



Fleet Round Table Webinar

February 26th, 2024



Introductions



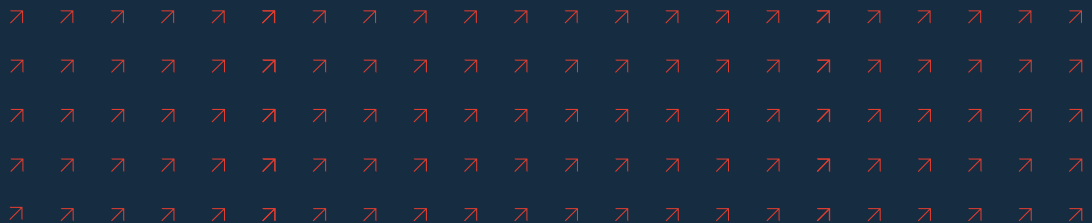
Paul DiBenedetto
Electric Vehicle Program
Manager
PSEG Long Island



Saqib Madni
Fleet Advisory Services
Lead
PSEG Long Island



Teno Gustavson
Director Vehicle & Facility
Maintenance
STS





Agenda

1. Overview of PSEG Long Island (5 min)
2. NYS Goals Overview (5 min)
3. Available Programs and Resources (40 min)
 - Fleet Advisory Services
 - Fleet Make Ready Program
 - Hosting Capacity Map
6. Suffolk Transportation Service – Teno Gustavson (20 min)
7. Q&A Session (15 min)



Poll #1

Q1: Select the Industry that best describes your Organization

- *School/University*
- *School Bus Contractor*
- *Not-For-Profit Business*
- *For-Profit Business*
- *Municipality / Government*
- *Developer / Contractor*
- *Consultant*
- *Transit Authority*
- *Ride-Hailing / Car-Sharing*
- *OEM / Automaker*
- *Association / Coalition*
- *PSEGLI / LIPA / DPS Attendees*
- *Other (Please Specify)*



Poll #2

Q2: What is the estimated size of your organization's fleet?

- *Very Small – 0 - 3 vehicles*
- *Small – 3 - 19 vehicles*
- *Medium – 20 - 99 vehicles*
- *Large – 100 - 499 vehicles*
- *Very Large – 500 or more*



Poll #3

Q3: Which stage of fleet electrification are you at currently?

- 1. Hesitant about fleet electrification*
- 2. Beginning stages (researching topic)*
- 3. Developing fleet electrification plan (with or without a 3rd party)*
- 4. Submitted service request to utility*
- 5. Procured vehicles and chargers; awaiting utility upgrades*
- 6. Infrastructure built and chargers installed*
- 7. Own and operate EVs within my fleet / continue electrification plans*



PSEG Long Island

Overview

PSEG Long Island is a subsidiary of Public Service Enterprise Group Incorporated (PSEG). PSEG Long Island operates the Long Island Power Authority's transmission and distribution system under a 12-year contract.

PSEG Long Island Mission

Build an industry leading electric company dedicated to providing our Long Island and Rockaways customers with:

- Exceptional customer service
- Best-in-class reliability
- Best-in-class storm response
- Strong level of involvement in the community

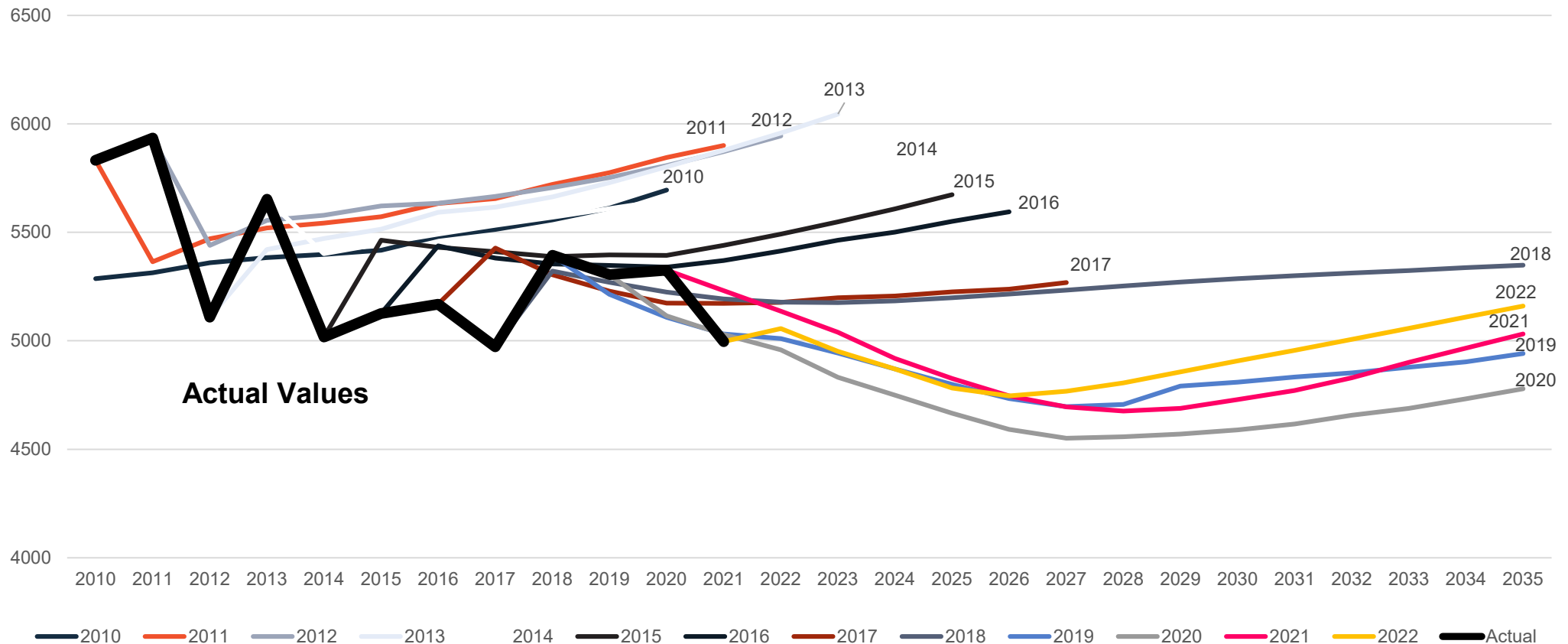
Commitment to Customers

- Exceptional customer service where employees consistently create a positive customer experience
- Caring and accessible company that is recognized as being fair, honest and responsive
- Good neighbor and trusted community partner
- Helpful, courteous and accountable employees
- A safe and highly reliable electric system

