



DON Installation Energy Resilience Strategy Brief

Sandy Kline

Director Installation Resilience Office of the Assistant
Secretary of the Navy (Energy, Installations, and
Environment)



SECNAV Energy Strategy: Rollout



- **Vision and Purpose**
- **Energy in Warfighting**
- **Strategic Goals**
- **Mission Alignment**
- **Metrics**
- **3 Pillars of Energy Security**



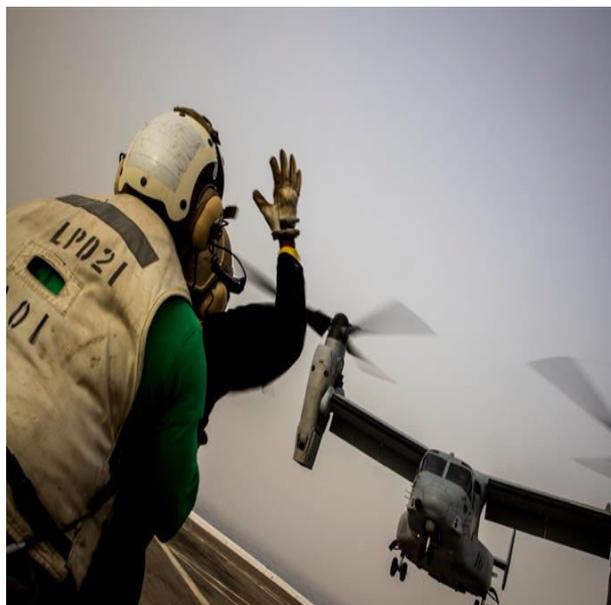


Forward Looking



VISION: Assured energy whenever and wherever it's required to enable mission accomplishment.

PURPOSE: To align the Department's leadership, from top to bottom, on the objective of achieving assured energy at our installations, in the quantity and of the quality we require to accomplish required missions.



Energy is replacing kinetics as the foundation of new weapons systems



Energy in Warfighting

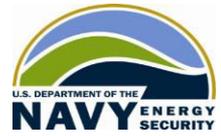


- **The homeland is no longer a sanctuary**
- **Every domain is contested**
- **Tackling installation resilience holistically**





