SUSTAINABILITY BY ANOTHER NAME

How Resilience Became the New Language of Climate Action in the U.S. Defense Sector

Microgrids

Energy Storage

Alternative Energy

Water Security

WASHINGTON | CORE

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SUSTAINABILITY, REFRAMED

Across the U.S. defense sector, sustainability is increasingly being examined through a different lens. Military leaders now speak of resilience, readiness, energy security, and mission assurance rather than climate change or emissions reduction. Yet many of the projects associated with these priorities look remarkably familiar.

From microgrids and battery storage systems to alternative energy technologies and infrastructure hardening, initiatives once described as sustainability efforts continue to move forward across military installations. The terminology has changed, but the underlying challenges and many of the solutions designed to address them remain largely the same.

The U.S. defense sector offers a useful case study on policy priority evolution. While the climate action language has become largely eliminated, sustainability-related efforts have increasingly been absorbed into a broader framework centered on resilience and military readiness.

KEY TAKEAWAYS

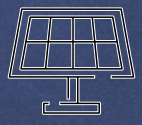
THE LANGUAGE SHIFTED

Under the new administration, climate framing has receded. The same priorities now travel under resilience, readiness, energy security, and mission assurance.

THE DAMAGE IS REAL

Extreme weather has caused more than $15 billion in damage to U.S. installations since 2015, with $12.53 billion in federal recovery funding — the practical driver behind the resilience push.

THE PROJECTS CONTINUE



Microgrids, battery storage, alternative energy, water security, and infrastructure hardening keep advancing — at Miramar, Sigonella, Fort Bliss, and Fort Buchanan. The terminology changed; the work didn't.

Largest Renewable Energy Project in U.S. Military History
Fort Bliss, Texas,

Source : U.S. Army[1]

THE WORLD'S LARGEST INSTITUTIONAL CONSUMER OF ENERGY

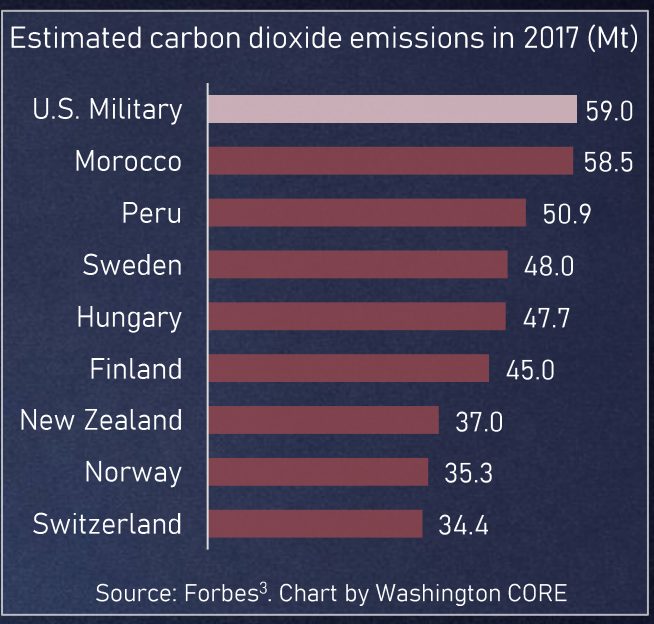
The Department of Defense (DoD) is widely considered the world's largest institutional consumer of energy. Maintaining hundreds of installations, supporting a global logistics network, and operating military assets around the world require vast amounts of fuel, electricity, water, and infrastructure.

Between 2010 and 2019, the U.S. military generated approximately

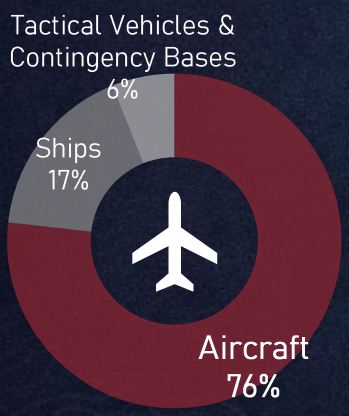
636 MILLION metric tons

of carbon dioxide equivalent emissions[2]

If the DoD were a country, its emissions would rank larger than many industrialized nations.



US MILITARY CO_2 EMISSIONS BY EQUIPMENT TYPE



Source: Department of Defense[4]. Chart by Washington CORE

Most of those emissions do not come from combat operations. They stem from the day-to-day activities required to maintain readiness: transporting personnel and equipment, conducting training exercises, testing aircraft, and operating military installations across the globe.

