Proterra's Experience in Supporting University Transit
University of Montana

Presentation to **APTA Public Transportation and University Showcase**

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PROTERRA

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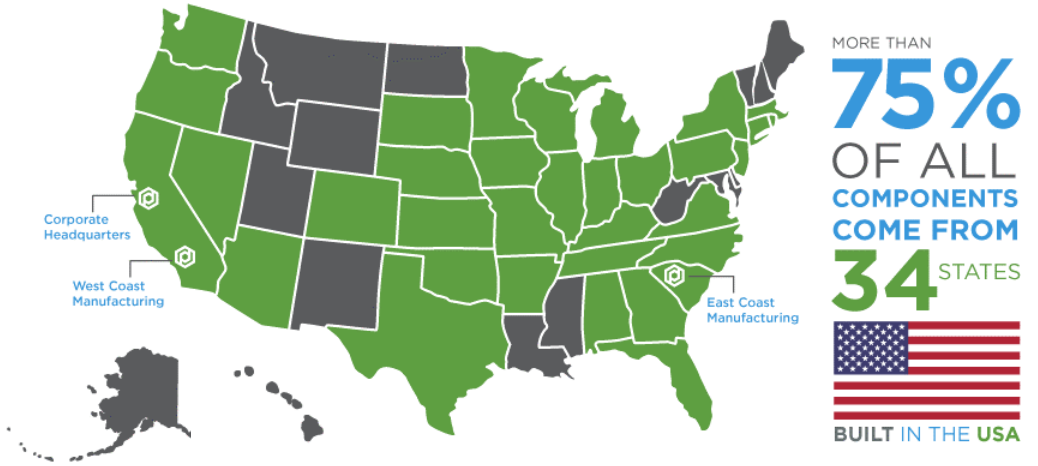
Proterra's Mission

Advancing electric vehicle technology to deliver the world's best-performing heavy-duty vehicles

- Offices and manufacturing in CA and SC
- 400+ employees, with strong transportation expertise
- >70 customers; >600 vehicles sold
- >200 vehicles delivered; >5,000,000 service miles
- >32,000,000 pounds of CO_2 emissions avoided



Strong Transportation Expertise

TESLA · GM · BMW · FREIGHTLINER · DENSO · NISSAN · ROUSHYATES · MICHELIN · TOYOTA · CHRYSLER · VW

World-Class Financial Partners

GM VENTURES · BMW i · EDISON INTERNATIONAL · Constellation. An Exelon Company · KPCB

