



Zero-Emissions School Buses

NYSERDA Clean Transportation

October 11, 2023



**NEW
YORK
STATE**

NYSERDA

Agenda

Quick Overview:

- Fast Facts
- Roadmap
- Guidebook

Introduction to NYSBIP:

- Program Overview
- Timeline
- Who can apply
- Voucher Amounts & Bonuses
- Roles
- Required Documents
- Difference between NYSBIP & NYTVIP*
- Next Steps/Resources
- Q&A

*NY School Bus Incentive Program & NY Truck Voucher Incentive Program

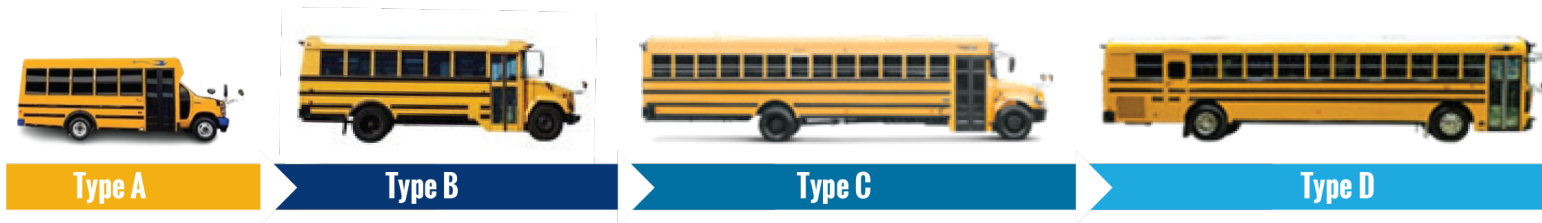


Credit: Highland Electric

Fast Facts

High-level info to frame the discussion.

- There are 45,000 school buses in New York State.
- **By 2027:** all school bus purchases must be zero-emission vehicles.
- **By 2035:** all school buses in operation must be zero-emission.
- All major manufacturers make electric models and new companies are entering the market



- Time to charge varies – from 1-13 hours but can usually be accommodated overnight.
- Ranges vary from 75-210 miles (and are increasing!).
- If a district receives bus-related transportation aid from the State, electric buses and charging infrastructure are eligible.

