



U.S. DEPARTMENT
of **ENERGY**

Office of Critical Minerals
and Energy Innovation

Federal Energy Management Program

2026 Federal Utility Partnership Working Group (FUPWG) Seminar

Washington, D.C. | Day 1, August 6, 2026



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Welcome and Announcements



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U.S. Department of War Leadership Roundtable



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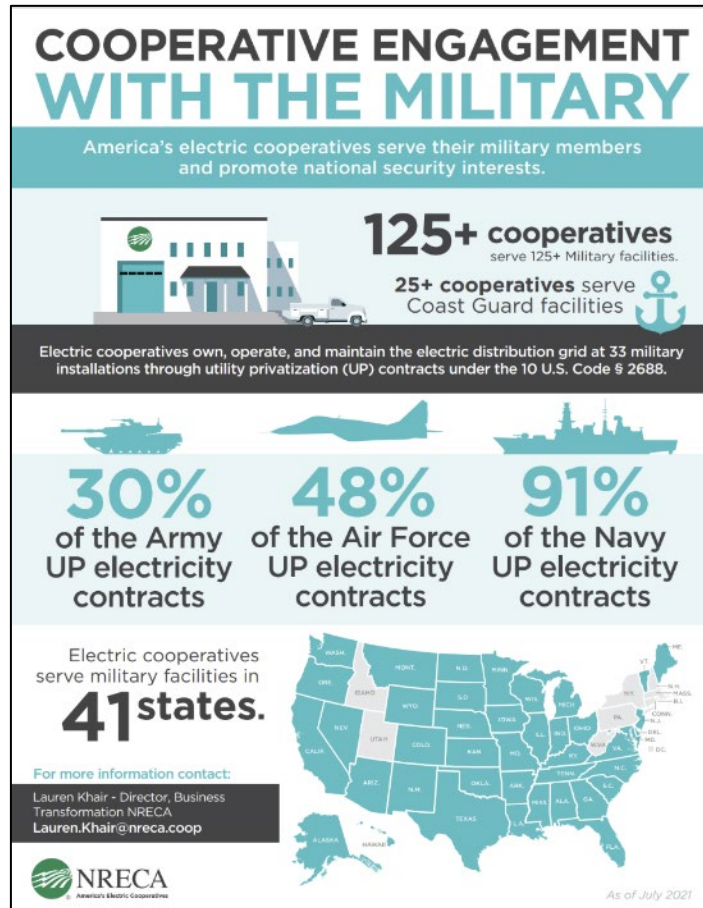
Federal Energy Management Program

Utility Industry Perspectives Panel

Rural Electric Cooperative Industry Perspectives

Lauren Khair
Senior Director of Energy Research & Resilience

NRECA's Defense Program



More than 150 co-ops serve military and Coast Guard facilities in 41 states, including owning and operating base electric grids through utility privatization (UP) contracts.

The experience and lessons of serving these facilities has wide applicability to other critical loads and other large commercial and industrial members.

By the Numbers: Co-op Defense Energy Projects

36

Installations
served by co-ops
with a UP

~\$1.42
billion

Funding received
(1999–2026)

>280

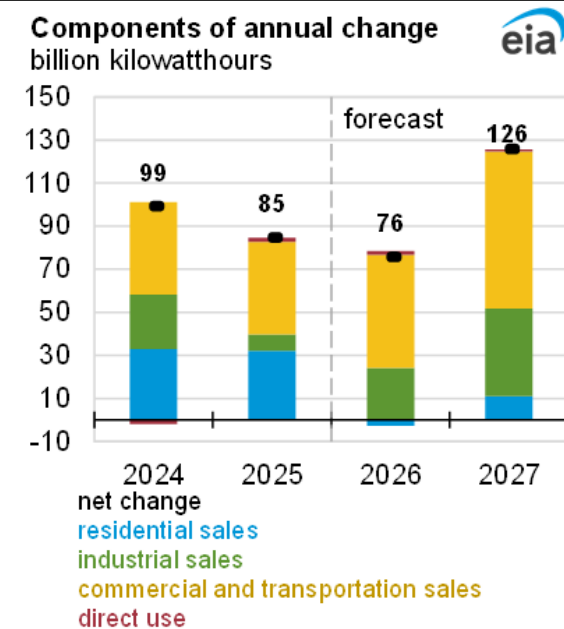
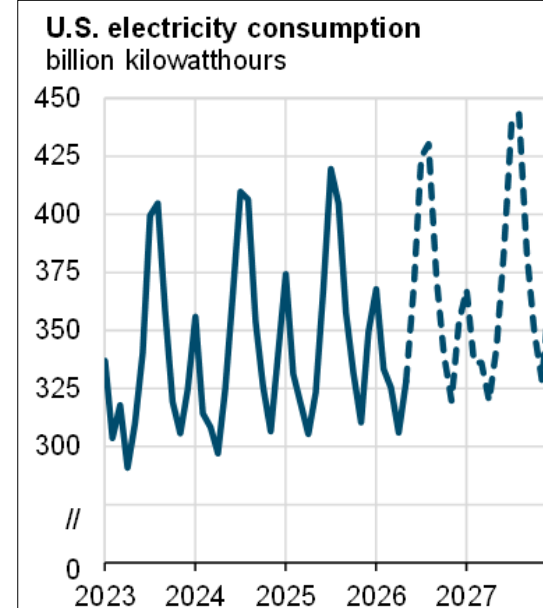
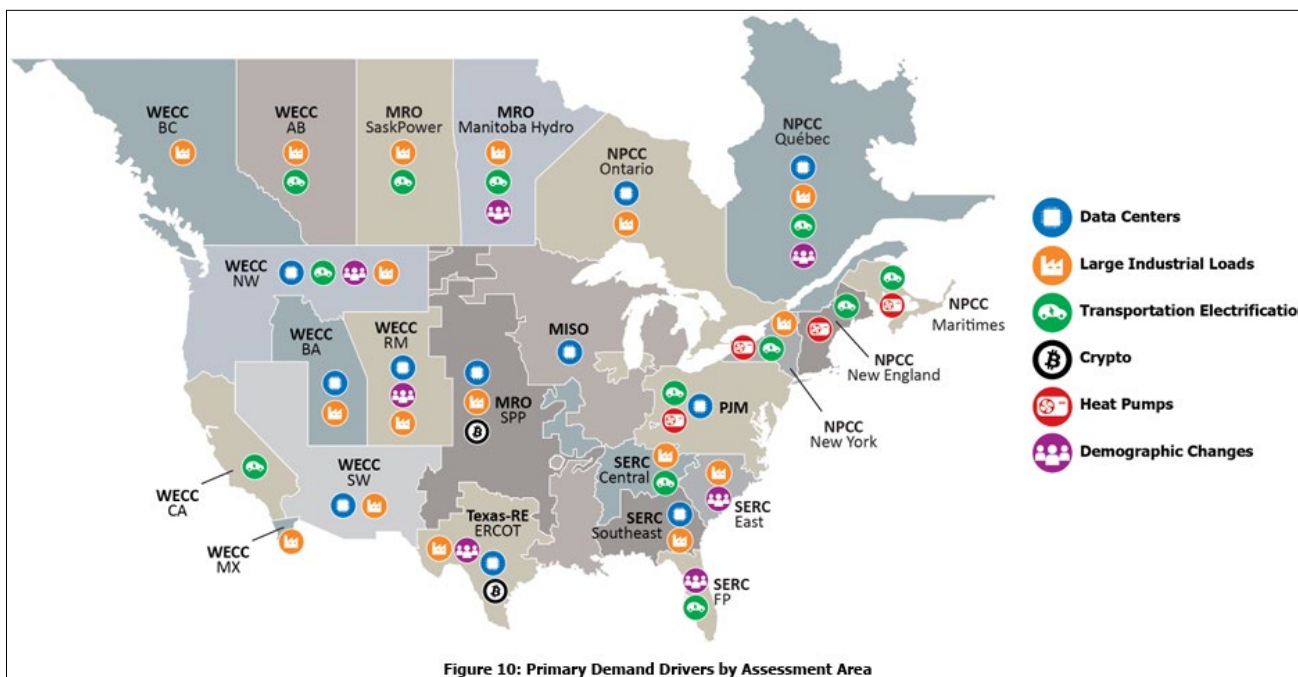
MWs of installed
microgrid capacity

20+

Number of
microgrids
deployed

Industry Trends

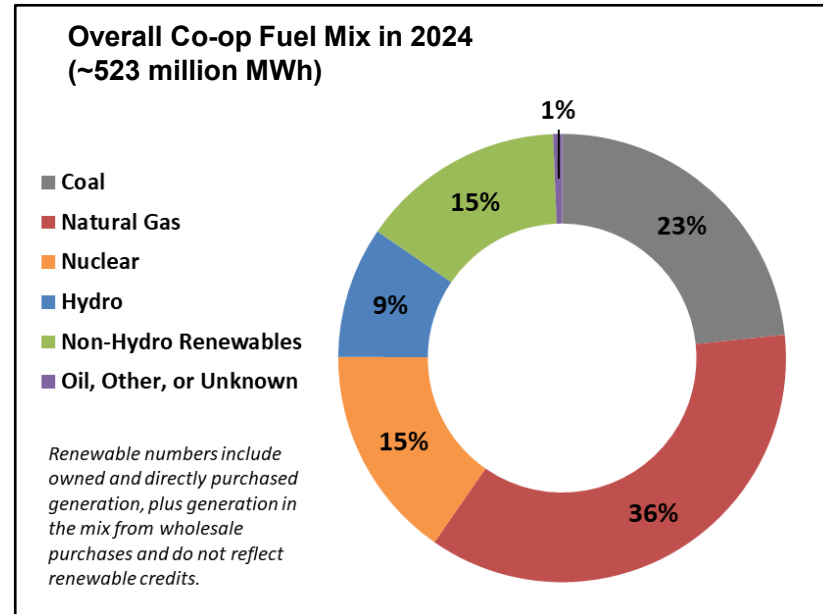
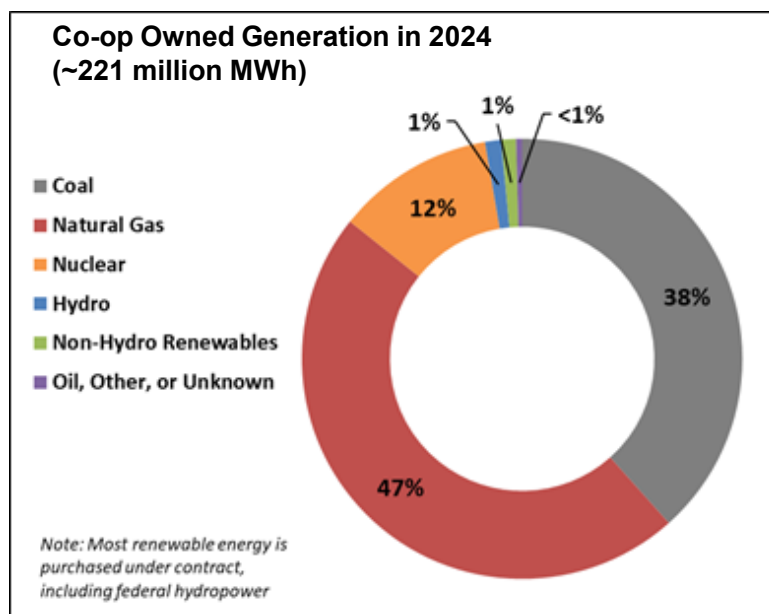
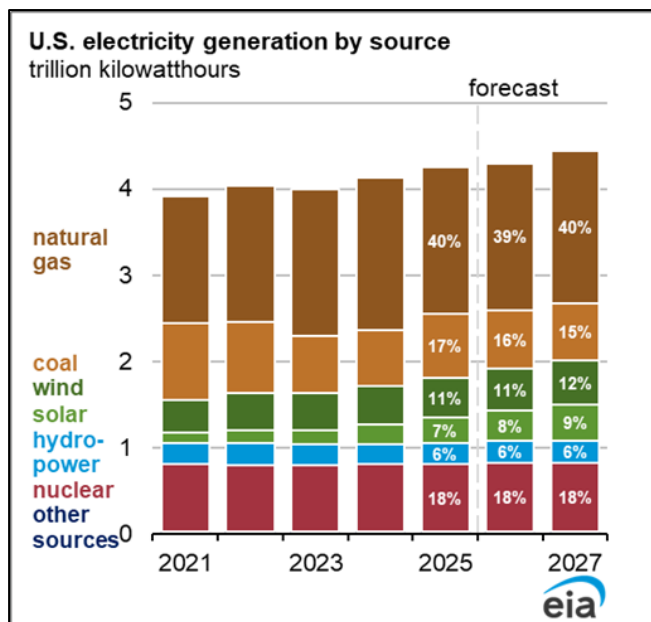
Large Loads and Surging Demand Growth



Data source: U.S. Energy Information Administration. Short-Term Energy Outlook. June 2026

- A single 100-MW data center runs around the clock, with daily consumption comparable to tens of thousands of homes; the largest AI data centers are gigawatt-scale, while proliferation of smaller dispersed data centers are on the horizon
- Data center and manufacturing development is shifting to rural areas, and co-op territories are attractive because of available land and infrastructure, as well as affordable power
- Even co-ops with no large load growth in their territory feel the spillover through regional wholesale prices

Increased Reliance on Natural Gas Generation



- Natural gas is currently the only widely available dispatchable generation option, with reliance exacerbated by on-site generation at data centers, often using less efficient technologies
- That makes firm natural gas supply more important than ever for reliability, especially in winter
- The co-op natural gas fleet will expand significantly over the next five years (10+ GW announced), alongside significant new intermittent wind and solar (4+GW), some with paired battery storage
- This likely means higher wholesale power costs, with coal generation less available to hedge

What Does This Mean for Co-ops?

Cost of Capital

Co-ops are capital-intensive borrowers (RUS, CFC, CoBank). Small rate differences compound over 30-year loans. Decide: lock fixed rates now, or wait on cuts that may not come?

Equipment & Construction

Turbines, transformers, conductor, and substation gear remain costly with long lead times; tariff uncertainty keeps pressure on imported components. All of this creates affordability and timeline challenges.

Labor

Lineworker and skilled-trade wages are rising faster than general inflation—and large utility and data center construction projects compete for the same rural workforce.

Wholesale Power Costs

Wholesale costs are climbing, with co-ops exposed to rising power and transmission costs in many markets as demand rises. Reliance on natural gas creates new challenges, with price swings and volatility.

Regional Defense Summits

Regional Defense Summits: Overview

Impact by the Numbers

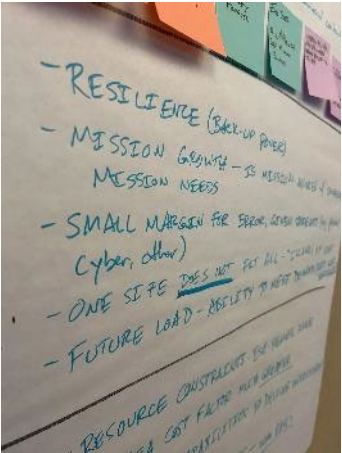
Across the first three Summits:

15+ States represented

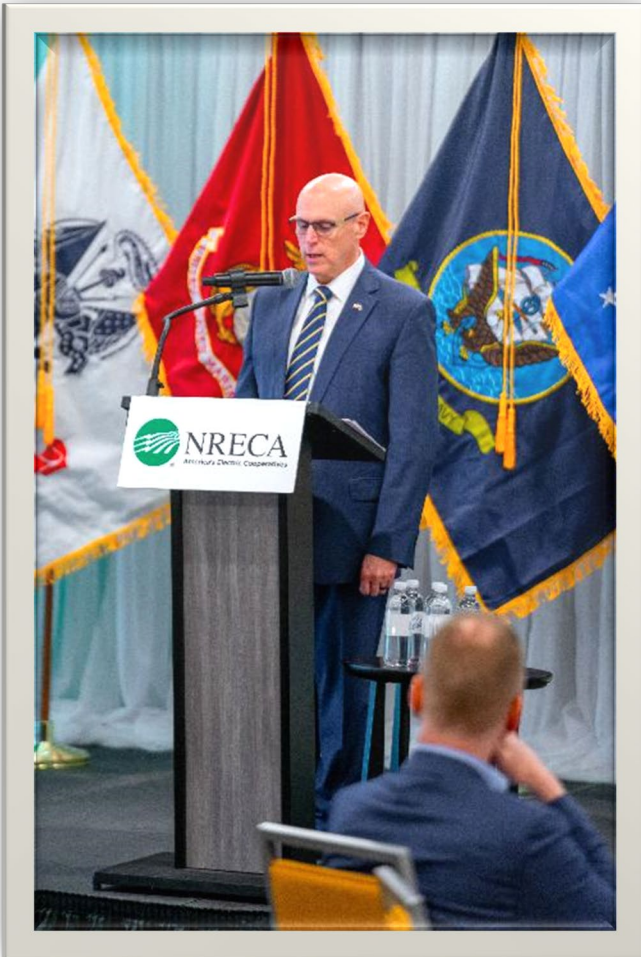
180+ Participants from cooperatives, military, and federal government

20+ Grid modernization projects produced to date

Purpose	Collaboration	Outcomes
These convenings ensure cooperatives continue to be seen as a trusted partner for their member military installations to meet current and future missions .	These summits develop local and regional best practices for engagement between cooperatives and their member military installations .	1. Create top-down buy-in and funding advocacy for projects. 2. Build relationships. 3. Increase technical knowledge through expert-led trainings.