Preparing the Grid for the Influx of EV's

- PSEG Long Island takes into consideration the influx of EV's as part of its annual load forecasting
- We are constantly improving and upgrading the grid infrastructure
- The peak demand on Long Island occurs during the summer months; typically between 3-7pm
- While we do not see impacts to the grid as it pertains to passenger vehicles, we are now looking at the impacts fleet electrification will have over the next 10-20 years to plan today and make the necessary upgrades to the grid

Coincident Summer Peak Demand for Zone K (MW)



New York State Goals



As part of the NY Climate Act, NYS's goal is to have 850,000 EV's on the road by 2025

Long Island's portion is 21% of the goal (tied to vehicle registration) – 178,500 EV's by 2025

New York State's fiscal year 2022-2023 budget established a nation-leading commitment for all new school buses purchased to be zero emission by 2027 and all school buses in operation to be electric by 2035.

New York has signed onto the Advanced Clean Trucks (ACT) rule. The legislation sets a statutory goal for all new light-duty vehicles sold in the Empire State to be zero-emissions by 2035 and all new medium-and heavy-duty vehicles by 2045.

Electric 101

Power (kW): How fast energy is used or transmitted

$$\text{Power (W)} = \text{Voltage (V)} \times \text{Current (I)}$$

$$1000 \text{ W} = 1 \text{ kW}$$

Energy (kWh): How much power is used or transmitted over time

$$\text{Energy (kWh)} = \text{Power} \times \text{Time}$$

$$1000 \text{ W} \times 1 \text{ hour}$$

$$1000 \text{ Wh} = 1 \text{ kWh}$$

Electric School Bus Example

Battery Capacity: 155 kWh

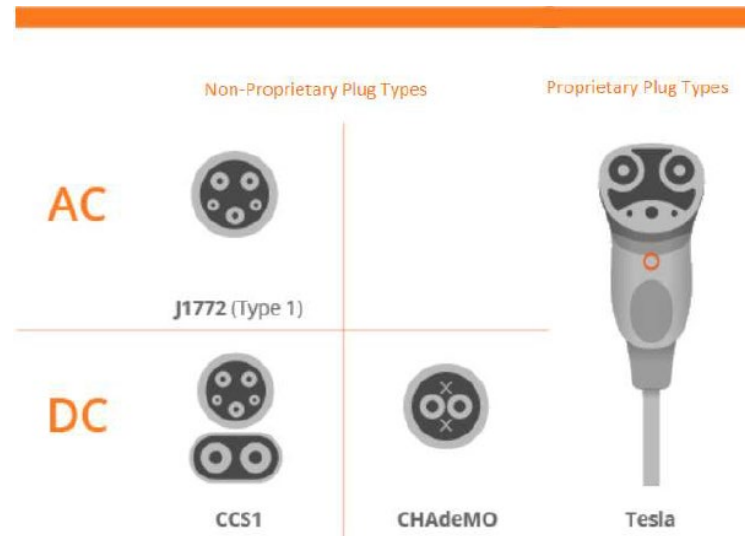
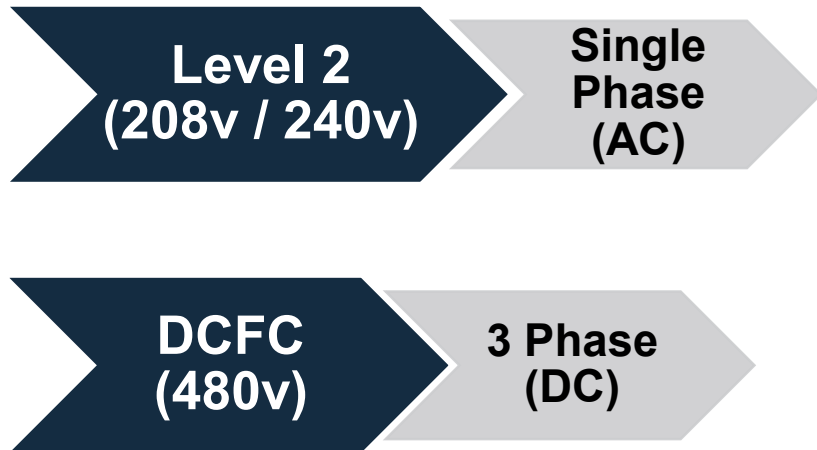
Charging Time:

Level 2 would take:

$$\frac{155 \text{ kWh}}{19.2 \text{ kW}} = \sim 8.07 \text{ hours}$$

Level 3 (DCFC) would take:

$$\frac{155 \text{ kWh}}{60 \text{ kW}} = \sim 2.58 \text{ hours}$$



Vehicle Types

Battery Electric Vehicles (BEV)

Can use Level 1, Level 2 or DCFC

Plug-In Hybrid Electric Vehicles (PHEV)

Mainly only use Level 1 or Level 2

Hybrid Electric Vehicles

These do not plug into anything

PSEG Long Island's Available Programs & Resources

Fleet Advisory Services

Work with Fleet Operators to help them get started with their fleet electrification journey by helping with :

- Site and Fleet Assessment
- Rate Comparison; Identify best time to charge fleet(s)
- Estimated Bill impact and cost savings
- GHG reductions
- Eligible Program Incentives
- Act as the liaison between the fleet customer and the Utility to help them on their electrification journey and how to get started

