ACCELERATING SPEED TO POWER/WINNING THE ARTIFICIAL INTELLIGENCE RACE: FEDERAL ACTION TO RAPIDLY EXPAND GRID CAPACITY AND ENABLE ELECTRICITY DEMAND GROWTH

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BOTTOM LINE UP FRONT

- The U.S. Department of Energy (DOE) should ensure that its efforts to accelerate speed to power support national defense.
- DOE can enlist its funding programs and authorities to rapidly improve grid resilience and energy security for critical defense missions, defense communities, and the defense industrial base.

RELATED EFFORTS

- This response draws on defense, energy, and government stakeholder input gathered during dozens of engagements focusing on grid resilience conducted with the Association of Defense Communities (ADC), the National Association of Regulatory Utility Commissioners (NARUC), and other partners. The views expressed in this paper are those of Converge Strategies, LLC alone, and do not represent the official views of the Department of War (DoW). [1]
- Examples of relevant publications include *Transmission Expansion for National Defense (TREND)*,[2] *Unleashing the Grid: Energy Dominance for National Defense*,[3] *Powering the Fight: Lessons from the Grid at War*,[4] *Regulatory Considerations for Utility Investments in Defense Energy Resilience,*[5] and *Defense Energy Resilience Engagement Framework for Regulators*.[6]

1.0 BACKGROUND

1.1 THREATS TO THE HOMELAND

- The Commission on the National Defense Strategy concluded that "the threats the United States (U.S.) faces are the most serious and most challenging the nation has encountered since 1945 and include the potential for near-term major war."[7]
- Attacks on the U.S. homeland "are an implicit part of near-peer adversary warfighting doctrine," according to the Defense Science Board (DSB) Task Force on Department of Defense Dependencies on Critical Infrastructure.[8]

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[1] When referring to the current military-level cabinet agency, we use DoW in accordance with Executive Order 14347, signed on September 5, 2025 and administratively changing the name of the Department of Defense to the Department of War. When referring to decisions made prior to the enactment of this Executive Order and following the 1949 Amendment to the National Security Act of 1947 (P.L. 81-216), we refer to the agency as the Department of Defense.

[2] Jonathon Monken et al, Transmission Expansion for National Defense, *Association of Defense Communities,* (April 2024).

[3] Wilson Rickerson et al, Unleashing the Grid: Energy Dominance for National Defense, *Association of Defense Communities,* (March 2025).

[4] Leah Emanuel et al, Powering the Fight: Lessons from the Grid at War, *Converge Strategies,* (November 2025).

[5] Wilson Rickerson et al, Regulatory Considerations for Utility Investments in Defense Energy Resilience, *National Association of Regulatory Utility Commissioners,* (October 2021).

[6] Wilson Rickerson et al, Defense Energy Resilience Engagement Framework for Utility Regulators, *National Association of Regulatory Utility Commissioners,* (September 2024).

[7] Jane Harman et al, Commission on the National Defense Strategy, *RAND National Security Research Division, (*July 2024).

[8] Department of Defense Dependencies on Critical Infrastructure, *Defense Science Board,* (August 2024).

- The 2025 Annual Threat Assessment of the U.S. Intelligence Community states that our adversaries would plan to strike civilian critical infrastructure in advance of or during conflict to prevent the U.S. military from deploying and to sow societal panic.[9]
- These threats are significant at the bulk power system (BPS) level, where the DOE has the greatest authority and capability to reduce risk through strategic investments in infrastructure.