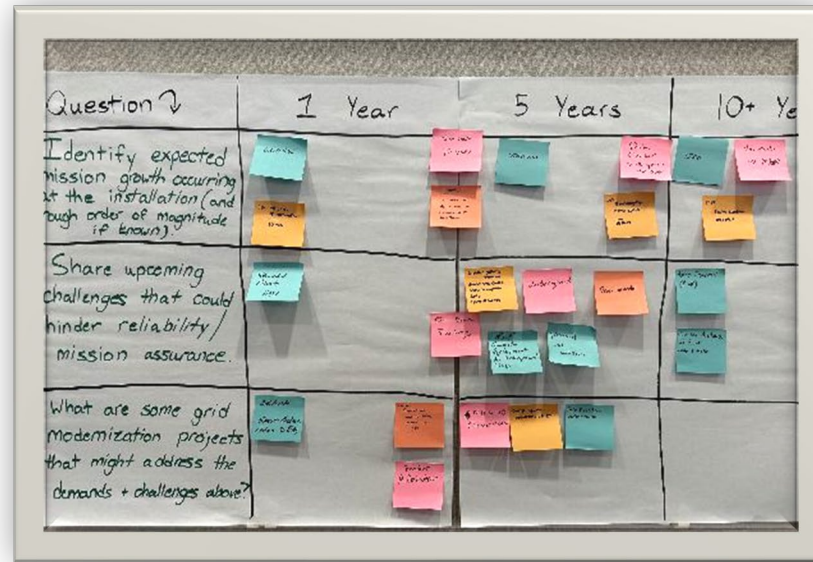


Testimony: Southern Maryland Electric Cooperative
“[The Summit] was extremely beneficial as it allowed more interaction with key personnel from Cooperatives, DoW and DOE to give attention to critical issues facing the industry, and identify the best ways to address them moving forward together.”

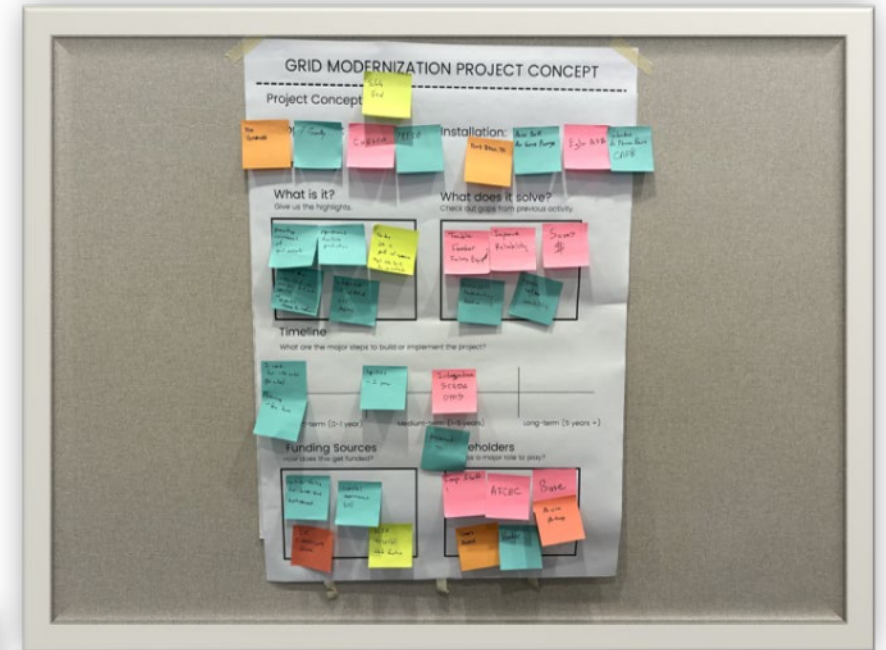


Hon. Dale Marks, Keynote Speaker

"It's a great way to meet and interact with fellow cooperatives and government entities while learning a great deal about what's important, what you can do to support the installation, and improve your system."
 – Rocky Hudson, CHELCO

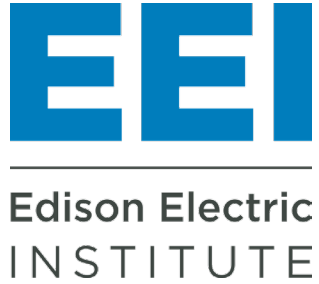


Grid Modernization facilitated discussions



Grid Modernization concept – facilitated discussions

Thank you!



Federal Utility Partnership Working Group

Steve Kiesner

Senior Director, National Customer Solutions

August 6, 2026

Key Electric Industry Themes



Explosive load growth



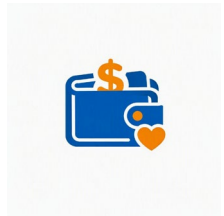
U.S. electric utilities are investing at historic levels



The generation mix continues to diversify



Extreme weather, cyber/physical threats, supply chain disruptions, and national security concerns have heightened **reliability and resilience as strategic priorities**



Affordability and customer expectations are reshaping our world



Electric company-large customer strategic collaboration more important than ever

Load Growth & Investments

3%

U.S. generation growth in
2025

\$1.1T

Utility investment, next 5
years

88 GW

New capacity under
construction

15 GW

Record battery storage in
2025

- Investments in generation have risen in four straight years and are projected to continue rising for the foreseeable future.
- With 114 GW permitted and likely to be built within the next five years.
- Grid currently has approximately 1,360 GW of capacity.



CapEx 2015–2025

EEI Projected Functional Capital Expenditures 2015-2025

U.S. Investor-Owned Electric Utilities
\$ Billions

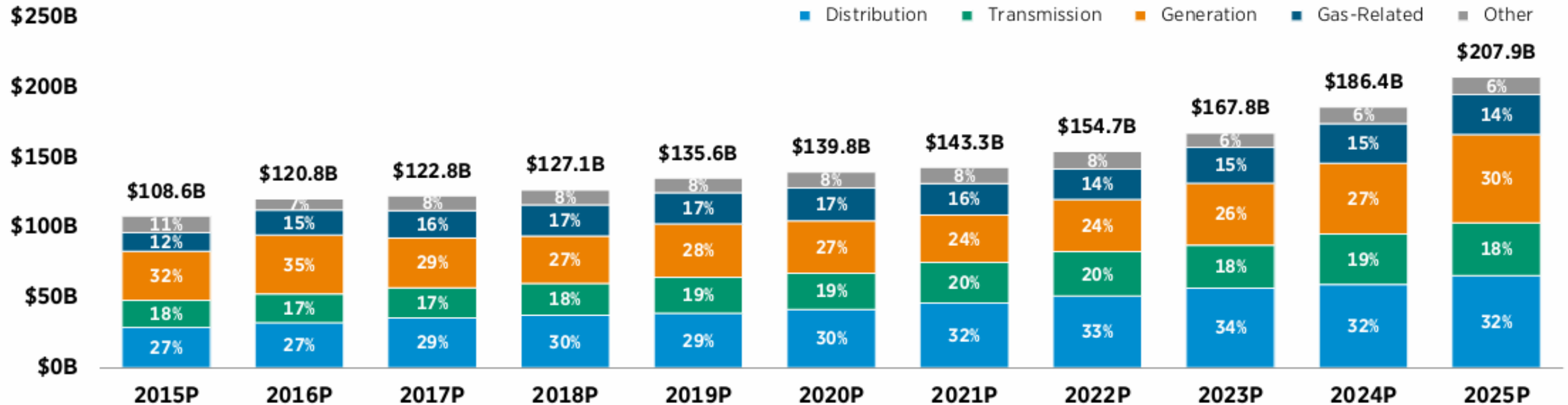
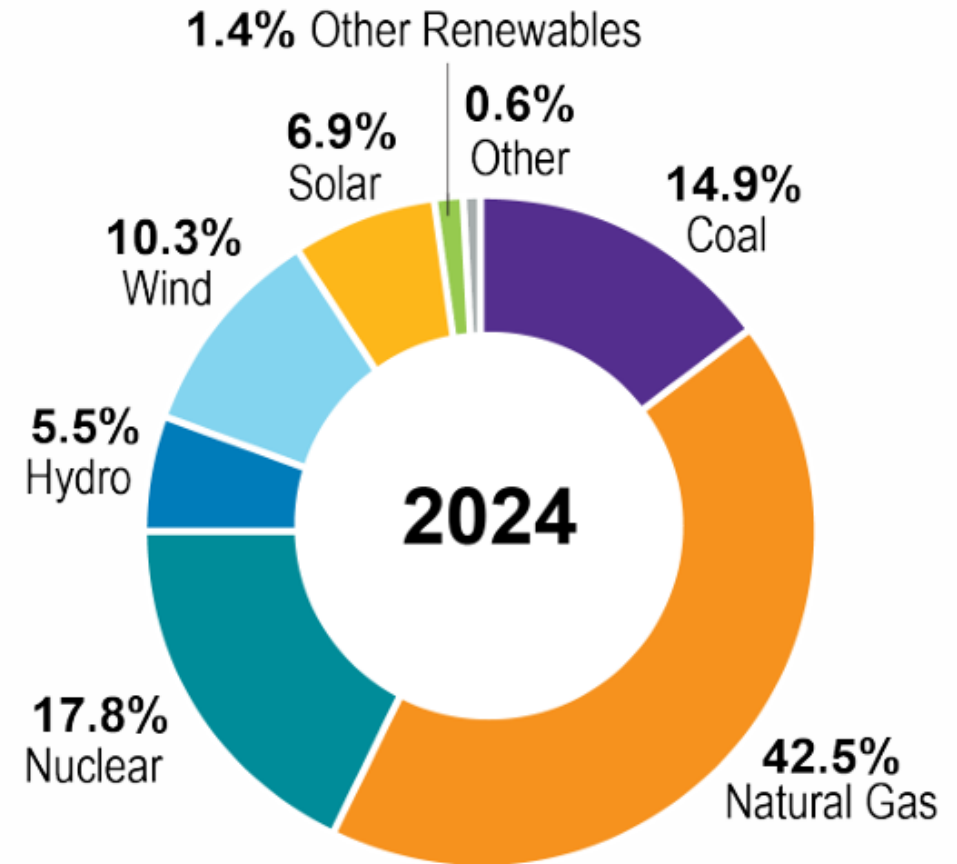
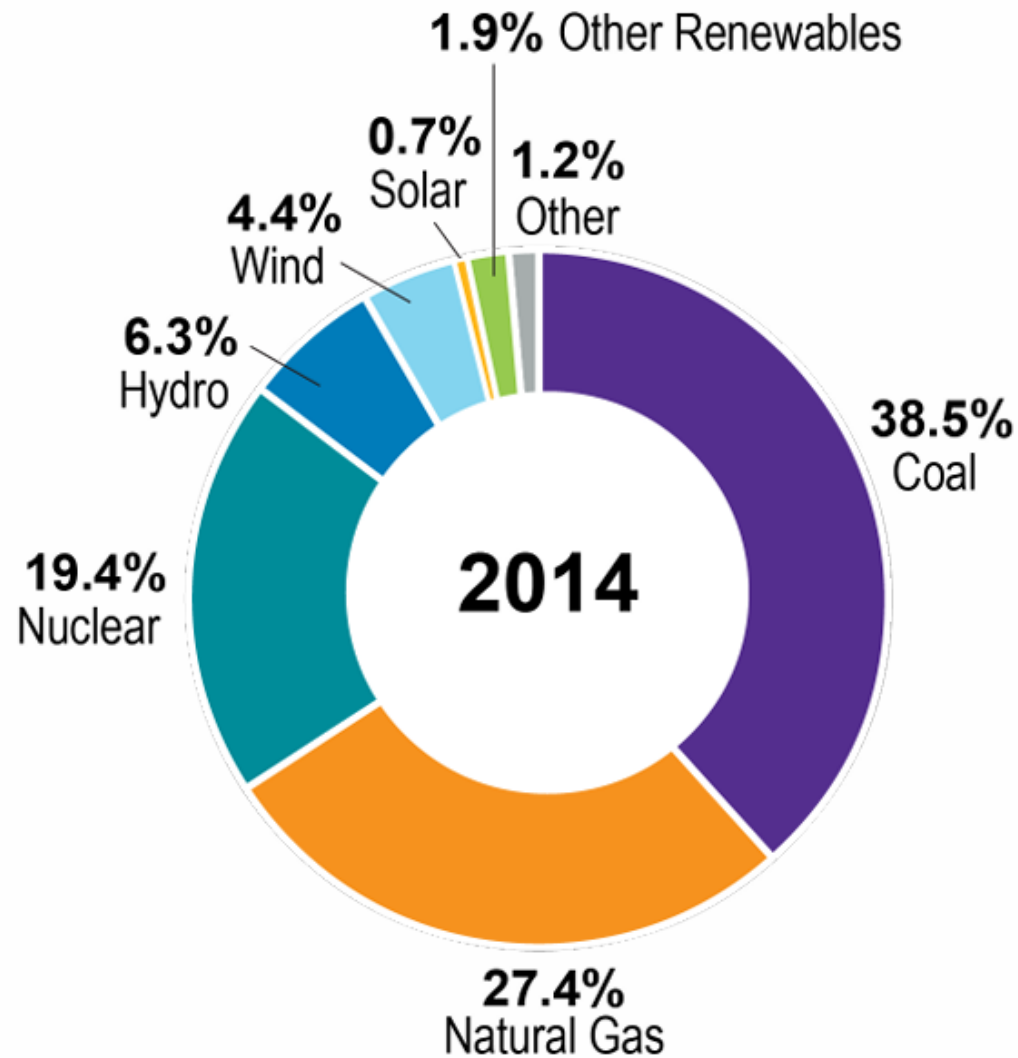


Chart represents projected total functional capital expenditures of U.S. Investor-Owned Electric Utilities. Years may not sum to 100% due to rounding. Each annual functional projection is compiled during the calendar year for which it is reported and is not revised to align with actual totals. Therefore, the projected total dollar amounts on the functional chart do not align with the actual reported totals on the industry capital expenditures chart. Gas-related includes investments in natural gas delivery and natural gas pipeline infrastructure but not natural gas-fired electric generation. Source: EEI Financial Analysis Department, EEI member company reports (2025P as of September 2025).

Transforming the Energy Mix



Note: "Other Renewables" includes geothermal and generation from biomass sources (agricultural waste, landfill gas recovery, municipal solid waste, wood, non-wood waste). "Solar" includes universal (or large-scale) solar and private (or rooftop) solar. Percentages may not add to 100.0% due to independent rounding. Source: U.S. Department of Energy, Energy Information Administration.

Affordability

- Are rates rising everywhere in the U.S.?
- Are data centers to blame?



IN THE HEADLINES • DATA CENTERS & ENERGY

NATIONAL

Lawmakers pass bills to limit energy price hikes, regulate data centers

NEW JERSEY

New Jersey lawmakers send data center tariff bill to governor

MASSACHUSETTS

Major Energy-Affordability Bill Passes Massachusetts Senate

NEVADA

Microsoft seeks Nevada tariff to shield ratepayers from data center costs

TEXAS

Governor Abbott directs PUC and ERCOT to shield Texans from data center infrastructure costs

DELAWARE

Bills would require, incentivize Delaware data centers to bring their own power

Strategic Collaboration



Joint Energy Resilience Planning

EEI MOUs with Branch Services

Collaborative framework to identify shared energy goals and develop best practices for JRPs, emergency operations and infrastructure improvements

Strengthen **energy resilience and security** for installations and surrounding communities



