

EMD ElectroMotive Designs LLC

Advancing Clean Transportation

Electric and Hybrid Electric Conversion Systems for Trucks and Buses

GLICCC EV WORKSHOP

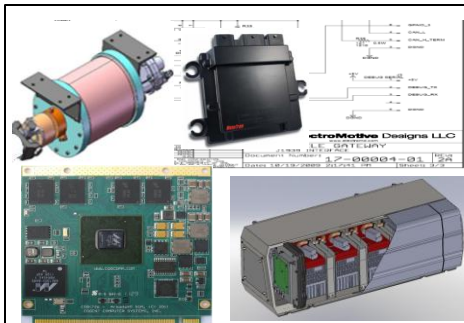
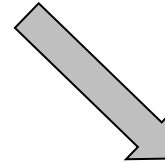
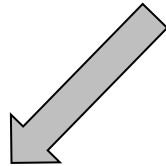


October 26th, 2011

Dana DeMeo, PE

What We Do

ElectroMotive Designs LLC



Engineering and
Design Services



Propulsion Systems for
Class 3-8 Vehicles

Our Mission

EMD provides the world's simplest and lowest cost
hybrid electric systems
to retrofit commercial bus and truck fleets

Customer Situation

Fleet operators face major issues

High cost of fuel: Fuel and maintenance costs are a major part of fleet operating expenses (50–60%)

Longevity: Fleet operator “stuck” with the vehicles they have (7-20 yrs) & trapped by inelastic fuel costs

EMD’s retrofit concept is disruptive

Less capital intensive: When compared to replacing vehicles or using new fuel infrastructure

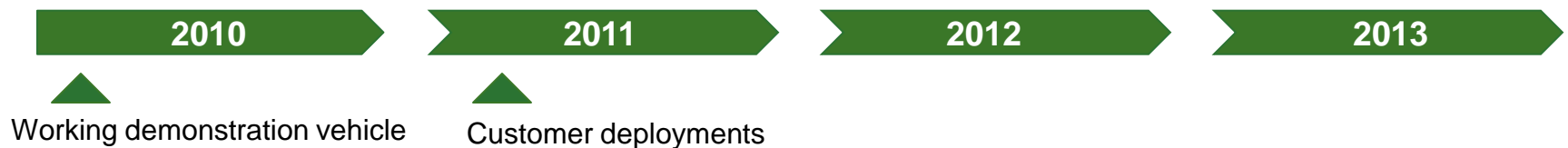
Attractive payback: 10–30% reduction in fuel and maintenance costs

Hybrid electric propulsion represents a way for fleets worldwide to reduce fuel and operational costs while reducing their carbon footprint

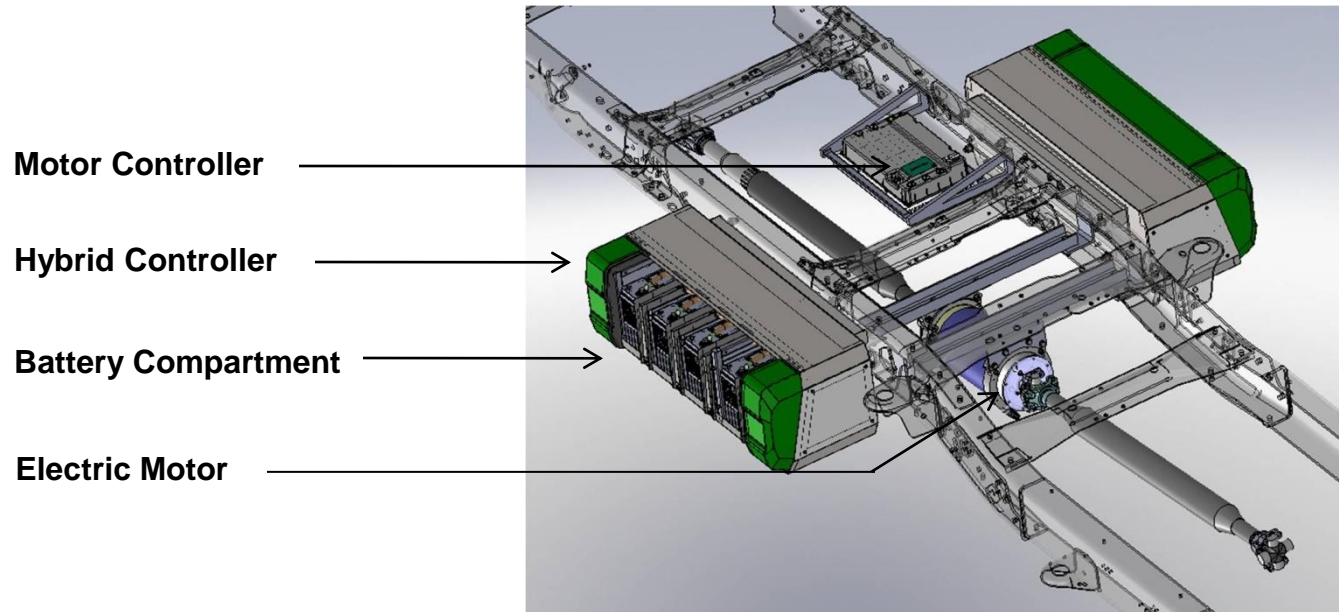
emDrive™ Product Line

EMD has parallel hybrid conversion kit designs for Class 3 thru 8 trucks, buses and other specialty vehicles