HIGH-QUALITY, ADVANCED MANUFACTURING FOR RAPID EV ADOPTION AT SCALE

PROTERRA

Burlingame, California

Battery Manufacturing

Company HQ

Los Angeles, California

Bus Manufacturing

West Coast Operation

Greenville, South Carolina

Bus Manufacturing

East Coast Operation

OUR VISION: CLEAN QUIET TRANSPORTATION FOR ALL

Economics
Best TCO, lowest operating costs, least volatility

Performance
Highest MPGe, lowest weight, most torque

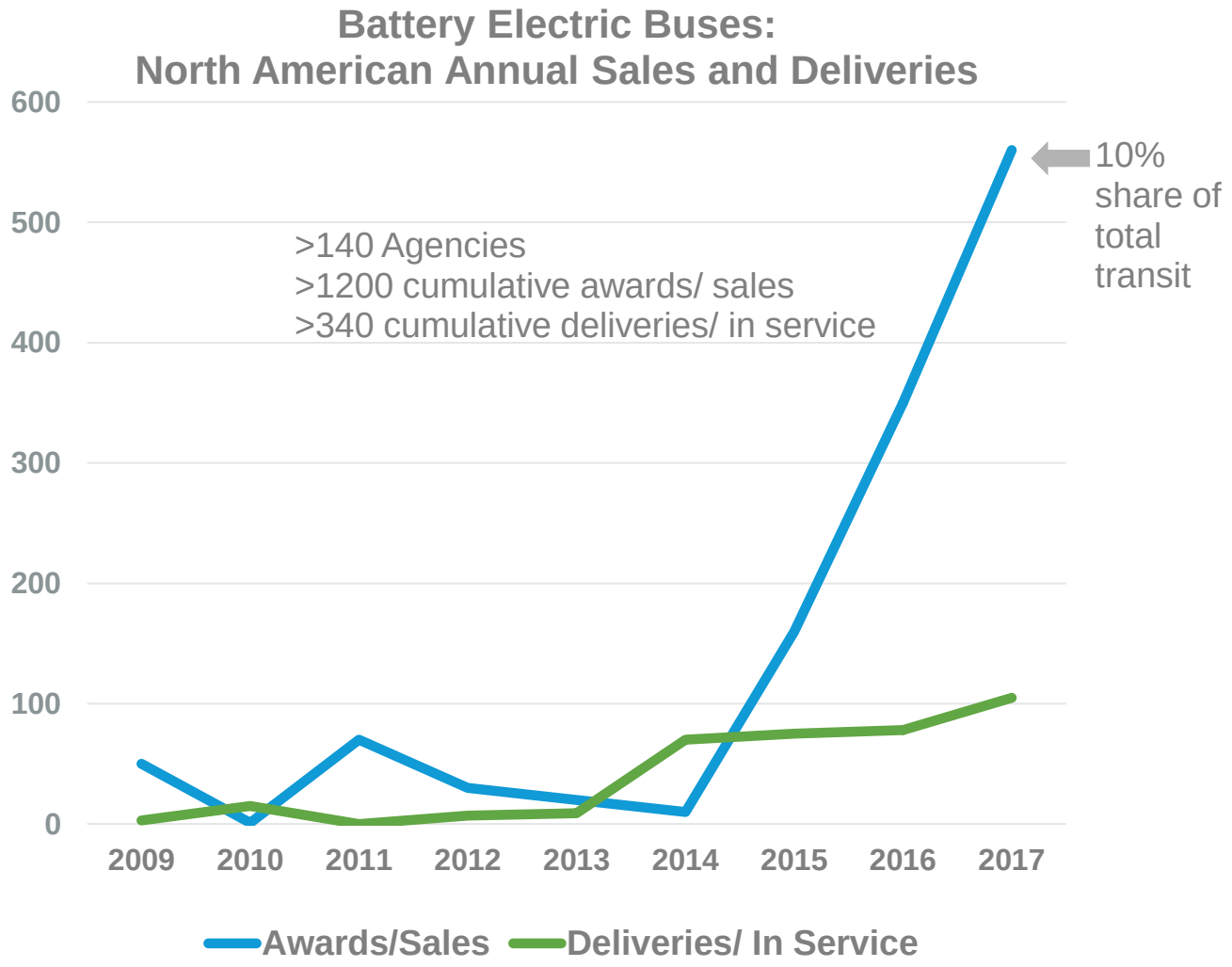
Customer Preferences
Clean, quiet, safe, modern

Policy/Regulation
Local health, air quality, climate change

At Proterra, we believe that zero-emission electric vehicles are the smart choice for heavy-duty transit operations.

We hope you'll agree. Together, we can eliminate the need for fossil fuels in transit.

THE TRANSIT MARKET IS RAPIDLY SHIFTING TO EV



Source: CTE Center for Transportation and the Environment

- Moving toward **widespread industry adoption**
- **Purchase barriers eliminated** due to:
  - Improved range
  - Charging standardization
  - Sharp decline in battery costs
  - Service-proven performance

