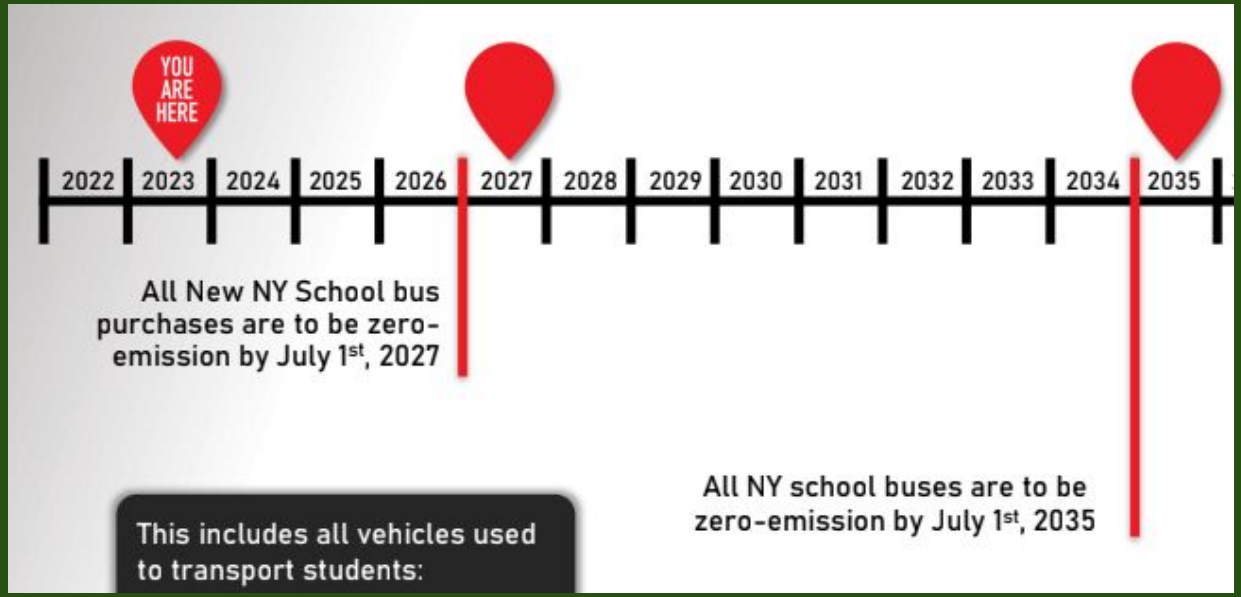
Electric Bus Vote 2023

Adirondack Central School District
Public Hearing
October 11, 2023
7 PM, West Leyden Elementary Cafeteria
Kristy McGrath, Superintendent
Christine Goossens, Leonard Bus