According to the DoD, roughly 70% of military energy consumption is associated with moving and operating forces and equipment, with aircraft accounting for the largest source of operational emissions, followed by ships and tactical vehicles.

MILITARY INSTRALLATIONS

Military installations themselves are also major energy consumers.

In fiscal year 2017, the DoD spent approximately

$3.5 BILLION

on electricity, heating, and cooling for more than half a million buildings[5].

TWO LENSES, ONE MISSION

Policymakers increasingly viewed the military's energy footprint through two lenses:

ENVIRONMENTAL LENS

Reducing CO2 emissions and improving sustainability.

Climate change climbed the policy agenda during the 2010s,.

OPERATIONAL LENS

Reducing fuel costs, strengthening infrastructure, and preparing military installations for increasingly frequent disruptions caused by extreme weather.

Over time, those two conversations became increasingly intertwined, laying the foundation for a broader debate about climate, sustainability, and military readiness.

CLIMATE CHANGE AS A THREAT MULTIPLIER

For much of the early 2020s, defense officials increasingly viewed climate change not simply as an environmental issue, but as a national security concern. In 2021, Secretary of Defense Lloyd Austin described climate change as a "profoundly destabilizing force," while policymakers embraced the concept of climate change as a "threat multiplier" capable of intensifying existing security challenges through infrastructure damage, resource scarcity, migration pressures, and regional instability.

MLITARY OPERATIONS ALREADY FEEL THE IMPACT

These concerns were not theoretical. Military installations across the United States were already experiencing flooding, droughts, hurricanes, wildfires, and other extreme weather events that disrupted operations and threatened critical infrastructure. As a result, climate considerations became increasingly integrated into defense planning, installation management, and infrastructure investment throughout the Biden years.

The military services also began translating those priorities into projects on the ground. The Air Force released its Climate Campaign Plan in 2022. At the same time, the Army, Navy, and Marine Corps expanded investments in microgrids, battery storage, and installation resilience projects designed to strengthen operational continuity during emergencies and grid disruptions. One notable example was the Marine Corps Air Station Miramar microgrid project in California. Completed in 2021, the installation combines solar generation, battery storage, landfill gas, and backup generation to provide resilient power during grid outages while reducing overall energy consumption. Projects such as Miramar reflected a growing belief that sustainability and military readiness could reinforce one another rather than compete.

By the end of the Biden Administration, climate considerations had become embedded in discussions about military readiness, installation resilience, and infrastructure modernization. But would those priorities survive a change in administration?

A Shift in Priorities

When President Trump returned to office in 2025, climate policy was among the areas where the contrast with the previous administration became immediately apparent.

One of the administration's earliest actions came in January 2025 with Executive Order (EO)14148, which revoked Executive Order 14057 and effectively dismantled the Biden-era emphasis on federal sustainability and net-zero initiatives. broader efforts followed to remove certain sustainability requirements from federal procurement and reduce the prominence of climate-related priorities across government.

The shift quickly became visible within defense policy. While the Biden Administration had elevated climate change as a national security concern, the Trump Administration refocused attention on great-power competition, military modernization, and warfighting capabilities. Analysts at the Center for Strategic and International Studies identified climate as one of the clearest areas of divergence between the 2022 and 2026 National Defense Strategies, noting that climate change was largely absent from the latter.

The change extended beyond policy documents. Public statements from defense officials increasingly emphasized resilience, energy security, and mission readiness rather than emissions reduction or climate leadership. Bret Strogen, former energy and sustainability advisor to the Assistant Secretary of the Army, summarized the emerging view by arguing that climate adaptation and resilience remain important responsibilities for the Department of Defense, while climate mitigation and emissions reduction are not central military missions[7].

On paper, this appeared to represent a major change. In practice, however, many of the underlying activities continued.

When Sustainability Became Resilience

SUSTAINABILITY			RESILIENCE		
Climate risk management	CO2 emission reduction	Climate policy and compliance	Mission assurance and readiness	Energy security and reliability	Operational continuity

Extreme weather, energy and water vulnerability, and threats to readiness

The sustainability-related initiatives continued because the underlying challenges never disappeared.

Military installations still face hurricanes, floods, wildfires, droughts, power outages, and infrastructure failures regardless of which administration occupies the White House. A base that loses power during a crisis cannot carry out its mission. A damaged runway can disrupt training and deployment schedules. Water shortages can affect both operations and quality of life for service members and their families. Whether these problems are described as climate risks or resilience challenges, they ultimately affect military readiness.