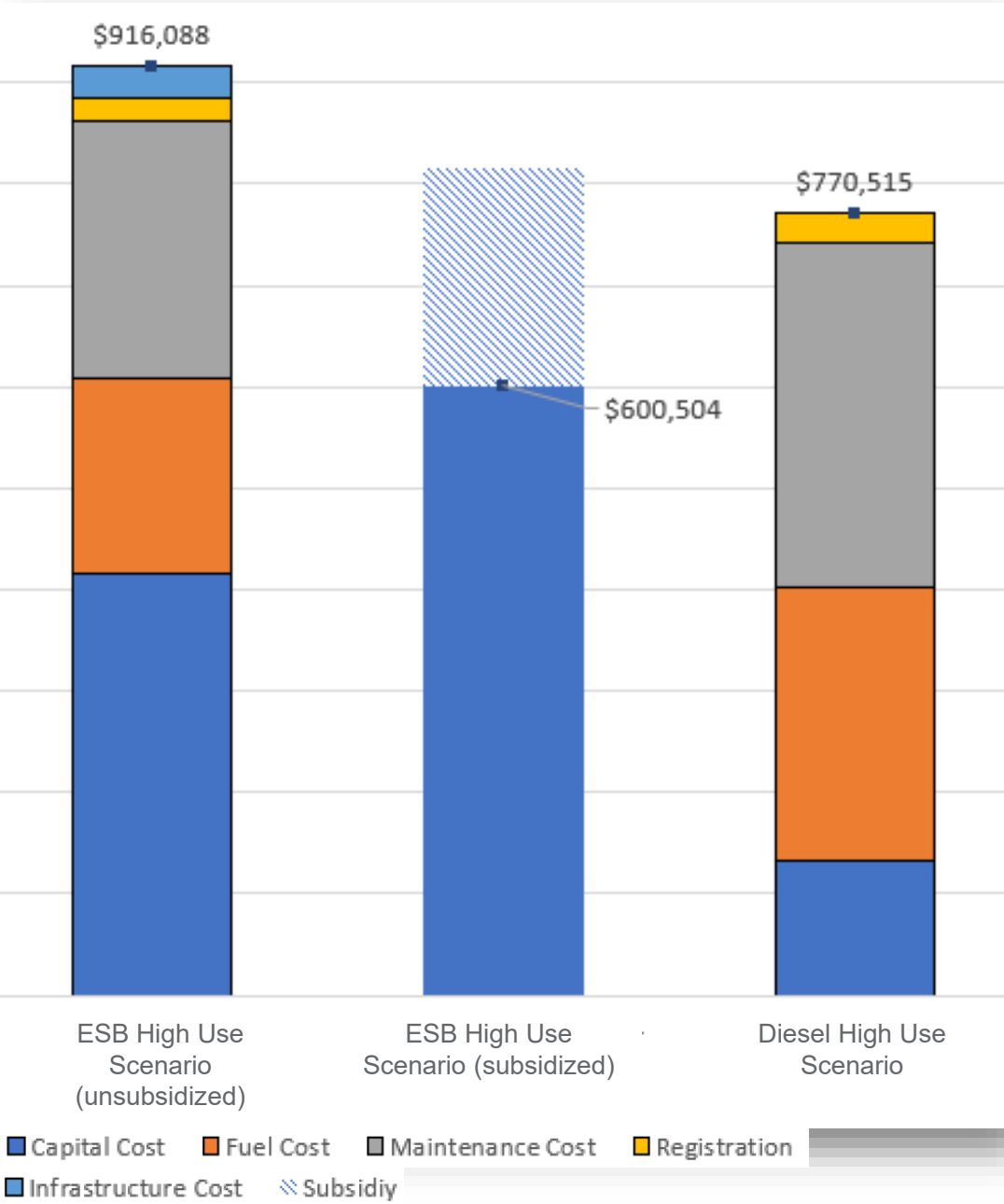


Electric School Bus Roadmap

Policy document developed with extensive stakeholder input describing the state of the market for ESBs, what NYS needs to do to meet the requirements, and transition costs.

Key findings include:

- When factoring in current incentives, the cost of owning an electric bus can already be cheaper than owning a diesel bus
- Existing incentives and other state and local sources can cover majority of costs for school bus fleets between now and 2027
- Continuing work needed with electric utilities on analysis of grid capacity and expected demand; exploring expanding and extending the MD/HD Make-Ready Pilot Program



Guiding the Transition

The **ESB Guidebook** provides **living resources** to help **fleet owners and key partners** get familiar with key terms, concepts, and near-term actions to take.

- [Now Available:](#)

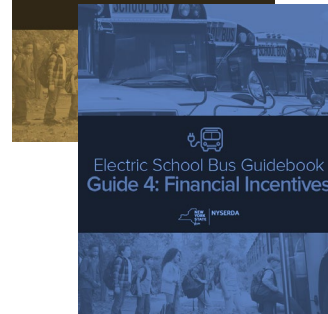
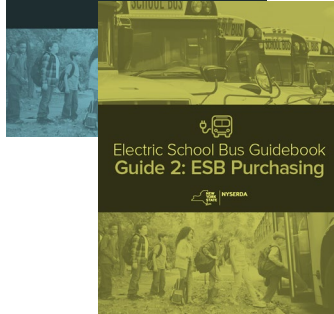
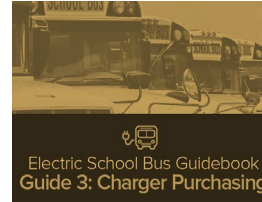
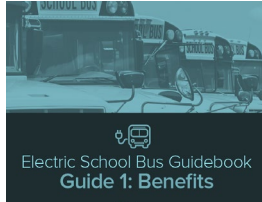
- [Guide 1 – Benefits](#)
- [Guide 2 – ESB Purchasing](#)
- [Guide 3 – EVSE Purchasing](#)
- [Guide 4 – Financial Incentives](#)

