Lightning eMotors

(NYSE: ZEV)

Sacramento Plug-in Electric Vehicle Collaborative

- Introduction and our technology
- Fleet Options
- Success Stories
- Real World Efficiency Data and Analytics
- Importance of a Partnership

Intro to Lightning eMotors

LIGHTNING eMOTORS

COMMERCIAL ZEVs

- Class 3-7 electric trucks & buses ***already deployed & in production***
- Powertrains and EV technology for OEMs and Second Stage Vehicle Manufacturers
- New and Repower both available

ANALYTICS

- Actionable fleet intelligence – driver and route efficiency, HVAC usage etc.
- Unique Big Data on drive cycles

LIGHTNING ENERGY

CHARGING

- Complete charging solutions – Level 2 AC and Level 3 DC Fast Charging
- Patented mobile charging solutions

Lightning eMotors All-Electric Fleet Crosses 1 Million Mile Benchmark

Broad Portfolio Offering and Customer List

Agnostic Across OEMs - New and Repower - CALIFORNIA AIR RESOURCES BOARD Certified

Current ZEV Offerings	Class 3	Class 4	Class 5	Class 6	Class 7
					
	Cargo van, passenger shuttle van and ambulance	*Shuttle bus, school bus, box/delivery truck, work truck and ambulance*	*Shuttle bus, box/delivery truck and work truck*	*Work truck, box/delivery truck*	*City bus, single and double decker motor coaches*

SELECTED CUSTOMERS

DHL, CBRE, COX, Fluid Truck Share, amazon, goodfood, COLLINS REV GROUP, MEALS ON WHEELS AMERICA, City of Porterville California, Community Services Unlimited, TEXAS The University of Texas at Austin, SPIN, OUTDOOR OUTREACH, freebee, CALIFORNIA, evolectric, BellTrans, ABC COMPANIES, Jaunt, PLUG POWER, Via, PRAXAIR, Ameren, BLUE LAKE RANCHERIA, RIDECO, otg OFF THE GRID, FOREST RIVER

MARKET PARTNERS

FOREST RIVER, BERKSHIRE HATHAWAY, COLLINS, LEADER EMERGENCY VEHICLES / REV Vehicles for life, RICARDO, ABC COMPANIES, PLUG POWER, bp (Investor)

PLATFORM PARTNERS

gm, Metalsa Quality as a way of life, ISUZU, HINO, Ford

The Goal of Lightning Energy

1. **Enable the deployment** of commercial electric vehicles by preventing charging infrastructure from being a roadblock
2. **Simplify the fleet electrification process** for our customers by providing a single source for electric vehicles, charging solutions and related software
3. **Provide peace of mind** to our customers by offering an **integrated solution** with "**one point of contact**" if something isn't working correctly

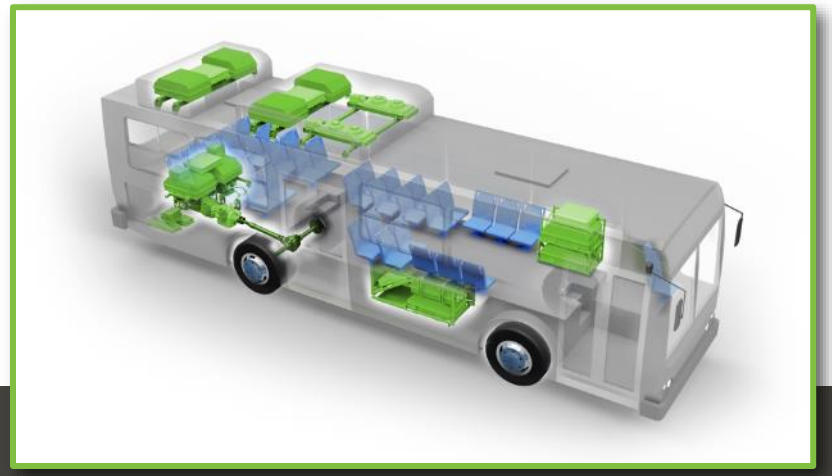
Full-Service Charging

Key aspects of Lightning Energy's offering

- A full suite of charging hardware ranging from cost-effective level 2 chargers up to 350 kW DC fast chargers
- Full featured charger management software
  - Access management, data collection, remote diagnostics, 24/7 support, grant/credit reporting
  - Roadmap: vehicle telematics integration & load management
- Installation management
  - Coordination with local contractors or select from a database of site analysis, design, installation & service contractors for referral
  - Optional Lightning Energy project management available
- Warranty and service
  - Remote diagnostics of vehicle & charger
  - Routing/management based upon source of issue (charger software, charger hardware, Lightning service, etc.)
- Lease financing available
- LCFS & grant management

