	ChargePoint Network
174723	86 Valley St	Providence	Level 2	2	ChargePoint Network
174724	166 Valley St	Providence	Level 2	2	ChargePoint Network
174725	166 Valley St	Providence	Level 2	2	ChargePoint Network
175108	600 Mount Pleasant Ave	Providence	Level 2	2	ChargePoint Network
175109	600 Mt Pleasant Ave	Providence	Level 2	2	ChargePoint Network
175110	600 Mt. Pleasant Ave.	Providence	Level 2	2	ChargePoint Network
175301	58 Thayer St	Providence	Level 2	2	ChargePoint Network
175302	200 Dyer St	Providence	Level 2	2	ChargePoint Network
175303	1986 Lloyd Ave	Providence	Level 2	2	ChargePoint Network
175356	5 Edith St	Providence	Level 2	2	ChargePoint Network
175357	5 Edith St	Providence	Level 2	2	ChargePoint Network
175509	347 W Fountain St	Providence	Level 2	2	ChargePoint Network
175510	347 W Fountain St	Providence	Level 2	2	ChargePoint Network
183198	705 Elmwood Ave	Providence	Level 2	2	ChargePoint Network
186548	600 Mt Pleasant Ave	Providence	Level 2	2	ChargePoint Network
186567	600 Mt Pleasant Ave	Providence	Level 2	2	ChargePoint Network
196212	180 Pine St	Providence	Level 2	2	ChargePoint Network
196213	185 Pine St	Providence	Level 2	2	ChargePoint Network
196216	125 Harborside Blvd	Providence	Level 2	2	ChargePoint Network
196217	125 Harborside Blvd	Providence	Level 2	2	ChargePoint Network
196218	100 Harborside Blvd	Providence	Level 2	2	ChargePoint Network
203362	150 Union St	Providence	Level 2	2	ChargePoint Network
203363	150 Union St	Providence	Level 2	2	ChargePoint Network

Station ID	Street Address	City	Type	No. of Connectors	EV Network
205936	110 Westminster St Parking Lot	Providence	Level 2	2	ChargePoint Network
205937	110 Westminster St Parking Lot	Providence	Level 2	2	ChargePoint Network
205951	50 Kennedy Plaza Parking Garage	Providence	Level 2	2	ChargePoint Network
205952	50 Kennedy Plaza Parking Garage	Providence	Level 2	2	ChargePoint Network
219764	1560 Westminster St	Providence	Level 2	2	ChargePoint Network
53055	371 Putnam Pike	Smithfield	Level 2	2	ChargePoint Network
98507	57 John Mowry Rd	Smithfield	Level 2	2	ChargePoint Network
52598	950 Succotash Rd	South Kingstown	Level 2	2	ChargePoint Network
102935	315 Main St	South Kingstown	Level 2	2	ChargePoint Network
173433	315 Main St	South Kingstown	Level 2	2	ChargePoint Network
154076	79 Aquidneck Dr	Tiverton	Level 2	2	ChargePoint Network
175250	79 Aquidneck Dr	Tiverton	Level 2	2	ChargePoint Network
217442	700 Metacom Ave	Warren	Level 2	2	ChargePoint Network
217443	700 Metacom Ave	Warren	Level 2	2	ChargePoint Network
217444	700 Metacom Ave	Warren	Level 2	2	ChargePoint Network
217445	700 Metacom Ave	Warren	Level 2	2	ChargePoint Network
52599	1276 Bald Hill Rd	Warwick	Level 2	2	ChargePoint Network
52824	T.F. Green Airport Connector Rd	Warwick	Level 2	2	ChargePoint Network
53466	315 Greenwich Ave	Warwick	Level 2	2	ChargePoint Network
98862	1759 Post Rd	Warwick	Level 2	2	ChargePoint Network
99402	700 Jefferson Blvd	Warwick	Level 2	2	ChargePoint Network
100335	403 East Ave	Warwick	Level 2	2	ChargePoint Network
104219	89 Jefferson Blvd	Warwick	Level 2	2	ChargePoint Network
147152	708 Greenwich Ave	Warwick	Level 2	2	ChargePoint Network
154435	560 Jefferson Blvd	Warwick	Level 2	2	ChargePoint Network
155185	334 Knight St	Warwick	Level 2	2	ChargePoint Network
166691	Rt 117 Park&Ride	Warwick	Level 2	2	ChargePoint Network
173474	89 Jefferson Blvd	Warwick	Level 2	2	ChargePoint Network
173475	89 Jefferson Blvd	Warwick	Level 2	2	ChargePoint Network
173476	89 Jefferson Blvd	Warwick	Level 2	2	ChargePoint Network
175369	560 Jefferson Blvd	Warwick	Level 2	2	ChargePoint Network
175487	334 Knight St	Warwick	Level 2	2	ChargePoint Network
181208	Rt 117 Park&Ride	Warwick	Level 2	2	ChargePoint Network
181209	Rt 117 Park&Ride	Warwick	Level 2	2	ChargePoint Network
194016	300 Jefferson Blvd	Warwick	Level 2	2	ChargePoint Network
194017	300 Jefferson Blvd	Warwick	Level 2	2	ChargePoint Network
194018	300 Jefferson Blvd	Warwick	Level 2	2	ChargePoint Network
194019	300 Jefferson Blvd	Warwick	Level 2	2	ChargePoint Network

Station ID	Street Address	City	Type	No. of Connectors	EV Network
194105	3027 W Shore Rd After City Park	Warwick	Level 2	2	ChargePoint Network
194106	3027 W Shore Rd After City Park	Warwick	Level 2	2	ChargePoint Network
194107	3027 W Shore After City Park	Warwick	Level 2	2	ChargePoint Network
197556	1557 Bald Hill Rd	Warwick	Level 2	2	ChargePoint Network
98855	52 Barnett Ln	West Greenwich	Level 2	2	ChargePoint Network
71571	525 Quaker Ln	West Warwick	Level 2	2	ChargePoint Network
165177	50 Dogwood Dr	West Warwick	Level 2	2	ChargePoint Network
180987	50 Dogwood Dr	West Warwick	Level 2	2	ChargePoint Network
98824	418 Atlantic Ave	Westerly	Level 2	2	ChargePoint Network
153232	2467 Diamond Hill Rd	Woonsocket	Level 2	2	ChargePoint Network
158469	115 Cass Ave	Woonsocket	Level 2	2	ChargePoint Network
175083	2467 Diamond Hill Rd	Woonsocket	Level 2	2	ChargePoint Network
175763	115 Cass Ave	Woonsocket	Level 2	2	ChargePoint Network
175764	115 Cass Ave	Woonsocket	Level 2	2	ChargePoint Network
115509	1 Goat Island	Newport	Level 2	3	Tesla Destination
168813	1 Goat Island	Newport	Level 2	3	Tesla Destination
115512	1 Bluff Ave	Watch Hill	Level 2	3	Tesla Destination
115513	25 Spray Rock Rd	Westerly	Level 2	3	Tesla Destination
153929	141 County Rd	Barrington	Level 2	4	SemaCharge Network
148144	302 Central Avenue	Johnston	Level 2	4	SemaCharge Network
195510	270 Central Avenue	Johnston	Level 2	4	SemaCharge Network
158615	109 Pleasant View Ave	Smithfield	Level 2	4	EV Connect
42423	1111 Taunton Ave	East Providence	Level 2	6	Non-Networked
151843	1 Providence Pl	Providence	Level 2	8	Volta
167922	1 Providence Pl	Providence	Level 2	8	Volta
115511	2000 Post Rd	Warwick	Level 2	12	Tesla Destination
98891	1960 Post Rd	Warwick	Level 2	16	Non-Networked
47804	1051 Ten Rod Rd	North Kingstown	Level 2, Level 1	30	Non-Networked
207761	1776 Post Rd	Warwick	Tesla	7	Tesla
102400	1000 Division Street	East Greenwich	Tesla	8	Tesla

