

PROTERRA EV OVERVIEW DISCUSSION



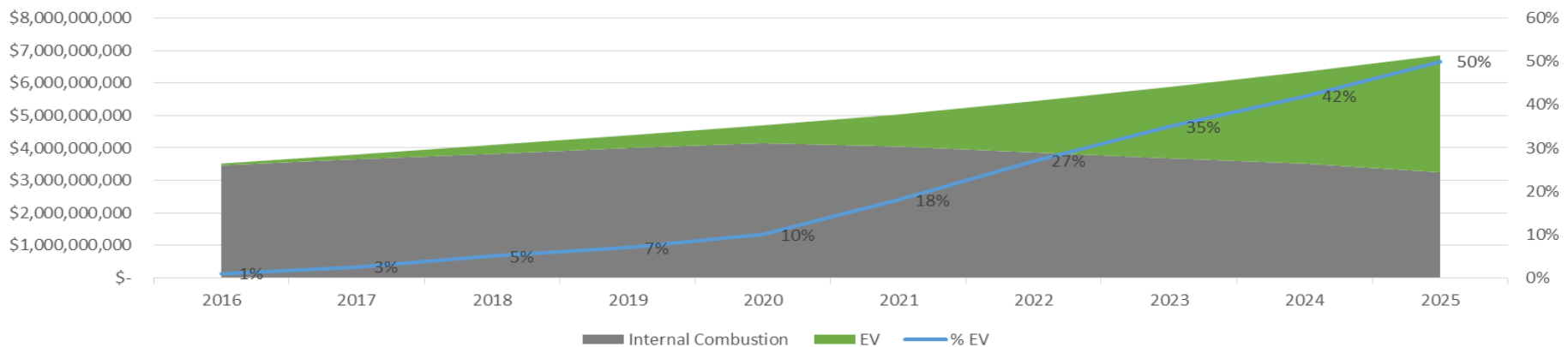
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HOW BIG IS THE TREND?

- By 2025, > 50% of U.S. transit purchases will be EV, annual market size of \$3.6 billion
- California planning to eliminate new demand for internal combustion transit by 2028
- Multiple city and transit resolutions pending that call for 100% EV Transit (Foothill Transit, Santa Monica, King County Washington, Seneca, Stockton...)
- Trend is independent of California policy, i.e. this is happening nationwide, red states and blue states
- International EV transit trend... China, Canada, U.K., major cities in Europe going EV
- Proterra has been approached by 50+ international partners

