



MARINE CORPS SYSTEMS COMMAND

EQUIPPING THE WARFIGHTER TO WIN

Implementing an Expeditionary Energy Capability

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- **MCSC Provides long term Material Solutions**
- **We meet the Requirements**
- **We provide Life Cycle Support**
- **The Warfighter must be, and is, an integral part of process**
- **Materiel Solutions must be integrated into the larger Expeditionary Energy Strategy**



- **What does “Expeditionary” mean in this energy effort?**
 - It must operate in a MAGTF organization (transportability, training, mission profile, supply chain, weight/space, testing...)
 - It must be worth taking in near every ‘clime and place’
- **It must first make us better in combat, and secondarily in other missions.**
 - For example HA (Humanitarian Assistance)



- **We seek to reduce the energy consumption of the equipment we already have...and will have for the future.**
 - **Across the board; vehicles, aircraft, radios, generators, computers, mobile command posts, night vision devices...**
- **We seek to supply energy more efficiently, and in part from renewable sources.**
- **We seek to combine efficient behavior and equipment!**



- **Marines “Get it”**
 - Young Marines understand energy demands and the effort to resupply them.
 - Good acceptance, especially in Combat units.
- **Renewable PV (Solar) is doing well in Afghanistan. (reducing need for resupply)**
 - Powering rechargeables, radios, IT
- **Tactical units that need to move often and on short notice are not a good fit for some renewable energy sources.**



- **We are focusing on vehicle energy efficiency.**
 - Training, design, drive train improvements, on board generation.
- **Concentrated Solar appears to have potential.**
- **Continued establishment of relationships and partnerships with other Joint and Collaborative organizations.**
- **Establish long term energy efforts.**



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SPACES
(Battery Charger)



GREENS
(300 Watts Continuous Power)



Zero Base
(300 Watts Continuous Power)

Systems Approach

- *Couple Energy Efficiency with Renewable Energy*
- *Train Marines in CONUS =*
= 3 Week Combat Patrol No Battery Resupply
= 2 Patrol Bases Operating on Renewable Energy
= 25%-90% Fuel Savings at Company FOB



LED Lights



Solar Shade
(100 Watts Continuous Power)



Solar Light Poles