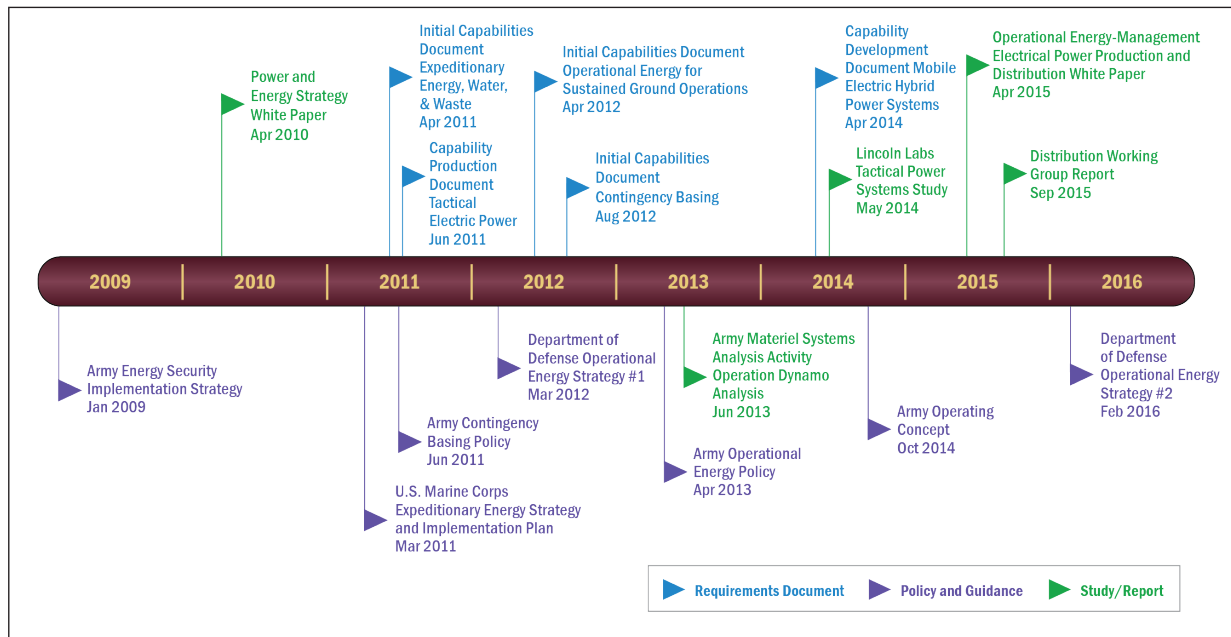


Closing Capability Gaps in Army Tactical Power Management

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Electrical power is an essential component of U.S. Army expeditionary operations. Concerns have arisen about the compatibility of the Army’s approach to tactical power management with its ability to take advantage of technological advancements in tactical power generation and distribution systems. (An example of tactical-level electrical power would be the electrical power required to support an expeditionary Brigade Combat Team in a combat environment in the absence of a local power grid. Army tactical electric power generators typically operate between 0.5 and 200 kilowatts of power.) **IDA researchers reviewed the Army’s current approach to tactical-level electrical power management in terms of doctrine, organizational structure, and training.** Our purpose was to assess how well the non-materiel elements of tactical power management will support the integration of advanced power systems into Army brigade-level units and below. This is where gaps in power supply and demand are most likely.

We found that power management tasks and responsibilities are split among the Army’s engineering, sustainment, and operational communities at the tactical and operational levels. Thus, no single organization is empowered to adjust doctrine, organization, training, and other non-materiel elements as may be necessary to fill capability gaps. IDA researchers then reviewed final and draft documents on joint requirements and capability gaps (see timeline).



We also interviewed staff from the Army’s Combined Arms Support Command (CASCOM) and the Maneuver Support Center of Excellence (MSCoE), the primary functional proponents for different aspects of non-materiel power management from doctrine to waste efficiencies.

These efforts indicated that the Army understands it faces power management capability gaps, but the gaps need to be more fully defined at the brigade level and below through a change request process.

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Finally, using the Army's Capability Needs Analysis (CNA) framework, we compared what we learned about the Army's current approach with the capabilities needed to operate in the expected future environment. We limited our scope to use of tactical electric power systems for expeditionary operations in environments without reliable local infrastructure. **This comparison revealed that the need for power management is greatest beyond the base camp at brigade- and battalion-sized command posts.**

Given our findings, we outlined three steps the Army could take:

- Designate either CASCOM or MSCoE as the proponent for brigade and battalion power management.
- Clarify the roles and responsibilities of unit power managers (in battalions) and operational energy advisors (in brigades).
- Determine whether the duties of battalion unit power managers can only be met by soldiers in Military Occupational Specialty 91D, Tactical Power Generation Specialists.

However, improving the ability to manage power will yield the greatest benefits at command posts. Yet command post modernization initiatives are not coordinated with operational energy stakeholders who are working to improve power management. **We therefore further recommended standardizing institutional training for unit power managers and coordinating command post/contingency basing strategies.**