Fleet Make Ready Program

- Provide incentives to eligible fleet operators for the infrastructure needed to power electric vehicles
- Anticipated launch at the end of Q2 2024

Hosting Capacity Maps

- Provides insight for available capacity for EV Charging Stations, Battery Storage, and Solar PV to interconnect into the Grid





Fleet Advisory Services

Fleet Advisory Services

PSEG Long Island offers the following services for free, available to both Public and Private fleet customers

Fleet Advisory Services Tool

- Select from a catalogue of available EVs
- EVSE (EV Charger) catalogue
- TCO and ROI for selected EV fleet(s)
- Best time to charge based on PSEGLI rates
- Identify eligible incentives
- Potential bill impact and cost savings
- GHG emission reductions

Site Assessment utilizing the EV Hosting Capacity Map

Act as the liaison between the fleet customer and the Utility help them on their electrification journey and how to get started



Fleet Advisory Services Tool

Business Customers

Fleet Owners

Residential Customers

Fleet Advisory Services Tool

For customers that own or maintain a vehicle fleet for their business/organization, PSEG Long Island offers tools, resources, along with available incentives to help transition vehicle fleets to electric.

[Start Here](#)



Link: <https://evfleets.pseg-li.zappy-ride.com/output>

Fleet Advisory Services Efforts to Date

A number of fleet operators have started to speak with the Transportation Electrification Team, and have asked questions many of you may also be thinking:

- Can I transition my fleet to electric given the routes they do?
- How do I know if I have adequate infrastructure or not?
- Can the grid handle all of this fleet electrification?
- How will this impact my fuel costs? Electric bill?
 - What is the best rate to be on?
- What available rebates / incentives are out there?
- How do I manage my vehicle fleet and ensure they are charged at the right times?
- How do I get started?

Our Fleet Advisory Services can help you get started and help you answer these questions



Hosting Capacity Map

- Provides available capacity at the primary feeder to interconnect DERs including Solar PV, Battery Storage, and Electric Vehicle Charging Stations (including fleets)
- Must request access in order to view the maps; Access approval is granted on an individual basis
- For those with multiple depot locations, if you are considering where to start your fleet electrification efforts, it may be worthwhile to consider which locations have ample capacity (currently) in order to get the power you need without requiring major upgrades
 - For locations where there is very little capacity available, this does not mean that you would not be able to electrify your fleet.
 - Our Fleet Make Ready Program can potentially help offset the utility upgrade costs needed in those areas
 - These maps update on an annual basis and may not reflect the latest available information provided to the utility (if other service requests are submitted)

Link: <https://www.psegliny.com/aboutpseglongisland/ratesandtariffs/sgip/maps>



Q&A – Fleet Advisory Services

How can I access this tool?

Can I share my results with others?

Who has used this tool so far?

How accurate is this tool? Is it a reliable source?



Fleet Make Ready Program

Fleet Make-Ready Program

The Fleet Make-Ready Program targets fleet customers operating **LDVs, MHDVs, or both**.

In this program, a fleet is defined as three or more vehicles operated by a non-residential entity with a meter on a commercial tariff, consisting of any vehicle-type or weight-class.

The Fleet Make-Ready Program will focus on who operates the vehicle, not ownership, to allow for the common case where vehicles are financed by one entity and operated by another.

This program is also designed to be technology-agnostic, and supports L2, DCFC, or other EVSE technologies.



Program Eligibility

Public Fleets Offering

Provides incentives to support public entities through their fleet electrification journey.

Eligible Customers Include:

- Government
- Municipalities
- Not-for-Profit Organizations
- Public Schools / Universities
 - *Security / Admin / Maintenance*

Fleet vehicles must be operated by a public entity, or operated under contract to a public entity, and the vehicle may be used for any purpose.

Public Transport Offering

Aims to support entities providing public transportation services.

Eligible Customers Include:

- Public Schools Buses
- Transit Shuttle Buses

Both for-profit and public entities that provide public transportation services are eligible to participate