- [Coming Soon:](#)

- Guide 5 – Route Planning & Analysis
- Guide 6 – Site Planning & Installation
- Guide 7 – ESB Operations & Maintenance
- Guide 8 – EVSE Operations & Maintenance

- [Final Release:](#)

- Guide 9 – ESB Safety
- Guide 10 – Training & Workforce Development



NY School Bus Incentive Program

\$500 million in Environmental Bond Act funds are allocated for electrifying school buses in NYS

On September 28, 2023, Gov. Hochul announced an initial \$100 million for the NY School Bus Incentive Program (NYSBIP)

- NYSBIP is a **point-of-sale rebate program** for Type A, C, and D school buses and associated charging infrastructure **available on a first-come, first-served basis**
- Incentives **of up to 100% of the difference in cost** between an electric school bus and a gasoline/diesel equivalent
- Funding will also be available for ESB **charging stations**

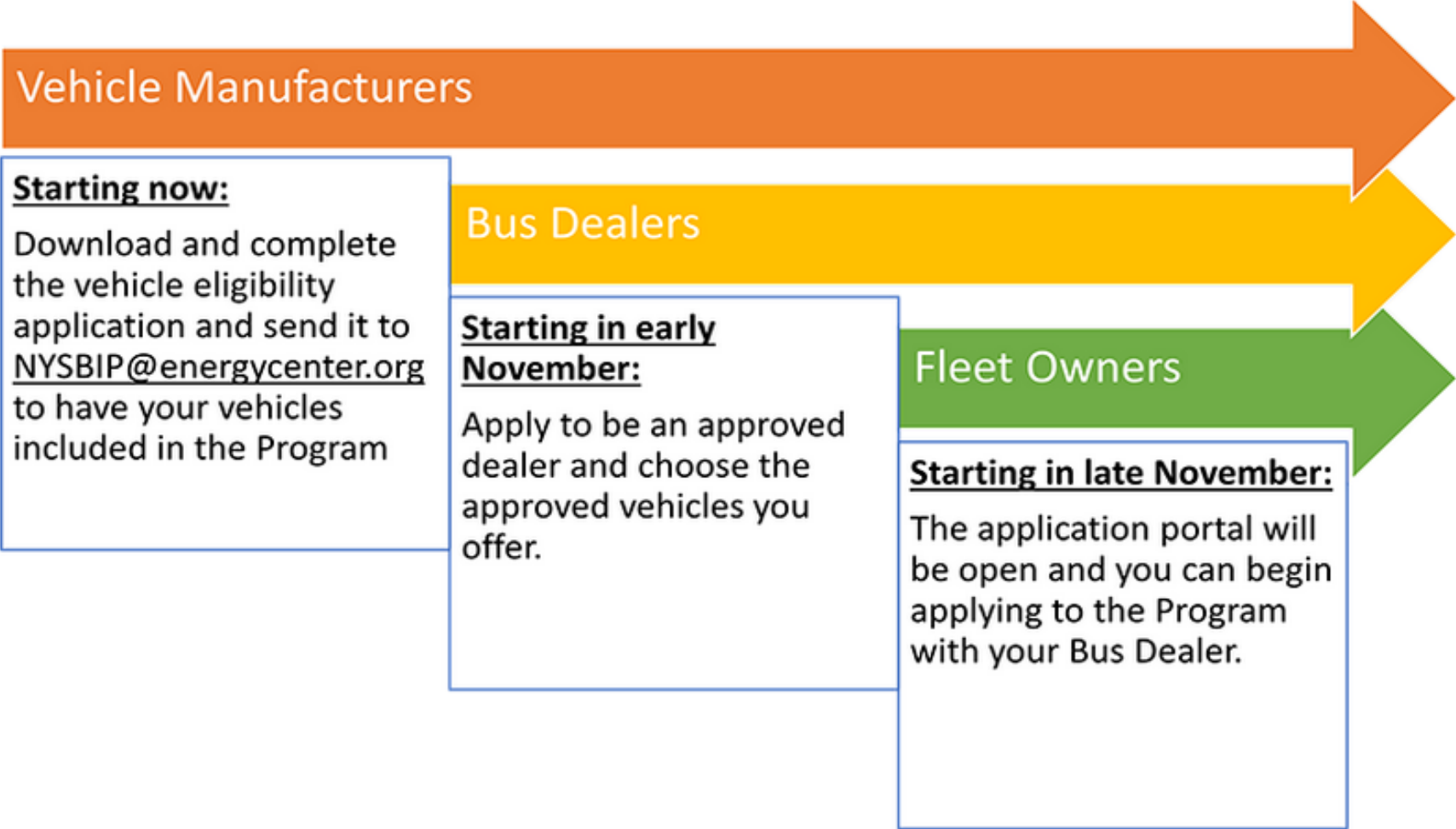


NYSBIP Timeline

Manufacturers may register vehicles **now!** Download and submit the [Vehicle Eligibility Application](#).

Soon: Once vehicles are added, Dealers may apply to sell vehicles by completing the dealer application.

Fleets may begin applying for funding **November 29, 2023.**



Who Can Apply to NYSBIP?

- NYS public school districts or other public entities that provide pupil transportation services
- Third-party Operators under contract with a New York State public school district



NYSBIP Voucher Amounts

Base funding per bus is based on bus size

School Bus Type	Percentage of Incremental Cost Covered	Base Voucher Dollar Amount
New Type A (NTA)	60%	\$114,000
New Type C (NTC)	60%	\$147,000
New Type D (NTD)	60%	\$156,000
Repowered Type A (RTA)	75%	\$105,000
Repowered Type C (RTC)	75%	\$135,000