1.2 THE GRID IS THE CORNERSTONE OF NATIONAL DEFENSE

- The power grid is vital to a globally-networked U.S. military and represents a significant vulnerability to national defense readiness. Today, the U.S. energy system is increasingly challenged to support peacetime needs, and is dangerously unprepared to support a major war if the U.S. was called on to fight one.
- Over the last half-century, the U.S. military has become increasingly dependent on domestic installations tied to the commercial power grid to support force projection and combat operations overseas.
- Domestic installations conduct pivotal operations alongside U.S. forces — from offensive and defensive cyber squadrons disrupting adversaries in the digital domain, to drones providing special operators with overwatch and fire support.
- Electricity outages that interrupt these critical missions can cause avoidable casualties on the battlefield and may be strategically decisive in a future fight.
- If the U.S. had to fight a major war today, the power grid would immediately be tapped to deliver uninterrupted electricity for critical military missions at domestic installations while simultaneously supporting an uptick in wartime manufacturing that the country has not witnessed in more than 80 years.
- This would come at a time when the grid faces an unprecedented surge in demand from energy-intensive commercial operations, such as artificial intelligence (AI), data centers, and semiconductor chip manufacturers that are also important to U.S. national security. These strategic and energy-intensive industries are forecast to increase electricity demand by as much as 25% by 2030.[10]
- While demand expands, the grid also remains exposed to a litany of manmade and natural threats that could potentially cause local and regional outages. As emphasized in national policy (see below), the electricity system poses severe risks to national security unless the U.S builds a more reliable and resilient power grid.

1.3 NATIONAL POLICY EMPHASIZES GRID RESILIENCE FOR NATIONAL SECURITY

- Recent Executive Orders and other national policy documents have stated that it is critical that the U.S. both expand and fortify its power grid. These policies emphasize the imperative to focus on speed to power in a way that achieves economic objectives while centering on national defense.
- Executive Order (E.O.) 14154, Unleashing American Energy, focuses on reliable energy supply for **national security** and **military preparedness**.[11]

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[9] Annual Threat Assessment of the U.S. Intelligence Community, *Office of the Director of National Intelligence,* (March 2025).
[10] John D. Wilson, Zach Zimmerman, and Rob Gramlich, "Strategic Industries Surging – Presentation," Grid Strategies, (December 2024, Updated April 2025).
[11] Unleashing American Energy, *White House,* (January 2025).

- E.O. 14156, Declaring a National Energy Emergency, directs federal agencies to support "a reliable, diversified, and affordable supply to drive our Nation's…**defense industries**, and to sustain the basics of modern life and **military preparedness**" in response to hostile state and non-state foreign actors who "have targeted our domestic energy infrastructure."[12]
- E.O. 14262, Strengthening the Reliability and Security of the United States Electric Grid, states that it is the policy of the United States to ensure the reliability, resilience, and security of the electric power grid to address the National Energy Emergency declared in E.O. 14156.[13]
- Secretarial Order, Unleashing the Golden Era of American Energy Dominance, states that the DOE "will identify and exercise all lawful authorities to strengthen the nation's grid, including the backbone of the grid, our transmission system" under the National Energy Emergency.[14]
- E.O. 14179, Removing Barriers to American Leadership in Artificial Intelligence, states that it is U.S. policy to enhance AI dominance to promote **national security.**[15] Winning the Race: America's AI Action Plan centers on the **national security** imperative of scaling up artificial intelligence and emphasizes the need to build out a grid that can "match the pace of AI innovation."[16]
- E.O. 14302, Reinvigorating America's Nuclear Industrial Base, states that it is the policy of the U.S. to promote nuclear energy to protect **national security** and that DOE should assess the feasibility of restarting or repurposing closed nuclear plants as energy hubs for **military microgrid support**, focusing initially on installations with insufficient power resilience or grid fragility.[17]

1.4 SPEED TO POWER FOR NATIONAL DEFENSE

As discussed in recent studies such as *TREND* and *Unleashing the Grid: Energy Dominance for National Defense*, these Executive Orders lay the groundwork for a shift in how the electric grid is viewed through the lens of national defense. DOE can lead in this area through the speed to power effort and can use several key concepts as guides:

1. The electric grid is an extension of the weapons system platform. The infrastructure that directly supports the facilities and physical assets needed to execute defense missions should be treated as a single system. This will provide a better means to identify "critical" infrastructure and establish a more direct linkage between energy assurance needs and infrastructure planning and design with private sector partners.

2. Defense communities are part of the mission capability of the DoW. The personnel and infrastructure systems essential to the operation of military installations and missions extend beyond the boundaries of the fenceline. A myopic focus on energy assurance inside the fenceline would fail to address the full scope of energy security needs for national defense.

