



## Electric School Bus Funding Braiding

Electric school buses (ESB's) are gaining much attention recently, and not just because of their lack of tailpipe pollution and their abundance of benefits (including [better health](#), [greater attendance](#), and [improved grades and academic performance](#)). For the first time in history, there are abundant funding sources for purchasing electric school buses. By “braiding” together different funding sources, in many cases, available incentive funds can cover 100% of the project costs, particularly for underfunded, disadvantaged, and rural school districts.

This fact sheet explains these funding sources, and is supported by a [handy spreadsheet](#) you may download and use to create your own draft budget.

With careful planning and by applying for multiple funding sources, your district may qualify for sufficient funds to entirely offset the purchase of zero-emissions electric school buses and charging equipment. These funding sources include the US Environmental Protection Agency (EPA), the NC Department of Public Instruction (DPI), Duke Energy's Commercial EV Charger Prep Credit, and new tax credit “elective payments” made possible by the Inflation Reduction Act (IRA).

### EPA's Clean School Bus program

The largest source of funds is the US Environmental Protection Agency (EPA). Their Clean School Bus (CSB) program currently offers rebates given away by lottery, up to \$345,000 per bus. (Also, in 2024 EPA will announce a third round of competitive grants for clean school buses.) This rebate-lottery program prioritizes certain high-need local education agencies, rural areas, disadvantaged communities, etc., such as North Carolina's Tier 1 counties and Historically Under-Resourced Counties. These entities are referred to as Prioritized Applicants ([listed here](#)), and they may receive 70% more funding than non-prioritized school districts (such as more well-off districts). (It should be noted that districts may seek to self-certify their prioritization. Here are [instructions](#) for that process.) EPA is committed to ensuring the CSB program delivers on the Biden-Harris Administration's

Justice40 Initiative directive that at least 40% of the benefits of certain federal investments flow to disadvantaged communities. For this reason, and because so many underfunded and rural districts are often short-staffed, the application process is easy and streamlined. [Here is the link to the EPA's CSB program.](#) Applicants must submit all application materials by January 31st, 2024, at 4:00 p.m. ET.



## NC's Department of Public Instruction (DPI)

The second largest source of funds is NC's Department of Public Instruction (DPI), which oversees the state's public school system, and purchases most of our public school buses. DPI is offering between \$100,000 and \$125,000 per bus, for the replacement of eligible diesel buses with electric school buses. To be eligible, these buses must be of a certain age, accumulated miles, and scheduled for replacement. The new buses must be on state contract. Contact Kevin Harrison at DPI for details – [kevin.harrison@dpi.nc.gov](mailto:kevin.harrison@dpi.nc.gov).

## Duke Energy's Commercial EV Charger Prep Credit

The Commercial EV Charger Prep Credit is a program that reimburses some of the costs of work to make a site ready for EV charging equipment, including underground boring, installing conduit, and electric panel work. The Charger Prep Credit does not include the installation of the actual charger, upgrades to service outside the premise (past the Duke Energy meter), or labor charges that support those tasks. The amount of the credit depends on variables such as the number, type, and size of chargers, and the expected usage. For more details refer to [Duke Energy's website](#), and note the "calculator" at the bottom of the page.

## Tax Credit Elective Payments

In the Inflation Reduction Act (IRA), major changes were made to various clean energy tax credits. These changes significantly widen the opportunities, and allow even tax-exempt organizations (i.e., government agencies and non-profits) to take advantage of these incentives on an "elective pay" basis. This makes clean energy technologies more affordable for state and local governments, public school districts, charter schools, and other tax-exempt entities. These tax credit elective payments can be applied-for after the purchase of electric school buses and their EV charging infrastructure. The electric school buses are eligible under the Commercial Clean Vehicle Credit program and could be as high as \$40,000 per ESB. The EV charging equipment is eligible under the Alternative Fuel Vehicle Refueling / Recharging Property program and maxes out at 30% of the cost or a \$100,000 limit per charger, if Prevailing Wage and Apprenticeship (PWA) requirements are met. For chargers, qualifying property must be in low-income communities or non-urban census tracts. It should be noted that federal rules prohibit applicants from receiving more



in tax credits than their initial investment. The following “explainer” offers helpful insights into the program, including examples of the math, which can be [found here](#).

