The Proterra Advantage

THE PROTERRA® CATALYST™ IS THE MOST VERSATILE ELECTRIC TRANSIT VEHICLE IN THE WORLD.

The Proterra Catalyst electric transit vehicle platform was designed for the electrification of transit systems around the world. While the Proterra name has been synonymous with its revolutionary fast-charge technology, Proterra now offers its customers unrivaled flexibility through the introduction of the Catalyst XR extended-range package.

Utilizing a purpose-built composite body and proven electric drivetrain technology, Proterra now offers vehicle configurations featuring multiple battery types and charging technologies in order to meet our customers' diverse route requirements. With the Proterra Catalyst, we're able to provide a customizable solution based on your individual budget needs, route length, and charging requirements.

TAKE ADVANTAGE OF MULTIPLE CHARGING OPTIONS TO FIND THE RIGHT SOLUTION FOR YOU.

Smart operators know that it's not just how far an electric bus can go that matters most. It's how efficiently a bus can meet the route requirements. That's why Proterra works with customers to determine the optimal balance of on-board energy storage and charging opportunities. That's why we offer our customers a variety of charging types, to meet every operational need. Proterra currently offers standards-based (SAE J1772 CCS) in-depot charging in addition to its better-known on-route overhead fast-charging system. We are also working to demonstrate future technologies like wireless charging, to ensure that our customers have a wide range of options.

FLEXIBLE ENERGY STORAGE OPTIONS ALLOW YOU TO CUSTOMIZE YOUR BUS, BATTERY, AND CHARGING INFRASTRUCTURE TO MATCH YOUR ROUTE NEEDS.

To better serve the diverse route needs of transit operators, Proterra has developed the TerraFlex™ Energy System, introducing a revolutionary new way to think about energy storage. With the TerraFlex Energy System, Proterra can customize the type and amount of energy storage on your vehicles to match your route needs, and provide the flexibility to quickly reconfigure batteries as route needs change over their 12 year in-service life. This revolutionary system also allows you the flexibility to quickly reconfigure the batteries on each vehicle to respond to changing route requirements. A Fast-Charge bus can be reconfigured to an Extended-Range bus and an Extended-Range bus can be reconfigured to a Fast-Charge bus during its 12 year in-service life and provides protection against uncertain future demands.

(Great Fleet and Route Flexibility)
PROTERRA'S REVOLUTIONARY TERRAFLEX ENERGY SYSTEM:

Included in every Catalyst vehicle, the TerraFlex Energy System consists of the following components:
1. Specially-engineered exterior battery compartments that securely hold Proterra's custom battery packs.
2. Interchangeable TerraVolt™ battery packs in FC Fast-Charge and XR Extended-Range options, purchased with the bus or separately.
3. Quick-disconnect technology that allows TerraVolt batteries to be easily removed and reconfigured as route needs change.

Key features of the TerraFlex Energy System:
1. Configurations from 4-10 battery packs minimize cost and weight
2. Standardized battery packs ensure perfect fit
3. Ease of access for maintenance and reconfiguration
4. Plug-and-play interoperability between battery types
5. Upgradeable to leverage advances in battery technology
6. Ultimate flexibility in fleet deployment

OTHER CHARGING FEATURES:
- Variable rate charging compatible with both FC and XR-configured vehicles
- Fully recharges FC-configured buses in less than 10 minutes (avg. customer charge time less than 5 min)
- Maintains route schedule/simultaneous passenger loading
- Can keep vehicles on the road all-day and all-night

FAST-CHARGE
FLEXIBLE FAST-CHARGING THAT FITS EASILY INTO BUS ROUTES AND SCHEDULES.