EEI

Edison Electric
INSTITUTE

Power by AssociationSM



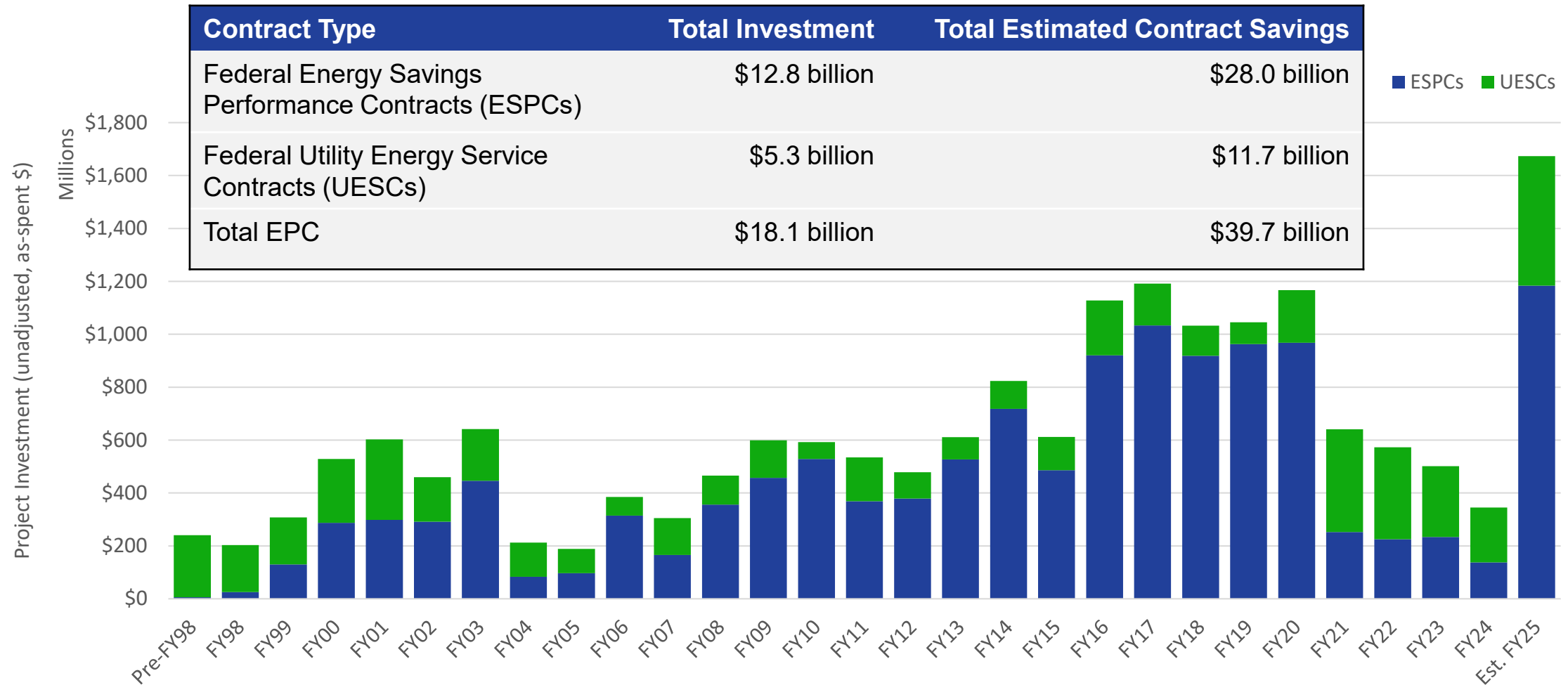
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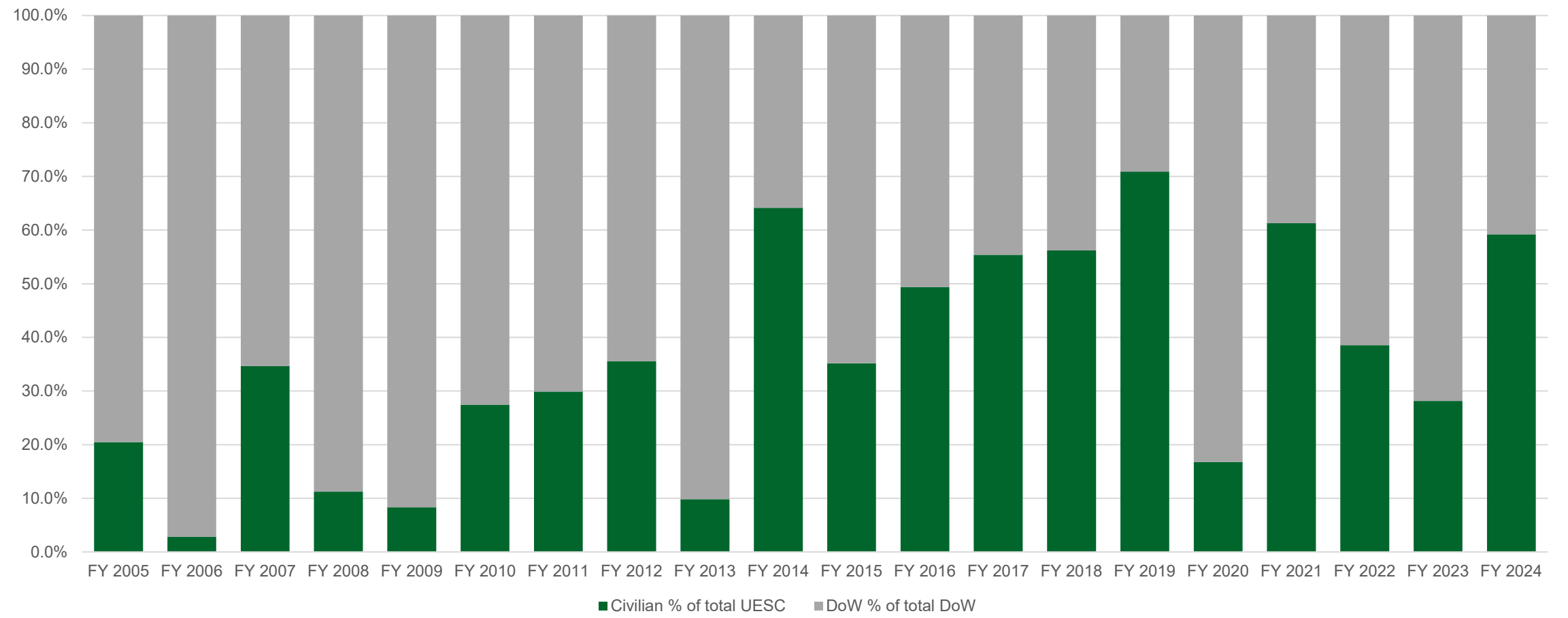
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Civilian Agencies Priorities, Best Practices, and Update

Energy Performance Contracting (EPC) Investment

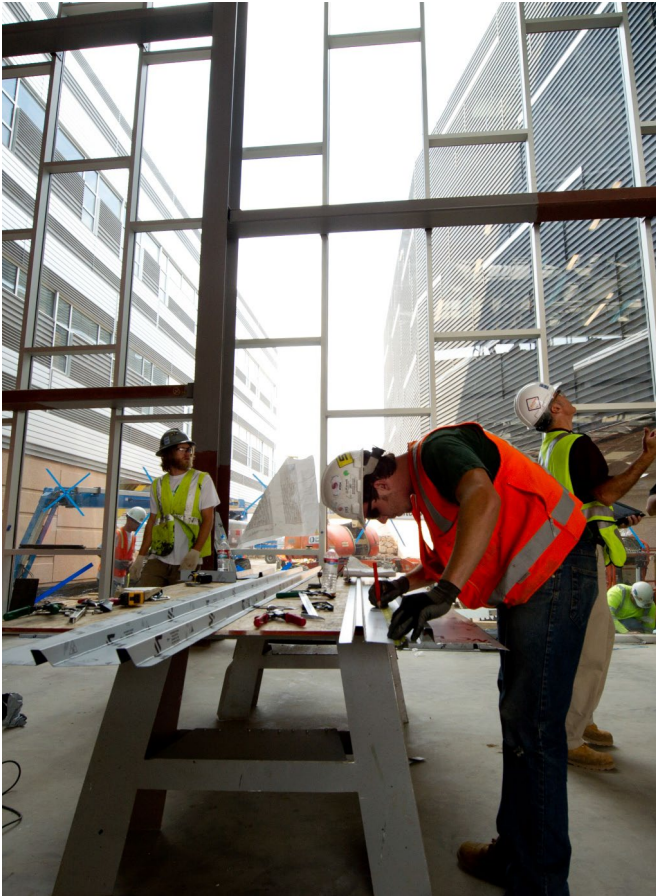


Civilian Agencies Increase Use of UESCs



Data from FEMP [Comprehensive Annual Energy Data](#)

UESC Project Support



The FEMP Utility Program offers in-depth UESC support (at no cost!)

- Training (agency staff, utility, and Energy Service Company [ESCO] partners)
- Project evaluation and prioritization (for site or program managers)
- Technical analysis, including Preliminary Assessment and Investment Grade Audit review
- Contracting guidance and document support
- Strategic planning for using UESCs to pursue agency goals: cost savings, resilience, on-site generation, etc.
- Contact jeffrey.gingrich@nlr.gov



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Infrastructure Modernization Beyond Energy Savings

Marian Thomas – ESPC Program Specialist, GSA

Elizabeth Kuhn – Director of Federal Services, Southern
Company

Gopal Shiddapur – VP Federal Project Development,
NORESCO



Photo credit: <http://www.army.mil/-images/2011/01/20/97046/>



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General Services Administration – Heating Operation and Transmission District

Marian Thomas – ESPC Program Specialist, General
Services Administration (GSA)



Photo credit: <http://www.army.mil/-images/2011/01/20/97046/>

Heating Operations and Transmission Division (HOTD) – Background and Information

Aging Utility Plant

Built in 1934

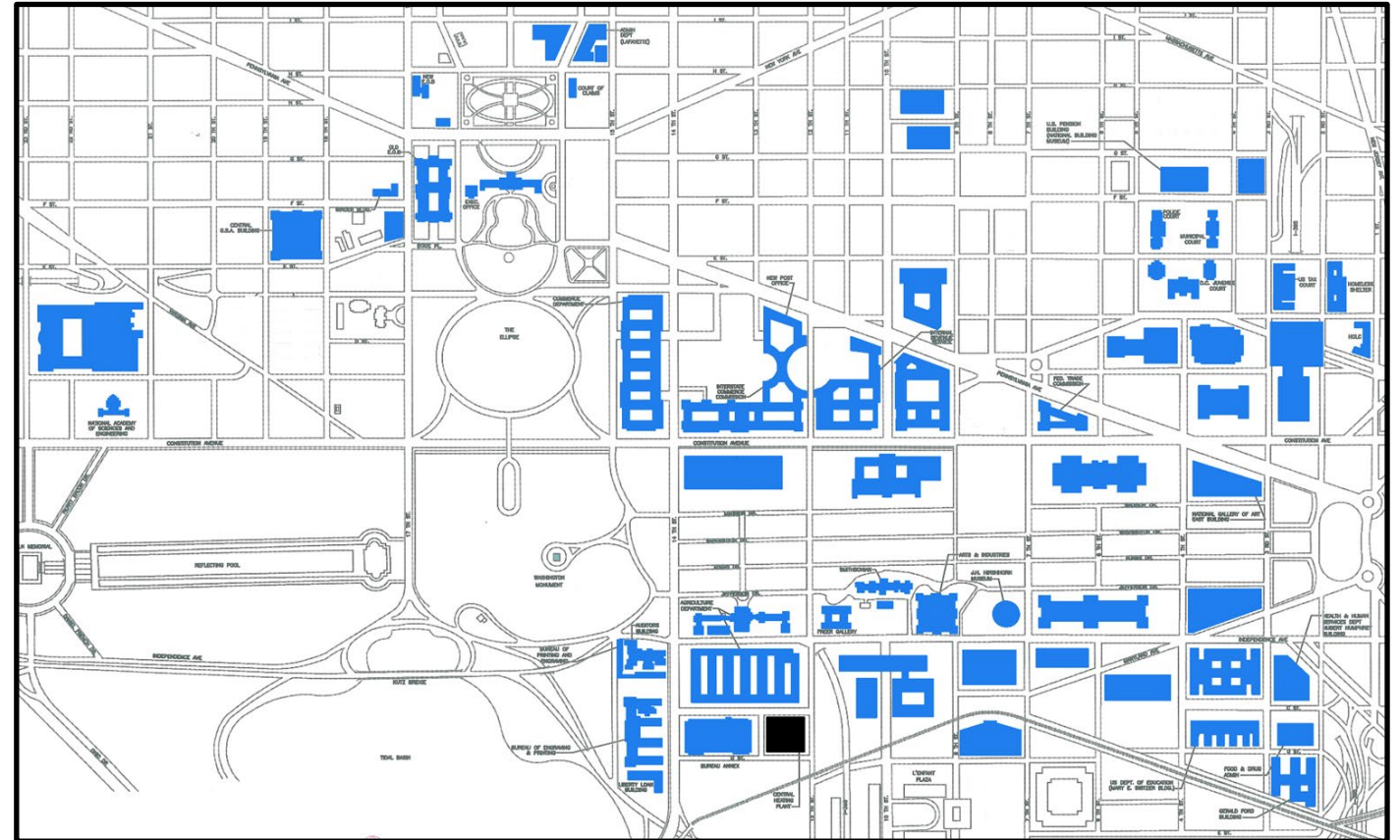
Provides heating and cooling utility services

GSA's largest central utility system

- Largest natural gas consumer
- 12 miles of tunnel/buried pipe
- 62 customer buildings

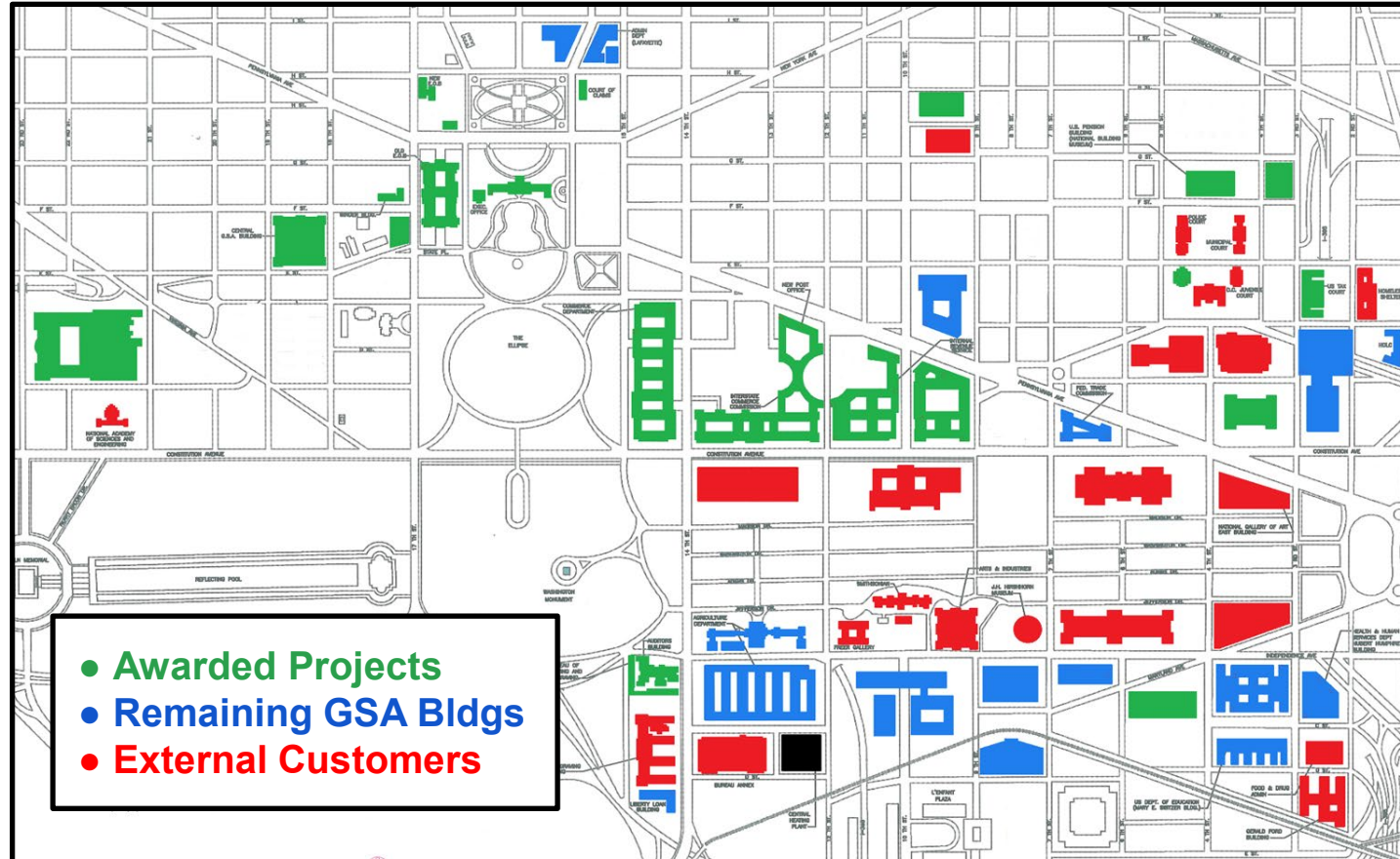
Average annual production

- Steam: 1.7 million mlbs
- Chilled water: 24 million ton-hrs



HOTD Steam and Chilled Water Customer Network

Asset Decoupling Progress





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Anniston Army Depot Utility Energy Service Contract

Elizabeth Kuhn – Director of Federal Services,
Southern Company

Gopal Shiddapur – VP Federal Project
Development, NORESO



Photo credit: <http://www.army.mil/-images/2011/01/20/97046/>

Project Background and Benefits

- The Anniston Army Depot mission is to rebuild combat vehicles and overhaul weapon systems
- The \$233 million UESC project was awarded in May 2025
- Project benefits beyond energy savings:
 - Modernizes mission-critical equipment
 - Optimizes workflow, material resource efficiency, and performance for quality processes and results
 - Improves productivity
 - Supports transformation to skilled labor and a modern workforce
 - Significantly improves safety and the workplace environment
 - Provides ongoing training to maintain a modernized workforce
 - Aligns with the Army's Organic Industrial Base modernization initiatives

Scope – Mission-Centric Strategy

- **Industrial Wash Upgrades:** Install high-pressure water blast systems and improve existing wash racks
- **Process Automation:** Deploy new automated systems within the plating shop, alongside advanced component cleaning, stripping, and powder coat systems
- **Energy Management Control Systems:** Integrate a centralized cybersecure energy management control system
- **LED Lighting Upgrades:** Reduce energy and maintenance costs site-wide while improving light levels, especially in production areas

Achieving Savings Beyond Energy

1. Material and Chemicals

- ✓ Consumable material usage
- ✓ Compliance costs

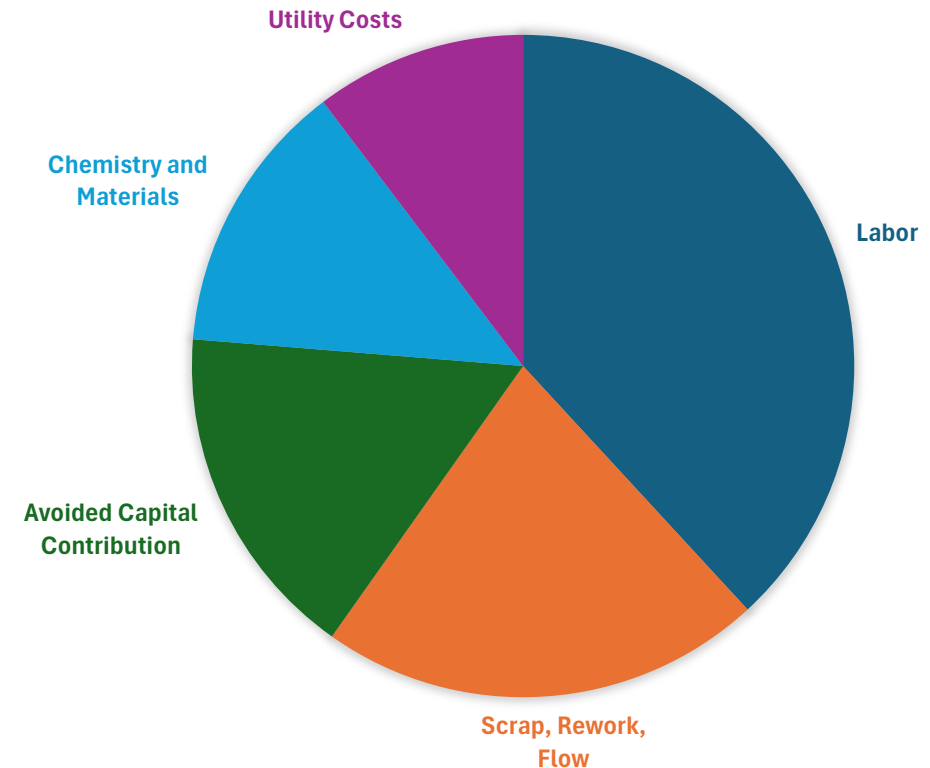
2. Direct Labor Hours

- ✓ Task time reduction
- ✓ Automation
- ✓ Non-value add
 - Travel time
 - Setup/staging
 - Maintenance/cleaning

3. Quality

- ✓ Reduced waste
- ✓ Reduced rework

SAVINGS BREAKDOWN



Keys to Project Development

- Focus on mission
- Partnership, collaboration, and open communication
- Key agency stakeholder engagement – brief often at key project milestones
- Must have a qualified design team specializing in resiliency, industrial processes, and infrastructure improvements
- Utilize a “requirements-based” approach working with production owners, artisans, and maintainers to modernize infrastructure while maximizing equipment efficiencies for the industrial mission
- Match potential ECMs with facility modernization/process mission requirements

Mission First!