U.S. Heavy-Duty Transit Market, New Vehicle Sales / Year





PROTERRA

OUR CUSTOMERS Q4 2015



15 Customers

OUR CUSTOMERS NOW



290 announced orders from 31 customers

100+ orders not yet announced

ECONOMIC & SUSTAINABLE

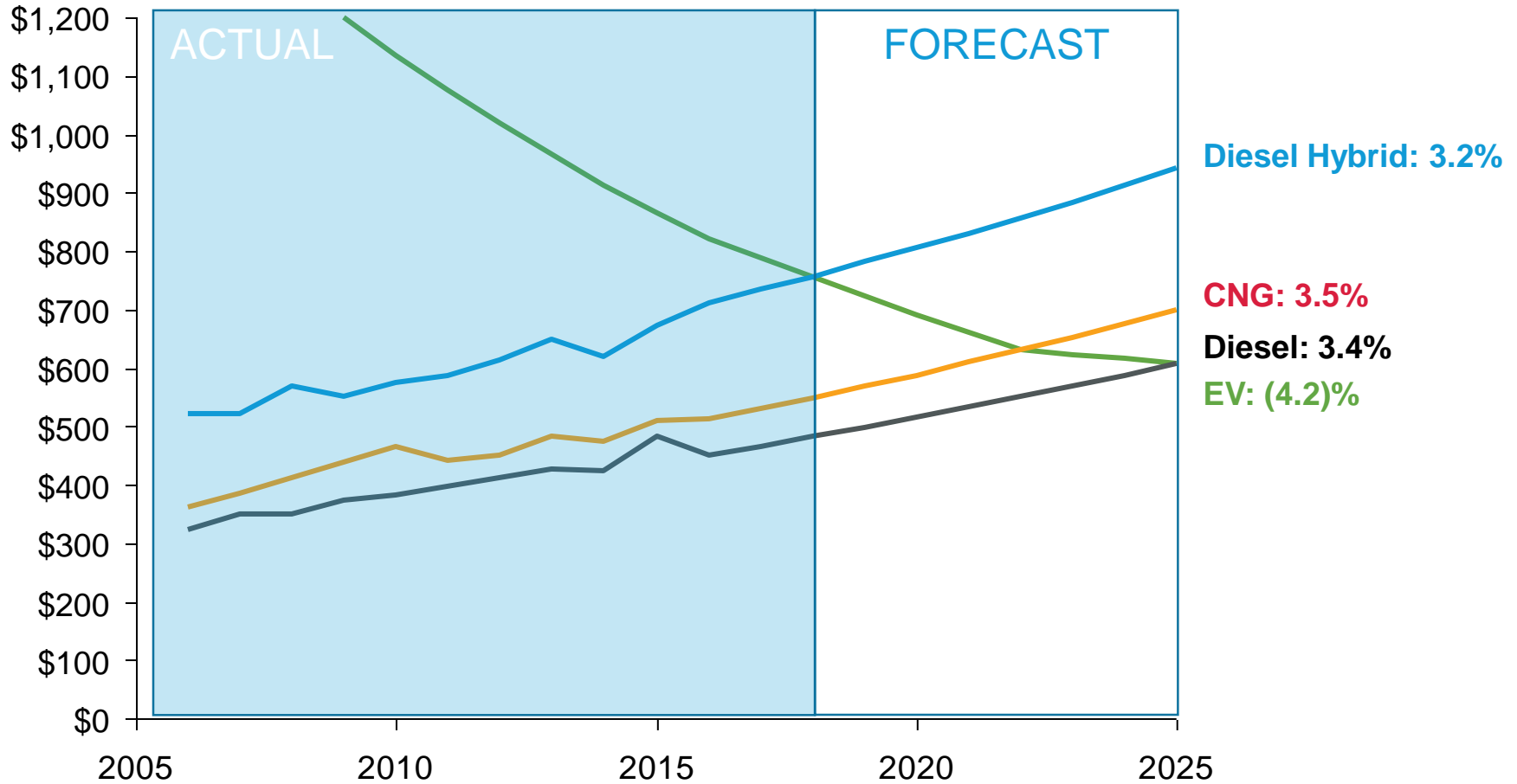


Lowest Cost, Lowest Environmental Impact for Urban Transportation

EV HAS *DECREASED* IN PRICE 4.2% PER YEAR SINCE 2010
 DIESEL HAS *INCREASED* IN PRICE > 3.4% SINCE 2005
 BY 2025, THERE IS NO TRANSIT MARKET FOR DIESEL / CNG



Price (\$k)