MAJOR CITIES ALREADY COMMITTED TO CONVERTING BUS FLEETS TO 100% BATTERY ELECTRIC OVER THE NEXT 12 YEARS

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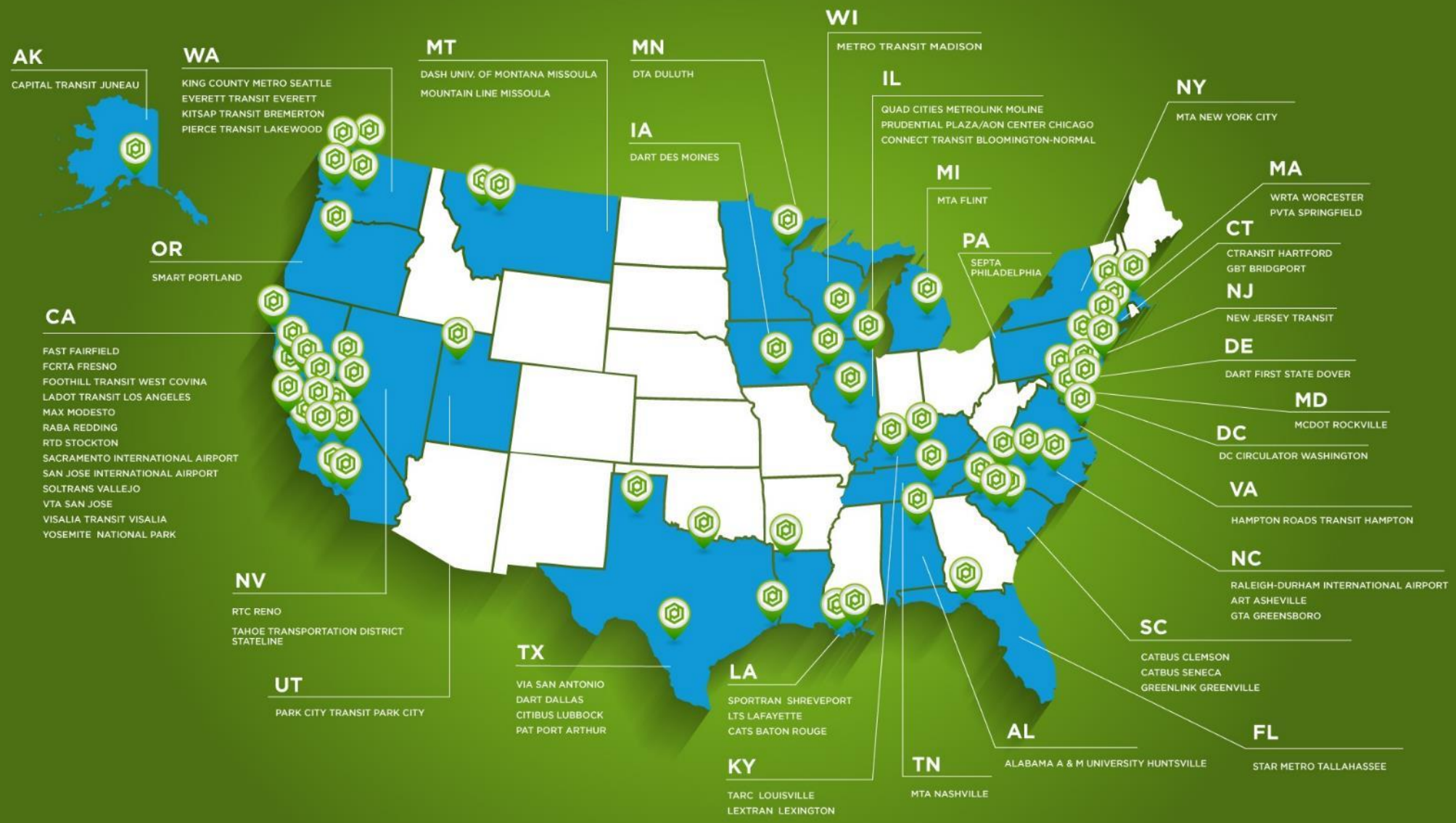
- Los Angeles (LA Metro, LA DOT, Foothill Transit)
- New York City
- Boston
- San Francisco
- Seattle
- Reno
- Nation of Canada

Projections by multiple International Research Firms indicate that by 2025 – 2030 >80% of all bus purchases worldwide will be Battery Electric