Believe you can make a difference...and you will



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General Services Administration Areawide Contracts and Utilization



**U.S. General Services
Administration**

GSA Areawide Contracts

- **GSA's Authority**
- **Areawide Contracts**
- **Delegations**

Ebony Atkinson, Chief of the Regulated Utility Services Branch



U.S. General Services
Administration

GSA's Authority

GSA procures and manages utility services on behalf of the U.S. government*

- Authorized by the Federal Property and Administrative Services Act of 1949, as amended.
- GSA represents the government in proceedings before state and federal regulatory bodies.
- GSA is authorized to prescribe policies and methods governing the acquisition and supply of utility services for federal agencies.

FAR 41.103 and 40 U.S.C. 501 provide more information on GSA's authority.

**Agencies may request a "delegation of authority," which allows them to procure their own Utilities... For example, DOD has delegation of authority, and DOD contracting officers are not required to work through GSA.*



What Is an Areawide Contract?

- **Easiest utility contracting method (essentially a sole-source contract)**
 - **Base contract with established general terms and conditions**
 - **10-year term**
 - **Each areawide contract is unique**
- **Actual contract between an agency and a utility is accomplished through exhibits (forms attached to the areawide)**
 - **Exhibits are like task orders**
 - **Exhibits allow agencies to customize/tailor the contract to the agency's specific needs**
 - **Agency and utility must sign the applicable exhibits to establish the contract**



Areawide Contract Applications

- Areawide contracts are for *regulated utility markets*.

Utility Services Available under GSA Areawide Contracts		
Overall Utility Services Available	Sub-Utility Services Available	Individual Purchasing Orders Available
➤ Electric Service	➤ All Electric Services	➤ Connection/Change/Disconnection; ➤ Continuing Service; ➤ Line Extension; ➤ Alteration/Relocation/Reinforcement; ➤ Renewable Interconnection; ➤ Demand Side Management; and ➤ Special Facilities.
	➤ Only Generation Service	
	➤ Only Transmission Service	
➤ Natural Gas Service	➤ All Natural Gas Services	
	➤ Only Generation Service	
	➤ Only Transmission Service	
➤ Steam Service	➤ All Steam Service	
➤ Water / Sewer Service	➤ All Water / Sewer Service	



Areawide Contract Applications

Utility Energy Service Contracts (UESCs)

UESCs allow agencies to implement energy efficiency, water conservation, and electricity demand measures (i.e., ECMs) through local utility companies.

- **Utility Role:** Provides full analysis, design, installation, and financing to implement projects.
- **Funding:** Paid directly from the "avoided-costs-savings" resulting from the conservation improvements.

Energy Management Services (EMS)

GSA Areawide Contracts can be used to procure energy management services (EMS) from a utility company acting as a regulated public utility.

- **GSA Guide:** Implemented and managed in accordance with the GSA Utility Areawide Guide.
- **Flexibility:** Designed with the versatility to cover many types of energy, water, and demand-side conservation measures.



How to Use an Areawide Contract

01

Obtain Contract

Obtain a copy of the applicable areawide contract, including exhibits.

02

Complete Exhibits

Complete the applicable exhibits (varies by utility; check with utility for guidance).

03

Standard Forms

Complete the appropriate standard forms (SF 33, 26, 1447, 1449).

04

Utility Sign-off

Sign the applicable exhibits and send to the utility for sign-off.

05

Submit to GSA

Send copies of all signed forms to GSA for archiving at utilities@gsa.gov.

Additional details are available on: <https://www.gsa.gov/real-estate/areawide-public-utility-contracts>



Authorizations and Exhibits

Electric Service

NATURE OF SERVICE

- Connect / Change
- DSM Work
- Line Extension, Alteration, Relocation
- Special Facilities

Examples: EV Infrastructure, Advanced Meters, Solar PV

Natural Gas

NATURE OF SERVICE

- Connect / Change
- Continue Service
- Line Extension, Alteration, Relocation
- Transportation
- Billing & Ancillary

Example: Installation of Gas Line

Energy Mgmt. (EMSA)

NATURE OF SERVICE

- Preliminary / Investment Grade Audits
- Engineering Study
- Project Installation
- Demand Side Mgmt.

Examples: Lighting/Chiller Retrofits, Cogeneration, HVAC

Other Provisions

Under appropriate Regulatory Authority

NATURE OF SERVICE

- Interconnection of renewable energy projects

Example: Interconnection of PV System



When to request a Delegation of Authority

Upon request, GSA may grant an agency a delegation of authority.

A Delegation of Authority is required in the following circumstances:

- **An areawide contract is not available for the required utility service.**

GSA can only grant an agency a delegation of authority if the agency's Senior Procurement Executive certifies to GSA that the agency has the following:

- **An established acquisition program.**
- **Personnel technically qualified to deal with specialized utility contracts.**
- **Ability to accomplish its own pre-award contract review.**

Agencies must submit delegation of authority requests to utilities@gsa.gov at least 60 days before the utility contract is needed or an existing delegation of authority expires.



GSA Resources

Utility Procurement Resources

GSA offers valuable online tools and guides to assist agencies with utility procurement:

- **Procurement Guide:** Check out the [Utility Services Procurement Guide](#).
- **Overview Webpage:** Visit the [Utility Services Overview](#) webpage.
- **Forms & Contracts:** Access GSA's [Forms library](#) and the [Areawide Contract Database](#).

Direct Support & Inquiries

Get direct assistance and regulatory support from GSA utility experts.

Email Support

utilities@gsa.gov

GSA email inboxes are monitored daily; expect an answer within **two business days**.



U.S. General Services
Administration



Questions & Answers

REGULATED UTILITY SERVICES



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*Federal Energy
Management Program*

Understanding GWAC/AWC Limits with ESPCs and UESCs

Defense Logistics Agency Energy

Charlene Woods, Contracting Officer



Government-Wide Acquisition Contract (GWAC) vs. Agency-Wide Contract (AWC)

Simple explanation—they come from GSA, but they serve *totally different worlds*

GWAC:

- Commercial vendors (IT, professional services, technical support)
- Brings in experts to help the government: Engineering, M&V, cybersecurity, project oversight
- Support only

AWC:

- Serving utility (electric, gas, water, steam, UESC authority)
- AWC gives the utility the legal authority to design, install, construct, and finance UESC projects
- Implementation authority

How ESPCs and GWACs Fit Together

- **ESPCs are a financing/implementation mechanism authorized by statute (42 U.S.C. § 8287).**
 - **GWACs are a support vehicle**
 - Cannot override the ESPC authority
- ESPCs are a statute authority and follow the ESPC rules
 - **FEMP rules, M&V protocols, and statutory savings guarantees**
- The AWC may play **a minimal role** in ESPCs
- GWACs only provide **support services** to the government

GWAC Authorities for ESPCs and UESCs:

What's In and What's Out

GWAC Can...

- Provide technical support
- Provide owner's agent services
- Provide independent M&V
- Acquire IT/OT systems
- Support program administration
- Provide commissioning support
- Provide training and capacity building
- Procure non-financed ECM-adjacent services

GWAC Cannot...

- Award the project
- Provide financing
- Replace statutory authority
- Procure core ECMs
- Deliver guaranteed savings
- Mix financed work without segregation

How UESCs and AWC Fit Together

- A UESC is executed **directly with the serving utility** under:
 - 42 U.S.C. § 8256
 - Agency utility service contracts
 - Areawide Contracts (AWCs)
- UESC **must**:
 - Be performed by the serving utility
 - Use utility financing
 - Follow FEMP guidance
 - Include repayment through cost savings

ESPC vs. UESC (AWC)

ESPC Path (Private Route)

- DOE IDIQ or USACE MATOC
- Private ESCO – prime
- Savings statutorily required
- Competed

May use the AWC for on-site generation

UESC Path (The Utility Route)

- GSA Areawide Contract
- Utility Provider – prime
- ESCO – subcontractor
- Savings optional/negotiable
- Performance Assurance
- Both competed and Sole Source

AWC Authorities for ESPCs and UESCs:

What's In and What's Out

AWC for UESC...

- Contracting Authority
- Utility Financing ECMs
- Installation, Construction, Design & Engineering
- Tariff base rates
- Utility recovers costs though savings
- Performance assurance
- M&V Requirements

AWC for ESPC...

- Cannot use AWC Contracting authority
- Not authorized to provide:
 - Utilize the contracting authority
 - Finance ECMs

ESCOs perform these under ESPC:

- Installation, construction
- Negotiate pricing
- Guarantee savings repayment
- M&V

Maxwell AFB, Montgomery, Alabama – ESPC

- Utilizing ESPC Energy Sales Agreement (ESA) Structure
- Photovoltaic (PV) system Battery Energy Storage System (BESS)
- **AWC was used to establish the vendor rate with the utility**
 - **Attached to the ESA established between the utility and ESCO**
- PV array will offset a significant portion of the installation's daytime electrical demand, reducing reliance on the commercial grid and lowering operational energy costs
- BESS will provide emergency backup capabilities

Key Takeaways

- **GWAC = Support**
- **AWC = UESC**
- **DOE IDIQ = ESPC**
- **Compliance = Correct Vehicle + Correct Authority**

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Federal Energy Management Program

Maximizing Utility Programs, Incentives, and Rates

Instructors



Jeff Gingrich

Off-Site Energy Procurement
Program Manager
National Laboratory of the
Rockies (NLR)



Erica Stephens

Manager, Resiliency
Programs
Georgia Power (Southern
Company)



Eric Myers, P.E., C.E.M.

Project Director, OSPS
Florida Power & Light



Amanda Renjifo

Federal Business
Development
Duke Energy

Agenda

- Brief Intro
- GA Power Resilience Programs
- FPL Supplemental Power Program
- Duke Energy Areawide Contract Projects
- Panel Discussion and Q&A



Why This? Why Now?

- **Federal agencies face increasing demands to reduce costs and strengthen energy security and reliability.**
- **Utilities are more than energy suppliers**—they provide tools, expertise, and programs that federal agencies can leverage to streamline procurement and reduce workload:
 - Pre-designed, turnkey solutions (e.g., resilience-as-a-service, energy audits, demand response enrollment)
 - Funding mechanisms (e.g., rebates, incentives, Utility Energy Service Contracts, on-bill financing)
 - Technical expertise and local grid insights



Why Utilities Are Key Partners:

- **They shape your energy costs**—through control of rates, tariffs, and delivery infrastructure.
- **They offer behind-the-meter solutions**—like battery storage, solar, and microgrids that improve resilience and flexibility.
- **They know the grid better than anyone**—and can help optimize energy use based on real-time conditions and local constraints.

Utilities Offer Programs that Support Several Pathways for Sites To Realize Potential Cost Savings



Tariff Optimization

Analyzing the most cost-effective electricity rate structure for the site's specific usage profile

FEMP support: Off-Site Energy Procurement Program



Efficiency / Ops

Improving efficiency of equipment and building systems to reduce overall electricity consumption

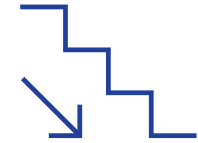
FEMP support: Performance Contracting ([ESPC](#) & [UESC](#)) | [Re-Tuning](#) | [Treasure Hunts](#) | [Facility Optimization](#)



Distributed / On-Site Energy

Generating electricity on-site to offset grid purchases, reduce transmission costs, and/or support resilience

FEMP support: [Distributed Energy Procurement](#) and [REopt Analysis](#)



Demand Response

Enrolling in programs to reduce peak demand and claim incentives

FEMP support: [Demand Response Technical Assistance](#) | [Grid-Interactive Efficient Buildings](#)

Strengthening Resilience Through Utility Partnerships

Programs and services are emerging to help federal agencies pursue mutually beneficial goals for enhancing energy resilience and grid reliability.

- **Tariffs and Resilience-as-a-Service:** Turnkey, utility designed, owned and operated solutions for back-up generation, storage, and microgrids that may include on-bill financing
- **Shared (grid-connected) solutions:** Utility-owned, dispatchable systems located at customer's facility; utility shares upfront costs
- **Infrastructure upgrades and hardening:** Streamlined procurement of services available through utilities with GSA areawide contracts (AWCs)

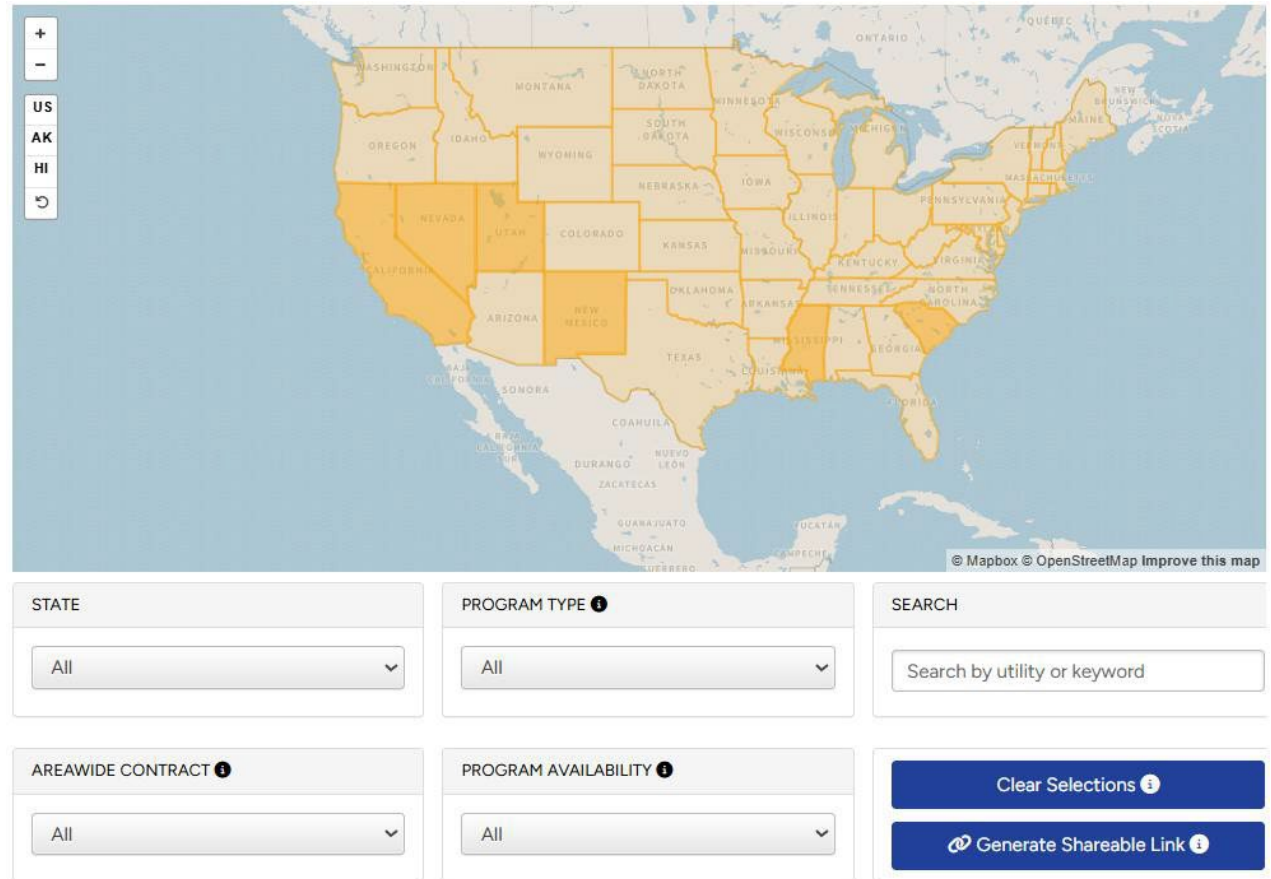


FEMP's Utility Program Navigator

The **Navigator** is a searchable map and web tool for identifying programs and incentives.

