



NYSBIP Webinar Series

Combining NYSBIP with Other Funding Sources

NYSERDA Clean Transportation

May 14, 2024



NYSERDA



Agenda

Fund Stacking Overview:

- Overview of Incentives
 - Types of Financial Incentives
 - ESB Program Requirements
 - Considerations when fund stacking
 - What about the Total Cost of Operation (TCO)?
- How do NYSBIP and Make-Ready work together?
- Examples of “stacking” funding
- Questions
- Resources



Types of Financial Incentives

Tax Credits

- Can come in the form of a deduction, exemption, or credit
- Most tax incentive programs for school buses come in the form of a tax credit (available as a direct payment for tax-exempt entities)
 - Includes [IRS 30C: Alternative Fuel Vehicle Refueling Property Credit](#) & [IRS 45W: Commercial Clean Vehicle Credit](#)

Vouchers

- A vehicle purchaser or lease operator agrees to purchase a piece of equipment from a vendor, the vendor will deduct the value of the voucher from the total sale price
- Once the piece of equipment is delivered, the vendor will receive a reimbursement for the voucher amount from the entity providing the incentive
 - Includes the [NY School Bus Incentive Program \(NYSBIP\)](#)

Rebates

- Awards that are typically redeemed after a purchase
- Some programs offer rebates ahead of purchase, usually upon presentation of a purchase order

Grants

- Applications for grants are typically more extensive than for rebates, and awards typically made on a competitive basis
 - [EPA Clean School Bus Program](#) includes Rebates & Grants

Funding Programs

Program	Incentive Type	Buses	Chargers	Site Upgrades	Grid Upgrades
<u>NY School Bus Incentive Program</u>	Voucher	Covered	Covered	Covered	Not Covered
<u>EPA Clean School Bus Grants and Rebates</u>	Grant / Rebate	Covered	Covered	Covered	Not Covered
<u>EPA Clean Heavy-Duty Vehicle</u>	Grant	Covered	Covered	Covered	Not Covered
<u>Utility Make Ready</u>	Rebate	Not Covered	Not Covered	Covered	Covered
<u>Commercial Clean Vehicle Credit</u>	Tax Credit / Direct Pay	Covered	Not Covered	Not Covered	Not Covered
<u>Alternative Fuel Vehicle Refueling Property Credit</u>	Tax Credit / Direct Pay	Not Covered	Covered	Covered	Covered
<u>NY State Aid</u>	Reimbursement	Covered	Covered	Covered	Not Covered

Covered

Not Covered

Bus & Charging Program Requirements

Programs to fund ESBs and chargers have differing eligibility requirements that may include the following:

- Prioritization
- School District Type
- Ownership
- Eligible Vehicles/Chargers
- Procurement Pairing
- Scrappage Requirements
- Purchase Mechanism
- Usage Requirements



NYSBIP and EPA Clean School Bus Program

Both programs provide funding for the following:

- Purchasing zero-emission electric school buses
- Chargers + infrastructure + installation

Stacking Funds from Both Programs

- After July 1st, 2024: when stacking an EPA award with a NYSBIP voucher, the NYSBIP voucher will be reduced to a 'stacking voucher' amount
 - Regardless of a district's priority status, stacking is higher than an award through either program individually.
 - Applicants can then also apply for a NYSBIP Charging Voucher, allowing EPA funding to go toward the bus purchase.
 - A similar 'stacking voucher' will be offered for successful applicants to the EPA's Clean Heavy Duty Vehicle Program.





Key Considerations: Planning

Create a Fleet Electrification Plan (FEP)

- An FEP is a roadmap to electrifying a district or contractor's entire school bus fleet by 2035
- Up to the full cost of the FEP can be covered by NYSERDA
- More information on FEPs can be found in the [ESB Guidebook](#), and on the [NYSERDA](#) website

Timing

- It is essential to create an FEP early:
 - Having an FEP will help when applying to federal grants
 - An FEP informs early conversations with your utility provider
 - Creating an FEP early will help unlock more funding



Key Considerations:

Buses

NYSBIP Funding

- Funding can be applied for at any time, first-come, first-served
- NYSBIP funding can be adjusted/changed based on federal funding

Federal Funding

- Some programs require scrappage, meaning old school buses will be "scrapped" and recycled for parts
- Focus on being prepared to apply for federal funding; NYSBIP funding is always open, but many federal programs are not!