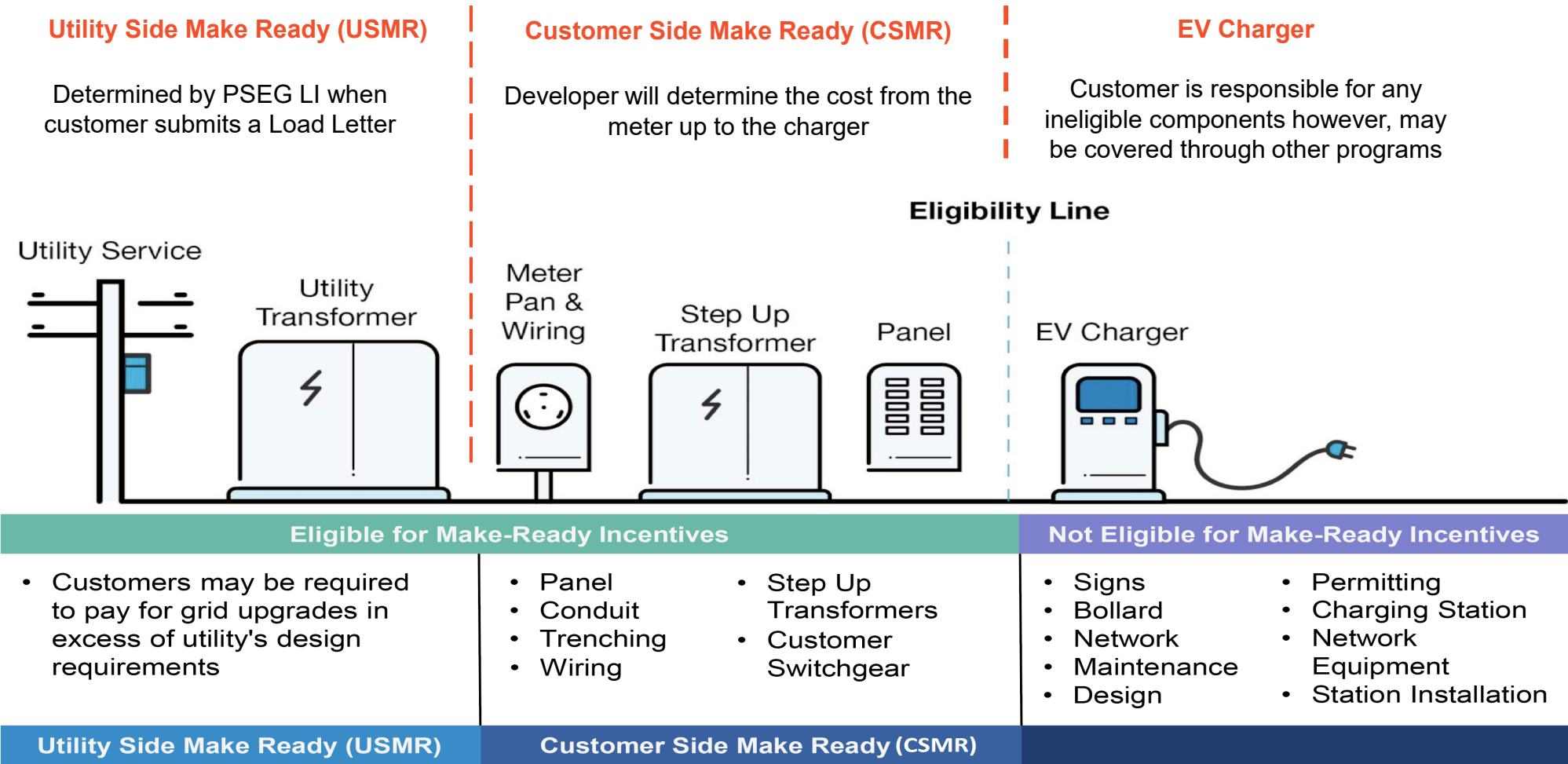
Ineligible Customers

The following entities are ineligible as part of this program but can utilize the Fleet Advisory Services

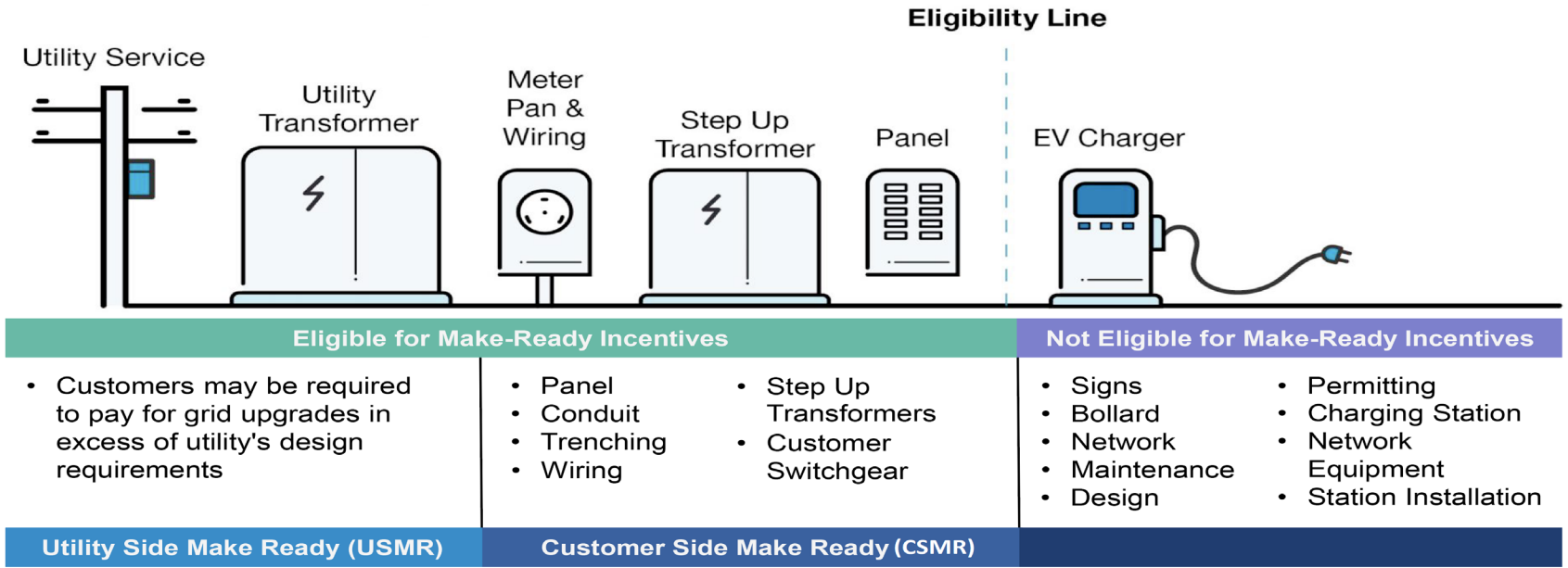
- Ride-Hailing
- Car-Sharing Services
- For-Profit Businesses
 - *That are not servicing a public entity*

Eligible customers that can participate in the Fleet Make Ready Program, can also participate in the EV Make Ready Program assuming the scopes are different from one another.