Appendix B. Results of Public Survey

Rhode Island Electric Vehicle Charging Stations Program

Project Engagement

VIEWS
1,829

PARTICIPANTS
610

RESPONSES
16,822

COMMENTS
948

SUBSCRIBERS
197

How important are these attributes of public charging stations?

	Very important	Somewhat important	Not Important
Access to the fastest Level 3 chargers	69% Very important	22% Somewhat important	10% Not Important
Access to standard Level 2 chargers	52% Very important	35% Somewhat important	13% Not Important
Free charging	49% Very important	28% Somewhat important	22% Not Important
Discount charging	47% Very important	36% Somewhat important	17% Not Important
Close to the Interstate and other highways	62% Very important	26% Somewhat important	12% Not Important
In busy commercial corridors	61% Very important	25% Somewhat important	14% Not Important
In Downtown Providence	39% Very important	35% Somewhat important	27% Not Important

	Very important	Somewhat important	Not Important
In other Providence neighborhoods	34% Very important	40% Somewhat important	26% Not Important
In other urban areas outside Providence	59% Very important	32% Somewhat important	9% Not Important
In villages and smaller downtown areas	53% Very important	35% Somewhat important	13% Not Important
In rural areas	39% Very important	38% Somewhat important	24% Not Important
Compatible with Tesla vehicles (which use a proprietary type of charger)	30% Very important	34% Somewhat important	36% Not Important
Other (please use comment box below)	51% Very important	11% Somewhat important	38% Not Important

585 respondents

Other important attributes of public charging stations?

Public schools, Colleges & Universities, Hotels, tourist attractions, health clubs, libraries, the zoo.

one year ago

We'll be getting an EV in the next couple of years. Subaru is coming out with one next year, which is new for that company. I have a 2018 Prius hybrid currently and would have gone full EV if there were more charging stations.

one year ago

Safety - lighting - adapt gas stations so current owners can still repair vehicles, not lose business

one year ago

Near a safe place to wait such as public library, shopping center, well lit, safe for women traveling alone

one year ago

There should be chargers on Conanicut and Aquidneck Islands, as well as in Tiverton.

one year ago

Free and easily accessible and safe.

one year ago

Near but corporate offices like Citizens bank

one year ago

Near apartment complexes and multi-unit dwellings. I also think the more rural areas and small towns are important because they do not have the same opportunities for public transit.

one year ago

Put them in parking lots of markets (like in Stop & Shop in East Providence) where there's a lot of room and many people could benefit.

one year ago

Clean, safe area

one year ago

Time limits. Some users tend to drop off car to charge and are away for an extended period of time.

one year ago

They should be located at existing gasoline stations

one year ago

Ideally chargers should be standardized. Teslas are luxury vehicles, and adapters are available that allow a Tesla to be compatible with most forms of charger, even if its not the proprietary one. As far as free and discount charging, I don't think free charging is a good idea because the state is already sacrificing some gas tax revenue by supporting EVs. Finding other ways to recoup that revenue, like metering a charger, is critical to making sure that we have a sustainable EV network. One approach could just be tacking the meter bill on as a surcharge to a baseline parking fee.

one year ago

Please consider residential areas without off street parking. I'm from Newport and it's been challenging for residents both year-round and seasonal to install charging at their homes if they do not have off street parking. Thank you!

one year ago

Near shopping or activity locations. Have people spend money while charging.

one year ago

Specially import to adopt infrastructure around dense urban neighborhoods that won’t have the ability to charge off-street.

one year ago

Easily accessible information on where chargers are, what type of charge they provide and if they are currently being used or if they can be booked in advance.

one year ago

The more carried places we can have charging stations, the more people will buy the cars- def spread them out between highway/city/rural areas.

one year ago

Stations that don't require you to download an app, register, etc.

one year ago

Should be in public areas to encourage increased adoption.

one year ago

Maintenance. Sometimes they are not working

one year ago

D0ont need

one year ago

Clean air, encourages good value about protecting environment, phase out of excessive fossil fuels

one year ago

Located next to LOCAL businesses - not always near the National/international chains!

one year ago

Near other amenities or at additional park and ride locations

one year ago

Very important that whoever is responsible for these chargers maintains them and addresses outages immediately.

one year ago

Do not agree with any of this. Wasting all that money for what? How about have an actual infrastructure in place before doing this? This is such a bad idea. Not surprised.

one year ago

All cars should have a universal charger that is federally mandated

one year ago

High volume of charging units. The current charging stations fill quickly and it can be difficult to charge when needed due to high use.

one year ago

Should generate revenue. Maybe the first 10 minutes are free, then a charge so it keeps people moving and chargers available for people (ie. no squatters)

one year ago

Well-maintained and "Free/Unavailable" readily viewable across all of the major apps/platforms

one year ago

Having a starting point and continuously working to improve it (EV network). a LOT of people with EV's can put a 240V charger in their garage. People that live in Apartment buildings or need to commute to work and charge back up so that they can drive back home also need to be addressed. Right now it seems like VERY FEW places are available. Park & Rides are starting to pop up with chargers but not enough. Dave's market is a great example of what Tesla is doing with level 3 chargers. Level 1 chargers are a joke.
Level 2 chargers are adequate but level 3 gets one on the road fast. EV's have gone from 1 percent up to over 4 percent in the last 6 or 7 years and with the price of gas, that will exponentially change even faster. Each year you need to expand the network & make sure that it is in-tact. Make deals with gas stations (existing structures) and maybe give them a percentage if it charges $$ for a re-charge. Sitting somewhere for eight hours is not the answer. Yes, I own TWO fully electric vehicles. Acting is far better than talking about these issues.