					
<p>GVW range: 10,001-16,000lbs</p> <ul style="list-style-type: none"> - pickup trucks - large SUV's - beverage & parcel delivery trucks - shuttle buses - school buses - gas/electric utility trucks 		<p>GVW range: 16,001-26,000lbs</p> <ul style="list-style-type: none"> - beverage & parcel delivery truck - shuttle buses - gas/electric utility trucks - school buses - panel/box trucks 		<p>GVW range: 26,001-80,000lbs</p> <ul style="list-style-type: none"> - refuse collection trucks - school buses - transit style buses - gas/electric utility trucks - panel/box trucks - specialty vehicles (airport, military, construction, etc) 	



Product Details and Deployment



Feature

- Easy to install & service
- Fuel agnostic
- Modular & scalable system
- Plug-in Capable

Benefit

- Low impact – can be installed & serviced by channel partners
- Operates with gasoline, diesel, biofuels, CNG
- Works on most types of vehicle vocations
- Uses low cost grid power to supplement fuel

Value Proposition

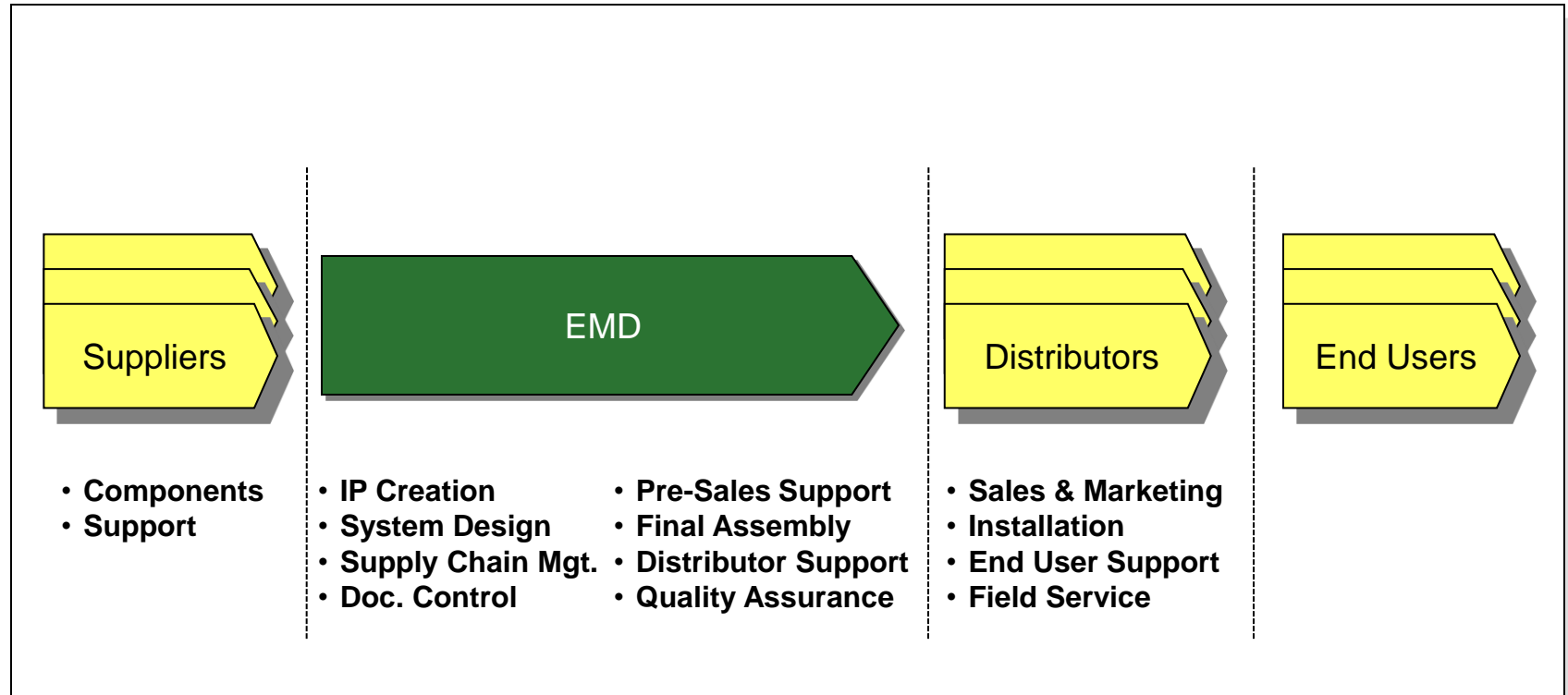
emDrive™ lowers a fleet's total cost of ownership

- Payback 3-5 years
- Positive return if operated beyond payback
- Eases the pain of “going green”
- Reduces Vehicle Maintenance

*“we know that hybrids can help fleet operators use less fuel, but now with emDrive™ we have something we can actually sell to customers for a **profit**”.....Rudy Garcia General Manager, Auto Safety House, Phoenix Arizona*

Operating Model

Capital efficient model



***Focus on system design and IP,
purchase components from world class suppliers,
outsource sales & support to distributors***

Thank You.....

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