OUR CUSTOMERS

PROTERRA



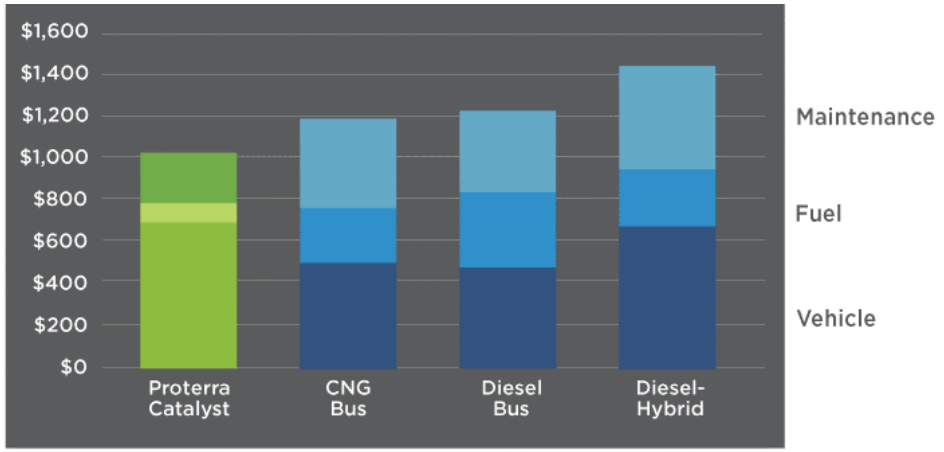
546 buses
sold to
67 customers
across
30 states

Additional
118 orders
not yet announced

PROTERRA VEHICLES OPERATING ON CAMPUSES

CATALYST 40 FT. TOTAL COST OF OWNERSHIP ADVANTAGE

	Proterra EV	CNG Bus	Diesel Bus	Diesel Hybrid
Vehicle	$649	$470	$454	$650
Energy/Fuel	$81	$294	$378	$302
Maintenance	$238	$432	$389	$475
TCO	$967	$1,196	$1,221	$1,428
TCO $'s/Mile	$2.24	$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