BROAD APPLICABILITY:
NEW AND EXISTING COMMERCIAL VEHICLES

Lightning Systems



Convert NEW Vehicles		Repower EXISTING Vehicles
Shuttle buses Delivery/work trucks Short haul trucks	VEHICLES	Shuttle buses Transit buses Delivery/work trucks
Lower vehicle TCO than gas or diesel	ECONOMICS	Up to 75% less expensive than new ZEV
Near OEM chassis plant	UPFITTER LOCATION	Near customer deployment location

Success Stories

More Success Stories

goodfood

- Goodfood Market Corp (TSX:FOOD), is Canada's leading grocery shopping and meal planning solutions company
- 10 refrigerated vehicles deployed as part of initiative to all zero-emissions electric vehicles by 2035
- Partnership with Goodfoods to provide complete EV Solution
- Refrigeration integration in partnership with Volta Air
- 12-volt system that has a cooling capacity down to +5 degrees Fahrenheit
- Last mile delivery vans have a range of 120 miles

Press Release
https://lightningemotors.com/lightning-emotors-enters-canadas-commercial-ev-market-with-fully-electric-refrigerated-delivery-vehicles/

Refrigerated EV with Solar Panels – Meals On Wheels

- Meals on Wheel People, Portland has a Green Initiative to be one of the Best Green Workplaces in Oregon.
- Purchase of vehicles and infrastructure was funded by Portland Gas Electric's grant program – Drive Change Funds
- Partnership with refrigeration manufacture Volta Air and solar panel supplier Merlin Solar
- Refrigeration is powered by innovative battery charging system.
- 12-volt battery pack charged while connected to shore power or by solar panel when vehicle sits in the sun

Press Release
https://www.businessfleet.com/10149061/meals-on-wheels-people-debuts-electric-solar-van

Repower of Double Decker Motor Coach

- Cost-effective and Eco-friendly solution.
- Van Hool TD925
- 640 kWh battery capacity, the largest known to exist for a vehicle of its type.
- Estimated range of over 200 miles, and a charge time of under six hours with a 150 kW DC fast charger.
- The coach has a seating capacity of 70 people.

Press Release
https://lightningemotors.com/lightning-emotors-develops-largest-battery-all-electric-double-decker-motor-coach-available/

Present and Future Success Stories

School Buses

- 480,000 school buses being used for school transportation in the U.S.
- Travel a total of nearly 3.5 billion miles each year, and nearly 95% of them run on diesel or gasoline fuel.
- Parked during peak electric grid hours in the afternoon and all summer, with available energy to put back on the grid through Lightning's V2G solution.
- Partnership with Collins School Bus to provide all-electric powertrains including installation, charging infrastructure products, and services.

Ambulance

- 8,000 purchased annually nationwide for Type 1, 2, and 3. Type 1 is like a F450/F550 truck type, Type 2 is like Van/T350, and Type 3 is like E450/E350 cutaway.
- Federal Infrastructure contains significant investments in support of electric vehicles.
- Partnership with AMR and Rev Group Inc, (NYSE: REVG) who sells about 4,000 a year to test five Type 2 ambulance gurney within the state of California, into 5 cities.

Market Opportunities

- Airport Vehicles
- Work Trucks
- Repower of single or double decker Coach busses
- Repower of Public Transit
- University Passenger vans
- White fleet school districts and public transportation non-revenue

Range: Hot Off the Presses Real World Efficiency Data

Vehicle:	Lightning Electric Class 3 Transit Van		Range
Temperature - F	Hilly?	mi/kWh avg.	@86kWh
40-80	No	1.400	120
> 80	No	1.480	127
< 40	No	1.431	123
40-80	Yes	1.485	128
> 80	Yes	1.486	128
< 40	Yes	0.810	70

Vehicle:	Lightning Electric Class 4 Shuttle Bus		Range
Temperature - F	Hilly?	mi/kWh avg.	@129kWh
40-80	No	1.114	144
> 80	No	1.074	139
< 40	No	0.871	112
40-80	Yes	1.052	136
> 80	Yes	1.069	138
< 40	Yes	0.748	96

Vehicle:	Lightning Electric Class 5 Shuttle Bus		Range
Temperature - F	Hilly?	mi/kWh avg.	@128kWh
40-80	No	1.023	131
> 80	No	1.016	130
< 40	No	0.923	118
40-80	Yes	1.002	128

