U.S. DEPARTMENT of ENERGY | Federal Energy Management Program

Plugging Into Partnership Power: Mastering UESC Projects With Utilities

T01-S04, August 5th, 2025

FEMP Summer CAMP (Courses Aligned with Mission Priorities)

Joe Simonelli

Department of Defense Engagement Executive

Energy Systems Group

Agenda

- Session Learning Objectives
- David Wagner - VA Energy, Environment, and Fleet Program Service
- Fred Parry - Dominion Energy, Director – FES, Finance, Business Development & Compliance
- Kevin Johnson - Energy Systems Group, Senior Director, Business Development & Utility Relations
- Conclusion and Q&A

Session Learning Outcomes

1. Identify best practices for aligning utility partnerships with your site's specific energy goals.
2. Recognize key benefits of utility partnerships and performance contracting.
3. Determine how to structure contracts effectively to support project implementation.
4. Recognize insights from industry experts and agency leaders to inform future partnership strategies.

David Wagner

Energy, Environment, and Fleet Program Service

Veteran Affairs (VA)

UESCs: A Tool in Your Infrastructure Toolkit

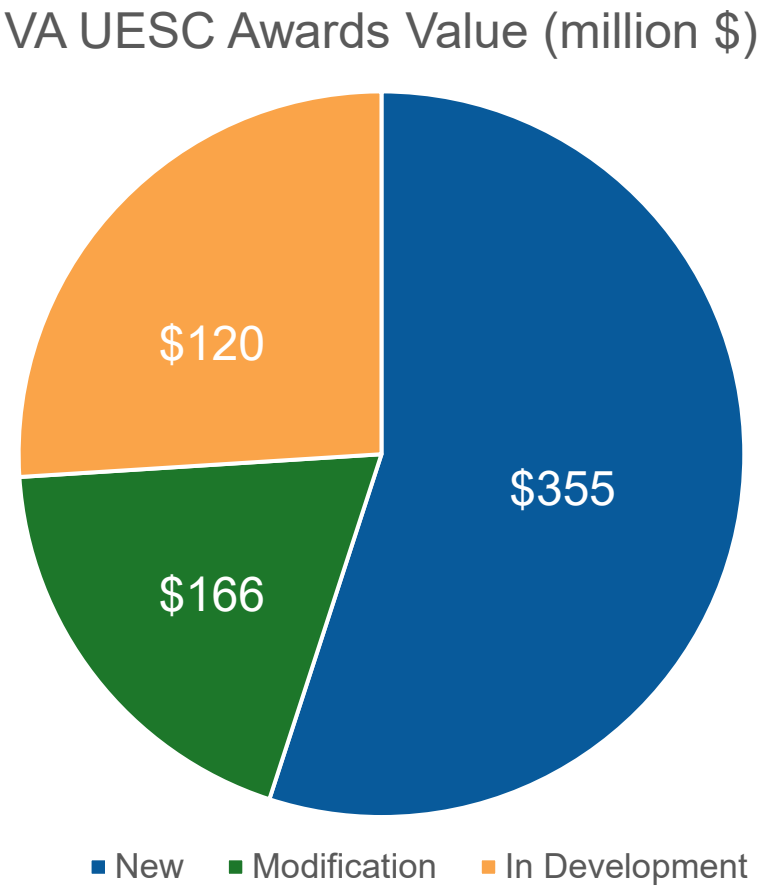
- Meeting infrastructure demands is a mission-critical concern
- 42 U.S.C. § 8253 requires agencies to:
    - Evaluate covered facilities every four years for lifecycle cost effective energy and water savings measures
    - Implement all lifecycle cost effective measures within two years
    - Perform at least 50% of lifecycle cost effective measures through performance contracting
- UESCs provide an additional tool, along with traditional construction contracts
- Leverage long-term utility partnerships, expertise, and stake
- UESCs are cost and time competitive with other performance contracting methods

VA Relies on UESCs

VA has 20 UESC projects at 26 facilities with 76 unique UESCs awards and an implementation value of $516M, with $120M in development.