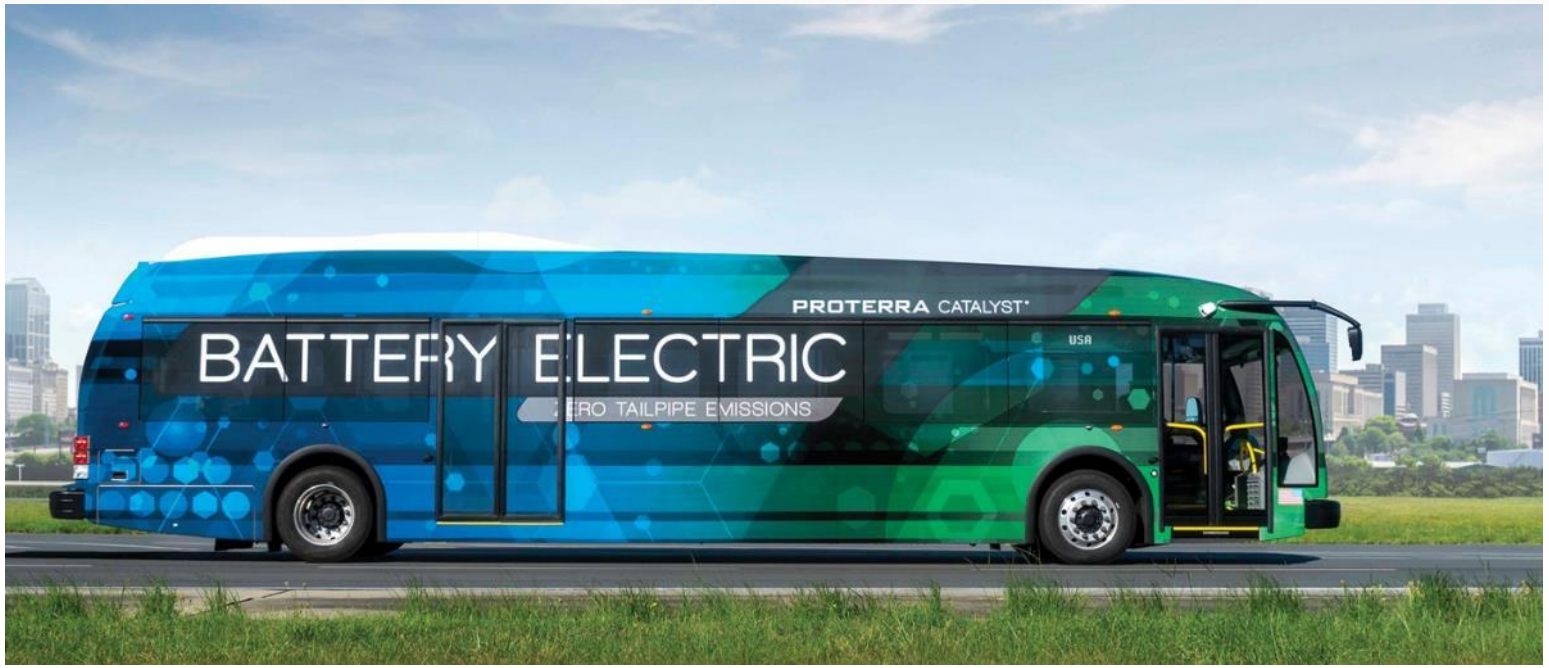
12-yr Operational Savings per Bus

$448k vs. Diesel

$459k vs. Hybrid

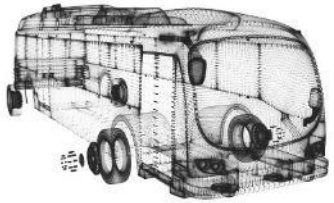
$408k vs. CNG

PROTERRA CATALYST®—DIFFERENT BY DESIGN
INTRODUCING THE PROTERRA CATALYST PLATFORM



Built from the ground-up as a battery-electric bus, the Proterra 35 and 40-foot Catalyst platform is designed to deliver a turn-key system to meet the needs of the most demanding transit routes.