Strategic Goals



Goal 1: Resiliency

Goal 2: Reliability

Goal 3: Efficiency





Mission Alignment

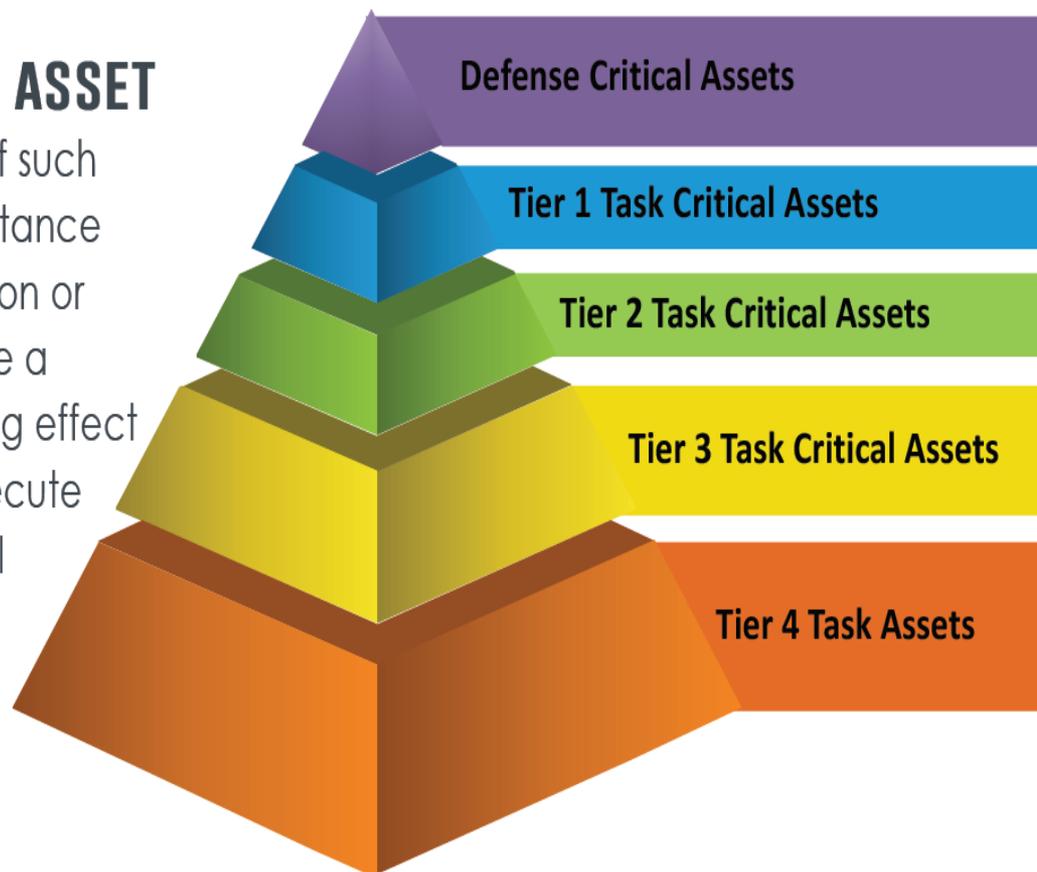


MISSION ASSURANCE CRITICALITY

TASK CRITICAL ASSET

(TCA) – An asset of such extraordinary importance that its incapacitation or destruction will have a serious or debilitating effect on the ability to execute the mission essential task it supports

DODI 3020.45





Metrics



Establishing goals and measuring performance

**1. Develop
Installation
Energy
Plans**

**2. Deliver
Reliability**

**3. Deliver
Resilience**

**4. Test
Mission
Continuity**

**5. Invest in
Energy
Reliability,
Resilience
and
Efficiency**





DON Energy Security Framework



3 Pillars of Energy Security

Mission Assurance

Reliability

Resiliency

Efficiency

Cybersecurity

ESF sets the minimum requirements for installation energy investments



Energy Resilience & Communities



...installation-level leaders will need to engage surrounding communities who are a vital part of the mission assurance equation.

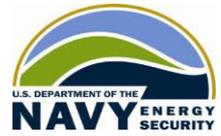
Community Benefits & Collaboration

- Intergovernmental Service Agreement (IGSA)
- Utilities Privatization (UP)
- Third Party Financing
- Energy Resilience and Conservation Investment Program (ERCIP)
- Defense Community Infrastructure Program (DCIP)





SECNAV Energy Strategy



Gray Matter



Gray Hauls

Gray Zones



Backup



Awarded in FY19



FEC	Project Name	Delivered Value	Award Date	Project Scope
LANT	ERCIP NSA South Potomac	\$1.4M	Oct '18	Update building envelope and fixtures for multiple buildings.
PAC	UESC NAS Whidbey Island (Part 1)	\$2.5M	Nov '18	Install Second Phase of NH Steam Decentralization.
LANT	UESC NS Kings Bay	\$15.5M	Dec '18	Built a combined cycle power plant, PV, HVAC, refrigeration and lighting upgrades, water conservation/re-use and SCADA system improvements.
PAC	UESC NWS Seal Beach	\$6.0M	Mar '19	Perform EMCS, AMR/MDMS, Lighting, PV Optimization, Repl substation, Facility M79 HVAC.
LANT	ESPC NS Guantanamo Bay, Cuba	\$368.0M	Mar '19	Install BAS, Roadway/airfield lighting, electrical SCADA/distr upgrades, steam decentralization.
PAC	ERCIP FY15 Diego Garcia PV Solar Phase I	\$14.6M	May '19	Develop Water/WW SCADA and Plant Efficiencies, Lift Station Reset, Interior Lighting.
LANT	UESC MCB Camp Lejeune (TO1)	\$58.9M	May '19	Upgrade lighting, controls, transformers, building envelopes that will result in a total annual project savings of \$1.1M.
LANT	UESC MCB Camp Lejeune (TO 3)	\$48.0M	Jul '19	Provides on-site generation to support energy resiliency, affordable alternative to electricity generating diesel fuel and supports future base electrical.
PAC	UESC MCAS Miramar	\$13.5M	Jul '19	Replace water source heat pump and cooling tower, LED lighting upgrades, VFD's and improvements that will result in 5K MWH / 720 Kgal savings/yr.
PAC	UESC NAVSEA Ventura	\$3.2M	Aug '19	Retrofit Interior/exterior Lighting to LED, CCX + RCX HVAC, Northern AMI Expansion, Point to Point Radios, AMI Unity, Transformer Replacement, Boiler replacement.
PAC	UESC MCB Camp Pendleton	\$12.5M	Aug '19	Improve facility and system reliability through hangar lighting retrofits, advance rooftop unit controls, steam, compressed air and HVAC efficiency upgrades that will result in 2.1K MWH / 12K Mbtu savings/yr.
LANT	UESC MCB Camp Lejeune (TO 2)	\$82.8M	Aug '19	Install Lighting Improvement, PV Carport, EV Charging Station, DDC, Battery Storage.
LANT	ERCIP Portsmouth	\$1.9M	Sep '19	Lighting retrofit, control optimization, RCx, PV, HVAC replacements, irrigation improvements.