Key Considerations: Charging Infrastructure

Cost of construction/installation

- [NYSBIP](#) can be used to aid the cost of charging infrastructure and site upgrades

Utility Make-Ready Program

- Utility- and customer-side costs can be covered through the [Make-Ready Program](#)

Timing

- Completing an FEP early can help unlock funds to be used for Charging Infrastructure from both federal funding and the Make-Ready Program
- Charging projects are reimbursed **after** installation, so permits from NYSED must be secured ahead of redeeming charging vouchers/incentives



Key Considerations:

State Aid

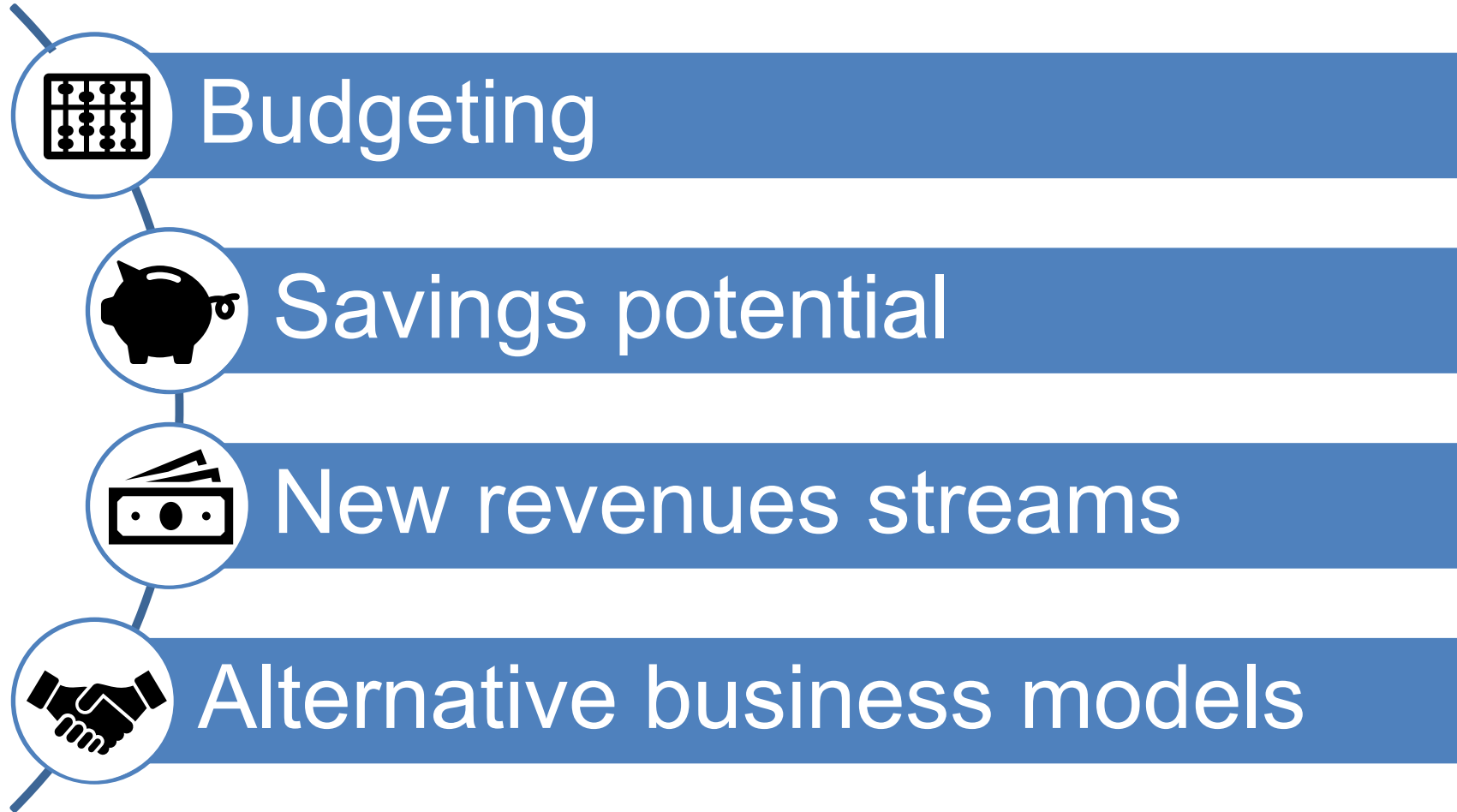
Funding from NYSED

- Most ESB related expenses will be Transportation Aid-eligible, now including solar canopies
 - More information on state aid eligibility can be found on the [NYSED website](#)
- NYSBIP Funding is eligible for State Aid