Consider:

- Nature of the work: UESCs allow you to bundle several measures into one contract
- Staffing: more work with fewer resources
- Timing: performance contracts generally take longer to award, but are flexible and allow for more agile modification



Start the UESC Journey

- Energy Independence and Security Act of 2007 energy and water evaluations provide a baseline of lifecycle cost effective measures
- Site, regional, and agency planning identifies additional priorities
- Build a strong team:
    - Site leadership and engineering
    - Contracting
    - Program office
- Develop a Site Data Package (SDP) framing the needs and wants of the project

Choose Your Partners Wisely

- Utility Selection if two or more serving utilities are eligible and interested. Criteria includes:
  - Being a current utility provider for the site (not a potential provider)
  - Evidence of ability to receive third-party financing and bonding
  - Other: GSA areawide contract streamlines award
- Utilities can self-perform, or subcontract to an energy service company (ESCO)
- VA requires ESCO selection to be completed according to FAR 52.244-5 and asks to review potential partners before selection
- VA requests that utilities compete no fewer than three ESCOs
- Request evidence of qualifications, technical expertise, and past performance for the type of work in the SDP
- All partners must accept VA's performance assurance language and other terms (see following slides)

VA UESC Performance Assurance

ATTACHMENT 1
UESC PERFORMANCE ASSURANCE

The purpose of this attachment is to provide VA Performance Assurance requirements for Utility Energy Service Contracts (UESCs).

C.4 MEASUREMENT AND VERIFICATION (M&V) OF ECM PERFORMANCE

C.4.1 Every TO awarded shall include a site-specific performance assurance plan that specifies the M&V requirements and procedures that shall apply to the TO based on various factors, such as type of ECMs, projected value of energy savings, certainty/uncertainty of savings being achieved, and the intended risk allocation between the agency and the Contractor.

C.4.2 The TO M&V plan is the primary vehicle that an agency uses to first document and then to periodically evaluate the performance expectations of the TO project. This document shall be thoroughly understood by the Contractor and agency. It shall, in a clearly understandable format, state where and how energy, water and related cost savings are going to occur and how they are to be calculated and verified. If the scope of work does not include the entirety of a site, or all the systems or significant portions within a building, then that situation shall be stated clearly so that the agency and the Contractor are aware of what the TO covers and what it does not. Each building and/or space within a building that will be affected shall be identified, and buildings or portions of buildings that will not be affected shall be identified. The ECMs that generate savings shall be identified, as well as the building systems that they affect. If there are significant energy- or water-using building systems or other energy or water uses within the buildings, which will not be affected by the TO, they shall be identified so that there is clear understanding of the extent to which total energy, water and related costs at the site will be affected. To the extent this information is provided in the IGA, it will be repeated in the M&V plan.

C.4.4 The TO M&V plan shall specify the M&V options and methods that will be used for each ECM included in the TO. M&V options and methods proposed for each ECM shall comply with the latest version (in effect at the time of TO award) of the "DOE/ FEMP M&V Guidelines: Measurement and Verification for Federal Energy Projects" and the "International Performance

Additional Terms

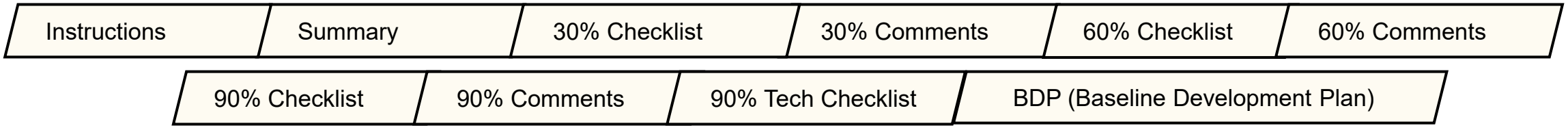
Attachment 2 Acknowledgment and Acceptance

The following Language shall be Acknowledged and Accepted by an Officer of the Utility Provider:

1. The selected Utility will perform the Feasibility Study (Investment Grade Audit). The Feasibility Study will be performed at risk, meaning the cost of the Feasibility Study will only be paid if the project is awarded.
2. With coordination and approval of the Government, the Utility will design and construct an energy savings project and provide robust performance assurance and Operations and Maintenance during the service phase of the contract to ensure that improvements will result in savings sufficient to pay for the project. The Utility will also develop a savings assurance plan and arrange project financing. The project energy savings will be measured over the course of the financing period.
3. VA requires that the ESCO selection be competed according to FAR 52.244-5 Competition in subcontracting. VA shall review potential ESCO partners before selection.
4. All Language provided in Attachment 1 – Performance Assurance Language.

From Kickoff to Award

- Investment Grade Audit (IGA) is a dynamic process. VA provides an IGA checklist with detailed IGA submission guidance to VA reviewers and project facilitators to ensure baselines, assumptions, and methods of verification are checked for accuracy, discussed, and documented.



