U.S. DEPARTMENT OF ENERGY

Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

# Welcome and Announcements

Tracy Niro – FEMP Utility Program Manager


FEMP Federal Energy Management Program

# Welcome to FUPWG!

- We have missed you!
- Registration numbers – welcome first-time attendees!
- Invite your colleagues – registration is still open!
- Thank you, FUPWG Fed Council and others who submitted topic ideas
- Questions can be submitted using the Q&A tool
- CEUs: Five separate CEU sessions
- Presentations posted before the start of each day

# What are IACET-Certified CEUs and How do they Benefit Me?

## What Is a CEU?

According to the International Association for Continuing Education and Training (IACET), a CEU is a unit of credit equal to 10 hours of participation in an accredited program designed for professionals with certificates or licenses to practice various professions (e.g., engineers, lawyers, accountants, educators, nurses, architects, mental health professionals, and social workers). The CEU provides a standard unit of measurement for continuing education and training, quantifies continuing education and training activities, and accommodates for the diversity of providers, activities, and purposes in adult education.

## What Is the IACET?

The IACET offers the most industry-wide accreditation of official continuing education units (CEU). IACET worked with the U.S. Department of Education to create and define the CEU in 1970. The Federal Energy Management Program (FEMP) is an authorized provider of CEUs under the ANSI/IACET 1-2018 Standard.

## How do I earn CEUs for a training I've taken?

When you take a FEMP IACET-certified training, you will be provided with a link to the assessment and evaluation for the training completed. To earn CEUs, attendees must score 80% or higher on the assessment and complete the course evaluation.

*Source: https://www.orau.gov/tdd/ceus.pdf*

# Benefits of Having a WBDG Account

**The National Institute of Building Sciences' (NIBS) Whole Building Design Guide (WBDG) hosts the FEMP training program's learning management system (LMS).**

**The NIBS WBDG LMS:**

- Allows for taking multiple trainings from multiple organizations through one platform.
- Houses the assessments and evaluations for all accredited courses.
- Allows you to:
  - Track all of your trainings in one place.
  - Download your training certificates of completion.
- Eases the CEU-achievement process.

**Note: Log into the WBDG LMS by Choosing a Course at**
http://www.wbdg.org/continuing-education/femp-courses

# To Receive IACET-Certified CEUs for 5 Sessions of FUPWG

1. **Attend the training** in full—no exceptions.
   - If multiple people watching same screen during the training, email (stacey.young@thebuildingpeople.com) with who attended, who showed as connected, and for how long each person attended.
   - If participating by phone only, email (stacey.young@thebuildingpeople.com) and include your phone number.
   - There is no need to confirm your attendance if you logged in using Zoom.gov.
2. **Complete an assessment** demonstrating knowledge of course learning objectives within six weeks of the training. A minimum of 80% correct answers is required.
3. **Complete an evaluation** of the training event within six weeks of the training.

## To Access the FUPWG Assessment and Evaluation:

- Use the session links on the following two slides.
- If you do not have a Whole Building Design Guide account, you will need to create one.

For logistical questions related to accessing the FUPWG test or evaluation, email FEMP Training at femp_training@ee.doe.gov.

# Accessing Whole Building Design Guide – Tues Sessions

## To Access the FUPWG Assessments and Evaluations, Visit:

**FUPWG Session 1 – What's New in the Industry (Tuesday, 11:30am – 1pm)**

- https://www.wbdg.org/continuing-education/femp-courses/femplw05032022

**FUPWG Session 2 – Best Practices and Resources (Tuesday, 1:15 – 3pm)**

- https://www.wbdg.org/continuing-education/femp-courses/femplw05032022a

**FUPWG Session 3 – UESC Overview Part 1 (Tuesday, 3:05 – 3:55pm)**

- https://www.wbdg.org/continuing-education/femp-courses/femplw05032022b

# Accessing Whole Building Design Guide – Weds Sessions

## To Access the FUPWG  Assessments and Evaluations, Visit:

**FUPWG Session 4 – New Federal Energy Goals and How We Get There (Wednesday, 11:10am-3pm)**

- https://www.wbdg.org/continuing-education/femp-courses/femplw05042022

**FUPWG Session 5 – UESC Overview Part 2 (Wednesday, 3:05-3:50pm)**

- https://www.wbdg.org/continuing-education/femp-courses/femplw05042022a

# New Resources and Upcoming Training

## Upcoming Live Webinars and Training

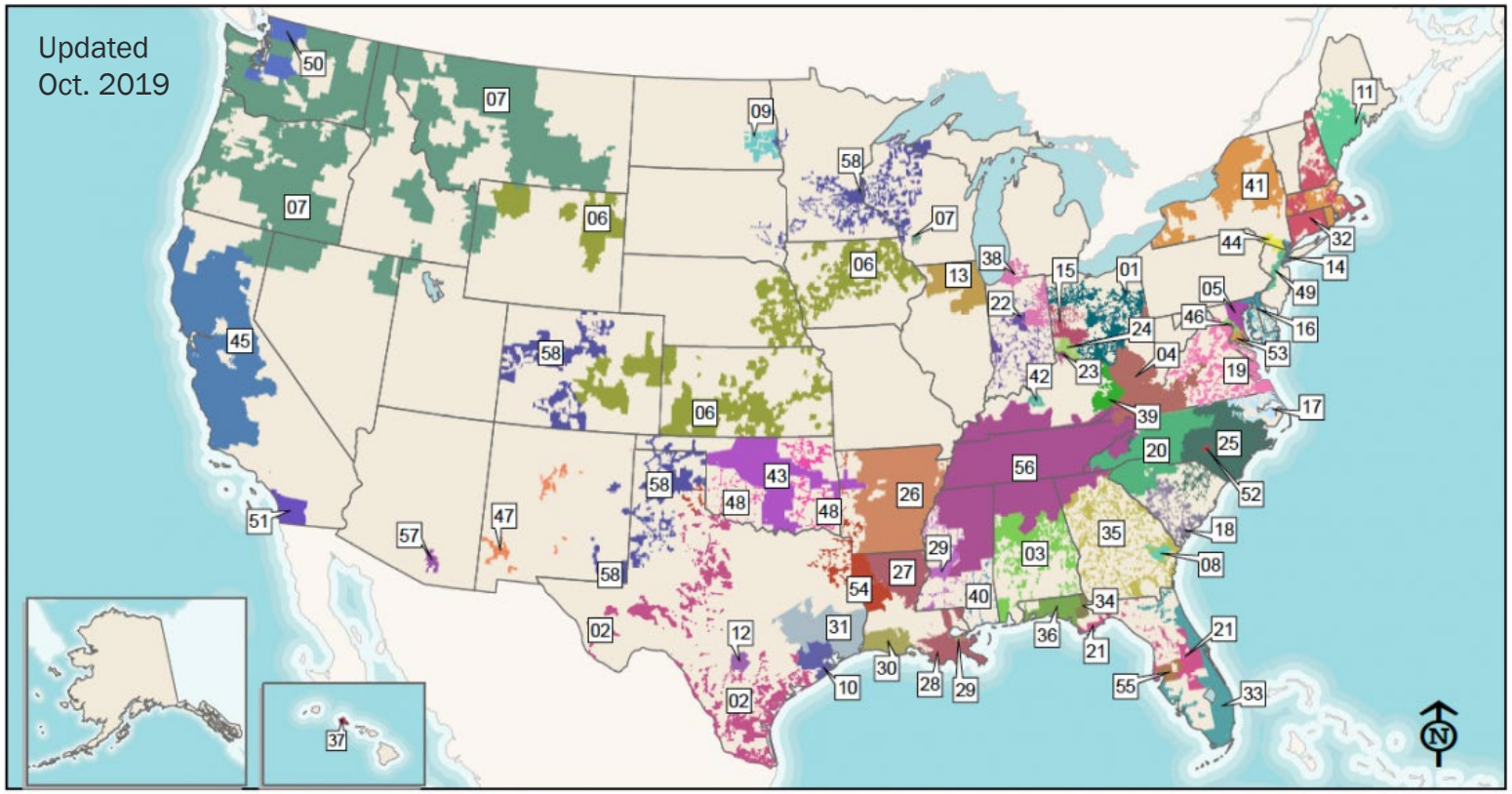
- UESC Implementation Best Practices for Utilities | May 24, 2022
- 2-Day Advanced UESC Training | June 28-29, 2022

## New On-Demand Courses

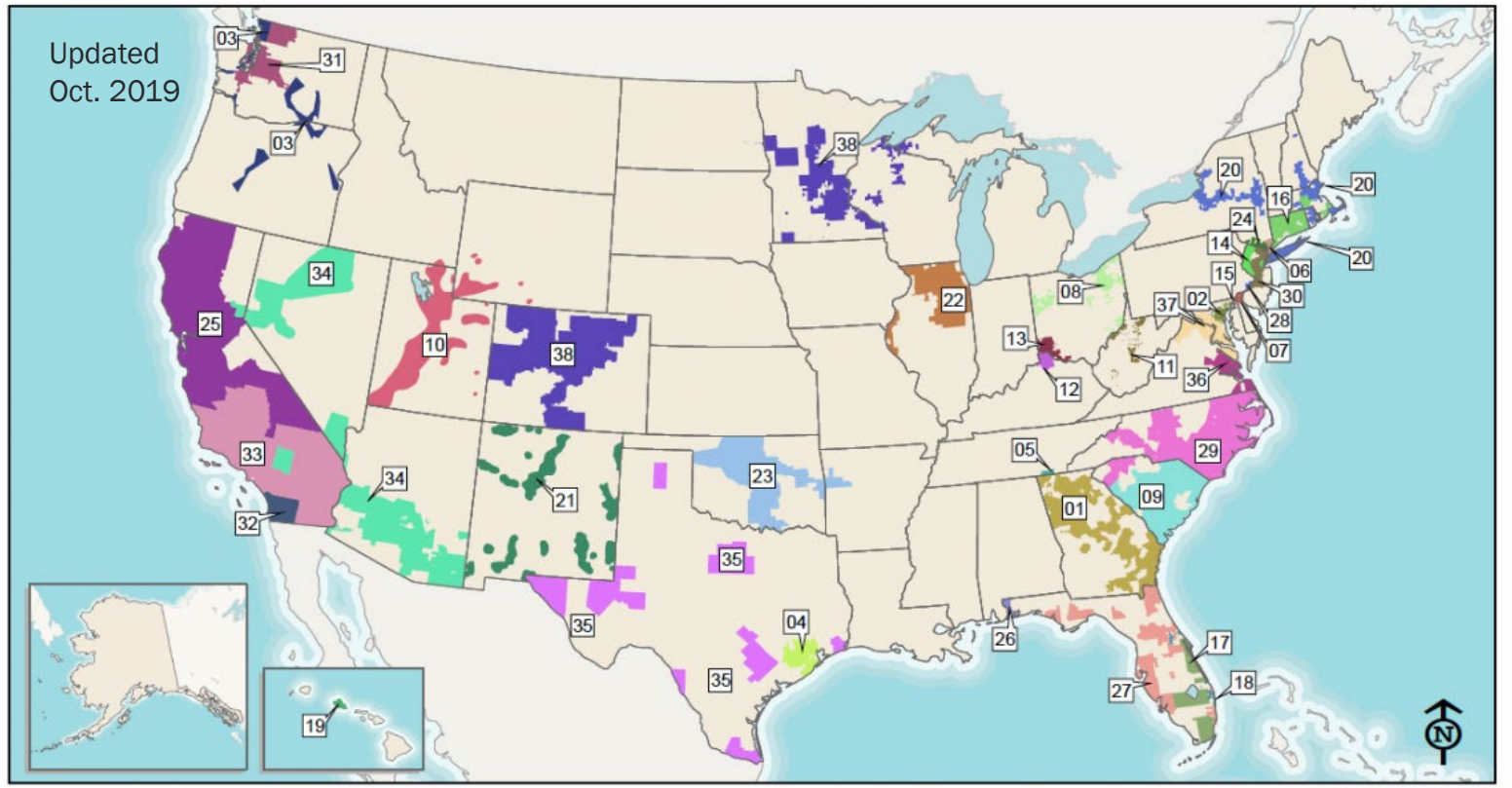
- Financing For UESCs: Ensuring The Best Value For The Government
- Leveraging Utility Partnerships For Fleet Electrification
- Decarbonization Considerations: Performance Contracting (Coming soon)
- Decarbonization Considerations: Onsite DE Projects and Offsite Purchases (Coming soon)

**Courses will be listed in the FEMP Training Catalog when available!**

# Utilities Offering UESCs – Electric

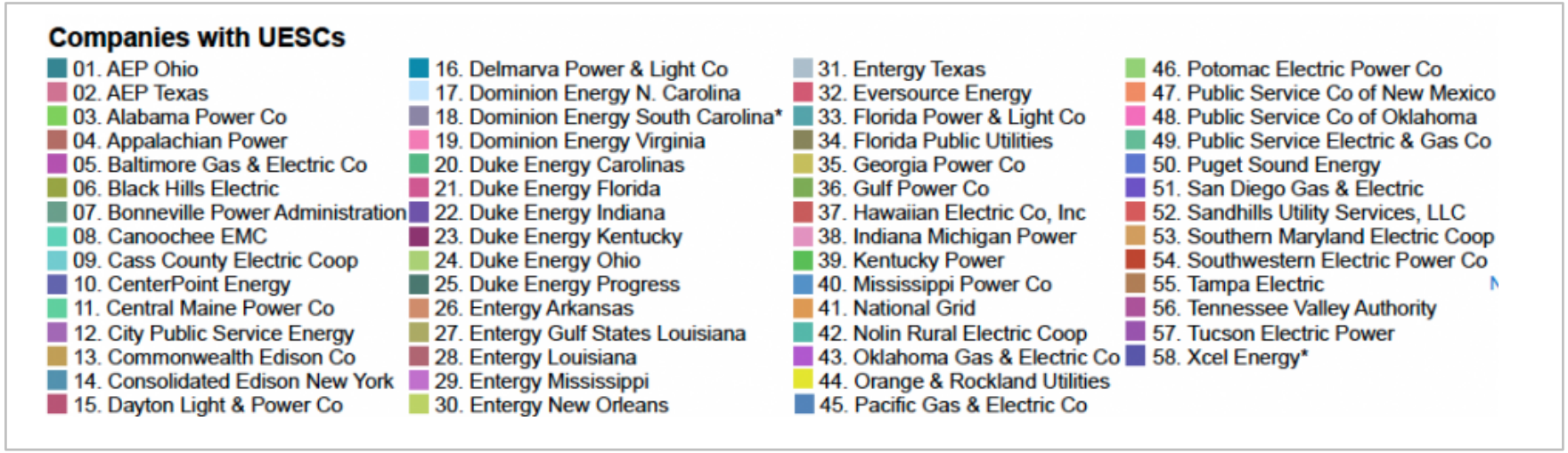


# Utilities Offering UESCs – Natural Gas



# Utility Partners Map – Call for Updates!

- Visit the FEMP website for the current list of utilities offering UESCs to their federal customers.
- Contact us via the FEMP Assistance Request Portal (www7.eere.energy.gov/femp/assistance) to request an update:
  - Add your company to the map and list of utility partners
  - Update your company's name
  - Remove your name from the list if you no longer offer UESCs



# UESC Data Collection - FEMP Needs Your Help!

## FEMP needs your help to track UESC investment data.

- Self-Reporting award information helps FEMP track UESC utilization trends and estimate future investment
- This data helps to ensure sufficient resources are being allocated to provide training, technical assistance, and resources in support of UESC projects
- **Project-specific information is always kept confidential** and will not be shared without explicit Agency consent

**Federal Agencies Only – Look out for an email with a brief mid-year survey to inform FEMP about FY22 awards**

# Energy Lawyers and Contracting Officers Forum (ELCOF)

## Don’t Forget to Register for ELCOF!

- Tomorrow (May 4) | 9-10:30 AM EDT
- ELCOF is a venue to share information related to specific topics of interest for lawyers and contracting officers (although all federal agencies are encouraged to attend).
- Topics will include interconnection and 179D commercial buildings energy efficiency tax deduction in addition to a facilitated discussion of topics brought up by attendees.
- For the spring 2022 meeting, ELCOF will be open to federal attendees only.