3. Energy security risks to national defense must be addressed at a regional level. An energy disruption to a single installation is problematic, but the simultaneous disruption of

[12] Declaring a National Energy Emergency, *White House,* (January 2025).
[13] Strengthening the Reliability and Security of the United States Electric Grid, *White House,* (April 2025).
[14] Chris Wright, Unleash Golden Era of American Energy Dominance, *Department of Energy,* (February 2025).
[15] Removing Barriers to American Leadership in Artificial Intelligence, *White House*, (January 23, 2025).
[16] Winning the Race: America's AI Action Plan, *White House,* (July 2025).
[17] Reinvigorating the Nuclear Industrial Base, *White House,* (May 23, 2025).

multiple installations represents a substantial risk to national security. These risks manifest at a regional scale, where BPS infrastructure shared by several installations should be the focus of targeted investments to improve hardening, reliability, and resilience from natural and manmade hazards.

2.0 RESPONSES TO QUESTIONS

The responses in this Section are numbered to be consistent with the question numbers in the Request for Information (RFI).

2.a Are there specific geographic areas or high-priority zones (e.g., data center corridors, semiconductor clusters, industrial parks, port complexes, etc.) where DOE investment could be targeted?

DOE should target geographies where multiple critical defense missions and installations, defense communities, defense industrial base (DIB) production nodes, and their essential interdependent utilities are located – particularly in areas that face current or projected grid constraints and vulnerabilities. This response refers to such areas as "defense priority zones" for the sake of efficiency. A defense priority zone is not a formal designation, although DOE could consider creating such a designation as part of its focus on speed to power.

