

PROTERRA®

ENERGY™

FLEET SOLUTIONS

TURN-KEY ENERGY DELIVERY FOR YOUR BATTERY-ELECTRIC VEHICLE FLEET



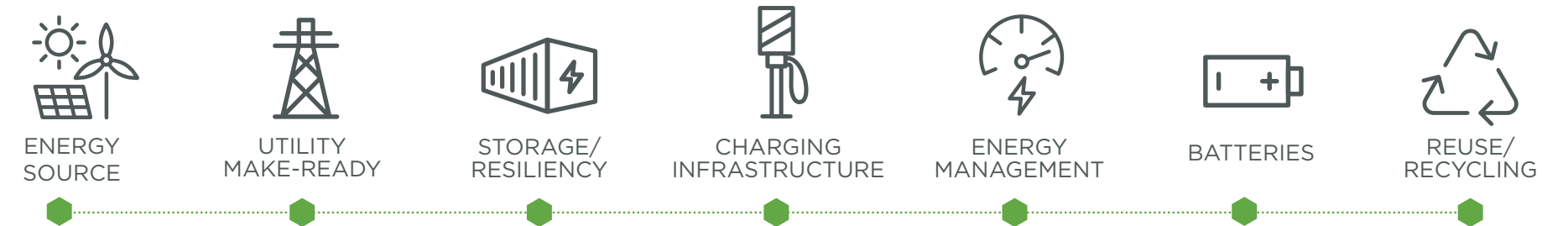
PROTERRA

SIMPLIFIED. COMPREHENSIVE. REVOLUTIONARY.



PROTERRA ENERGY™

SIMPLIFY YOUR TRANSITION TO AN ELECTRIC FLEET



PROTERRA ENERGY DELIVERY SYSTEM

Transitioning your fleet to battery-electric technology introduces a new set of challenges that go well beyond the vehicles. Proterra Energy™ fleet solutions offer a turn-key approach to delivering the complete energy ecosystem for heavy-duty electric fleets, including design, build, financing, operations, maintenance and energy optimization. With this comprehensive solution, customers can lower upfront cost, reduce risk, and simplify the transition to electric vehicles.



COMPREHENSIVE PLANNING

Beginning with a high-fidelity route simulation, fleet modeling and detailed total cost of ownership analysis, Proterra helps you choose the right vehicle, battery and charging configurations to meet your route requirements now and as you scale your EV fleet in the future.

TURN-KEY INFRASTRUCTURE INSTALLATION

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, turn-key solution.

SOPHISTICATED CHARGING

Proterra provides purpose-built high-power charging systems for heavy-duty EV fleets, with plug-in and overhead models offered in a range of power levels to accommodate your available charge time, daily range requirements and depot layout.

SMART ENERGY MANAGEMENT

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.

ADVANCED ENERGY STORAGE

Purpose-built for heavy-duty vehicles, Proterra batteries have industry-leading energy density and storage capacity, enabling record-breaking range and efficiency. With a 12-year warranty as well as battery leasing options, Proterra batteries provide your fleet with the energy needed to meet your route requirements.

PAY-AS-YOU-GO

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 up front or “pay-as-you-go”, paying for the infrastructure and batteries like they do today for their energy.

COMPREHENSIVE EV FLEET PLANNING

GET A ROUTE SIMULATION

Experts on the Proterra team will conduct detailed route simulations to show how Proterra® vehicles would perform in your community and determine the routes best suited for electrification.

PICK THE RIGHT VEHICLE

Proterra helps you match the on-board energy storage and drivetrain configuration to your route requirements, total daily mileage and layover options.

SEE THE TOTAL COST OF OWNERSHIP

Get a comprehensive understanding of the upfront and operating costs to expect throughout the lifetime of your vehicles.

MODEL YOUR CHARGING NEEDS

The Proterra team evaluates your fleet's daily power needs to determine the most fitting charging infrastructure setup for your route requirements now and as you scale your electric fleet.

TURN-KEY INFRASTRUCTURE INSTALLATION

ONE STOP SHOP

Proterra provides you with a single point of contact to coordinate project partners and manage your EV implementation.

IN-HOUSE EXPERTISE

With extensive in-house experience installing charging infrastructure, Proterra works with you and your utility to implement fleet charging with the best energy rates available.

CLEAN, RELIABLE ENERGY

Our team can help you take advantage of clean electricity options in your area, and even help set up systems for resiliency like backup power with stationary energy storage.