**Register Here**

*https://www.zoomgov.com/meeting/register/vJIsfuyhqjkpGxaHG9Uq68JUwNezqU2pYP4*

# Thank You

Eichorn Pinnacle, Tuolumne Meadows, Yosemite National Park

Contact Information
Tracy Niro
Tracy.Niro@ee.doe.gov
202-431-7601

U.S. DEPARTMENT OF ENERGY

Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

# Washington Update

Mary Sotos, Director, Federal Energy Management Program

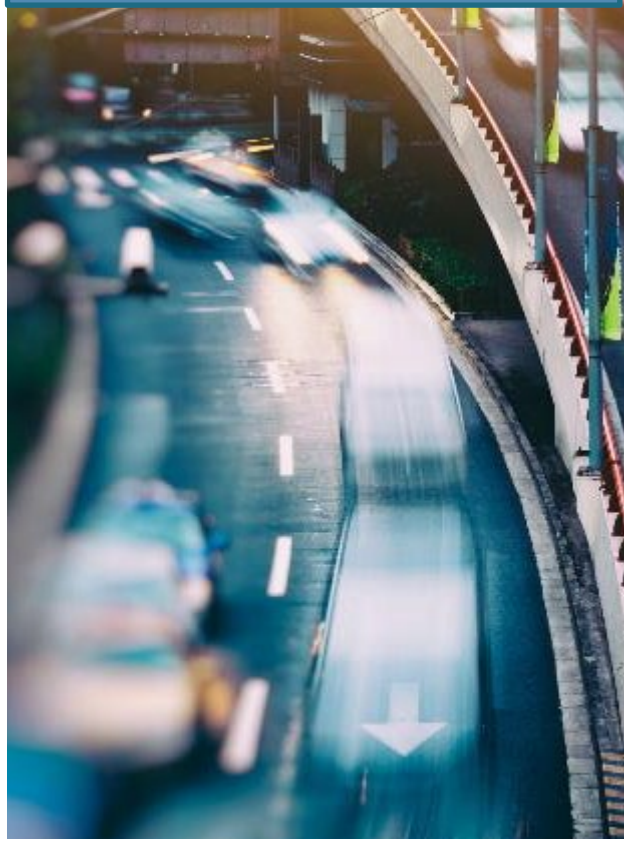
May 2022


FEMP Federal Energy Management Program

# Federal Energy Management Program

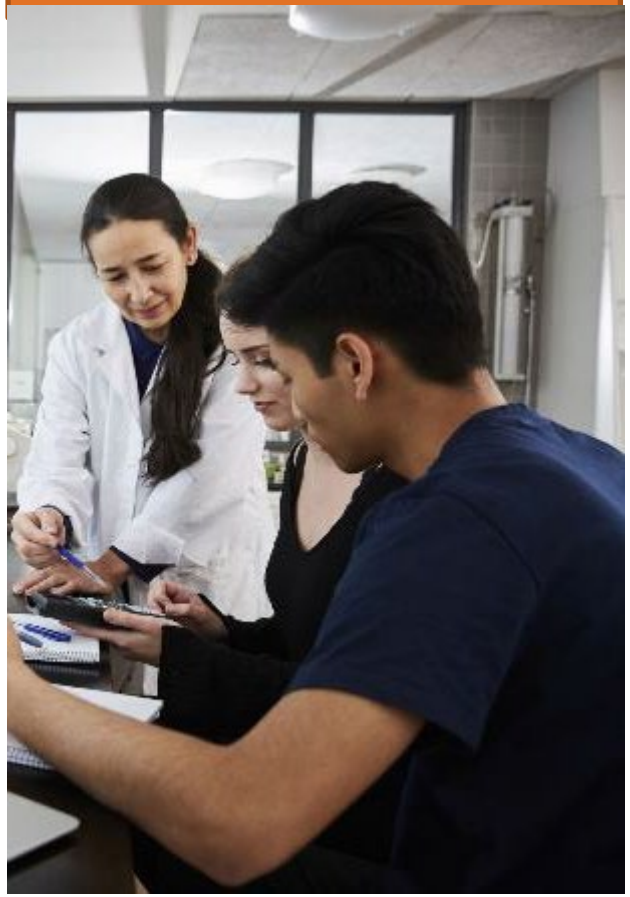
Meet Legislative and Administration Objectives

Facilitate Technology Integration in Facilities and Fleets




Provide Technical Assistance and Tools

Train the Federal Energy Management Workforce



# Policy Priorities Guiding FEMP Action

**FEMP is expanding existing programs to support federal agencies in meeting priorities outlined in recent policies, with an emphasis on modernizing energy and water infrastructure through technology deployment to meet decarbonization goals and mission objectives.**

| Bipartisan Infrastructure Law | Executive Order 14057 | Energy Act of 2020 |
|---|---|---|
| • Key piece of President Biden's Build Back Better agenda<br>• Includes more than $62 billion for DOE to deliver a more equitable clean energy future<br>• Expanding access to energy efficiency and building on technologies of tomorrow | • Government-wide targets for long-term and mid-term GHG reductions<br>• 100% net zero buildings, zero-emission fleets, 100% carbon pollution-free electricity 24/7<br>• Net zero federal government operations by 2050 or sooner | • **Agencies to use performance contracting to address at least 50% of ECMs identified**<br>• **Agencies to implement all cost-effective ECMs identified within 2 years**<br>• FEMP to establish a Federal Smart Building Program |

*Note: Descriptions are illustrative and not comprehensive*

# Bipartisan Infrastructure Law: Realigning DOE for Impact

The Bipartisan Infrastructure Law provides $62 billion to DOE — the largest investment since the Department's founding. Section 40554 **authorizes FEMP to award $250,000,000** in grants through the Assisting Federal Facilities with Energy Conservation Technologies (AFFECT) program.

To facilitate implementation of the Bipartisan Infrastructure Law, DOE is undergoing an organizational realignment that will position FEMP within a newly created Under Secretary for Infrastructure.

## Learn more about the Bipartisan Infrastructure Law

- **Video:** U.S. DOE Bipartisan Infrastructure Deal Briefing - YouTube
- **DOE Fact Sheet:** The Bipartisan Infrastructure Deal Will Deliver For American Workers, Families and Usher in the Clean Energy Future
- **DOE webpage:** Bipartisan Infrastructure Law | Department of Energy.

# Performance Contracting in the Energy Act of 2020

**42 U.S.C. 8253(f)(4) IMPLEMENTATION OF IDENTIFIED ENERGY AND WATER EFFICIENCY MEASURES.—**

(A) IN GENERAL.—Not later than 2 years after the date of completion of each evaluation under paragraph (3), each energy manager shall implement any energy or water-saving measure that—

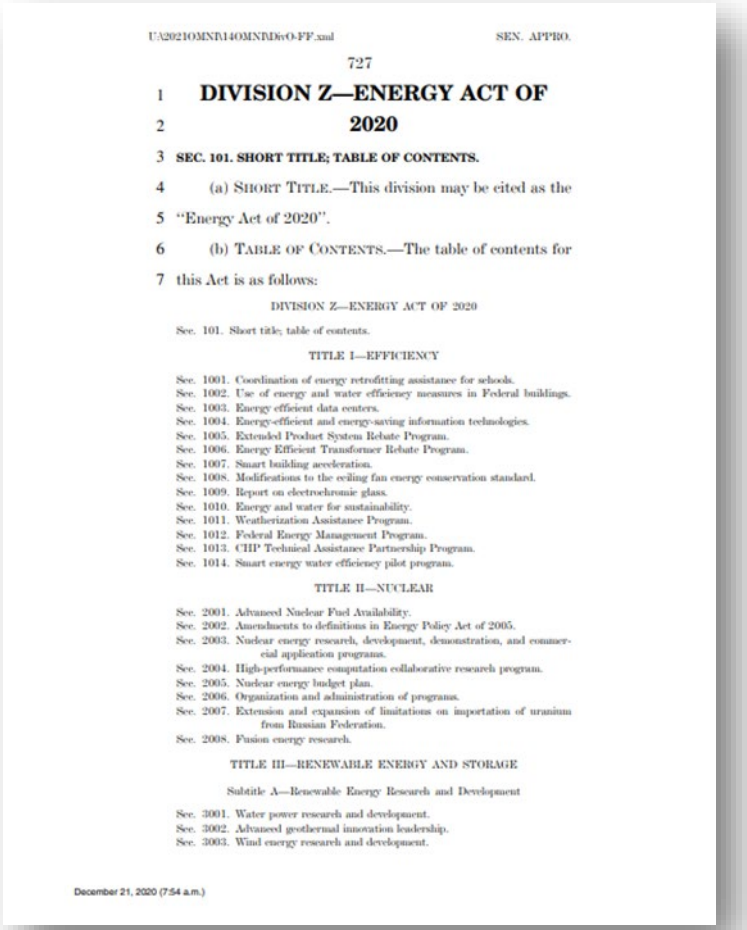
(i) the Federal agency identified in the evaluation; and

(ii) is life cycle cost-effective, as determined by evaluating an individual measure or a bundle of measures with varying paybacks.

(B) PERFORMANCE CONTRACTING.—Each Federal agency shall use performance contracting to address at least 50 percent of the measures identified under subparagraph (A)(i).

***Energy Act of 2020***

**December 2020**



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DIVISION Z—ENERGY ACT OF 2020

SEC. 101. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This division may be cited as the "Energy Act of 2020".

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

DIVISION Z—ENERGY ACT OF 2020

Sec. 101. Short title; table of contents.

TITLE I—EFFICIENCY

Sec. 1001. Coordination of energy retrofitting assistance for schools.
Sec. 1002. Use of energy and water efficiency measures in Federal buildings.
Sec. 1003. Energy efficient data centers.
Sec. 1004. Energy-efficient and energy-saving information technologies.
Sec. 1005. Extended Product System Rebate Program.
Sec. 1006. Energy Efficient Transformer Rebate Program.
Sec. 1007. Smart building acceleration.
Sec. 1008. Modifications to the ceiling fan energy conservation standard.
Sec. 1009. Report on electrochromic glass.
Sec. 1010. Energy and water for sustainability.
Sec. 1011. Weatherization Assistance Program.
Sec. 1012. Federal Energy Management Program.
Sec. 1013. CHP Technical Assistance Partnership Program.
Sec. 1014. Smart energy water efficiency pilot program.

TITLE II—NUCLEAR

Sec. 2001. Advanced Nuclear Fuel Availability.
Sec. 2002. Amendments to definitions in Energy Policy Act of 2005.
Sec. 2003. Nuclear energy research, development, demonstration, and commercial application programs.
Sec. 2004. High-performance computation collaborative research program.
Sec. 2005. Nuclear energy budget plan.
Sec. 2006. Organization and administration of programs.
Sec. 2007. Extension and expansion of limitations on importation of uranium from Russian Federation.
Sec. 2008. Fusion energy research.

TITLE III—RENEWABLE ENERGY AND STORAGE

Subtitle A—Renewable Energy Research and Development

Sec. 3001. Water power research and development.
Sec. 3002. Advanced geothermal innovation leadership.
Sec. 3003. Wind energy research and development.

December 21, 2020 (7:54 a.m.)

# FEMP Utility Program Highlights

Through Utility Energy Service Contracts in FY2021, agencies invested a **record $300 million** in energy efficiency, water conservation, and renewable energy projects in buildings and facilities. This was a 60% increase over FY2020.

**Impact of the Utility Program since inception:**

- 32,000 job years
- 16.5M MMBtu saved
- 17M metric tons of GHGs avoided
- Over $4 billion in project investment
- Over 2000 projects since program start

Projects are trending larger and more comprehensive.

# AFFECT Grants, Past and Future

FEMP has successfully executed 6 AFFECT funding cycles since 2014, which provided up to $13 million per year in grants and leveraged up to $725 million in private funding.

Most recently, in December 2021, Secretary Jennifer Granholm announced a total of $13 million for clean energy technology deployment to 17 federal facilities through AFFECT.

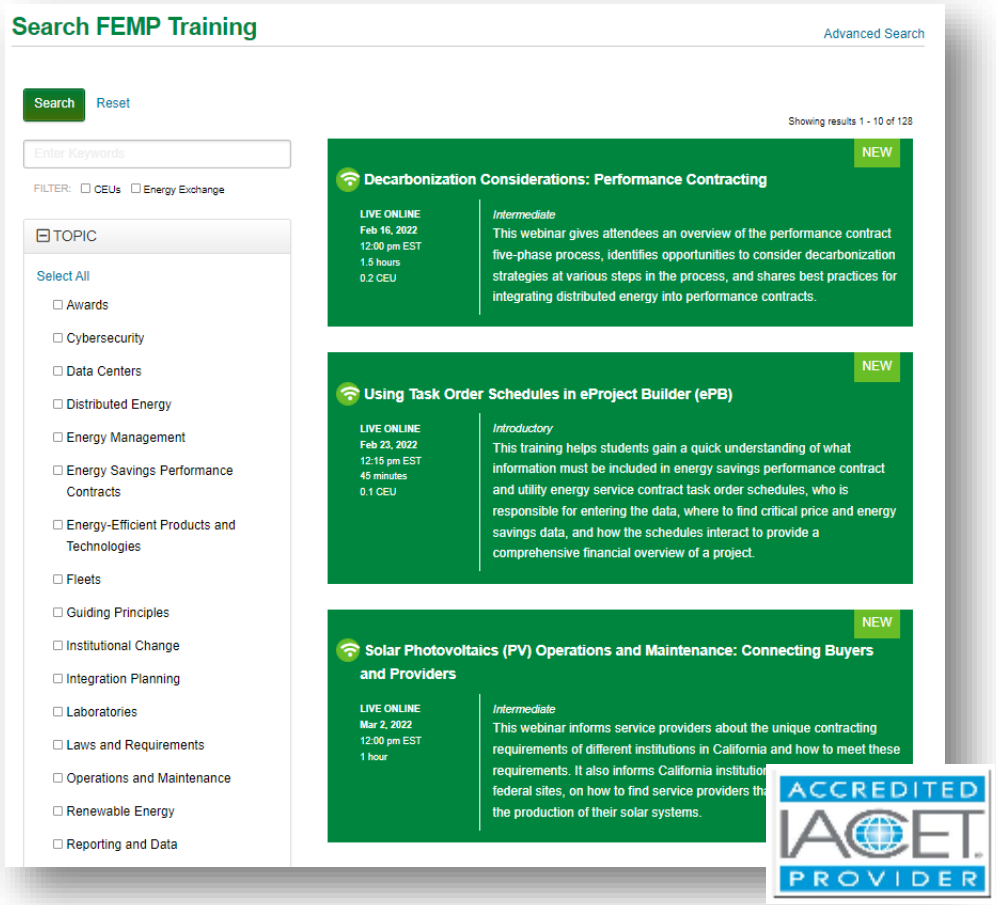
Projects use performance contracts and are estimated to lower costs by more than $30 million annually and reduce greenhouse gas emissions by over 200,000 metric tons.

FEMP expects to announce plans to build on past success and expand future opportunities through AFFECT soon.

# Training Federal Agencies to Lead by Example

**FEMP is expanding its training catalog and offerings to incorporate climate, sustainability, equity, and other topics in support of legislative and administrative requirements and objectives.**

- Earn Continuing Education Units (CEUs)
- Choose from more than 120 on-demand courses on topics related to federal energy and water management.
- Browse the calendar for upcoming live FEMP training events and workshops offered for federal agencies and stakeholders.
- Attend the annual Energy Exchange training event.




https://www7.eere.energy.gov/femp/training/

# Congratulations 2021 FEMP Career Exceptional Award Winner

## Kevin Evans – U.S. Navy

### Naval Facilities Engineering Systems Command (NAVFAC) Northwest,  Silverdale, WA

Since joining the Navy energy program in 1997 as a Chief Petty Officer at Naval Station Everett, Kevin Evans has served in a wide variety of roles, including Resource Efficiency Manager (REM), Installation Energy Manager (IEM), and Region Energy Program Manager (REPM). He has been the Contracting Officer's Representative (COR) for energy projects and is currently the Project Manager for all utility energy service contracts (UESCs) at Navy Region Northwest. In 2020, Mr. Evans managed UESC projects with a total cost of $12.6 million and annual energy and water savings of $850,000. He also supported development of future UESC projects totaling $16 million.

# Congratulations 2021 FEMP Program Award Winners

## U.S. Air Force – Robins Air Force Base, Georgia

**PHILIP CONLEY**
**STEWART CROW**
**BRENT HILL**
**GEORGE THIGPEN**
**WILLIAM WEST**

The Robins Energy Program Management Office (PMO) team works in a highly collaborative environment, developing strategies to achieve reduced energy consumption, improved energy resilience, and revitalized infrastructure of aged, failing equipment critical to all mission partners at Robins Air Force Base. The use of UESCs has contributed to this program's success.

# Congratulations 2021 FEMP Program Award Winners

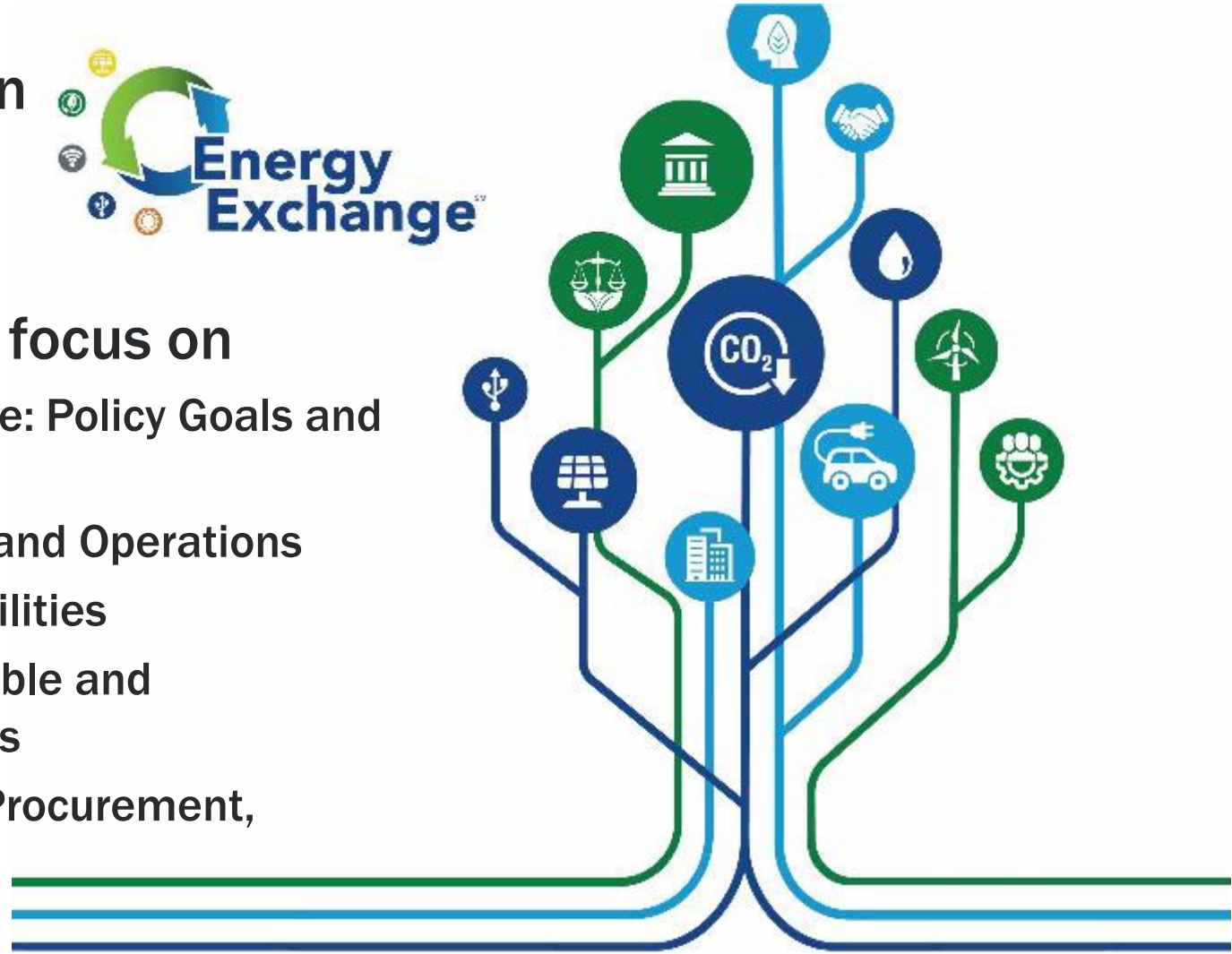
## U.S. Air Force – Tinker Air Force Base, Oklahoma

**JOSEPH CECRLE**
**PAUL GANSCHOW**
**JOEY HUNTER**
**JEFF KINDSCHUH**
**MARC OWEN**

Tinker Air Force Base's Energy Team has reduced energy consumption even as the base continues to grow, using UESCs as part of their strategy. From FY 2019 to FY 2020, Tinker AFB reduced energy consumption by 10% and water consumption by 25%, yielding nearly $3 million and $550,000 in respective savings.