- Each phase is reviewed and comments provided and addressed
- Escalation rate is a critical factor in determining project viability. VA allows utilities to deviate from the NIST Energy Escalation Rate Calculator but requires a strong evidence and rationale for doing so

IGA Checklist Sample

ESPC/UESC ECM BASELINE, ASSUMPTIONS, CALCULATION CHECKLIST

The Department of Veterans Affairs requires that all IGA submissions meet the minimum content requirements as detailed below. Failure to meet these requirement will result in return of the IGA submission.

VA Comments

90% ECM Checklist	Checklist	ECM 1.2	ECM 2.4	ECM 5.1	ECM 7.2	ECM 13.1
1. Overall percentage of energy/cost savings reasonable in comparison to baseline (% savings table/analysis provided) (Typically under 30%, if over verify reasonable or renewable installed)						
2. Did analysis utilize baseline measurements within calculations and are assumptions well documented?						
3. If model was used, does it meet FEMP calibration requirements? Also, Model writeup describing development and parametric runs provided and input/output forms?						
4. Describe calculation methodology and appears reasonable. Also, will calculation provide reasonable results (somewhat conservative and calculations spot checked?) (Do we account for interactive effects properly? Demand savings have appropriate SF?)						

... | 60% Comments | 90% Checklist | 90% Comments | 90% Tech Checklist | BDP

A Fruitful Partnership

- UESCs are valuable tools that leverage partnerships to meet infrastructure needs
- Like all partnerships, they require good faith effort and communication
- Results depend on preparation – build your foundation
- Take care in selecting your partners. You be working with them a long time
- Address concerns and validate methods during the IGA to ensure a successful project

Fred Parry

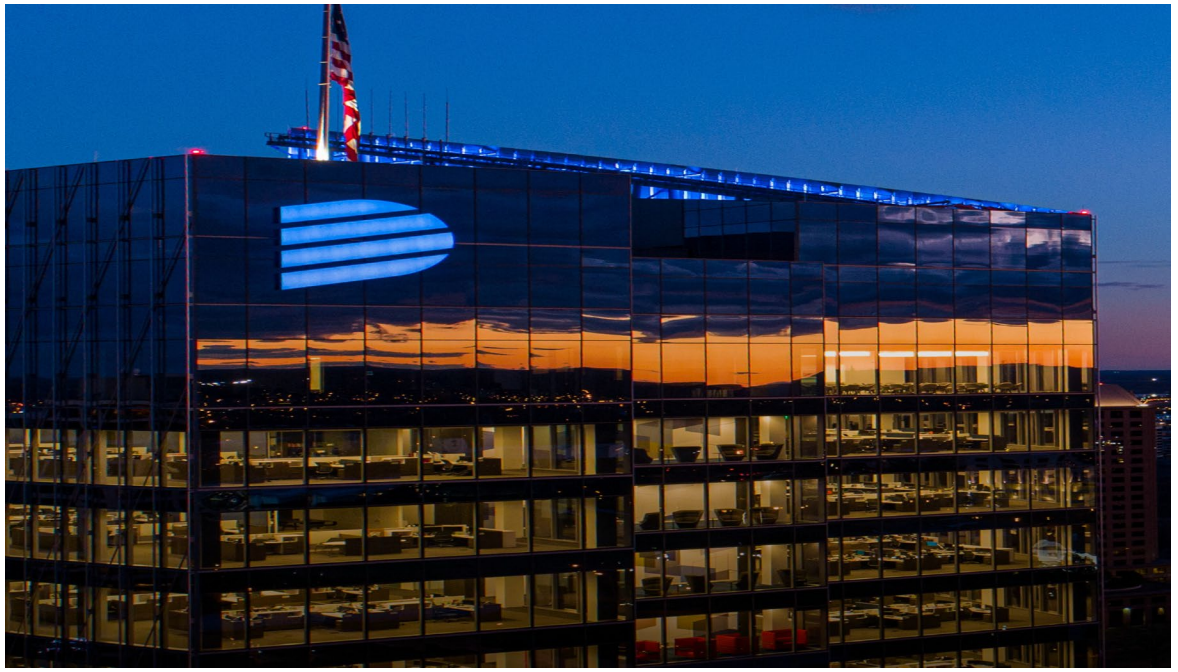
Director – FES, Finance, Business Development & Compliance

Dominion Energy

About Dominion Energy

Dominion is one of the nation's largest producers and transporters of energy. Dominion is incorporated in the Commonwealth of Virginia and headquartered in Richmond.