Electric Bus Timeline in NY



Before the Bus – Funding

YEAR 1 EPA CLEAN SCHOOL BUS PROGRAM

LEONARD Bus Sales Inc

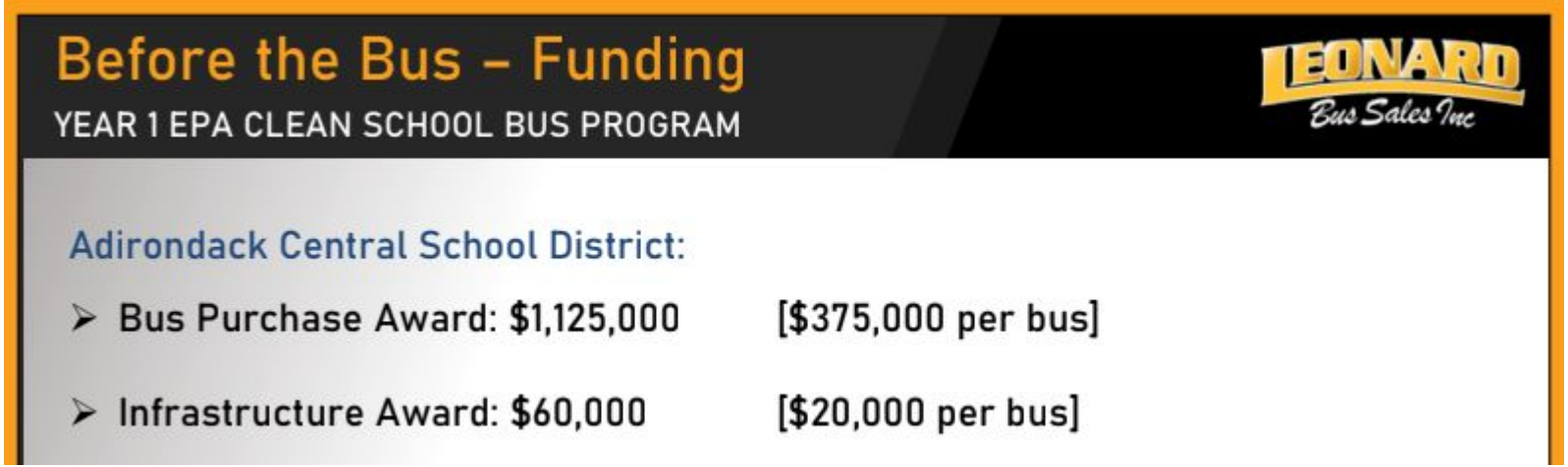
www.epa.gov/cleanschoolbus

Round 1 Program Awards:

- Total Awards Nationwide: $913,132,000
  - Funding for 2,468 buses
- New York State Total Awards: $69,620,000
  - Funding for 184 buses
- Total Awards for Customers of Leonard Bus Sales: $24,005,000
  - Funding for 61 buses

How can Districts pay for this initiative?

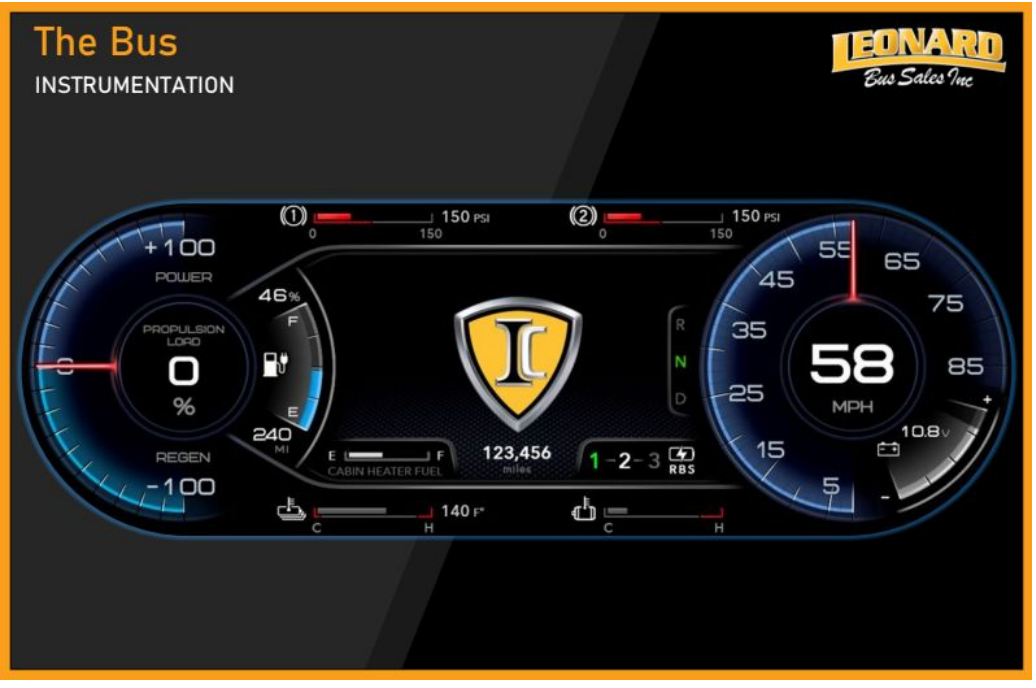
We anticipate 5 rounds of EPA grant funding. The 2nd round is now closed, and that was geared towards large fleet conversions in areas with poor air quality. Round 3 was just announced, and the application deadline is Jan. 2024 (it's $50,000 less per bus than our grant). We expect a round 4 and 5 in the future.



