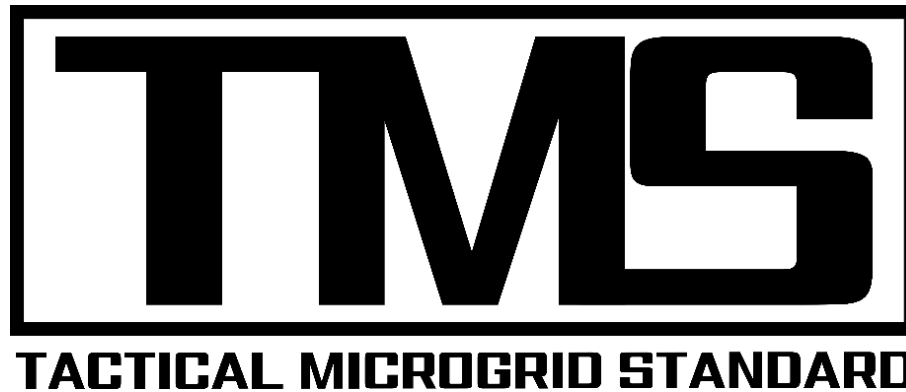


Tactical Microgrid Standard (TMS) MIL-STD-3071 Overview



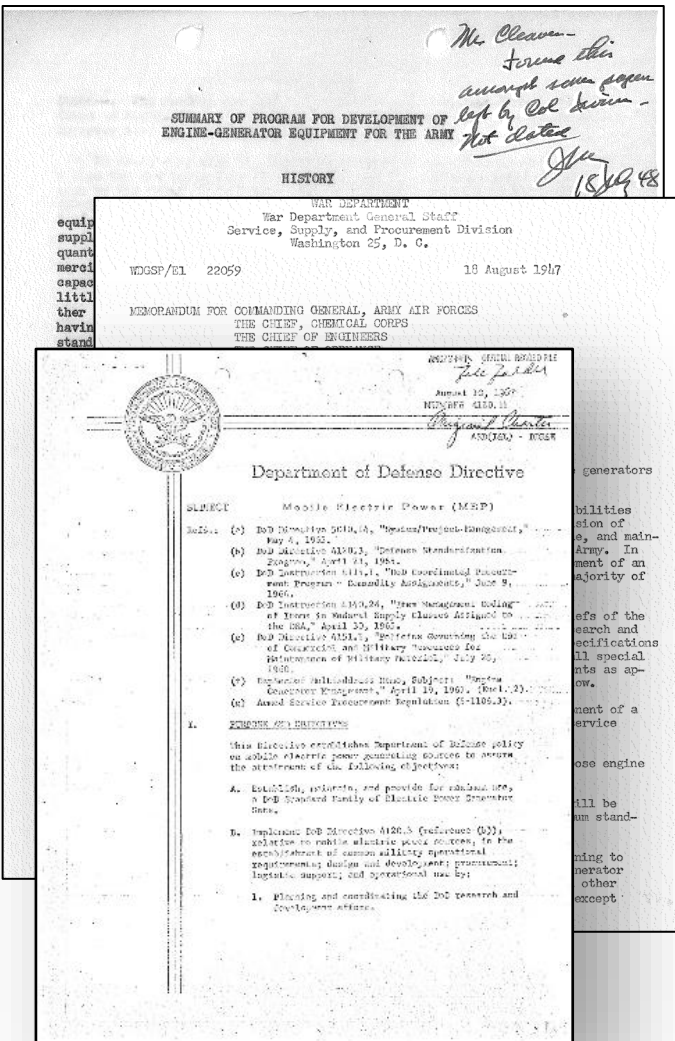
Tactical Wheeled Vehicle Conference
25 February 2025

- **Standard Tactical Power**
- **What is TMS?**
- **TMS Campaign Plan**
- **Questions / Discussion**



