Zero-Emission Truck & Bus Pilot Commercial Deployment Project

Twin Rivers Unified School District
Project Timelines

• Began Workshop Discussions  6/01/2015

• ARB Solicitation Released  10/01/2015

• Grant Proposal due to ARB  1/29/2016

• Project Completion:  4/01/2019
Project Overview

- Total deployment of 29 EV School Buses
- Twin Rivers Unified School District (16)
- Sacramento City Unified School District (3)
- Elk Grove Unified School District (10)

First and Largest Deployment to Date in the US.
Program Goals

• Benefit Disadvantaged Communities (DAC) with the introduction of Zero Emission School Buses.
• Demonstrate commercially available zero-emission technologies in school fleets.
• Accelerate the acceptance and use of zero-emission technologies.
• Upgrade of Fleet.
Regional Program Goals

Evaluate new zero-emission technology

Near zero and zero-emission technologies in use

Integrate zero-emission into fleet
Funding Sources

• This program is funded by AB 118 Air Quality Improvement Program (AQIP) and the Low Carbon Transportation Greenhouse Gas Reduction Fund (GGRF) Investments.

• $60 Million Cap and Trade Funds Administered through California Air Resources Board.
Funding Sources

• Sacramento Municipal Utility District (SMUD). Rebate on Charging Stations.

• Cash Match From the School District 10%.

• In-kind: labor, equipment, materials, equipment transportation, private financing, and federal or non-AB 118 and non-GGRF sourced state funds
# Project Costs for Twin Rivers

<table>
<thead>
<tr>
<th>Twin Rivers</th>
<th>Total</th>
<th>ARB Grant</th>
<th>SMAQMD Match</th>
<th>Twin Rivers Match</th>
<th>FPBS Supplement</th>
<th>(Verify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% match</td>
<td>70%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus Lion Type C 100 - 65 pax</td>
<td>$1,640,832</td>
<td>$1,148,582</td>
<td>$240,000</td>
<td>$252,250</td>
<td></td>
<td>$1,640,832</td>
</tr>
<tr>
<td>Bus Lion Type C 75 - 71 pax</td>
<td>$1,617,084</td>
<td>$1,131,959</td>
<td>$240,000</td>
<td>$245,125</td>
<td></td>
<td>$1,617,084</td>
</tr>
<tr>
<td>Bus Trans Tech Type A</td>
<td>$2,095,880</td>
<td>$1,467,116</td>
<td>$320,000</td>
<td>$308,764</td>
<td></td>
<td>$2,095,880</td>
</tr>
<tr>
<td>Charge station Infrastructure and Data Mgmnt System</td>
<td>$460,319</td>
<td>$322,223</td>
<td>$134,527</td>
<td>$3,569</td>
<td></td>
<td>$460,319</td>
</tr>
<tr>
<td>Fuel Consumption Lion (2.5 years)</td>
<td>$33,264</td>
<td>$23,285</td>
<td>$9,979</td>
<td></td>
<td></td>
<td>$33,264</td>
</tr>
<tr>
<td>Fuel Consumption Trans Tech (2.5 years)</td>
<td>$20,196</td>
<td>$14,137</td>
<td>$6,059</td>
<td></td>
<td></td>
<td>$20,196</td>
</tr>
<tr>
<td>Service and Technical Support (2.5 years)</td>
<td>$72,000</td>
<td>$50,400</td>
<td>$21,600</td>
<td></td>
<td></td>
<td>$72,000</td>
</tr>
<tr>
<td>Subtotal Cash</td>
<td>$5,939,575</td>
<td>$4,157,702</td>
<td>$800,000</td>
<td>$978,304</td>
<td>$3,569</td>
<td>$5,939,575</td>
</tr>
<tr>
<td>InKind School District</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus Drivers</td>
<td>$1,080,000</td>
<td></td>
<td></td>
<td></td>
<td>$1,080,000</td>
<td></td>
</tr>
<tr>
<td>Maintenance Lion (2.5 years)</td>
<td>$32,400</td>
<td></td>
<td></td>
<td></td>
<td>$32,400</td>
<td></td>
</tr>
<tr>
<td>Maintenance Trans Tech (2.5 years)</td>
<td>$32,400</td>
<td></td>
<td></td>
<td></td>
<td>$32,400</td>
<td></td>
</tr>
<tr>
<td>Admin: School District staff (2.0 years)</td>
<td>$360,000</td>
<td></td>
<td></td>
<td></td>
<td>$360,000</td>
<td></td>
</tr>
<tr>
<td>Subtotal InKind School District</td>
<td>$1,504,800</td>
<td></td>
<td></td>
<td></td>
<td>$1,504,800</td>
<td></td>
</tr>
</tbody>
</table>
Analysis of Current Bus Routes
Disadvantaged Communities (DAC)

