



N A R U C
National Association of Regulatory Utility Commissioners

Alternative Financing: EPRR FFOCS Subcommittee



June 17, 2021



CONVERGE
STRATEGIES

AGENDA

01

**Alternative Financing: Why
is it Relevant to
Commissioners?**

02

**Department of Defense:
Organizational Structure**

03

**Installation Energy
Perspective**

04

**Planning Beyond the Fence:
State/Local Communities**

05

**Planning Beyond the Fence:
Distribution Grid**

06

**Planning Beyond the Fence:
Transmission System**

RELEVANCE TO COMMISSIONERS



UP UNTIL NOW....

Material for the FFOCS Subcommittee has focused primarily on federal funding mechanisms available for applications by states



TODAY,

We'd like to draw attention to some funding mechanisms and strategies specific to the DoD but in which investor owned utilities can also participate



IT'S IMPORTANT TO RECOGNIZE

That some projects could be exercised outside the purview of state commissioners and still have impacts on utility systems



ADDITIONALLY,

This will also set the stage for the funding component of the NARUC DCEI work, in which CSL is also involved.



Naval Station Norfolk
Norfolk, Virginia

>500

DoD installations worldwide

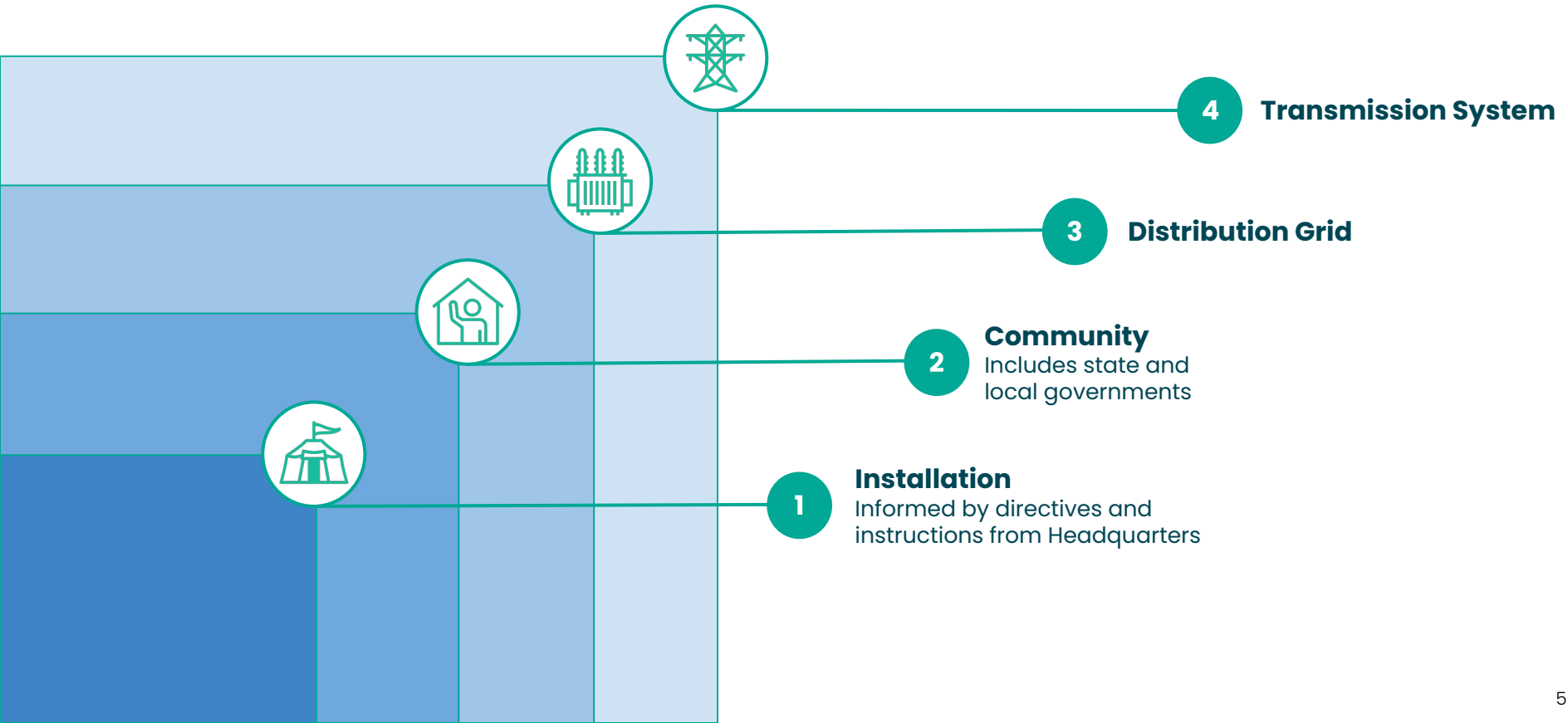
>300,000

Buildings

>160,000

Non-tactical vehicles

ENERGY SYSTEMS EXTEND “BEYOND THE FENCE”



HEADQUARTERS LEADERSHIP

Each Military Department has identified a senior executive for energy at the headquarters level.



Hon. Alex A. Beehler

*Assistant Secretary of the Army
(Installations, Energy &
Environment)*



Hon. Charles A. Williams

*Assistant Secretary of the Navy
(Energy, Installations and
Environment)*



Mr. John W. Henderson

*Assistant Secretary of the Air
Force (Installations, Environment
and Energy)*

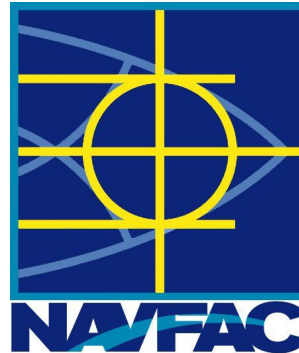
ENERGY PROGRAM OFFICES

These offices coordinate large-scale energy project development between installations, HQ, and private sector.



Army

*Office of Energy
Initiatives (OEI)*



Navy

*Acquisition Modernization
Office (AMO)*



Air Force

*Office of Energy
Assurance (OEA)*

MULTIPLE INSTALLATION STAKEHOLDERS

Installation Energy Leadership

Personnel responsible for base-wide energy varies by Military Service, but may include public works director/officer, engineers, utility managers, and energy managers.