# Save the Date for Energy Exchange 2022!

- Energy Exchange is returning to an in-person training event October 25-27 in Cincinnati, OH
- This year's technical program will focus on
  - Federal Government Leading by Example: Policy Goals and Strategies
  - Planning for Net-Zero Buildings, Fleets, and Operations
  - Climate Resilient Infrastructure and Facilities
  - Technologies and Practices for Sustainable and Smart Federal Facilities and Installations
  - Performance Contracting, Sustainable Procurement, and Project Development
- This year's event will also recognize our FY21 and FY22 Federal Energy & Water Award Winners



# Thank you!

# VIRTUAL FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

May 3-4, 2022

# FUPWG Opening Remarks

Dr. Carolyn Snyder

Deputy Assistant Secretary for Energy Efficiency

# VIRTUAL FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

May 3-4, 2022

# CEQ Update

Andrew Mayock

Federal Chief Sustainability Officer

FEMP

Federal Energy Management Program

# VIRTUAL FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

May 3-4, 2022

# Utility Industry Perspectives, Priorities & Other Updates

Lauren Khair

National Rural Electric Cooperative Association

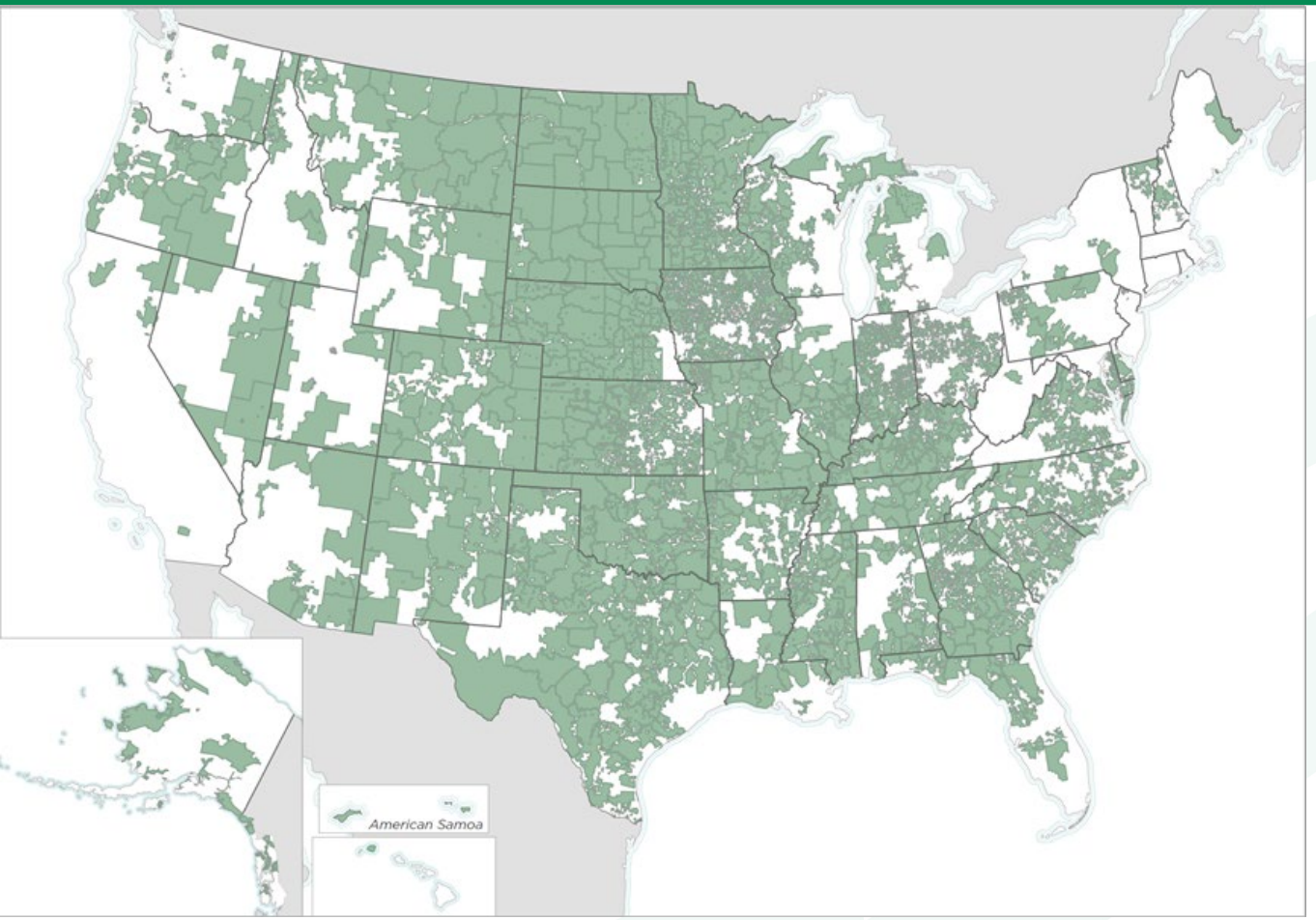
FEMP
Federal Energy Management Program

# Cooperatives Engagement with Federal Agencies

Lauren Khair, NRECA

NRECA
America's Electric Cooperatives

# Electric Cooperatives: Who We Are




At-cost electric service

Locally governed

Return excess revenue

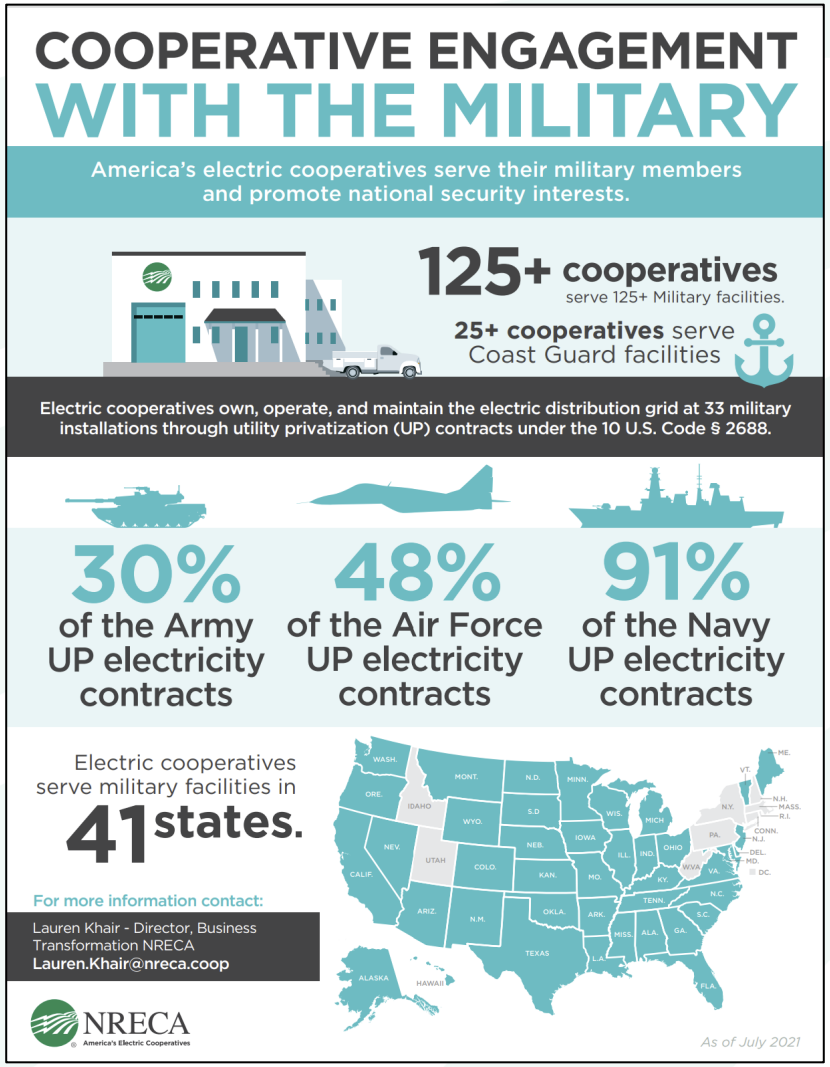
Community builders

Electric cooperatives are community-focused organizations that work to efficiently deliver affordable and reliable electricity to consumer-members of the co-op. They operate for the benefit of people, not investors.

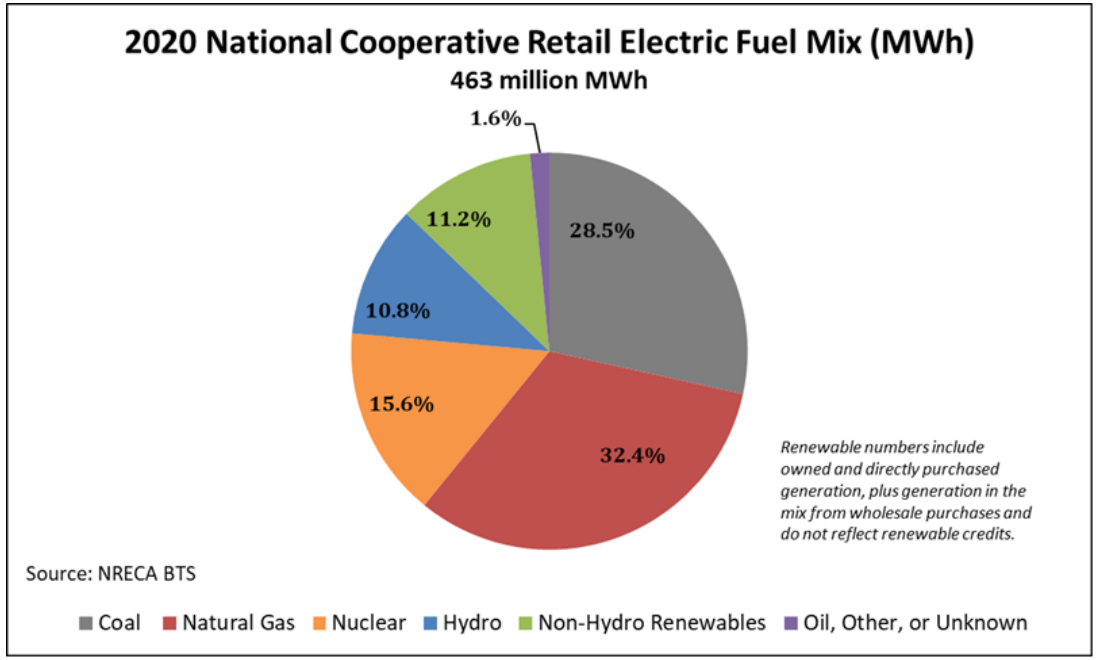
@NRECANews

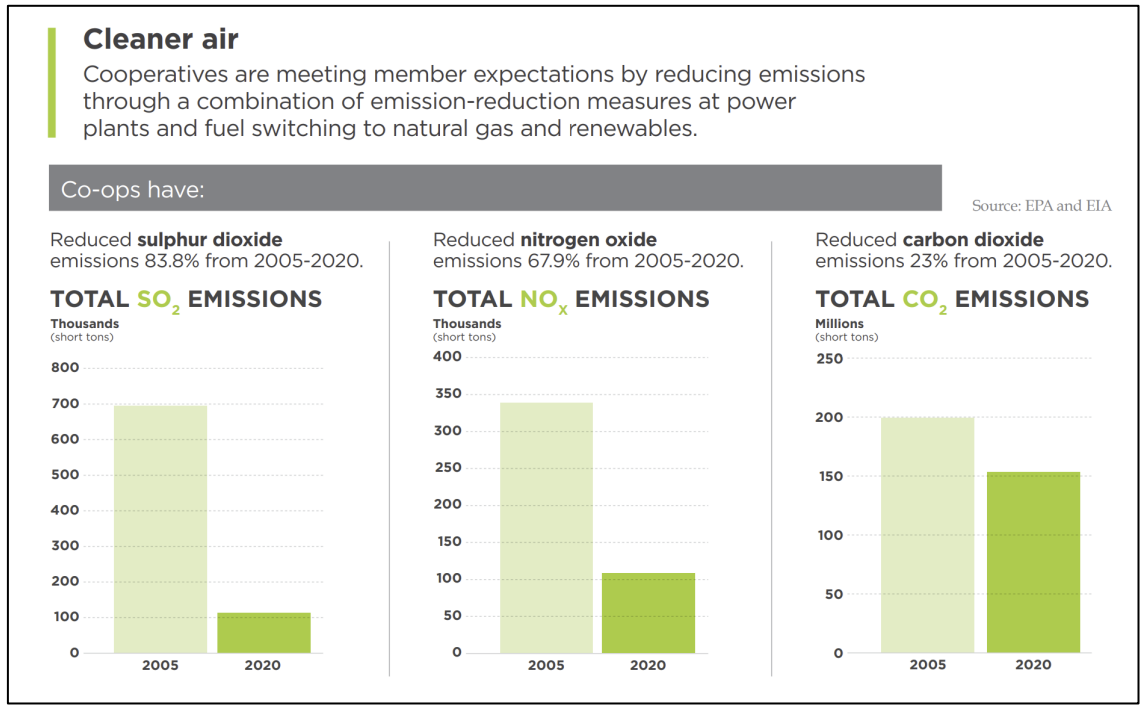
NRECA
America's Electric Cooperatives

# Cooperative Engagement with the Military



# 2020 Cooperative Retail Fuel Mix & Emissions

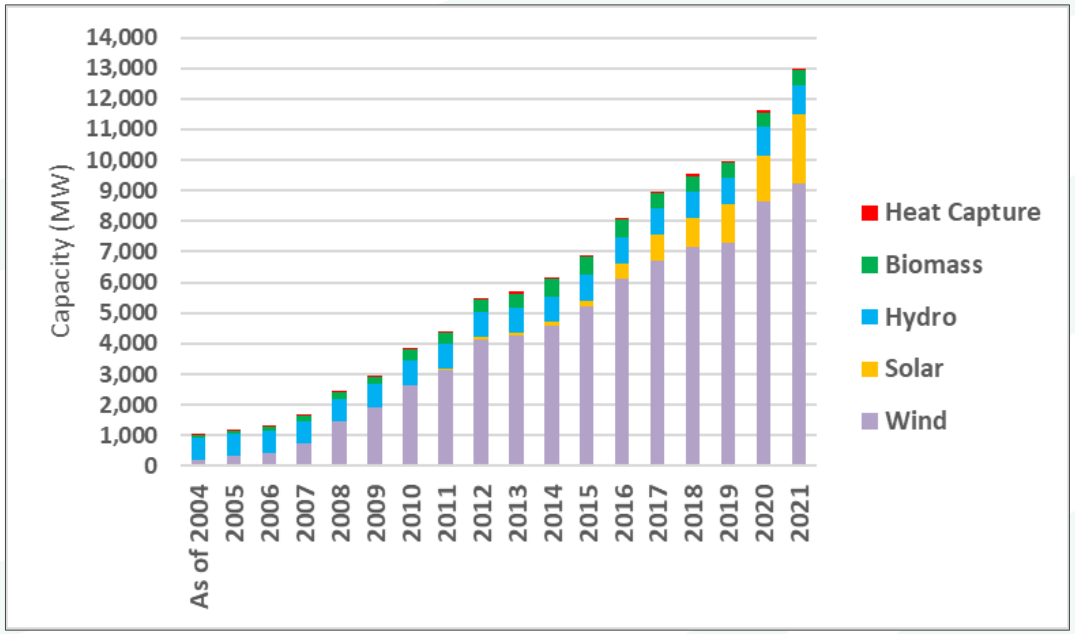


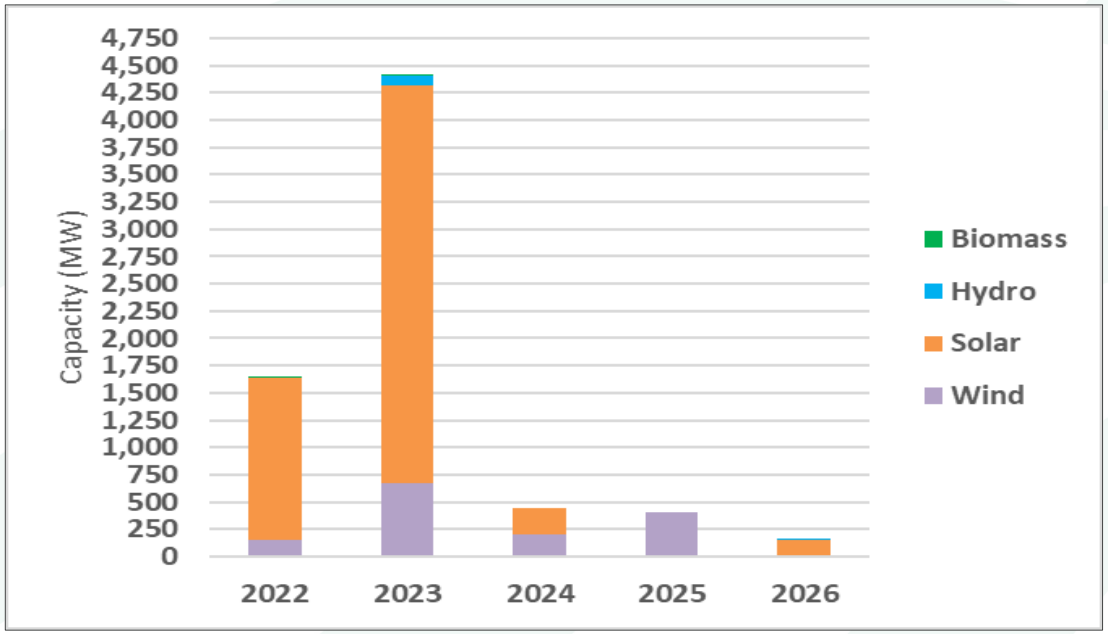

NRECA
America's Electric Cooperatives

# Cooperative Renewables

**Cumulative Co-op Renewable Capacity Online (By Type, Excl. Fed Hydro)**




**Planned Capacity by Year (By Type)**




NRECA
America's Electric Cooperatives

# Integrated Test Center (ITC)

- State of Wyoming - $15 million
- Basin Electric – Host at Dry Fork Station
- Tri-State G&T - $5 million
- National Rural Electric Cooperatives Association - $1 million
- Black Hills Corp. and Rocky Mountain Power providing technical expertise and in-kind contributions

ITC
WYOMING
INTEGRATED
TEST CENTER

BASIN ELECTRIC POWER COOPERATIVE
A Touchstone Energy® Cooperative

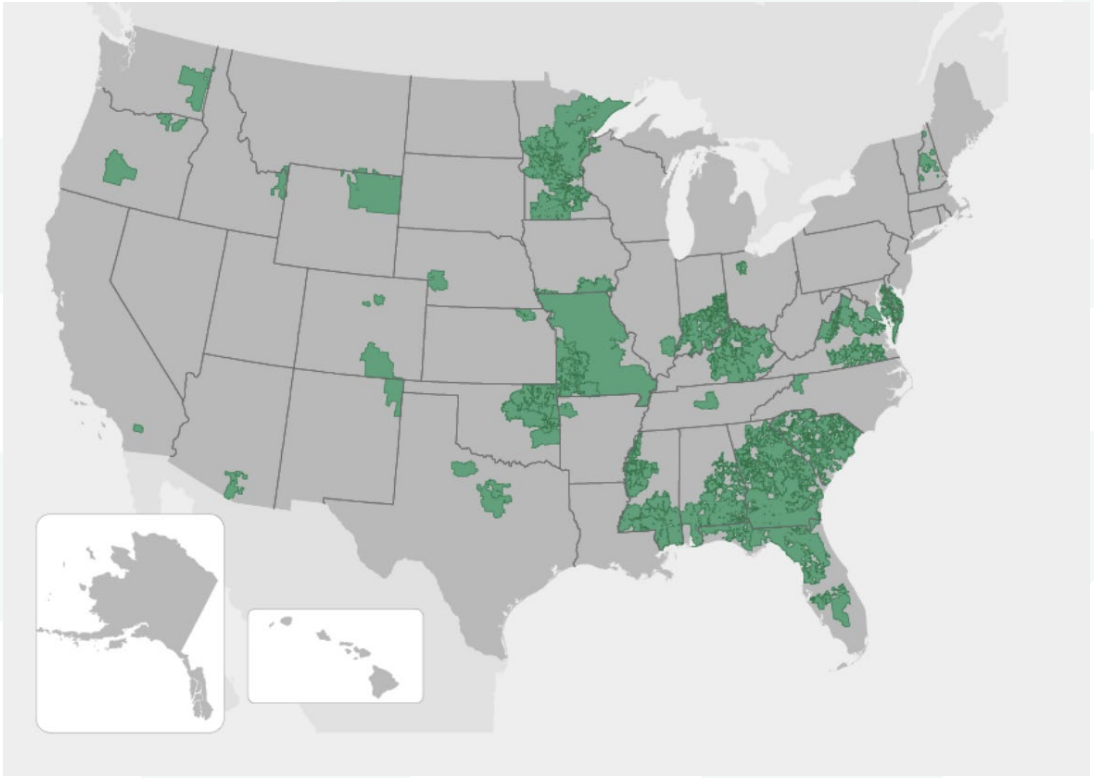
TRI-STATE G&T
A Touchstone Energy® Cooperative

NRECA
America's Electric Cooperatives

National Rural Electric Cooperative Association
A Touchstone Energy® Cooperative

# Electric Cooperative Transportation Initiatives

- Freight Truck Demo Co-Sponsored by NRECA
- Cooperatives provided feedback to the U.S. DOT Volpe Center on the DOT's Rural Toolkit
- EV Pilot at Fort Benning which was described in the Army Climate Strategy document.