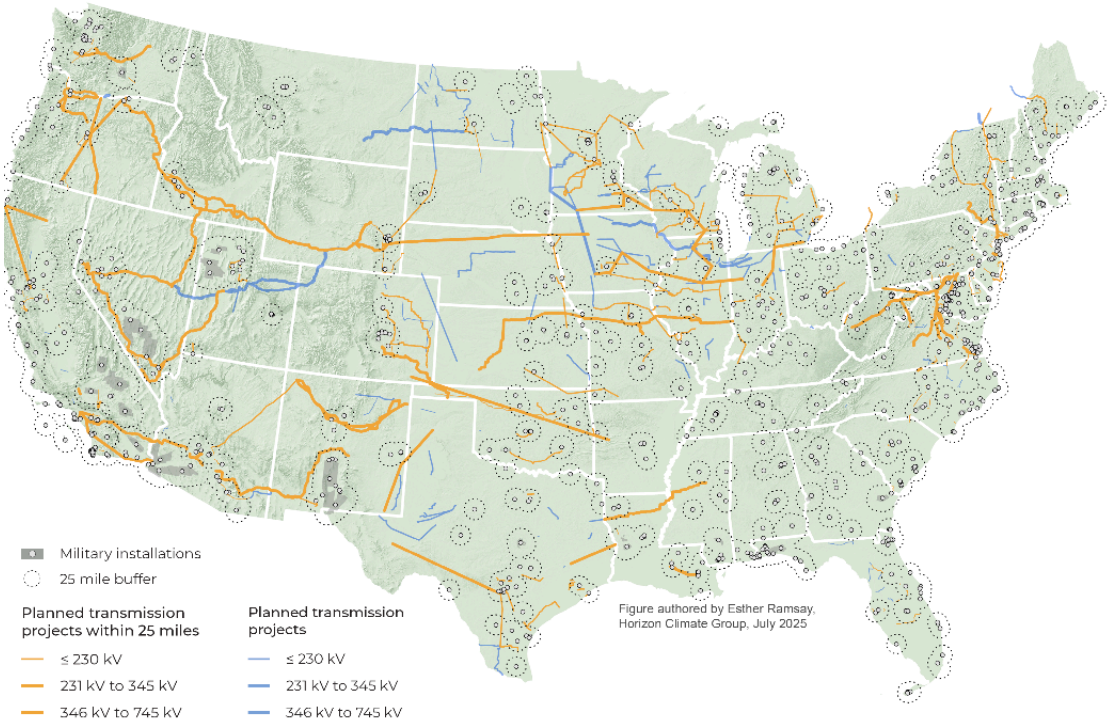
Defense Missions and Installations

In 2020, Congress passed a law requiring that critical defense missions attain a minimum level of 99.9% energy uptime. The Department of Defense (DoD) subsequently issued guidance specifying that certain missions, such as missile fields and cyber operations, require uptimes of 99.99999.[18] This level of availability is difficult for installations to achieve in isolation, and investments in onsite energy resilience solutions need to be supported by a reliable supply of power from the civilian power grid. DOE's recent reliability report, however, notes that no region across the U.S. is able to achieve this reliability standard for select critical missions, and only two regions can meet the lower bound reliability requirements for DoW facilities.[19] [20]

Congress amended the Federal Power Act in 2015 to define defense critical electric infrastructure (DCEI) as "any electric infrastructure that serves a critical defense facility but is not owned or operated by the owner or operator of such a facility." DOE and DoD designated critical defense facilities (CDFs) in 2019, and DOE informed the utilities that serve the CDFs of their designation. The recent Presidential declaration of an energy emergency presents a renewed opportunity for DCEI to serve as a centerpiece of engagements with federal, state, and utility partners on BPS resilience. The graphic below shows the planned transmission lines drawn from a variety of public sector sources (e.g., utility integrated resource plans) and private sector announcements mapped against military installations across the country. The orange lines represent transmission lines that pass within 25 miles of military installations and could represent opportunities for additional attention to maximize their potential defense

[18] DoD, Metrics and Standards for Energy Resilience at Military Installations, (February 2020).
[19] Resource Adequacy Reliability: Evaluating the Reliability and Security of the United States Electric Grid, *U.S. Department of Energy,* (July 2025).
[20] The current minimum uptime standard for the North American Electric Reliability Corporation (NERC), 99.998%, meets the baseline requirements of the DoW, but does not address the higher standards for select critical missions.

benefits. Similar analyses at the appropriate level of fidelity and classification could help lay the foundation for DOE investment prioritization.



Esther Ramsay, Horizon Energy Systems 2025, ourgridfuture.org.

Defense Communities

Military installations rely on the civilian water, wastewater, communications, and transportation systems that are located within defense communities and that are outside of military control. Since transmission outages can affect larger geographic areas, they increase the chance of cascading failures across utilities that will degrade or disrupt mission capability. More than 70% of military personnel live outside the fence line of their installation, along with nearly all of the civilian personnel who work for the military.[21] Power outages at the homes of personnel and their families can negatively impact military readiness.

DOE should take the loads of defense communities into account when prioritizing its speed to power strategies. Virginia, for example, hosts several dozen military installations with 247,000 personnel. Defense spending also contributes $68 billion to the state economy, accounting for close to 10% of state GDP. Southeastern Virginia alone is home to approximately fifteen major defense installations and more than 130,000 military personnel. These installations include, for example:

[21] How We Can Support Our Military Families, *Association of Defense Communities,* (April 2024).

- Naval Station Norfolk, the world's largest naval station and home port of the U.S. Navy's Fleet Forces Command.
- Joint Expeditionary Base Little Creek-Fort Story, the world's largest amphibious operations base.
- Joint Base Langley-Eustis, which hosts Air Combat Command and is home to half of the U.S. Air Force's F-22 Raptor fighter jets.