Installation Leadership

Installation leadership may include Garrison Commander (Army), Wing Commander (Air Force), and Base Commanding Officer (Navy).

Distinct Tenants

Bases may have dozens of mission tenants each with their own energy resilience requirements and budgets.

STAKEHOLDERS VARY BY MILITARY DEPARTMENT

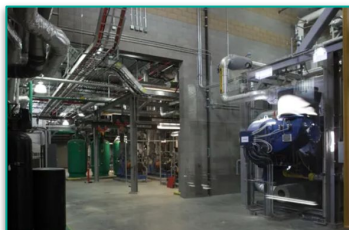
	Army	Navy	Air Force
 Installation Leadership	Garrison Commander (O-6, COL)	Installation Commander (O-6, CAPT)	Wing Commander (O-6, Col)
 Installation Energy Leadership	Director of Public Works	Public Works Officer (O-4 or O-5, LCDR or CDR)	
	Director of Engineering	Utilities Manager	Energy Manager
	Energy Manager		
 Distinct Tenants	Energy Manager		
	Bases may have dozens of mission tenants each with their own energy resilience requirements.		

ESTABLISHED ACQUISITION PATHWAYS

Acquisition Pathway	ESPC and UESC	Enhanced Use Lease	Utility Privatization	Power Purchase Agreement
Contract Structure	Performance contract paid for through guaranteed savings from ECMs	Lease of land at fair market value (FMV) to create power system on military property	Entire utility system conveyed to non-DoD entity; entity must invest in utility system	Purchase of power on \$/kWh basis from on- or off-site energy provider
Contract Length	Up to 25 years	5 years (or greater)	10 to 50 years	Up to 30 years
Authority	10 U.S.C § 2913	10 U.S.C. § 2667	<ul style="list-style-type: none"> • 10 U.S.C. § 2688 • DRID 9 (1997) 	10 U.S.C. § 2922(a)
Resilience	2018 OSD policy states that resilience measures should be blended with ECMs	<ul style="list-style-type: none"> • 2016 OSD Guidance • 2018 NDAA states that EULs "shall prioritize energy resilience..." 	2018 NDAA amended UP language to include energy resilience	Does <i>not</i> include any specific requirements to incorporate energy resilience measures
Main Limitation	Resilience measures may not generate significant cost savings required by contract	Lack of clarity as to whether DoD can consume power from an EUL contract itself	Difficult to integrate resilience reqs into existing contracts	Contracts must be at or below market rate, complicating addition of resilience measures