*As of March 2022*

NRECA
America's Electric Cooperatives

# NRECA's Military Energy Research Projects

- **Microgrid Planning Utilizing an Open Modeling Framework for Resilient Installations Leveraging Their Utility Privatization (MICROGRID UP)**
  - This project will create a scalable microgrid planning framework to address known software and planning problems that limit the widespread, cost-effective utilization of microgrids on military bases.
  - **Demo Sites: Fort Bliss, Eglin AFB, Picatinny Arsenal, Laughlin AFB**
- **Energy Resilience for Mission Assurance (ERMA)**
  - This project seeks to answer the question: what is the degree to which resilience of the power grid impacts national security, and what are realistic opportunities to improve that resilience both inside ad outside of Department of Defense owned facilities?
  - **Demo Site: Coast Guard Air Station Kodiak**
- **Rural Energy Storage Deployment Program (RESDP)**
  - The goal is to successfully deploy battery energy storage systems at rural critical infrastructure served by rural electric cooperatives for resiliency and to collect best practices and lessons learned from these deployments with electric cooperatives across the country. This is a DOE-funded project.
  - **Demo Sites: Fort Bragg and Ellsworth AFB**

# Contact for Questions

**Lauren Khair**
Director, Business Transformation
Lauren.Khair@nreca.coop

NRECA
America's Electric Cooperatives

Edison Electric INSTITUTE

# FUPWG 2022: Electric Industry Update

**Steve Kiesner**

**Senior Director, National Customer Solutions**

May 3, 2022

# 2022 Industry Priorities include…

Clean
Energy

Resilience &
Grid Security

Infrastructure
Investments


Electric
Transportation

# #Committed2Clean®

# Leading on Clean Energy

Changing U.S. Energy Mix

**40%**

**CARBON-FREE**

**↓$CO_2$**

**CARBON EMISSIONS**
From the U.S. Power Sector
**ARE AS LOW AS THEY WERE IN 1984,**
While Electricity Use Is Up 72% Since Then

Increasing Investments

**$120 Billion+**

Per Year on Average
**TO MAKE THE ENERGY GRID SMARTER, CLEANER, STRONGER**

**>1/2**

Over the Past 10 Years,
More Than Half of New Electricity Generation Capacity Was
**WIND AND SOLAR**

Nearly

**27 Gigawatts**

of
**RENEWABLE TECHNOLOGIES**
added in 2021


Investing More Than

**$3.4 Billion**

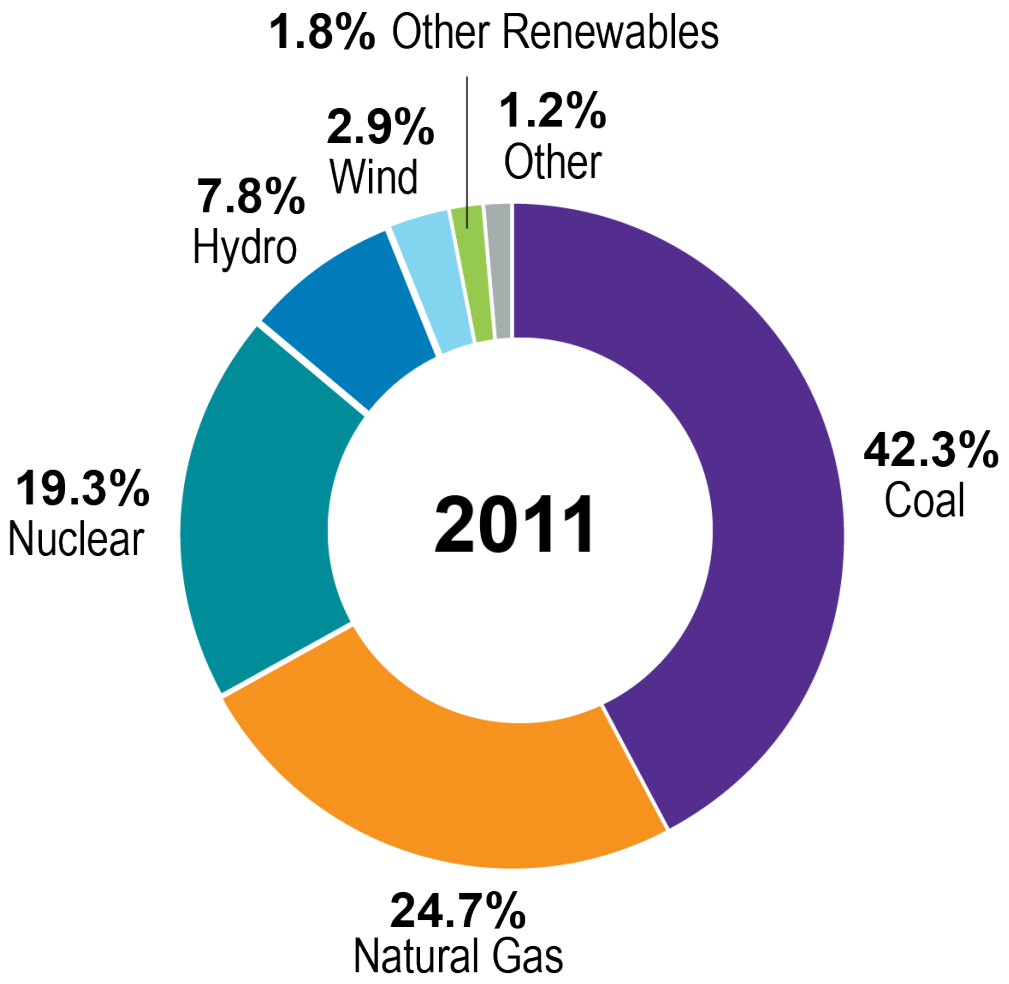
to Deploy
**EV CHARGING INFRASTRUCTURE**

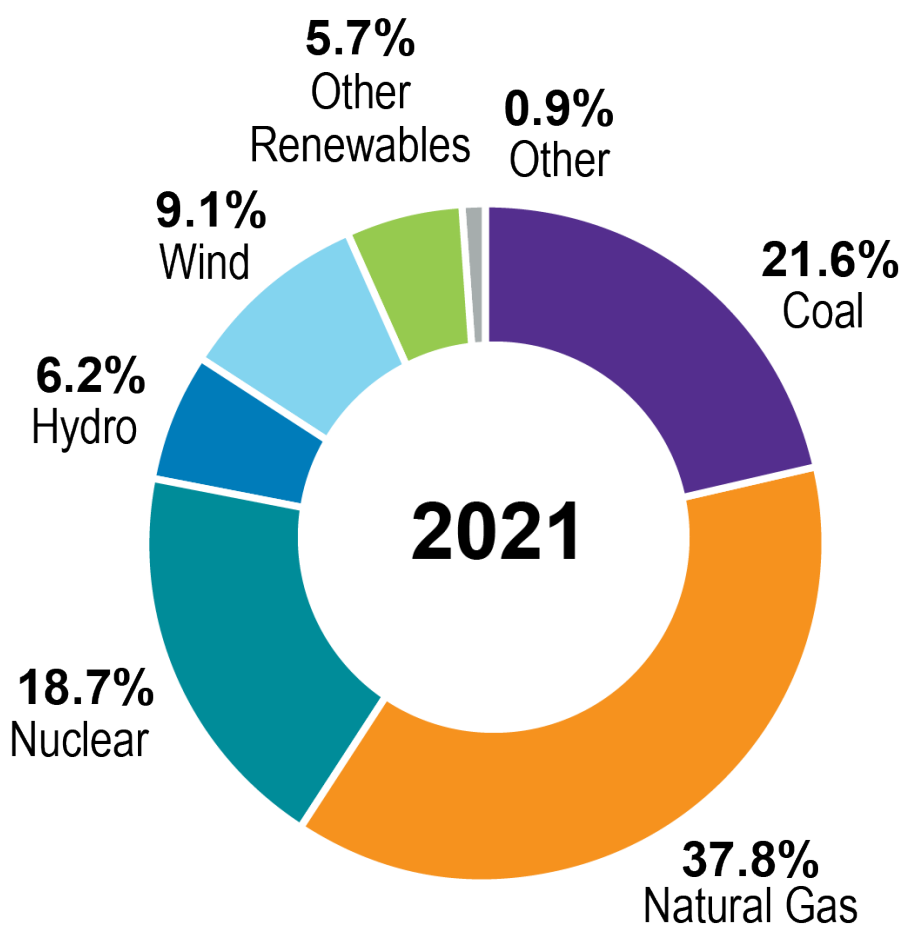

Using

**96%**

of all
**U.S. ENERGY STORAGE**

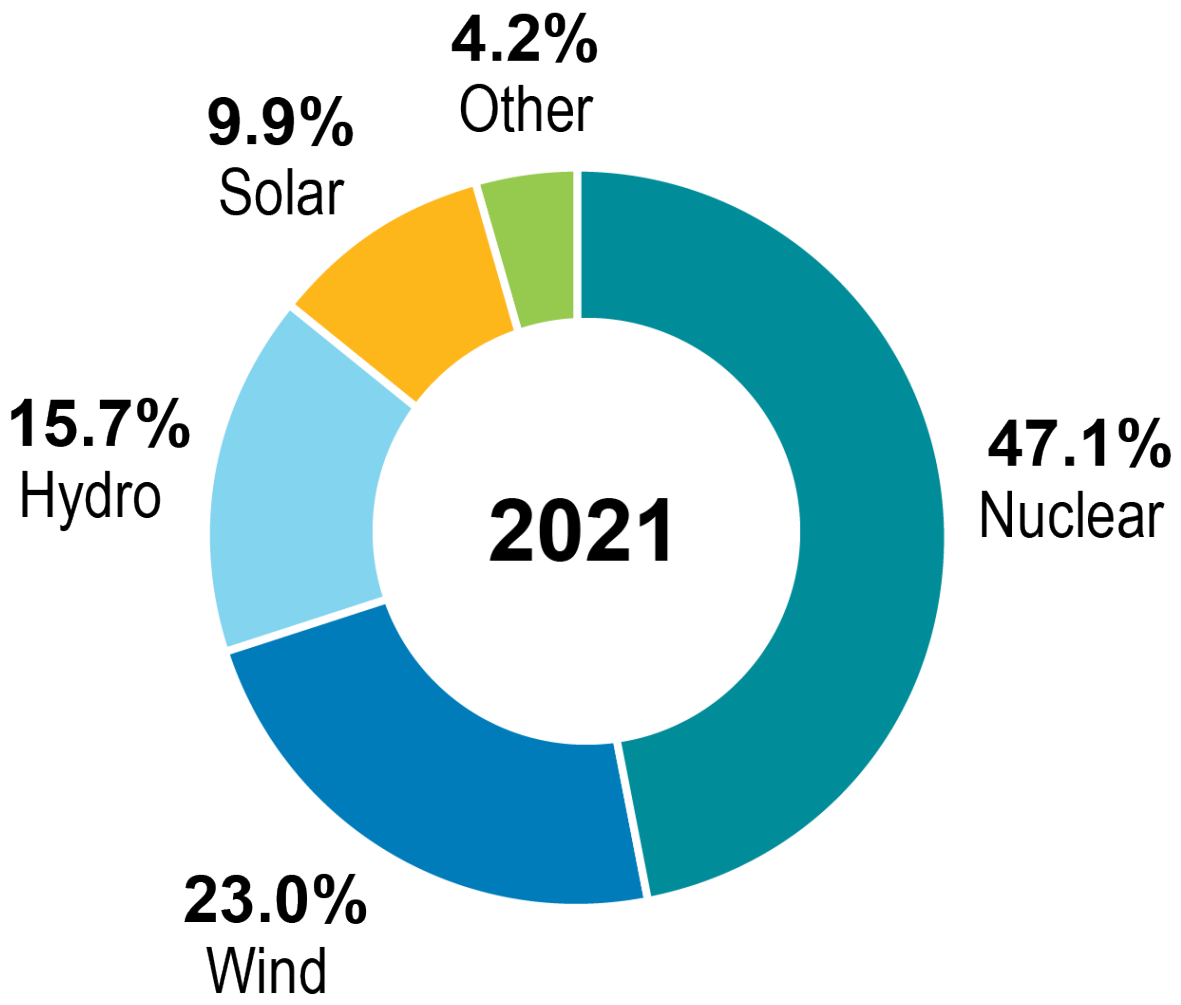
# Transforming the Energy Mix




Note: "Other Renewables" includes universal (or large-scale) solar, private (or rooftop) solar, geothermal, and generation from biomass sources (agricultural waste, landfill gas recovery, municipal solid waste, wood, non-wood waste). Source: U.S. Department of Energy, Energy Information Administration (EIA).

# Carbon-Free Electricity Generated




**Nuclear energy remains the largest source of carbon-free electricity.**

Currently, 93 reactors in 28 states produce nearly 20 percent of our nation's electricity and approximately 50 percent of our carbon-free electricity.

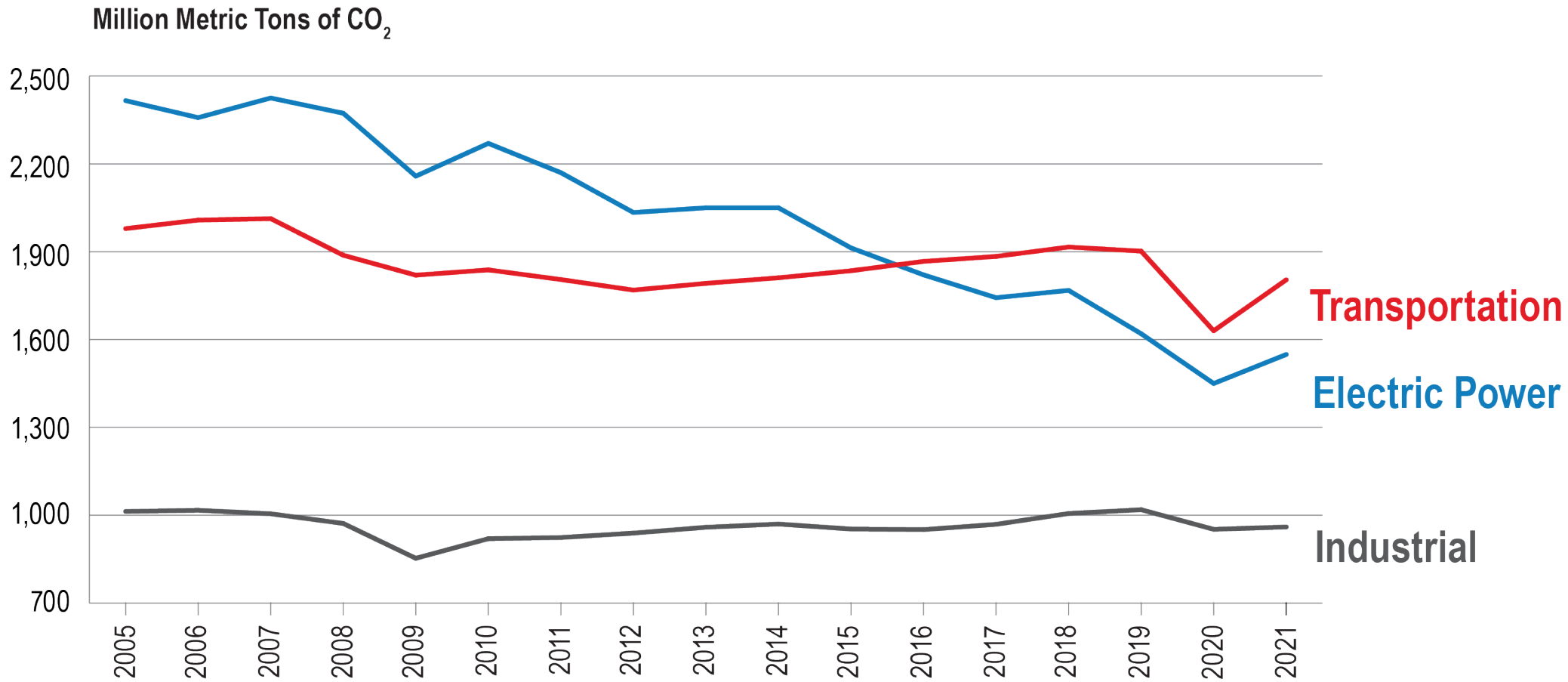
"Other" includes biomass, geothermal, and landfill gas.

Source: U.S. Department of Energy, Energy Information Administration (EIA).

