



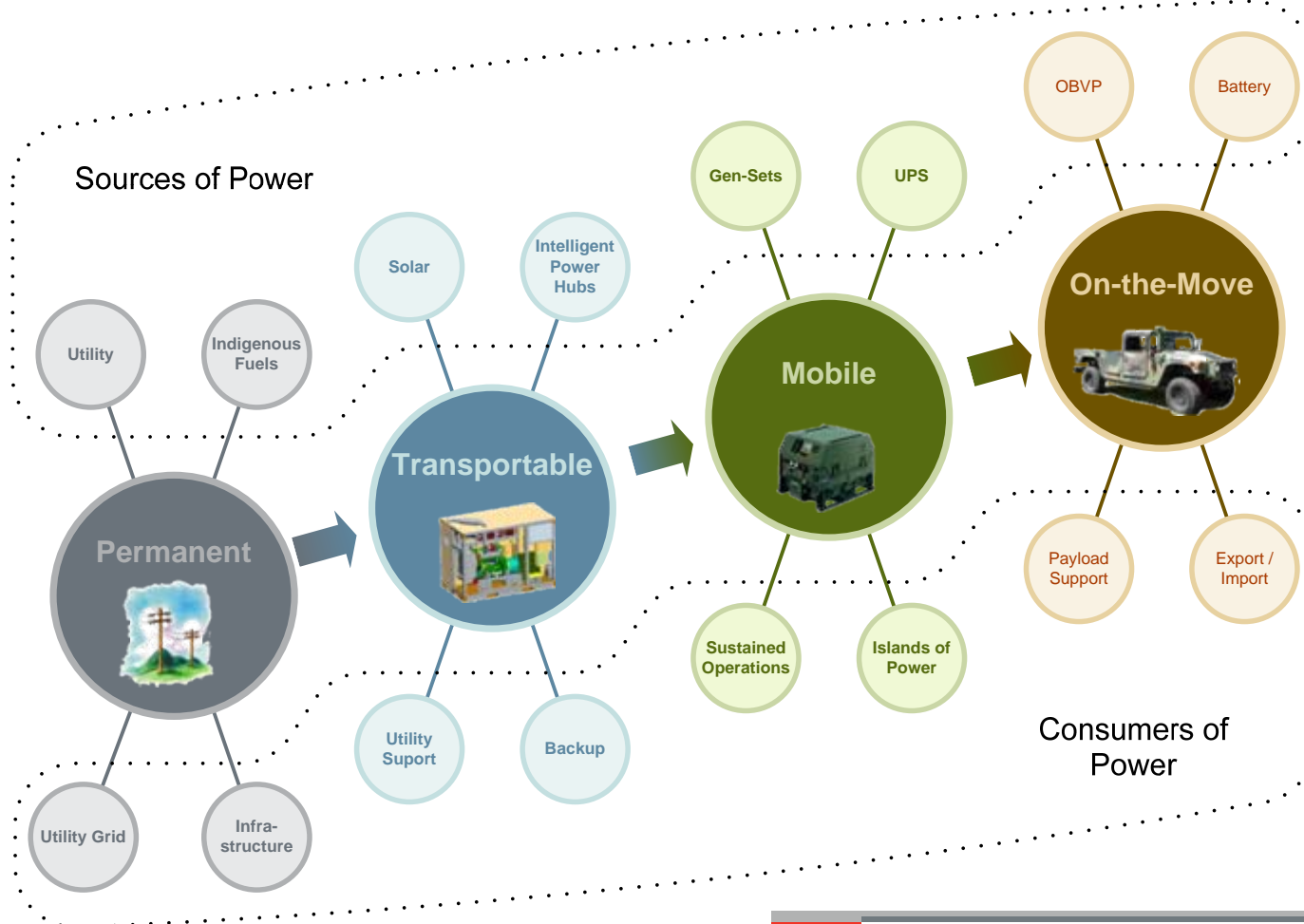
OBVP from Legacy to Next Generation

2009 Joint Service Power Expo

Brent Brzezinski, Ph.D., Mike Marcel, Ph.D. & Jay Schultz
DRS Test & Energy Management, Huntsville, AL



