The Lion Electric Co. manufactures innovative zero-emission vehicles. Since 2008, Lion’s mission has been to develop durable and integrated solutions while continuing to reduce its environmental footprint.

TOGETHER, LET’S DRIVE POWER IN PROGRESS.
LION TIMELINE AND HISTORY

11 years of dedication to electric transportation

- 2008: LION FOUNDATION
- 2011: 3-YEAR DEVELOPMENT
- 2016: ALL-ELECTRIC SCHOOL BUS LAUNCH
- 2018: ALL-ELECTRIC MIDI/ MINI BUS LAUNCH
- 2019: ALL-ELECTRIC COMMERCIAL TRUCK LAUNCH
LION TODAY

- 150 employees
- 40 full-time engineers in R&D
- Lion Factory in Saint-Jérôme, Quebec
- Teams dedicated to customer experience, parts, deployment and buses quality
- Over 150 all-electric school buses on the road
- Over 2 million miles driven and counting

EXPERIENCE CENTER

- 2018 – Sacramento Opening
  2019 – Albany Center Opening
- 2019 – More Lion Experience Center to come
  - Los Angeles
  - Many more across the USA
The Lion Experience Center is designed to help educate fleets on electrification. The center is a teaching space available for school districts, fleet operators and agencies to learn about EV capabilities, charging, as well as get tours of vehicles.
Is it possible to electrify heavy-duty vehicles?

All-electric school buses started with only drive 65 miles;

now all-electric class 8 urban trucks have a range of up to 250 miles

Realistic Business Case
PURPOSE-BUILT FOR ELECTRIC

- NOT a RETROFIT
- Optimized
- Aerodynamic
- Ergonomic
DESIGNED, CREATED AND MANUFACTURED TO BE ALL-ELECTRIC

LIONM

✓ Purchase price similar to CNG
✓ Lowest total cost of ownership
✓ 15+ year lifespan

Entirely designed and manufactured by the Original Equipment Manufacturer (OEM), the LIONM will meet the special needs/urban transportation requirements while reducing the environmental footprint.
WE CALL IT OUR “SWISS ARMY KNIFE”

- Shuttle Bus
- Urban
- Special Needs
- Public Transportation
- School Bus
- And more!
WHY GO ELECTRIC?

Transportation is responsible for 30% of the overall GHG emissions in the United States.
ADVANTAGES

- No greenhouse gas emission
- Return on investment - Fuel savings
- No noise pollution
- 60% maintenance costs reduction
- Best-in-class driving experience
- Security
REALISTIC BUSINESS CASE

60 to 80% fuel costs reduction (fuel = energy)

60% maintenance costs reduction

✓ Electric motor VS Diesel engine parts : 20 VS 2,000
✓ Total body parts : 7,000 electric parts VS 30,000 on diesel parts
✓ No exhaust
✓ No DPF
✓ No transmission
✓ No oil
✓ Regenerative braking system : Brake parts change intervals decrease 300%

✓ The more you use the electric vehicle, the more you save! $$$$
ANNUAL DIESEL TOTAL COST OF OWNERSHIP

- Diesel Cost: 53%
- Maintenance Cost: 25%
- Annual Vehicle Cost: 22%
DIESEL VS ELECTRIC ENERGY AND MAINTENANCE COSTS

Energy Cost

- Electric: $10,000
- Diesel: $25,000

Maintenance Cost

- Electric: $5,000
- Diesel: $10,000
RETURN ON INVESTMENT

BASED ON

✓ Selected Range
✓ Electricity Cost
✓ Mileage Driven
✓ Funding Opportunities
FUNDING OPPORTUNITIES IN THE UNITED STATES

✓ CALIFORNIA: Hybrid and Zero-Emission Truck and Bus Voucher Program ($150,000)

✓ NEW YORK: New York Truck Voucher Incentive Program

✓ UNITED STATES: Volkswagen Mitigation Plan; Program differs in each State

Multiple additional funding opportunities will be available shortly all over the USA
TECHNOLOGY THAT ADAPTS TO YOUR OPERATION

Not the other way around

Level 2

AC charging of 15 to 30 kW
Complete charge – between 5 to 16 hours

Level 3

DC charging of 50 kW and more
Complete charge – between 2 to 5 hours

Battery Swap

Possibility to swap batteries in a few minutes, leveraging the unique technology offered
UPCOMING TECHNOLOGIES
Current & Future

Vehicle-to-Grid
Vehicle-to-Vehicle
Vehicle-to-Building
UPCOMING TECHNOLOGIES
Current & Future

Road-Side Assistance