



LAUSD
UNIFIED

**Progress Update:
Zero-Emission
School Bus Fleet by 2040**

**Green Schools & Climate
Resilience Committee Meeting**

March 15, 2023



100% Clean Energy Goals

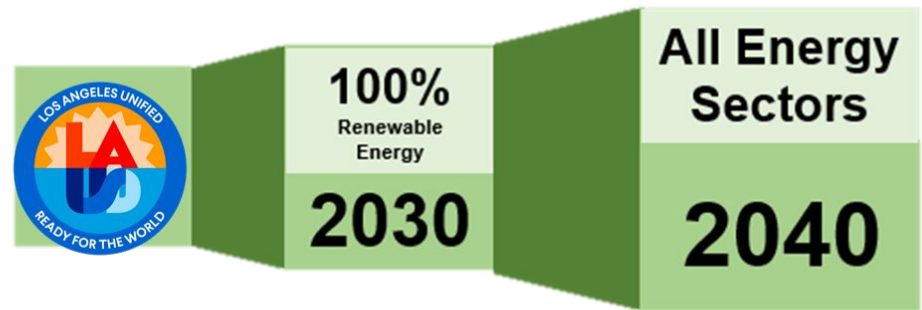
Mark Hovatter, Chief Facilities Executive

Advancing The 2022–26 Strategic Plan

Ensure our buildings, buses, and infrastructure minimize impact on climate and environment, and reflect clean air, clean buildings, and clean transportation standards.

Aligns with Board Resolution 'Transitioning LAUSD to 100% Clean, Renewable, Energy Resulting in Healthier Students and More Sustainable, Equitable, Communities'

- 100% Clean, Renewable Energy in Electricity Sector by 2030
- All Energy Sectors, Including Heating, Ventilation, Air Conditioning (HVAC), Cooking, and Transportation by 2040



Bus Fleet Electrification

Daniel Kang, Director of Transportation

Current Status

Existing School Bus Fleet

- 1,296 buses in six bus yards

Bus Electrification Status

- 11 electric school buses currently in service
- 12 additional electric school buses by April 2023
- 18 additional electric school buses by December 2023
- 30 additional electric buses by January 2024
- 80 additional electric buses by July 2024

TOTAL of 151 electric buses in service by July 2024

Bus Electrification Infrastructure



Newman Nutrition Center
Electric Bus Fleet



Newman Nutrition Center
Level II Charging Station

EV Charger Infrastructure

VAN NUYS BUS GARAGE

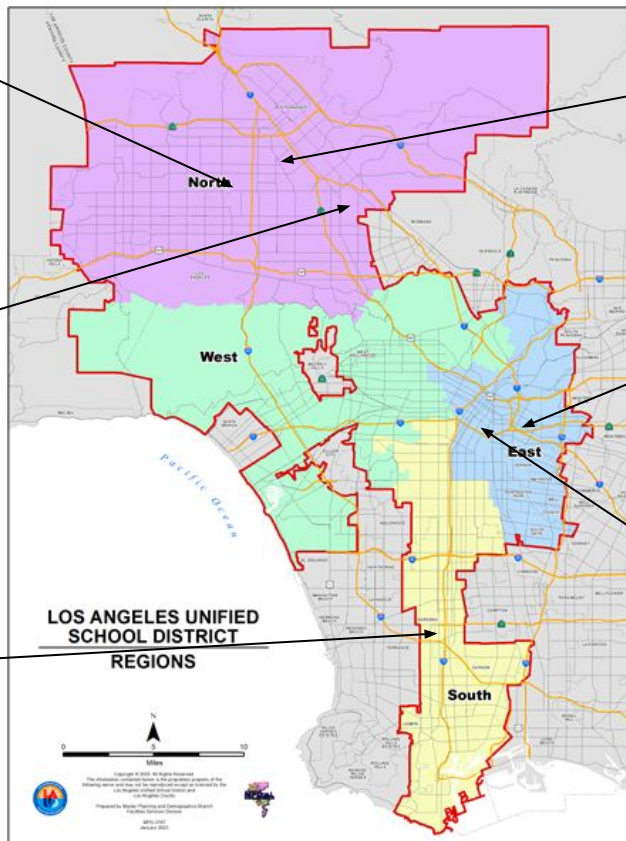
EXISTING
259 BUSES
(LEASED SITE)