Battlefield Power



***Pushes Mission Power
Forward to the Warfighter***

Initial OBVP Contracting Agency

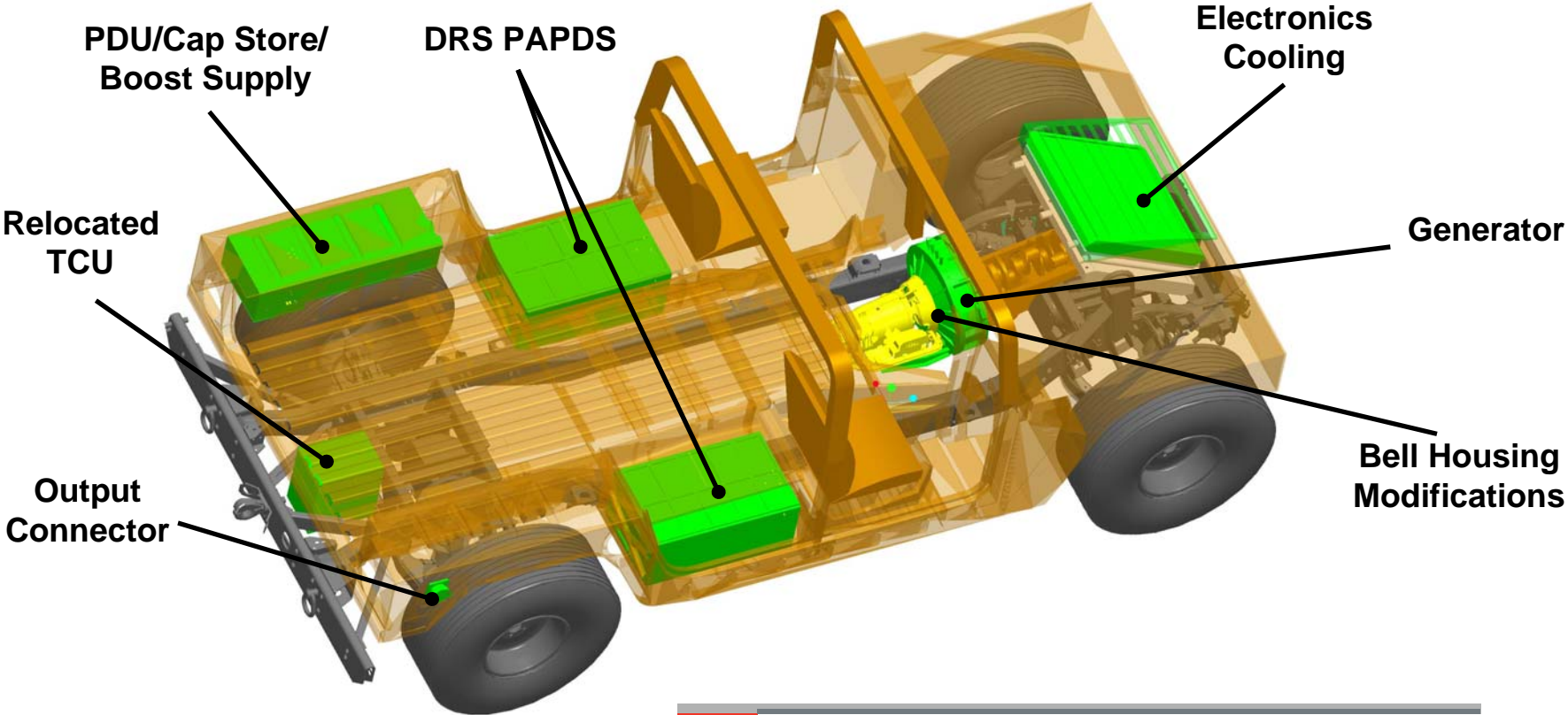




Key Requirements

