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National Electric Vehicle Infrastructure (NEVI) Phase I Implementation Frequently Asked Questions (FAQ)

Background

The State of Rhode Island (OER, RIDOT and RIDEM) is installing two additional direct current fast chargers (DCFC) at two Park & Ride locations, Ashaway and Warwick, for a total of four new direct current fast charger electric vehicle charging stations to fulfill the Federal requirements. This document aims to answer Frequently Asked Questions (FAQs) related to the charging stations and the project overall.

Definitions

- **Electric Vehicle (EV):** An EV is a vehicle that operates entirely on electricity. Unlike conventional vehicles, EVs use one or more electric motors powered by rechargeable batteries. EVs produce zero tailpipe emissions.
- **Plug-in Hybrid Electric Vehicle (PHEV):** A PHEV is a hybrid vehicle that can be plugged into an external source of electricity to charge its battery, in addition to the traditional gasoline engine.

- **Hybrid Vehicle:** A hybrid vehicle combines a conventional internal combustion engine with an electric propulsion system, allowing the vehicle to achieve improved fuel efficiency and reduced emissions. This vehicle is still all gasoline-run.
- **Level 2 Charging Stations:** Level 2 charging stations provide medium-speed charging for EVs. They typically use a 240-volt system and can charge most EVs faster than standard household outlets.
- **Level 3 Charging Stations (DCFC - Direct Current Fast Charger):** Level 3 charging stations, also known as DCFC, provide high-speed charging for electric vehicles.
- **National Electric Vehicle Infrastructure Formula (NEVI):** is a bipartisan law managed by the Federal Highway Administration. NEVI is part of the \$1.2 trillion Infrastructure Investment and Jobs Act signed into law November 2021. NEVI funds States to deploy EV charging infrastructure. The interconnected NEVI network will facilitate data collection, access, and reliability for EV charging funding and infrastructure development.
- **The Infrastructure Investment and Jobs Act (IIJA):** is a bipartisan legislation enacted in the United States to invest in and improve the nation's physical and digital infrastructure, including transportation, broadband, water systems, and more. It aims to create jobs, enhance economic competitiveness, and address critical infrastructure needs across the country.
- **Justice40 Initiative:** introduced by the Biden administration, addresses environmental and economic injustice by directing at least 40% of the benefits from federal investments in climate and clean energy to disadvantaged communities.

Rt. 117 Warwick Park & Ride FAQ

The State of Rhode Island is installing two new high-speed direct current fast chargers (DCFC) capable of charging four vehicles simultaneously at Rt.117 Warwick Park & Ride. This is in addition to the current two DCFCs and three Level 2 chargers. The Level 2 chargers can provide 25 miles of range per hour of charging while the DCFC chargers will provide approximately 250 miles of range in an hour of charging.

What types of chargers?

Chargers Type:

- [ChargePoint Express Plus Power Link PL2000](#) series in North America DC (Direct Current) charging station

Connector Type:

- Equipped with Combined Charging System (CCS) Type 1 connectors at each DC Fast Charging (DCFC) port

Charging Station Features:

- Each Power Link can simultaneously charge two electric vehicles

CCS Type 1 Connector:

- Standardized charging interface
- Increasingly common in new electric vehicle (EV) models

Examples of Compatible EV Models:

- Chevrolet Bolt EV

- Ford Mustang Mach-E
- Hyundai Kona Electric and Ioniq Electric
- Kia Soul EV and Niro EV
- Audi e-tron series
- BMW i3, i4, and iX series
- Tesla models (with CCS adapter)

Note:

- These are just a few examples of EVs, and we always recommend referring to the manufacturers' documentation for the most up-to-date information on charging compatibility.

How many chargers?

- There will be two (2) new charging stations with two (2) DCFC charging ports for a total of four (4) new DCFC charging ports

How long will it take to charge?

- DCFC stations provide high-power charging and are typically faster than Level 2 chargers. Charging from 0-80% can take around 30 minutes, depending on the EV's battery capacity and specific EV model. As a general estimate, Level 3 chargers add about 180-240 miles of electric range per hour of charging.
- Level 2 chargers are slower than DCFC chargers but faster than standard household outlets. The charging time from 0 to 80% on Level 2 can range from 3 to 8 hours, depending on the EV's battery capacity and specific EV model. As a general estimate, Level 2 chargers add about 25 miles of range per hour of charging.

Remember:

- Most electric vehicle manufacturers aim to optimize charging speed, and newer EV vehicles may have faster charging capabilities than earlier models.

What are the impacts?