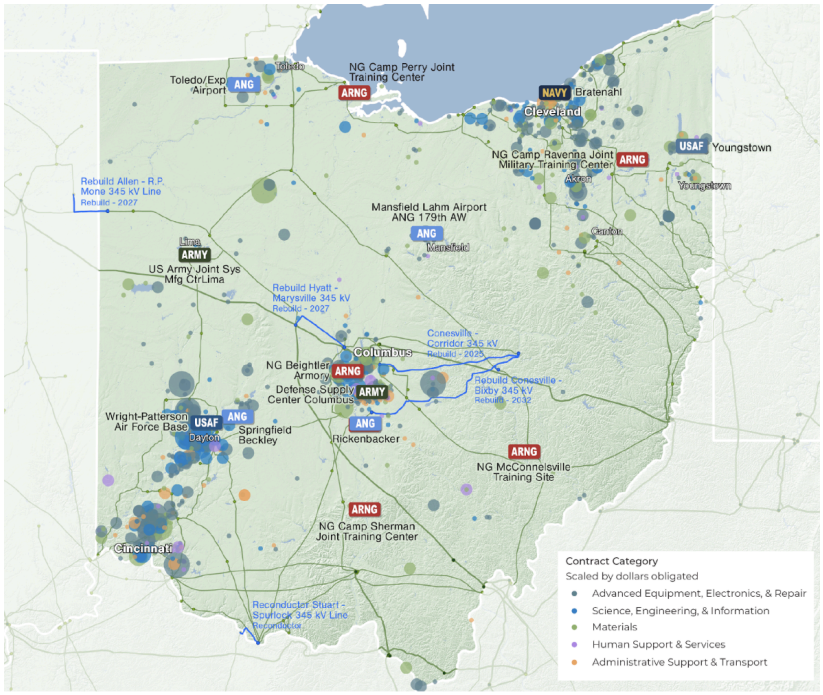
The defense communities that host these installations, personnel, and military families provide them with their lifeline utilities and services. While the loads of individual military installations may number in the tens of megawatts, the total electricity demand of defense communities can be hundreds or thousands of megawatts. The 2025 load for the defense communities in southeastern Virginia, for example, is estimated to be more than 1,700 MW.[22]

The Defense Industrial Base

The Defense Industrial Base (DIB) is the network of facilities and organizations that provide defense related materials, products, and services to the U.S. government. This includes research, development, and manufacturing of weapons platforms and armaments, among many other activities that are energy-intensive. The DIB includes organizations with highly specialized capabilities that are important to national defense. Defense agencies spent $430 billion on defense contracts in FY23, accounting for 1.6% of U.S. gross domestic product. Similar to military installations and defense communities, the DIB is vulnerable to power disruptions.[23] DOE should take the loads of defense industrial base clusters into account when prioritizing its speed to power strategies. The graphic below shows a map of current and planned transmission lines in Ohio (green and blue in color, respectively), as well as military installations by service and component. In FY23, DoD contributed $7.6 billion to Ohio defense contracts. The map also shows defense industrial base companies, color-coded by NAICS code, with the size of the dot based on comparative contract size. There are large defense industrial clusters in multiple parts of the state.

[22] Estimated using the State and Local Planning for Energy (SLOPE) Platform (https://maps.nrel.gov/slope) for the communities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, Virginia Beach, and York County. These jurisdictions are the communities in southeastern Virginia identified as having the highest concentratiodefense-relatedenergy-intensivens of defense personnel by the Office of Local Defense Community Cooperation (OLDCC).

[23] Defense Industrial Base: Critical Infrastructure and Key Resources Sector-Specific Plan as input to the National Infrastructure Protection Plan, *Department of Homeland Security* and the *Department of Defense,* (May 2007).



Esther Ramsay, Horizon Energy Systems 2025, ourgridfuture.org.

3.a In what specific ways can DOE support the development and deployment of large-scale generation and transmission projects?

CSL does not advocate for any specific mix of incentives, de-risking, or technical assistance programs. CSL has received consistent stakeholder input during its project work that there are opportunities for DOE to target its programs and resources, in any form, to support grid resilience for national defense. This could include extending existing program eligibility to more explicitly invite participation by military missions, defense communities, and the defense industrial base; carving out or setting aside portions of existing programs to support defense; reviving programs that are expiring or sunsetting to focus entirely on defense; or creating entirely new programs to deliver enhanced grid resilience, reliability, and affordability to defense priority zones. Examples using the DOE programs mentioned in the RFI include:

- **Transmission Facilitation Program (TFP).** As outlined in the TREND publication from ADC, the TFP could be used to anchor and pull forward transmission projects that benefit defense missions, communities, and defense industrial clusters.
- **Grid Resilience and Innovation Partnerships (GRIP).** The GRIP program could add bonus points in its scoring for projects that would measurably reduce outage risk for defense communities or industrial base nodes, or for projects that would increase interregional transfer into defense priority zones.
- **Loans and Loan Guarantees.** DOE could use its loan and loan guarantee authorities to de-risk and lower the cost of capital for grid resilience investments, such as high-voltage direct current transmission lines, wide-area reconductoring and grid enhancing technology deployment, or transformer and switchgear modernization that could create additional headroom during contingency events.
- **Technical Assistance (TA).** The Office of Local Defense Community Cooperation's (OLDCC) Installation Readiness Program funds resilience assessments of the regions surrounding military installations. A growing number of these studies have identified transmission lines or other grid resilience upgrades that could support military missions. DOE could work more intentionally with defense communities to identify technical assistance needs related to load growth and critical infrastructure energy requirements. DOE could also deploy technical assistance to "hand off" and scale up priority project concepts identified in OLDCC studies. DOE previously provided follow-on TA to support resilience concepts during an Air Force assessment for the region surrounding Joint Base Elmendorf-Richardson in Alaska.[24]
- **Facilitating Stakeholder Collaboration.** CSL worked with NARUC to develop a series of tools and frameworks for coordinating dialogue between defense stakeholders, regulators, and utilities to support the Presidential Task Force on Emergency Preparedness, Recovery and Resiliency, which was formed in 2020. CSL and NARUC successfully piloted the *Defense Energy Resilience Engagement Framework* with Eglin Air Force Base (AFB) and its partners in Florida, and DOE could scale up the framework to regularize workshops where installations, defense communities, utilities, and defense industry representatives translate defense resilience requirements into grid planning.

[24] Matthew S. William and Jack D. Flicker, Summary of Preliminary Concepts for a Port of Alaska Resilient Microgrid, *Sandia National Laboratories,* (July 2020).

3.b What specific authorities, programs, or initiatives within DOE are best positioned to provide this support?

- **National Interest Electric Transmission Corridors (NIETCs)**. In designating NIETCs, DOE may consider whether the energy independence or energy security of the U.S. would be served by the corridor, and whether the designation would enhance national defense and homeland security. The most recent NIETC designations did not consider national defense, and DOE could explore how existing designations might additionally consider national defense. The Southwestern Grid Connector Corridor, for example, passes near multiple installations, communities, and other facilities that have defense significance. Future efforts to designate NIETCs or alternative types of corridors (e.g., defense priority zones) could more intentionally identify transmission corridors that would create national defense benefits.
- **Coordinated Interagency Transmission Authorization and Permits (CITAP).** DOE is authorized to coordinate federal authorizations and environmental reviews under the Federal Power Act. DOE could create a "defense fast lane" with an assigned, single federal coordinator for transmission projects that enhance reliability in defense priority zones.[25] The creation of criteria related to national defense benefits of transmission and BPS infrastructure would simplify and accelerate the siting and permitting process.
- **Other Transactions Authority (OTA).** DOE could explore a research, development, and demonstration consortium focusing on grid resilience in defense priority zones using the updated regulations in 2 CFR Part 930. This could align with the general preference for defense OTA expressed under the Executive Order on Modernizing Defense Acquisitions and Spurring Innovation in the Defense Industrial Base.[26]
- **Defence Critical Electric Infrastructure (DCEI).** DOE could build on the DCEI framework and develop a common set of guidelines for stakeholder engagement, planning, design, and performance of infrastructure that directly supports national defense. This can include the integration of DCEI principles into the State Energy Security Planning program administered by DOE to better capture energy assurance requirements.

3.c How should DOE prioritize or structure its financial and technical support to advance high-impact generation, transmission, and grid infrastructure projects to serve large electric loads?

DOE should prioritize its financial and technical support to advance high-impact transmission and grid infrastructure projects using resources such as the *Unleashing the Grid* framework created by ADC and CSL. *Unleashing the Grid* includes defense principles that can inform program design and questions that can be used to characterize defense priority zones and target investment. Full descriptions of these resources can be found on the www.unleashthegrid.org website.