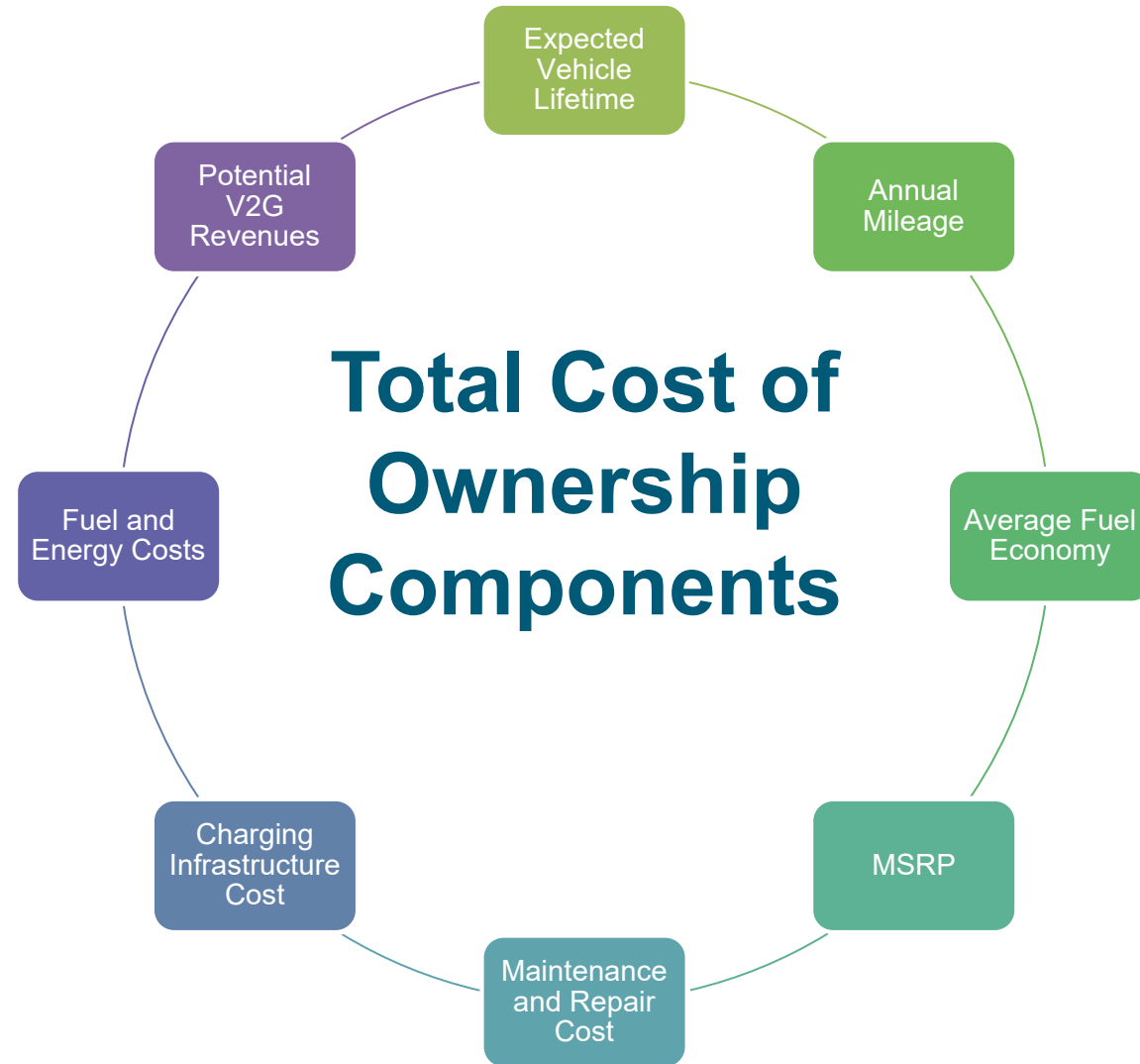
Timing

- Applying for aid happens after incentives are finalized
- Aid on remaining costs is reimbursed over 12 years

WHY TOTAL COSTS MATTER



KEY COMPONENTS





\$67M MHDV Make-Ready Pilot

Program Overview

Program Description	To encourage the development of medium- and heavy-duty vehicle charging infrastructure, we are offering incentives that can offset utility and customer-side costs for qualifying commercial sites.
Funding	\$67M statewide, varies by utility
Program Dates	Available now, while funding is available
Resources	Website

Incentive Overview

		Non-Publicly Accessible	Publicly Accessible
Located within a Disadvantaged Community*	Yes	Up to 90% of utility-side costs Up to 50% of customer-side costs**	Up to 90% of utility-side costs Up to 50% of customer-side costs**
	No	Up to 90% of utility-side costs	

