Getting Renewables in the Battle Space

One Small Tactical Example

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On behalf of the Informal COP Power Node IPT

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Deliverables of this Brief

• Hear a limited perspective on how technologies get to the battlespace
• Introduction to different organizations working on similar work
• Gain perspective from the folks around you listening to this brief
• Obtain a list of acronyms and lexicon to confuse/impress your friends
• Leave with an awesome respect for those who bear the burden of war
Outline

• Presentation Deliverables
• **Project Overview:**
  – RDECOM FAST Project 09-03: “Power Film Thin Film Voltaic Shade” for Combat Outposts or Stability Operations Relief Node
• Testing
• Lessons Learned
• Questions
• Contacts
Purpose of the demonstration

• Update Commanders and organizations on a small project involving the employment of a renewable energy device for combat operations or stability operations.

• Project Goals:
  – Reduce fuel demand in battlespace
  – Improve Force Protection
  – Reduce Soldier loads
  – Enable Stability Operations
  – Further develop core DoD material developer team and expertise on renewables
  – Assist Program Managers in executing the Army Modernization Strategy
  – Influence leaders and encourage teaming

• Focus: One of the furthest points of energy use in the battlespace
We Serve Them
Perceived Requirement

• **Roots:** SETAF Deployable HQ Energy Demand Reduction Effort-MAJ Mike Fleming-FAST SETAF 2008

• Addition of SOUTHCOM/EUCOM interest in renewables to facilitate Stability Operations and remote low density enduring power for HA/DR support.

• **Bottom Line:** COCOM interest for Stability Operations, Need warfighter input for tactical value
Why this one?
The Plan

• **Phase 1: Obtain a Safety Confirmation** on a thin film product and demonstrate a deployable renewable energy module in CONUS and OCONUS.
  
  • Ft Belvoir- APR
  • EUCOM – JUL 09

• **Phase 2: Conduct power assessments** on Combat Outpost Power Requirements and Stability Operations Relief Node.
  
  • CONUS: JUL-SEP
    • APG- DTC & NTC-New COP site
    • OCONUS (Site TBD): JUL-OCT
      • Leverage FAST/OSD-PSTF?

• **Phase 3: Conduct an informal Analysis of Alternatives** that supports PM Modernization Strategy (Unfunded/Not Scheduled).

* Reference draft FAST project summary sheet
The Team

Multiple RDECOM Players:

NDIA Environment, Energy & Sustainability Symposium & Exhibition (E2S2)
Roles & Responsibilities

- **RDECOM**: Manage project and demos
- **PM MEP**: Conduct Power Assessments
- **ACOE**: Analyze deployable energy efficient structures
- **Service/COCOM**: Formalize requirements
- **OSD**: Provide guidance, contribute lessons learned/data acquisition from Net Zero JCTD
- **ATEC/DTC**: Manage Test & Evaluation
## Safety Confirmation Plan

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Lessons Learned Thus Far

- Project success driven by a high performance team- not the briefer!
- Renewables are a low energy density solution
- Education & energy reduction are the first steps
- DoD teams are partnering to make these efforts successful
- Broad area announcements are the invite to industry
- Things to consider:
  - Address government requirements and questions
  - Have patience
- Four things in a government project:
  - Who has oversight of the funds/effort?
  - Who owns the requirement?
  - Who is the government technical expert?
  - Who will the technology transition to and ultimately be procured by?
- Realities: Time and connectivity and resources to get things done
Questions?

• General Information
  – https://www.fbo.gov/

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