- Focused on programs applicable to federal goals and priorities
- Aims to centralize and simplify access to essential information for energy managers
- Connects users to utility web resources for more information

<https://www.energy.gov/cmei/femp/femp-utility-program-navigator>



STATE

PROGRAM TYPE

SEARCH

Search by utility or keyword

AREAWIDE CONTRACT

PROGRAM AVAILABILITY

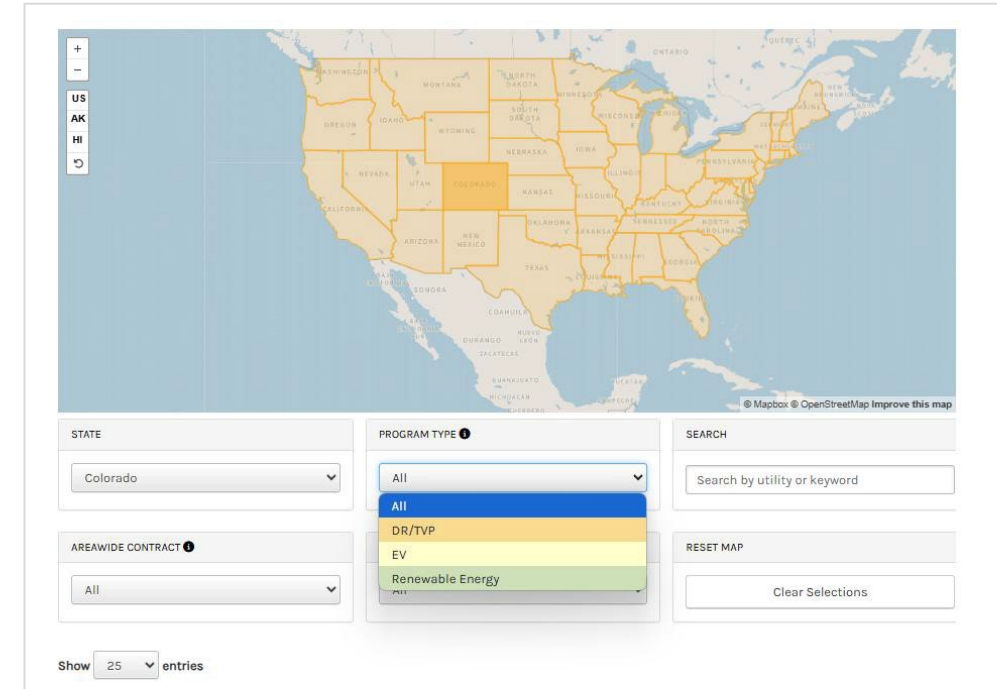
Clear Selections

Generate Shareable Link

Using the Tool

Searchable map and database that aggregates information on utility programs.

- **Current** program categories:
 - UESCs
 - Demand Response
 - Time Variable Pricing/Time-of-Use rates
 - Resilience Programs
 - Off-Site / Distributed Energy
 - Electric Vehicle Supply Equipment
- **Ideas for other programs? FEMP wants your input!**

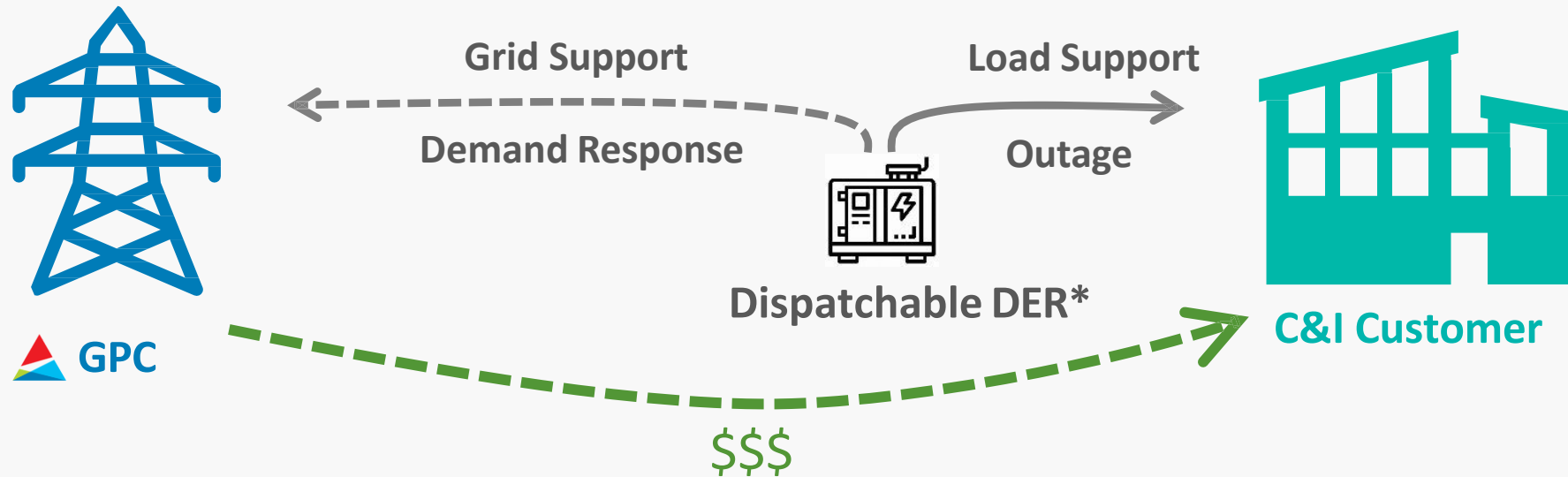


Search by state, program type, keyword/utility name, GSA areawide contract status

Resiliency Distributed Energy Resources (DER) Programs Overview

How GPC's Resiliency Programs Work

Georgia Power Company (GPC) gives commercial and industrial (C&I) customers value for on-site generation by sharing in the benefits of DER capability with GPC.



***Dispatchable DER:** A Distributed Energy Resource (DER) that is fully controllable with a firm fuel supply, providing firm capacity. Examples: Reciprocating Internal Combustion Engines (RICE), Combustion Turbines (CT), Batteries (BESS), etc.

Five Options. One Goal: Resiliency.

	Georgia Power Owned	Customer Owned
Grid Pushing	<u>Grid Pushing Programs:</u> Customer-sited DERs push energy back onto the grid. <i>Think: Peaker Plants.</i> <u>Pros:</u> Maximized Program Credit – the value to the GPC system is equivalent to DER capacity rating. Load/Rate Agnostic. <u>Cons:</u> Interconnection studies and upgrades can be costly and lengthy.	
Load Reducing	<u>Load Reducing Programs:</u> Customer-sited DERs reduce customer demand. <i>Think: Demand Response/Energy Curtailment.</i> <u>Pros:</u> Avoid lengthy studies and expensive interconnection upgrades. <u>Cons:</u> Program credit limited to customer's firm load – highly load shape and rate dependent. <i>Fully marginal rates are not eligible. For RTP customers, program value is based only on firm load (CBL).</i>	

Five Options. One Goal: Resiliency.

	Georgia Power Owned	Customer Owned
Grid Pushing	► DER Colocation Program (DCL) • 10 MW minimum DER size • An up-front one-time payment minus 75% of the resource's capacity value • Rate independent • 20-year max term length	► DER Customer Owned Program (DCO) • 1–10 MW DER size, can aggregate 250 kW DERs • Monthly credit for 75% of resource capacity value • Rate independent • 15-year max term length
Load Reducing	► DER Customer Pilot (Pilot) Resiliency Asset Service (RAS) • 200 kW peak load minimum • Monthly charge (Capital + O&M) • 20-year max term length Demand Response Credit (DRC) • 1 MW minimum demand reduction, can aggregate 200 kW DERs • Monthly credit for 100% of demand response capacity value • Ineligible Marginal Rates	► Large Customer Owned Resiliency (LCOR) <i>*newly approved</i> • Tailored to transmission-connected customers • Provide value for 75% of demand response capacity value, peak-shaving allowed • Ineligible Marginal Rates • 15-year max term length ► Curtailable Load Program (CL) <i>*new, resiliency program alternative</i> • 200 kW minimum demand reduction • DER optionality, peak-shaving allowed • Monthly credit for 75% of demand response capacity value • Ineligible Marginal Rates • 6-year rolling term length

Why Federal DER Enrollment Is Uniquely Complex

Signing up federal sites means navigating layers most commercial customers don't have

1 Many Decision-Makers, One Signature

- Aligning stakeholders is hard, with local and regional/HQ POCs holding differing priorities.
- “A lot of cooks in the kitchen” on both federal and utility sides slows progress.

2 Interconnection Driven by Who Owns the System

- Owner (base, EMC, or privatized) sets interconnection complexity.
- Transmission Study: ~\$60K, 6–9 months, for exports up to 20 MW. Interconnection upgrades \$5M+.
- Above 20 MW: costly cluster study and upgrades.

3 Legal Framework & Funding Realities

- Federal contracting requirements often don't align cleanly with DER program/utility requirements.
- Limited capital funding; changes in administration shift what's funded or abandoned (EVs, renewables, etc.).

4 Large Site Loads Raise the Stakes

- Big mission-critical loads increase capital needed and add design complexity, making the business case heavier and slower to move.

Georgia Power Resiliency Programs

Curtailable Load Program (CL-1)

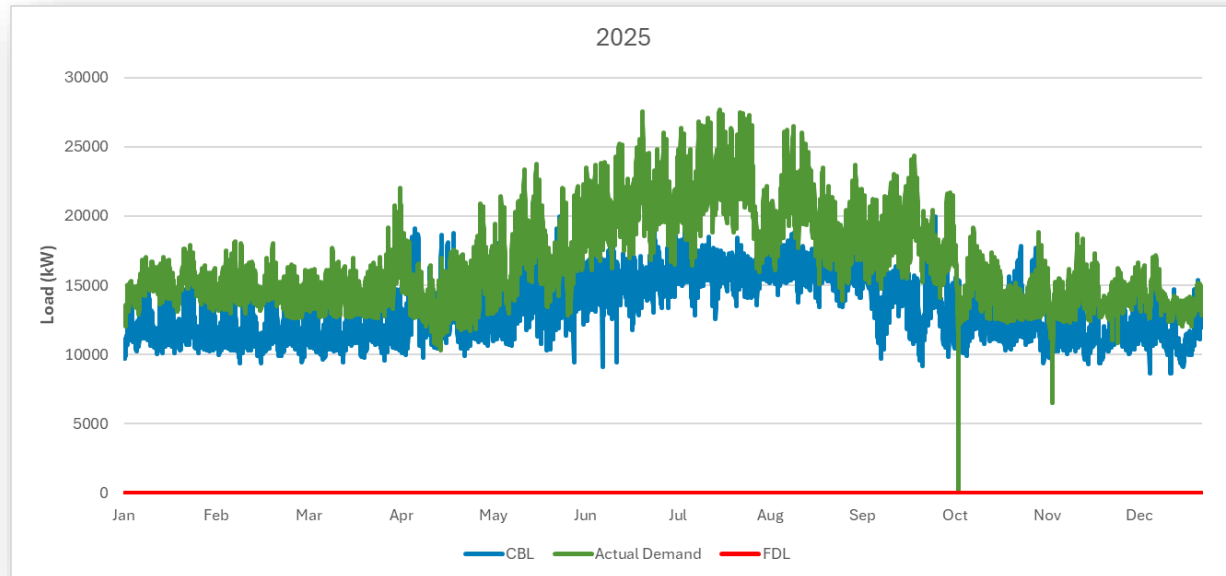
GPC provides customers a fixed monthly credit for their ability to reduce electric demand during demand response events

- Fixed monthly credit for 75% of avoided capacity value via demand response to Firm Demand Level (FDL)
 - 200 kW minimum firm demand reduction
- DER optional – if present, customer owned/controlled (peak-shaving allowed), interconnected behind meter
- Rate dependent – if on Real Time Pricing (RTP) rate, credit only for reduction of base load (CBL)
 - Loadshape (Credit) reevaluated annually

CL Quote^① Assumptions & Variables

Term: 6 years	Operation Date: 2027	FDL: 0 kW	"Event" Duration: 24hr/7day Dispatch 200hrs Max Annually
Monthly CL Credit: \$108,000			

Loadshape Analysis



Customer Base Load (CBL)

Average: 13,646 kW | Peak: 20,357 kW

Actual Demand:

Average: 16,759 kW | Peak: 27,694 kW

^① Quotes are rough order of magnitude to demonstrate potential program values. Program credit for enrollment is not final until CL agreement is executed.

For more information visit:
www.georgiapower.com/resiliency

For participation details contact:



[Erica Stephens](#)

Manager, Resiliency Programs

Florida Power & Light: On-Site Power Solutions

Eric Myers, P.E., C.E.M.
Project Director, OSPS
Florida Power & Light

FPL On-Site Power Solutions (OSPS)

Utility-Owned Energy Resilience for Mission Critical Facilities

UTILITY-OWNED ENERGY RESILIENCE



WHY AGENCIES CHOOSE OSPS

- ✓ Utility-owned infrastructure
- ✓ No capital investment
- ✓ 20-year warranty & maintenance
- ✓ Utility-grade reliability
- ✓ Budget-neutral operating model

OUR SOLUTIONS. YOUR MISSION ASSURANCE.



Mission-critical
power reliability



Resilient infrastructure
built for the long term



No upfront capital
investment



Utility-owned
operation & maintenance



20-year warranty
& performance



Peace of mind so you
can focus on your mission

Proven Results Across Florida



100+ MW

Currently in development



2019

First system in service



20-YEAR

Ownership & maintenance



\$100M+

Largest project under development

REPRESENTATIVE FACILITIES



Hospitals



Correctional
Facilities



Water &
Wastewater Plants



Universities



Airports



Defense
Contractors



Project values ranging from
\$800K to over \$100M.

Why This Matters To Federal Agencies

YOUR CHALLENGES		FPL ON-SITE POWER SOLUTIONS	
	Aging electrical infrastructure	➔	 Utility-owned modernization
	Emergency backup power	➔	 Custom standby generation
	Grid resilience	➔	 Distribution hardening
	Increasing reliability requirements	➔	 24/7 monitoring & maintenance
	Limited capital budgets	➔	 No upfront capital investment

LET'S BUILD MISSION RESILIENCE TOGETHER



Engineering
Evaluation



Feasibility
Study



Budgetary
Estimate



Utility-Owned
Implementation

Duke Energy: Leveraging the GSA Areawide Contract

Amanda Renjifo

Federal Business Development

Duke Energy

EXHIBIT "A"

AUTHORIZATION FOR ELECTRIC SERVICE, CHANGE IN ELECTRIC SERVICE, OR DISCONNECTION AND/OR
TERMINATION OF ELECTRIC SERVICE UNDER
AREAWIDE CONTRACT NO: 47PA0425D0023.

Ordering Agency: _____

Address: _____

Pursuant to Areawide Contract No. 47PA0425D0023 between the Contractor and the United States Government and subject to all the provisions thereof, service to the United States Government under such Areawide Contract shall be rendered or modified as hereinafter stated. Areawide Contract Articles 2 and 4 shall be followed for the initiation of service under this Areawide Contract.

PREMISES TO BE SERVED: _____

SERVICE ADDRESS: _____

NATURE OF SERVICE: ☐ Connect, ☐ Change, ☐ Disconnect, ☐ Continue Service, ☐ Line Extension, Alteration, Relocation, or Reinforcement, ☐ Special Facilities,

OTHER TERMS AND CONDITIONS:

Attach any other relevant terms and conditions under which service will be provided.

CONNECTION: If this exhibit is used for connection of utility service, the connection charges established in Contractor's _____ tariffs shall apply. If "Connect" is selected above, the estimated connection charges shall be included in the executed Exhibit.

Estimated Connection Charges \$ _____.

POINT OF DELIVERY: _____

TERM OF SERVICE: From _____ through _____.

SERVICE HEREUNDER SHALL BE UNDER RATE SCHEDULE NO. _____*, Hereafter amended or modified by the regulatory body having jurisdiction. (see Article 5 of this Areawide Contract.)

ESTIMATED ANNUAL ENERGY USAGE: _____ KWH, ESTIMATED DEMAND: _____ KW

ESTIMATED ANNUAL SERVICE COST: \$ _____

ESTIMATED CONNECTION/SPECIAL FACILITIES CHARGE: \$ _____ (if applicable)**

ACCOUNTING AND APPROPRIATION DATA FOR SERVICE: _____

FOR CONNECTION/SPECIAL FACILITIES CHARGE: _____

CLAUSES INCORPORATED BY REFERENCE (Check applicable clauses):

- (1) 52.211-10 Commencement, Prosecution and Completion of Work (APR 1984)
- (2) 52.236-5 Material and Workmanship (APR 1984)
- (3) 52.241-3 Scope and Duration of Contract (FEB 1995)
- (4) 52.241-5 Contractor's Facilities (FEB 1995)
- (5) 52.241-6 Service Provisions (FEB 1995)
- (6) 52.241-7 Change in Rates or Terms and Conditions of Service for Regulated Services (FEB 1995)(Use Full Text of Clause)
- (7) 52.241-11 Multiple Service Locations (FEB 1995)
- (8) 52.243-1 Changes-Fixed Price (AUG 1987)
- (9) 52.249- Default (_____) (Specify appropriate Clause)
- (10) 52.241-12 Nonrefundable, Nonrecurring Service charge (FEB 1995)
- (11) 52.232-18 Availability of Funds (APR 1984)
- (12) 52.232-19 Availability of Funds for the Next Fiscal Year (APR 1984)

EXHIBIT "C"

AUTHORIZATION FOR ENERGY MANAGEMENT SERVICES
(insert authority)
AREAWIDE CONTRACT NO. 47PA0425D0023

Ordering Agency: _____

Address: _____

Pursuant to Areawide Contract No. 47PA0425D0023 between Duke Energy and the United States Government and subject to all the provisions thereof, service to the United States Government under such Areawide Contract shall be rendered or modified as hereinafter stated. Areawide Contract Articles 2 and 4 shall be followed by the Ordering Agency in initiating service under this Areawide Contract as described below.

PREMISES TO BE SERVED: _____

SERVICE ADDRESS: _____

NATURE OF SERVICE: ☐ Preliminary Energy Audit ☐ ECP Feasibility Study ☐ ECP Engineering & Design Study
☐ Energy Conservation Project (ECP) Installation
☐ Demand Side Management (DSM) Project ☐ Other (See Remarks Below)

SERVICE HEREUNDER shall be provided consistent with the Contractor's applicable tariffs, rates, rules, regulations, riders, practices, and/or terms and conditions of service, as modified, amended or supplemented by the Contractor and approved, to the extent required, by the Commission. (See Article 5 of this Areawide Contract.)