Cal/EPA defined DAC by combining pollution and population factors including, but not limited to:

• Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure or environmental degradation.

• Areas with concentrations of people that are of low income, high unemployment, low levels of home ownership, high rent burden, sensitive populations, or low levels of educational attainment.
Disadvantaged Communities Maps

This map shows the disadvantaged communities designated by CalEPA for the purpose of SB 535. The red areas represent the 25% highest scoring census tracts in CalEnviroScreen 2.0.

Additional information on SB 535 is available at the CalEPA website. CalEnviroScreen 2.0 information, including a detailed description of indicators and methodology is available at the OEHHA website.

http://oehha.maps.arcgis.com/apps/Viewer/index.html?appid=dae2fb1e42674c12a04a2b302a080598
Projects IN Disadvantaged Communities

- Based on the state-wide competition for funds, projects IN a DAC will be the most likely participant for FY 2014-15 funds awarded by the California Air Resources Board.
- At least 25% GHG Reduction Funding (GGRF) must benefit Disadvantaged Communities.
- At least 10% GGRF must be allocated toward projects IN Disadvantaged Communities.
Project Selection for Submittal

- School district routes must be predominantly in a DAC.
- Awarded funding will be scaled to support DAC and cost-effectiveness benefit.
Infrastructure
Keys to Success

• Develop Relationships with All Partners and Potential Partners.
• Know your Roles.
• Embrace the Technology through Education.
Conceptual Transportation Fleet

Green Fleet Initiative
Getting to Know the Transportation Department

- Transports over 12,000 students daily
- Owns 150 buses
- Our drivers travel over 2.3 MILLION miles a year
- Employs 216 drivers and aides, and 4 mechanics
Current Limitation and Liability

The North Kansas City Schools Transportation fleet is aging rapidly - to the point that several of our buses are costing more in maintenance and repairs than they are worth.

In addition, the district continues to grow and increase programing for students thus requiring more buses and drivers.
Current State of the Fleet

- Aged beyond the industry standard
- Extremely high maintenance cost
- Bus reliability concerns

<table>
<thead>
<tr>
<th></th>
<th>North Kansas City Schools</th>
<th>Industry Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Age</td>
<td>9.5 years</td>
<td>5.5 years</td>
</tr>
<tr>
<td>Average Fuel mpg</td>
<td>5.65 mpg</td>
<td>8 mpg</td>
</tr>
<tr>
<td>Annual Bus Cost Parts and fuel only</td>
<td>$13,427</td>
<td>$7,140</td>
</tr>
</tbody>
</table>
Current State of the Fleet

Fleet Age

- 1-5 Years: 25 buses, 60K miles avg
- 6-10 Years: 57 buses, 131K miles avg
- 11-17 Years: 67 buses, 188K miles avg

124 buses without warranty coverage – 83.3%
27 buses over 200,000 miles – industry standard is to replace at 150,000 miles
Possible Solutions to Correct Limitations and Reduce Liability

- Hire More Mechanics and Increase Parts Budget
- Purchase New Buses
- Lease Buses
- A Blended Approach of Leasing and Purchasing
- Refurbish Buses
- Green Fleet Initiative
What is Compressed Natural Gas (CNG)?