Make Ready Infrastructure



Eligible Incentives



Coverage	USMR	CSMR
Public Fleets	100%	0%
Public Transportation	100%	50% (DAC) 20% (Non-DAC)

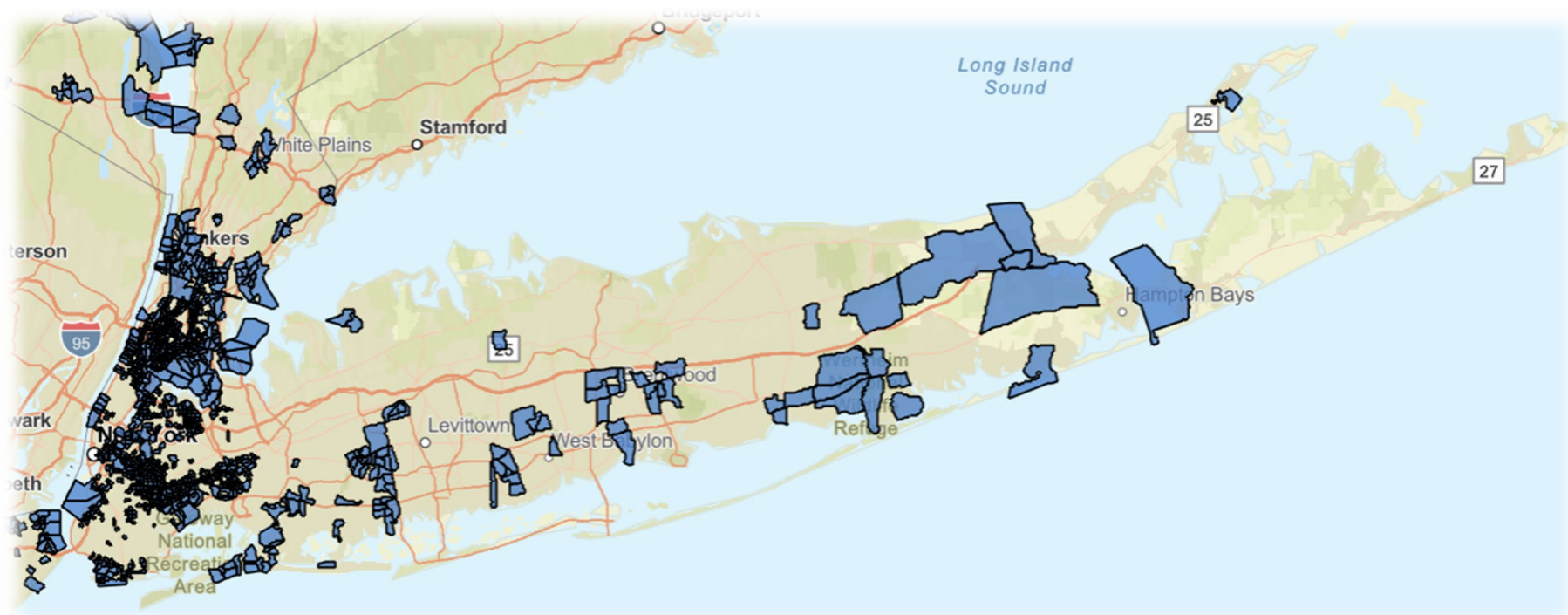
The Fleet Make Ready Program anticipates that most locations such as bus depots or municipal buildings which typically do not have large electrical services, will require extensive infrastructure upgrades to support the fleets that would be electrified.

Incentive Caps

- \$400,000 for projects with capacity less than 1MW
- Up to \$1.4M for projects with capacity over 1MW

Disadvantaged Communities (DAC)

The Climate Act charged the Climate Justice Working Group (CJWG) with the development of criteria to identify disadvantaged communities to ensure that frontline and otherwise underserved communities benefit from the state's historic transition to cleaner, greener sources of energy, reduced pollution and cleaner air, and economic opportunities.



Fleet Make-Ready Program Estimated Enrolled Projects

Table 4-5 shows the total number of projects estimated to be enrolled, respectively, by year and project type. These estimates are not tied to the number of ports enrolled, while it will be tracked through this program.

Table 4-5. Fleet Make-Ready Program Estimated Enrolled Projects

Project Type	2024	2025	2026	2027	2028	Total
Public Fleets	4	8	14	26	37	89
Small/Medium (<1,000 kW)	3	6	11	21	30	71
Large (>1,000 kW)	1	2	3	5	7	18
Public Transportation	4	7	11	12	12	46
Small/Medium (<1,000 kW)	1	2	3	4	4	14
Large (>1,000 kW)	3	5	8	8	8	32
Total	8	15	25	38	49	135

Fleet Make Ready - Anticipated Launch

The Fleet Make Ready Program is anticipated to launch at the end of Q2 2024 and applications will be handled through TRC Captures where our EV Make Ready Program and Energy Efficiency Programs are handled

Final program guidelines, eligibility and rules are subject to change. More information will be available on our website in the coming months.



Q&A – Fleet Make Ready Program

Are there any key considerations PSEGLI should be made aware of prior to launch of this program?

How can my organization participate in both Fleet Make Ready and EV Make Ready?

Can I stack other incentive programs on top of this program?