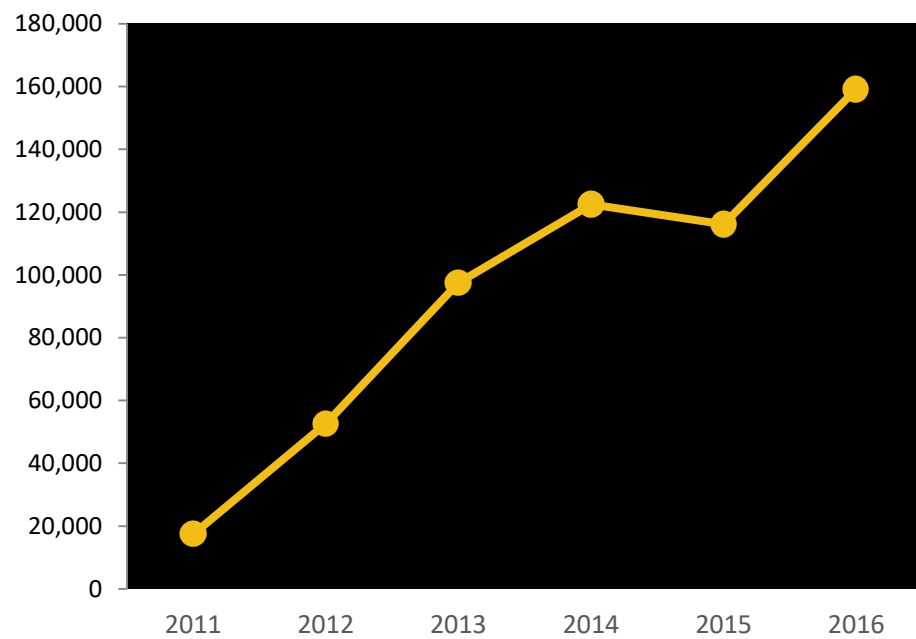


Source: National Transit Database; represents 40-foot buses

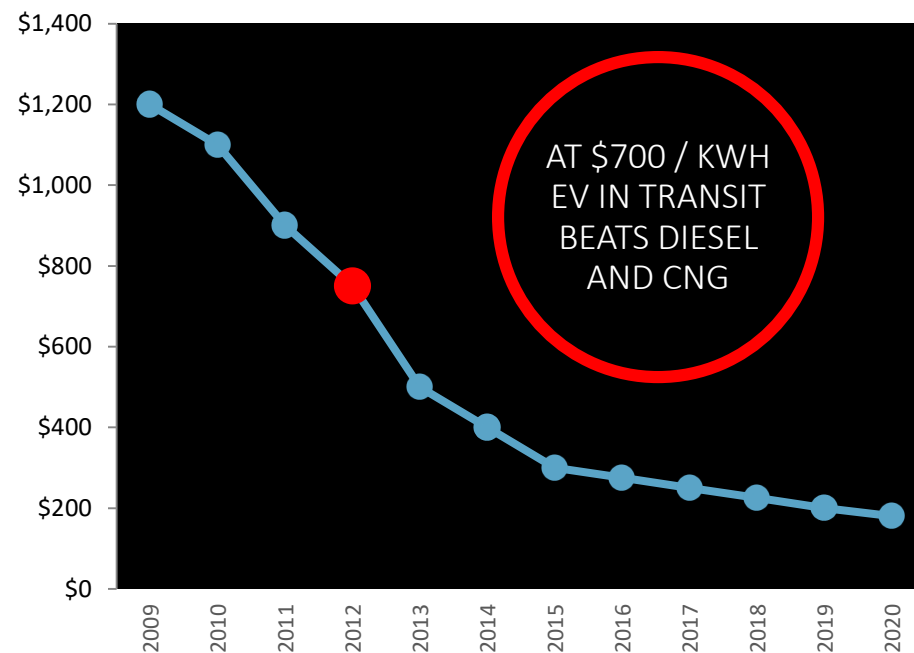


DRIVEN BY BATTERY TECHNOLOGY IMPROVEMENT

U.S. EV SALES



BATTERY COST (\$/kWh)



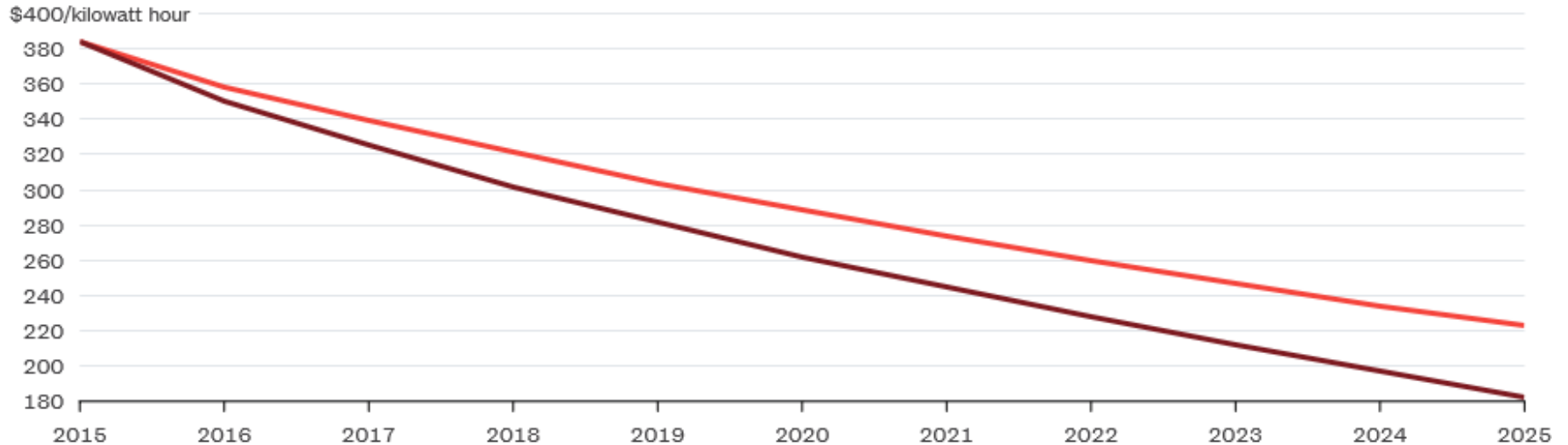
•.....> **ADVANCED BATTERY TECHNOLOGY HAS DECLINED IN COST TO THE POINT OF MASS ADOPTION IN TRANSIT**