- Similar motor to our diesel buses
- Increased fuel efficiency
- Quiet
- Environmentally safe
- 3rd generation improved technology
- 300 year supply of domestic natural gas with a $0.13 variance
Cost of Fuel

<table>
<thead>
<tr>
<th>Year</th>
<th>Diesel - Low</th>
<th>Diesel - High</th>
<th>CNG - Low</th>
<th>CNG - High</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>$3.2</td>
<td>$3.2</td>
<td>$1.1</td>
<td>$1.1</td>
</tr>
<tr>
<td>202</td>
<td>$3.1</td>
<td>$4.0</td>
<td>$1.0</td>
<td>$1.0</td>
</tr>
</tbody>
</table>

(407,700 gallons annually)
Transportation Update

15,500+ students transported daily

2.4 million miles traveled annually
Historical DATA (DIESEL)

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Total Cost Per Span of Time</th>
<th>Number of Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEPT 2013-MARCH 2014</td>
<td>$881,734.16</td>
<td>267,715.80</td>
</tr>
<tr>
<td></td>
<td>($3.29/gal.)</td>
<td></td>
</tr>
<tr>
<td>SEPT 2014-MARCH 2015</td>
<td>$717,172.71</td>
<td>284,726.90</td>
</tr>
<tr>
<td></td>
<td>($2.51/gal.)</td>
<td></td>
</tr>
<tr>
<td>SEPT 2015-MARCH 2016</td>
<td>$467,161.40</td>
<td>287,525.50</td>
</tr>
<tr>
<td></td>
<td>($1.62/gal.)</td>
<td></td>
</tr>
</tbody>
</table>
Current Data (Diesel and CNG)

**Total Cost**
- Diesel Sept 2016 - March 2017: $151,789.00
- CNG Sept 2016 - March 2017: $263,131.00

**Number of Gallons**
- Diesel Sept 2016 - March 2017: 79,326.00 ($2.11/gal.)
- CNG Sept 2016 - March 2017: 220,124.00 ($1.19/gal.)
Including Tax Credit

<table>
<thead>
<tr>
<th>Period</th>
<th>Total Cost</th>
<th>Number of Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 2013-March 2014</td>
<td>$881,734.16</td>
<td>267,715.80</td>
</tr>
<tr>
<td>Sept 2014-March 2015</td>
<td>$717,172.71</td>
<td>284,726.90</td>
</tr>
<tr>
<td>Sept 2015-March 2016</td>
<td>$467,161.40</td>
<td>287,525.50</td>
</tr>
<tr>
<td>Sept 2016-March 2017</td>
<td>$414,920</td>
<td>299,450.00</td>
</tr>
<tr>
<td>Sept 2017-March 2018</td>
<td>$335,171</td>
<td>299,450.00</td>
</tr>
</tbody>
</table>

Note: The values are in dollars.
We drive the future. We are the difference. We are Prosper.
### The Fastest Growing School Districts in the State of Texas (2010-2015) Minimum 5,000 students

<table>
<thead>
<tr>
<th>District</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prosper ISD</td>
<td>95%</td>
</tr>
<tr>
<td>Frisco ISD</td>
<td>46%</td>
</tr>
<tr>
<td>Lubbock-Cooper ISD</td>
<td>42%</td>
</tr>
<tr>
<td>Northwest ISD</td>
<td>40%</td>
</tr>
<tr>
<td>New Caney ISD</td>
<td>35%</td>
</tr>
</tbody>
</table>
Our Growth

• **Distinguishing Characteristics**: Prosper ISD is one of the fastest growing districts in the State of Texas increasing approximately 100% in student enrollment every five years;

• **Safety and Security**: Prosper ISD employs its own Police Department and spares no expense to insure the safety of students, staff, and parents – Prosper ISD was recently ranked #1 as the SAFEST SCHOOL DISTRICT in the State of Texas for 2017, Ranked #8 Nationally. (NICHE Ratings)

• [https://www.niche.com/k12/search/safest-school-districts/s/texas/](https://www.niche.com/k12/search/safest-school-districts/s/texas/)
Growth Cont.

