Hybrid Systems

DEVCOM GVSC is integrating hybrid systems into the Stryker, Bradley, FMTV, MRZR, and ATeMM Platforms. The system integrations start with extremely detailed MatLab/Simulink models of the systems to ensure requirements are addressed, communications are integrated, and software is auto coded to maintain developmental flexibility and future upgrade. The hybrid system operational modes support doubling of mission operational duration, improved mobility, integration of advanced Warfighting capability, vehicle microgridding, and silent operations. GVSC has developmental tools, motors, generators, inverters, power distribution, DCDC power conversion, electrified auxiliary systems, export power systems, and controls strategies to help you hybridize your platform. GVSC has invested heavily into high temperature, high-power dense power conversion to enable combat platform hybridization without compromise to operational temperatures. So, we can help with electric drives, sub-systems, auxiliary systems, control software, system integration lab evaluation, system integration, and platform evaluation of hybridized systems. Taking the Stryker Hybrid systems development as an example, the operational capability improvements expected are:

- Doubling mission operational duration
- Significant Export Power
- Vehicle-Centric Power Networking - Microgridding
- 3 Miles of Silent Mobility
- ~10 hours of Silent Watch
- Power-tap for Advanced Warfighting Capability
- Virtually no increase in weight and space

If these capabilities are of interest, we can help.

STRYKER HYBRID INTEGRATED SYSTEM VIEW