Sources: Navigant Research, green.autoblog.com, Electric Drive Transportation Association. xEV = PHEV, HEV, EREV and BEV.



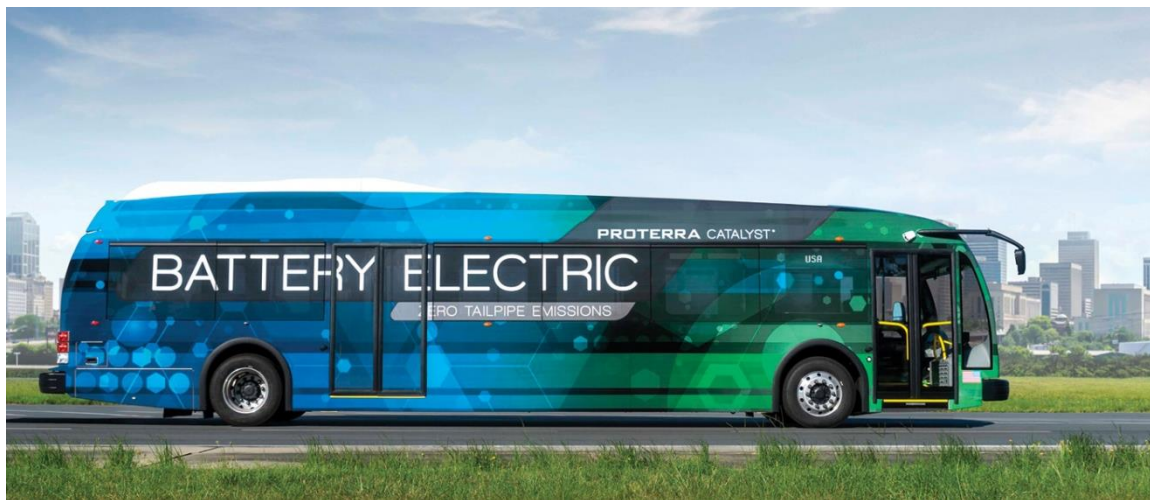
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BATTERY PROGRESSION WILL CONTINUE



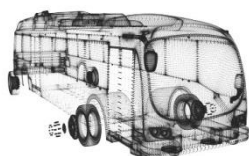
The Learning Curve rate on Li-Ion battery technology is 14% (i.e. 2X volume = 14% savings).
The cost of battery packs will drop from \$384 per kilowatt hour in 2015 to \$182/kWh in 2025.
At \$140 / kWh for EV, diesel / CNG fuel would have to be free to compete with EV maintenance savings alone.

PROTERRA CATALYST®—DIFFERENT BY DESIGN



The Proterra 35 and 40-foot Catalyst platform is designed to deliver a turn-key electric vehicle system, fully customized to meet the needs of your most demanding routes.

