

HYBRIDRIVE® HYBRID/ FUEL CELL BUS

HybriDrive®
PROPULSION SYSTEMS

The American Fuel Cell Bus (AFCB) program targets Federal Transit Administration's (FTA) objectives of leveraging improvements and innovations from this and previous demonstration programs to achieve a commercially viable, production capable fuel cell bus product.

This technical pre-production prototype vehicle utilizes a heavy duty urban transit bus platform from El Dorado National, which includes a Ballard HD6 fuel cell, and BAE Systems HybriDrive propulsion system—featuring nano-phosphate lithium-ion battery technology.

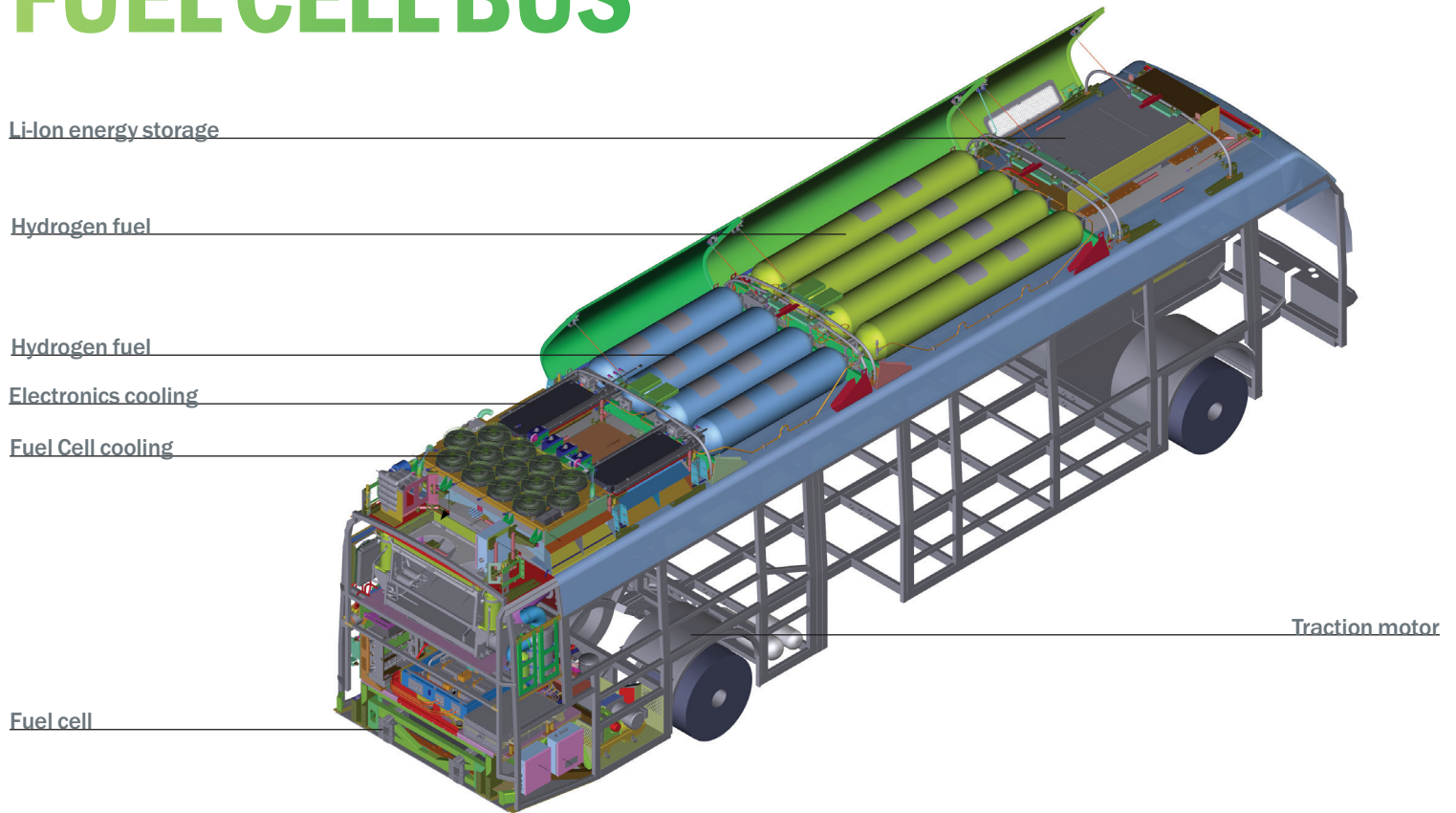
- Fully electrified fuel cell powered hybrid bus
- Zero-emissions - hydrogen is the only fuel used on the bus
- Quieter and more comfortable ride than a conventional bus with a combustion engine
- 'Buy America' compliant

The BAE Systems HybriDrive propulsion system is a 200kW series hybrid system containing advanced lithium ion energy storage and an AC traction motor that provide smooth acceleration, regenerative braking and increased fuel economy. The vehicle also includes a suite of electric accessories powered by the BAE Systems HybriDrive Accessory Power Supply (APS).



BAE SYSTEMS

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Item	Description
Bus Chassis / Model	EIDorado 40' access
Curb Weight (estimated)	Approx. 34,500 lb (not verified)
Seats / Stands	39 plus driver / 19 standees
Power Plant	Ballard Power Systems FCvelocity® -HD6, 150 kW fuel cell
Hybrid System	BAE Systems Series HybriDrive®
Electrical Energy Storage	200 kW, 11.2 kWhr nanophosphate li-Ion energy storage
Accessories	Electronic alternator, electrically driven cooling systems, air conditioner, power steering, and air compressor
Fuel Storage	Gaseous Hydrogen: 50 kg at 350 bar
Range	260 miles under typical urban transit cycle and loads

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