SOPHISTICATED CHARGING

FLEXIBLE

SCALABLE

POWERFUL

RELIABLE

STANDARDIZED

POWER UP YOUR FLEET WITH PROTERRA® CHARGING SYSTEMS

At Proterra, we don't just make North America's most popular electric bus - we also provide the best electric vehicle technology solutions for heavy-duty applications, including Proterra high-power charging systems. Featuring plug-in and overhead models, these systems offer a range of power levels to accommodate your available charge time, daily range requirements and depot layout.

PLUG-IN

- Overnight depot charging
- Standard J1772-CCS Type 1 charging connection

OVERHEAD

- On-route fast charging or overnight depot charging
- Standard SAE J3105 charging connection

UNIVERSAL PLUG-IN



INFRASTRUCTURE MOUNTED PANTOGRAPH



PROTERRA®
**POWER
CONTROL
SYSTEM**



POWERFUL, SCALED CHARGING FOR HEAVY-DUTY EV FLEETS

PROTERRA® CHARGING SYSTEMS

- Feature standardized technology, which means your electric buses, utility vehicles and cars can share the same chargers
- Can be installed side-to-side and back-to-back for high-density charger banks
- Are ideal for space-constrained depots, with the freedom to install the Power Control System up to 500 feet from the dispenser
- Can be paired with up to four dispensers per 60kW or 125 kW Power Control System, for automated, sequential charging



60 kW PCS 70.8" x 31.5" x 24" CHARGING DISPENSER 58" x 15.75" x 8.5" 125 kW PCS 115" x 40" x 30" 500 kW PCS 72" x 129" x 24"



PRODUCT	PROTERRA® 60kW CHARGING SYSTEM	PROTERRA® 125kW CHARGING SYSTEM	PROTERRA® 500kW CHARGING SYSTEM
MAX POWER LEVEL AVAILABLE (kW)	60	125	500
POWER CONTROL SYSTEM LOCATION	DEPOT	DEPOT	DEPOT / ON-ROUTE
DISPENSER TYPE	PLUG-IN / OVERHEAD	PLUG-IN / OVERHEAD	OVERHEAD
CONNECTION STANDARD	J1772 CCS PLUG-IN J3105 INVERTED PANTOGRAPH	J1772 CCS PLUG-IN J3105 INVERTED PANTOGRAPH	J3105 INVERTED PANTOGRAPH
VEHICLES	CHARGING TIME OR MILEAGE PER CHARGE*		
XR	3.7 HOURS	2.9 HOURS	17 MILES PER 10 MINUTES
E2	6.7 HOURS	3.6 HOURS	32 MILES PER 10 MINUTES
E2 MAX	9.8 HOURS	5.0 HOURS	30 MILES PER 10 MINUTES

*Distance replenished based on Catalyst vehicle efficiency with ProDrive drivetrain. All charge times are approximate.

SMART ENERGY MANAGEMENT

CHARGING AS A SERVICE

A revolutionary approach, Proterra's charging-as-a-service solution incorporates the management and maintenance of batteries and charging systems.

ENERGY OPTIMIZATION

By collaborating with your local utility, evaluating energy sources, modeling fleet usage and optimizing charging around appropriate electricity schedules, tariffs, and available incentives, Proterra can help you minimize demand and time-of-use charges to maximize your savings.

Customer*

LTA

Status*

All

Bus Status

Fully Charged	2
Charging	3
Available to Charge	0
Out of Service	0
Companion Out of Service	0
Unavailable	0
Total	5

CONNECTED VEHICLE INTELLIGENCE SYSTEM

The Proterra APEX™ connected vehicle intelligence system is a cloud-based data platform that helps you optimize vehicle and charging operations to reduce costs. With historical and real-time performance data, the APEX system lets you monitor and manage your electric fleet, giving you valuable information on distance traveled, speed, location, energy used, battery state of charge, and more.

CHARGING MANAGEMENT

With charge management software designed specifically for heavy-duty fleets, you can schedule charging, monitor charging status, control charging stations remotely, and receive real-time updates on charger activity. The APEX system also offers demand management features, enabling you to manage power demand and reduce electricity costs.