one year ago

Install sufficient stations to meet demands 24/7.

one year ago

Available when needed ... so install enough of them!

one year ago

speed, availability

one year ago

The biggest impact will be to...
1.) Provide incentives for landlords to install level 2 charging stations for tenants.
2.) Provide incentives for businesses to provide level 1 or 2 charging for employees and level 3 for customers.
3.) Provide incentives for hotels to provide level 2 charging for guests.
4.) Provide incentives for fast chargers at restaurants, truck stops, rest stops, and other public and private parking areas within a short distance of interstate highways.

one year ago

need more charges in newport county area. Closest charging stations are slower charging units and/or not worth the traveling distance.

one year ago

Chargers at beaches, grocery stores, park and rides, shopping malls, shopping plazas, etc. including in rural areas. As the smallest state there is no reason why we can't figure out how to do this. We should incentivize homeowners and landlords to go solar as well and allow solar panel owners to make money on what they sell back to the grid to help encourage renewables and make it that much more affordable to charge their cars at home.

one year ago

Good maintenance of chargers to make sure they're reliable. Compatible with charger network, chargepoint, etc.

one year ago

Close to coffee shop

one year ago

In the beach communities like Narragansett, Watch Hill, Newport, Middletown, Portsmouth, and Tiverton

one year ago

At retail places, grocery, restaurants
Also the beaches

one year ago

They should be where large amounts of people drive who would use them-We want an electronic cechicle but concerned about lack of infrastructure

one year ago

We don't need to waste taxpayer money on these. They are not needed.

one year ago

There should be a few in every city and town in Rhode Island. In areas of high crime, chargers must be visible and closed-circuit monitoring. Consider a payment program similar to RIBTA. It works well and is easily monitored.

one year ago

They should be located at popular park & ride lots (e.g. Wickford Junction, Kingston and Westerly Stations, the Newport ferry terminal on India St.)

one year ago

It is not the responsibility of government to provide charging stations.

one year ago

Must be free. Potentially paid for by the stores & coffee shops available to browse while a car is charging.

one year ago

It’s the future if you value a healthy environment and maintaining emissions limits. For Economic reasons it makes sense. The Ford motor company is committing to COMPLETELY change its line of cars and trucks to EV by 2030. The charging stations should be as ubiquitous as gas stations. Shoot for that. Try. Just try.

one year ago

Municipal lots used during parking bans for snow storms seems like a great place for these

one year ago

let businesses control when and where to put electrical chargers.

one year ago

No one can afford electric vehicles. Whoever made this survey is a clown

one year ago

Charging speed is critical. No one needs a slow charger in a mall where they are shopping. You need fast charging in places you may only be for 10-15 minutes. Slow charging makes sense at home where you can charge overnight. Very important to make sure apartment dwellers can access home charging. Also, incentivize installation of home charging. It's very expensive to get it installed.

one year ago

Accessible to all people. At rental properties and offices/businesses. I specifically think if Tesla is making proprietary chargers, they should build out their own charging infrastructure because it's exclusionary to other vehicles.

Hotels! I traveled recently and specifically picked where I stayed based on where I could charge my EV.

one year ago

Every gas station should have them to replace the pumps.

one year ago

Also Charging stations for all busy malls ect. Were a bowling center off RT 10 and were going to install 2 or 3 Charging stations soon

one year ago

Need level 3 at large shopping areas like the malls in Warwick, near BJs clubs and at places like Lowes or Home Depot where the lots are big and it’s easily accessible and convenient

one year ago

Must be accessible

one year ago

At charges should have marts or convenience stores at them.

one year ago

On maps and clear signage

one year ago

I've had a Tesla for 3 years and mostly now charge at home as do most EV owners unless they are traveling.

While traveling the important issue is easy highway access to charging and availability to charge at destinations.

Newport and the south county beaches would be critical spots to have charging as would any place that has tourist attraction. Bristol comes to mind.

Woonsocket and rt146 need chargers as does rt295, rt6 and rt44 out toward CT.

I've got lots of friends with EVs and being retired lots of time for free consulting if you want a 72 year old RI native's input.

Best,
John

401.400.4118
Johnrohland@gmail.com

one year ago

N/A

one year ago

I need to know how long it takes to charge a vehicle, and how many charging ports/outlets will be provided per location, in order to guess at a response to the above questions.

one year ago

They have to be functional. A key part of this effort is ensuring that they work! If they are unreliable people will not switch to electric.

one year ago

Also at every gas station if possible.

one year ago

Adequate distribution/numbers vs demand, reliability, ease of use, maintenance, visibility/standard signage.

one year ago

Should not be hindered by Tesla proprietary charging requirements.

one year ago

Share charging locations and features (level 2,3, Tesla compatible, etc.) with popular mapping apps (google maps, safari maps) and make list and map available on RI.gov website for ease to find.

one year ago

Please make sure that chargers are available to the public 24/ 7/ 365, and that there are discounts and/ or abundant free charging codes available to low-income drivers. Please be sure that some charging stations are in liw-income neighborhoods. Please also be sure that there is an app showing availability (status) and locations of charging stations.

one year ago

The level 3 chargers in Warwick are slow. They need to be maintained. I suggest putting in emergency buttons for help near the level 3 chargers as the level 3 off of Exit 1 is in a remote area. All chargers need an overhang to protect from the elements. We need free level 3 chargers off of 295 and Northern I95 in Pawtucket.

one year ago

Not to interfere with current and/or future traffic flow patterns; e.g., NEON gas station on Dean St between Kinsley St and 6W on-ramp: this intersection is a) already heavily and dangerously congested; b) conversion of Kinsley St to one-way companion to Promenade per Woonasquatucket River Greenway plan to address congestion and pedestrian/bicycle safety is overdue; c) one of THREE gas stations in a block--what were you thinking???

one year ago

shopping malls, multiple chargers, federal hill

one year ago

Near universities (Brown, RISD, URI, etc)

one year ago

Should be used as an economic development tool in that the chargers are located near commercial centers; not in parking lots next to exit ramps.

one year ago

There should be compatibility with different types of vehicles and not prioritize one over the other.

one year ago

The places that are not considered urban, rural or EJ, but in places where there is still plenty of traffic and need for chargers

one year ago

I think it is important to not just focus on providence area, but to include other areas around the state, especially near restaurants, movie theaters, and other places where people might spend time where they could also charge up their vehicle.

one year ago

Thanks

one year ago

Public parking

one year ago

They have to work and provide updated status via an app if the charger is functioning or out of order. They have to be in a location that does not encourage people to use them as a parking space and not charge, or there must be penalties for not charging.