Proterra Catalyst®



Highest Performance

Flexible Energy System



Ultimate Flexibility

Multiple Charging Options



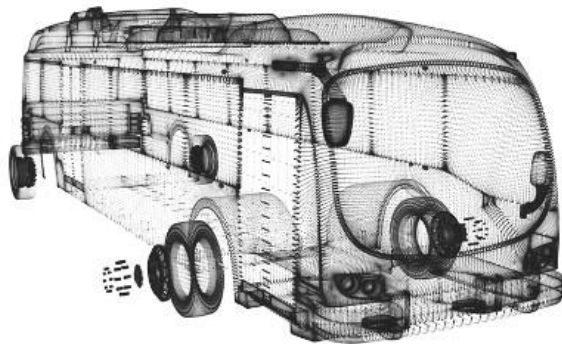
Meet Every Route Need

Financing & Services



Ease of Ownership

Proterra's use of advanced composite materials makes the Proterra Catalyst not only the lightest, most efficient vehicle, but the most durable and safe as well.



Lightest transit vehicles on the market

- Increased passenger seating capacity
 - 40' vehicle: 44 seated passengers
 - 35' vehicle: 28 seated passengers
- Lowest rear axle weight in industry
- Less damage to roadways

Most efficient in its class

- Highest efficiency of any vehicle in its class
- Longest range per kWh of energy storage
- Lowest fuel cost per mile
- 1.61 - 1.89 kWh/mile

Highly durable for greatest safety

- Advanced carbon-fiber-reinforced composite material: used in Formula 1 race cars and marine vessels with proven durability
- Super strong, lightweight and impact-resistant
- Non-conductive and rust-resistant

MULTIPLE CHARGING TECHNOLOGY OPTIONS

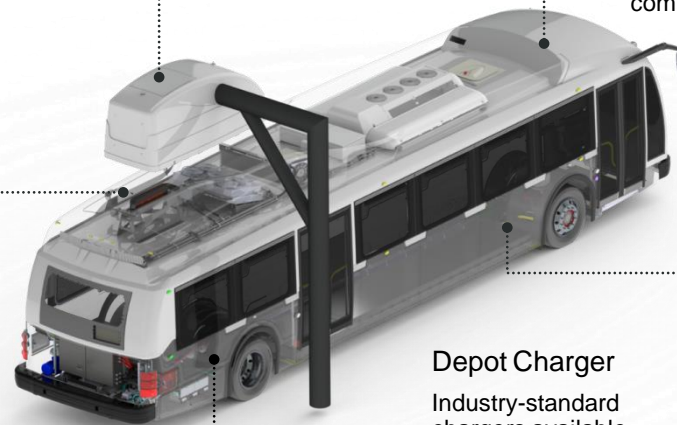


On-Route Overhead Charger

- Variable-rate conductive charging
- Intelligent charging system adjusts to vehicle energy storage capabilities
- 350 kW maximum charge rate

Fast-Charging Technology
Enables overhead charging

Proterra Catalyst[®] vehicles can be configured for overhead and/or plug-in charging at a variety of rates, to **maximize** available charging opportunities.



Wireless Interface

Vehicle and charger automatically connect and communicate charging needs

Plug-in Charge Port(s)

Compatible with industry-standard SAE J1772 combo connector



Depot Charger

Industry-standard chargers available



Wireless Charging

Validating technology for future deployment

Configuring for “Smart Range” – the Most Efficient Combination of Energy Storage and Charging Options

EV INFRASTRUCTURE IS STANDARDIZED, LOW-COST, SUCCESSFULLY DEPLOYED NATION-WIDE



SAE Combined Charging Standard (J1772 CCS) for plug-in charging. Enables full interoperability across vehicle platforms.

50 KW per vehicle. Proterra has added 50 vehicles of power capacity in one Burlingame location via a 2.5 MW transformer upgrade. Cost \$900,000... time < 6 months.