• Prosper ISD will enroll more than 13,000 students by 2018, and more than 16,000 students by 2019
• 5 year growth = 10,511 students
• 2021/22 enrollment = 20,509 students
• 10 year growth = 22,242 students
• 2026/27 enrollment = 32,240 students
• Current Enrollment= 12,119
2009 Initial Implementation of LPG/Propane Program

- Initial Purchase of 25 LPG Buses. (Bond Funding)
- Fuel Infrastructure. (18,000 Gallon Tank, 1 dispenser)-(Bond Funding)
- 2012- (2) Additional dispensers installed with additional fuel island. SECO Grant of $88,000 was awarded to Prosper ISD. Total cost of project was $122,000 (approx.)
18,000 Gallon Tank
Initial Dispenser
2012 Addition
Fuel Connection
Current Fleet

- 137- School Buses
- 130- LPG
- 7- Diesel
- All Blue Bird Visions
- 67- LPG buses with 98 Gallon Capacity.
- 63- LPG buses with 66 Gallon Capacity. (early models).
Routing

- **Special Needs**
  - 24 total buses
  - 16 used
  - 36 routes

- **Regular**
  - 64 total used
  - 132 routes

- 88 buses used for Home to School and growing
- 10% are 3-tier routes, 90% are 2-tier routes.
Avg. Fuel Cost

- 2015- $0.57/Gallon ($4.9175 CPM) State Report
- 2016- $0.77/Gallon ($5.4527 CPM) State Report
- Fuel rebate from IRS not part of the Avg. yearly cost. $0.50/gallon rebate. Not always available.
- 2015 IRS rebate on LPG- $117,854.50
- 2016 IRS rebate on LPG- $121,756.50
- Fuel Suppliers Monitor levels via Skytracking
- Fuel Monitoring- Fuel Master
- Fuel Team of 6 drivers fuel between routes.
Upcoming Projects

• **HS #2- 2020-** Satellite transportation facility complete with LPG fueling.
• **HS#3- 2022-** Satellite transportation facility complete with LPG fueling.
• Projected 5-7 total HS sites at build out. Each HS site will have transportation facility and LPG fueling along with Diesel and Unleaded fueling capability.
• Funding will be through Bond Program.
Contact Info
Mr. Jody Woolverton
jswoolverton@prosper-isd.net
0-469-219-2065
Near-Zero Emission Propane Autogas Engines
Enterprise Brand Portfolio

**ROUSH Industries**
OEM manufacturing, engineering, prototyping and design

**Roush Fenway Racing**
NASCAR racing team(s)

**ROUSH Performance**
Industry leading high performance vehicles

**ROUSH CleanTech**
Propane autogas powered commercial vehicles.
ROUSH CleanTech

- Founded in 2010.
- Dedicated to developing quality alternative fuel solutions.
- Propane autogas focus.
- EPA and CARB certification.
- Platform customization to suit customer needs.
- Reduces operating costs, carbon footprint.
- OEM support through Ford and BPN dealers.
- Creating opportunities for partner companies.
- Using American fuel and American technology.
Units in Operation

- **Units Introduced**
- **Total Accumulation**

Year | Units Introduced | Total Accumulation
--- | --- | ---
2010 | 0 | 0
2011 | 0 | 0
2012 | 0 | 0
2013 | 0 | 0
2014 | 0 | 0
2015 | 0 | 0
2016 | 0 | 0
2017 | 0 | 0

---

800.59.ROUSH  RouHScleantech.com
Our Scorecard

17,500 vehicles on the road

Accumulated over 430 million miles

Over 720 school districts
Why The Hockey Stick?

