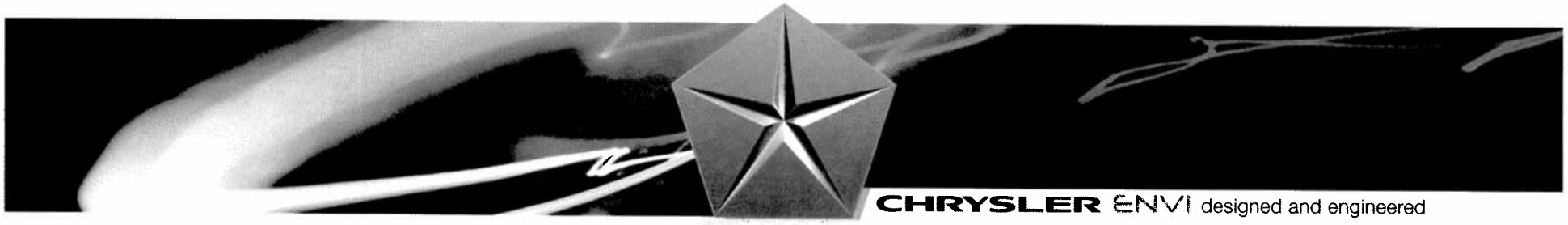


"We have a social responsibility to deliver environmentally friendly, fuel efficient vehicles to our customers...

...we expect to do this faster and more broadly than our competition." *- R. Nardelli 9/23/2008*

Chrysler LLC - ENVI Division Strategic Overview

April 29, 2009

Filename: 090429 Lansing Handout

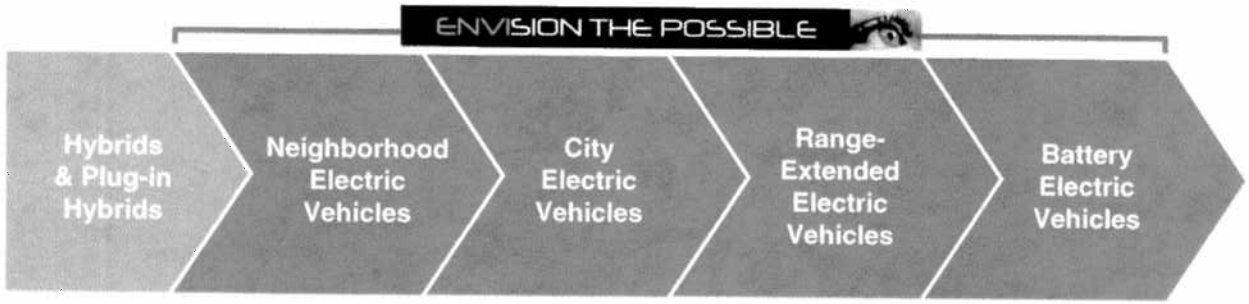
Confidential and Proprietary

Chrysler Objectives for Vehicle Electrification

- **EV Leadership & Vision:** Chrysler will be the premier American Electric Drive Automobile Company
- **EV Portfolio:** Will offer a full line of EVs and Range-extended EVs
- **Made in USA:** Chrysler will create green-collar jobs by establishing a MI-based Electric Vehicle technology campus with on-site production of EVs and eDrive systems. Model scalable to high-volume production facilities.
- **"America Inside":** Established strategic alliance with A123Systems: technology-leading, US-based advanced automotive-grade battery supplier. Others to be announced soon.
- **The Future is Now:** Pursuing stimulus funding to support accelerated fleet EV production (11MY target) and enabling infrastructure development in cooperation with USPS and utility companies. Retail products to follow.
- **Mainstreaming eDrive:** Strategically focused on scalable, modular family of eDrive systems to be used across the portfolio to drive pricing. Will promote this concept in collaboration with other Detroit-based OEMs through USCAR.

ENVI

Family of Zero & Near-Zero Emissions Vehicles



CY	2009	2010	2011 - 2012		2013	2014
Battery Electric Vehicle *(NEV, CEV, BEV)*	**GEM/Peapod** Renewal NEV	**Dodge** Sport Car EV	**Chrysler** Minivan BEV (Fleet)	**Chrysler** A-Segment EV		
Range-Extended Electric Vehicles *(ReEV)*					**Jeep** Patriot ReEV **Chrysler** Minivan ReEV **Chrysler** D-Segment ReEV	**Jeep** Wrangler ReEV

ENVI
Electric-drive Modular Family

3 – Brands
2 – EV technology levels
1 – common modular approach
0 – tailpipe emissions on typical daily commutes

Driving Higher Component Volumes to reduce eDrive Costs & Tooling Investments

	EV	Range-extended EV				CEV
Energy Storage Modular Family	Common Lithium-polymer 20.0 AHr Battery Cell				Common 3.0 kWhr Battery Module	
Electric Drive Motor Modular Family	*190-200 kW*				*120-150 kW*	
Power Control Modular Family						
120v / 240v On-board Charging						
Range Extender		*55 kW (70HP) continuous*	*70 kW (95 HP) continuous*		*55 kW (70HP) continuous*	
Architecture	RWD SpaceFrame	RWD Unibody	FWD Unibody	RWD Body-on-Frame	FWD Unibody	

Common specs to multiple suppliers

Edrive Technology Campus

Establish a Michigan-based E-drive technology campus for engineering design, development, and production of commercially successful electric (EV) and range-extended electric (ReEV) vehicles and propulsions systems. Scalable, long-term sustainable business model.

E-drive Technology Campus

- CLLC
- Supplier Partner

Edrive Design & Development Center

- Battery design
- Electric Drive Module design
- Range Extender design
- System design
- Vehicle design, development & integration

Battery Production

Electric Drive Module Production

Range Extender Production

ENVI Vehicle Production

powered by ENVI

- Upfit Center CPV is 10,000 units annually
- Model Capacity "tip point" is 6,000 units annually (above will drive high volume Assembly Plant integration)
- Seeking MI site for redevelopment & incremental job creation (hundreds)

ENVI vehicles

ENVI propulsion Systems & components