POINT OF DELIVERY: _____

ESTIMATED PROJECT COST: \$ _____

ACCOUNTING AND APPROPRIATION DATA: _____

LIST OF ATTACHMENTS:

☐ General Conditions ☐ Payment Provisions ☐ Special Requirements ☐ Economic Analysis
☐ Facility/Site Plans ☐ Historical Data ☐ Utility Usage History ☐ ECP Feasibility Study
☐ Design Drawings ☐ Design Specifications ☐ Certifications ☐ Commission Schedules

CLAUSES INCORPORATED BY REFERENCE AND MISCELLANEOUS PROVISIONS (Check applicable clauses):

- (1) 52.204-9 Personal Identity Verification of Contractor Personnel (JAN 2011)
- (2) 52.215-2 Audit and Records – Negotiation (OCT 2010)
- (3) 52.215-10 Price Reduction for Defective Cost or Pricing Data (AUG 2011)
- (4) 52.215-12 Subcontractor Certified Cost or Pricing Data (OCT 2010)
- (5) 52.215-14 Integrity of Unit Prices (OCT 2010)
- (6) 52.215-20 Requirements for Cost or Pricing Data or Information Other than Cost or Pricing Data (OCT 2010)
- (7) 52.222-54 Employment Eligibility Verification (OCT 2015)
- (8) 52.223-4 Recovered Material Certification (MAY 2008)
- (9) 52.223-9 Estimate of Percentage of Recovered Material Content for EPA-Designated Items (MAY 2008)
- (10) 52.223-15 Energy Efficiency in Energy-Consuming Products (DEC 2007)
- (11) 52.223-17 Affirmative Procurement of EPA-Designated Items in Service and Construction Contracts (AUG 2018)
- (12) 52.232-25 Prompt Payment (JAN 2017)
- (13) 52.241-7 Change in Rates or Terms and Conditions of Service for Regulated Services (FEB 1995) Use Full Text of Clause
- (14) 52.244-5 Competition in Subcontracting (DEC 1996)
- (15) 52.249-8 Default (Fixed Price Supply or Service) (APR 1984)

Panel Discussion and Q&A:

FEMP Resources and Support

FEMP Support and Technical Assistance

Don't hesitate to contact FEMP for *FREE* assistance:

- **Electricity cost benchmark analysis** – Understand how your costs compare to others
- **Multi-site prioritization** – Review costs across various sites to identify those with the highest electricity costs and potential for savings
- **Tariff screening and alternatives analysis** – Dig into the details of your tariff and find out whether other options can lower your costs
- **Retail Choice (RC) strategies** – Explore options for sites in RC states, including availability of supply contracts negotiated by GSA/DLA
- **Other priorities** – From leveraging incentive programs to rate change tracking or support with rate intervention and other regulatory questions



Contact Us!

- Submit your request through the [FEMP Assistance Request Portal](#)
- Or send inquiries to rick.mears@doe.gov

Thank You



U.S. DEPARTMENT
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Office of Critical Minerals
and Energy Innovation

Federal Energy Management Program



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Federal Energy Management Program

Utility Partnerships for Emerging Technologies

Agenda

- Working with the Department of War's (DoW's) Installation Innovation Programs – Overview of Environmental Security Technology Certification Program (ESTCP)
- Built Different: The Future of Nuclear
- The Energy Assurance Continuum
- Artificial Intelligence Driving Emerging Technologies



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Federal Energy Management Program

Working with Department of War's Installation Innovation Programs

Presented by: Keith Welch

ESTCP Program Manager, Installation Energy and
Water

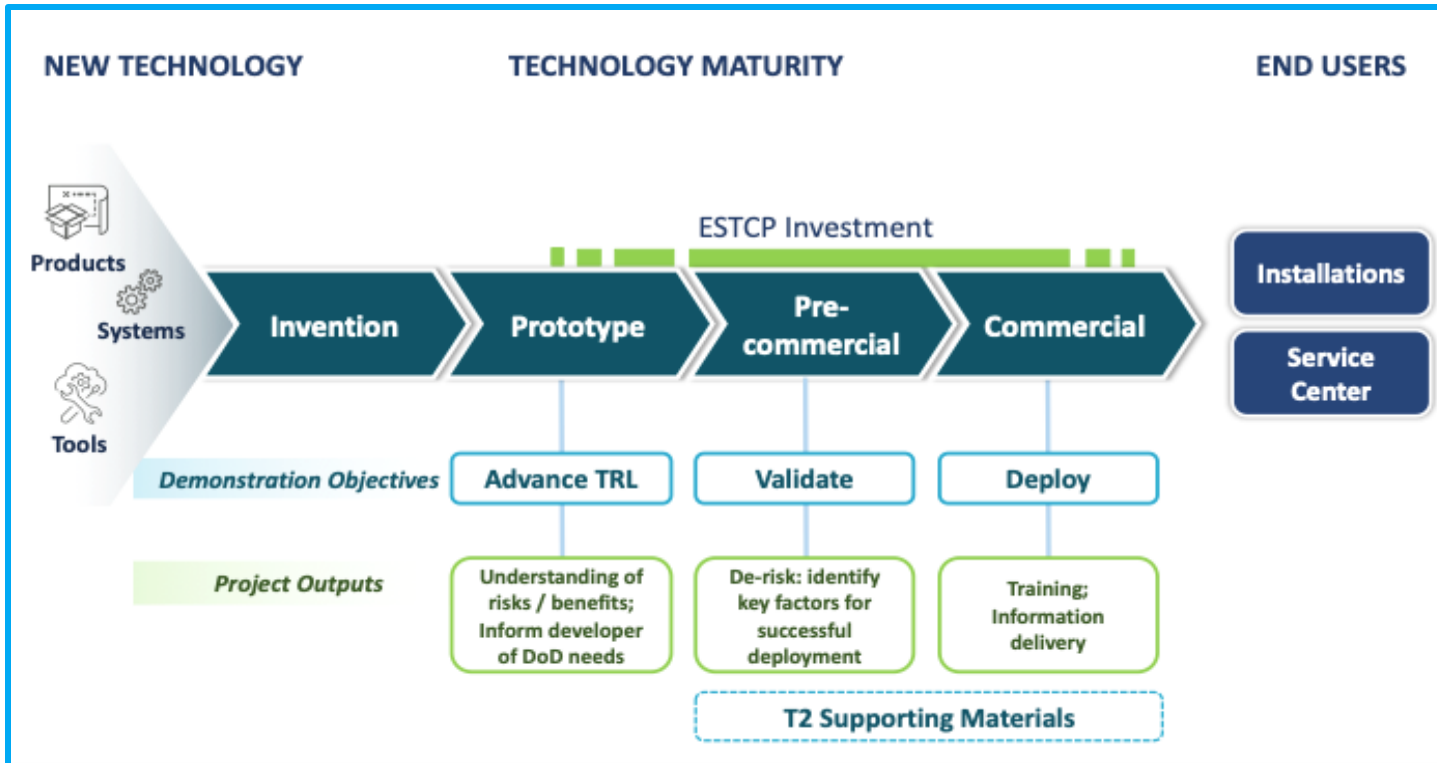


Agenda

- ESTCP Overview
- ESTCP's Installation Energy and Water Portfolio
- Working with ESTCP
- Current Investment Priorities

ESTCP Technology Demonstrations

Demonstrations help installations integrate innovative systems with legacy infrastructure, meet operational and cybersecurity requirements, and validate performance under realistic stressors



Identify commercial and emerging technologies that address installation challenges.



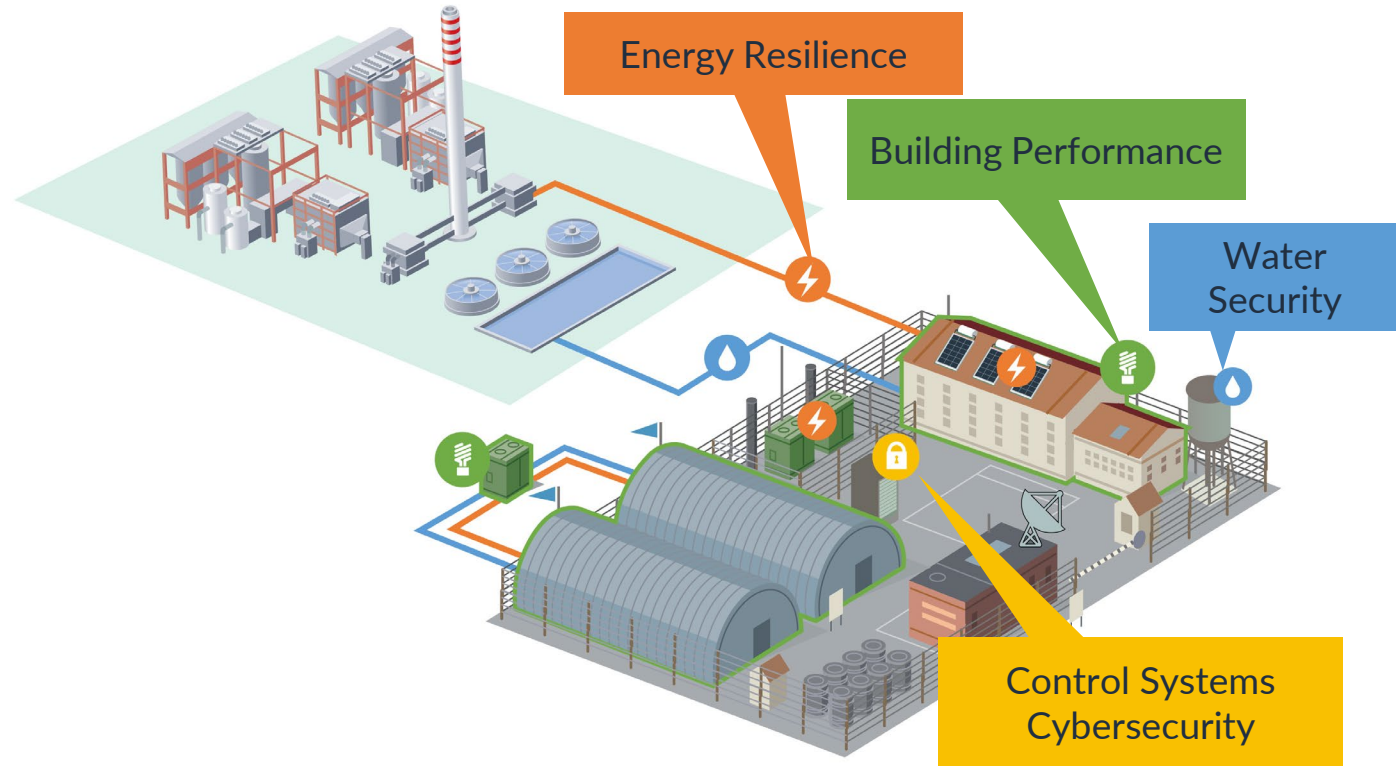
Validate cost and performance under realistic conditions



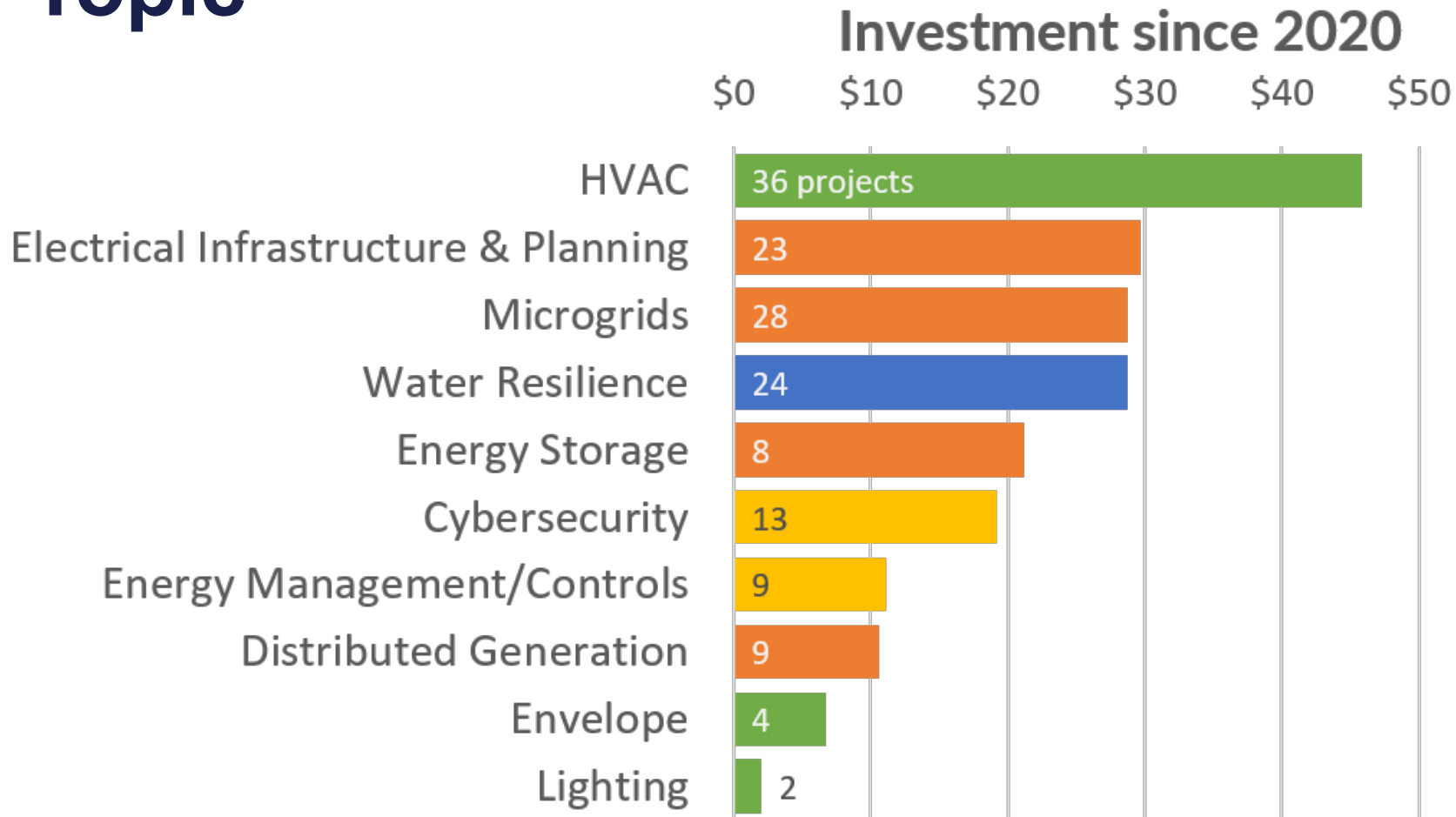
Facilitate technology transition

ESTCP Installation Energy and Water Mission

- **Ensure** critical loads have sufficient, reliable and secure power and water
- **Reduce** building and facility operational costs
- **Improve** performance for occupant health, safety, productivity, and lethality



Energy and Water Investments by Topic



Advisors

Technical Committee

Air Force (DAF, AFCEC)
Army (HQDA, USACE-CERL)
Navy (NAVFAC, EXWC)
OSW (ODASW-Energy, OE)
Consider DLA, DHA

Technical Advisors

DOE (BTO, ARPA-E, FEMP)
DOE Labs (NLR, LBNL, PNNL)
EPA
GSA
MIT-LL
Private Consultants

Working with DoW: Understanding Installations

Partners working with installations should expect the following operating conditions:

- Security requirements drive all access, data sharing, and operational decisions
- Installations can range from 10 to 1,000 buildings with 0.5–60 megawatt (MW) peak loads. Typical buildings are 10,000–30,000 square feet and fewer than three stories.
- Mission continuity is job #1. The goal is 7- to 14-day energy independence ("islanding").
- Operations and maintenance are chronically underfunded with significant deferred maintenance backlogs



Black Start Exercise, U.S. Army Garrison Humphreys, South Korea, April 2026. Photo credit: Pfc. Teegan Karlinsey

Working with DoW: ESTCP Partnership

To maximize the impact of our technology investments, we need:

- Industry perspective on program area priorities
- Expert third-party evaluations of demonstrated technology solutions

By partnering with ESTCP, utilities can gain:

- Access to robust partnerships with DoW installations
- De-risked technology demonstrations process
- Legitimacy within the DoW innovation pipeline
- Reduced financial burden



Ribbon cutting for a 12 MW solar and 16.7 MWh battery storage project at Naval Weapons Station Seal Beach, a partnership between the installation, NAVFAC Southwest, and Ameresco. Photo credit: Gregg Smith

Priority Investment Areas

Long-Duration Energy Storage (LDES)

- Our LDES projects are advancing operational validation, hardware-in-the-loop testing, installation integration, transition readiness

Thermal Energy Networks (TENs)

- Our portfolio is focused on reducing planning, economic, and implementation uncertainty associated with TENs to de-risk broader infrastructure investment

Control Systems Cybersecurity and Zero Trust

- We are funding demonstrations of Zero trust application to control systems to optimize cyber machine response and ensure consistent power quality across installations

Fiscal Year 2026–2027 Solicitation Topics

Energy Resilience

- Digital Tools for Microgrid Design, Acquisition, and Sustainment
- Improved Energy Resilience on DoW Installations
- Long-Duration Energy Storage Solutions
- Zero Trust for Power and Energy Control Systems

Energy Efficiency

- Design Approaches for Thermal Energy Networks
- Thermal Energy Network Feasibility Studies
- Moisture Control and Strategies for Improved Indoor Air Quality
- Solutions to Improve Energy Efficiency and Performance of Buildings
- Systemic Approach to Window Retrofits in Buildings

Questions



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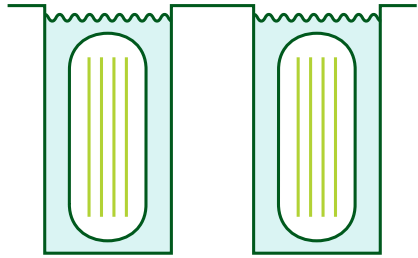
Built Different: The Future of Nuclear Energy

Presented by: Lauren Lathem

Advanced Nuclear Program Manager, Southern Company

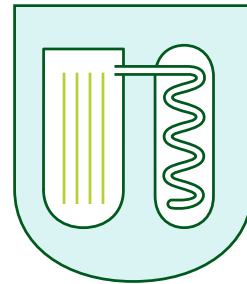


Different Fuels, Coolants, Sizes



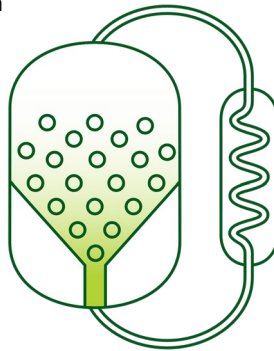
ADVANCED LIGHT-WATER REACTORS

Based on existing light-water systems. Smaller reactors to simplify safety case and modular design to reduce capital costs and improve construction efficiency.