- Reliable Technology & Robust Service Program
- Strong OEM Partners/Ford & Blue Bird
- 1,000 Customers & 400 Million Miles of Data
- Low Cost Infrastructure
- Plentiful Fuel
- Emerging Low NOx Certifications
- Easy to Scale
Propane Autogas Product Lineup

- Medium duty Ford trucks, chassis cabs, cutaways, and stripped chassis; and Blue Bird Type A and C school bus.
- Factory Ford warranty maintained.
- No loss of HP / torque / towing capacity.
- Serviceable with existing diagnostic equipment.
- EPA & CARB Certified.
ULTRA LOW
NOx EMISSIONS
ARB is encouraging all Manufacturers of Record (MORs) to overachieve on the NOx standard to support smog reduction.

ARB has issued alternative standards at 0.1, 0.05 and 0.02g/bhp-hr for NOx.

The recent VW settlement also includes funding that supports NOx reductions across all 50 states that offsets the increase in NOx caused by their diesel emissions.
Production Powertrain

Achievement of Ultra Low NOx starts with a high quality production engine

At ROUSH CleanTech, we start with:

- Ford 6.8L V10 3V Spark Ignition
- Used by Ford in all HD Vehicle applications
- F 450/550 Chassis Cab
- F 650/750 Chassis Cab
- F 53/59 Stripped Chassis
- 320 HP/460 Lbs. Ft
- Close to 2 Million in operation
- Started production in 1997
- For gasoline, meets or exceeds all emissions standards presently through 2017.
June 7th 2017 ROUSH CleanTech announces achievement of very low NOx with the 6.8L V10 Engine.

- For the 2017 MY RCT LPG Blue Bird Buses and applicable Ford Truck upfits are now certified to 0.05 g/bhp-hr NOx.

- This is achieved with no extra hardware or increased variable cost.

<table>
<thead>
<tr>
<th></th>
<th>CO</th>
<th>CO2</th>
<th>NOx</th>
<th>NMHC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Useful Life STD</td>
<td>14.4</td>
<td>627</td>
<td>0.05</td>
<td>0.140</td>
</tr>
<tr>
<td>Actual Cert Level</td>
<td>2.7</td>
<td>614</td>
<td>0.03</td>
<td>0.04</td>
</tr>
</tbody>
</table>

- The low NOx levels were achieved through careful, significant calibration changes and a CSSR (cold start spark retard) approach.
STUDENT TRANSPORTATION
Propane School Bus Deployments
A Growing Trend

OVER 10,000 SCHOOL BUSES

QUALIFIED VEHICLE MODIFIER

OVER 720 SCHOOL DISTRICTS

800.59.ROUSH
ROUSHcleantech.com
FOOD & BEVERAGE
Ready Refresh
JUST CLICK AND QUENCH

ReadyRefresh.com

YOU choose WE deliver!

CLEAN BURNING PROPANE AUTOGAS
PUBLIC TRANSPORT
WHERE ARE WE HEADED?
Cost Effectiveness

**PROPANE**
- Purchase price: $95,000
- NOx reduced: 537 lbs.
- Cost per pound of NOx reduced: $177

**DIESEL**
- Purchase price: $90,000
- NOx reduced: 331 lbs.
- Cost per pound of NOx reduced: $272

**ELECTRIC**
- Purchase price: $300,000
- NOx reduced: 593 lbs.
- Cost per pound of NOx reduced: $506
THANK YOU

800.59.ROUSH
ROUSHcleantech.com

Todd Mouw
Vice President of Sales and Marketing

734.466.6522
Todd.Mouw@roush.com
Funding Opportunities for School Districts

Clean Vehicle Solutions Webinar For School Districts

October 31, 2017
Allix Philbrick
Air Quality Planner

North Central Texas Council of Governments
Dallas-Fort Worth Clean Cities
Currently Available

Environmental Protection Agency (EPA)
School Bus Rebate Program
(Deadline November 14)

