EV School Bus & NJDEP Grant

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EV School Bus Grants

The district has been researching cleaner fuel transportation options and applying for school bus grants since 2020 with the goal of:

- reducing carbon emissions,
- improving air quality,
- protecting student/staff health and wellbeing, and
- identifying financially viable ways to replace the district's aging fleet with new vehicles responsibly.

Grants Applied For

Unsuccessful

- Volkswagen Settlement
- Stop the Soot
- Diesel Modernization
- Federal EPA Clean Heavy Duty

** Most grants were not explicitly school buses, resulting in urban applicants being awarded in lieu of Readington Twp.*

Successful

Federal EPA Clean School Bus

$5 billion federal grant over 5 years to replace diesel/gas school buses with electric or other clean-fuel school bus vehicles.

Successful

New Jersey DEP Electric School Bus

$15 million state grant over 3 years to replace diesel/gas school buses with electric or other clean-fuel school bus vehicles.

NJDEP Grant Timeline/History

- **July 16, 2024:** Formal NJDEP award *(embargoed public action)*
- **August 29, 2024:** Finance Committee discussion *(confidential)*
- **September 24, 2024:** Finance Committee discussion *(confidential)*
- **October 2, 2024:** Formal NJDEP/Governor's Office *(embargo ended)*
- **October 18, 2024:** Finance Committee discussion *(public)*
- **November 21, 2024:** Green Committee discussion *(public)*
- **December 13, 2025:** Finance Committee discussion *(public)*
- **February 20, 2025:** Green Committee discussion *(public)*
- **June 30, 2025:** NJDEP deadline of July 18, 2025 imposed
- **July 2, 2025:** Finance Committee discussion *(public)*
- **July 22, 2025:** Board Meeting discussion *(public)*
- **July 28, 2025:** NJDEP grant extension offered
- **September 26, 2025:** Deadline for next year's NJDEP EV bus grant

Current EV Bus Feedback

Driving Style

Quiet, smooth. New vehicle with heating and air conditioning. Desires to continue driving vehicle moving forward. Bus students and parent feedback positive.

Training

Manufacturer-led training on vehicle and operability. Months long test runs (Dec.-Jan.) before placed into service with students (Feb.).

Weather

Extreme cold in Dec. and Jan. caused very low battery charge on a few occasions, resulting in vehicle not being operated due to range concerns.

Fueling

Significant time is saved as driver does not need to go to gas station to refuel the bus, so overall driving time was reduced (~15 hours per year).

Charging Station

Specific training was required to properly operate charger. Easy once learned. Manufacturer had to adjust to several issues identified both hardware and software.

Range

Only suitable for 2 morning runs, and 2 afternoon runs. Middays such as field trips, preschool, athletics require separate vehicle. Regenerative brakes are awesome though!

Considerations

Gas savings

- $6K per vehicle annual diesel/gas costs (avg.) vs. $3K per vehicle electric (est.)

Regular maintenance savings / permanent outsource long term

- $3K per vehicle annual maintenance diesel/gas (avg.) vs. $1.5K per vehicle electric (est.)

Battery replacement costs (tens of thousands, if feasible with manufacturer)

Battery degradation further impacting range

Warranty period (similar)

Lifespan of vehicle

Considerations

Manufacturer structural changes / bankruptcy

Insurance and registration

CO2 and pollutant emissions / community benefit

Student and staff wellness

Fire and safety considerations

- Police, fire, and other critical stakeholders have been involved since 2024

Among more!

NJDEP Grant Financials

	2 Buses	5 Buses
EV Bus Cost ($409,000/each)	$818,000	$2,045,000
EV Charger (2 ports on 1 charger)	$33,000	$99,000
Transformer / Switchboard Update*	$225,000	$225,000
Total Cost	$1,076,000	$2,369,000
State Grant ($320,000)	-$640,000	-1,600,000
Upfront Net Cost of EV Bus	$436,000	$769,000
Diesel Bus Cost ($154,000/each)	$308,000	$770,000
Total Upfront Cost Difference	**-$128,000**	**$1,000**
Upfront Cost Difference Per Bus	**-64,000**	**$200**

Current NJDEP Grant is for 2 EV buses.