Suffolk Transportation Service

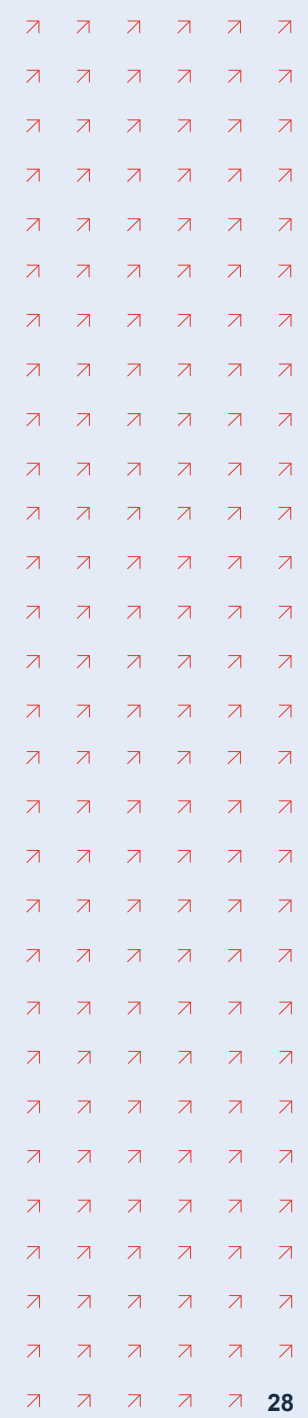
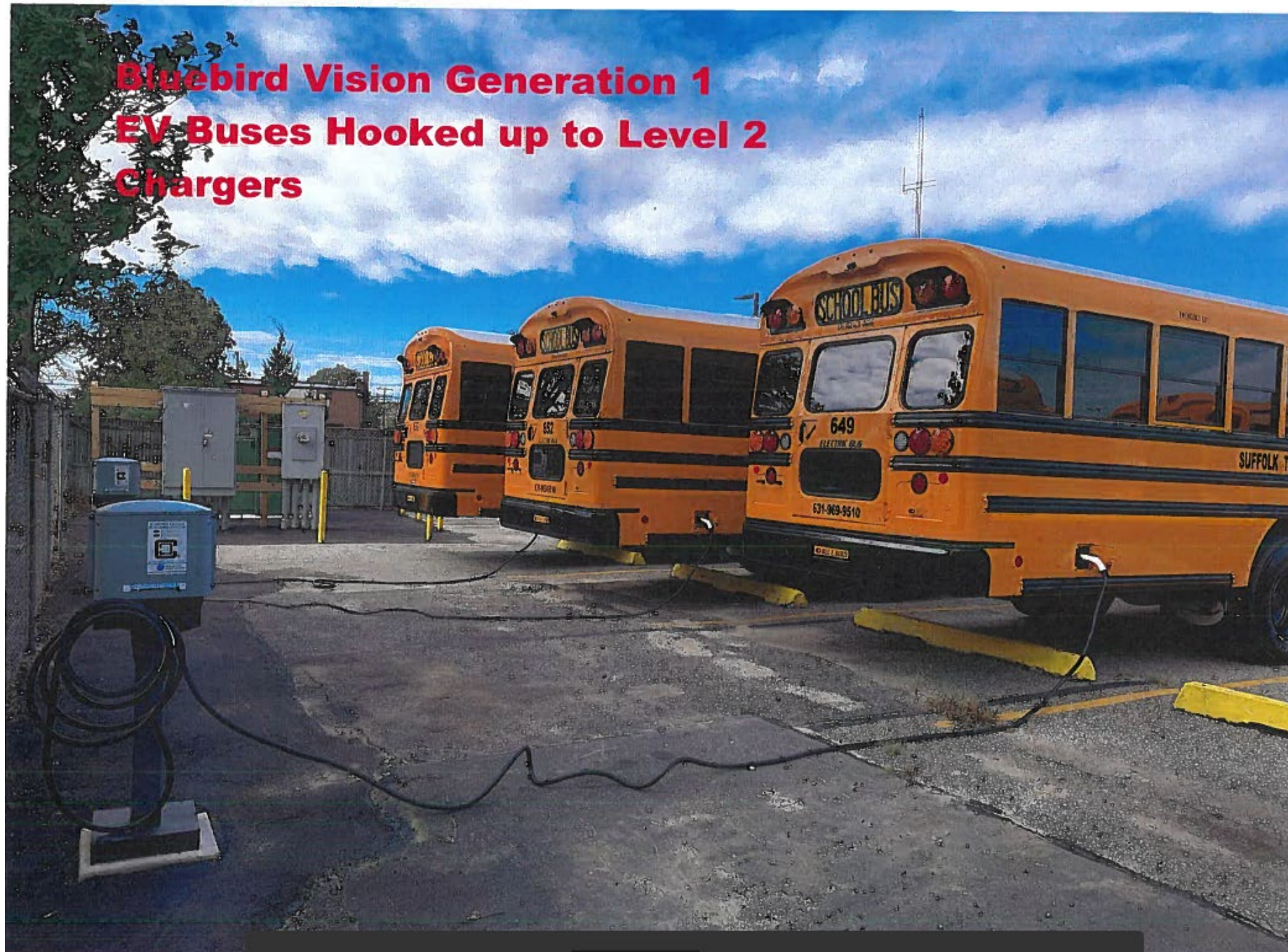
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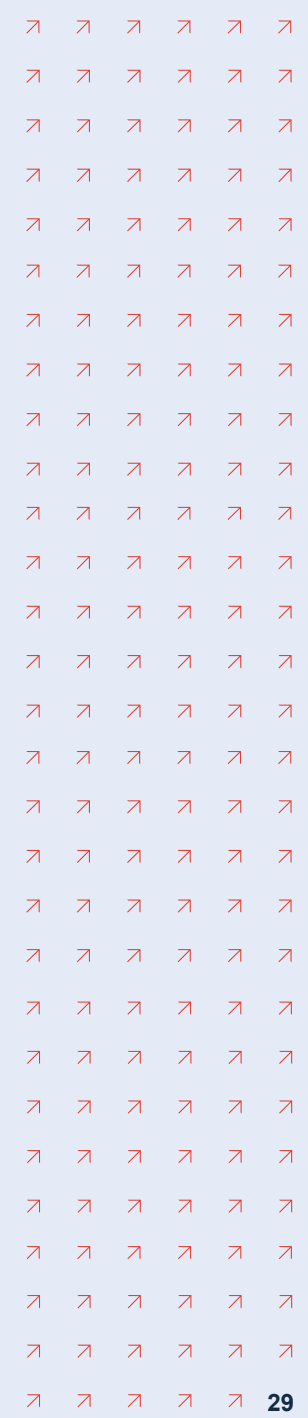
Suffolk Transportation Service, Inc.

Suffolk Bus Corp.