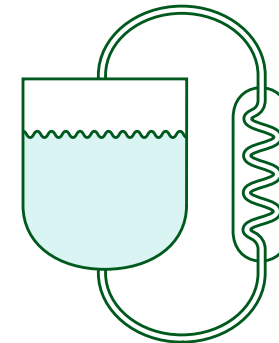
LIQUID METAL FAST REACTORS

Use liquid metal (sodium or lead) as a coolant. Operate at low pressure. Can operate on recycled fuel from other reactors to reduce waste.



HIGH-TEMPERATURE GAS REACTORS

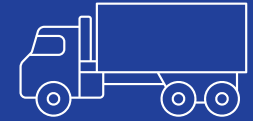
Use gas (e.g., He) as a coolant. Operate at high temperatures to efficiently produce heat for electric and non-electric applications.



MOLTEN SALT REACTORS

Use molten salts as a coolant. Operate at high temperature and low pressure. Liquid fuel simplifies safety case. Can operate on recycled fuel from other reactors to reduce waste.

DEFENSE & SPACE



MICRO: 1–50 MW

- Fits on a flatbed truck
- Mobile and deployable

TERRESTRIAL & MARITIME



MEDIUM: 50–350 MW

- Factory built
- Can be scaled by adding more units



LARGE: 350–1,000+ MW

- Can provide reliable and secure baseload power

New Technology Enables New Benefits

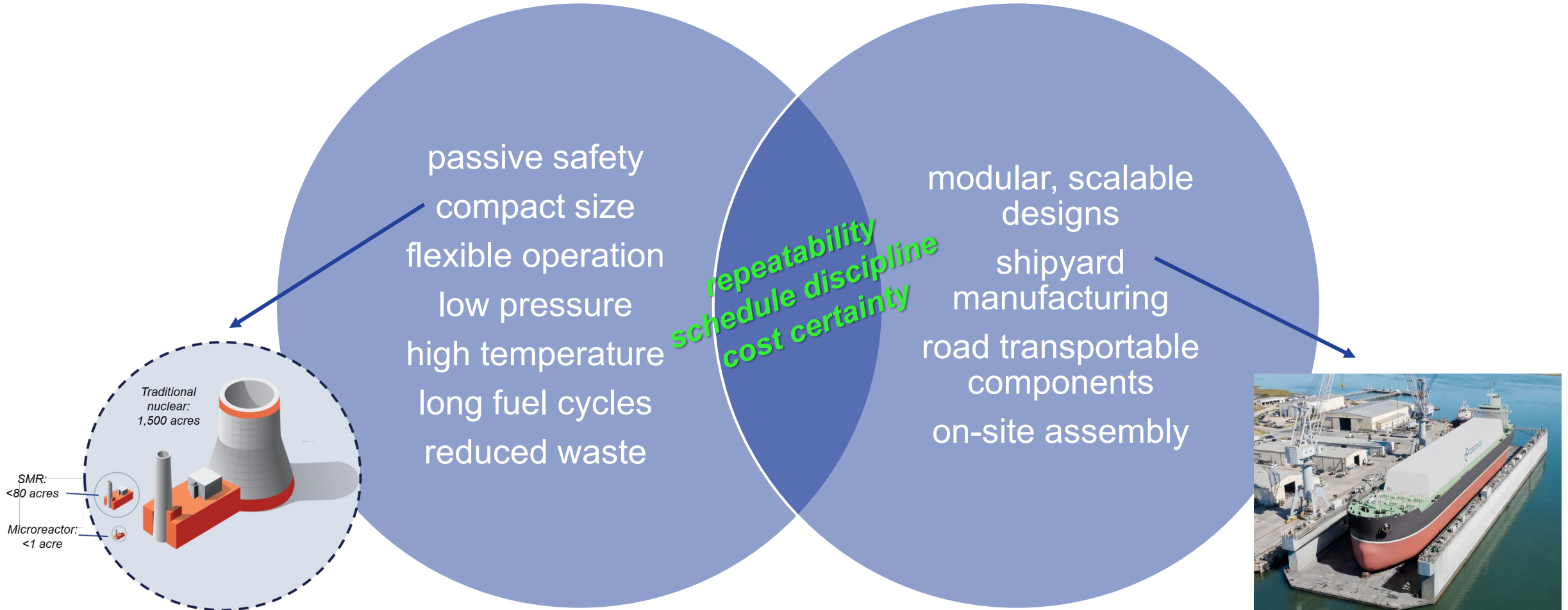


Image adapted from FEMP March 2026 presentation and [Idaho National Laboratory](#)

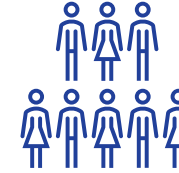
Even with Recent Success, Challenges Remain

PARTS



- Fuel – *New fuel forms, high assay low enriched*
- Components – *Nuclear and non-nuclear*
- Module shops – *Civil and mechanical*

PEOPLE



- Engineering and safety – *New codes and standards*
- Construction – *Skilled labor, modular fabrication*
- Operations and maintenance – *We can't just build them, we have to operate them for decades*

We have to build the first... and the second...

Regulatory Coordination Accelerates Progress

	Department of Energy (DOE)	Nuclear Regulatory Commission (NRC)		Army
		Part 50/52/53	Part 57	
Mission	First-of-a-kind R&D and demonstrations	Grid-scale commercial deployment	Microreactors and other reactors meeting low-consequence criteria	Military energy resilience and expeditionary applications
Framework	Graded, risk-informed DOE nuclear safety process	Deterministic or graded, risk-informed performance-based approach	Risk-informed framework intended to reduce burden on low-consequence reactors	Army-specific program built from DOE, NRC, Naval Reactors, International Atomic Energy Agency, and other best practices
Technology	DOE-owned or controlled reactors for research, testing, demo, or national missions (no grid connection)	Grid-scale commercial deployment	Military or commercial microreactor deployments	Army installation, expeditionary, stationary, and mobile reactors
 <i>need crosswalk and gap identification</i>  <i>need crosswalk and gap identification</i>				

Questions



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Federal Energy Management Program



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Federal Energy Management Program

The Energy Assurance Continuum

Presented by: Dusty Wheeler

Engineering Operations Leader, NORESKO



Objectives

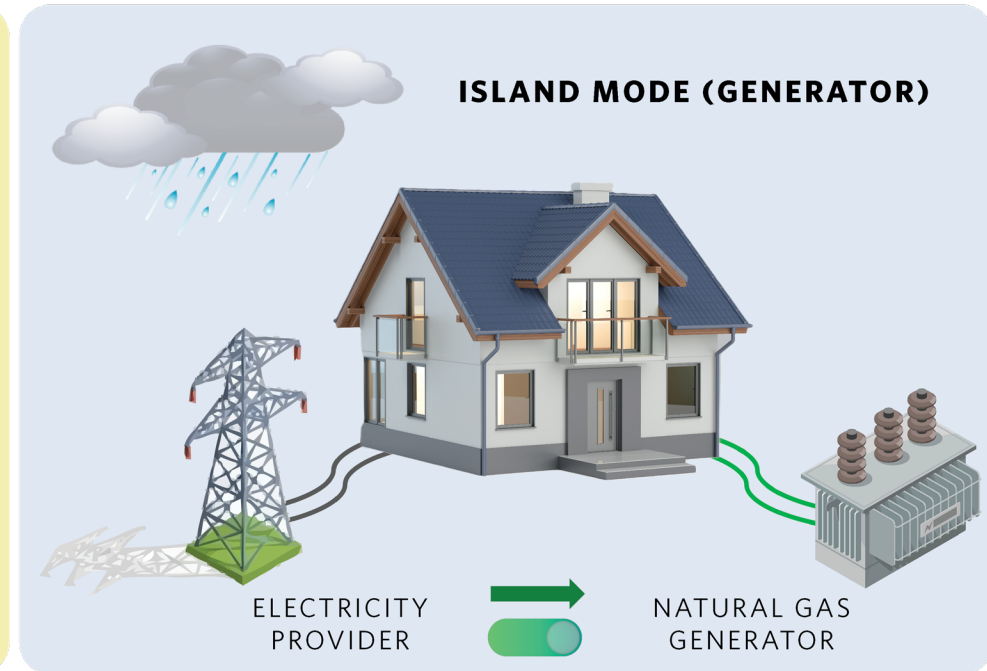
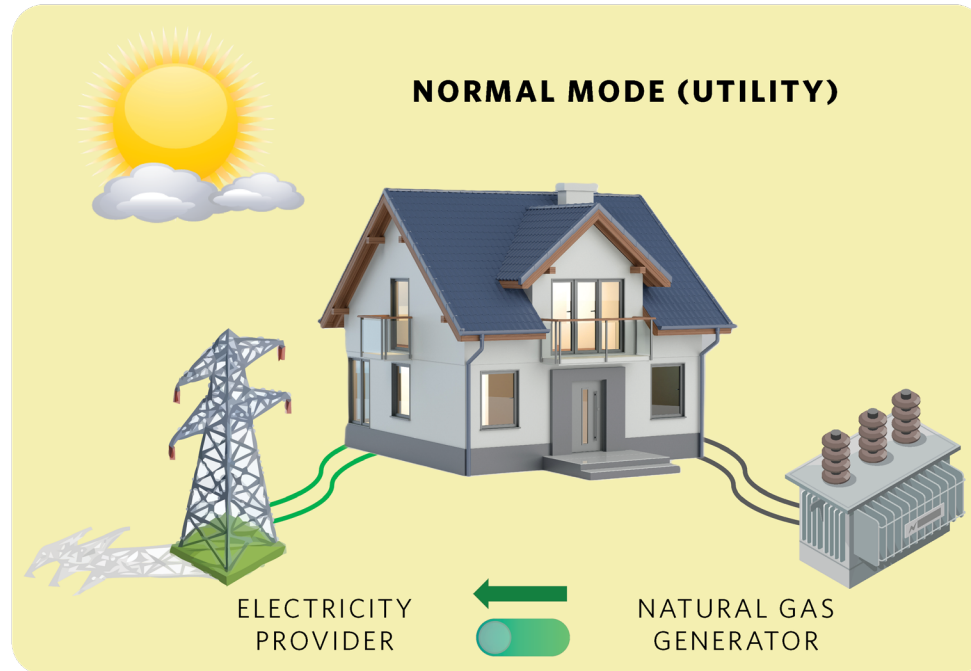
- What is energy resiliency and why is it needed?
- What is a microgrid?
- What technologies are needed to achieve energy resiliency?
- What are the steps required to achieve energy resiliency?
- Review energy resiliency project examples
- Bringing it all together:
 - Utilize integrated design principles and existing building commissioning as development framework
 - Energy assurance continuum

Mission Assurance Through Energy Assurance

The Department of War defines energy resilience as the ability to avoid, prepare for, minimize, adapt to, and recover from anticipated and unanticipated energy disruptions. The primary goal is to ensure continuous power availability for **mission assurance**, readiness, and vital national security operations.

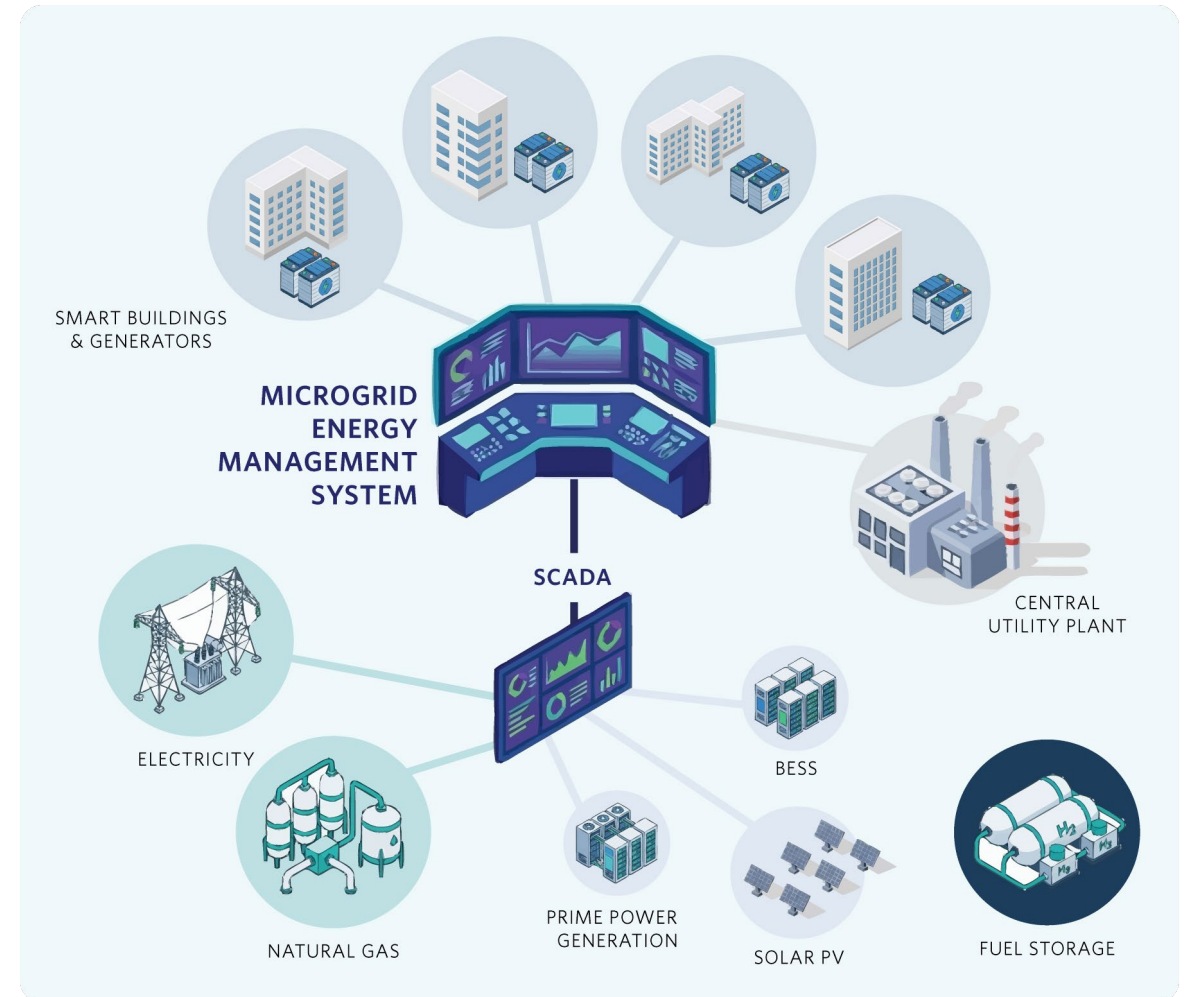
- Increased threat environment
- Increased utility load demand stress grid infrastructure
- Cybersecurity vulnerabilities of connected systems and utilities
- Aging critical infrastructure

What Is a Microgrid in Its Simplest Form



Microgrid Technologies

- Smart buildings
 - Integrated heating, ventilation, and air conditioning (HVAC) and lighting controls
 - Advanced metering
 - Central plant optimization
- Distributed energy resources
 - Combined heat and power (CHP), peaker, engine, turbine
 - Solar photovoltaics (PV), fuel cells
 - Battery energy storage systems (BESS)
 - The list goes on
- Microgrid energy management system
 - Continuous grid monitoring
 - Load management and asset dispatch (blue sky/black sky)
 - Machine learning – *artificial intelligence*



Energy Resiliency Achievement Steps

- Identify mission-critical loads by magnitude and type
- Determine energy resilience duration requirements by energy source
- Close coordination with utility providers for system requirements and interconnection process
- Identify required upgrades to critical infrastructure (HVAC, central plants, electrical distribution, Supervisory Control and Data Acquisition [SCADA], building automation system)
- **Determine overall onsite generation capacity required**
- Select distributed energy resource (DER) assets that best fit application requirements
- Incorporate cybersecurity requirements into network design

Kadena Air Base – Okinawa, Japan



In 2019, NO RESCO was awarded an ESPC project at Kadena Air Base. This ESPC has reduced energy dependence and provided a dramatic reduction in water usage – a critical resource for the installation. The project represents one of the Air Force’s largest water conservation initiatives, reducing consumption by almost 60 million gallons of water and delivering more than \$785,000 in savings in Fiscal Year 2022 alone. The project is also the first ESPC example of a standby microgrid, which is composed of five generators and has a total capacity of 10 MW.



Kadena Air Base – Okinawa, Japan



This \$85.7 million ESPC at the home of the U.S. Air Force's largest combat wing will generate more than \$154 million in guaranteed cost savings.



Safety: This project was implemented with no OSHA violations or fines.



Energy conservation measures included 10MW of on-site power generation with standby microgrid, domestic water conservation measures, solar thermal-assisted air conditioning, and upgrades to nearly 200,000 light fixtures with state-of-the-art LED technology and lighting controls.



This ESPC has exceeded the annual savings guarantees in every year of performance.



The power generation assets are part of a new advanced microgrid that enables Kadena Air Base to more effectively sustain operations and meet critical mission requirements during utility outages.



This ESPC reduced carbon dioxide emissions by 10,300 metric tons, sulfur oxide emissions by 4 metric tons, and nitrogen oxide emissions by 11 metric tons annually.



This ESPC project was recognized with a DOE 2023 Federal Energy Management Program Award.

Naval Submarine Base – New London, Connecticut



In 2019, NORESKO was awarded an ESPC project at Naval Submarine Base (NSB) New London. The cornerstone of this ESPC was a 10.75-MW combined heat and power plant providing electrical power generation and steam heat for mission-critical waterfront operations and training buildings. To enhance the resiliency of this service, a new cybersecure microgrid system was installed, enabling NSB New London to island their installation in case of a utility grid outage.