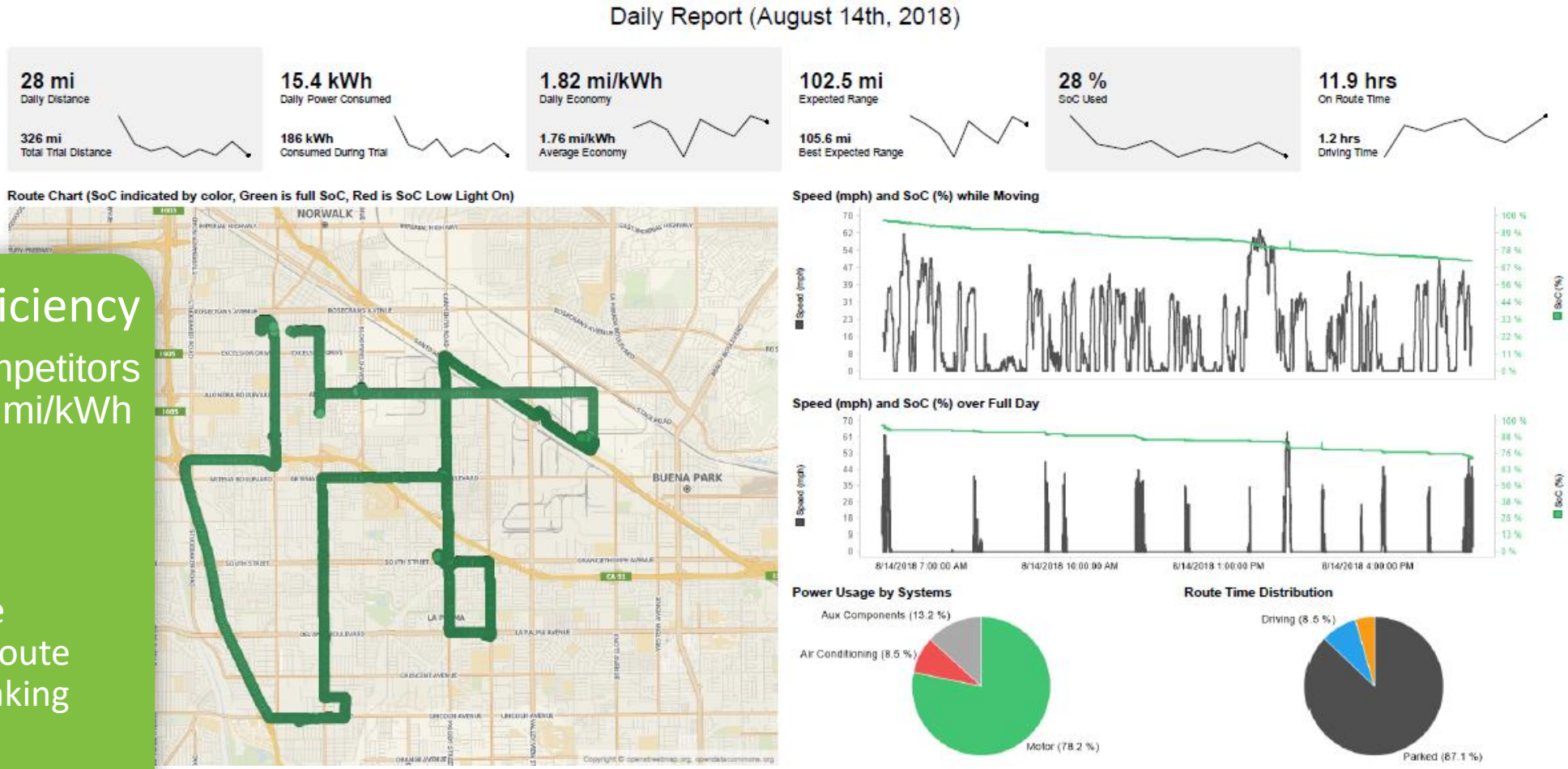
AI-Enabled Analytics

Help with Fleet and Driver Management

- Increase range
- Optimize routes
- Reward/correct behavior

Secure, customizable reports that **INTEGRATE** with existing fleet management programs