[25] Wilson Rickerson et al, Electricity Transmission Regulatory Processes and Policy Authorities: A Summary for Defense Stakeholders, *Association of Defense Communities,* (March 2025).
[26] Modernizing Defense Acquisition and Spurring Innovations in the Defense Industrial Base, *White House,* (April 2025).

Defense Principles

With military missions, defense communities, and DIB nodes in all 50 states and the District of Columbia, any improvement in grid reliability and resilience supports national defense. This broad benefit is appropriate when considering the need for national transmission backbones, but it is difficult to translate into nuanced guidance for specific geographies.

Unleashing the Grid presents a set of core national defense principles that can be adapted to guide and inform grid resilience planning and programs. These principles are drawn primarily from DoW energy policies, the objectives of the Trump Administration's Executive Orders, and interviews with national defense stakeholders. These principles do not constitute formal policies or positions; rather, they are intended as reasonable proxies for how defense priorities might be taken into account when considering new strategies for speed to power.

- **Principle 1. Prioritize energy assurance to critical missions**. DoW policy is to enhance military capability by diversifying and expanding its energy supplies and sources. Critical national defense missions must achieve between 99.9% and 99.9999% energy availability by law and policy. Speed to power planning and programs should take these requirements into account.
- **Principle 2. Incorporate defense loads into programming and investment.** Military mission, defense community, and DIB loads should be considered as a standard part of grid investment, de-risking, technical assistance, and program design. The Electricity Information Sharing and Analysis Center (E-ISAC) could serve as a conduit for secure information sharing across sectors.
- **Principle 3. Identify and efficiently connect missions and facilities.** The military's energy demands are shifting as defense agencies invest in new missions and capabilities in both existing and new locations. Each of the Military Services has its own modernization and force design strategies, such as the Air Force's Future Operating Concept and the Marine Corps' Force Design 2030, that outline planned transformations in capabilities and technologies. DOE programming should understand, accurately represent, and prepare for transformations in military force design so that expanding defense missions are protected from electricity supply shortfalls.
- **Principle 4. Provide cost-effective reliability.** In the race for electrons and capacity, the military (and taxpayers) must be able to access diverse, low-cost resources. Grid expansion is a low-cost avenue to increase reliability and increase supply diversity for defense loads. Planning, permitting, and construction for cost-effective grid expansion, grid enhancing technologies, and advanced reconductoring that specifically supports national defense should be prioritized and accelerated.

Defense Energy Questions

Unleashing the Grid provides a series of questions that defense stakeholders can use to orient themselves to current trends and to the drivers of risk within their domestic areas of operation. Defense stakeholders cannot effectively know or address their own risks without understanding the risks to the grid that supports them. These questions build on other efforts from organizations such as the NARUC and the RAND Corporation that use standard questions and indicators to characterize the defense energy resilience landscape. The Framework includes guiding questions, such as:

- What is the outlook for electricity reliability, and what does it mean for military missions, defense communities and the DIB?
- How much is electricity demand growing in the region (and how fast)?
- How might extreme events impact the BPS?
- How is the electricity supply mix evolving?
- What are the transmission opportunities that could support national defense?

DOE could use these questions to develop profiles of defense priority zones based on the concentration of defense assets and communities, grid constraints, load growth, and the readiness of existing grid technology and expansion concepts to be accelerated through DOE programs.

3.g.i Are there successful examples of interagency coordination that should be expanded to address grid capacity and load growth?