LANT FY19 Awarded Value: \$577M

PAC FY19 Awarded Value: \$52M

Awarded Total: \$629M



Awarded in FY20



FEC	Project Name	Delivered Value	Award Date	Project Scope
PAC	UESC NB Kitsap (P-868)	\$1.6M	Oct '19	Reduce energy and water consumption in 3 buildings and eliminate steam distribution system O&M to B1001 and B1003.
LANT	ESPC Norfolk Naval Shipyard	\$173.7M	Oct '19	Implement Energy-related process improvements, distributed generation, boiler and chiller plant improvements, and DDC.
LANT	UESC MCAS Cherry Point (TO 1)	\$40.6M	Nov '19	Install Lighting, Water, HVAC, EMCS, Distr. Generation, Utility Distribution.
LANT	ESPC Portsmouth Naval Shipyard	\$59.2M	Nov '19	Expand battery storage and microgrid control systems, HVAC system upgrades, chilled/hot water distribution system upgrades and lighting improvements.
LANT	ESPC SUBASE New London	\$78.1M	Dec '19	Perform DDC upgrades and construction of a combined heat and power plant with a microgrid that will result in 51K MWH savings/yr.
LANT	ESPC NSA Hampton Roads	\$9.9M	Dec '19	NWA Steam Decentralization, Lighting, Water, NH95 Water Resiliency.
PAC	UESC Naval Base Ventura	\$4.6M	Jan '20	Utilize energy efficiency savings to replace generators, ATS, and breakers.

LANT FY19 Awarded Value: \$362M

PAC FY19 Awarded Value: \$6M

Awarded Total: \$368M



To Be Awarded in FY20



FEC	Project Name	Delivered Value	Award Date	Project Scope
LANT	UESC MCB Quantico	\$28.0M	Feb '20	Install Peak shaving generators, microgrid, VFDs/motors, HVAC improvements, RCx, and water conservation.
LANT	ERCIP NSAW DC/NRL	\$9.6M	Feb '20	Construct Cogeneration Plant at NRL.
PAC	UESC Naval Base Point Loma	\$9.5M	Feb '20	Install Lighting Improvement, irrigation, VFDs, air compressor, boiler, fuel cell.
PAC	UESC NAF El Centro	\$5.6M	Mar '20	Upgrade lighting and control systems, and install PV generation.
PAC	EUL NORCO	\$5.0M	Apr '20	8.6 acres of land will be used for backup generation to support critical infrastructure as a result will increase warfighter readiness.
PAC	IGSA MCAS Miramar	\$3.0M	Apr '20	A 15MW Land fill gas generation and water purification to supply 1/3 of SD City.
LANT	UESC MCAS Cherry Point (TO 2)	\$25.0M	Apr '20	Install Smart grid, Microgrid, HVAC, boilers, lighting, water, and building envelope.
LANT	UESC FRCE Cherry Point	\$90.0M	May '20	Perform Steam decentralization, industrial wastewater process improvement, compressed air system improvements.
PAC	ERCIP FY18 FE CFA Yokosuka	\$5.9M	Jun '20	Install Smart Grid.
LANT	ERCIP FY18 Wallops	\$21.3M	Jun '20	Develop voltage regulation, backup generation, and distribution modifications in support of V16 Aegeis Complex.