one year ago

Located in ALL state parks, not just Colt State Park.

one year ago

Operational status should be reliably viewable on an app. Nothing worse than showing up to charge with a depleted battery to find out that the charger is out of service. Available number of chargers should also be indicated. Idle charges to prevent people from having a fully charged car occupy a space that could be made available to other vehicles.

one year ago

Situate to avoid crowded charging stations as it takes longer than gasoline fill-ups. Ideally there would be small clusters of chargers widely distributed geographically but I'd think that sick a network would be more costly to build. Perhaps a combination of large stations in high-traffic locations and smaller stations widely distributed.

one year ago

Laws that stipulate chargers in public parking lots

one year ago

As many DC fast chargers as possible to make it very convenient for EV owners to charge when needed and to alleviate range anxiety for new potential EV purchasers.

one year ago

Making an effort to have charging stations evenly spread out within the state is important regardless of it being placed in an area that is City vs. Urban.
I personally am hesitant to go full electric (as opposed to my current Hybrid) because I do not have peace of mind in knowing I will be able to charge up with the same convenience of stopping at a gas station. I also hear that many people will not go to electric cars because they are nervous they will run out of charge in an area with no plug-in stations which seems to validate my feelings too.

one year ago

Strategic placement of public charging stations of critical importance. Placement near locations/businesses where drivers will tend to stop for 1-3 hours, e.g. near supermarkets, movie theaters, shopping malls/plazas, walkable town centers, public parks/hiking areas/bodies of water.

Also placing more discounted or free Level 3 charging stations in city/town centers will be critical for expanding infrastructure and encouraging wider EV adoption.

one year ago

Reliable, regular REPORTING to public as to cost of generating electricity to feed these, and cost of delivering power (equipment, maintenance, operation). REPORTING truthfully source of power that is generating electricity delivered.
Privatizing and allowing competition amongst providers of power delivered via these stations.

one year ago

Make finding them easier

one year ago

very important that the chargers are installed with their own dedicated electric lines. When two chargers share a line, slower charging results when both chargers are in use. Fastest charging can only be guaranteed if there is no line sharing.

one year ago

None

one year ago

If the RI DOT places charging stations throughout the state along the highway corridors and at the park and ride locations, people use the bus system, they'd be able to get around and save gasoline and save money and the planet.

one year ago

Having a more user friendly app for the charging stations.

one year ago

They should be near places where people expect to spend at least an hour, such as restaurants, shopping malls, parks, and other recreational destinations.

one year ago

Retail big box stores. Walmart, Lowe's, home depot, stop an shop.....

one year ago

Best at market (Whole Foods, Stop & Shop etc..) and drug/convenience stores (CVS and Walgreens).

one year ago

Electric charging stations are very important. The lack of these has caused me to put a purchase of an electric car on hold for a few years. At the least I may buy a plug in hybrid next year.

one year ago

enforcement of time limits and non-ev cars taking up spots. Placement in locations where you would normally spend sometime anyway. Maintenance, many times the stations do not work and are usually inoperable for a long time before getting fixed.

one year ago

Chargers should be placed where people naturally park their cars for a period of time. IE: Shopping, laundry, theater, stadium, arena, school, hospital, etc

one year ago

These need to be as broadly distributed as possible and not simply focused on urban areas. If we want EV's to be accepted and viable, they need to be where people live and play, including where tourists tend to visit. We also need to remember that Tesla's are not the only game in town and we should not be focused on that brand over others as to give them undue incentives for sale of their vehicles over others. The hope would be that, like combustion engine vehicles, all EVs use the same chargers to ensure that you can get charged regardless of your vehicle type.

one year ago

The state should work to establish standardize charging and eliminate proprietary chargers. The state should work to reduce people's fears that charging stations will not be available and reassure them that when they get an EV the chargers will be there for them.

one year ago

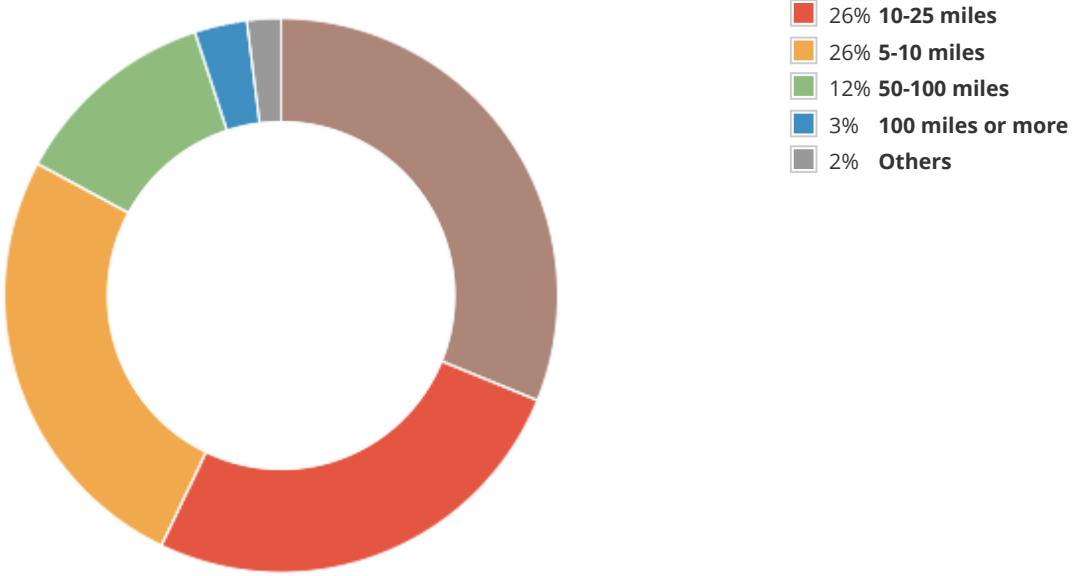
This is an unconceivable project. EVs are far more expensive and in the end will prove to be a costly endeavor. What happens following a hurricane or severe weather event that disrupts the power grid, like during Superstorm Sandy?
Another project that we will be footing the bill for. We'll done

one year ago

Along interstate highways.

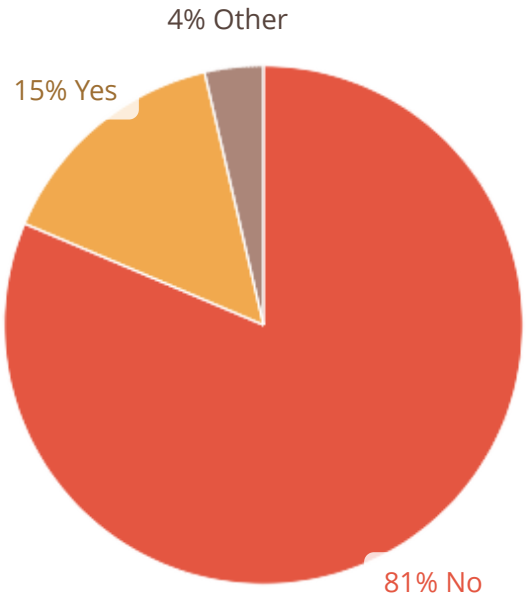
one year ago

How far do you travel in a typical day?