> 35,000 public EV charging stations deployed in the U.S. already



UNIVERSAL EV COMBINED CHARGING SYSTEM

One inlet for all charging options



Charging Connectors

Vehicle Inlet



Four charging options

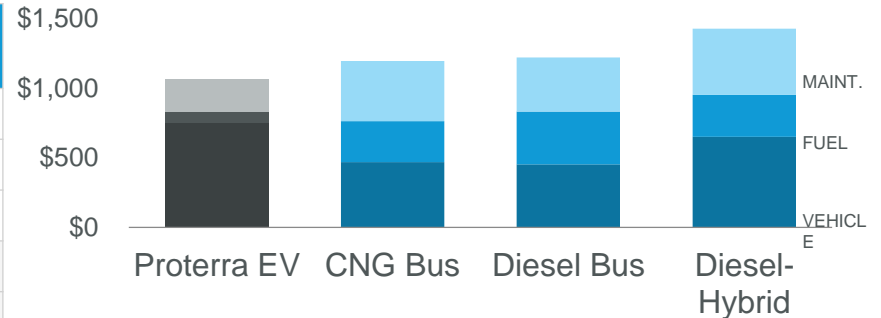
- One-phase AC
- Fast three-phase AC
- DC at home
- Ultra-fast DC at public stations

SYSTEM JOINTLY DEVELOPED BY MAJORITY OF GLOBAL AUTOMAKERS

CATALYST 40 FT. TOTAL COST OF OWNERSHIP ADVANTAGE



	Proterra EV	CNG Bus	Diesel Bus	Diesel Hybrid
Vehicle	\$749	\$470	\$454	\$650
Energy/Fuel	\$81	\$294	\$378	\$302
Maintenance	\$238	\$432	\$389	\$475
TCO	\$1,067	\$1,196	\$1,221	\$1,428
TCO \$'s/Mile	\$2.47	\$2.77	\$2.83	\$3.30



est. over 12 year lifetime / \$ in thousands, except TCO \$'s/mile

- **Battery-electric vehicles** have the **lowest operational lifecycle** cost:
 - High EV energy efficiency, low electricity rates, and high annual vehicle mileage combine to create significant fuel savings
 - **30% fewer parts** dramatically reduce maintenance and operating costs
 - Electricity prices far **more stable** and predictable than volatile fossil fuel prices

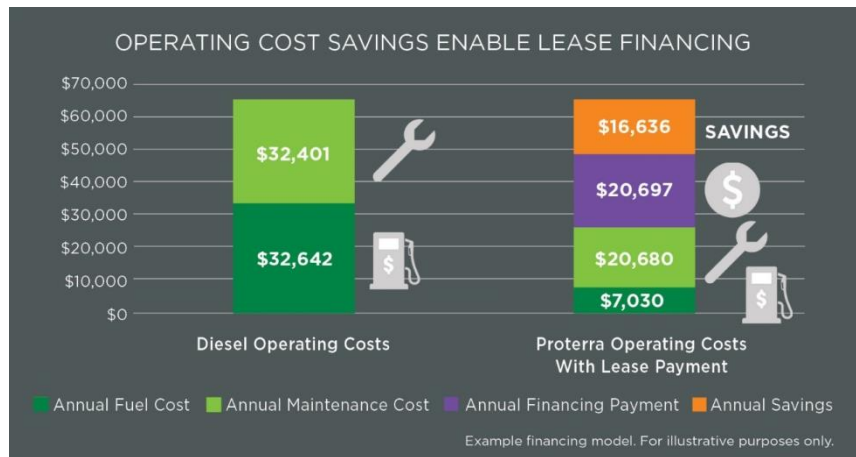
12-yr Operational Savings per Bus

\$448k vs. Diesel
\$459k vs. Hybrid
\$408k vs. CNG

FINANCING YOUR ELECTRIC FLEET



Proterra can help you find the right combination of financing tools that map to your procurement plans



Municipal Capital Lease

A generally low-cost financing tool for local governments with investment-grade credits. Can be paid for with FTA funds. Offers structured ownership that enables you to own a Proterra bus at the end of the lease term.