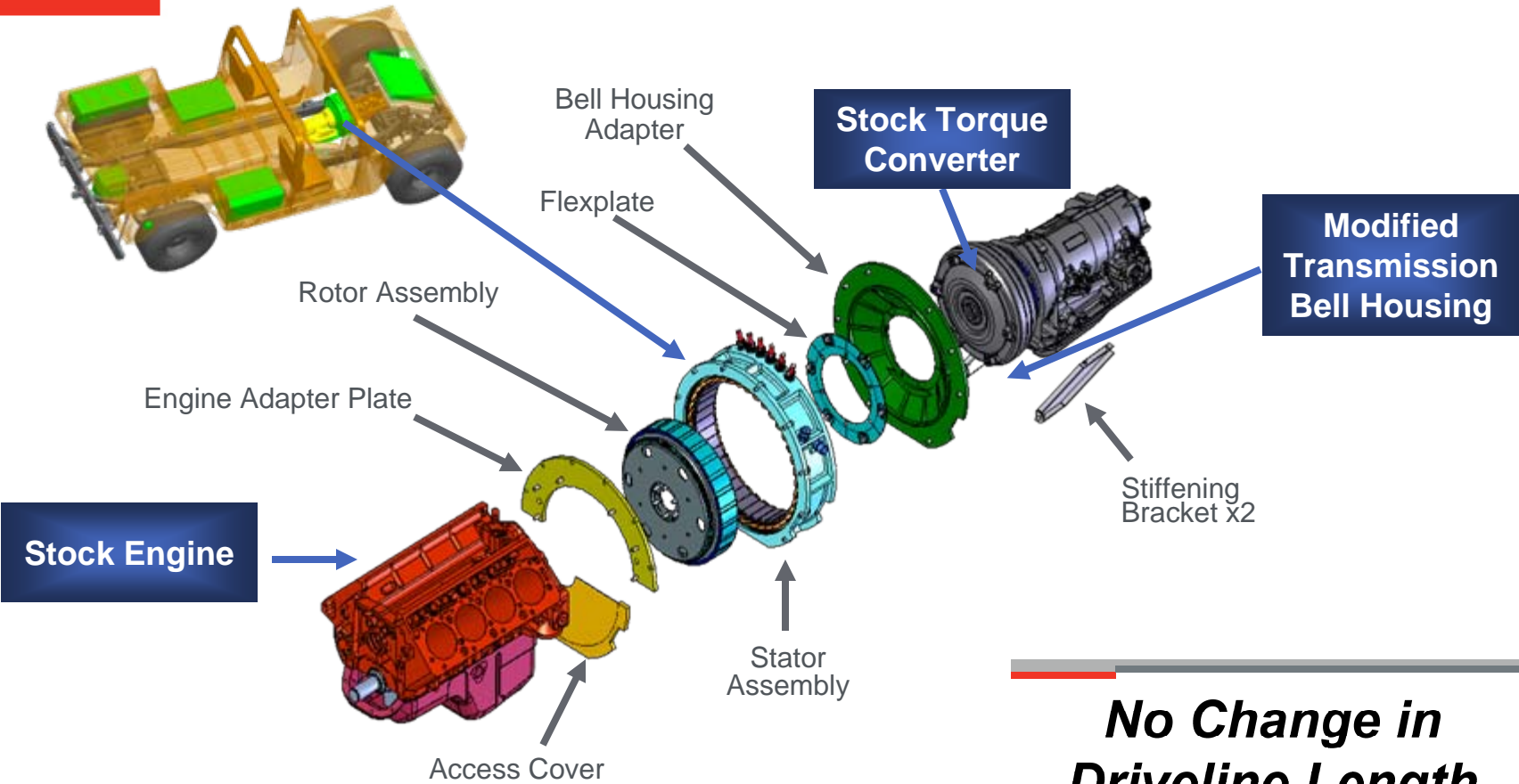
- 30 kW Stationary Power (120/208V)
- 10.5 kW On-the-Move Power
- Power Quality No Worse Than MEP-805 TQG
- Weight Less Than 25 Pounds / kW