Brief Power Standardization History

- **War Department Memo: Engine Generators (18 Aug 1947)**
“All R&D of engine generators will be coordinated to maximum standardization...”
- **Army Service Letter (18 Jul 1948)**...program development
- **WWII / Vietnam** failures drove tactical power standardization
- **Published DoD Directive 4120.11, Mobile Electric Power, 10 Aug 1967; Revised as DODI 4120.11, 24 Aug 2018**



1967-1993
1st Generation Sets
Military Standard
(MIL-STD)
(1.5kW-100kW)



1993-2010
2nd Generation Sets
Tactical Quiet
Generator (TQG)
(3kW-200kW)



2010-Present
3rd Generation Sets
Advanced Medium
Mobile Power
Sources (AMMPS)
(5kW-60kW)

Army is the DoD Lead Standardization Activity for Power – delegated to PM E2S2

Tactical Microgrid Standard (TMS) MIL-STD-3071

What is the TMS?

An official military standard for power device data and communication to maximize interoperability between solutions from various vendors

Why was TMS developed?

Response to advanced power technologies emerging from industry

TMS enables systems that are:

INTEROPERABLE

Vendor Agnostic
Plug and Play

RESILIENT

Optimization &
Redundancy
Comms Loss Resilient

SCALABLE

Dynamically Adapts
AC & DC power
components

PROCUREABLE

Cybersecure
Development Toolkit
Proven prototypes



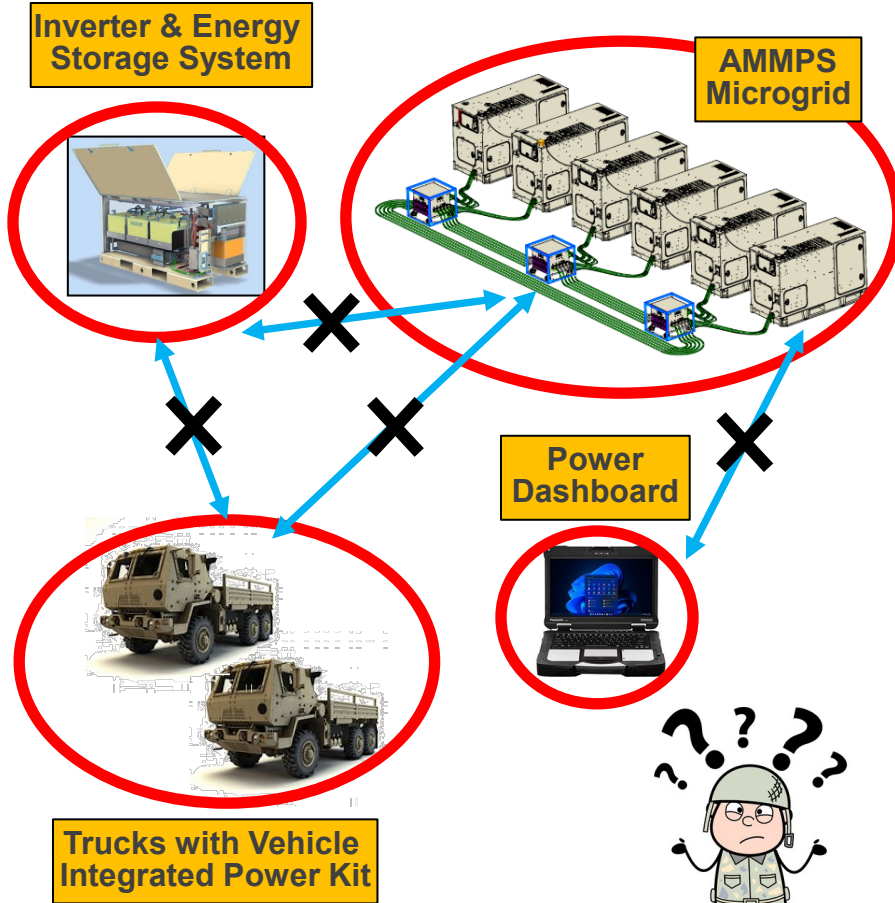
Under PM E2S2 Ownership/Management:

- E2S2 made TMS a fieldable product and has created developer toolkits and compliance verification tools.
- TMS adopted into a **published MIL-STD** (MIL-STD-3071)
- E2S2 is has **received initial OSD R&D funding** (TMI and ReFORM Funding) to **upgrade AMMPS** control system to be TMS-compliant.
- E2S2 is targeting **FY29** to inject this capability into serial production.