- Additional electric vehicle charging stations with DCFC chargers at this Park & Ride location will positively impact local communities and the broader transportation network.
- Key positive impacts include:
 - Reduction of emissions/air pollution
 - Address range anxiety and expand EV charging network
 - Promote sustainable transportation
 - Support interstate travelers
- In addition, we hope the stations help provide an economic boost for local businesses by attracting more travelers, job creation to support the devices, alignment with state and regional sustainability goals, influencing sustainability in the current and future of urban planning, and demonstrating leadership in adopting and promoting green technology.

Who is performing the work?

- The State of Rhode Island awarded a construction contract to Maverick for the installation of two electric vehicle charging stations at each Park & Ride. Maverick will also update the location's striping and signage for the impacted parking spots.
- The project is jointly managed by the OER and the RIDOT. This collaboration includes strategic coordination with Maverick Corporation, Rhode Island Energy, and Jacobs Consulting.

When will it be completed?

- The State of Rhode Island is working with Maverick and Rhode Island Energy to expedite the construction and installation of the electric vehicle charging stations. As a team, we hope the stations will be operational in Summer 2024.

Will I still be able to charge my EV while Phase 1 is underway?

- During Phase 1 construction, you can still use the existing EV charging stations at the park & ride. In case of any service interruptions, advance notice will be provided, along with directions to nearby EV charging stations.

How much will it cost?

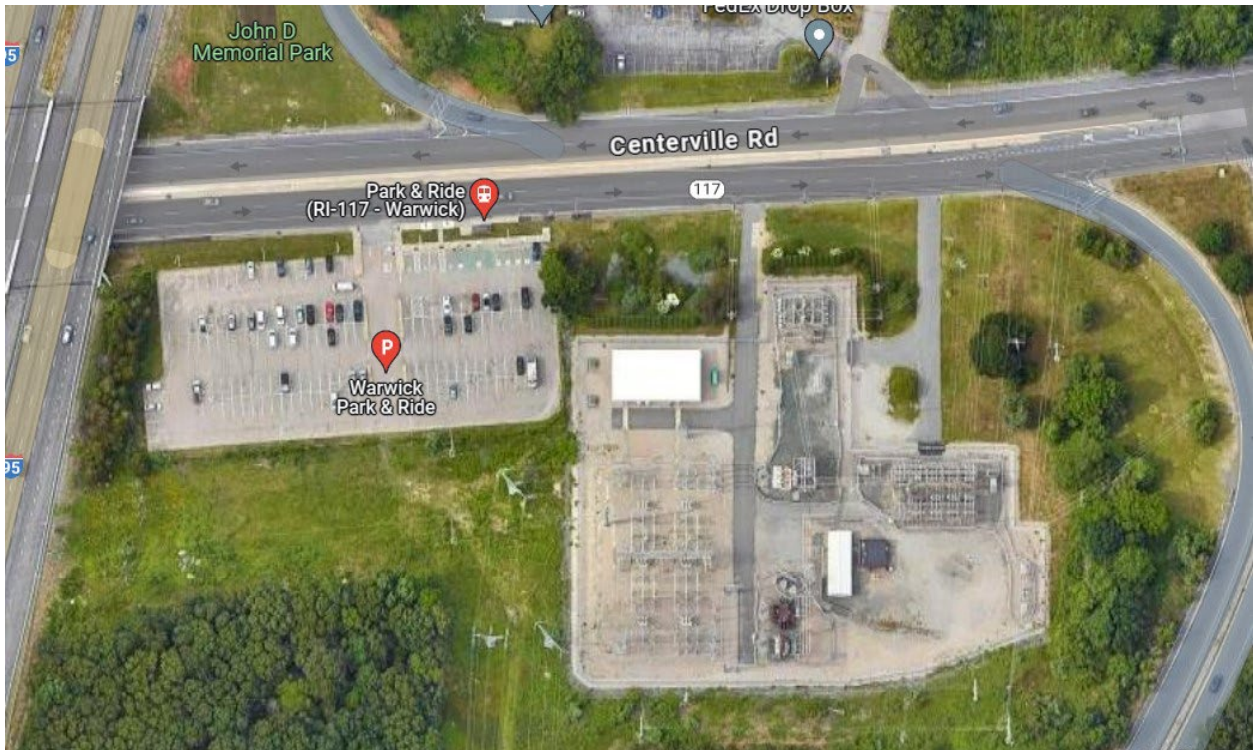
- Rhode Island plans to invest roughly \$4.5 million annually for the next five years using funds from the new Infrastructure Investment and Jobs Act to significantly expand the number of EV charging stations throughout the state.
- The anticipated construction cost for the Rt.117 Warwick Park & Ride location is \$250,000, covering the preparation for the required electric vehicle charging stations, civil work, and electrical connections. The total cost for the two charging devices at this location, including five years of maintenance and operations support, is almost \$500,000.