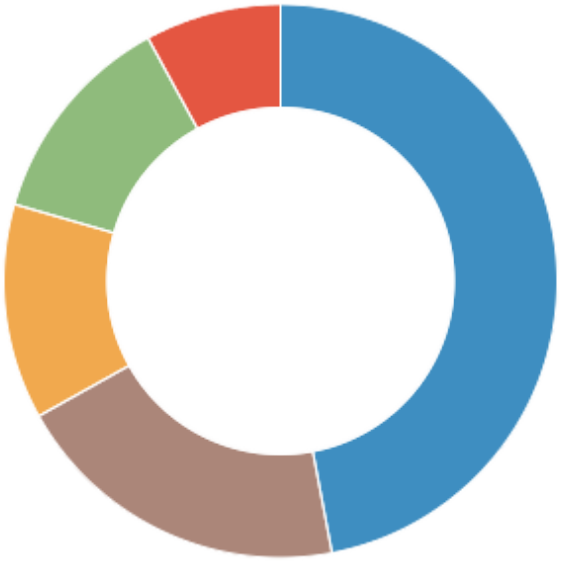
555 respondents

If you owned an electric vehicle, would that change the distance you drive on a typical day?



548 respondents

If you answered "yes" to the previous question, how much would you change the distance you drive?



- 47% **Only affect long-distance travel (e.g. trips out of state, vacations, etc.)**
- 20% **Increase my trips slightly**
- 13% **Reduce my trips slightly**
- 13% **Increase my trips significantly**
- 8% **Reduce my trips significantly**

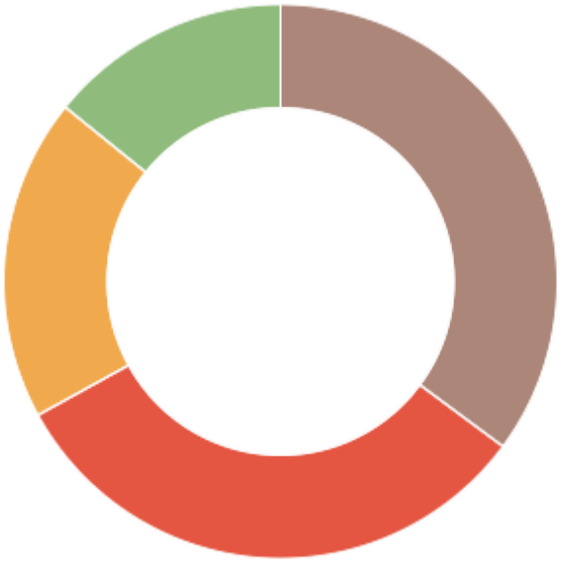
151 respondents

Tell us where you travel or would travel with an electric vehicle

71%	Short trips in Rhode Island	328 ✓
60%	Longer trips in Rhode Island	274 ✓
52%	Southeastern Massachusetts (e.g. Taunton, Fall River, New Bedford)	240 ✓
52%	All the same places I travel to today	240 ✓
46%	Boston Area	211 ✓
46%	Other Southern New England destinations (eg. Cape Cod, western Massachusetts, central or western Connecticut)	210 ✓
42%	Northern New England destinations (Maine, New Hampshire, Vermont)	194 ✓
40%	Trips outside New England	185 ✓
30%	Eastern Connecticut	136 ✓
23%	Worcester Area	105 ✓
5%	Other	25 ✓

460 Respondents

How long would you be willing to wait while charging an electric vehicle?



- 35% **As much as 20 minutes**
- 32% **Up to 10 minutes**
- 19% **About 5 minutes or less (roughly the same time it takes to fill up a gas-powered car)**
- 14% **30 minutes or longer**

515 respondents

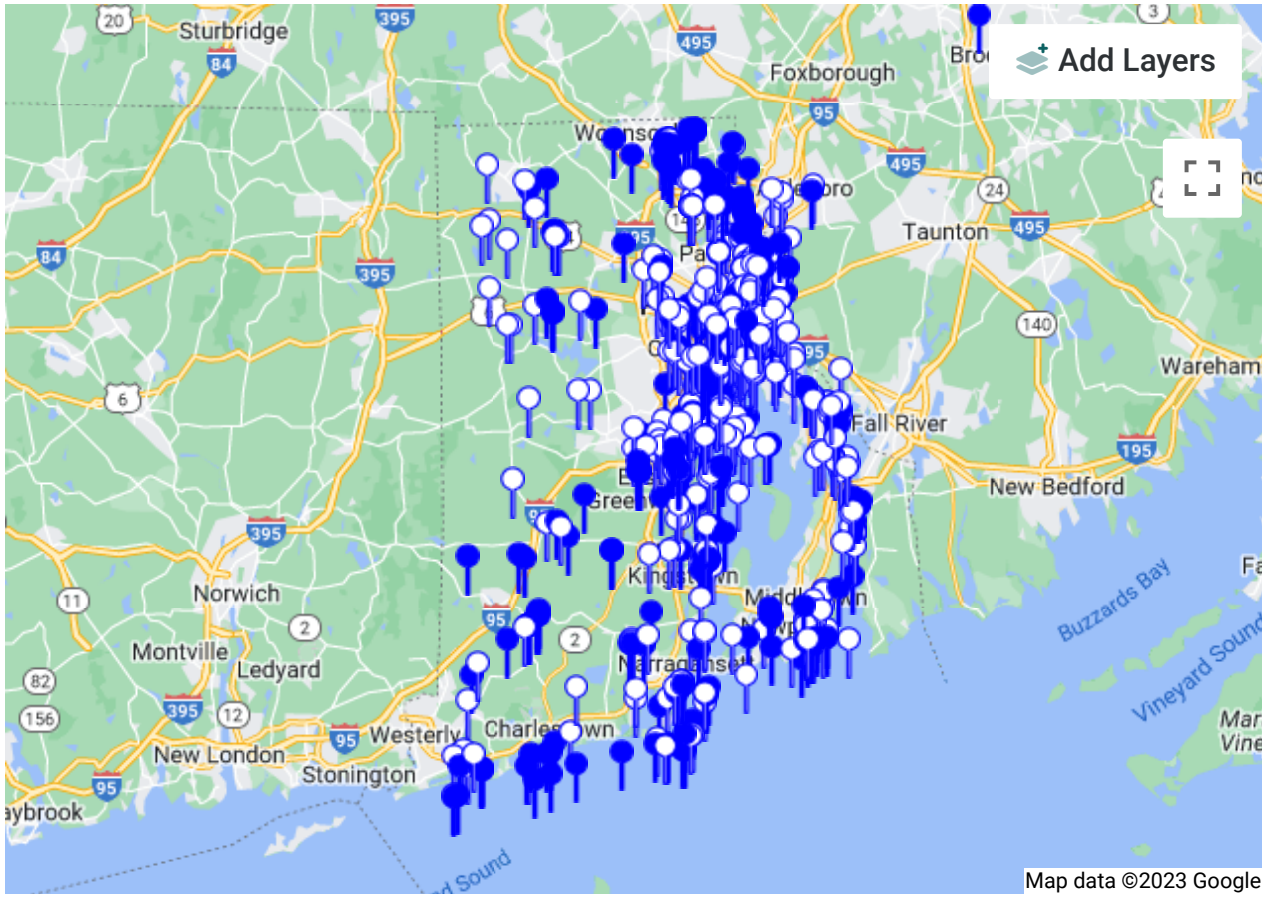
What types of locations/services would you like to see near electric vehicle charging stations?