# Accelerating Our Efforts on Clean Energy

- Expanding the deployment of **renewables** and preserving **existing clean energy** technologies, including nuclear energy.
- **Promoting essential innovation** across a range of new, high-potential, and affordable carbon-free technologies.
- **Building new energy infrastructure** critical for bringing greater resilience and more clean energy to customers and for helping other sectors of our economy reduce their emissions, while keeping electricity affordable for all customers.
- **Working with our federal, DoD and corporate customers** by **aligning their CFE goals** with our CFE plans.

# Comparing $CO_2$ Emissions




Source: Preliminary estimate from U.S. Department of Energy, Energy Information Administration (EIA), *Monthly Energy Review*, March 2022.

# Electric Transportation Trends

## TODAY

There are more than

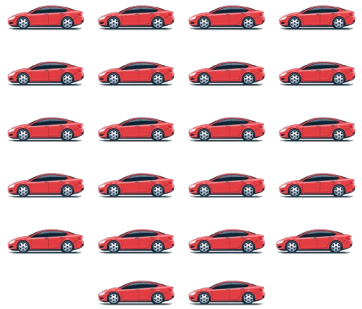
**2 million**

electric vehicles on U.S. roads.

**>$3.4 billon**

EEI's member companies are investing more than $3.4 billion in customer programs and projects to deploy charging infrastructure and to accelerate electric transportation.

## BY 2030



The number of EVs on U.S. roads is projected to reach nearly

**22 million.**

**>100,000**

EV fast charging ports will be required to support this number.

# Working with Federal, DoD, Corporate Customers on 100% CFE Goals

- EEI Member/Customer Dialogues
  - Identify desired CFE product solutions in regulated vertically integrated electric companies, particularly focused on products that match DoD loads on an hourly basis.
  - Identify CFE solutions for different Customer facility profiles.
  - Collectively identify the challenges and opportunities in the development and use of CFE product offerings from the customer and electric company experience (e.g., market and regulatory considerations).
  - Explore the ability to enable and scale CFE solutions across a customer's enterprise. Identify potential opportunities for DoD customers and electric companies to work collaboratively.
  - Explore the next generation technologies that provide CFE solutions.
  - Identify and prioritize electric co/DoD approaches to achieve 100% CFE.


EEI
Edison Electric
INSTITUTE
Power by Association℠

# NET-ZERO EMISSIONS OPPORTUNITIES FOR GAS UTILITES

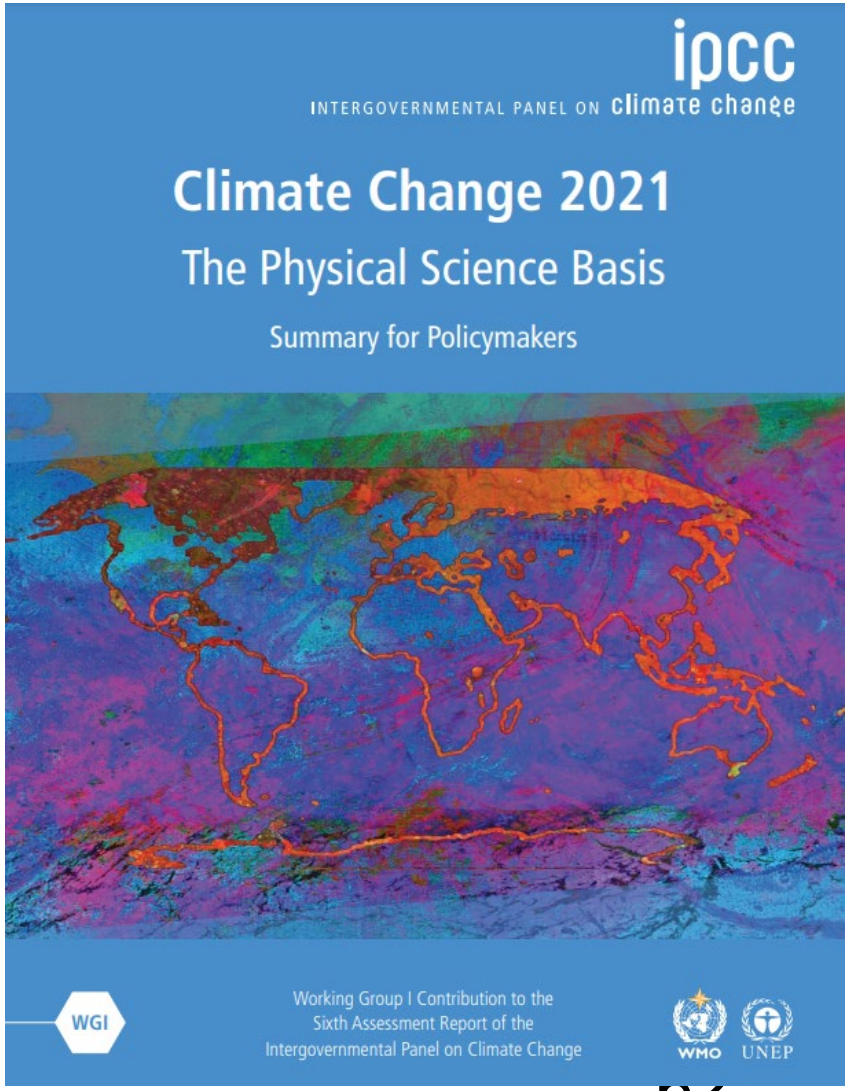
**Federal Utility Partnership Working Group Seminar**
**May 3, 2022**

**Rick Murphy**
**Managing Director - Energy Markets**

AGA
American Gas Association

# Climate Change is a Defining Challenge

Addressing climate change will require fundamental changes in energy use and reducing greenhouse gas emissions throughout the economy.



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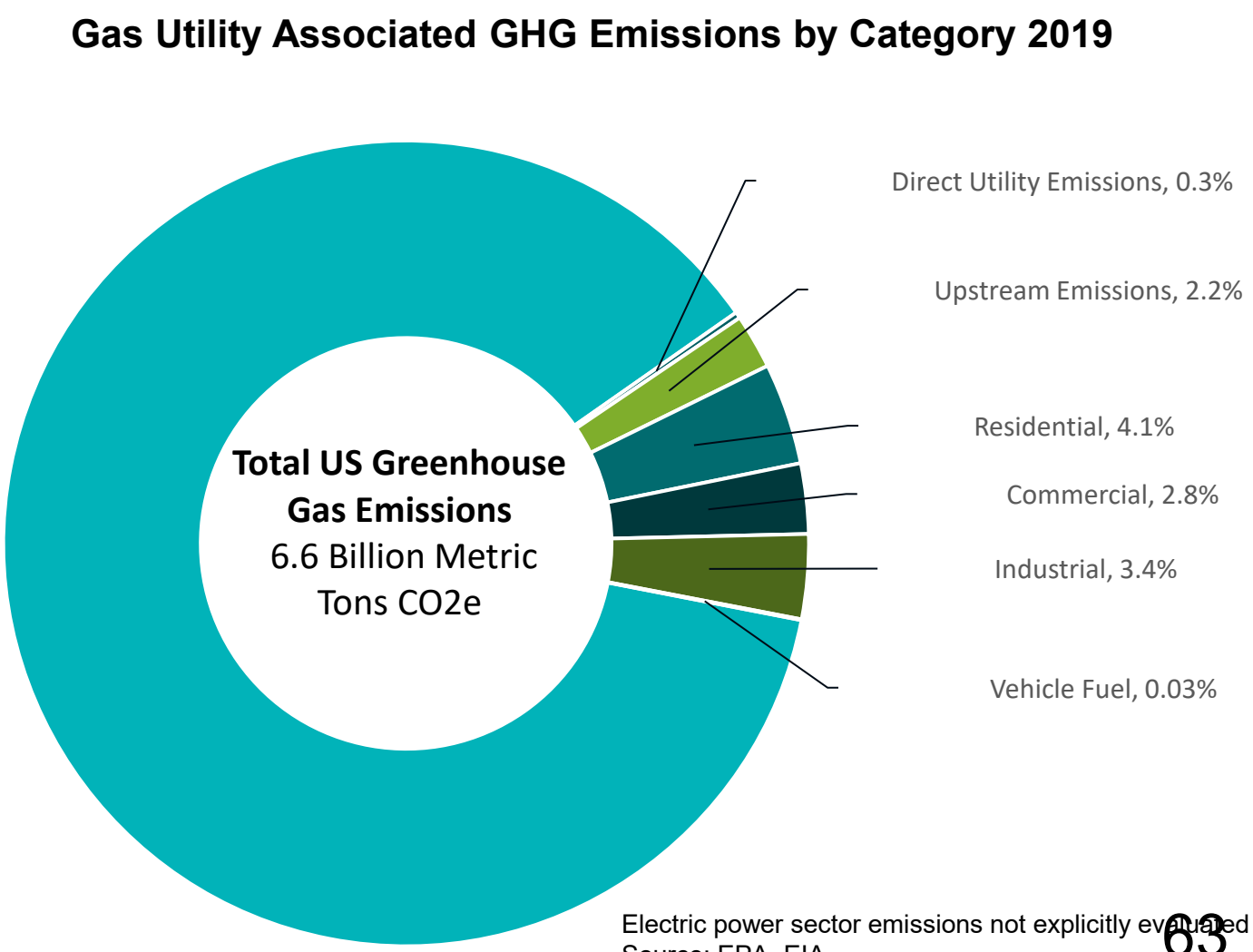
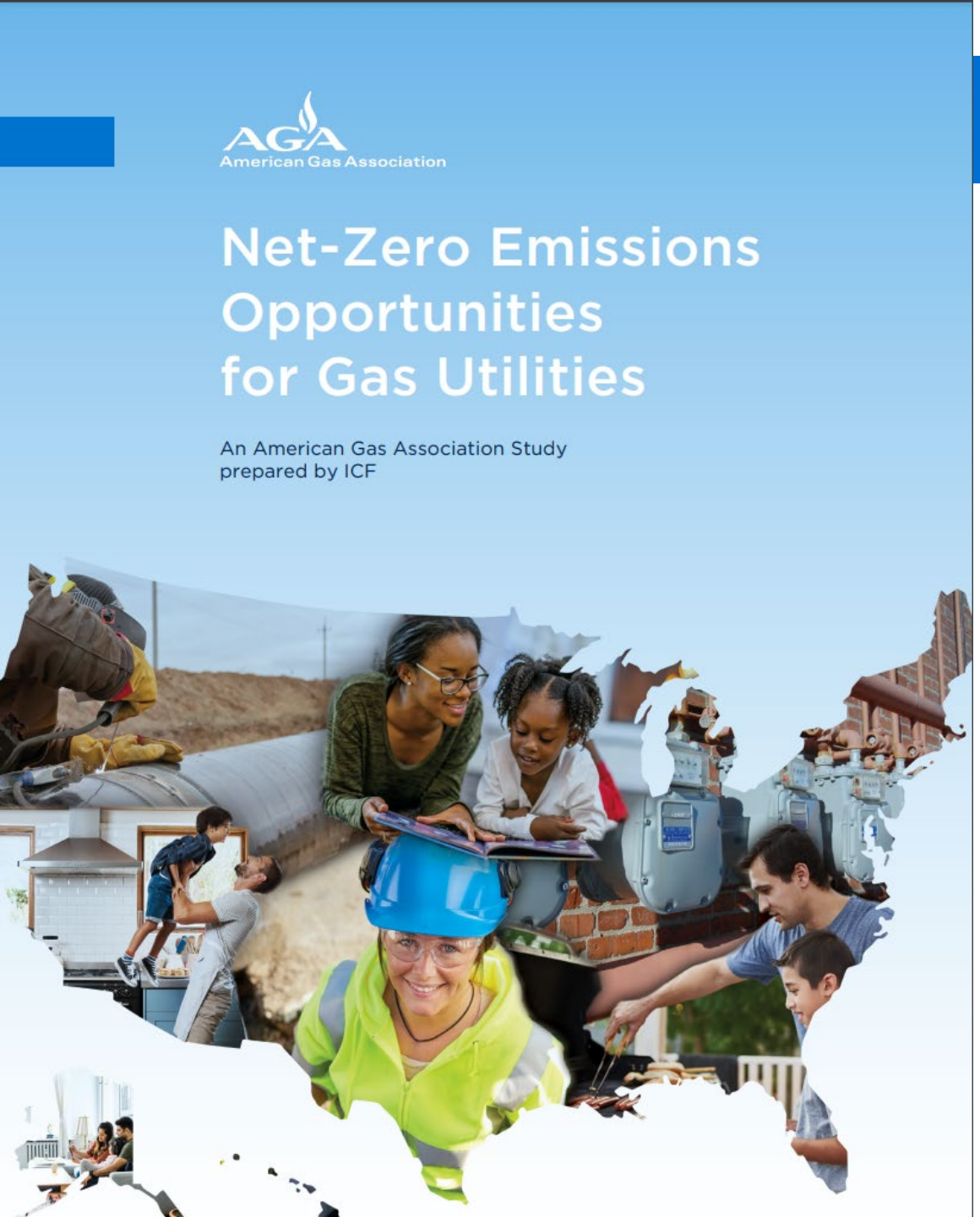
# Gas Utility Associated GHG Emissions: 13% of total U.S. GHGs.



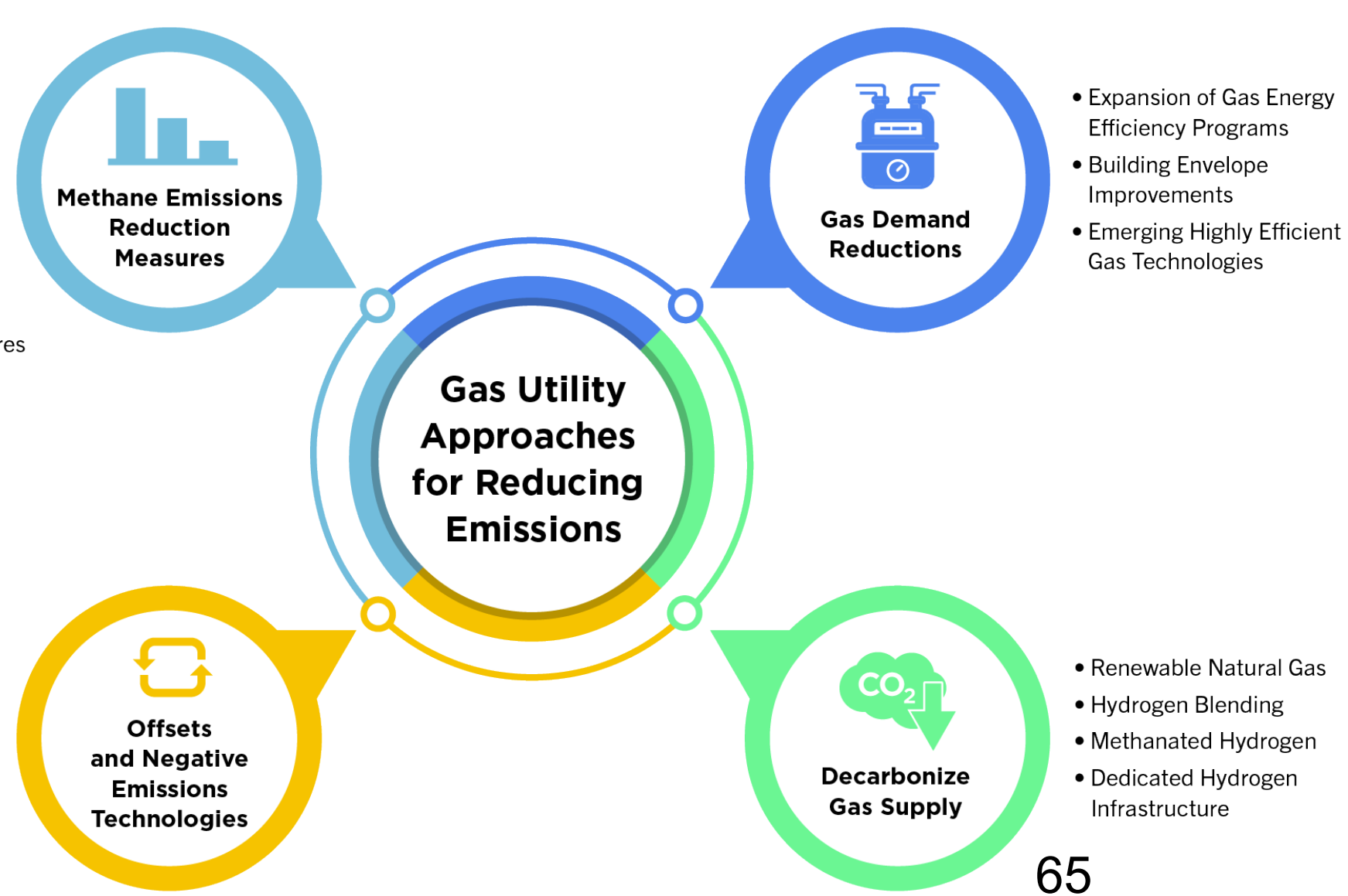

Electric power sector emissions not explicitly evaluated in study
Source: EPA, EIA




# Project Objectives and Approach

- Evaluates the wide array of opportunities for gas utilities to achieve net-zero greenhouse gas emissions goals
- Provides in-depth assessment of illustrative pathways to achieve net-zero greenhouse gas emissions for gas utility customers by 2050
- Identify policy and regulatory actions to accelerate net-zero ambitions through gas infrastructure and technologies

# There are many gas utility solutions to reducing emissions




- Differentiated Gas
- Leak Detection and Repair Programs
- More Accurate Emissions Measurement
- Replacement of Higher Emitting Pipe and Equipment
- Operational and Maintenance Measures

- Expansion of Gas Energy Efficiency Programs
- Building Envelope Improvements
- Emerging Highly Efficient Gas Technologies

- Carbon Capture and Sequestration
- Direct Air Capture
- Greenhouse Gas Emissions Offsets

- Renewable Natural Gas
- Hydrogen Blending
- Methanated Hydrogen
- Dedicated Hydrogen Infrastructure

AGA American Gas Association

Decarbonization planning and implementation must support five key tenets

- Safety
- Affordability
- Reliability
- Resilience
- Feasibility

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# Gas Customer Decarbonization Pathways

## Each illustrative pathway reaches net-zero emissions for gas utility customers by 2050

### Gas Energy Efficiency Focus

Significant demand reductions from gas heat pumps, utility efficiency programs, and building shell retrofits.

### Hybrid Gas-Electric Heating Focus

Coordinated gas and electric infrastructure planning and optimization through use of hybrid gas-electric integrated heating systems.