NYSBIP 'Bonus' Amounts

Add-on amounts:

- Priority District
- Scrappage
- Vehicle-to-Grid and Accessibility Add-ons

School Bus Type	Priority District Bonus Amount	Scrappage Bonus Amount	V2G Complementary Add-On Amount	Wheelchair Complementary Add-On Amount
NTA	\$28,500	\$47,500	\$9,500	\$8,000
NTC	\$36,750	\$61,250	\$12,250	\$8,000
NTD	\$39,000	\$65,000	\$13,000	\$8,000
RTA	\$21,000	N/A	\$7,000	N/A
RTC	\$27,000	N/A	\$9,000	N/A

NYSBIP Bonus Eligibility

What Are Priority Districts?

- Priority Districts include:
 - SED-designated High Need/Resource Capacity districts
 - Districts with 40% or more of the population residing in NYS-designated Disadvantaged Communities (DACs)
 - The bonus also applies to school buses that are stored in an existing depot located in a DAC

What Is Required for Scrappage?

- Remove an older Internal Combustion Engine vehicle from service
- Vehicle must have an engine dated **7 years** or older than the year of application
- Must cut a three-inch hole in the engine block and disable the chassis by cutting the vehicle's frame rails completely in two

NYSBIP Roles

- **Manufacturers** - the company that builds or assembles, at a minimum, the completed drivetrain and chassis for an Eligible Vehicle.
- **Dealers** - the vehicle dealership, Original Equipment Manufacturer (OEM), or Upfit/Retrofit Manufacturer (URM) that sells Eligible Vehicles or charging infrastructure directly to a Purchaser or end-user. In the case of repowers, the Dealer is the entity that sells the repower equipment to the Fleet and performs the repower on the vehicle.
- **Purchasers/Fleet Owners** - the entity that will directly purchase, own, and operate the vehicle. The Purchaser may or may not be the same entity as the Vehicle Operator.