What are the anticipated Justice40 benefits?

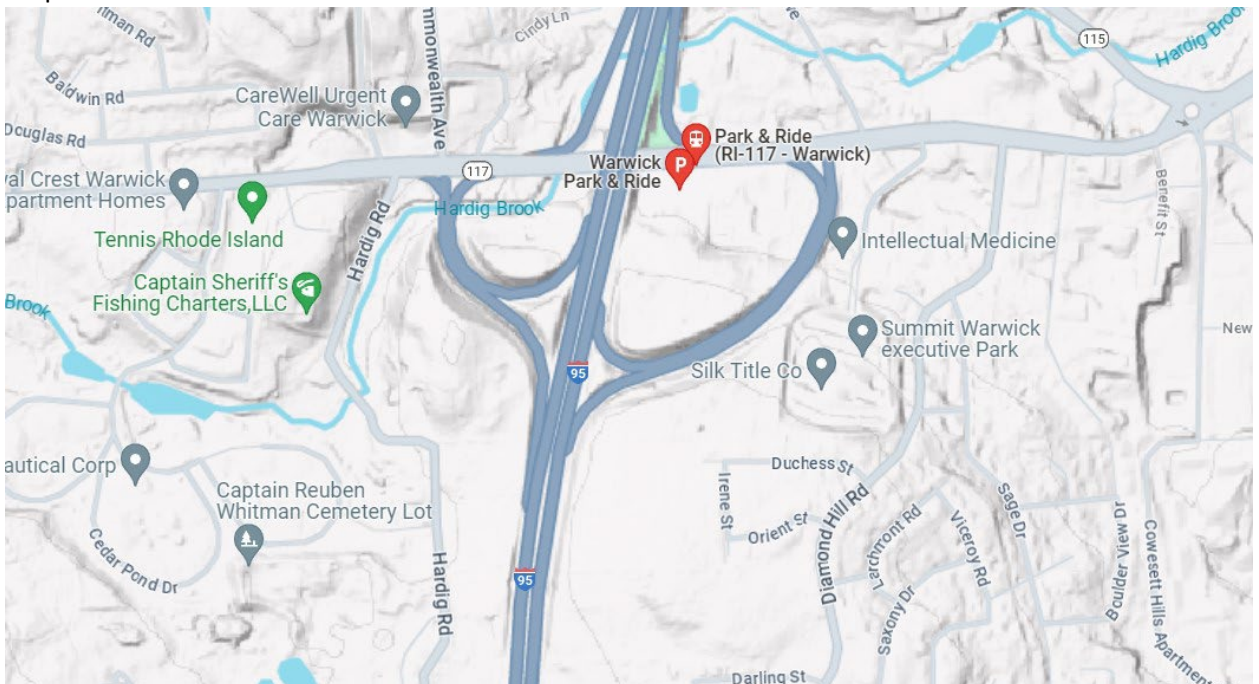
- Justice40 supports investments in clean energy projects and accessible public transportation infrastructure, making it easier for residents in disadvantaged communities to access clean transportation options such as electric vehicles/shared mobility services in underserved areas. This aid increases clean energy projects and sustainable practices that directly reduce harmful emissions and improve air quality. The new electric vehicle chargers will provide equitable access to charging infrastructure, reduce environmental inequities, help actively engage the community in planning and decision-making, and support educational and training opportunities.

Map Figure: RT.117 Warwick Park & Ride

- Satellite View:



- Map View



So...What comes next?

- Phase II facilitates a collaborative partnership between the State of Rhode Island and the public to install EV charging stations statewide.
- As we work with the contractor on Phase I installation and testing, the State of Rhode Island will release an additional survey and engage with as many stakeholders as possible to gather all valuable insight to have the best possible program available for Phase II based on the feedback received.
 - The State is particularly seeking input from stakeholders and the general public to ensure diverse perspectives are considered.
 - Participation in this survey is crucial for shaping the future of Electric Vehicle infrastructure in Rhode Island.
- The State will provide a guidance document for Phase II based on the developing federal guidance, local input, and the best path forward for adopting electric vehicles in Rhode Island.

Questions?

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NEVI Webpage:

www.energy.ri.gov/rinevi

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