Adirondack has asked for and been given extensions to our grant. It was awarded more than a year ago. We must make a decision by the end of October 2023, that is why we're doing our vote now, as our extension expires the end of the month.

If this vote doesn't pass, then we will notify the EPA that we are declining the grant.

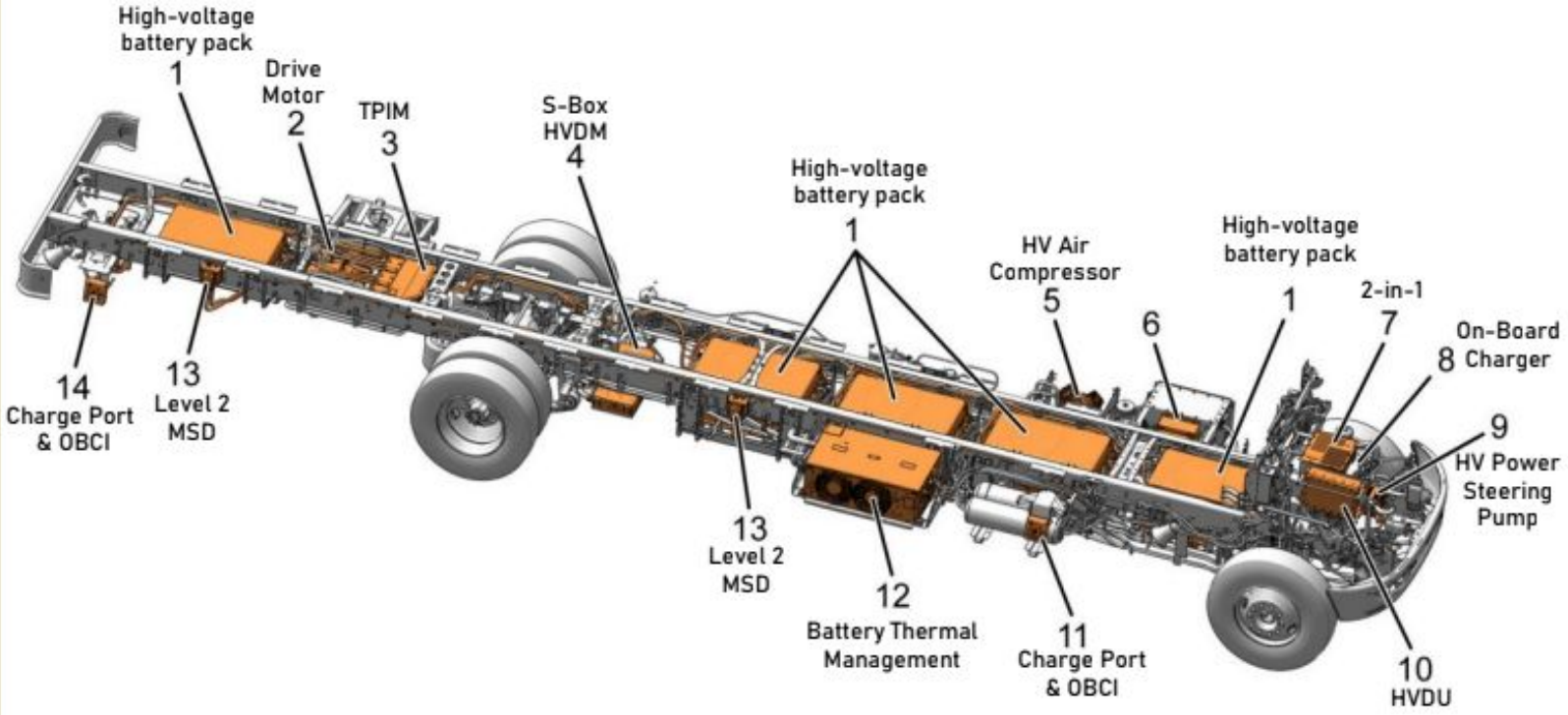
What does an electric bus look like?