Naval Submarine Base – New London, Connecticut



This \$90.1 million ESPC project will generate more than \$183.8 million in guaranteed cost savings.



Safety: This project was implemented with no OSHA violations or fines.



ECMs included a 10.75-MW CHP, a new cybersecure microgrid system, electrical infrastructure upgrades, steam distribution improvements, new LED lighting, and a new base-wide cybersecure energy management control system (EMCS).



During grid outages, the CHP plant and cybersecure microgrid will support 100% of the power requirements for NSB New London.



The total job creation impact of this ESPC was approximately 865 jobs, including the ESCO, installation subcontractors, and manufacturing (Direct Job Impact for ESPCs – Federal Performance Contracting Coalition).



This ESPC includes 18 years of ongoing operations, maintenance, repair, and replacement services.



This ESPC has exceeded the annual savings guarantees in every year of performance.



This ESPC reduced carbon dioxide emissions by 48,084 metric tons, sulfur oxide emissions by 7 metric tons, and nitrogen oxide emissions by 33 metric tons annually.



This ESPC project was profiled in “The Military Engineer,” Volume 732, celebrating its innovative approach and alignment with the Navy’s resilience goals.

Integrate EBCx into EPC Development Process

The ASHRAE Existing-Building Commissioning (EBCx) process is a quality-focused procedure used to verify, document, and optimize the performance of an existing facility so that it meets the Current Facility Requirements (CFR). It bridges the gap between how a building is currently running and how it should operate to satisfy the owner's operational, energy, and occupant needs.

- EBCx process applied to all building energy systems
- Systematic approach to identifying mission requirements by system and by building
- Detailed evaluation of existing system performance against mission requirements
- Optimize existing systems to meet requirements with increased efficiency
- Design critical system upgrades to meet mission requirements with increased efficiency

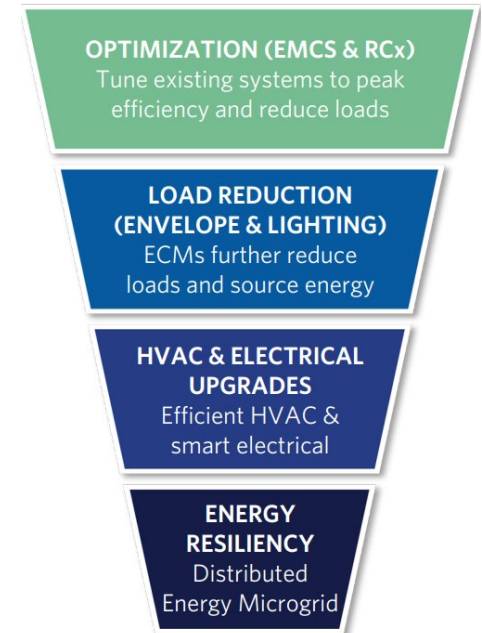
Integrate EBCx into EPC Development Process

Key Process Document	Purpose
Current Facility Requirements	Records building- and space-specific mission requirements and system operating parameters to be maintained, e.g., mission-critical spaces and loads, operating hours, space environmental conditions. Establishes ESPC goals to define success criteria for the program.
Existing Conditions Report	Records as-found conditions for systems and equipment to identify mission-level capabilities gaps.
ECM Functional Descriptions	Establishes ECM basis of design and specific performance parameters required to meet mission requirements and achieve required performance improvements.

Energy Assurance Continuum

Reduces capital requirements while maximizing the utility savings used to fund the upgrades

- **Optimization of Existing Systems:** Energy intensity reduction through building automation systems (BAS) upgrades, recommissioning (RCx), advanced control schemes
- **Load Reduction:** Source energy load reductions through envelope improvements, window upgrades, lighting, and demand-side management
- **Critical Infrastructure Upgrades:** Eliminate aging infrastructure point-of-failure threats with increased efficiency, right-sized capacity, reduced capital cost
- **Energy Resiliency:** Maximize energy assurance at reduced on-site generation capacity requirements. Incoming utility power, critical building loads and DER assets are monitored and controlled by Microgrid Energy Management System (MEMS) and integrated for centralized control.



Questions



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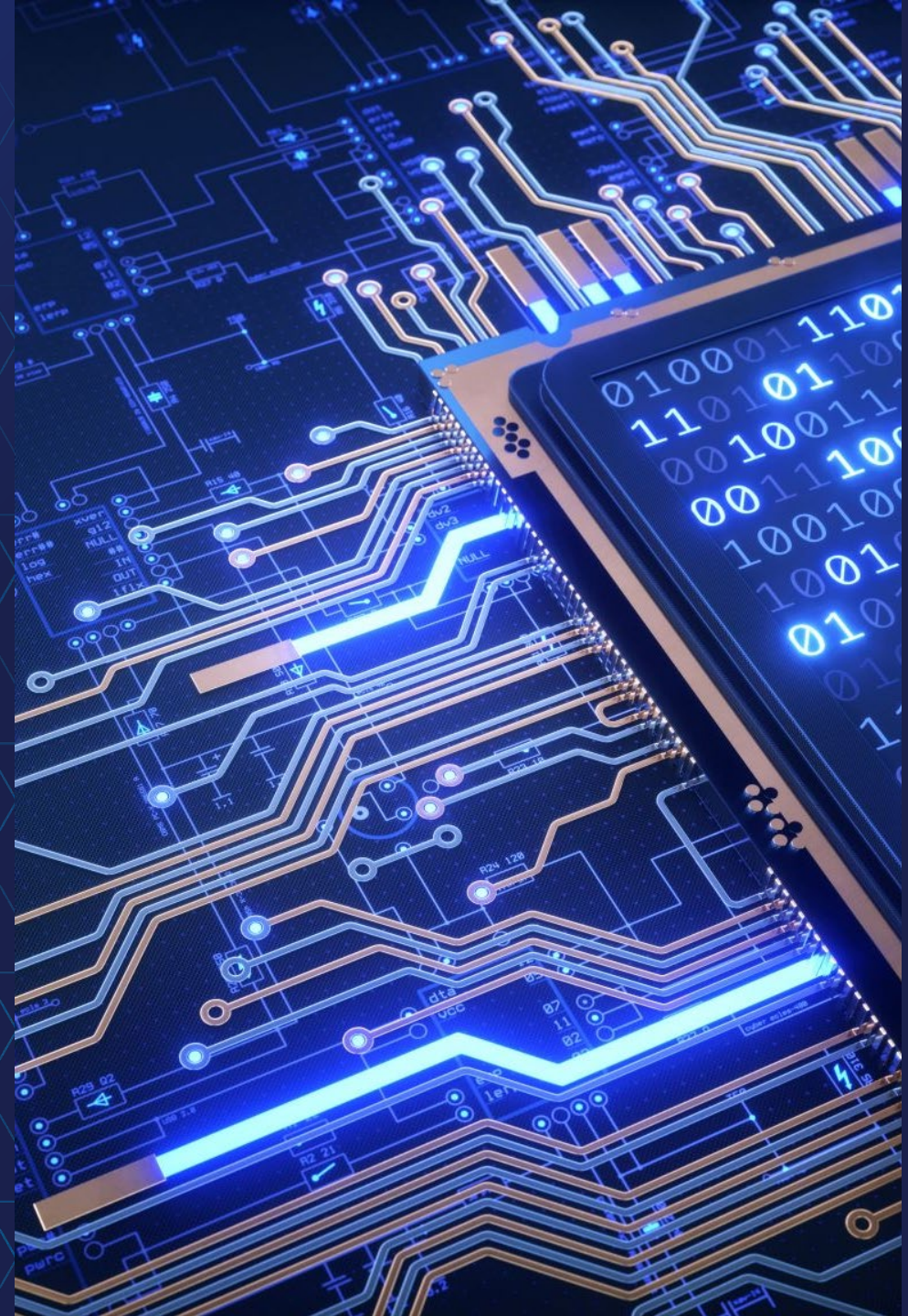
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Artificial Intelligence Driving Emerging Technologies

This PowerPoint presentation includes research and content developed with help from Claude, by Anthropic.

Presented by: Heather Colbet

Program Manager, National Laboratory of the Rockies



Artificial Intelligence, Data Centers, and the Grid

Demand is rising after decades of flat growth

- The Electric Power Research Institute (EPRI) estimates that data center “**electricity use grows from about 4%–5% of U.S. demand today to 9%–17% by 2030 across scenarios, increasing further to 10%–20% by 2035**”
- Primary drivers: Data centers and artificial intelligence (AI) development

Data centers are the fastest-growing load

- Estimated U.S. data center use 184 terawatt-hours (TWh) (2024)—“annual growth rate in [data center] DC electricity use of 14%–27% over six years”
- Lawrence Berkeley National Laboratory (LBNL) projects data centers could reach 6.7%–12% of U.S. electricity by 2028

A timing mismatch creates urgency

- New transmission and generation can take up to a decade, while large loads arrive far faster, raising the value of flexible, distributed resources

Sources: [LBNL, 2024 United States Data Center Energy Usage Report](#); [EPRI, Powering Intelligence, Data Center Growth in Context, 2026](#).

The Opportunity for Federal Agencies

The nation's largest single energy consumer

- The federal government represents the single largest energy consumer in the United States, with the majority coming from the Department of War

Federal agencies are faced with aging equipment and infrastructure, with aggressive energy and water efficiency requirements

- The federal government is on track to reach roughly \$60 billion in taxpayer savings by 2030
- Agencies must meet statutory energy, water, and resilience goals (e.g., Energy Act of 2020)

Emerging technologies provide tools for agencies

- To meet federal mandates, agencies can utilize AI-enabled technologies to meet those goals

Source: [U.S. DOE Federal Energy Management Program \(FEMP\)](#), [Energy Act of 2020 Energy Performance Contracting Planning and Initiation Tool \(EPC-PI Tool\)](#), [How FEMP Saves the Government Money by Cutting Energy Waste in Federal Facilities and Fleets 2025](#).

Deploying AI-Enabled Technologies

AI capabilities introduce opportunities

- **Grid-interactive efficient buildings (GEBs):** Smart controls that reduce, shed, shift, or modulate load in response to a utility signal
- **On-site generation and microgrids:** Expands agencies' ability to manage distributed generation, combined heat and power, and fuel cells that can island critical facilities during outages
- **Battery energy storage:** Peak shaving, backup power, and grid services from a single asset
- **Distributed energy resources and distributed energy resource management systems:** Coordinated management and optimization of many small assets
- **AI-enabled analytics:** Forecasting, fault detection and diagnostics, and optimization across buildings and the grid

Sources: [National Laboratory of the Rockies, Blueprint for Integrating GEB Technologies into GSA Performance Contracts, 2021](#); [National Laboratory of the Rockies Grid Modernization, Microgrid Controls, 2026](#); [IEEE Peak Load Mitigation Using Battery Energy Storage Systems for a Regional Distribution Network, 2025](#)

Artificial Intelligence and Utilities

Both a driver of demand and a tool to manage it

- AI accelerates load growth, but also helps utilities run the grid more efficiently and reliably

Applications gaining traction

- Load and demand forecasting for planning and procurement
- Predictive maintenance and fault detection on distribution systems
- Optimization of building systems, distributed resources, and microgrid dispatch

Industry is organizing around it

- EPRI's Open Power AI Consortium (2025) develops open, power-sector AI models with utilities and technology firms; EPRI's DCFlex tests large-load flexibility to ease grid bottlenecks

Sources: [EPRI, Open Power AI Consortium, 2025](#); [EPRI, Powering Intelligence, 2026](#); [EPRI DC Flex Initiative](#); [PR Newswire EPRI Launches Consortium to Drive Development of AI Applications in Power Sector, 2026](#);

Key Considerations and Risk Management

AI can introduce new vulnerabilities:

- **Cybersecurity:** AI and connected systems expand exposure to critical infrastructure
- **Data privacy:** Advanced metering and customer data require clear governance and controls
- **Interoperability:** New technologies must interface with legacy systems that are still maturing
- **Data access:** Utilities cite limited access to quality data as a barrier to deploying AI

Sources: [U.S. DOE FEMP, Energy and Cybersecurity Integration 2026](#); [EPRI Journal, Why Data Readiness is One of Utilities' Most Urgent AI Challenges, 2026](#); [National Laboratory of the Rockies, Blueprint for Integrating GEB Technologies into GSA Performance Contracts, 2021](#).

Pathways to Implementing AI-Enabled Technologies

Utility partners

- Agencies can partner with their serving utility leveraging their existing utility programs, or a UESC to implement AI-enabled technologies to the site and facilities

UESCs

- Little to no upfront capital—through performance contracting, a private partner finances the improvements and is repaid from the resulting energy savings
- Energy savings are typically 20%–40%, beginning in the first year of the performance period

AI technologies to meet resilience objectives

- Microgrids and storage keep mission-critical facilities powered through outages
- Helps satisfy statutory mandates, including the Energy Act of 2020 performance-contracting requirement

Sources: [U.S. DOE FEMP Utility Energy Service Contract Basics](#); [National Laboratory of the Rockies, Blueprint for Integrating GEB Technologies into GSA Performance Contracts, 2021](#); [U.S. DOE Federal Energy Management Program \(FEMP\), Energy Act of 2020 Energy Performance Contracting Planning and Initiation Tool \(EPC-PI Tool\)](#), .

Federal Agencies and Utilities Partnerships

Deepen the federal customer relationship

- Utilities benefit through serving their largest, most stable customers with comprehensive, long-term energy services

Effective AI technologies

- Demand flexibility, storage, and DERs help defer costly infrastructure improvements and smooth peaks
- Federal sites become grid assets that provide services, not just loads to serve

A proving ground for new AI technology

- Deploy and demonstrate emerging technologies at scale with a committed partner
- Build capabilities and lessons learned that transfer to other agencies and utility customers

Sources: [National Laboratory of the Rockies, Blueprint for Integrating GEB Technologies into GSA Performance Contracts, 2021](#); [U.S. DOE Lawrence Berkeley National Laboratory Connected Communities](#); [DOE FEMP Federal On-Site Distributed Energy procurement Options](#)

Path Forward and Key Resources

Getting started

- Technical assistance – Contact FEMP and/or your serving utility
 - [FEMP Technical Assistance](#)
 - [FEMP Project Executives for ESPCs and UESCs](#)
- [FEMP Project Facilitators](#) – Engage a project facilitator—strongly recommended by FEMP—for unbiased technical and financial advice
- [FEMP Utility Program and Utility Energy Service Contracts for Federal Agencies](#) – Find more information about UESCs, contacts, resources, and project support

Questions



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Closing Remarks

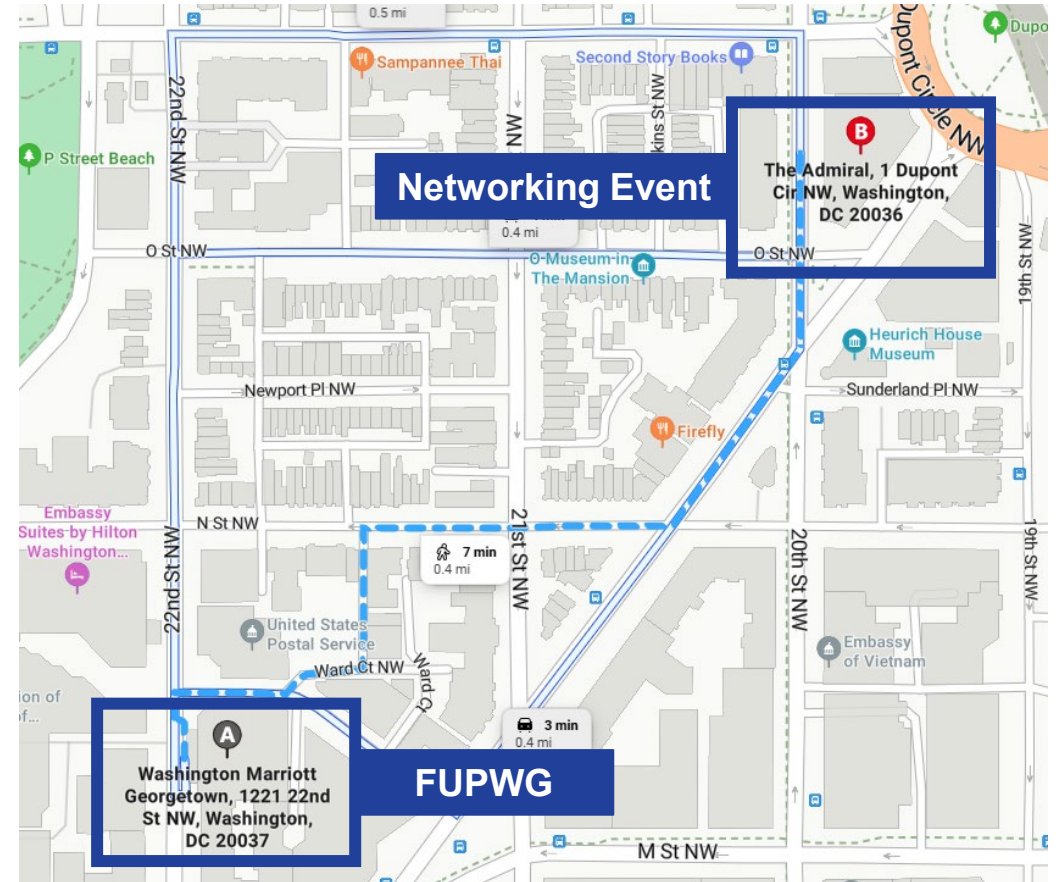
No-Host Networking Event

Location: The Admiral

- Address: 1 Dupont Circle NW, Washington, D.C. 20036
- 7-minute walk from the Marriott Georgetown Hotel

Time: 5:30–7:30 p.m. (EST)

No Host: Please note that each guest will be responsible for their own food and drinks.



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Thank you!