Baseline OBVP System



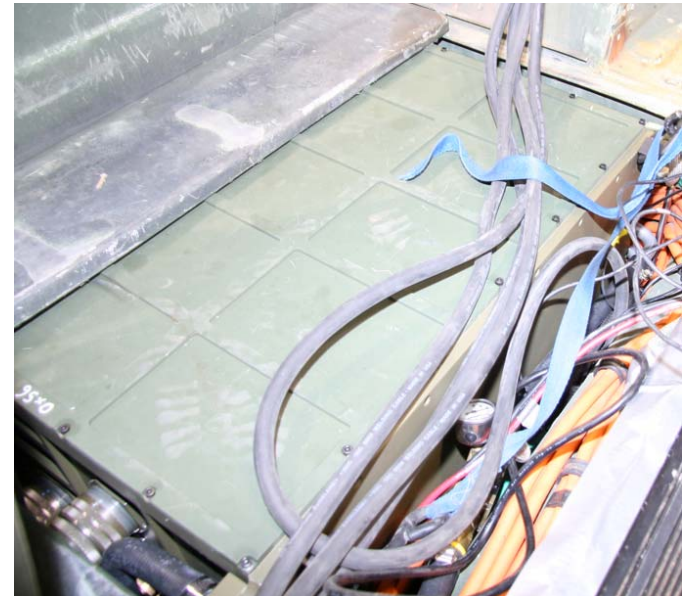
OBVP System is Integral to Vehicle

Baseline OBVP Drive Line Integration



No Change in Driveline Length

ONR OBVP Component Integration



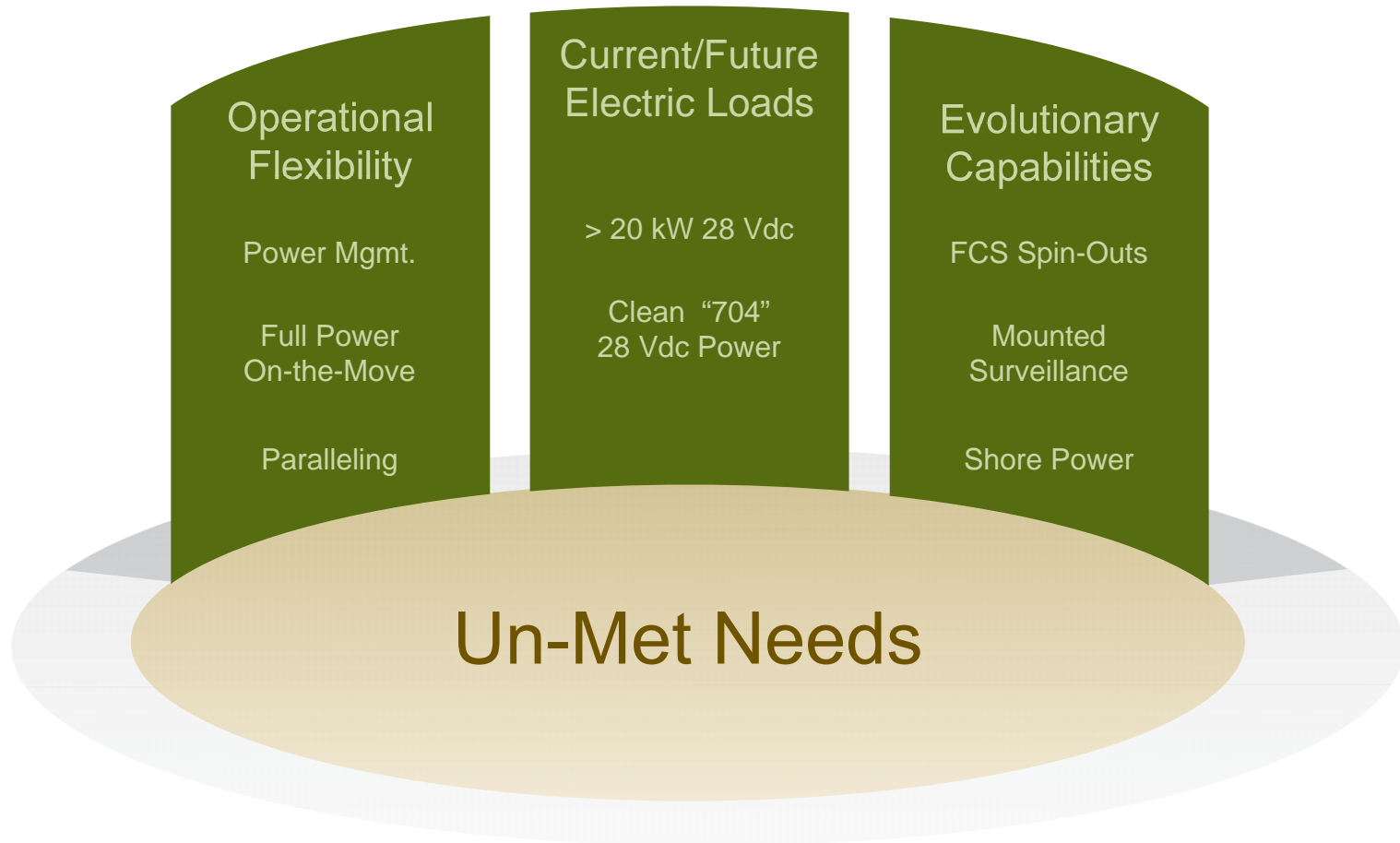
Installed by OEM or Field Depot Retrofit