NYSBIP Required Documents

Manufacturers:

- [Vehicle Eligibility Application](#)

Dealers:

- [Dealer Participation Agreement](#)
- [OEM Letter of Consent](#)

Applicants:

- [Purchaser Participation Agreement](#)
- [Scrappage Attestation*](#)
- [Third-party operator agreement**](#)

* Only if applying for Scrappage Bonus
 ** Only if Fleet Owner is a Third-party Operator

Key Differences Between NYSBIP and NYTVIP

- Different voucher amounts
- Documentation for voucher application and redemption differ
- For more information on NYTVIP, visit the [website](#)

Criteria	NYTVIP	NYSBIP
Type of BEV	Class 4-8 trucks and buses	School buses only
Scrappage	Required	Bonus Available
Scrapped Vehicle Age	2009 or older	7 years old at time of scrappage
Funding Source	Volkswagen Settlement	Enviro. Bond Act 2022
Charging Incentives	Not offered	Yes
DAC Requirement	School buses must serve or have depot in a DAC	School buses serving priority districts or have depot in DAC receive bonus

Next Steps & Resources

Begin now. Sooner is better than later for everyone.

- **DEVELOP** a collaborative mindset.
- **DOWNLOAD** and read the [ESB Guidebooks](#). Develop a list of questions.
- **CREATE** short, medium, and long-term priorities.
- **APPOINT** an electric school bus transition committee so your staff becomes familiar with bus and charger requirements.
- **CONTACT** [your utility](#). Regular and frequent contact is recommended while an electrification plan is developed.
- **DEVELOP** a [fleet electrification plan](#).
- **LEARN** about financial resources.
- **REACH OUT** to bus manufacturers.
- **TALK** to your fire department & EMS teams.
- **START** with one bus (or two).





Zero-Emissions School Buses

Thank You

For more info:

NYSBIP@energycenter.org

schoolbus@nyserda.ny.gov



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What's required for the scrappage bonus?

Scrapped bus needs to be:

- Same size/type or greater
- At least 7 years old
- ICE bus (i.e., gas or diesel)
- Owned by Purchaser
- In-service
 - \geq 2,500 miles
 - Operated in NYS 2 of last 3 years
- **Destroyed**
 - Cut engine
 - Cut chassis

Documentation includes:

- [Scrappage Attestation](#)
- Copy of Registration
- Photos (VIN/OEM/URM Plate, Front of Vehicle, Engine Destruction, Side of Vehicle showing cut chassis and DOT number)

Are there other bonuses to be aware of?

No. But, add-ons are available for special equipment, including:

- Wheelchair accessible equipment, \$8,000 per bus
- Vehicle-to-grid capability, ~5% of incremental value, or:

School Bus Type	Complementary Add-On Amount
NTA	\$9,500
NTC	\$12,250
NTD	\$13,000
RTA	\$7,000
RTC	\$9,000

Can NYSBIP vouchers be stacked with other incentives?

Stacking is allowed and encouraged.
However, NYSBIP cannot be used to exceed 100% of bus cost

Examples...

- IRA commercial vehicle tax credit/direct pay ✓
- EPA Clean School Bus Program ✓
- NYTVIP ✗
- Make-Ready Programs ✓

Is there a cap on the number of buses a purchaser can apply for?

Within the first two years...

School District-owned

Priority Districts

- Greater of 10 buses or 10% of fleet

Non-Priority Districts

- Greater of 6 buses or 6% of fleet

Contractor-owned

Priority Districts

- Greater of 10 buses per District, or 10% of fleet serving *each* district the contractor works with

Non-Priority Districts

- Greater of 6 buses per District, or 6% of fleet serving *each* district the contractor works with

Bonus: additional 4 buses/4% of fleet if a transition plan is conducted.

Will vouchers cover any charging costs?

Yes. But specifics are being finalized:

- Each approved bus will be eligible for a charging voucher
- Amounts will differ for Priority/non-Priority Districts
- Awardees and Eligible Expenses/Applicants being determined
- Stacking being explored