



RDECOM



TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

Army Energy Research, Development and Engineering: Beyond Installations

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Fully Burdened Cost of Fuel



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Tank Automotive Research, Development & Engineering Center (TARDEC)

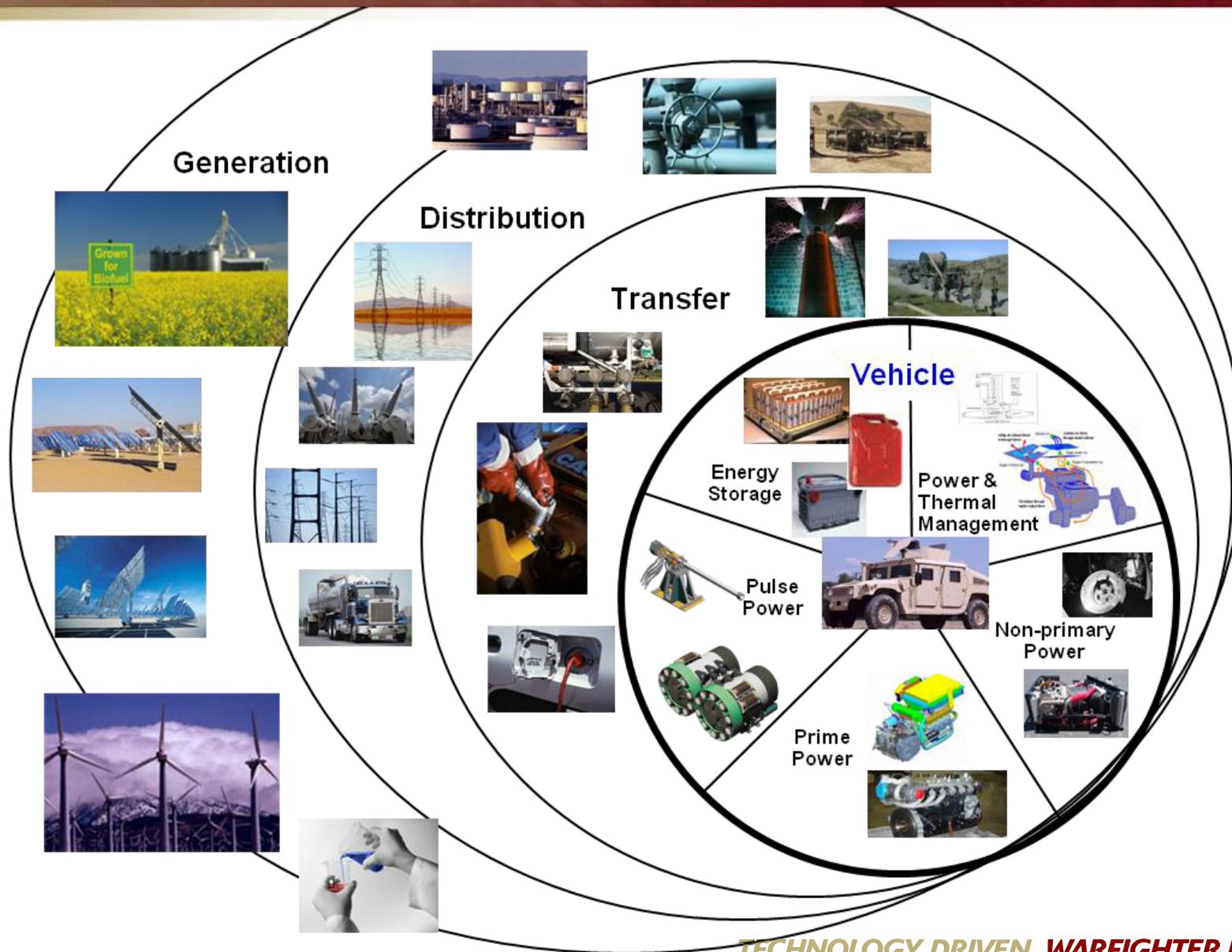


***TARDEC is the
Ground Systems Integrator
for the DOD***

Responsible for Research, Development and Engineering Support to **2,800** Army systems and many of the Army's and DOD's Top Joint Warfighter Development Programs