More information on elective pay can be found by visiting the following links:

- [Click here](#) to visit the Internal Revenue Service’s (IRS) webpage on elective pay and transferability.
- [Click here](#) to visit the IRS’s Frequently Asked Questions on elective pay.
- [Click here](#) to view full guidance on elective payment of applicable credits from the IRS.
- [Click here](#) to find pre-filing registration requirement guidance.

## Overview of the ESB Grant Braiding Spreadsheet:

The [ESB Grant Braiding spreadsheet](#) contains detailed information about the costs and funding sources for electric school bus (ESB) projects in North Carolina. There are three tabs: The first explains the calculations and assumptions in detail; The second tab is for Prioritized Applicants, and the third is for NON-prioritized applicants. This reflects the Environmental Protection Agency’s (EPA) ranking for the Clean School Bus (CSB) rebate lottery, which prioritizes applications that will replace buses serving high-need local education agencies, rural areas, disadvantaged communities, etc., such as North Carolina’s Tier 1 counties and Historically Under-Resourced Counties. For example, EPA is committed to ensuring the CSB Program delivers on the Biden-Harris Administration’s Justice40 Initiative that at least 40% of the benefits of certain federal investments flow to disadvantaged communities.

It should be emphasized that, although the EPA has created a streamlined application process to make it easier for school districts to apply, applicants must submit all application materials by January 31st, 2024, at 4:00 p.m. EST.

### Prioritized Applicants

**Items and Costs:** This lists various line items like electric school buses, chargers, and software subscriptions, including their quantities and cost estimates (both low and high cost scenarios).

**Sufficient Funding Sources:** This details the incentives and funding sources available to these districts or applicants, such as EPA rebates, DPI allocations, and tax credits.

**Total Costs and Contributions:** This calculates the total project cost and outlines how these costs are covered entirely (and sometimes more-than-covered) by the grants and funding sources.

### NON-prioritized Applicants

**Similar Structure:** This section follows a similar structure with line items and their costs.

**Limited Funding Sources:** This suggests most non-prioritized applicants will have lesser eligibility for funding sources compared to prioritized districts. Hence, these districts will need to cover a significant portion of ESB project costs through local government funds, philanthropic funds, or other sources.



The following table is drawn from the [ESB Grant Braiding spreadsheet](#). This is an overview of hypothetical project costs, plus different funding types for electric school bus (ESB) projects in North Carolina. Note: The spreadsheet contains hyperlinks to all data sources and assumptions, so please read that for more details.