The Proterra fast-charge system allows for maximum run time and minimum wait time. On-route charging can be completed in the time needed to stop for passengers or driver’s break. Using its on-route, conductive fast-charging technology, Proterra has demonstrated that its electric bus can travel over 700 miles in a 24-hour period, demonstrating enough daily mileage to cover even the longest days. The Proterra Catalyst FC fast-charge configuration leverages the industry-leading capabilities of Proterra's TerraVolt FC batteries, which are capable of accepting an incredibly fast 500kW charge rate. One charging station can accommodate up to 8 buses; even more when utilized in a larger scale deployment. The charging station is specifically designed for bus routes serving downtown business loops, tourist areas, and other high-frequency circulators. Additionally, the Proterra Catalyst FC fast-charge bus may be charged when the bus is not in service or at off-peak hours, increasing the already impressive fuel savings. Catalyst XR vehicles can utilize one or two depot chargers through the two SAE J1772 CCS receptacles for faster charging.
EXTENDED RANGE
XR HIGHER ENERGY DENSITY BATTERIES ENABLE MUCH LONGER DISTANCES BETWEEN CHARGE EVENTS.

The new Catalyst XR Extended Range product allows you to travel longer distances between charge events, enabling you to electrify routes of all types. Charging your Catalyst XR vehicle is easy, simply plug in one or two SAE J1772 CCS 50KW chargers to begin your charging. Once the vehicle has replenished enough energy to complete its next mission, just unplug the chargers and pull out. Full charge recovery can be accomplished in under two hours. Utilizing a depot charger allows you to charge when the bus is not in service or at off-peak hours, increasing the already impressive fuel savings. Additionally, Catalyst XR vehicles can use the Proterra overhead fast-charge system as well during the day, allowing for extended transit service.

THE WORLD’S MOST ENERGY-EFFICIENT ELECTRIC TRANSIT VEHICLE ALLOWS YOU TO TRAVEL FURTHER— FOR LESS.

The Proterra Catalyst is the most energy-efficient transit vehicle in the world with an Altoona documented 1.70 kWh/mile efficiency, equivalent to 22 MPG. Proterra engineers worked tirelessly in the design and development of this second generation vehicle, enabling us to build a 40’ vehicle that's even lighter than our 35’ first generation model now weighing in at 27,370 pounds. The Proterra Catalyst’s superb, Altoona-certified energy-efficiency of 1.70 kWh allows our vehicle to travel 15% longer distances than any other vehicle in the market for the same amount of energy. As no two transit routes are identical, we believe that by providing the most efficient vehicle on the market, we’re better able to serve longer distance routes by simply matching the on-board energy storage to the route distance requirements.

A FOCUS ON SAFETY, FROM TOP TO BOTTOM.

Proterra's electric bus utilizes proven, road-tested safety design features. It is built with a composite body that utilizes the highest strength-to-weight ratio material available weighing only 27,370 pounds, providing less wear on our roads and highways. The non-corrosive, non-conductive composite body utilizes advanced carbon fiber material in key impact and seating areas to further improve strength and crash resistance and has the highest seating capacity of all electric buses with 40 seated and 37 standing positions for a total of 77 passengers. Battery placement is a critical component of safety. Unlike other electric buses, Proterra bus batteries are integrated into the vehicle floor, between the front and rear axles, to keep them isolated from the passenger compartment and below the vehicle impact line.

SMART, SAFE BATTERY PLACEMENT:
• Improves vehicle dynamics due to the low vehicle center of gravity
• Assists in weight distribution for optimal braking and traction
• Keeps batteries isolated from the passenger compartment
• Provides improved protection from collision impact
• Easy to access for maintenance and replacement
• Batteries are protected from the elements in watertight containers

PROTERRA BREAKS RECORDS AT ALTOONA IN EFFICIENCY, GRADEABILITY, WEIGHT AND ACCELERATION

• The Proterra Catalyst achieved the best efficiency rating ever for a 40’ transit bus at 22 MPGe, 15% more efficient per mile than the closest competitor’s electric bus on the same test
• The Proterra Catalyst conquered a 15.5% grade, unprecedented in this test by an electric bus
• Proterra’s advanced carbon fiber composite constructed bus has a curb weight of 27,370 lbs. - lighter than any other electric bus
• The Proterra 40’ Catalyst bus also set a record in the 0-20 MPH acceleration test, only 6.7 seconds

ALL PROTERRA BUSES ARE PROUDLY MANUFACTURED IN THE UNITED STATES

Proterra’s Corporate Office and Advanced Drivetrain Engineering facility is located in Burlingame, California in the heart of the Silicon Valley. We currently manufacture in Greenville, South Carolina and will begin manufacturing from our soon to be opened City of Industry, California facility in early 2016.