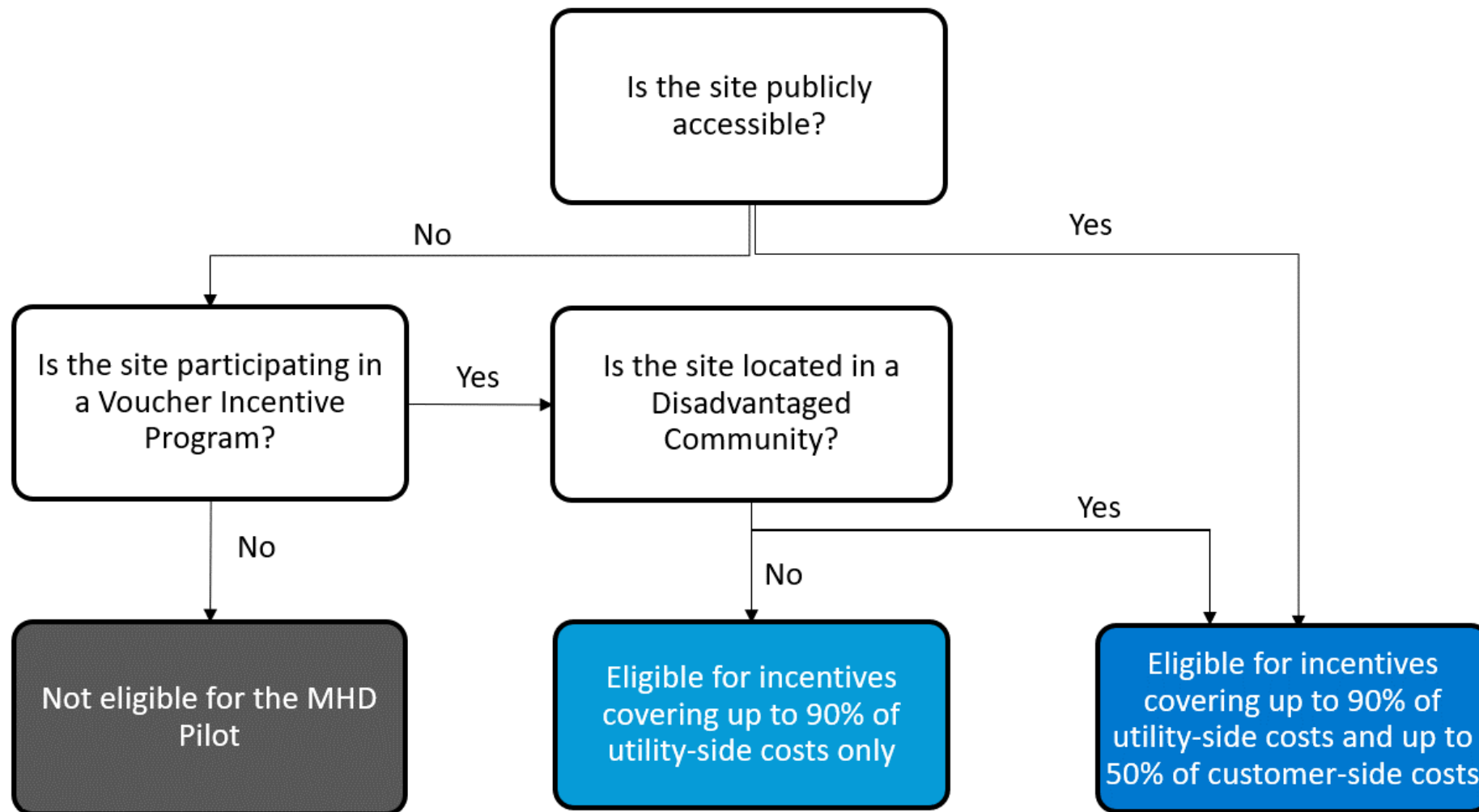
*[Disadvantaged communities](#) (DAC) are defined as communities that bear burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria, or comprise high concentrations of low- and moderate-income households.