Operating Lease

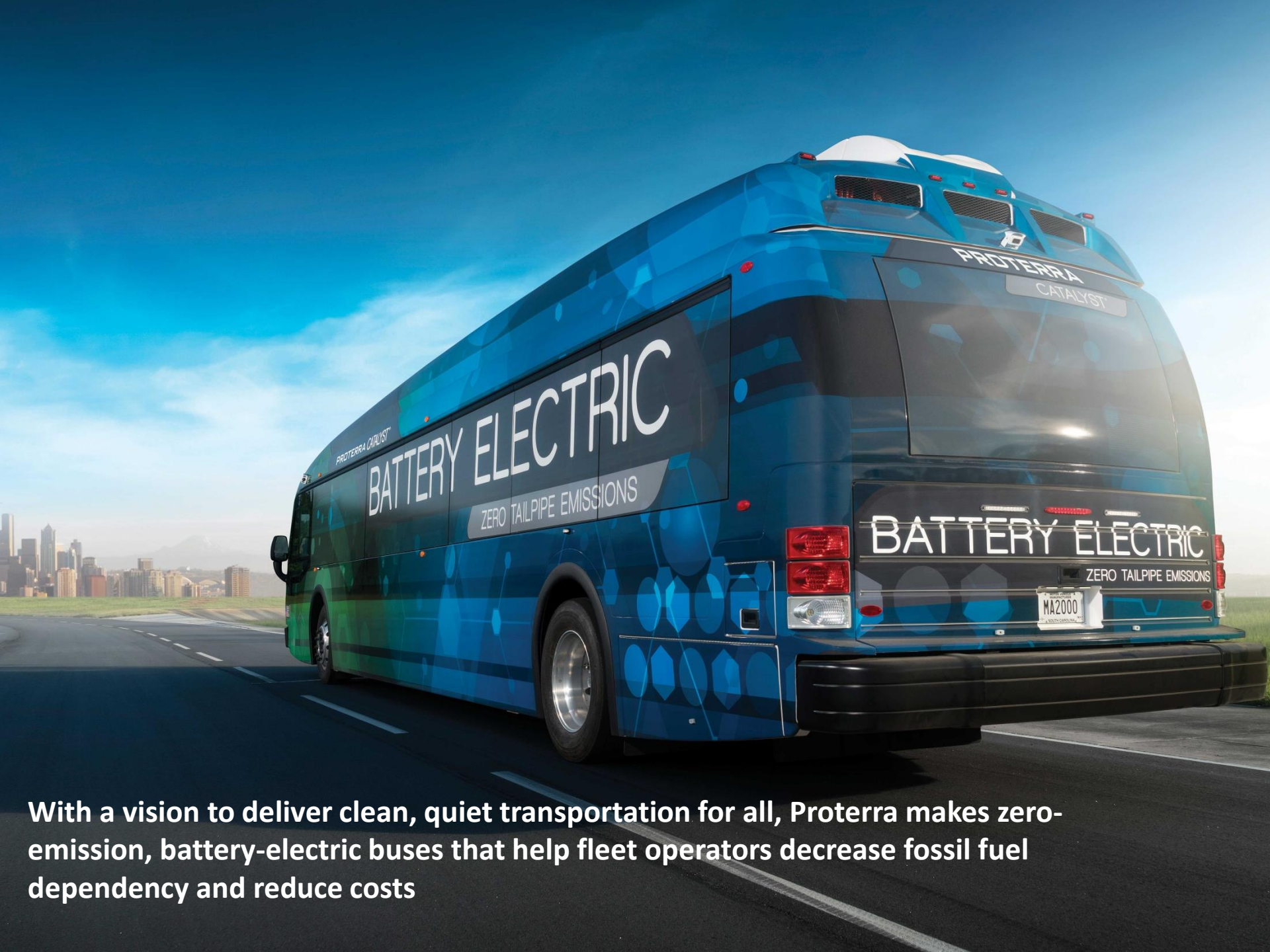
Operating leases allow you to pay for the use of a bus over time, with the option to permanently transition the bus into your fleet. No upfront capital costs.

Bus Rental Program

For fleet operators looking to “test drive” a Catalyst® bus before making a long-term commitment, Proterra offers the option to rent a bus for up to 12 months before making a long-term purchasing decision.

Battery Lease

A battery lease enables you to buy a Catalyst vehicle for roughly the same price as a diesel bus, putting the operating savings toward the battery lease. Proterra is responsible for the performance of the batteries through the life of the lease, removing operator risk.



With a vision to deliver clean, quiet transportation for all, Proterra makes zero-emission, battery-electric buses that help fleet operators decrease fossil fuel dependency and reduce costs