Proterra Catalyst

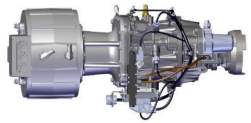


Highest Performance

Energy Systems

Ultimate Flexibility

Drivetrains

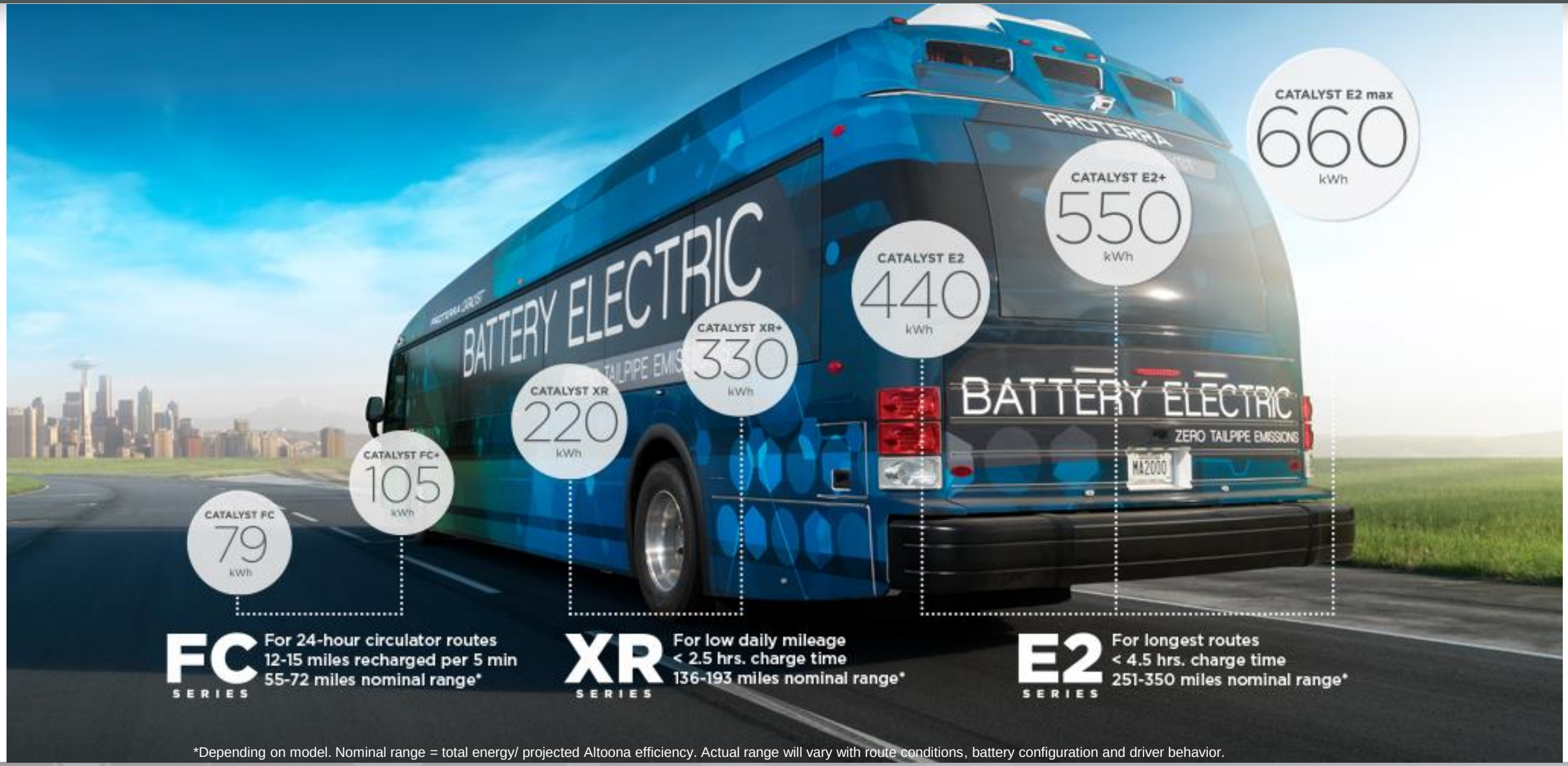


Best horsepower, acceleration and efficiency

Standardized Charging Options

Meet Every Route Need

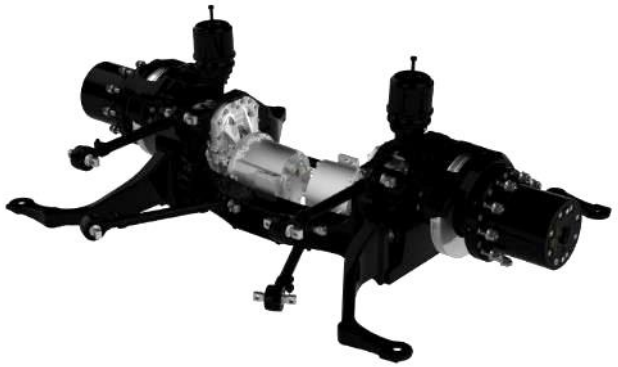
THE PROTERRA CATALYST'S RANGE



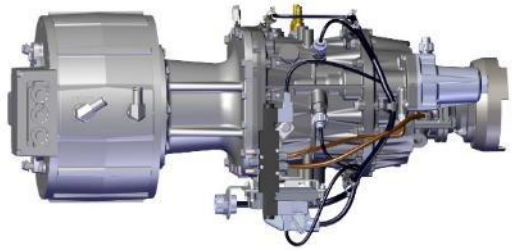
*Depending on model. Nominal range = total energy/ projected Altoona efficiency. Actual range will vary with route conditions, battery configuration and driver behavior.

DRIVETRAIN OPTONS: DUOPOWER and PRODRIVE

Designed for efficiency, power and durability, Proterra's drivetrains deliver unparalleled performance.



DuoPower



ProDrive

PERFORMANCE COMPARISON	Catalyst® E2 with ProDrive Drivetrain	Catalyst® E2 with DuoPower™ Drivetrain
ENERGY (kWh)	440	440
NOMINAL RANGE (miles) Total energy/projected Altoona Efficiency	251	305
EFFICIENCY (MPGe)	21.5	26.1
PEAK HORSEPOWER	295	510
ACCELERATION TIME @ SLW (seconds)		
0-20 MPH	6.7	4.5
20-50 MPH	32.8	15.5
MAX HILL CLIMB	20.0%	26.0%

SMARTER CHARGING
COMPATIBLE WITH INDUSTRY-STANDARD CHARGING SYSTEMS

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OVERHEAD CHARGERS
Catalyst® vehicles can be configured to charge with Proterra overhead fast-chargers, as well as other standard overhead chargers

Proterra Overhead Chargers:
- Enable 24/7 circulator operations on-route
- Provide opportunity charge boost for longer routes
- Facilitate automated depot charging at scale
- Are simple and safe, with highly accurate, assisted automatic docking
- Low maintenance costs
- High availability
- On-route or in-depot

PLUG-IN CHARGERS
Charging your Catalyst vehicle at the depot is easy. Simply plug in a standard J1772 CCS charger.