Modifying NJDEP Grant to 5+ EV buses would provide upfront cost savings.

** Transformer / switchboard update is a one-time cost, non-recurring.*

Note financial calculations excluded unknown benefits/costs such as gas savings, battery replacement, shorter lifespan, etc.

Cash Flow & Reserves

Reserves*

Capital: $750,000
Maintenance: $7,200
Emergency: $1,000

Cash Flow

The district holds less cash than in prior years due to lower reserve balances, higher payroll and insurance costs, and timing of tax levy payments and state funds.

This requires constant monitoring of the budget to avoid negative cash balances impacting payroll and payment to vendors.

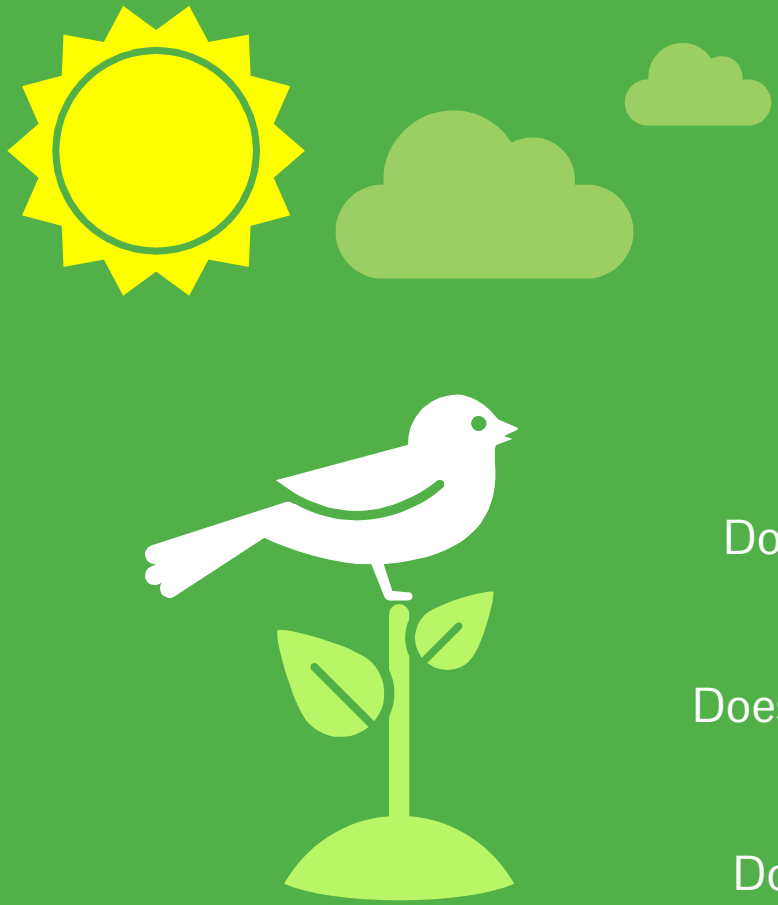
Potential Opportunity Cost

Grants be paid upfront and reimbursement after-the-fact.

Should the district proceed, the source of cash funding needs to be identified,

and the impact on other potential capital improvement projects, district operations, or student programming should be considered.

**These balances may increase pending finalization of audit.*



BIG CONCEPT

Does the district want more EV buses, and if so can the district manage financials to accomplish?

Does the district want to prioritize EV buses compared to other green and district initiatives?

Does the district want to request extension for the NJDEP EV bus and/or reapply (deadline 9/26)?

Thank you!

Any questions?

Supplemental Resources

EV Bus Manufacturer: https://www.blue-bird.com/electric/

EV Charger Electrician: https://www.trollerelectric.com/

Safety Statistics:

- National Safety Council,
- National Highway Traffic Safety Association

Data: Taken from district records, manufacturer resources, architect/engineer/electrician, state grant forms, other