The consequences are no longer hypothetical. Since 2015, extreme weather and natural disasters have caused more than $15 billion in damage to U.S. military installations, prompting Congress to provide at least $12.53 billion in disaster recovery funding. Major events such as Hurricane Michael's destruction of Tyndall Air Force Base and the earthquakes at Naval Air Weapons Station China Lake illustrated how vulnerable critical military infrastructure can be.

This is where the terms began to shift. Climate change remained politically contentious, but resilience was much easier to frame in military terms. Rather than focusing on emissions reductions, military planners increasingly emphasized mission assurance, infrastructure protection, energy security, and operational continuity. The goal remains basically unchanged: ensuring that installations can continue operating during disruptions and recover quickly when disasters occur. the projects remained fundamentally unchanged; it was the language used to justify those investments.

Major Military Installations That Sustained Damage from a Natural Disaster (2015–2024)

Source: GAO[9]. Chart by Washington CORE

How the Military Adapted

The clearest evidence that sustainability efforts have not disappeared can be found on military installations themselves.

Although climate language has become less prominent in Washington, the Army, Navy, and Air Force continue investing in technologies designed to improve energy reliability, strengthen infrastructure, and ensure operational continuity. Many of these initiatives would have been described as sustainability projects a decade ago. Today, they are more commonly framed as resilience investments.

Source: DVIDS[12]

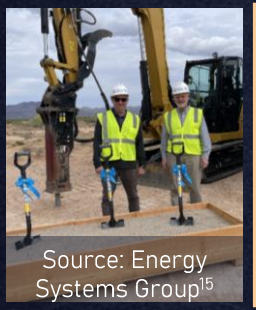
Microgrids and Energy Security

In September 2025, the Naval Facilities Engineering Systems Command awarded a contract to construct a microgrid at Naval Air Station Sigonella in Italy. The project is designed to improve energy security and reliability by allowing portions of the installation to continue operating during grid disruptions. In addition to strengthening electrical resilience, the effort includes improvements to potable water and firefighting systems, reflecting a broader focus on integrated infrastructure resilience

Source: U.S. Army[13]

Advanced Energy Storage and Operational Power

In March 2026, the Army's Engineer Research and Development Center deployed a hydrogen-powered energy node at Fort Bliss, Texas. It combines hydrogen fuel cells, battery storage, solar generation, and on-site water production to deliver resilient power for remote operations without conventional diesel generators. The project was developed to improve operational flexibility and provide reliable power in contested or austere environments not as a sustainability one.



Source: Energy Systems Group[15]

Alternative Energy Generation

In March 2025, the U.S. Air Force and the Department of Defense's Chief Digital and Artificial Intelligence Office selected a team led by Energy Systems Group, GE Vernova, Sage Geosystems, and the University of Utah to explore utility-scale geothermal power for military installations. Unlike solar or wind, geothermal provides continuous five-megawatt baseload power regardless of weather, making it attractive for installations seeking energy independence during disruptions. , the project is justified on energy resilience and national security basis[14].

Source: U.S. Army[16]

Water Security and Infrastructure Resilience

In February 2026, the Army highlighted Fort Buchanan's water security initiative in Puerto Rico, developed in response to vulnerabilities exposed by Hurricane Maria. The program now includes 20 solar-powered water harvesting and purification systems generating roughly 3.1 million gallons of potable water annually — enough to sustain critical facilities for at least 14 days during grid failures or natural disasters. Army officials frame it not as an environmental project but as a mission assurance capability that keeps installations operating during emergencies.

Together, these projects illustrate how military sustainability efforts have evolved rather than disappeared. Whether focused on microgrids, alternative energy, advanced energy storage, or water security, each initiative addresses the same operational challenge: ensuring installations and personnel can continue functioning during disruptions. The language surrounding these investments has shifted toward resilience, readiness, and mission assurance, but the underlying technologies and objectives remain strikingly similar. In the U.S. defense sector, sustainability has not disappeared—instead, it has largely been reframed through the language of resilience.

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Folake Amoda is a research analyst and project coordinator at Washington CORE. Her role encompasses an extensive array of research topics, ranging from decarbonization business strategies and environmental policies in major economies to wastewater technologies, nuclear emergency responses, ESG financing, costly cell and gene therapy treatments, and emerging information and communication technologies. Employing a multifaceted approach, she conducts comprehensive literature reviews and interview-based research, alongside insightful case studies, across these domains. Folake holds a BA in International Affairs from the University of Georgia.

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