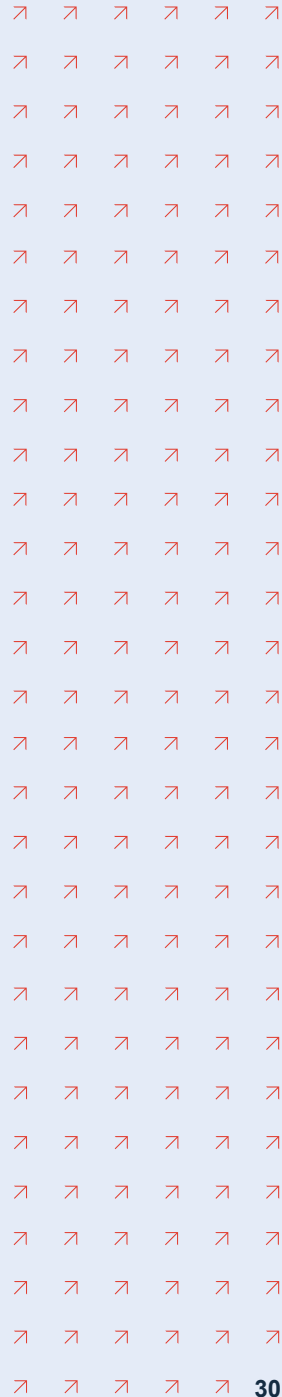
Bluebird Vision Generation 1 EV Buses Hooked up to Level 2 Chargers



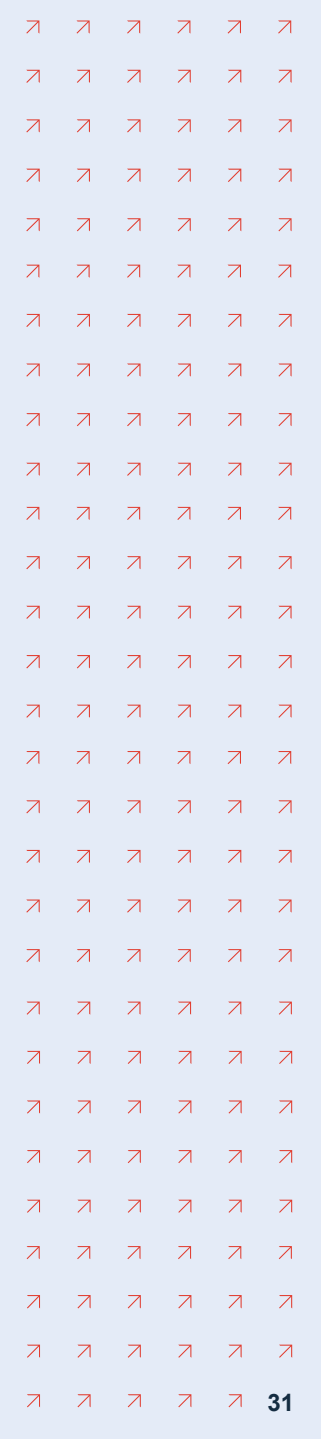
**800 Amp 480/277 Electrical Service & Infrastructure
With Level 2 100 amp Chargers
No Management Program**



**Bluebird Vision Generation - 2 EV Buses With 156 KW
Battery with a range of 80-120 Miles.**



Level 3 60KW DC Fast Chargers With V2G & Management Program with will allow you to charge at any time or charge Rate.



1.5 Mega Watt 2500 Amp 280/477 Service & Infrastructure With (6) Level 3 60 KW DC Fast Chargers







Q&A – Case Study

Any advice or recommendations you would provide a fleet operator getting started?

What are some operational challenges you faced that comes with electrification?



Next Steps

Things to Consider

Vehicles

- Current Fleet Mix (Light, Medium, Heavy Duty)
- Total Miles Driven / Routes
- Vehicle Lifespan (Years)
- Total Cost of Ownership (Maintenance, Fuel, Insurance)

Operations

- Fleet Depot Locations
- Parking Space Availability
- Vehicle Downtime (Hours Parked)

Fleet Electrification Plans

- Timeline
- Partnering with Developer / Consultant and Utility
- Budgets
- Available Incentives

Speak with the Utility as Early as Possible





External Programs

NYSERDA – NYTVIP (NY Truck Voucher Incentive Program)

The New York Truck Voucher Incentive Program (NYTVIP or Program) is a voucher incentive program aimed to accelerate the deployment of **electric trucks** and **buses** (also referred to as EVs) in the **medium- and heavy-duty** vehicle weight classes throughout New York State

Voucher incentives facilitate Fleet adoption of new EV trucks and buses by reducing the upfront prices of these vehicles, which are typically more expensive than comparable diesel vehicles.

Fleet agrees to purchase an eligible vehicle from a vendor/dealer (contractor) qualified to sell that vehicle through the program, and the contractor deducts the value of the voucher from the total sale price.



[NYSERDA NYTVIP \(NY Truck Voucher Incentive Program\)](#)

2022 Inflation Reduction Act Commercial Clean Vehicle Tax Credit

Overview: The Inflation Reduction Act (IRA) was signed into law on August 16, 2022. Section 13403 of the Act creates a new tax credit for qualified commercial clean vehicles, including some Electric School Buses (ESBs). These credits (or any other federal subsidies) are available in addition to any rebates or grants received under the EPA Clean School Bus Program.

What is Eligible: Light to heavy-duty battery or fuel-cell electric vehicles. The credit can be applied to ESBs purchased after December 31, 2022, through December 31, 2032

Who is Eligible: Businesses and tax-exempt organizations qualify for the credit. There is no limit on the number of credits your business can claim. For businesses, the credits are nonrefundable, so you can't get back more on the credit than you owe in taxes. A 45W credit can be carried over as a general business credit.