Bus Charging



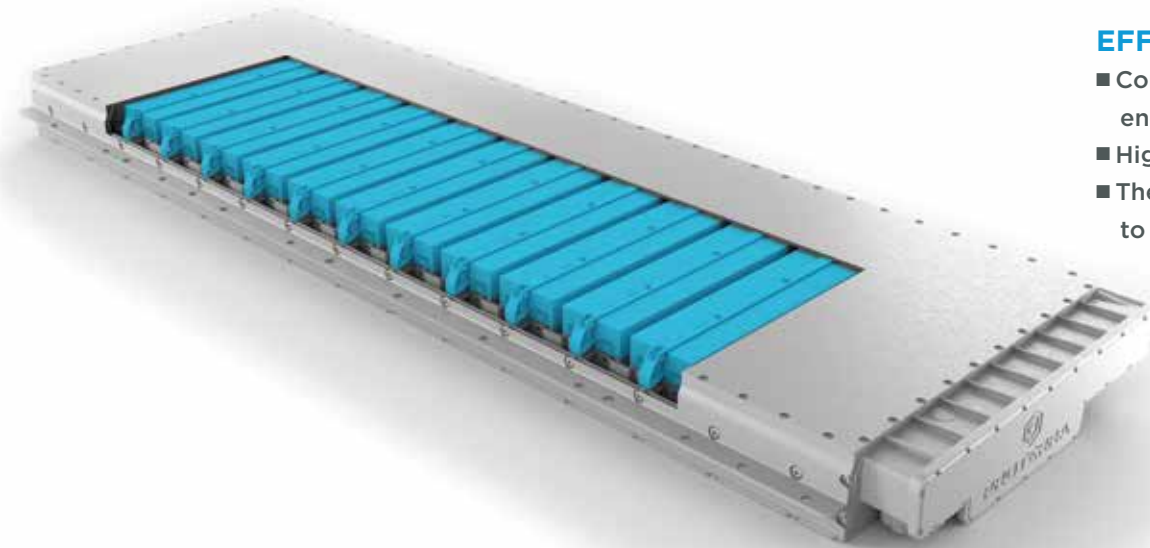
Status	Bus Name	Range	SoC	Plugged In?	Status
Charging	LTA 1		99		Charging
Charging	LTA 2		28		Charging
Charging	LTA 5		26		Charging

ADVANCED ENERGY STORAGE



THE PROTERRA® BATTERY

Designed and built in our state-of-the-art Silicon Valley facility by the best minds in battery engineering, Proterra battery systems are made with heavy-duty applications in mind. With a 12-year warranty as well as battery leasing options, Proterra batteries boast industry leading energy density and enable fleets of all sizes to meet their route requirements.



SMART

- Active thermal management for optimal charging and operation in any climate
- Energy reserve adjusts over time for maximum performance
- Multiple sensors throughout each pack for monitoring and diagnostics

SAFE AND DURABLE

- Battery pack made of ballistic-grade materials to withstand the toughest conditions
- Safety mechanisms built directly into the battery architecture
- Subjected to rigorous testing and validation programs

EFFICIENT

- Compact, dense design enables industry-leading energy density
- Highest efficiency, enabling record-breaking range capabilities
- Thermally-controlled batteries keep the temperature consistent to maximize lifetime

PAY-AS-YOU-GO

Customers can choose to invest up front or “pay-as-you-go”, paying for the infrastructure and batteries like they do today for their energy. Proterra can retain ownership of the energy delivery system needed to power your electric fleet, reducing your risk and upfront cost.

LOWER UPFRONT COST

Reduce upfront capital required and procure electric vehicles at a cost similar to combustion engine vehicles.

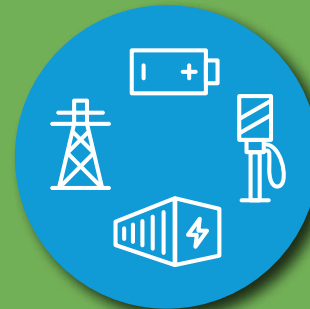
LESS RISK, LESS HASSLE

Proterra will ensure your charging systems and batteries are running optimally and delivering the energy you need, so your team can focus on normal fleet operations.

STABLE ENERGY COSTS

Avoid volatile fuel prices and expect regular, predictable payments on a schedule that works best for you.

CHOOSE TO INVEST UPFRONT
OR PAY-AS-YOU-GO



COST

INVEST UPFRONT

PAY-AS-YOU-GO

TIME

POWERING THE SHIFT TO 100% ELECTRIC FLEETS

Proterra is the only North American bus manufacturer to design, build, deploy and manage its own electric buses, batteries, chargers and charging infrastructure. By providing a full suite of Proterra products and services in-house, we offer a comprehensive solution to help you meet your electrification goals.

With the greatest number of battery-electric buses delivered in North America and heavy-duty transportation fleet charging projects installed, Proterra is powering the shift to 100% electric fleets.



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