TMS has been developed over 10+ years into a verified and validated tactical power grid communication standard

Power Grid Examples

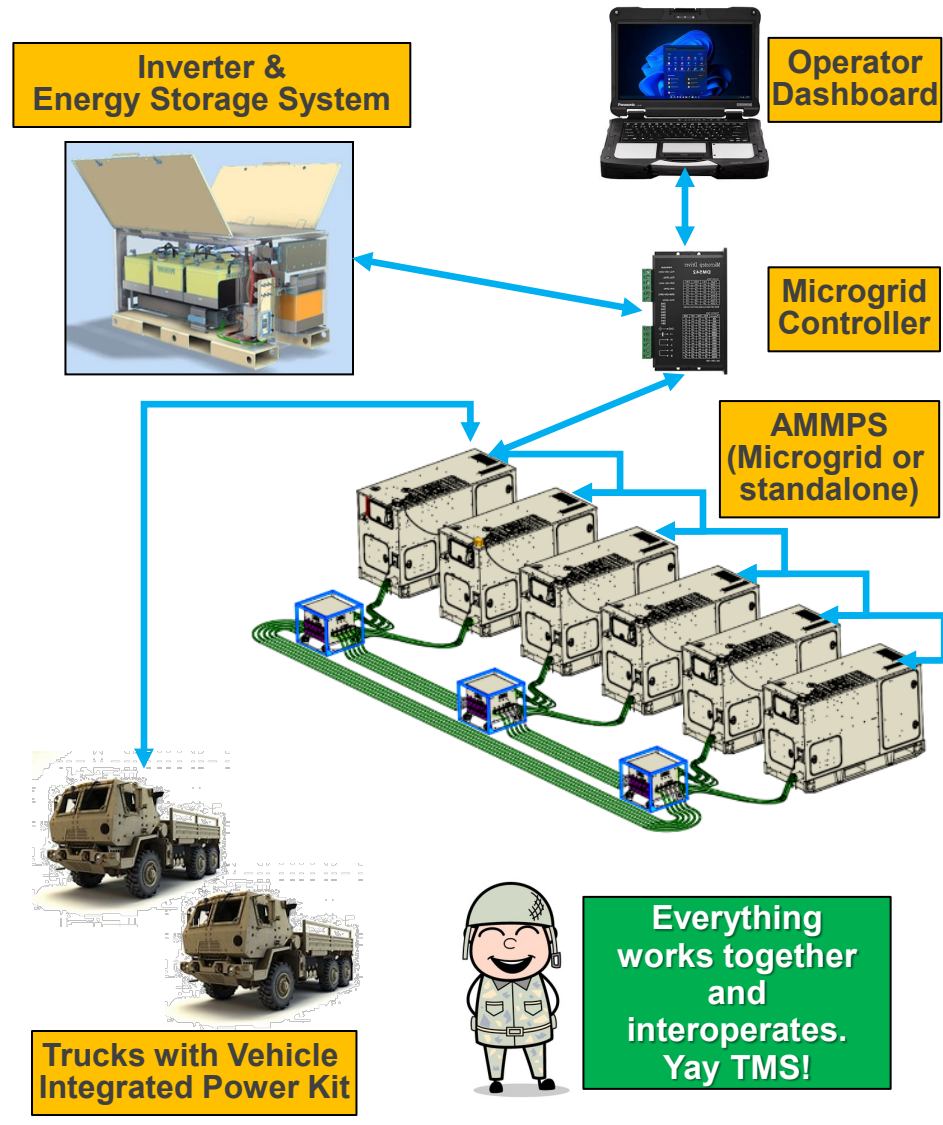
Vendor Lock / Proprietary Communication Grid



KEY:
 Communication Silo / Proprietary Comms System
 TMS Communication Line

I have all this power available, but I can't use them together...