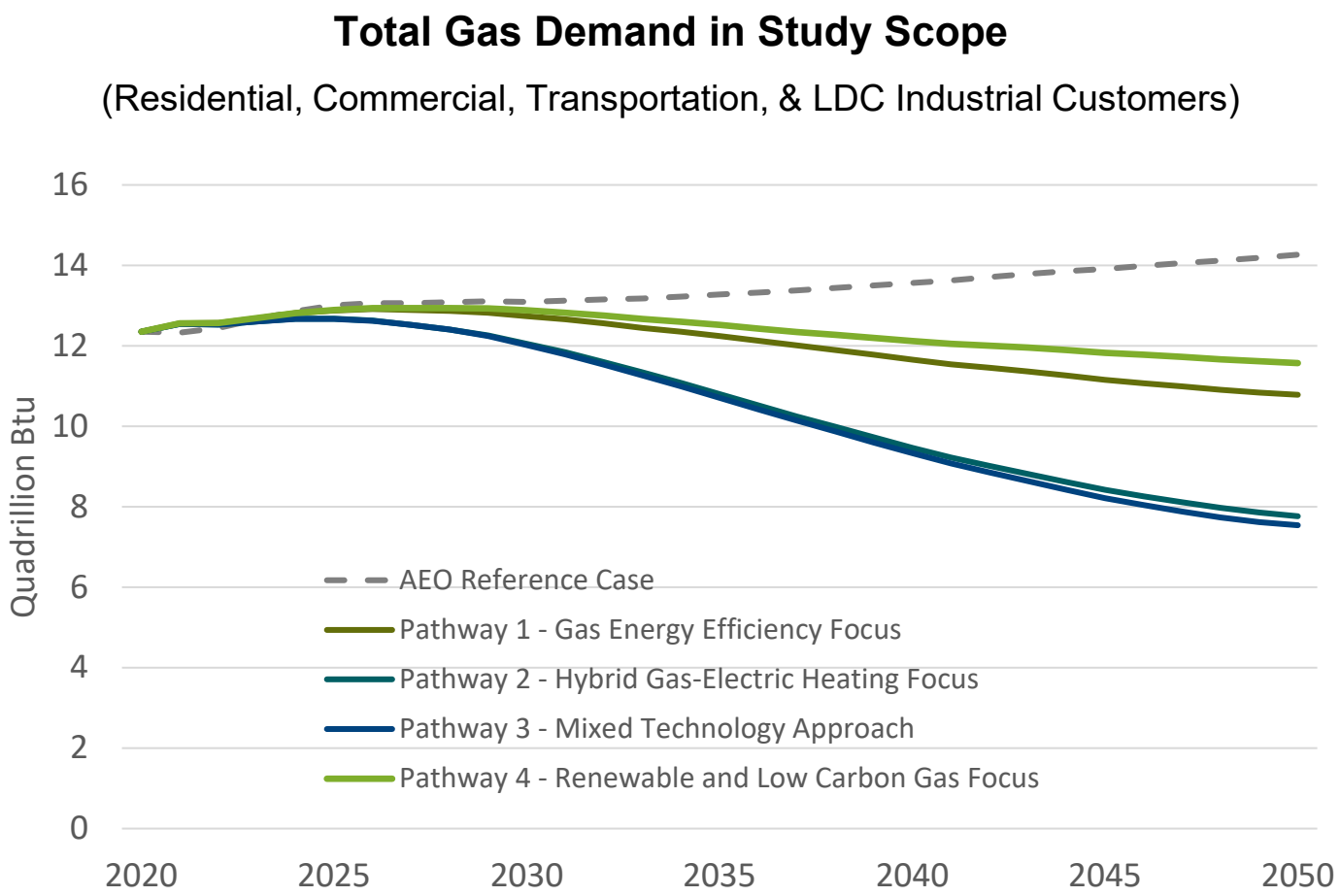
### Mixed Technology Approach

“All of the above” scenario with fuel-neutral policy where customers choose from a range of applications.

### Renewable and Low-Carbon Gas Focus

Prioritizes the decarbonization of the energy supply and limit impacts on customers to make major changes in energy equipment and infrastructure.

# All pathways require significant gas demand reductions achieved through energy efficiency

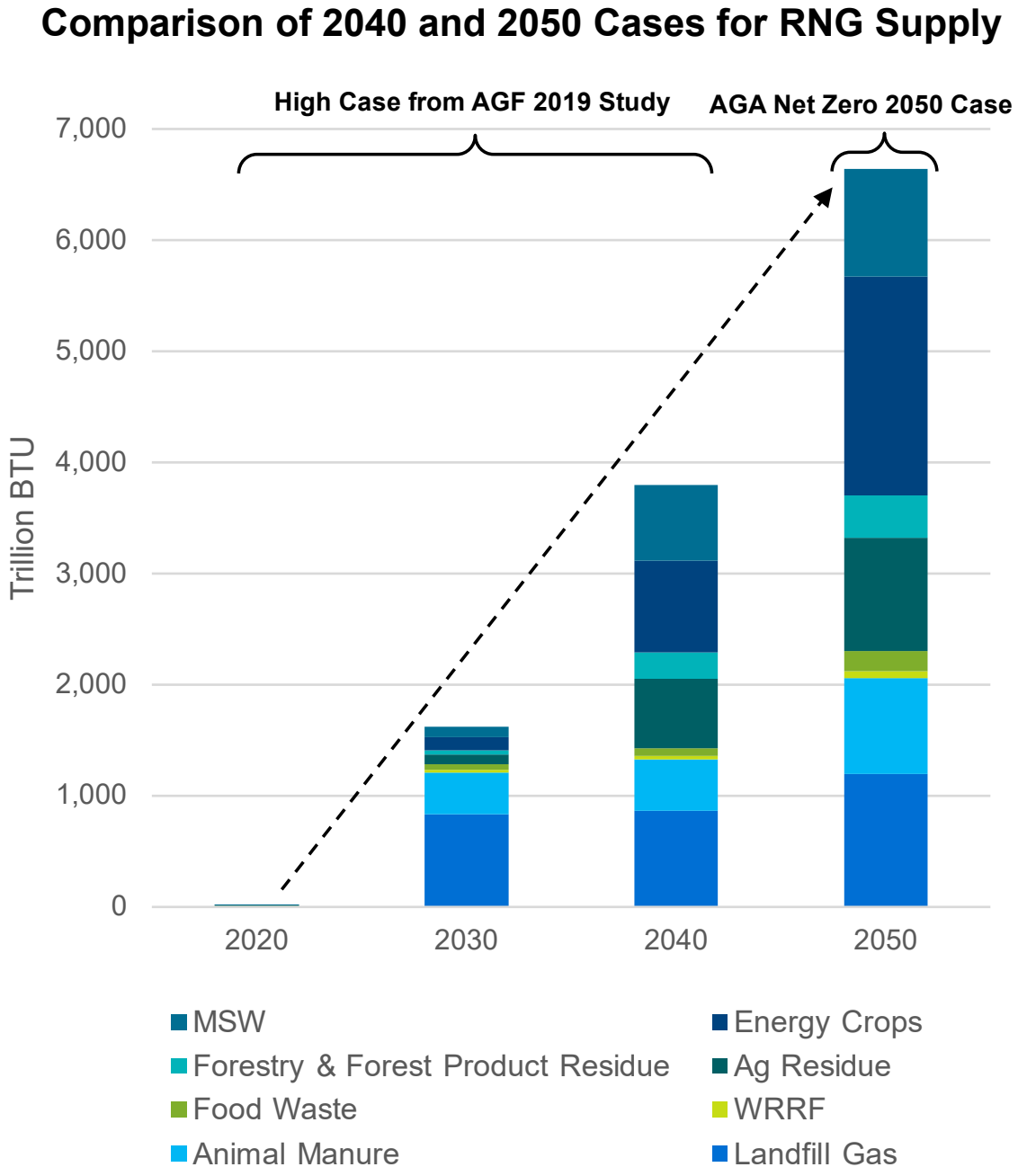



| | 2050 VS 2020 % Change | | | | |
|---|---|---|---|---|---|
| | Total | Res | Com | Ind | Transp |
| AEO Reference Case | +16% | -3% | +13% | +32% | +413% |
| 4. Renewable and Low Carbon | -6% | -9% | -5% | -13% | +413% |
| 1. Gas EE Focus | -13% | -23% | -11% | -11% | +413% |
| 2. Hybrid Heating | -37% | -54% | -46% | -19% | +413% |
| 3. Mixed Approach | -39% | -52% | -44% | -29% | +413% |

AGA American Gas Association

# All pathways studied incorporate a significant expansion of renewable natural gas (RNG) and hydrogen

- The renewable natural gas and low-carbon supply mix is underpinned by a significant resource potential expansion compared with the American Gas Foundation (2019) study
- Low-carbon fuel technologies are evolving rapidly.
- RNG resource development is a key strategy to unlocking gas decarbonization opportunities.

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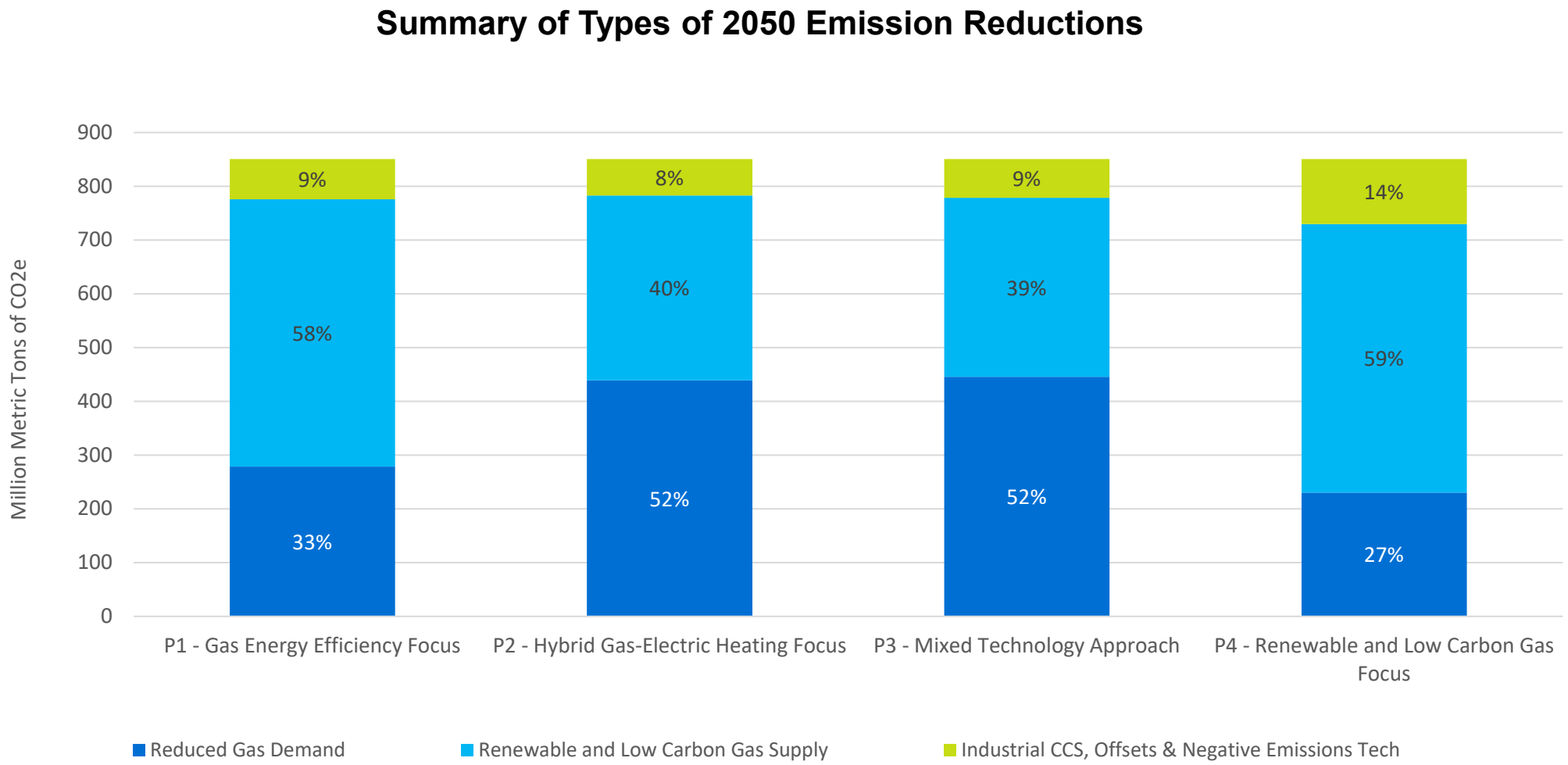
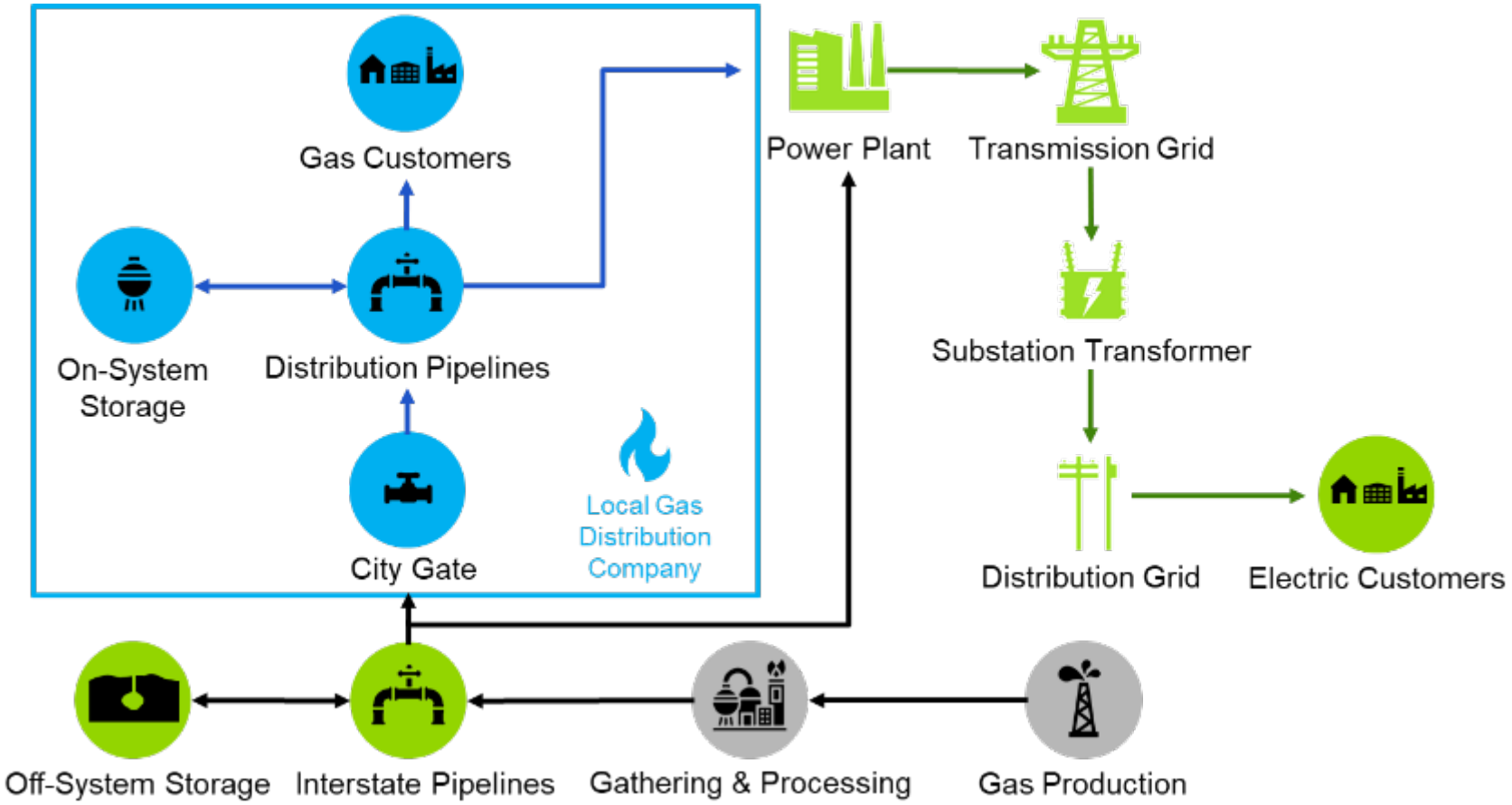
American Gas Association

# The relative contribution of measures varies by pathway, showcasing a diversity of potential approaches



# An integrated approach to decarbonization is needed that leverages the gas and electricity systems



## Supportive policy and regulatory approval will be essential for gas utilities to achieve net-zero emissions.

- Expanded Utility **Energy Efficiency** and Demand-Side Management Programs
- Create Market Structures and Incentivize Demand for **Renewable and Low Carbon Gases**
- Coordinated **Gas and Electric Planning**
- **Utility Regulatory Updates**
- Address Cost Allocation and **Consumer Equity Issues**
- Considering methods to compensate gas customers for **system cost savings**

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# The Path Forward

AGA and the natural gas utility industry will enable gas utility emissions reduction solutions through activities and initiatives in seven key areas.