** Customer-side costs are subject to \$ / kW caps, which vary by utility

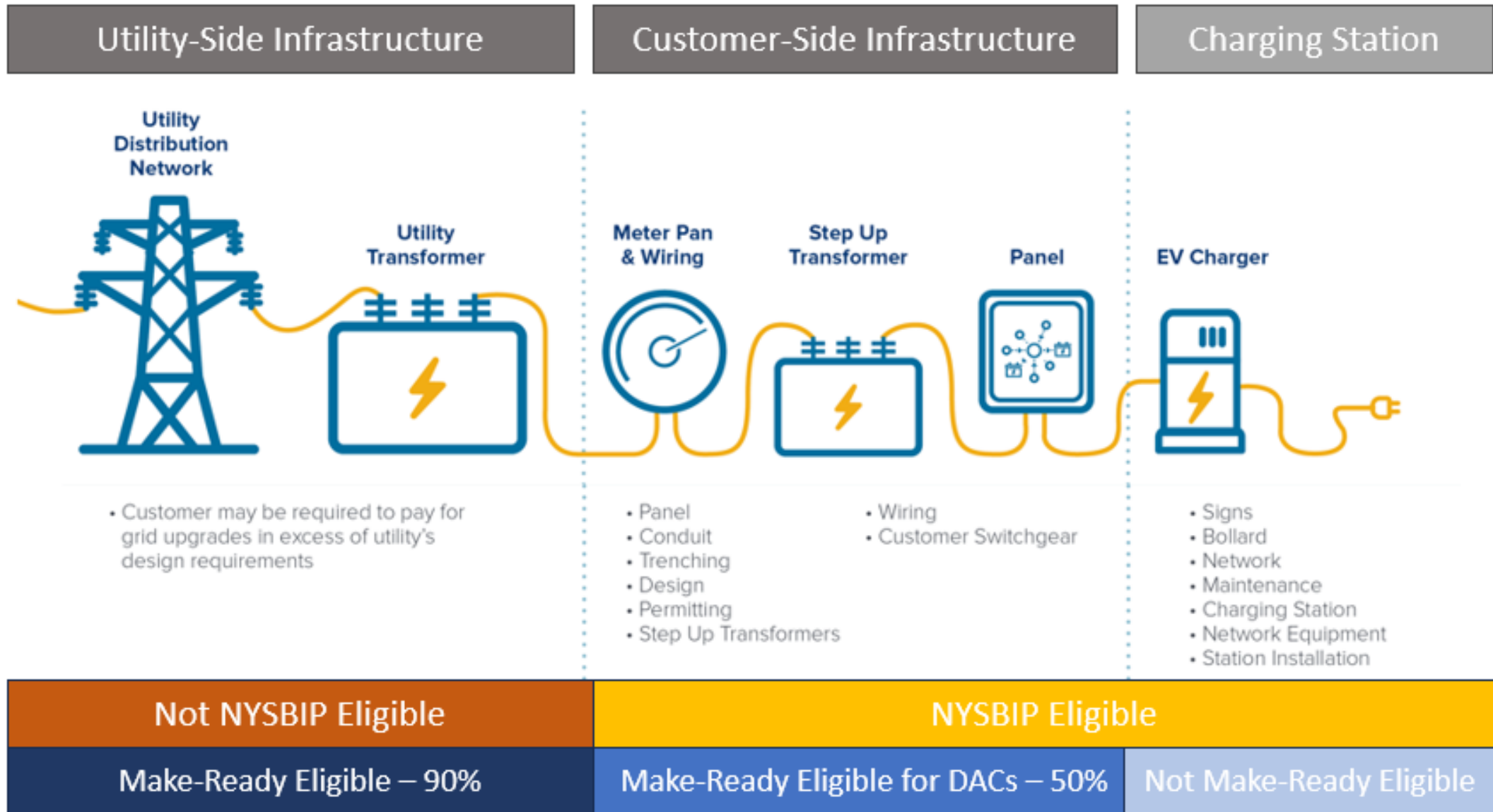
Program Requirements

MHDV	For charging MHDV over 10,000 lbs. gross vehicle weight
Chargers	L2, DCFC, or mixed
Non-Publicly Accessible Sites	Must be participating in one of the following voucher programs: <ul style="list-style-type: none"> • NYSERDA Truck Voucher Incentive Program • NYC DOT NYC Clean Trucks Program • EPA Clean School Bus Program • NYSERDA NY School Bus Incentive Program

