Proterra’s Mission
Advancing electric vehicle technology to deliver the world’s best-performing heavy-duty vehicles

- Offices and manufacturing in CA and SC
- 500+ employees, with strong transportation expertise
- >90 customers; >700 vehicles sold
- >300 vehicles delivered; >8,000,000 service miles
- >39,000,000 pounds of CO2 emissions avoided

Strong Transportation Expertise

World-Class Financial Partners
Burlingame, California
Battery Manufacturing
Company HQ

Los Angeles, California
Bus Manufacturing
West Coast Operation

Greenville, South Carolina
Bus Manufacturing
East Coast Operation
• Moving toward widespread industry adoption

• Purchase barriers eliminated due to:
  - Improved range
  - Charging standardization
  - Sharp decline in battery costs
  - Service-proven performance

Battery Electric Buses: North American Annual Sales and Deliveries

- 10% share of total transit
- >140 Agencies
- >1200 cumulative awards/sales
- >340 cumulative deliveries/in service

Awards/Sales Deliveries/In Service

Source: CTE Center for Transportation and the Environment
>700 buses sold to >90 customers across 41 states/provinces

OUR CUSTOMERS
PROTERRA ENERGY FLEET SOLUTIONS
TURNKEY ENERGY DELIVERY FOR ELECTRIC FLEETS

PROTERRA ENERGY™
FLEET SOLUTIONS

ENERGY SOURCE
UTILITY MAKE-READY
STORAGE/RESILIENCY
CHARGING INFRASTRUCTURE
ENERGY MANAGEMENT
BATTERIES
REUSE/RECYCLING

PROTERRA ENERGY DELIVERY SYSTEM
Beginning with a high-fidelity route simulation, fleet modeling and detailed TCO analysis, Proterra helps you choose the right vehicle, battery and charging configurations to meet your route requirements now and as you scale.

- CUSTOMIZED ROUTE SIMULATION
- INFORMED VEHICLE SELECTION
- FLEET MODELING
- COST OF OWNERSHIP EVALUATION
By providing a full suite of Proterra products and services in-house, we offer a comprehensive solution to help you meet your electrification goals.

- SOPHISTICATED PLANNING
- TURNKEY INFRASTRUCTURE INSTALLATION
- SMART ENERGY MANAGEMENT
- ADVANCED ENERGY STORAGE
- PAY-AS-YOU-GO

Proterra has helped more than 45 fleet operators throughout North America install high-power charging systems.
Our experienced engineering and project management team works with you to design and implement the best infrastructure installation for your depot, managing the whole process from start to finish and providing a scalable, turnkey solution.

- **ONE STOP SHOP**
- **IN-HOUSE EXPERTISE**
- **CLEAN, RELIABLE ENERGY**
- **PURPOSE-BUILT CHARGING HARDWARE**
Proterra Energy™ fleet solutions include smart energy management products and services that range from technical assistance to full-service monitoring, management, optimization and maintenance of your Proterra charging infrastructure.

- **CHARGING AS A SERVICE**
- **ENERGY OPTIMIZATION**
- **CONNECTED VEHICLE INTELLIGENCE SYSTEM**
- **DEMAND MANAGEMENT**
OVERHEAD CHARGING
Keep your Catalyst buses rolling with easy depot or on-the-road charging, made simple by industry-standard SAE J3105 overhead systems.

• Charge on the road for longer routes or enable 24/7 circulator operations
• Low maintenance costs and high availability
• Compatible with roof-mounted pantographs as well as inverted pantograph systems, offered by Schunk and other suppliers

PLUG IN CHARGING
Regardless of your fleet size, powering up your Proterra buses at the depot is as easy as plugging in a standard J1772-CCS Type 1 charger.

• Universal chargers are offered by Proterra and other suppliers
• Catalyst vehicles can be configured with two charge ports for flexibility at the depot
• Electric buses, utility vehicles and cars can share the same standardized chargers

ADOPTED BY MAJOR OEMS

PROTERRA  CILLIC  NEW FLYER
SMATER CHARGING
PROTERRA POWER CONTROL SYSTEMS

60KW
For fleets with longer available charge times.
Catalyst E2 charge time:
~6 hours, w/ J1772-CCS plug-in

125KW
For fleets with high uptime requirements
Catalyst E2 charge time:
~3 hours, w/ J1772-CCS plug-in

500KW
For fleets with extended operating hours and high mileage requirements
Catalyst FC+ charge time:
~38 miles per 10 minutes, w/ J3105 overhead

INTELLIGENT
Automated and rules-based vehicle charging

UNIVERSAL
Standards-based, OCPP 1.6 open communications protocol-compatible

REMOTE
Can be located up to 492 feet from dispenser

SCALABLE
Can be installed side-to-side and back-to-back for high-density charger banks

COMPATIBLE CONNECTIONS
- Pantograph
- Inverted Pantograph
- Universal Plug In
J3105 HIGH KW CHARGING TECHNOLOGY

Inverted pantograph

Bus mounted pantograph
Proterra technologies enable:
- Efficient charge speed
- Dynamic power sharing
- Driver-friendly stations
- Cost-effective operations
- Universal compatibility
- Serviceability
- Low maintenance costs
- High availability

Our experts provide counsel on:
- Site layout
- Energy management
- Real-time energy monitoring
- Site configurations

Proterra works closely with customer to recommend the appropriate charging solution for fleets and facilities planning for scale as the demand for charging increases.
The Proterra APEX™ connected vehicle intelligence system is a cloud-based data platform, offering historical and real-time performance information about your battery electric vehicle fleet, to optimize bus and charging operations and reduce costs.

- **VEHICLE MONITORING**
  - Real-time information and historical charts on vehicle performance.

- **REMOTE DIAGNOSTICS**
  - Reduce on-site visits and solve problems remotely with alerts for vehicles and chargers.

- **PREVENTATIVE MAINTENANCE**
  - Notifications and recommendations for preventative maintenance.

- **CHARGER MANAGEMENT**
  - Monitor charger status, control charging remotely, and receive real-time updates.
Easy to use cloud-based portal designed for access anywhere, anytime, on any connected device, without software installation.

Choose the frequency, delivery, and type of alerts. Select reporting parameters and download as PDF or CSV.

No personal driver information collected or stored in system. Robust data security keeps your fleet information safe.

Big data platform enables scalability to grow alongside your electric fleet and charging infrastructure.

Service team alerted of issues to address proactively and respond quickly.

Option to import data from your Proterra vehicles into your existing ITS backend systems.
Proterra can retain ownership of the charging infrastructure and batteries needed to power your electric fleet, reducing your risk and upfront cost. Proterra offers options for customers to invest upfront or “pay-as-you-go”, paying for the infrastructure and batteries like they do today for their energy.

- **LOWER UPFRONT COST**
- **LESS RISK, LESS HASSLE**
- **STABLE ENERGY COSTS**
THANK YOU.