**Energy Efficiency and Improved Energy Management**

**Methane Mitigation Technologies and Strategies**

**Advanced Gas End-use Technologies**

**Renewable and Low-Carbon Fuels**

**Negative Emissions Technologies**

**Infrastructure Modernization**

**Workforce Development**

# Questions?

# VIRTUAL FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

May 3-4, 2022

# Utility Industry Perspectives, Priorities & Other Updates

Alex Hoffman

American Public Power Association

FEMP
Federal Energy Management Program


AMERICAN
PUBLIC
POWER
ASSOCIATION
Powering Strong Communities

# About APPA

**The voice of not-for-profit, community-owned utilities** that power 2,000 towns and cities nationwide

We serve nearly 1,500 utility members & 220 corporate members through:

Offering education and professional development opportunities

Sharing information and building connections across the industry

Advocating for policies and regulations that support public power

# About Public Power

## Public power is:

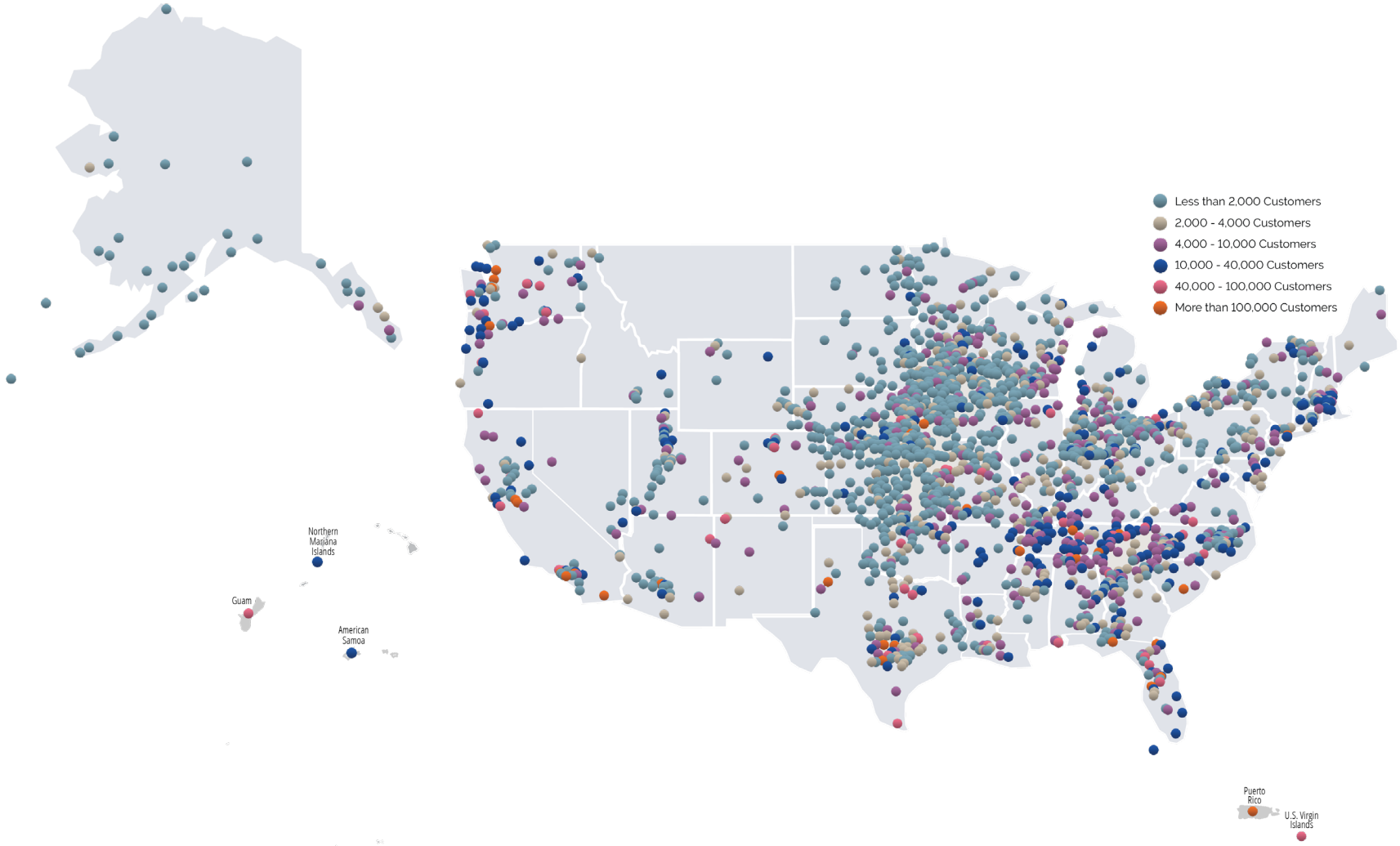
Community-owned

Not for profit

Locally operated

Public power **employs 96,000 people**

# Public Power Serves 1 in 7 Americans



# Public Power's Policy Priorities

Energy Infrastructure

Climate Change and Comparable Incentives

Natural Gas

Grid Security

# Public Power R&D Priorities

## Small Utilities

<5000 Customers

1. Economic Development
2. Energy Efficiency
3. Distributed Generation
4. Electric Vehicles
5. Community Education Programs

1. **Electric Vehicles**
2. **Energy Efficiency**
3. **Distributed Generation**
4. **Reliability**
5. **Economic Development**

## Large Utilities

5001+ Customers

1. Electric Vehicles
2. Energy Efficiency
3. Distributed Generation
4. Reliability
5. Demand Response

# VIRTUAL FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

May 3-4, 2022

# We are currently on break, returning at 1:15pm ET.

FEMP
Federal Energy Management Program

# VIRTUAL FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

May 3-4, 2022

# General Services Administration and DLA Energy Updates

FEMP
Federal Energy Management Program

U.S. General Services Administration

# Federal Utility Partnership Working Group

## Energy Procurement Overview

May 2022

Presented by:
Denise Funkhouser, GSA, Energy Division Director
Ebony Atkinson, GSA, Contracting Officer
Bonnie Bueter, GSA Contracting Officer

# Summary of Topics

- Introductions
- Overview of GSA's energy program
- Major Initiatives
- GSA Authorities
- Areawide Contracts
- Deregulated Electricity and Natural Gas Procurements
- Carbon Pollution-Free Electricity and Renewable Energy

# GSA's Energy Team and Partners

- Overview of GSA's energy programs
  - Energy Procurement
  - Rate Intervention
  - Energy Management
  - Regional Energy Coordinators
- Collaboration
  - Sustainability Program
  - GSA's Proving Ground and DOE National Labs
  - Office of Federal High Performance Green Buildings
  - Offices of Portfolio Management and Customer Engagement, Design and Construction, and Acquisition Management

# Major Initiatives

- Emphasis on carbon pollution-free electricity and renewable energy procurements
- Continued relationship with our customers who we provide energy procurement services
- ESPC/UESC implementation from the Energy Act of 2020
  - Maximize onsite renewable energy
- Government-wide Coordination per EO 14057

# Utility Procurement Authorities

- GSA has authority under 40 USC 501 and FAR Part 41 to procure power and enter into utility service contracts for Federal agencies
- DoD and DOE have permanent delegations of 10 year authority
- Veterans Affairs has authority for interconnection charges only
- GSA delegates procurement authority to Federal agencies to enter into Utility Service Contracts

# Utility Procurement Program

- Areawide Contracts
  - GSA establishes long-term (10 year) government-wide contracts with regulated utility companies
  - Can include energy management services (UESC) and interconnection agreements (micro-grids, solar, wind farm)
  - Over 100 active areawide contracts
- Utility Regulatory Program
  - Represents the consumer interest of Federal Executive Agencies in Public Utility Proceedings before Federal and State regulatory bodies.

# Deregulated Energy Procurements

- GSA procures electricity and natural gas through third party energy supply contracts in deregulated, competitive energy markets
  - 109 utility service territories
  - 211 active supply contracts; 1,488 end-use accounts
  - $1.076 billion total gas and electric contract value of awards of active contracts *as of April 2022
  - 66 Federal agencies and non-profit customers

# Deregulated Energy Procurements (continued)

- GSA's electric competitive supply contracts
  - Auctions reduce price risk and aggregate buying power
  - Assess market conditions and different pricing components
  - Contract term typically 3-5 years
  - Agencies pay utility and energy suppliers directly
  - FY22 procurements included OH, IL, PA, DC, and NY, and included 50% to 100% renewable pricing group for electric

# Carbon Pollution-Free Electricity and Renewable Energy

- Over 100 onsite Photovoltaic systems
- Two Power Purchase Agreements (PPAs)
  - 140 MW Wind (IL)
  - 75 MW Solar (MD)
  - 4 MW (CA and NV)
- 35% renewable energy via RECs, onsite PVs, and other renewable energy generation

# Carbon Pollution-Free Electricity and Renewable Energy Strategy

- CFE and Renewable Energy Strategy
  - Stakeholder alignment
  - Reducing carbon emissions; carbon pollution-free electricity
  - Energy Efficiency leading to cost savings
  - Technology innovation
- Maximize onsite CFE and or renewable energy generation
- Identify opportunities to meet the CFE goals in EO 14057 by:
  - Working with our Federal energy procurement partners, DLA and DOE
  - Aggregate with other Federal agencies per EO 14057

# VIRTUAL FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

May 3-4, 2022

# DLA Energy Updates

Pam Griffith

DLA Energy

FEMP

Federal Energy Management Program

# Climate Change: The DLA Energy Perspective

DLA Energy is **looking outward—**partnering with and enabling the **Military Services and Whole of Government partners** to achieve their **climate change goals.**

## Carbon Pollution-Free Electricity

*Provides an opportunity for DLA Energy to support the Administration's clean energy initiatives*

### Electricity

*Transforming how DLA Energy purchases and manages electricity for DoD & Whole of Government customers.*

EO 14057: 100% Carbon Pollution-Free Electricity, Including 50% hourly matching (24/7 CFE)

*Lead by example to leverage scale and procurement power to drive clean, healthy, and resilient operations.*

### CFE Transition

*Partnering with customers for transition to Carbon Pollution-Free Electricity (CFE) by 2030.*

*Includes marine energy, solar, wind, hydrokinetic (including tidal, wave, current, and thermal), geothermal, hydroelectric, nuclear, renewably sourced hydrogen, and electrical energy generation from fossil resources to the extent there is active capture and storage of carbon dioxide emissions that meets EPA requirements*

Source: Installation Energy

# VIRTUAL FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

May 3-4, 2022

# UESC Best Practices: Approaches to Managing Agency Performance Contracting

FEMP
Federal Energy Management Program

U.S. General Services Administration

# UESC BEST PRACTICES APPROACHES TO AGENCY PERFORMANCE

May 3-4, 2022

Presented by:
Sharon Conger

# GSA UESC Instructional Memorandum Overview

Key Utility Energy Service Contracts (UESC) Instructional Memorandum (IM) Details:

- Aligns the UESC processes and deliverables with Energy Savings Performance Contracting (ESPC) requirements.
- Requires Regions to budget for and obtain Project Facilitation (PF) support services
- Establishes coordination and review points between the Region and Central Office Program Management Office (PMO).
- Ensures that statutory and scoring guidance is known and adhered to
- Requires annual performance assurance reports document UESC energy and cost savings

Note: UESC IM was released on 11/23/21

# GSA UESC Instructional Memorandum Specifics

For UESC Preliminary Assessments (PAs) and Investment Grade Audits (IGAs), GSA will follow the DOE ESPC Indefinite Delivery Indefinite Quantity (IDIQ) requirements to the maximum extent possible. These requirements can be referenced in the 2017 DOE IDIQ Generic Contract dated 4/25/17 or latest version/update to the DOE IDIQ Generic Contract.

1. H.4 for PA Report Requirements.
2. H.5 for IGA Report Requirements:
    - EXCEPTION: H.5.B shall be replaced with the requirements detailed in the Performance Assurance Planning, Continuous Design-Level Performance of Each Energy Conservation Measure in a Utility Energy Service Contract is Fundamental to Achieving Projected Results, dated February 2019.
3. H.6 for Financing Competition Requirements:
    - EXCEPTION: Investment Deal Summary (IDS), also known as Finance Proposal Summary format, replaces DOE attachment J-11.
4. DOE's ePB is the required format and repository for TO Schedules. The utility shall be instructed to break ECMs down by building on TO-2 and TO-4 for accounting purposes.
    - Utility shall also provide draft TO schedules at the PA, 50%, 90% and final IGA.

# Letters of Interest

Letters of Interest/Sources Sought are sent to all serving utilities outlining the selection criteria.

- Preliminary assessment to be performed at no cost
- Utility must conduct a financier competition
- Subcontracted Energy Services Company (ESCO) support must be competed
- Task Order (TO) Schedules, PA and IGA format requirements
- Utility may be required to assess and remediate asbestos, lead paint or other toxics materials if needed to perform the projects.

# Use of ESCOs

- GSA requires the utility company to compete ESCO support
  - Using best value criteria (to include a review of ESCO qualifications, past performances, and business methods and practices)
  - Negotiating terms

- If the utility has already selected an ESCO they must provide GSA with the following
  - Evidence of best value selection showing consideration of ESCO qualifications, past performances, and business methods and practices
  - Analysis of financial and any other pertinent terms
  - If the ESCO's terms are unacceptable, the utility can renegotiate, recompete for other ESCOs, or a different contract vehicle can be chosen.

# Performance Assurance

- The Commissioning Plan requires measurements proving key performance indicators are attained and the project is capable of meeting the energy savings
- OMB M-12-21, page 3, requires:
  - "[M]easurement and verification (M&V) of savings through commissioning and retro-commissioning" for annual scoring**; and**
  - Strongly encourages recommissioning as part of the performance assurance plan
- A performance assurance report is required annually after construction acceptance to ensure savings are attained.
- Action Plans are required when savings are not attained.


GSA

# VIRTUAL FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

May 3-4, 2022

# Department of Veterans Affairs UESC Best Practices

## Approaches to Managing Agency Performance Contracting

# History of Energy Performance Contracting in VA

**2008**

- Centralized ESPC and UESC program created within Energy, Environment and Fleet Service (EEF) to leverage specialized alternative financing and procurement knowledge
- EEF is the program office and Performance Contracting Activity Central (PCAC) is the contracting center of excellence for all ESPCs and UESCs across VA

**2016**

- U.S. Supreme Court ruling on *Kingdomware* resulted in updates to VA procurement policies
- VA created the first set-aside ESPC for Service-Disabled Veteran Owned Small Business (SDVOSBs)

**2020**

- VA awarded the government's first SDVOSB set-aside indefinite delivery indefinite quantity (IDIQ) contract for energy savings performance contracts (ESPCs).

**2022**

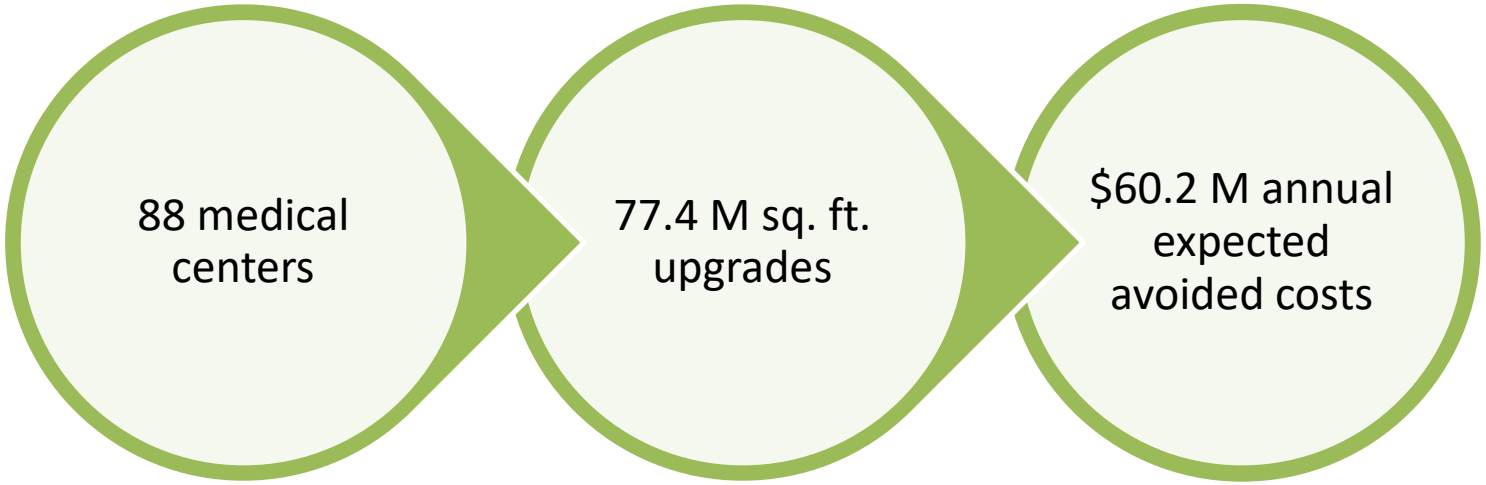
- VA on-ramped two additional SDVOSBs on to the IDIQ

# VA's SDVOSB IDIQ

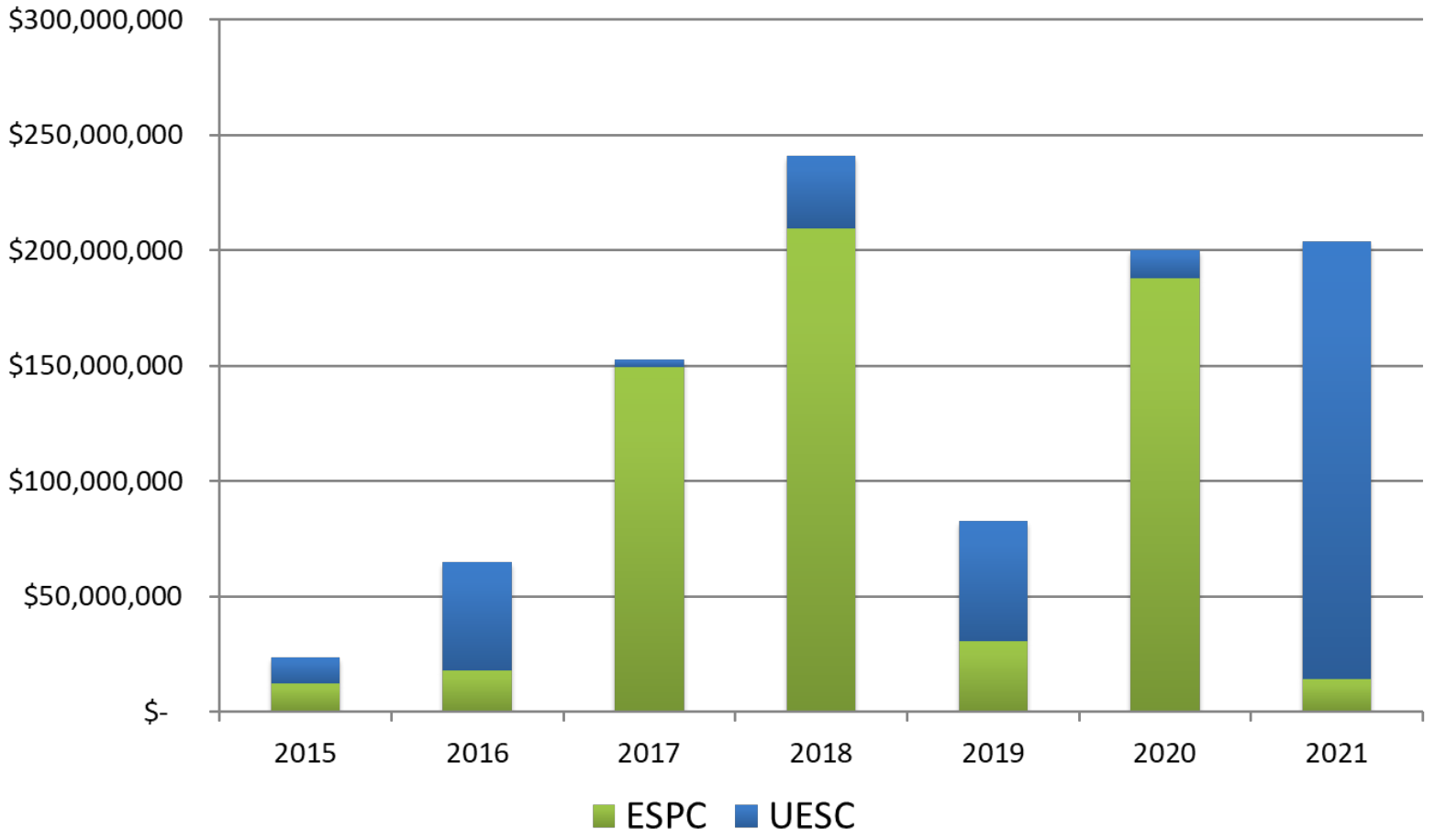
- Developed by EEF in partnership with our contracting office, PCAC
- Adapted the DOE IDIQ with VA specifics and SDVOSB requirement
- Initial awards on May 21, 2020
  - CTI Services and Engie Joint Venture (JV)
  - TL Services, Inc. and Consolidated Edison Solutions, Inc. JV
  - Utility Systems Solutions, Inc.
  - Venergy-Brewer Garret JV
- IDIQ on ramp awards on March 14, 2022
  - Hannah Solar and Ameresco JV
  - HICAPS