ENERGY RESILIENCE PROJECTS

Pathway	ESPC	UESC	Enhanced Use Lease	Power Purchase Agreement
Installation	MCAGCC Twentynine Palms	Patrick Air Force Base	NCBC Gulfport	Fort Drum
Size	7.2 MW	6.6 MW	4.29 MW	60 MW
Technology	Cogeneration	Backup Power Plant + ECMs	Solar PV / Storage	Biomass



INSTALLATION



Challenge

- Military acquisition authorities are not clear or flexible enough to scale at the speed necessary to meet critical requirements
- Confusing menu with solutions not purpose-built to deliver resilience



Precedent

- NDAA and OSD clarifications on resilience
- Innovations with existing pathways, e.g. USAF Hanscom AFB OTA and Fort McNair UESC
- Stretch to new pathways – IGSA, MPFI, ANCs, SBIR Phase III, CRADA+



Big Idea

Resilience Acquisition Modernization Program (RAMP)

- Enable and emphasize 1-2 pathways to supercharge TCA/DCA resilience
- Preserve existing pathways



Resources

- Congressional action to create, clarify, or modify authorities
- DoD guidance and training
- Alignment across contracting offices



Challenge(s)

- Critical infrastructure energy requirements in defense communities are not well understood
- Interlinkage with installations unclear
- Municipalities are not equipped to help map



Precedent

- Community mapping, e.g. USAF RIGOR and NPS for DOE/DHS
- U.S. DOE solar technical assistance teams to support local planning
- EECBG program provide direct resources to communities
- DCIP/DoD OEA



Big Idea

Resilient Defense Communities

- Municipal outreach and engagement
- Dedicated in-kind T.A. teams to support civilian-military planning and mapping
- Block grants to communities for in-house capacity



Resources

- Congressional action to create U.S. DOE T.A. program and municipal block grant program
- Working group to coordinate across e.g. DOE DCEI, DoD OEA and DCIP, DHS HSGP, FEMA BRIC, and state military offices

DISTRIBUTION GRID



Challenge

- Utilities not empowered or incentivized to invest in defense community critical infrastructure
- Rapidly aging assets, and rapid pace of change from DERs, Smart Grid



Precedent

- Southern company justification for ratepayer recovery in Pentagon Partnership
- APS case for MCAS Yuma frequency regulation plants
- MO legislation for PUC resilience authority (HB 1737 of 2019-20)



Big Idea

- Utility Investment Partnership
- Utilities receive regulatory approval to invest in defense community critical infrastructure energy resilience
 - Utility investments supported by federal tax credits



Resources

- State law to enable utility investments
- Process to brief classified Investment plan to regulators
- Guidance for regulators
- Creation of federal tax credits
- Skilled DoD regulatory participation

TRANSMISSION SYSTEM



Challenge(s)

- Transmission system outages create long duration outage risk
- DoD has not defined requirements (i.e. how much, how fast, how long) to drive hardening
- Joint planning process not in place



Precedent

- DoD efforts with Southern Company, Dominion, and PJM
- NERC CIP Order 14 – standard requirements for critical transmission infrastructure that all utilities can translate
- Black start plans



Big Idea

Defense Integrated Resource Planning (DIRP)

- Translatable requirements for power delivery to DoD assets
- Contingency analysis beyond assurances of “firm services”
- Identification of high priority investments



Resources

- Transmission partners to bring requirements to FERC through Supplemental Projects category
- FERC approval for defense investment rate recovery
- Enhanced DoD resources to engage in DIRP
- Interagency coordination