TMS Enabled Grid



Everything works together and interoperates. Yay TMS!

TMS Campaign Plan: Overview

- **Campaign Objectives**

- Increase awareness and understanding of TMS.
- Drive adoption of TMS-compliant solutions.

- **Target Audience**

- Power system manufacturers and vendors.
- Industry experts and analysts in the defense and power sectors.
- Traditional & non-traditional DoD power device industry partners.
- PEOs / Project Managers / Product Managers.

- **Key Messages**

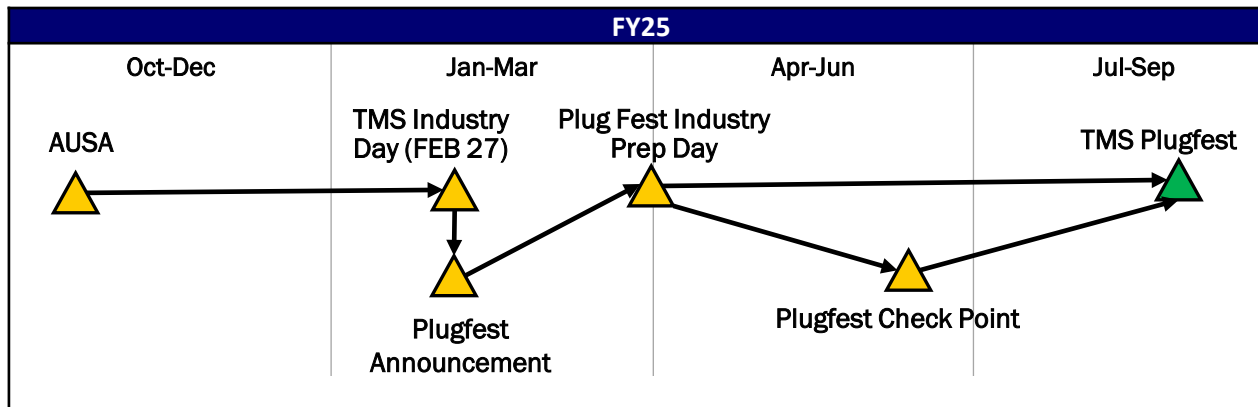
- TMS is an open standard that enhances power interoperability and flexibility.
- Eliminates vendor lock, promotes innovation and competitive procurement.
- TMS compliance will be mandated by DoD Instruction 4120.11.
- Industry welcome to participate in shaping the standard.



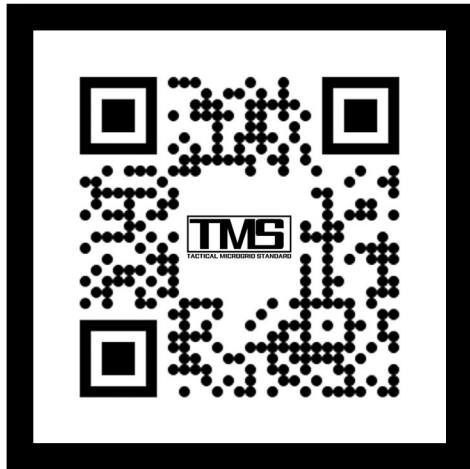
TMS APAN
User Community



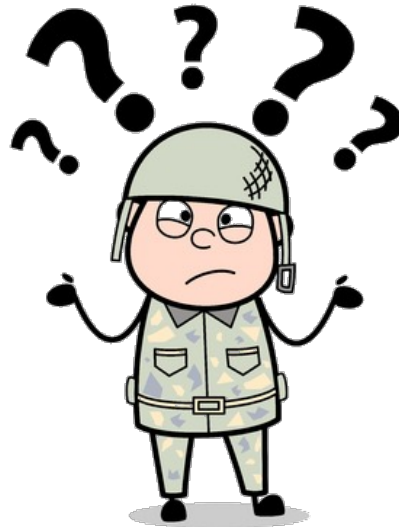
MIL-STD-3071
Document



QUESTIONS



**TMS APAN
User Community**



**MIL-STD-3071
Document**