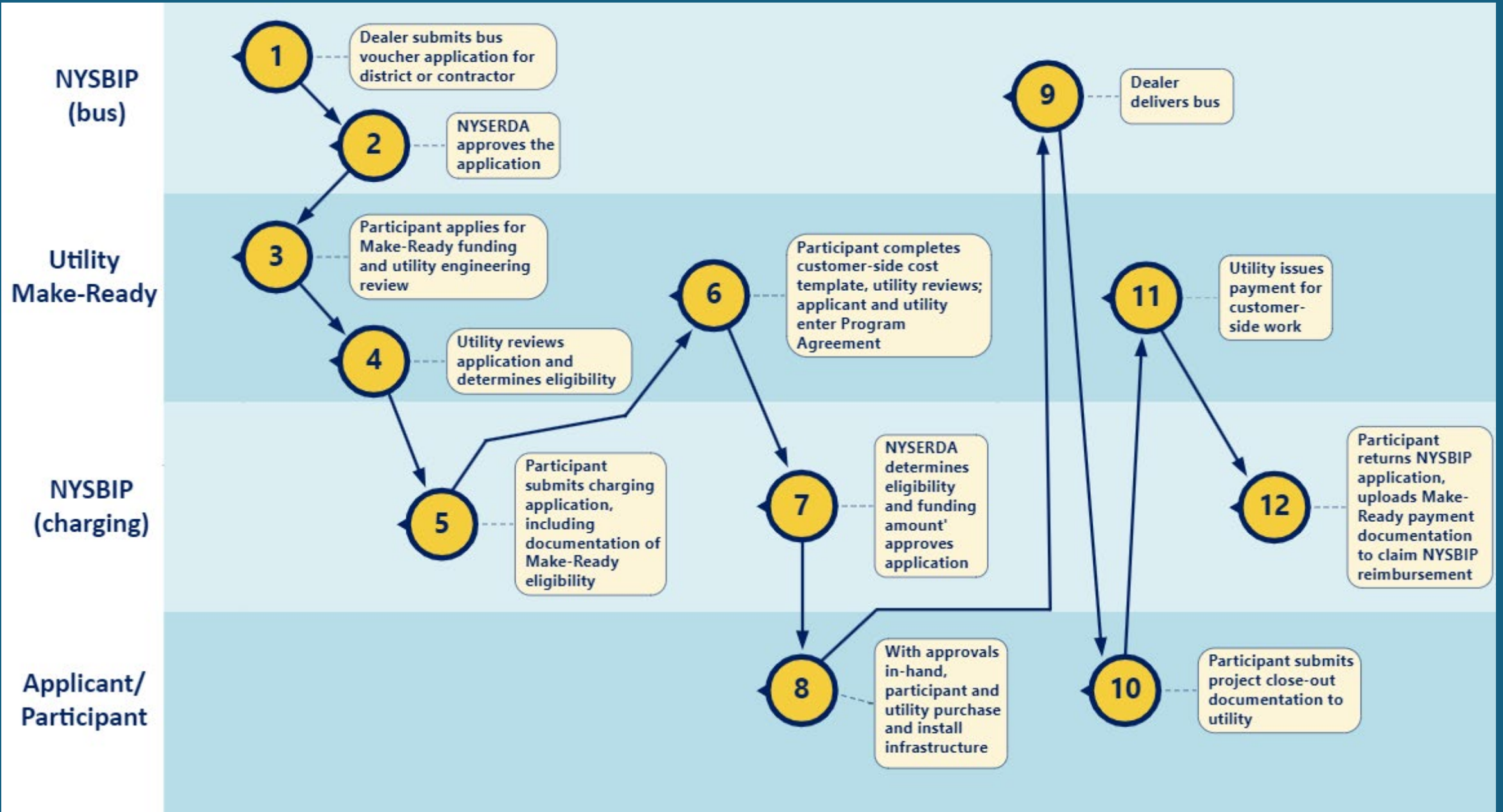
How to determine your MHD Pilot incentive tier eligibility



Eligible Charging Costs



Charging Stacking Progression



Examples of Fund Stacking Scenarios



DISTRICT 1

District 1 is a 50% aid district, meaning State Aid covers half of their transportation costs. The median for NYS is around 70%.

District 1 wants to buy a new Type D bus, the largest and most expensive bus type.

A diesel Type D bus costs around \$165,000. An electric version costs around \$425,000.

District 1 is applying for the NY School Bus Incentive Program and the Commercial Clean Vehicle Tax Credit.

District 1 – 50% Aid, new Type D bus, NYSBIP and IRS45W

	ESB	Diesel/Gas
1 District wants to purchase a Type D bus	\$425,000	\$165,000
2 District applies for NYSBIP Voucher (-\$156,000)	\$269,000	\$165,000
3 District scraps old bus (-\$65,000)	\$204,000	\$165,000
4 District selects V2G-capable bus (-\$13,000)	\$191,000	\$165,000
5 District applies 45W credit to remaining cost (-\$40,000)	\$151,000	\$165,000
6 District aid ratio applied	50%	50%
! <u>Final Cost to District*</u>	<u>\$75,500</u>	<u>\$82,500</u>