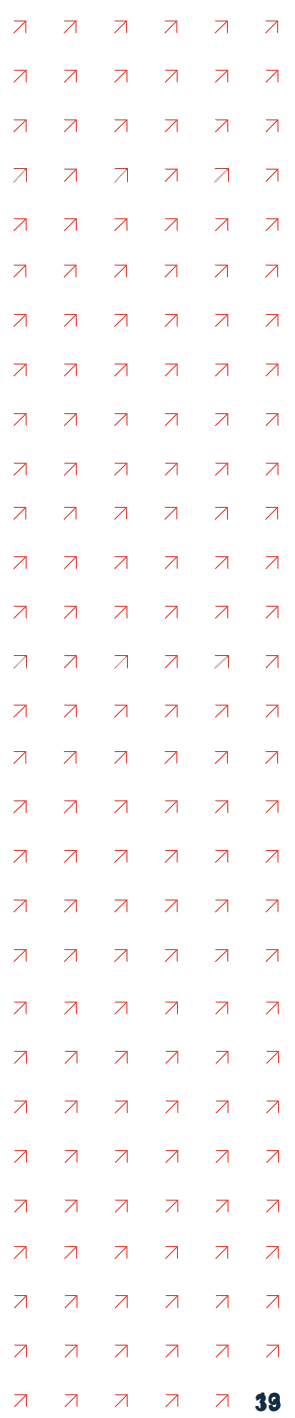
Purchase Mechanism: Must be purchased, not leased or lease-to-own.

Usage Requirement: Related as a motor vehicle for purposes of title II of the Clean Air Act and manufactured primarily for use on public roads (not including a vehicle operated exclusively on a rail or rails); or Mobile machinery as defined in IRC 4053(8) (including vehicles that are not designed to perform a function of transporting a load over a public highway) The vehicle or machinery must also either be:
A plug-in electric vehicle that draws significant propulsion from an electric motor with a battery capacity of at least:
-7 kilowatt hours if the gross vehicle weight rating (GVWR) is under 14,000 pounds
-15 kilowatt hours if the GVWR is 14,000 pounds or more; or
A fuel cell motor vehicle that satisfies the requirements of IRC 30B(b)(3)(A) and (B)..

What it Funds: For electric vehicles, the potential tax credit is the lesser of 30% of the purchase cost or the incremental cost increase for the new vehicle compared to a comparable internal combustion vehicle. There is also a limitation of \$40,000 for vehicles weighing more than 14,000 pounds and \$7,500 for vehicles weighing less than 14,000 pounds. Vehicles must be assembled in North America. The IRA also includes a direct pay provision, which allows qualifying tax-exempt and governmental entities to receive a payment equal to the full value of the tax credit when they inform the IRS of their intent to claim the credit and file an annual tax return claiming the direct pay.

Total Funding Available (2023): \$1 billion

How to Apply: At the time of this writing, there is no IRS form available to claim the [Commercial Clean Vehicle Credit](#). The IRS will release a finalized form on their Commercial Clean Vehicle Credit webpage when it is publicly available. Other IRS forms to [claim clean vehicle credits and deductions available through the 2022 Inflation Reduction Act](#) are available on the [IRS Credits and Deductions Under the Inflation Reduction Act](#).



Vehicle-to-Grid (V2G) and Bi-Directional Charging

Value of Distributed Energy Resources (VDER)

VDER, commonly referred to as the Value Stack, compensates for energy created by **Distributed Energy Resources (DER)** inclusive of battery storage and **vehicle-to-grid (V2G)**. Compensation under the Value Stack is based on actual DER benefits.

The Value Stack consists of five components:

Energy Value, Capacity Value, Environmental Value, Demand Reduction Value and Locational System Relief Value

Demand Reduction Value (DRV)

One of the components in the Value Stack is the **Demand Reduction Value (DRV)**. The DRV is determined by how much a project reduces the utility's future needs to make grid upgrades. The compensation (**\$/kWh**) for the DRV component is locked in for 10 years and is currently set at **\$0.338/kWh for hourly**

DRV hours are pre-scheduled and occur only from **June 1 to August 31, every Monday through Friday, 2 p.m. to 7 p.m., excluding holidays, which equates to 65 days or roughly 325 hours annually**. Owners can schedule their EV to be available to discharge to the grid based on the pre-scheduled DRV contracted hours in order to maximize their compensation.



Demand Response Programs

For fleets that install a standalone battery storage system, instead of receiving the DRV component under VDER, customers may choose to participate in the **PSEG Long Island Battery Storage Rewards program**

Battery storage customers may choose to participate in one of our demand response programs called **Commercial System Relief Program (CSR)** and **Distribution Load Relief Program (DLRP)**. The goal of these programs is to reduce peak demand drawn from the grid on hot summer days during high demand hours and to compensate participants for reducing electricity. This pays an incentive to customers who discharge their battery to the grid or to their site during high demand.

FAQ

How long does it take for the infrastructure to be available for my fleet?

This depends on the available capacity on the feeder and could result in infrastructure upgrades depending on the anticipated loads pertaining to fleets in that area

How much will it cost me on average?

The cost of each project can depend on various factors

Will you do a site visit?

Once a load letter is submitted, PSEG LI will schedule a site visit

What if I plan to stagger my fleet electrification?

PSEG LI Fleet advisory services will be able to guide you with this



Poll #4

Q3: After going through this round table webinar, what are your thoughts towards fleet electrification?

- 1. I am still unsure of available programs and resources and I still feel hesitant towards fleet electrification*
- 2. I have a better understanding of available programs and resources but may will be awhile before I consider fleet electrification*
- 3. I have a better understanding of available programs and resources and want to pursue fleet electrification*
- 4. I am aware of the available programs and resources and currently manage a fleet of electric vehicles*

Fleet Round Table Webinar (2nd)

PSEG Long Island will be hosting its 2nd Fleet Round Table Webinar in Q3 2024. If you are interested in attending, please email: PSEG-LI-EVFleet@pseg.com

- Additional information will be made as we get closer to the date

Topics may include:

- Fleet Make Ready Program Overview
- Feedback on our existing programs



Thank *you*

For any questions, please reach out to:
PSEG-LI-EVFleet@pseg.com