The Bus

VEHICLE SYSTEMS

LEONARD Bus Sales Inc



The Bus

HIGH VOLTAGE COMPONENTS

- The IC eCE incorporates multiple levels of safety in order to protect the operator and service personnel
- During operation, the system is monitoring all systems for proper operation
  - If a fault is detected, the system can reduce output to protect the occupants while keeping the bus moving
- The high voltage system operates in an isolated system throughout the bus
  - If a ground fault occurs, the system can notify the driver, while component grounding to the frame works to reduce arc risk
- Multiple levels of high voltage disconnect
  - Two disconnect switches on the side of the bus work to disable the power in high voltage components
- Master Safety Disconnect (MSD)
  - Provides a physical level of disconnect of the high voltage circuit
  - Physical release that open the electrical circuit. With these removed, the power is unable to pass

Maintenance

LEONARD Bus Sales Inc

- Maintenance savings – fewer unpredictable expenses

Diesel	Electric
Oil Maintenance	No Engine Oil
Fuel System	No Fuel System
Transmission	No Transmission
Exhaust System	No Turbo, EGR, or Injectors
Air Filter	No Air Filter
DPF and DEF Systems	No Aftertreatment

Maintenance

LEONARD Bus Sales Inc

- Maintenance – What stays the same?
  - Tire and Suspension Maintenance
  - Bus Body Maintenance
  - Brake Replacement and Maintenance
  - Air System Maintenance
  - Lubrication/Greasing Practices
  - Interior

More Facts…

Anticipated mile range on a fully charged battery = 135 miles, temperatures and terrain will decrease this range (currently have 10 bus runs under 100 miles)

Our chargers will be Level 2 - draw 16.6kW (equivalent to the draw of 2 residential EV chargers); the current transformer to the bus garage is equipped to handle the amount of electricity needed for 3 buses

We will utilize software which will manage the charging, to ensure we pull during non-peak times, and to ensure optimal charging is in place

IC eCE

BUS WARRANTY

- Drive Charger, Charging Cables, and Inverters
  - 5 Years/100,000 Miles
- HV Steering Pump, Air Compressor
  - 1 Year/Unlimited
- Standard IC Chassis Warranty
- Drive Battery
  - 8 Years/175,000 Miles
- Drive Motor
  - 5 Years/100,000 Miles

LEONARD Bus Sales Inc

Training

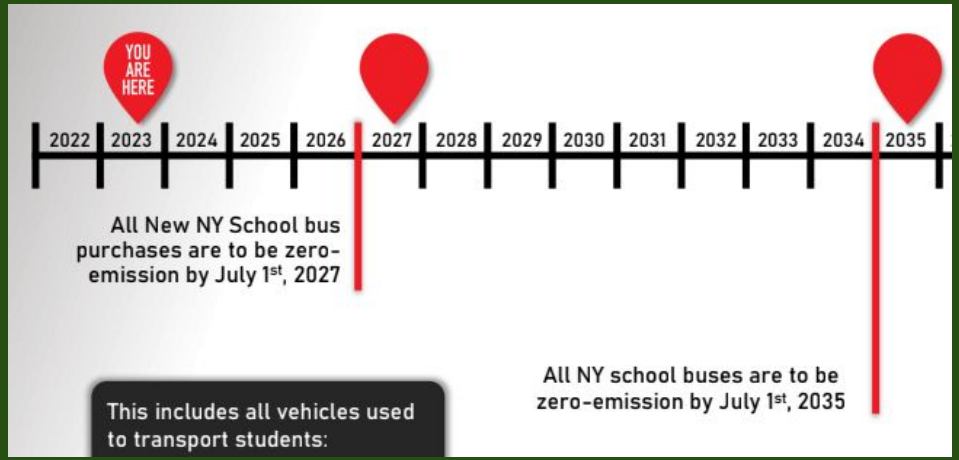
- As always, Leonard Bus Sales will provide its partners with all the training and support they need to feel comfortable with a new product.
- Training support and education will be offered at every level of your operation:
  - Transportation Supervisors/Directors
  - Transportation Clerks/Head Bus Drivers
  - Bus Drivers
  - Bus Attendants
  - Technicians
  - First Responders