TARDEC's End to End Energy Business: From Generation to Application



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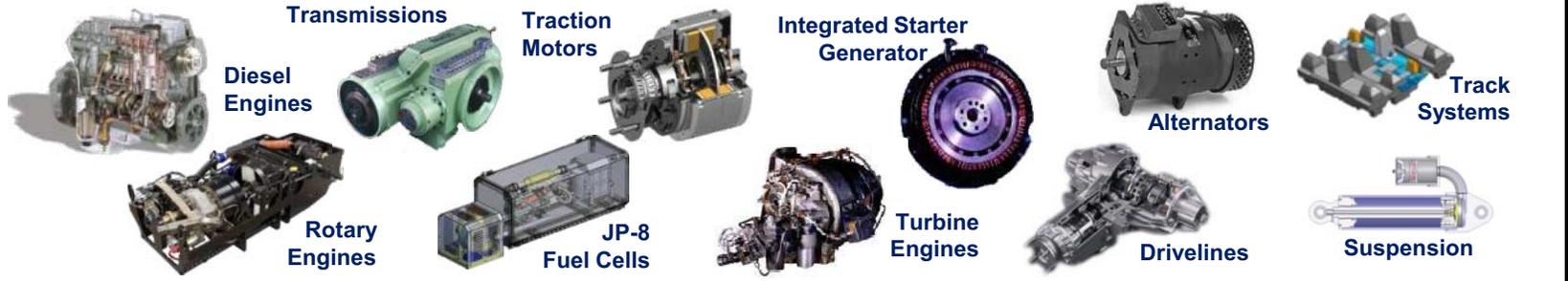