Texas Commission on Environmental Quality (TCEQ)
Alternative Fueling Facilities Program (AFFP)
(Deadline January 16)
School Bus Rebate Program

Eligible School Buses:

- Driven 10k or More Miles Over the Last 12 Months or In Use 3+ Days/Weeks During School Year
- Used to Transport 10+ Pre-Primary, Primary or Secondary School Students to School or Homes

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Eligible Model Year</th>
<th>Funding Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement</td>
<td>2006 or Older</td>
<td>$15,000 for Class 3 – 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$20,000 for Class 6 – 8</td>
</tr>
<tr>
<td>Retrofits</td>
<td>1994 - 2006</td>
<td>$3,000 - $6,000, Depending on Technology Type</td>
</tr>
</tbody>
</table>

All Old Vehicles/Equipment Must be Scrapped
Current Vehicles/Equipment Must be Diesel
School Bus Rebate Program

Easy 2-Page Application!

“Its free and easy money”
- Terry Penn, Director of Transportation, Rockwall ISD
Replaced 10 School Buses Through
2015 School Bus Rebate Program

Fleets with <100 Schools Buses May
Submit One Application Listing Up To 10 Buses

Fleets With >100 School Buses May
Submit Two Applications Listing up to 10 Buses Each

Applications for Award will be Selected at Random

Deadline: November 14, 2017

To Apply: [www.epa.gov/cleandiesel/clean-diesel-rebates](http://www.epa.gov/cleandiesel/clean-diesel-rebates)
Alternative Fueling Facilities Program

Part of Texas Emissions Reduction Plan (TERP)

<table>
<thead>
<tr>
<th>Eligible Activities</th>
<th>Funding Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install Alternative Fuel Infrastructure In The Clean Transportation Zone</td>
<td>Up To 50% Of Project Cost, Limited To A Maximum Of $600,000</td>
</tr>
</tbody>
</table>

Public Access Preferred but **Not Required**

Eligible Fuel Types:
- Natural Gas (CNG/LNG)
- Biodiesel
- Hydrogen
- Methanol
- Propane
- Electric Charging

Clean Transportation Zone
Deadline to Apply: January 16, 2018

NCTCOG Electric Vehicle Infrastructure Workshop
November 2, 1:00pm – 3:30pm
616 Six Flags Drive, Arlington TX 76011
Details & RSVP: www.dfwcleancities.org/evnt

TCEQ Alternative Fueling Facilities Program Workshop
El Paso: November 1
Tyler: November 8
Arlington: November 9
Laredo: November 14
Corpus Christi: November 15
San Antonio: November 20
Austin: November 21
Houston: November 28

For more Information on Workshops and To Apply:
www.terpgrants.org
Coming Soon

North Central Texas Council of Governments (NCTCOG)
2017 Clean Diesel Call for Projects (CFP)
(December 2017)

Texas Commission on Environmental Quality
Texas Clean School Bus Program
(Expected Fall 2018)

Volkswagen Settlement Funds
(Anticipated 2018)
## 2017 Clean Diesel CFP

### Eligible Entities:
- Public Fleets
- Private Companies who Contract with Local Governments

<table>
<thead>
<tr>
<th>Eligible Activities</th>
<th>Funding Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace On-Road Diesel Trucks*</td>
<td>45% Cost if New is Electric</td>
</tr>
<tr>
<td>16,000 GVWR and Up; Model Year 1995-2006;</td>
<td>35% Cost if New is Powered by Engine</td>
</tr>
<tr>
<td>(Also Model Year 2007-2009 if Replacing with Electric)</td>
<td>Certified to CARB Optional Low-NO\textsubscript{X} Standards</td>
</tr>
<tr>
<td></td>
<td>(Both Natural Gas and Propane Engines Currently Available)</td>
</tr>
<tr>
<td>Replace Non-Road Diesel Equipment*</td>
<td>25% Cost for All Others</td>
</tr>
<tr>
<td>Must Operate &gt;500 Hours/Year; Eligible Model Years Vary</td>
<td></td>
</tr>
</tbody>
</table>

