



## **Project Charter for the Replacement of District School Buses**

**Transportation Services Division**  
***Los Angeles Unified School District***

**December 2021**





## **I. Project Description and Background**

The Transportation Services Division (TSD) has a continuing need to replace the oldest school buses in its fleet. With fewer breakdowns and cleaner burning engines, the new buses will improve the Division's ability to deliver students to their destinations on-time while improving the air quality of the community. This charter outlines the project to purchase 160 new alternative fuel buses to replace 49 buses with expiring CNG (compressed natural gas) tanks and 111 buses that have exceeded the manufacturer's recommended useful life of 15 to 20 years and ones that are required to meet regulatory compliance in future years. The purchases will be funded by the voter-approved Measure RR bond.

The immediate need is the replacement of 49 bus equipped with CNG tanks that are set to expire between March 2022 and May 2022. Per the National Fire Protection Association (NFPA), unless the expiring tanks are replaced with new tanks, the buses must be removed from service. Since new buses take approximately six to eight months to build, the order needs to be placed this quarter so that the manufacturer can plan and start building the buses. If the order is delayed, the Division will have a shortage of buses to cover its bus routes when the buses with the expiring tanks are removed from service. The on-time delivery of students to schools will be negatively impacted.

### **A. Bus Replacement Goals**

Aside from retiring the oldest buses from the fleet, the school bus replacement project will, through the purchase of new buses, serve to optimize student safety, yield environmental benefits, and reduce maintenance costs.

New buses are equipped with the latest safety and comfort features including increased side impact protection around the fuel tank, three-point passenger restraint system, anti-lock brake system, additional warning lights and stop arms, air conditioning, and an ergonomically designed bus driver seating area.

The new buses will be alternative fueled and are in compliance with South Coast Air Quality Management District (SCAQMD) air regulatory requirement Rule 1195 and California Air



Resources Board (CARB) Rule 2025. It would also be aligned with the Board of Education's Healthy Breathing Initiative to reduce school bus diesel exhaust emissions.

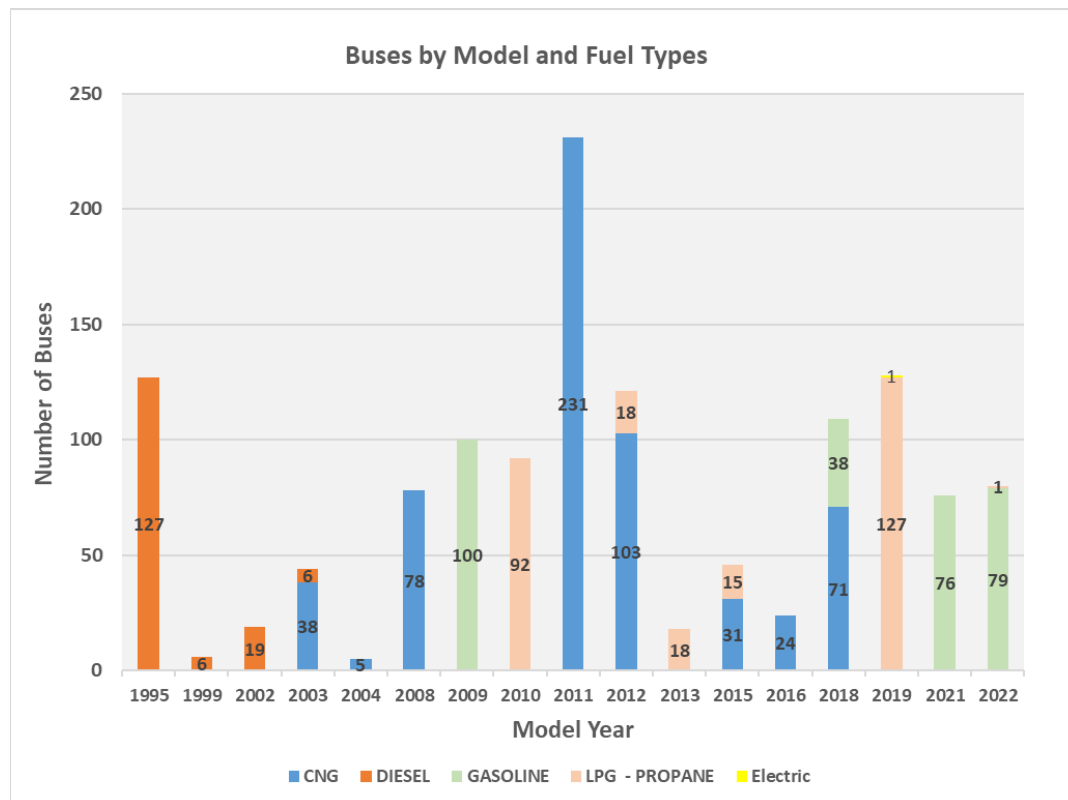
All new bus purchases include a 5-year warranty so that initial maintenance costs are minimized. The recommended replacement will yield a return on investment as new buses require lower maintenance costs than those that have significantly exceeded their useful lives.