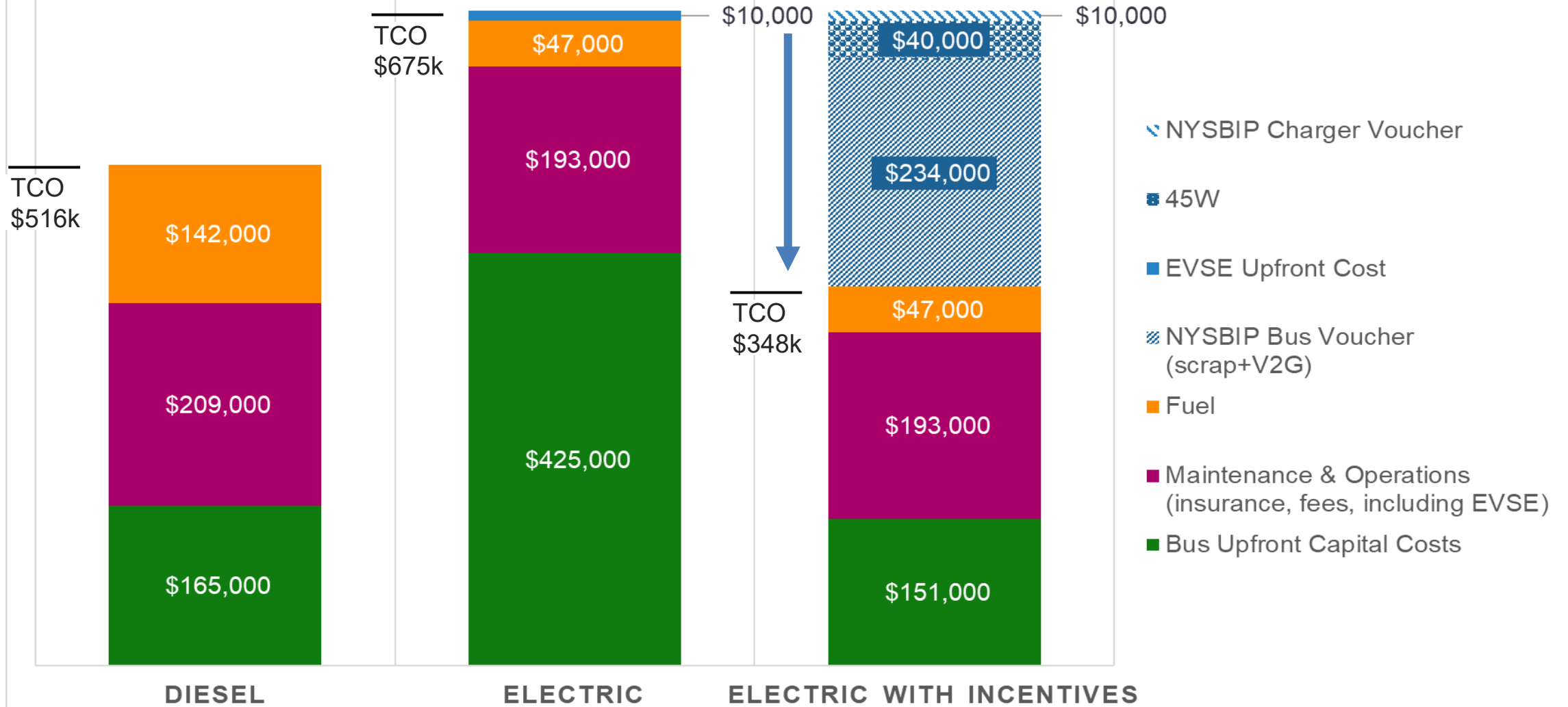
* Not factoring interest on aid payments. Recent changes to the State Aid calculation for NYSBIP vouchers, and the cost-savings associated with operating an ESB, are also not considered in this example and would further reduce both the upfront and total ownership costs of an electric school bus, respectively.

TYPE D ELECTRIC VS. DIESEL INPUTS

Component	Electric	Diesel
Expected Vehicle Lifetime (Years)	12	
Annual Vehicle Mileage (VMT/Year)	16,000	
Bus MSRP	\$425,000	\$165,000
Sales tax & Registration	\$56,934	\$42,433
EVSE, infrastructure & installation	\$10,475 (L2 19.2 kW charger)	n/a
Average Fuel Economy (Weighted 55% city/45% highway)	25	6
Fuel prices	\$0.21/kWh (no managed charging)	\$4.54/gallon
Overall Average Maintenance & Repair Cost (\$/Mile)	\$0.705	\$0.94
EVSE Maintenance & network fees (\$/year)	\$991	N/A
Discount Rate for NPV Calculations (%)	3%	

TYPE D SCHOOL BUS TCO

Net present value with NYSBIP + IRS 45W



DISTRICT 2

District 2 is a 25% aid district.

District 2 wants to buy a new Type C bus, most common bus type.

A diesel Type C bus costs around \$145,000. An electric version costs around \$385,000.

District 2 is awarded an EPA Clean School Bus rebate and applies for a NY School Bus Incentive Program 'stacking voucher' and the Commercial Clean Vehicle Tax Credit.

District 2 – 25% Aid, new Type C bus, EPA, NYSBIP and IRS 45W

	ESB	Diesel/Gas
1 District wants to purchase a Type C bus	\$385,000	\$142,000
2 District receives EPA non-priority district award (-\$200,000)	\$185,000	\$142,000
3 District applies for NYSBIP stacking voucher (-\$100,000)	\$85,000	\$142,000
4 District applies 45W credit to remaining cost (-\$40,000)	\$45,000	\$142,000
5 District aid ratio applied	25%	25%
! <u>Final Cost to District*</u>	<u>\$33,750</u>	<u>\$106,500</u>

