

PRODUCT LINE

First Mode Path to Zero™

Powering the diesel-free future

Path to Zero™ Solutions for Heavy Industry

Across First Mode's diversified product mix, each of our retrofit power systems extends the life of existing fleets with an integrated design that maximizes flexibility and interoperability—making the most sustainable trucks the ones that our customers already own.

Decarbonizing Heavy Haulage

To start, our Hybrid Electric Vehicle (HEV) Retrofit is unique in offering not only immediate fuel savings and emissions reductions, but also a platform upon which more complete decarbonization solutions can be built. After adopting the HEV Retrofit, customers have the option of proceeding to a Battery Electric Vehicle (BEV) or Fuel Cell Electric Vehicle (FCEV) Retrofit without discarding retrofit work already accomplished.

First Mode innovations in battery recharging, hydrogen storage and refueling, and fleet management ensure each product is effectively integrated within customer operations. We also provide staff training and education, regular maintenance, and access to the spare parts that our customers need to be successful.



Hybrid Electric Vehicle

First Mode's Hybrid Electric Vehicle (HEV) Retrofit adds a First Mode regenerative battery to the customer's existing diesel-powered vehicle to immediately reduce its carbon emissions by up to 25%. With no additional infrastructure required, this solution captures energy from regenerative braking and stores it until needed—serving as the key first step for customers on their decarbonization journey.



Battery Electric Vehicle

First Mode's Battery Electric Vehicle (BEV) Retrofit also leverages regenerative braking but completes the platform conversion into a fully electrified powertrain solution by removing the diesel engine entirely. When paired with a multi-megawatt charging system, the Battery EV Retrofit represents a breakthrough innovation in heavy-industrial decarbonization.



Fuel Cell Electric Vehicle

Building on the success of First Mode's partnership with Anglo American to develop the world's largest fuel cell electric vehicle, the DT74 proof-of-concept truck, this next-generation solution converts an existing diesel-powered vehicle into a clean liquid hydrogen-powered vehicle. When combined with First Mode's high-speed liquid hydrogen refueling system and clean hydrogen sourcing program, the Hydrogen Fuel Cell Electric Vehicle (FCEV) Retrofit delivers a diesel-free vehicle with a refueling frequency comparable to its diesel counterpart.



Delivering the Clean Energy Future

First Mode develops and manufactures decarbonization solutions for heavy industry partners dedicated to the clean energy future. With a product mix of vehicle retrofits that enable diesel hybrid, battery electric, and hydrogen fuel cell systems, we accelerate mining and rail fleets on their path to zero emissions. These solutions include infrastructure innovations and prove decarbonization is possible even in constrained environments—for people and planet.

With deep capabilities in mining, technology innovation, and product manufacturing, we are equipped to address our customers' complex needs while helping them meet their decarbonization goals.

Photos of the proof of concept HEV in a controlled test area at the First Mode Proving Grounds in Centralia (USA). Do not attempt.

Contact us today to learn more.



 **FIRST MODE** For people and planet.

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