Lightning Analytics Provide Deep EV Insights



50% Greater Efficiency

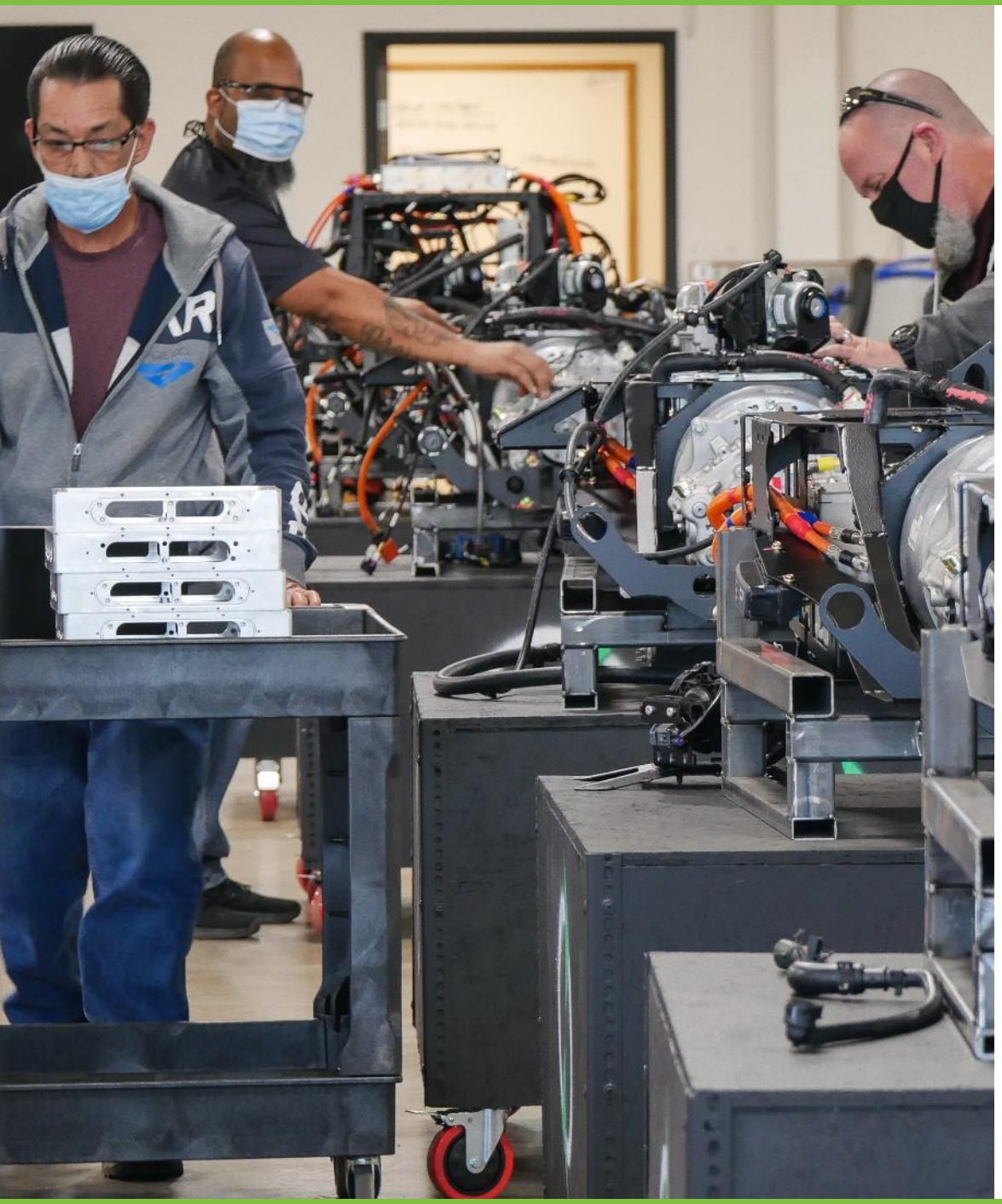
LS Class 3	Competitors
1.8 mi/kWh	1.2 mi/kWh

(official CARB test data)

Machine Learning
Optimization:

- HVAC energy use
- Acceleration & Route
- Regenerative Braking
- Driver training

50 vehicle parameters at 1Hz
= 260M DataPoints/veh/day



Major Factors Impacting the Reduced Total Cost of Ownership of Electric Vehicles

- Fuel costs (gasoline or diesel)
- Electricity costs
- Brake service costs
- Oil changes/inspections costs
- Fueling labor time
- Initial cost of the vehicle
- Use of carpool lanes/preferred parking
- Tax rebates/subsidies
- *Contact for a targeted TCO/ROI analysis*

Lightning eMotors' Partnership with Customers

Discovery

- Vehicles needs and existing structure of fleet
- Infrastructure and energy needs
- Analytics

Purchase

- Upfit and Floor plan
- Purchase process

Deployment

- Commissioning of vehicle
- Driver training and customer satisfaction support
- Analytics of vehicle performance and data for reporting

Let’s Talk About Your Fleet Needs

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