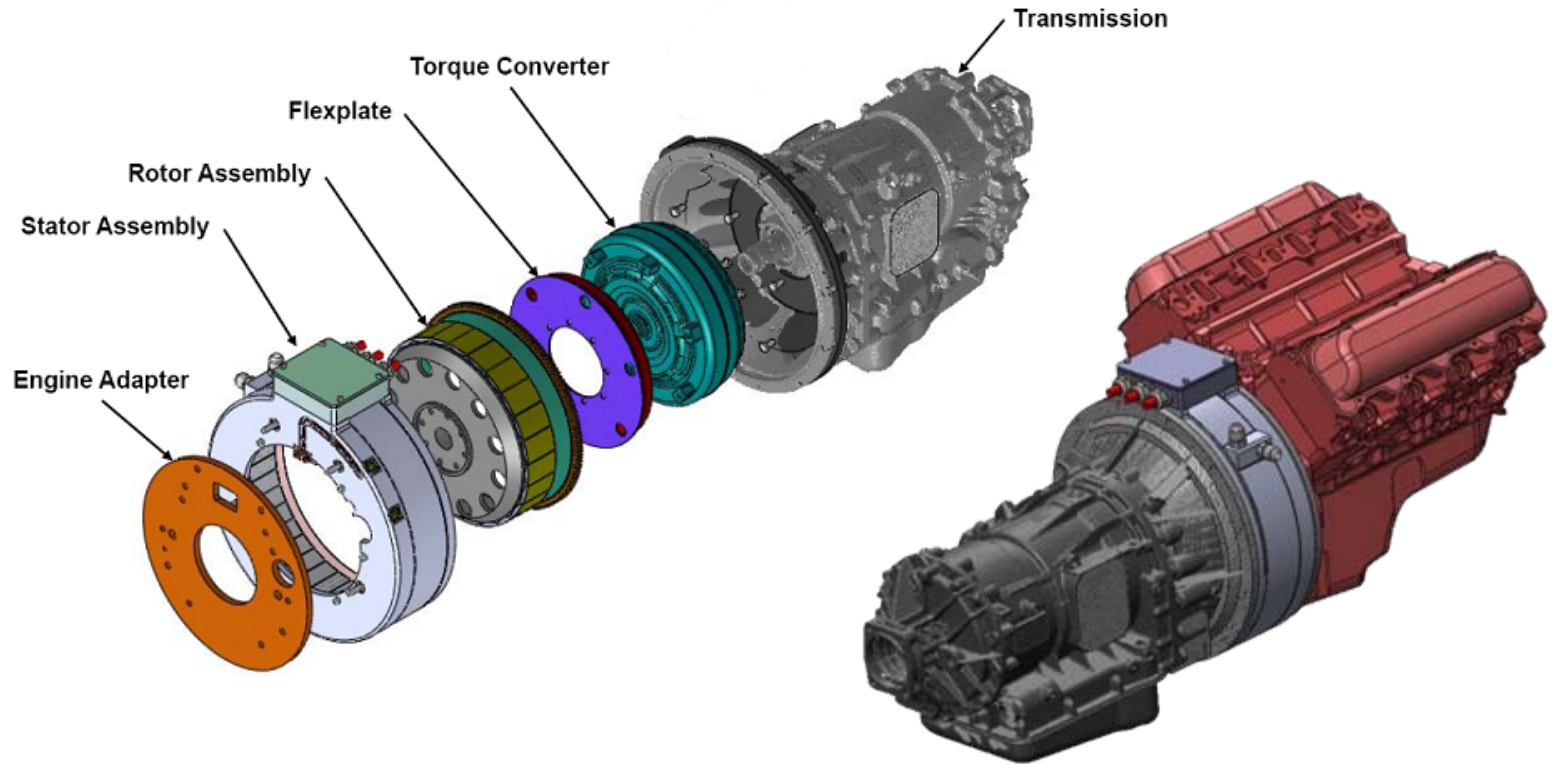
Integrated and Delivered

Next Generation OBVP Architecture

What's Next?



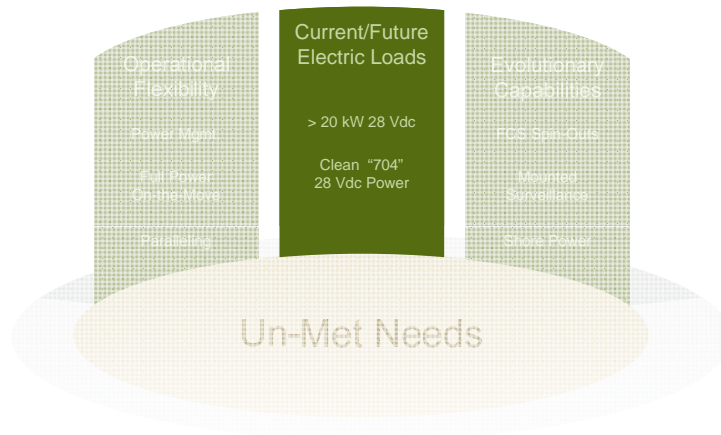
70 kW In-Line Generator



Common Architecture / Cross Platform Solution

Parallelable Auxiliary Power Converter

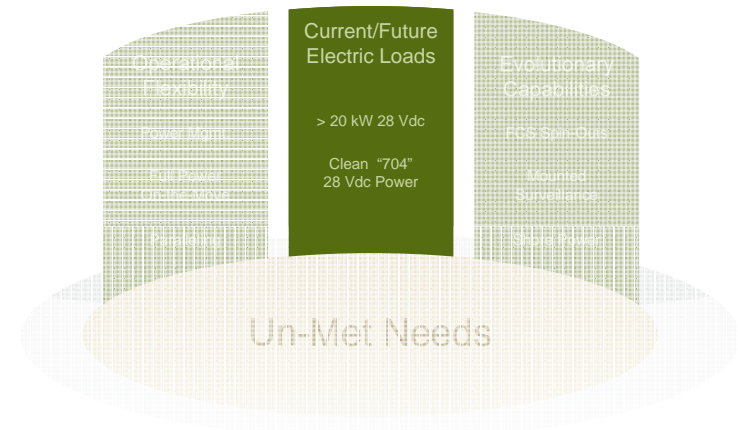
- Sized for Next Generation Tactical Vehicles
- Parallelable for Higher Levels of On-Board Power
- MIL-STD-1275 Conditioned 28 Vdc Power
- MIL-STD-810



Pulse Width Modulated-Rectifier/Controller (PWM-RC)



- Field Enhancing/Weakening
- Power Factor Correction
- Active Bus Regulation
- MIL-STD-810



- Pushes mission power forward to the warfighter
- Integrates with no change in drive line length
- Provides flexibility in installation by OEM or field depot retrofit
- Delivers common architecture / cross platform solution



Mike Marcel, Ph.D.

mmarcel@drs-tem.com

Components

Brent Brzezinski, Ph.D.

bbrzezinski@drs-tem.com

System

Jay Schultz

jschultz@drs-tem.com

Programmatics