In both World War I and World War II, interagency communication was foundational to the build-out of energy infrastructure to alleviate electricity shortages and support surging defense production. In WWII, the War Department and Federal Power Commission coordinated regional power sharing, the allocation of available resources to critical defense industries, and the rapid build-out of the power grid. Additional details on the history of defense and energy agency collaboration can be found in CSL's report *Powering the Fight*: *Lessons from the Grid at War*. Effective engagement across critical agencies, however, cannot be reserved for times of war. It must be a preemptive measure to prepare for and deter conflict. Particularly today, as the energy landscape grows more complex and contested, the interdependence of military operations and the diversity of national energy stakeholders requires enhanced collaboration across military and energy agencies to ensure strategic readiness and operational continuity. The were multiple proposals for interagency coordination and cooperation across energy and defense made under the first Trump Administration, which could serve as examples to build on:

- DOE and the DoD signed a Memorandum of Understanding in 2020 to strengthen efforts to support DCEI and protect military installations.[27]
- The DSB Task Force on Department of Defense Critical Infrastructure Dependencies, which was formed in 2019, recommended the formation of a Joint Interagency Analysis Center. Among other responsibilities, the center would "[f]ocus 'beyond the fence line initially to address assurance/resiliency requirements for critical assets, but as tools mature, for force mobilization and projection."[28]

3.h.i. What are the most critical data gaps or information needs that DOE should address to better understand and support these projects?

- The DOE Electricity Advisory Committee recommended the development of specialized mechanisms for DCEI-related information sharing and the expansion of industry

[27] Memorandum of Understanding Between U.S. Department of Defense, Office of the Assistant Secretary of Defense for Sustainment and U.S. Department of Energy, Office of the Assistant Secretary for the Office of Electricity, (April 2020).
[28] Department of Defense Dependencies on Critical Infrastructure, *Defense Science Board,* (August 2024).

engagement.[29] NARUC likewise highlighted the need for secure information sharing between regulators, utilities, and defense stakeholders related to critical electric infrastructure information (CEII). DOE could support efforts to categorize and communicate about DCEI assets without the need to disclose vulnerabilities in public forums, drawing on the example from the NERC Critical Infrastructure Protection (CIP)-14 requirements.[30]

DOE could also work with DoD to develop mission energy profiles as the unclassified building blocks that enable information sharing with utility partners about defense loads. Mission energy profiles would generalize information by mission type, such as the amount of power demand, how that demand changes over time, and the duration of time that the power is needed, that could be communicated to utility partners.[31]

4.a. What types of new electric load are driving demand increases in your service area or region?

The intent of speed to power is to support related manufacturing, industrial, and artificial intelligence/data center electricity demand growth. Defense loads are growing in each of these areas.

- **Defense industries and manufacturing.** DIB load is increasing as the U.S. DIB replenishes stockpiles depleted by the war in Ukraine, and scales to deter future conflict. The U.S. is also seeing record sales to overseas allies and partners.[32] [33]
- **Data center and AI load.** The growth in the cyber and space domains is increasing the load in key defense regions as national security agencies build dedicated data centers to host air-gapped clouds. The use of AI for defense purposes is also driving an increase in demand.
- **Mission growth.** The military is undergoing the largest change in force structure in 20 years. These changes have energy implications as missions move and new missions are created. South Dakota utilities, for example, are preparing for a new B-21 Raider bomber mission at Ellsworth AFB. In Virginia, the state economic development plan calls for utility coordination to support the Next Generation Air Dominance (NGAD) platform. New missions such as the Golden Dome will also have high energy requirements.

As discussed above, DOE can consider defense industry and mission load in its programming. DOE can also help ensure that civilian load growth leaves sufficient headroom for future strategic defense investments and does not "box out" defense loads in the near-term.

[29] Strengthening the Resilience of Defense Critical Electric Infrastructure: Recommendations for the U.S. Department of Defense, (March 2022).
[30] Wilson Rickerson et al, Regulatory Considerations for Utility Investments in Defense Energy Resilience, *National Association of Regulatory Utility Commissioners,* (October 2021).
[31] Wilson Rickerson et al, Defense Energy Resilience Engagement Framework for Utility Regulators, *National Association of Regulatory Utility Commissioners,* (September 2024).
[32] McGeady, Cy, Powering the Commanding Heights: The Strategic Context of Emergent U.S. Electricity Demand Growth, *Center for Strategic & International Studies,* (October 28, 2024).
[33] Eaglen, Mackenzie, America's Munitions Crisis is Real, *AEI,* (August 5, 2025).