SUN VALLEY BUS GARAGE

EXISTING
193 BUSES
PLANNED
6 EV FAST CHARGERS – April 2023
FUTURE ELECTRICAL CAPACITY
210 EV FAST CHARGERS

GARDENA BUS GARAGE

EXISTING
360 BUSES
PLANNED
18 EV FAST CHARGERS – July 2023
FUTURE ELECTRICAL CAPACITY
400 EV FAST CHARGERS



SEPULVEDA BUS GARAGE

EXISTING
33 BUSES
(LIMITED SIZE LOT)

NEWMAN NUTRITION CENTER

EXISTING
39 BUSES
COMPLETED
10 ELECTRIC BUSES

SAN JULIAN BUS GARAGE COMPLEX

EXISTING
364 BUSES
PLANNED
36 EV FAST CHARGERS – FALL 2023
FUTURE ELECTRICAL CAPACITY
400 EV FAST CHARGERS

Schedule of Existing and Pending Bus Deliveries

BUS DELIVERY				EV CHARGER INSTALLATION		
Date	Quantity	Site	Quantity	Date	Quantity	Buses Charging at One Time*
Jun 2019	1	BD	1	Jun 2019	1	1
Jan 2022	10	Newman	10	Jan 2022	10	10
Apr 2023	12	Sun Valley	6	Apr 2023	6	2
		Gardena	6	Jul 2023	18	6*
Dec 2023	18	Gardena	12			
		San Julian	6	Nov 2023	36	18*
Jan 2024	30	San Julian	30			
Jul 2024	80	TBD	80	Jul 2024	80	40*
TOTAL	151		151	TOTAL	151	77*

* Dual port chargers

Total Estimated Costs

100% Zero-Emission Yellow Fleet Transition

Cost Categories	Higher Value of Future Costs (5% Inflation, 3% Discount Rate)	
	Status Quo Scenario	Electrification Scenario
Maintenance	\$616	\$408 to \$550
Fossil Fuels	\$144	\$51
Electricity	\$1	\$77
Operating Cost Totals	\$761	\$536 to \$678
Bus Purchases	\$570	\$724
Chargers	N/A	\$194
Electrical Upgrades	N/A	\$83 to \$120
Facility Replacement	\$74	\$85
Midlife Overhauls	\$77	\$146
Capital Cost Totals	\$720	\$1,231 to \$1, 269
Net Cost Difference for Electrification	Adds \$286 to \$465	



NOTE:

Cost estimates represent millions. Costs may vary based on evolving market conditions and inflation

Potential Alternative Funding Sources

Bus Grants

- HVIP (Hybrid and Zero Emission Truck and Bus Voucher Incentive Project)
 - 44% – HVIP (cap at 30 buses per year)
+ 56% – General Fund
- U.S. Environmental Protection Agency
 - Application submitted and waitlisted
- The Volkswagen (VW) Environmental Mitigation Trust: \$423 million (CA)
- Other new grant opportunities as they arise



Potential Alternative Funding Sources (cont.)

Infrastructure Rebates

- Proposed MOU with Los Angeles Department of Water and Power (LADWP)
 - \$3.5 Million per proposed MOU
- EnergIIZE (Energy Infrastructure Incentives for Zero-Emission) Commercial Vehicles
 - Project by the California Energy Commission
- Others new rebate programs as they emerge

2040 Zero-Emission Goal Planning

Underway

- Complete Yellow Bus Fleet Electrification Study by Q2 2023
- Develop capital plan to finance capital needs

Future

- District white fleet electrification
 - District Maintenance and Truck Operations vehicle electrification
- School facilities parking lot electrification
- Integration with facilities electrification and solar program



Questions and Discussion