76%	Grocery stores	355 ✓
68%	Large shopping centers and malls	316 ✓
66%	Recreational areas (e.g. parks, beaches, campgrounds)	306 ✓
65%	Parking lots or garages in cities	302 ✓
60%	Restaurants	278 ✓
52%	Restrooms	240 ✓
50%	Large employers or office parks	233 ✓
50%	Small strip malls or plazas	232 ✓
43%	Medical offices or hospitals	201 ✓
43%	Convenience stores	199 ✓
41%	Wi-Fi	190 ✓

40%	Transit services (e.g. bus, train or ferry)	185 ✓
39%	Community centers (e.g. senior centers, recreational centers)	181 ✓
37%	Apartment buildings	170 ✓
33%	Condominium complexes	153 ✓
32%	Independent or "mom and pop" stores	149 ✓
17%	Vending machines	81 ✓
14%	Mobile/Manufactured home parks or developments	64 ✓
7%	Other	33 ✓

465 Respondents

Where would you like to see a public electric vehicle charging station?



Do you have additional comments about the expansion of electric vehicle chargers in Rhode Island?

I plan on getting a charging plug at my house and our daughter's house in western MA, and cape house. And I'm waiting for cars with longer distances on one charge. I've gone to EV events at Roger Williams Park.

one year ago

If people don't feel secure in being able to find a charging station, they won't go electric. I'm also worried that the electric grid won't be ready to feed all the demand that's coming.

one year ago

Thanks for this questionnaire. Please understand that our current level of knowledge/info interferes with the most helpful replies. Overall, it seems to us that charging stations should be available where current gas stations are. Cooperation/consolidation with current gas stations would be the easiest for people to adapt to, and keep our local gas stations in business.

one year ago

Faster! Faster! Faster! But keep up the mantra, Electric better than gas; none better than electric. Public transportation within RI and to local out-of-state venues needs to be improved and expanded significantly. The latter needs to be the first-resort message!

one year ago

The Longplex Family and Sports Center is outside the drop pin zone, It’s in RI.

one year ago

I support this project and hope it gets started very soon. My next vehicle will be an electric vehicle.

one year ago

It’s a great thing for the environment and local economy. People could charge and shop at the same time.

one year ago

I really don't know where specifically in RI they should be

one year ago

If they're not all campatible with each other, how would I know where to go to get charged up? and what do I do if there's someone in line before I get there - wait??

one year ago

Plug in hybrids are good for local driving but trips to Newport, the beaches, Block Island Ferry would require recharging to return original location.

one year ago

More Tesla superchargers in Rhode Island please!

one year ago

Newport definitely needs a lot more, along with Providence in general!

one year ago

it's necessary to make our state competitive for the future

one year ago

They need to be conveniently located so they can be used by everyone, not just for a particular car manufacturer.

one year ago

Consider prioritization of installation at transit hubs. EV range is a major consideration for drivers looking to switch, but free EV chargers at transit centers (and paid ones elsewhere) could help get more people into EVs and boost transit ridership.

one year ago

I am purchasing an electric vehicle and we definitely need more chargers

one year ago

Owning an electric car and spending time in Northern RI. I've dropped places where I think it would be convenient for other electric car drivers based on other locations I've been to outside of RI.

one year ago

These chargers should be robust and ubiquitous, like parking meters. There should be an entire city department to install and maintain them.

one year ago

As a woman, if traveling, safety would be an issue. I would look for charging stations that were in well lit commerce areas or state parks with bathrooms. 20 minutes is a long time to sit in an unfamiliar dark area.

one year ago

URI Graduate School of Oceanography (Bay campus)

one year ago

Near comfort station in Wickford
In Trader Joe's parking lot

one year ago

Gas stations can fully convert to an EV charging station and include a comfortable Wi-Fi-enabled lounge for customers to relax, work, study, shop, volunteer, etc. during the time it can take to charge their EV.

one year ago

Not in favor

one year ago

I have tagged several Senior Housing Apartments in Johnston. Apartment dwellers do not have the opportunity to install chargers as homeowners do.

one year ago

Sooner than later

one year ago

I don't own one because of the lack of charging stations and the fact that I have seen non electrics parked where charging was available even though signs say no parking. Maybe cameras should be used?

one year ago

The priority should be to increase access to home charging for those without the ability to install their own infrastructure. It should also be to provide access to overnight charging at hotels and improve access for employees to charge while working. Level two chargers are less costly and can fully charge a vehicle while the driver is not in a rush like when working or sleeping.