Why is Adirondack looking to buy 3 electric buses now?

1-Electric buses are expensive and we have a grant

- we will want to take advantage of grant money as this initiative evolves if/when possible (we currently pay approx. $165,000 for a gas/diesel bus, and electric buses cost well over $400,000 plus there are electrical/charging/construction costs)
- we have the EPA grant, with transportation aid applied we will be paying approximately $30,000 locally for a project/purchases that total $1,329,738

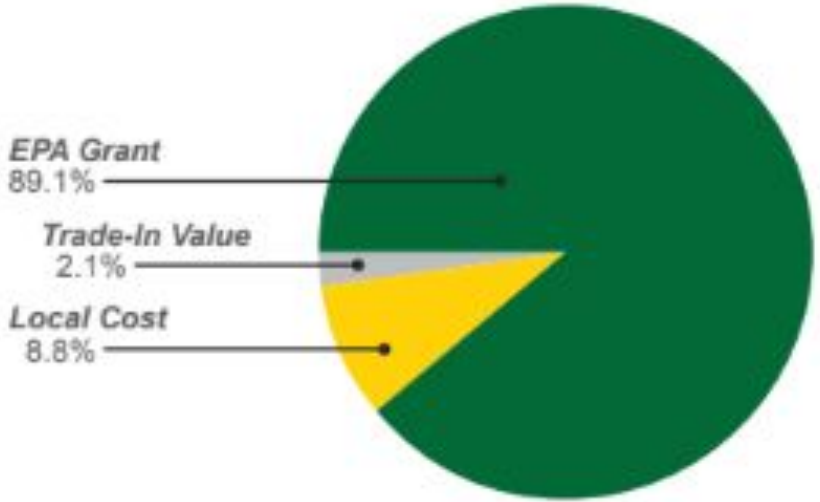
2-Knowledge is Power



WHAT IS INCLUDED IN THIS VOTE:

- (3) Leonard Type C, 64 Passenger, Electric Buses
- (3) Level 2 Chargers
- Electrical Upgrades to the Bus Garage

EPA Grant	$ 1,185,000
Trade-In of 3 Gas/Diesel Buses	$ 27,500
Total Local Cost	$ 117,238
(will be less than this, since our transportation aide is 73.9%)	
Total Cost	***$ 1,329,738***



With transportation aid, the local cost is approximately $30,000 (2.26% of the cost).

Taxes for 2023-24 have already been levied, so you will not see an increase to your taxes this year.

Next Steps…

Vote - Tuesday, October 24, 2023 (Multi-Purpose Room at the MS/HS) Noon-8 PM

Contact Michelle Freeman at the District Office ASAP for any absentee ballot questions (315-942-9200 x1800).

If the vote passes, we anticipate the 3 electric buses to be operational in spring/summer 2024 (may be the 2024-25 school year).

If the vote doesn’t pass, the district will continue to map out a plan for funding and infrastructure, to be prepared for the requirements in future years (July 2027). Beginning in August 2024, each District must present to State Ed. a progress report on our status and plan for electric bus implementation.

ADIRONDACK CENTRAL WILDCATS TEAMADIRONDACK

Kristy McGrath - 315-942-9200 x1800 (kmcgrath@adirondackcsd.org)

Christine Goossens - Leonard Bus

Jenn Badaracco - Transportation Supervisor, Adirondack, 315-942-9200 x5601