Dominion is committed to empowering and supporting the communities we work in, while delivering reliable, affordable and increasingly clean energy to our customers



Dominion Energy®
Powering Your Every Day.

Across every part of our company, we're transforming the way we do business to build a more sustainable future for the planet, our customers, our team and our industry. This includes our commitment to achieve net zero emissions by 2050.

UESC vs. ESPC

	UESC	ESPC
Contract	With your serving gas, electric, or water/wastewater utility (may be sole source)	With any of 22 ESCOs
Contract vehicle	GSA Areawide, BOA, site specific, or inter-agency	Task Order under FEMP IDIQ or USACE MATOC, Site-Specific, or GSA Schedule 84
Government Counterparty	Regulated Public Utility	Private Energy Services Company (ESCo)
Contract award	Local or Agency level (depending on size)	Agency level, with DOE/USACE concurrence and required project facilitation
Development time	12-18 months	18-36 months
Maximum contract term	25 years including construction	25 years
Funding	Financed or direct funded	Financed
Finance rates	Lower because of performance assurance; based on credit rating of utility	Higher due to required performance guarantees; based on credit rating of ESCO
Savings Guarantee	Optional; Negotiable with utility	Required by statute; Overall project basis
Performance Assurance	Required annually	Required annually as part of M&V process
Title to Equipment	Must vest in government	Government or ESCO (contract must address)
O&M on installed equipment	Negotiable with utility	Usually performed by ESCO

General Service Administration Contract for Franchised Utilities.

Procuring Energy Management Services with the GSA Areawide Contract

- A Practical Guide to Procuring Energy Management
- Services through a GSA Areawide Contract
- General Services Administration
- Public Buildings Service
- Energy Division

The purpose of this guidebook is to provide an introduction to Utility Energy Service Contracts (UESCs) and to outline how the GSA Areawide Contract may be used to enter into these contracts.

Federal Energy Solutions

Utility Energy Service Contracting (UESC)

- Leverage existing GSA Area-wide Agreement
- Provide energy conservation and energy resilience improvements on Government owned facilities
- Utilize Energy Service Company (ESCO) partners – 4 competitively selected partners
- Typical improvements include mechanical upgrades, lighting upgrades, energy management control systems, retro-commissioning, renewables, generation/ microgrids, and distribution improvements
- Additional “Exhibit-A” projects through the Area-wide contract

Current Projects

- Pentagon
- NSWC – Dahlgren, VA
- MCB – Quantico, VA
- MCAS Beaufort, SC

Completed Projects

- Hampton VA Medical Center, VA
- US Coast Guard – Portsmouth, VA
- Fort Myer, VA
- Fort Eustis, VA

ESCO Selection Matrix

			Suppliers														
	Factors	Weight	Energy Systems Group	Honeywell	Siemens	Noresco	Lockheed Martin	Powe Secure									Total
1	Willingness to handle financing	0.05															0
2	Past performance	0.20															0
3	Proof of bonding capacity/financial strength	0.20															0
4	Safety	0.05															0
5	Capabilities/Scope of work	0.05															0
6	Experience w/UESC projects	0.20															0
7	Project Management	0.10															0
8	Acceptance of T's & C's	0.05															0
9	Quality Assurance/Warranty	0.10															0
10																	0
11																	0
12																	0
13																	0
14																	0
15																	0
16																	0
17																	0
18																	0
	Relative importance	1.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Total

Initial Opportunity Assessment (IOA)
NO COST – NO COMMITTMENT

Purpose

- Perform a high-level walk through of the site to identify possible energy saving and/or resiliency opportunities
- Identify any specific areas that require further, more detailed, assessment in a PA and IGA
- As appropriate, generate an IOA report to discuss results of site survey and present any viable opportunities for the program
- Provide guidance for next step in the UESC process