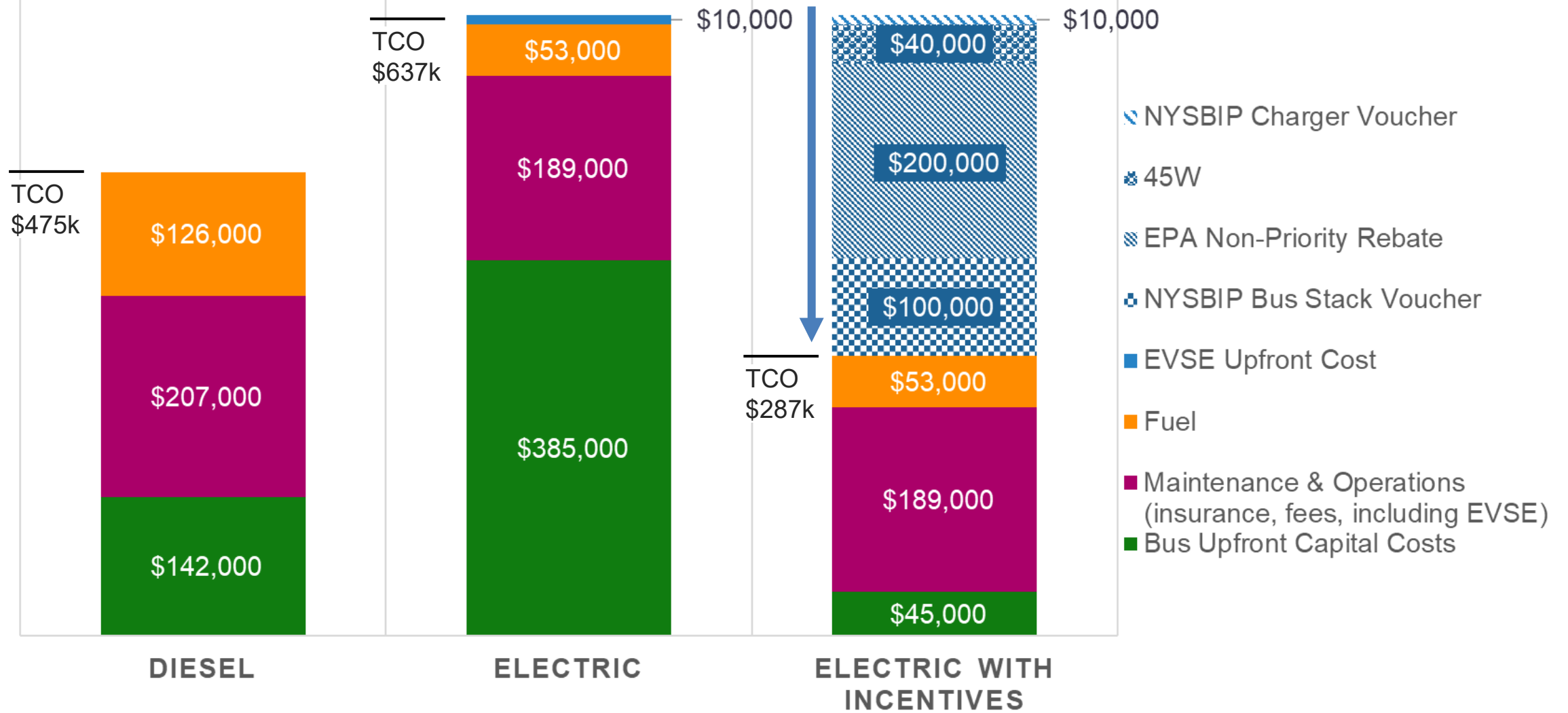
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TYPE C ELECTRIC VS. DIESEL INPUTS

Component	Electric	Diesel
Expected Vehicle Lifetime (Years)	12	
Annual Vehicle Mileage (VMT/Year)	16,000	
Bus MSRP	\$385,000	\$142,000
Sales tax & Registration	\$53,774	\$40,616
EVSE, infrastructure & installation	\$10,475 (L2 19.2 kW charger)	n/a
Average Fuel Economy (Weighted 55% city/45% highway)	22	7
Fuel prices	\$0.21/kWh (no managed charging)	\$4.54/gallon
Overall Average Maintenance & Repair Cost (\$/Mile)	\$0.705	\$0.94
EVSE Maintenance & network fees (\$/year)	\$991	N/A
Discount Rate for NPV Calculations (%)	3%	

TYPE C SCHOOL BUS TCO

Net present value with Non-Priority EPA + NYSBIP + IRS 45W



Questions??



Upcoming Events, Resources & Tools

- Events
 - [ESB Technical Conference](#)
 - [Upcoming NYSERDA Webinars](#)
- Resources:
 - [ESB Financial Incentives Guide](#)
 - [Contact your utility early!](#)
 - [NYSBIP](#)
- Tools:
 - [TCO Support from WRI \(email WRI & check out the calculator\)](#)
 - [Con Edison Charging Rate Calculator](#)





NYSBIP Webinar Series

Thank You!

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[Contact your utility](#)

Stay connected via [our email list](#)