TARDEC invests in targeted Ground Vehicle energy solutions



Ground Vehicle Power and Energy Technology

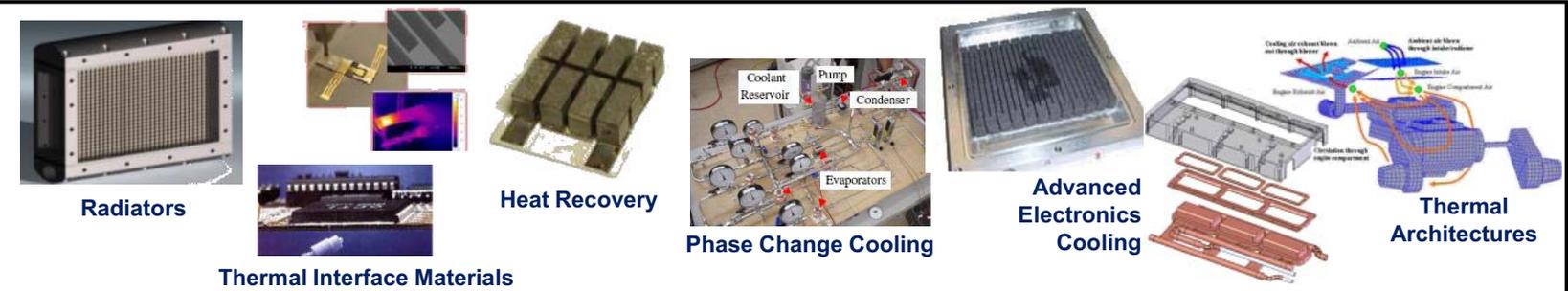
Prime & Non-Primary Power



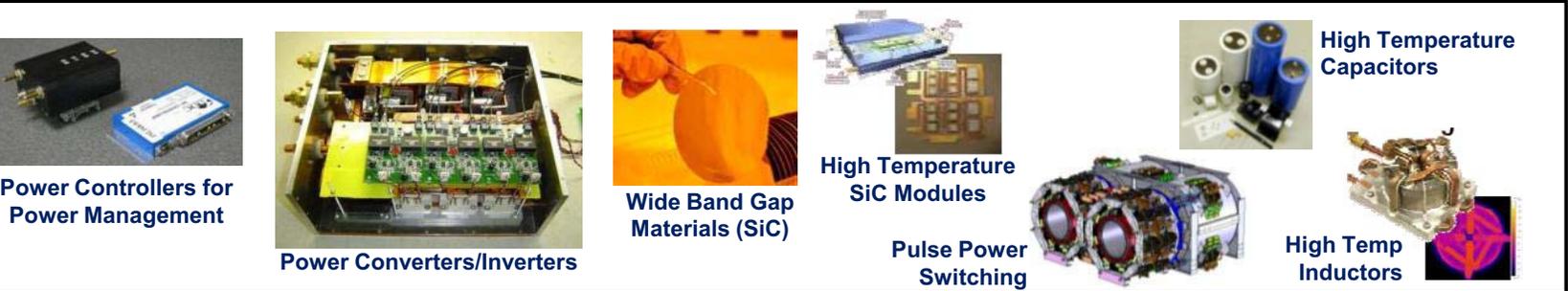
Energy Storage



Thermal Management



Power Management





...and integrates solutions that meet
Soldier requirements



Each vehicle exists as a system and operates within a system of systems



Tactical Quiet Generator (TQG)



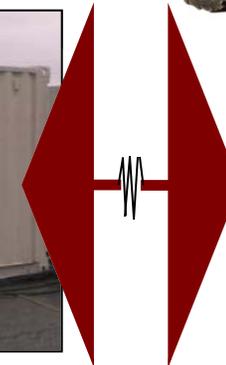
Mobile Encampment Waste to Electrical Power (MEWEPS)



Solar



Electric Power Control and Conditioning (EPCC)



A system of systems approach optimizes scarce energy resources



TARDEC is Connected to key Energy Partners



Government Agencies



DOD Installation Partners



Industry



Professional Organizations



Defense Industry



Non Profit Org



Automotive Industry



Academia



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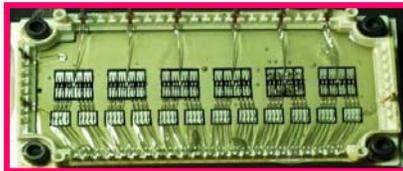


Dual-use Technology Solutions and a Systems Approach is the path forward

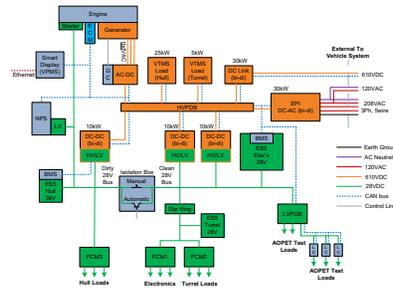


Game Changing Technology Activity

Silicon Carbide (SiC) Power Electronics



Power Management: AOPET



Advanced Lead Acid and Advanced Lithium Ion Batteries



Hybrid Electric Reconfigurable Movable Integration Testbed (HERMIT)

Game Changing Energy Initiatives

Advanced Automotive Battery Initiative

A Government, Industry and Academia vetted White Paper led by the U.S. Army's and the Research, Development & Engineering Center's Tank Automotive Research, Development & Engineering Center, (TARDEC)

Final Version: January 14, 2009

**White Paper
January 14, 2009**

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Power and Energy Innovation Workshop
White Paper



Prepared by:
Army Capabilities Integration Center - Tank Automotive Research and Development Engineering Center
27 July 2009

Advanced Vehicle and Power Initiative

A Government, Industry and Academia White Paper
led by the U.S. Army's and the Research, Development & Engineering Command's Tank Automotive Research, Development & Engineering Center, (TARDEC)

Draft One: September 9, 2009

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But the goal remains delivering solutions
for the Warfighter



**“Power and energy is
not only the greatest
enabler of the
Warfighter, it is also the
most significant
limitation.”**

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