

HERE!!

# Electric School Buses Are The ~~Future~~



New Jersey Chapter, Sierra Club  
NJSBA Workshop  
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# Our children's health is at stake from diesel school buses

- Every day our children are exposed to harmful air pollutants from diesel school bus exhaust
- Nationwide, diesel school buses emit 5.3 million tons of greenhouse gases<sup>1</sup>, some of which go into children's lungs whether they are standing outside or sitting inside these buses
- Contributes to high asthma rates (1 in 4 Newark children) as well as other respiratory and cognitive impairment disorders
- It's even worse for low-income communities, where more children tend to ride these dirty diesel buses

**Electric school buses have 0 tailpipe emissions**



SIERRA  
CLUB

1. E&E News, July 30, 2021
2. NJ.com, Dec 21, 2019

# Benefits of electric school buses

- No nitrogen oxides, smoke, carbon monoxide, carbon dioxide and hydrocarbons
- No oil changes or emissions testing
- Fewer parts to maintain or replace
- Little retraining of bus drivers – the controls are similar in both types of buses
- Operating costs of electric school buses are \$.19/mile compared to \$.82/mile (Sacramento school district)
- Able to sell power back to the grid when buses are not in use (vehicle to grid)


# The Bottom Line

Replacing America's diesel school bus fleets with electric will have a significantly higher impact on overall air quality and global warming

It is one of the most significant steps we can take to protect our children's health and our environment



**Read our infographic in the Documents section of our virtual booth to learn more about electric school buses**



# New Jersey's switch to electric school buses

# \$\$ → Federal and NJ investments

- Federal\*
- The Infrastructure Investment & Jobs Act (IIJA) allocates \$2.5 billion for electric school buses, plus another \$2.5 billion for low-emission buses
  - The Inflation Reduction Act (IRA) added another \$1 billion for electric school buses.
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- New Jersey\*\*
- Governor Murphy pledged \$13 million toward electric school buses in low- to moderate-income communities
- Part of a \$100 million package to move NJ toward its goal of 100% clean energy by 2050
  - Funded by the Regional Greenhouse Gas Initiative (RGGI)



\* Administered by USEPA

\*\* Administered by NJDEP

# New law in Trenton creates demonstration projects


Legislation sponsored by Assemblyman Sterley Stanley and Senator John Diegnan, Jr was signed into law on August 4<sup>th</sup> by Governor Phil Murphy

# Legislation ➔ Electric school bus pilot program

- The Legislation creates a three-year electric school bus program
- Six school districts chosen per year
  - Two each in North, Central and South Jersey
  - Three of the six districts per year must be a low income/urban/environmental justice community
- \$45 million allocated over three years
- Data would be recorded pertaining to such items as operational reliability, environmental factors, cost effectiveness and vendor performance
- The results will help create a framework for converting the remaining school bus fleet to electric buses







# Buying electric school buses for your district

# Buying options (overview)

- Electric school buses can cost between \$230,000 - \$400,000, depending on manufacturer, capacity, etc<sup>1</sup>
- Cost can be managed in several ways:
  - State grant monies are available from
    - Electric School Bus Pilot Program
    - NJDEP grants
    - NJZIP, a EDA-administered program that makes monies available for transition to electric vehicles class 2-6, which includes school buses
  - Investigate grants as part of the governor's pledge of \$13 million dedicated toward electric school buses, available from his \$100 million clean energy initiative, when available



1. NJ.com, March 22, 2021

# Procurement cooperatives

- Cooperatives bid and procure contracts on behalf of their members
- For example, the Hunterdon County Educational Services Commission acts as the lead agent for a bidding cooperative comprised of hundreds of school districts
  - Prepares and advertises for bids
  - Awards master contracts to lowest bidders
  - Extends pricing to registered members
  - Thomas Built electric school buses, one of several major school bus manufacturers, are currently available through HCESC
- Educational Services Commission of New Jersey is another prominent cooperative. Blue Bird Electric and Thomas Built buses are now part of ESCNJ's contract for 2022



# Diesel to Electric Conversions

- Newer diesel school buses which are in your fleet and are not ready for replacement can be converted to electric power
- The cost is about ½ the cost of a new electric diesel bus
- At this time, conversions are not eligible for state or federal grants, but the Sierra Club is lobbying to allow them in future grant programs

# Creative solutions

- Vehicle-to-Grid (V2G): Allows bus operators to store electricity during off hours and sell it back to utilities in high-demand periods



- Pay as you go: A third-party company configures all the components of the electric bus and essentially leases it to you
- Investigate converting existing diesel buses to electric power
- Learn more about buying buses in the Sierra Club's Electric School Bus Buyers' Guide in our documents section

# What you can do to convert your school district to electric school buses

- Talk with decision makers and transportation officers about switching to electric school buses
- Make sure they know about cooperatives that can help with bus purchases for their members
- Be informed about the Electric School Bus Pilot Program in New Jersey and consider if your district should apply for the pilot program
- Be sure to apply for any grant monies the state or federal government may offer

Thank you!