- Industry standard SAE J1772 CCS chargers are offered by several suppliers, with easy plug-in functionality
- Enables interchangeable charging of buses, cars and utility vehicles
- Catalyst vehicles can be configured with two charge ports, for faster charging of high-energy batteries
- This charging standard is adopted by many major OEMS, including:

GM CHRYSLER BMW Ford VW Audi DAIMLER PORSCHE

Proterra overhead charger

OppCharge inverted pantograph

Pantograph system

CharIN Proterra is a core member of CharIN e.V., helping to drive heavy-duty EV standards

SAE INTERNATIONAL Compliant with SAE standards

CHARGING AT SCALE

Proterra works closely with customer to recommend the appropriate charging solution for fleets and facilities planning for scale as the demand for charging increases.

Proterra technologies enable:

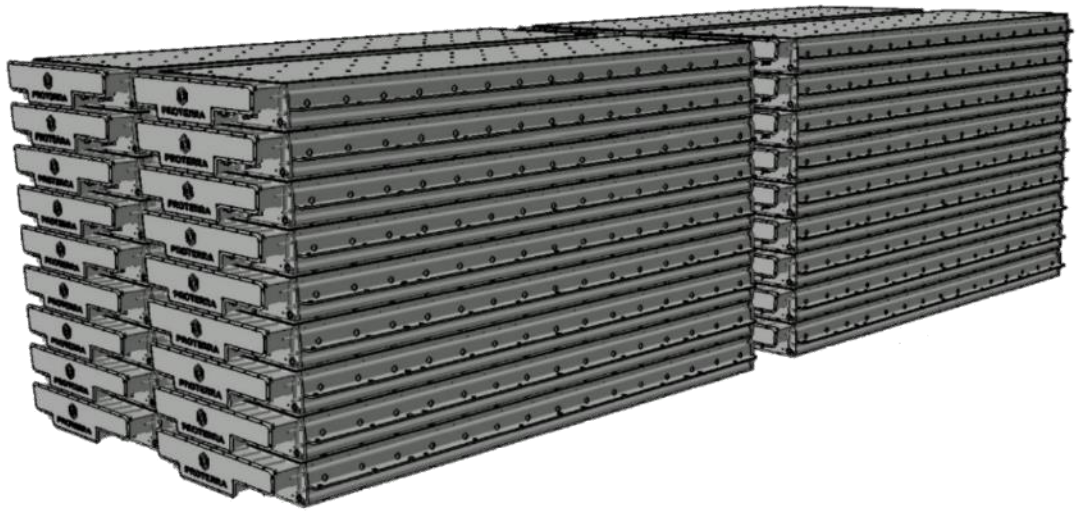
- Efficient charge speed
- Dynamic power sharing
- Driver-friendly stations
- Cost-effective operations
- Universal compatibility
- Serviceability
- Low maintenance costs
- High availability

Our experts provide counsel on:

- Site layout
- Energy management
- Real-time energy monitoring
- Site configurations

2 ACRES OF SOLAR WITH ENERGY STORAGE CAN POWER *6-8 BUSES* PER DAY IN TX

SECOND LIFE



~4 MWh shown

- Batteries will retain significant energy storage capability long after their first life in a transit bus
- Stackable design, retaining interface and safety features
- Hardware designed to exist >12 years in outdoor environmental conditions
- Capable of serving multiple storage requirements for renewable energy, grid services, demand management and emergency backup

FINANCING YOUR ELECTRIC FLEET

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

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.

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.

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THANK YOU.