*All Old Vehicles/Equipment Must be Scrapped
*Current Vehicles/Equipment Must be Diesel
CARB = California Air Resources Board
GVWR = Gross Vehicle Weight Rating
## 2017 Clean Diesel CFP

### Total Cost of Ownership for School Buses by Fuel Type with NCTCOG 2017 Clean Diesel Grant

<table>
<thead>
<tr>
<th></th>
<th>Diesel</th>
<th>EV</th>
<th>LPG</th>
<th>CNG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Externalities</td>
<td>$36,844</td>
<td>$13,293</td>
<td>$31,113</td>
<td>$21,281</td>
</tr>
<tr>
<td>License and Registration</td>
<td>$8,672</td>
<td>$8,672</td>
<td>$8,672</td>
<td>$8,672</td>
</tr>
<tr>
<td>Insurance</td>
<td>$82,331</td>
<td>$82,331</td>
<td>$82,331</td>
<td>$82,331</td>
</tr>
<tr>
<td>Maintenance and Repair</td>
<td>$225,192</td>
<td>$210,258</td>
<td>$225,192</td>
<td>$228,806</td>
</tr>
<tr>
<td>Diesel Exhaust Fluid</td>
<td>$1,952</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Fuel</td>
<td>$74,806</td>
<td>$55,745</td>
<td>$81,179</td>
<td>$72,192</td>
</tr>
<tr>
<td>Depreciation</td>
<td>$84,154</td>
<td>$140,663</td>
<td>$57,334</td>
<td>$70,205</td>
</tr>
<tr>
<td>Financing</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

Data from Argonne National Laboratory AFEET Tool: [https://www.anl.gov/](https://www.anl.gov/)

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# Texas Clean School Bus Program

## Part of TERP

Program Changes Made in 2017 Legislative Session

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Eligible Model Year</th>
<th>Funding Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement</td>
<td>2006 or Older</td>
<td></td>
</tr>
<tr>
<td>Diesel Oxidation Catalysts</td>
<td>1993 or Older</td>
<td>Based On Project Submitted</td>
</tr>
<tr>
<td>Diesel Particulate Filters</td>
<td>1994 - 1998</td>
<td></td>
</tr>
</tbody>
</table>

## Other Project Types:

- Technologies that Bring Significant Emission Reductions
- Qualifying Fuel
- Equipment that Reduce Crankcase Emissions

*All Old Vehicles/Equipment Must be Scrapped*

*Current Vehicles/Equipment Must be Diesel*
Total Settlement To Date: $14.7 Billion

Zero Emission Vehicle (ZEV) Investment - Managed by Electrify America

Environmental Mitigation Trust (EMT) - Distributed To States

Settlement Breakdown ($ in Billion)

- Vehicle Buyback and Modification
- ZEV Investment
- Environmental Mitigation Trust

Texas’ Share: $209 Million
Pending State Action to File as Beneficiary of Environmental Mitigation Trust (Early December)

Charging Infrastructure and Installation Included in Funding

<table>
<thead>
<tr>
<th>Eligible Activities</th>
<th>Eligible Activities</th>
<th>Funding Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 4-8 School/Shuttle/Transit Buses</td>
<td>Replace or Repower Existing Diesel Buses</td>
<td>40% Repower 25% Replacement 75% For All-Electric 100% If Government Owned</td>
</tr>
</tbody>
</table>


All Old Vehicles/Equipment Must be Scrapped
Current Vehicles/Equipment Must be Diesel
Have A Project Idea? Let Us Know!

NCTCOG Identifying Demand for Projects in DFW

www.nctcog.org/aqfunding

On Volkswagen Page:
“NCTCOG Survey: Fleet Project Wish List”
Sign Up for Email Updates!

Go to: www.nctcog.org/aqfunding
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