LANT FY19 Awarded Value: \$233M

PAC FY19 Awarded Value: \$93M

Awarded Total: \$326M



To Be Awarded in FY20 (cont.)



FEC	Project Name	Delivered Value	Award Date	Project Scope
PAC	ERCIP Naval Base Guam	\$9.8M	Jun '20	Install Energy efficient lights, HVACS, solar and DHWS.
PAC	ERCIP Pearl Harbor Hickam	\$1.4M	Jun '20	Improve Salt Water Pumping System.
LANT	UESC FRCE Cherry Point (TO 2)	\$32.0M	Jul '20	Perform Steam decentralization, industrial wastewater process improvement, compressed air system improvements.
PAC	ERCIP FY17 Guam	\$8.5M	Jul '20	Provides renewable energy to the NBG grid, reliable electricity during utility outages and reduces electricity demand from the local utility.
PAC	ERCIP Everett	\$3.7M	Aug '20	Recommissioning and renovation of heating, ventilating and air conditioning (HVAC) systems in 13 facilities to increase energy efficiency.
LANT	ERCIP SW ASIA Bahrain Island	\$27.3M	Aug '20	Improve Electrical Distribution System.
PAC	ERCIP San Clemente Island	\$21.0M	Aug '20	Install Wind Turbines.
PAC	ERCIP Andersen	\$6.0M	Aug '20	Install 885KW Solar for 6 Bldgs.
PAC	ERCIP JBPHH	\$13.8M	Aug '20	Install Smart Grid.

LANT FY19 Awarded Value: \$233M

PAC FY19 Awarded Value: \$93M

Awarded Total: \$326M



SECNAV Energy Strategy Focus



- **Focuses resources and effort to enhance energy reliability, resilience, and efficiency in order to:**
 - **Improve readiness**
 - **Enhance warfighting capabilities**
 - **Provide energy whenever and wherever it's required to enable mission accomplishment**
 - **Benchmark installation energy performance requirements**
 - **Enhance and improve installation resilience**
 - **Prioritize competing resilience requirements**

Increasing Demand for Higher Quality Energy & Rapid Recharge Capabilities



How we will achieve our Goals



The SECNAV Energy Strategy establishes metrics and reporting requirements in order to measure progress, focus investments, and enhance our data collection efforts to demonstrate achieving this strategy's objectives.

- 1. Develop Installation Energy Plans (IEPs)**
- 2. Deliver Reliability**
- 3. Deliver Resilience**
- 4. Test Mission Continuity**
- 5. Invest in Energy Reliability, Resilience and Efficiency:**

Strategy to provide leaders and energy managers at every level with clear goals and metrics to guide continued resiliency initiatives at our Navy and Marine Corps installations.



SECNAV Energy Strategy: Resilience



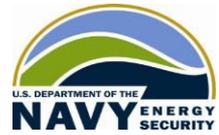
ENERGY RESILIENCE means the ability to avoid, prepare for, minimize, adapt to, and recover from anticipated and unanticipated energy disruptions in order to ensure energy availability and reliability sufficient to provide for mission assurance and readiness, including mission essential operations related to readiness, and to execute or rapidly reestablish mission essential requirements.

- Section 101, Title 10, United States Code





SECNAV Energy Strategy



“Operating with a sense of urgency means you fix something when it’s wrong. It’s a habit of thought and action that recognizes a personal responsibility to continually improve our organization to be faster, more efficient and more effective in complex and challenging environments”

- Acting Secretary of the Navy, Thomas B. Modly