PRIORITIZED SCHOOL DISTRICT			
Line Item	Quantity	Cost [per unit, low estimate]	Cost [per unit, high estimate]
Class 7 electric school bus	1	\$ (310,000)	\$ (456,000)
AC Level 2 charger (240 V) [NOTE: Not all buses are L2 compatible, but when possible L2 is prudent to have as a backup, in case of DCFC failure.]	1	\$ (5,000)	\$ (10,000)
DC fast charger (DCFC, 25 kW) (480 V)	1	\$ (30,000)	\$ (80,000)
<b>Vehicles and Infrastructure</b>		\$ (345,000)	\$ (546,000)
Electrical service equipment upgrades (new lines, transformers, etc.)	1	\$ (30,000)	\$ (50,000)
EVSE installation (trenching, re-paving, conduit, etc., engineering review and drawings, permitting)	1	\$ (30,000)	\$ (50,000)
<b>Construction Work and Equipment Upgrades</b>		\$ (60,000)	\$ (100,000)
Electrical panel maintenance	1	\$ (3,000)	\$ (3,000)
Maintenance support package (if not included in warranty)	1	\$ (4,000)	\$ (4,000)
Fleet management software/telematics	1	\$ (1,000)	\$ (1,000)
<b>Maintenance &amp; Ongoing Support</b>		\$ (8,000)	\$ (8,000)
<b>TOTAL EQUIPMENT, CONSTRUCTION, AND MAINTENANCE</b>		\$ (413,000)	\$ (654,000)
EVSE software subscription (annual)	1	\$ (300)	\$ (300)
<b>TOTAL CONTRACTUAL</b>		\$ (300)	\$ (300)
Driver and technician training	1	\$ (5,000)	\$ (5,000)
<b>TOTAL OTHER</b>		\$ (5,000)	\$ (5,000)
<b>TOTAL PROJECT COST</b>		\$ (418,300)	\$ (659,300)
	Quantity	Amount [per unit, low estimate]	Amount [per unit, high estimate]
<b>INCENTIVES AND FUNDING SOURCES</b>			
EPA CLEAN SCHOOL BUS REBATE (assuming a Prioritized awardee)	1	\$ 345,000	\$ 345,000
DPI ALLOCATION	1	\$ 100,000	\$ 125,000
DUKE ENERGY CHARGER PREP CREDIT	1	\$ 2,820	\$ 8,461
TAX CREDIT "ELECTIVE PAYMENT" -- Bus	1	\$ 40,000	\$ 40,000
TAX CREDIT "ELECTIVE PAYMENT" -- Charger	1	\$ 18,000	\$ 39,000
<b>TOTAL INCENTIVES AND FUNDING</b>		\$ 505,820	\$ 557,461
<b>FUNDING DIFFERENCE</b>		\$ -	\$ (101,839)

This shows whether the project will have all costs covered or not. In other words, this shows whether there will be a gap in funding, and how much.



## CONCLUSION

In North Carolina, a combination of federal and state funding sources now fully supports the costs of Electric School Bus (ESB) projects for select applicants, particularly those limited-resource local education agencies, rural areas, and disadvantaged communities, including those in North Carolina's Tier 1 counties and Historically Under-Resourced Counties. These prioritized applicants are likely to find that the available incentives, including the EPA rebate, state funds, utility credits, and tax benefits, will be enough to cover project costs. This is particularly beneficial for underfunded, disadvantaged, and rural school districts. For those who are prioritized, the financial prospects are promising: The combination of EPA's \$345,000 rebate, a \$100,000 allocation from the Department of Public Instruction (DPI), Duke Energy's Charger Prep Credit, along with IRS tax credit elective payments for both the bus and charger, means that these applicants can likely access sufficient funds to recover their initial investment.

### For technical assistance, please contact

#### NCCETC:

- Heather Brutz, Clean Transportation Program Director, [hbrutz@ncsu.edu](mailto:hbrutz@ncsu.edu)
- John Bonitz, Clean Transportation Specialist, [jhbonitz@ncsu.edu](mailto:jhbonitz@ncsu.edu)

#### Clean Cities Coalitions:

- Centralina Clean Fuels Coalition, Megan Upchurch, [mupchurch@centralina.org](mailto:mupchurch@centralina.org)
- Land of Sky Clean Vehicles Coalition, Sara Nichols, [sara@landofsky.org](mailto:sara@landofsky.org)
- Piedmont and Coastal NC Clean Communities, Alik Lunsford, Clean Transportation Specialist, [aklunsfo@ncsu.edu](mailto:aklunsfo@ncsu.edu)
- Triangle Clean Cities, Annie Lee, [alee@centralpinesnc.gov](mailto:alee@centralpinesnc.gov)

#### Nonprofit Advocacy:

- WRI Electric School Bus Initiative, Phillip Burgoyne-Allen, [phillip.burgoyne-allen@wri.org](mailto:phillip.burgoyne-allen@wri.org)
- Generation180.org, Tish Tablan, Electrify Our Schools Program Director, [tish@generation180.org](mailto:tish@generation180.org), [www.generation180.org](http://www.generation180.org)