Fast chargers should be focused around highway exits. Rest areas, restaurants, gas stations, and other businesses that are likely to attract non-locals.

one year ago

STOP USING TAXPAYER MONEY FOT THIS

one year ago

I leased an electric vehicles a few years ago while I thoroughly enjoyed driving it, it was an absolute nightmare to charge even in lil ol Rhode Island. Due to the lack of infrastructure I decided to go for gas hybrid instead so I wouldn't keep getting stranded especially in the coldest month of the year when the battery didn't go as far as it was supposed to.

one year ago

If you build they will come. Maybe design a charging station that that can be moved easily. Put them out, see how they do, move it to a place that better suits the public if it’s unused. Just an idea. Every large shopping plaza should have them already. Start there.

one year ago

This is not a government’s responsibility. Worse it takes from mass transit and encourages sprawl. A poor decision to even consider.

one year ago

Yes, we don’t have enough electricity to accommodate everyone having an electric vehicle

one year ago

They should be in the locations where people are already spending time. So not to make people hang out in new places, but put them downtown or near restaurants so that when people are eating/shopping, their car can fuel up -- or near office buildings so while they are meeting, they can fuel up. Think through how people generally live their lives and make it convenient. Make sure that it's accessible to renters and people in multifamily housing as well - folks without driveways.

one year ago

I wanted to put pins on the map in Little Compton and Westerly and the system would not let me

one year ago

Level 3 chargers are the most useful to find at destinations that are nice to stop at during long travel (parks, malls, convenience stores, etc). Level 2 charging is only really useful at places that you'll be at for long periods of time, and are much less desirable in general. I usually filter out level 2 chargers in my searches because it just doesn't make sense for what I'm looking for most of the time. Free charging is amazing, but decently priced charging (ChargePoint or Electrify America stations as opposed to EVGO) is perfectly fine.

one year ago

If I owned a EV, would install a charging station at home. This would cover most of my incidental travel. Condo/apartment complexes should have multi-connections for renters/owners with some type of monitor system so that people don’t leave vehicles after they are charged.

one year ago

Keep it going!
I’m buying electric next 6 months.

one year ago

The best places to start adding chargers are where travelers enter or leave the state. That will give the state a chance to make a good initial impression on arriving travelers and lasting impression on departing visitors.

Combined with clean welcoming facilities these can be a big win for RI.

one year ago

Tax payers should not be paying anything to provide free energy source to those who ca afford or want EV

one year ago

Electric chargers should be complimentary or rolled into the price with every electric car sold.

one year ago

Need fast charging stations immediately

one year ago

I think this electric car crap is a scam ! Why is the state giving tax credits to people that cave into this nonsense. And how are these hunks going to get charged a road tax to make up for the gas they are not using ?? I'm sure I will never get a respond for this comment!

one year ago

Given the time it takes to recharge, I think it makes sense to locate chargers near locations where people would plan to spend an hour or so anyway, like malls, cinemas, theaters, restaurants, train stations, and hotels/motels.

one year ago

I can't understate the challenges in knowing what chargers are actually working. Getting the chargers all working and reporting their status and having great software is nearly as important as having the chargers themselves.

one year ago

Provide fair and equitable access throughout key, well traveled areas in the state; plan for increased use due to Rhode Island's strategic plan for energy consumption

one year ago

Please add more in Washington County! Especially near Westerly and the border to CT. Those chargers would capture tons of out-of-state traffic (especially summer beach traffic), and there are no public chargers from the RI border until Narragansett along Route 1. Additionally, the 95 corridor between Exit 1 and any exits near Warwick do not have any chargers that are easily accessible. As someone who commutes from Westerly to Providence on a regular basis, we need more chargers along 95 in the southern part of the state.

one year ago

There should be a level 3 charging station in Pawtucket given it is so heavily traveled. Lincoln Mall would be a good area given it's proximity to 146. Southern RI near the beaches should have some level 3 chargers, as well as northern RI near the CT borders.

one year ago

Electric vehicles are a bad idea.

one year ago

I was unable to click on Little Compton and Tiverton. Public libraries would be a great place to offer them.

one year ago

Comment re just Aquidneck Island: While we appear to have many public charge stations, they appear to be slower charge units. Other high tourist venues on the East Coast appear to have a higher percentage of Level 3 charge stations. Towns should be strongly encouraged to amend planning and zoning ordinances to require faster chargers. In public discussion, City of Newport councilors seriously underestimate the public's demand for electric vehicles.

one year ago

My family and I anticipate buying an electric car within three years. We really hope that more of this infrastructure will be in place by then.

one year ago

The mapping process is too cumbersome. Charging stations need to be developed near restaurants, small commercial areas, scenic overlooks etc so that people are enticed to visit the local business to buy a coffee, eat lunch etc while the vehicle charges.

one year ago

Placing free level 2 and affordable level 3 public charging stations in areas with high concentrations of renters will help widen the adoption of EVs needed to reduce greenhouse emissions. Also locating charging stations near bike paths (and vice versa) as well as public transit stops and hubs can help reduce congestion and provide flexibility for commuters (and visitors).

one year ago

map doesn't work. Add charging stations near Rt 138 and Rt. 1A ; Rt 138 and Rt. 95; near the colleges, malls,

one year ago

major intersecting areas are important!

one year ago

Please do not make charging free. Add at all park and ride lots and near other key transit connections.

one year ago

We have had a Tesla for nearly 4 years. We charge at home, but use Superchargers when we travel to visit in NH, MOntreal, Fayetteville, NC etc. Hotels that offer free charging for Tesla's are our favorite when we are away.

one year ago

There should be no free, or discounted, charging stations. This is unfair to individuals who still drive gasoline/diesel vehicles. Is the State willing to subsidize gasoline/diesel vehicle fuels? Furthermore, an electric vehicle is not paying any gas taxes/usage fees to the State, thus not paying highway maintenance, construction, etc. Also, why such a big emphasis in putting Charging Stations in Providence? Why not Scituate, Westerly, Narragansett, Pawtucket, Central Falls or any other community? Why is Providence being singled out to receive these Charging Stations?

one year ago

must install enough at one site so that if any station is down or busy there are still charging options available. notice how tesla installs a 8-10 so that drivers do not have to wait for another driver to charge, adding to the overall time not driving.

one year ago

Why can't I add any pins in Tiverton? The park and ride in Tiverton is a perfect location.

one year ago

The distribution should be representative of travel patterns and electric car use

one year ago

Your interactive map does not allow for points to be added for Tiverton or Little Compton which are part of Rhode Island. That is absolutely unacceptable to create this without including every city and town in RI for pinpointing!

one year ago

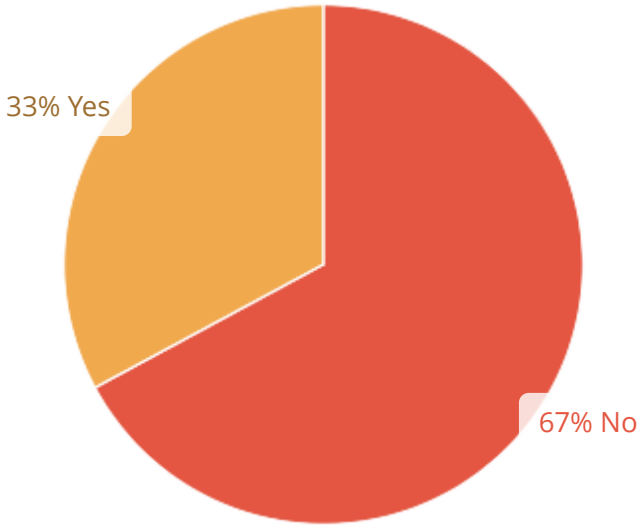
Yeah, it's a scam and the people promoting it should be thrown out of office. NO ONE WANTS ELECTRIC CARS. THEY WILL NOT WORK IN WINTER. Stop spending my tax money on this bullshit. How about you cut the gas tax instead and actually help working people.