Start With a Realistic Competitive Analysis

What the Customer Wants

What the Customer Values

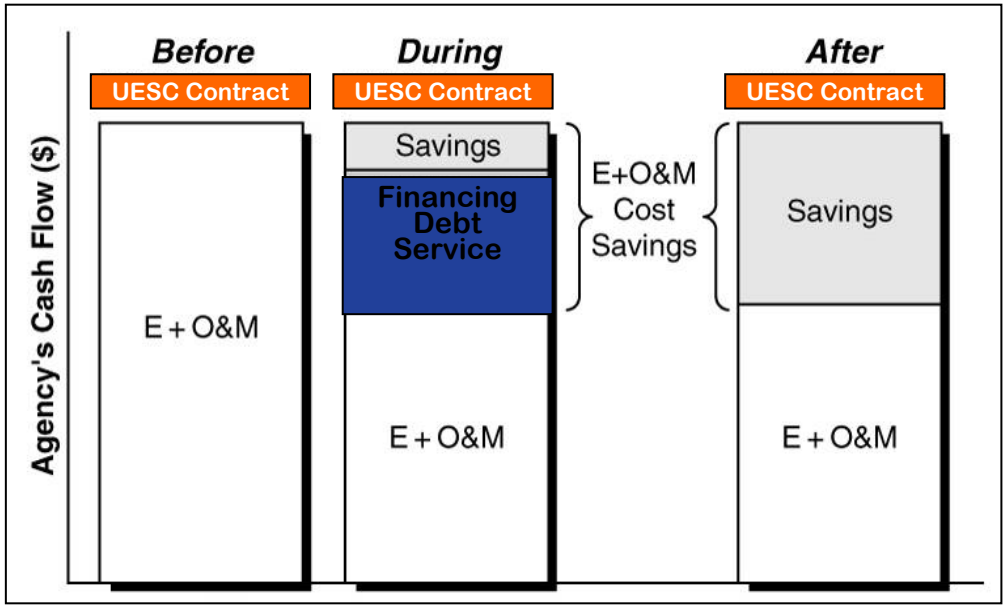
Evaluation Criteria	CHP	Microgrid	Chillers	LED
Technical	-	+	=	=
Experience	=	+	-	+
Management Approach	+	+	=	+
Financial Stability	+	+	+	+
Price/Overhead	-	-	-	-
Small Business	=	+	=	=

NOTIONAL

+ Better than the competition
= Same as the competition
- Worse than the competition

UESC Program Overview

- Dominion Energy's program fronts capital costs, assesses opportunities, designs, and implements approved projects which are paid out of energy / other savings



- Utilizes savings / available funds to upgrade infrastructure instead of paying for utilities expended by inefficient equipment
- Can utilize additional funds to include ERCIP, AFFECT grants, ESTCP awards, etc.

UESC Options

Dominion Energy's UESC Customizable Program

- **Energy savings guarantee –** able to provide as requested based on equipment or system characteristics and criticality to the project performance and mission requirements
- **Extended equipment warranties -** for mission critical assets; to provide assurance that if key equipment fails after the normal warranty expires, repair and/or replacement is provided with little to no cost impact to the Government
- **O&M services for up to the life of the contract**, especially when Government resources are limited and/or new systems are unfamiliar to current resource capabilities
- **Customer customization –** select any of the above options as appropriate for each individual ECM to ensure project performance and assure customer satisfaction
- **Advance System Training - ECM** specific training throughout the life of the contract, DVD recordings of training sessions, training sessions offered at customizable intervals throughout the contract

Typical UESC Program Process

Step #	Description	Duration
1	Initial Concept Presentation (and follow-up meetings)	
2	Development of an Initial Opportunity Assessment (IOA – no cost)	1-2 months
3	Request for Preliminary Feasibility Audit (PFA - no cost)	1-2 weeks
4	Development, Submission and Approval of PFA	1-3 months
5	Request for Feasibility Study (FS) / Investment Grade Audit (IGA)	1-2 week
6	Development, Submission and Approval of FS / IGA	6-9 months
7	Request for Final (design/build) Proposal	2-3 weeks
8	Submission and Approval of Proposal	2-4 weeks
9	Proposal Review, Negotiation, & Task Order Execution	1-2 months
10	Construction, Commissioning & Gov't Acceptance	6-18 months
11	Performance Period, Loan Repayment, O&M	Varies *

* Depends on volume, complexity of ECMs and financing arrangements

UESC Updates

	Project	$ Value of Project (Before interest/financing)	
1.	Pentagon	$69.3M+	
2.	Quantico	$48M+	
3.	Dahlgren	$10.5M+	
4.	MCASB	$1.5M ($60M construction potential)	IGA – Kickoff
5.	USCG Portsmouth	$10.4M+	Gen Extended Warranty
6.	Myer	$2.3M+	Complete
7.	Hampton VAMC	$14M+	Performance Assurance