## B. Size and Age of Bus Fleet

The District has 1,304 school buses of varying sizes in its fleet with an average age of 10 years. Approximately 40% of the fleet is comprised of large transit buses with seating capacity of at least 62 and are primarily used to transport integration students. The remaining 60% is comprised of medium-size and lift buses that are mainly utilized to transport students with special needs.

The following chart illustrates the makeup of the District's fleet by model year.

### Exhibit A

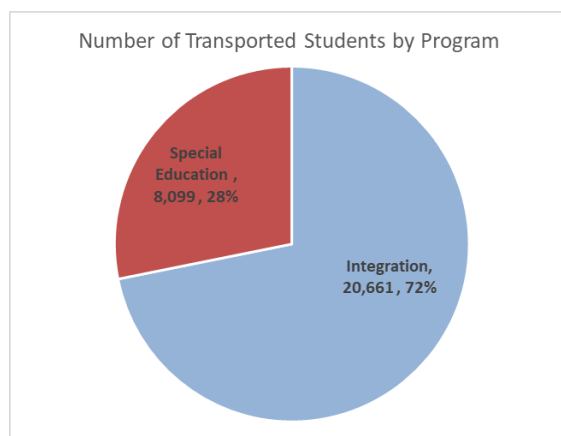




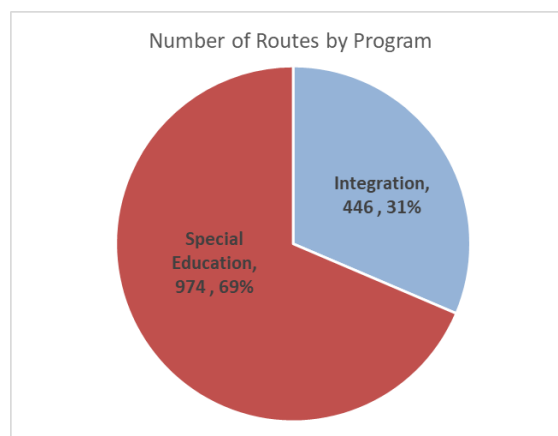
## C. Demand for Transportation Services

The Transportation Division transports approximately 29,000 traveling students daily for Special Education and Integration programs. Special Education routes average approximately eight students per bus due to the level of individualized service for students and the District policy to limit the maximum ride time to 90 minutes. As a result, even though special needs students account for 28% of the students transported (Exhibit B), their routes account for 69% of the 1,420 total routes (Exhibit C).

**Exhibit B**



**Exhibit C**



## II. Bus Replacement History and Successes

The bus replacement plan was originally developed in the early 1990's and updated in 2004 in which three major purchases (5 years apart) was recommended. The plan was revised in 2007 in which a 'glide path' approach was introduced. Leveraging the grant awards offered through SCAQMD's Lower-Emission School Bus Replacement Program and Measure Q, the Division's aggressive bus replacement initiative has greatly lowered the age of the fleet from an average of over 19 years in 2009 to the current age of 10 years.

The Lower-Emission School Bus Replacement Program was adopted by the SCAQMD to reduce harmful school bus emissions. Because older buses emit high levels of harmful emissions, the program provided financial incentives for public school districts to purchase new clean fuel burning buses. Grant awards may exceed up to over 90% of the value of the bus. In return, the districts must remove from their fleet the same number of the oldest buses.



### **III. Bus Replacement Plan**

The approach taken in this project charter is to utilize the \$33.5 million allocated from Measure RR and to leverage any external grants that may become available. The 111 buses scheduled for replacement are prioritized by regulatory compliance requirements and bus age.

#### **A. Required Replacement for Compliance**

As stated, the District has a requirement to replace 49 model year 2008 buses equipped with CNG tanks that are set to expire between March and May 2022. Unless the expiring tanks are replaced with new tanks, the buses must be removed from service. Since the cost for tank replacement far exceeds the residual value of the buses, it is recommended that new buses be purchased. These buses will be replaced with new CNG buses.

#### **B. Replacement to Modernize Fleet and for Future Compliance**

The remaining 111 buses that will be replaced with Measure RR funding will consist of the oldest buses in the fleet and buses that need to be replaced to meet regulatory compliance in future years.

<b>Purchases</b>	<b>Projected # of Buses</b>	<b>Total Estimated Costs</b>
<b>CNG Buses - November 2021</b>	49	\$10.3 M
<b>Alternative Fuel Buses – 2022-23</b>	55	\$11.4 M
<b>Alternative Fuel Buses – 2023-24</b>	56	\$11.7 M
<b>Totals</b>	<b>160</b>	<b>\$33.4 M</b>

It is important to note that the Infrastructure Investment and Jobs Act recently passed by Congress has a provision to set aside \$2.5 billion for electric school buses and an additional \$2.5 billion for all types of low-emission school buses. TSD will leverage this funding when it becomes available to replace additional diesel buses and further increase the District's fleet of alternative-fueled buses.