one year ago

No other than the massive expense for the minority of the population

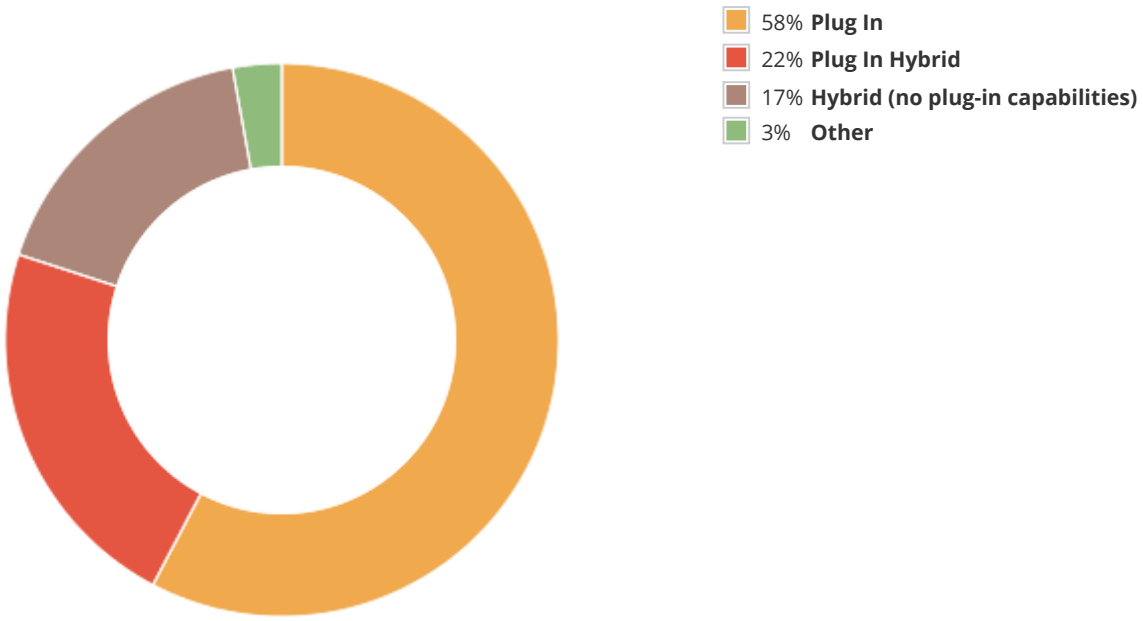
one year ago

Do you drive an electric vehicle?



496 respondents

If you answered yes to the previous question, what type of electric vehicle do you have?



175 respondents

What percentage of your electric vehicle charging takes place at the following places?

	0 %	0-25 %	25-50 %	50-75 %	75-100 %	100 %
Home	28% 0 %	5% 0-25 %	10% 25-50 %	14% 50-75 %	33% 75-100 %	11% 100 %
Public charging stations	27% 0 %	42% 0-25 %	15% 25-50 %	5% 50-75 %	6% 75-100 %	6% 100 %
Work	70% 0 %	16% 0-25 %	9% 25-50 %	1% 50-75 %	2% 75-100 %	2% 100 %
School	92% 0 %	7% 0-25 %	1% 25-50 %	- 50-75 %	- 75-100 %	- 100 %

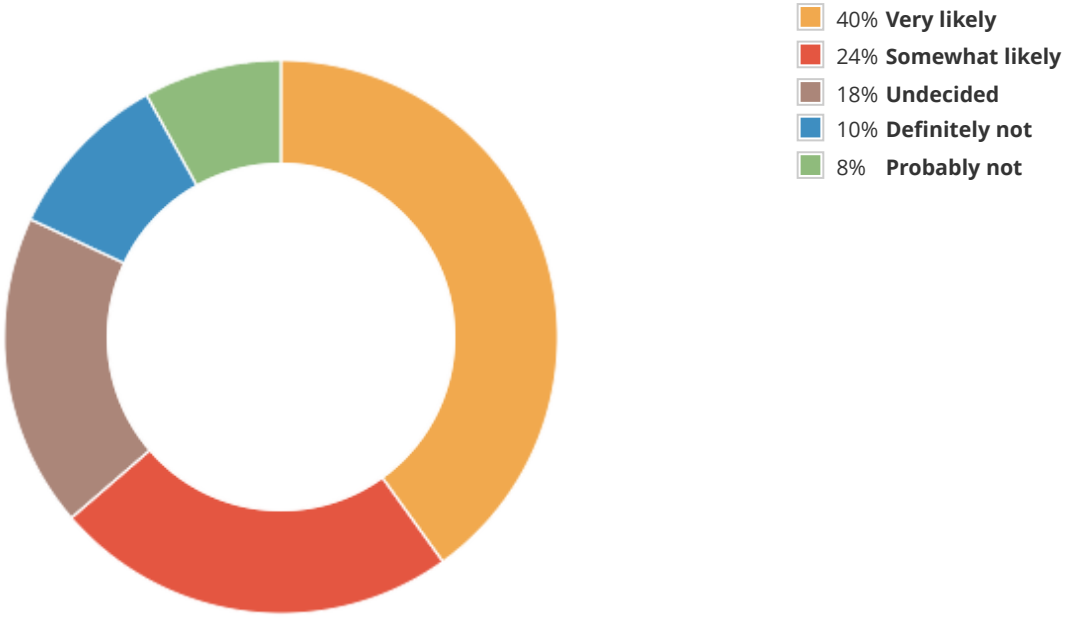
196 respondents

If you use public charging stations, what percentage of your charging time is at the following types of chargers?

	0 %	0-25 %	25-50 %	50-75 %	75-100 %	100 %
Level 2 (Basic type of public charger)	33% 0 %	18% 0-25 %	9% 25-50 %	7% 50-75 %	9% 75-100 %	23% 100 %
Level 3 (Direct current fast chargers)	51% 0 %	23% 0-25 %	6% 25-50 %	4% 50-75 %	7% 75-100 %	9% 100 %
Level 3 (Tesla Supercharger)	55% 0 %	9% 0-25 %	7% 25-50 %	5% 50-75 %	11% 75-100 %	13% 100 %

138 respondents

If you answered "No" to the question of whether you drive an electric vehicle, how likely are you to lease or purchase one?



322 respondents

Please provide your contact information and email address if you wish to receive future updates on this project

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