Total Under Contract: $155M

UESC Updates

Lessons Learned/Challenges

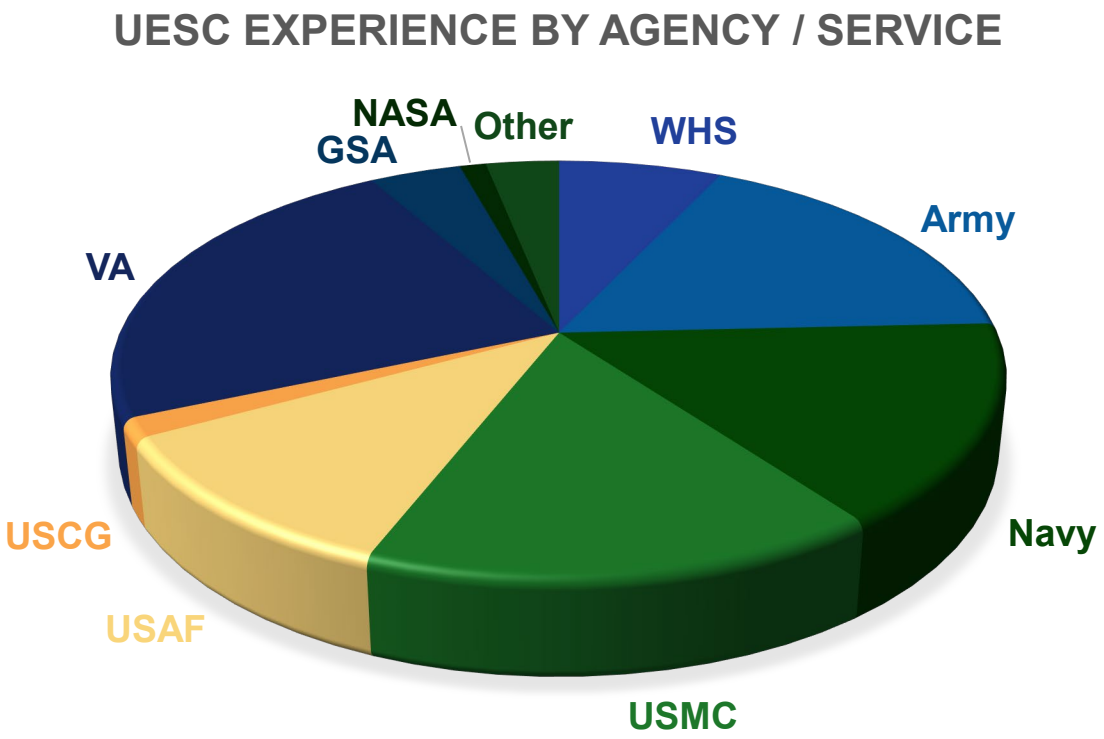
- Establish parking/laydown areas (for construction) early on
- Operating procedures
- Getting building managers prepared and getting DE Sub-K's access is crucial
- Outage schedules
- SGIA negotiation time in IGA
- Present opportunities for extended warranty/maintenance for Gens and other major equipment
- Verify government provided basis of operations/capabilities
- EM-385 SSHO & BAA compliance
- Ensure all schedule changes are properly documented via contract MOD
- Material delays

Kevin Johnson

Senior Director, Business Development & Utility Relations

Energy Systems Group

Direct Experience with UESCs Have Provided Key Benefits / Best Practices



- Over $835M in UESC capital and resiliency improvements over the past 30 years
- Successfully implemented over 125 UESC projects nationwide
- Master agreements to support Federal customers in 70 major utility service territories throughout the US
- Over 60 Recognition Awards from Agency, Industry and Utility organizations

UESC Key Benefits & Best Practices

- Utilities prioritize customer satisfaction and service over profit – the relationship is much more important than short term profit
- Reputational risk is paramount…there may be no savings guarantee required but regulatory bodies, investors, and other stakeholders have a vested interest in high value utility support to their customers
- Utilities may be able to identify and quantify unique incentives, rebates, and rate options
- If possible, avoid competitive Preliminary Audits when choosing a utility / ESCO partner…the results will not reflect accurate expectations of the viable project, and the unnecessary effort drives up costs for all involved
- Avoid addition of unnecessary clauses and duplicate bonding which only drives up risk and cost without adding value to the effort
- If utilities do not self-perform, they should have at least 2 ESCOs to ensure alignment with customer expectations and preference

Questions?

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Thank You

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