# VA Energy Performance Contracting Achievements

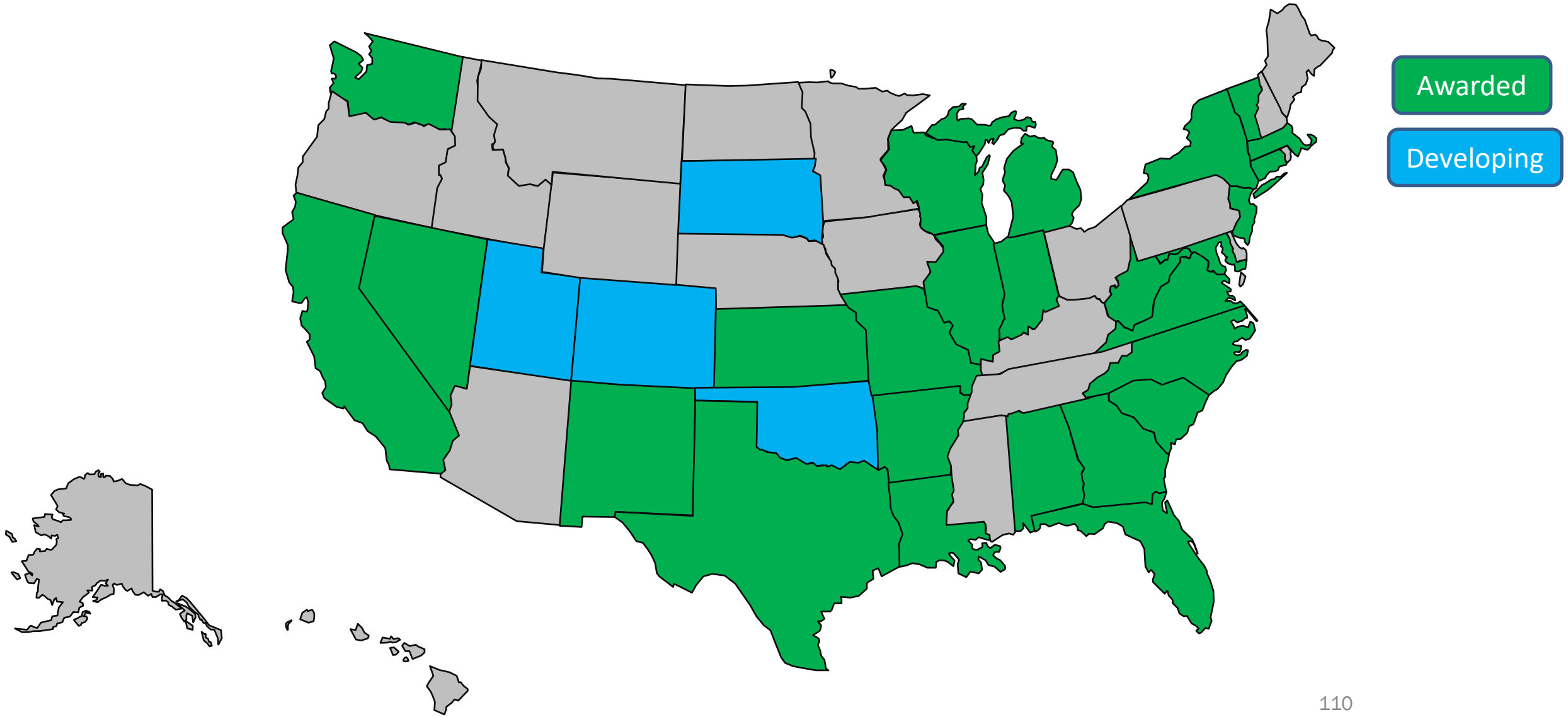
**$1.1 B AWARDED TO DATE**



# VA Energy Performance Contracting Achievements



# States with at least 1 VA Energy Performance Contract



# VA Best Practices

- Centralized program and contracting offices
  - Standardization of processes
  - Consistent contract protections and oversight for VA facilities

- Site Data Package Checklist
  - Project goals
  - ECM spreadsheet derived from energy and water evaluations
  - Training requirements for project leads
  - Project Facilitator requirements and contracting documents

# VA Best Practices - Continued

- Customer Service Agreements
  - Clearly define the services and support to be provided to/received from the VA parties
  - Identify the responsibilities of each party
  - Establish core team, document its purpose, identify members, and set individual roles, responsibilities and operating rules
  - Establish procedures for effective communication, decision-making and reporting among all parties
  - Facilitate stakeholder buy-in by including key members in the decision-making process and obtaining their concurrence along the way

# VA Best Practices - Continued

- Require Project Facilitators for UESCs as well as ESPCs
- Require quarterly M&V for the first year
  - Require agency witnessing for all M&V activity wherever an actual measurement is occurring
  - Require the use of FEMP M&V version 4 for M&V reporting.
  - Require eProjectBuilder

# Lessons Learned

- Verify any HVAC setback schedules
- Request mockups during IGA for any low flow fixtures to avoid descoping after award. Old plumbing systems can lead to issues with low flow fixtures or pose Legionella risk.
- Insulation on pipes may benefit from continuous plastic covers to preserve insulation in the event of pipe leaks
- Need to have a strategy for asbestos abatement
- Verify exact transformer locations – don't assume 1 for 1

# Thank You

Catherine Johnson

Catherine.johnson7@va.gov

202-632-7081

# VIRTUAL FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

May 3-4, 2022

# DHS Energy Program – Performance Contracting Center of Excellence

# DHS NEXUS Approach to Facility Management

***DHS recognizes the synergies between sustainability, adaptation to climate change, environmental justice, and mission resilience.***


NEXUS Approach integrates across energy, water, resilience, facility condition, sustainability, and environmental compliance for:

- Facility Assessments (including facility conditions, resilience, climate vulnerabilities, energy, & sustainability)
- Identification of Facility Projects and their Prioritization
- Considering Financing Options for Facility Projects

# DHS Climate Action Plan Priority Areas

"Building on prior adaptation plans, actions or other recent progress, agencies should **determine five (5) priority adaptation actions to implement.**"

| Priority 1 | Priority 2 | Priority 3 | Priority 4 | Priority 5 |
|---|---|---|---|---|
| Incorporate Climate Adaptation Planning and Processes into Homeland Security Mission Areas | **Ensure Climate Resilient Facilities and Infrastructure** | Incorporate Climate Adaptation into National Preparedness and Community Grants and Projects | Ensure Climate-ready Services and Supplies | Increase Climate Literacy |

# Priority 2: Ensure Climate Resilient Facilities and Infrastructure

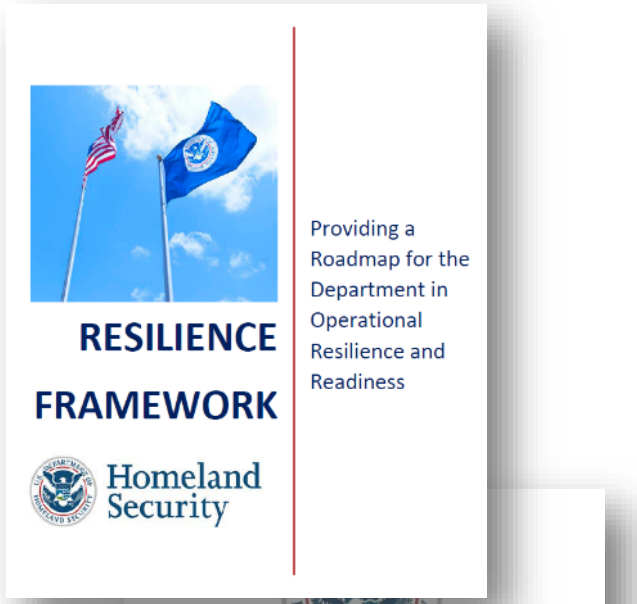
Changing climate conditions threaten critical DHS mission essential facilities and assets: higher average temperatures, changing precipitation patterns, rapid Arctic change, more frequent severe storm events, rising sea levels, increased coastal flooding, increases in wildfires, and ecosystem degradation.

| | |
|---|---|
| Action Goal | Incorporate priority climate change adaptation actions to ensure facilities and operational mission essential assets.<br>Ensure assets are resilient through a risk-management framework approach.<br>Fully integrate in the policy, planning, management, and budgeting processes throughout DHS. |
| Agency Lead | Under Secretary for Management, Director of Office of Operations Coordination; and Component Heads |
| Scale | Department-wide |

**Current Programs & Initiatives**

- Established goal to convert 50% of fleet to electric by 2030
- Issued **Resilience Framework in 2018** to address climate and manmade vulnerabilities in the Department's mission critical assets
- Energy Legislation to obtain 100% rebate for energy projects
- Developed Tools to support resilience and energy assessments – **Resilience Baseline Assessment Scoring Tool**, Building Assessment Tool
- Conducting **Regional Resilience Assessments**
- DOE-DHS Memorandum Of Understanding (MOU)

# DHS Resilience Framework




Framework applies **common principles** across DHS Operations to **identify, assess, prioritize, and protect** DHS's Critical Infrastructure.

# Resilience Focus Areas

## Energy and Water

Maintain a continuous power and water supply.

## Facilities

Ensure buildings, structures, and land assets withstand changing conditions.

## Information and Communication Technology

Ensure hardware, software, and information systems adapt to changing conditions.

## Transportation

Maintain mobile assets that can adapt to changing conditions.

Homeland Security

# DHS EPC COE

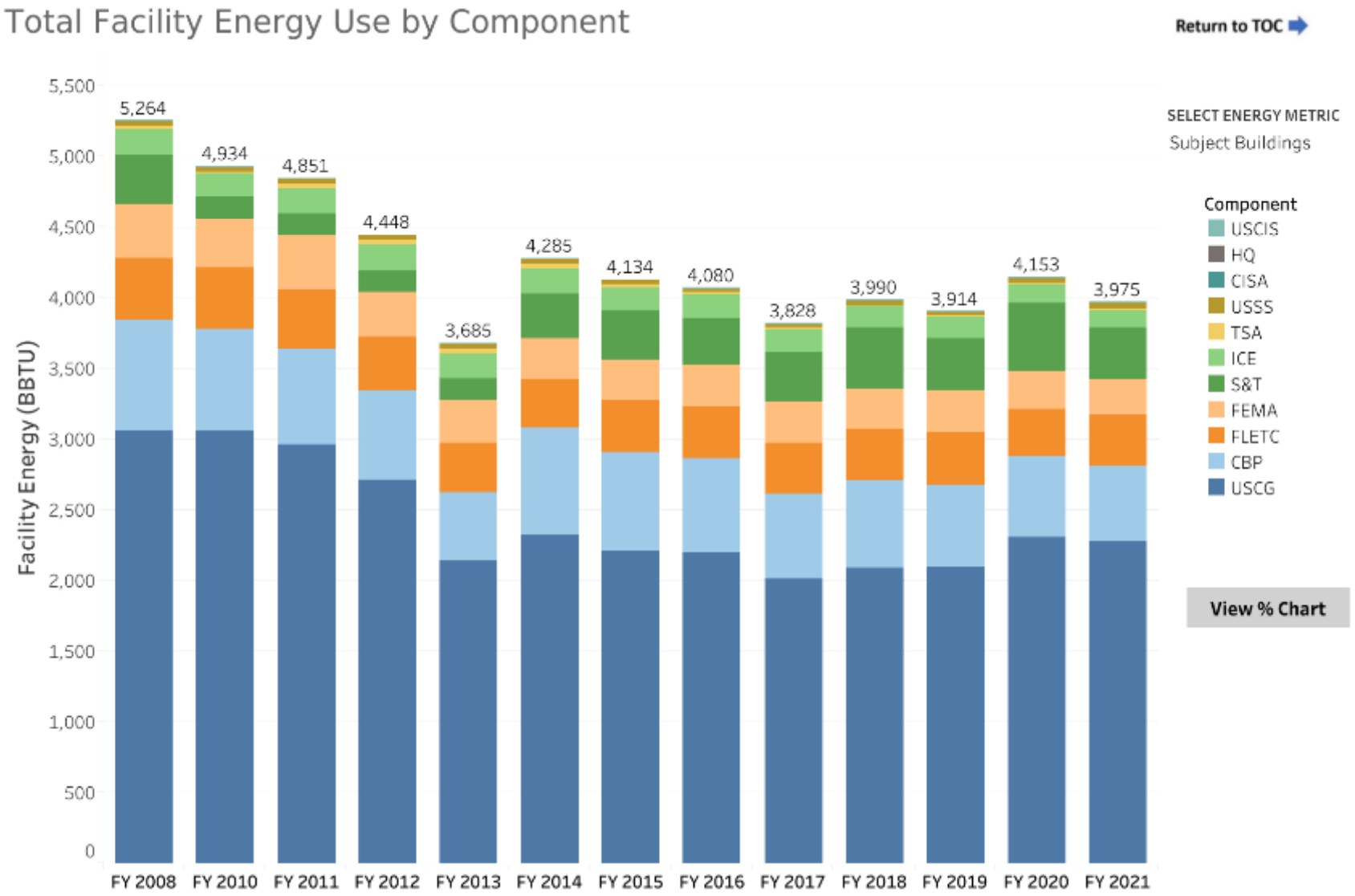
- Establish DHS Center of Excellence responsible to administer alternatively financed energy savings contracts within Department
- Reduce Energy consumption and improve energy performance of DHS-owned facilities
- Establish Working Group to develop and deliver an infrastructure model and processes to establish a DHS Energy Savings Contract Center of Excellence
  - Include representatives from energy, facilities operations, real property, legal, procurement, and finance
- Collaborate with partners, such as DOE, DoD, GSA, VA to incorporate best practices, training, technical support, and lessons learned

# DHS EPC COE – Need

- Increased performance contracting goals from Presidential (EO 13990, 14008, 14057) and Energy legislation (Epact 2020/EISA); Department Secretary's Priority for energy efficiency and resilience, 2022
- Recent OMB passback request, $50million to support execution of climate, sustainability, resilience, energy efficiency projects
- Significant barriers to executing energy performance contracting due to lack of qualified personnel and resources
  - specifically contracting officers/specialists with training/expertise in energy performance contracting
  - EPC project facilitators and measurement and verification (M&V) specialist personnel
  - Need more $$ and people

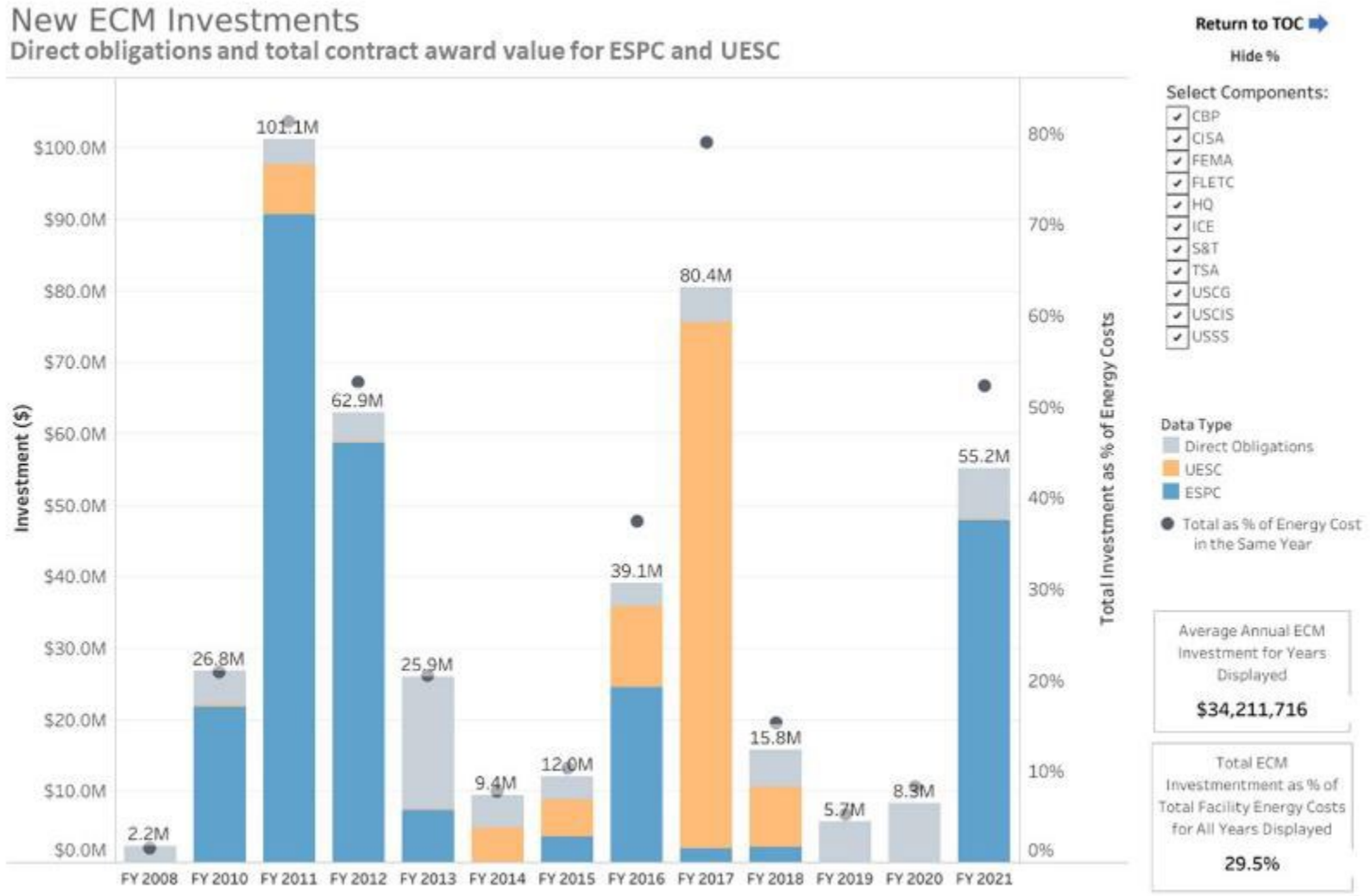
# Total Facility Energy Used by Component

*(goal subject)*




Homeland Security

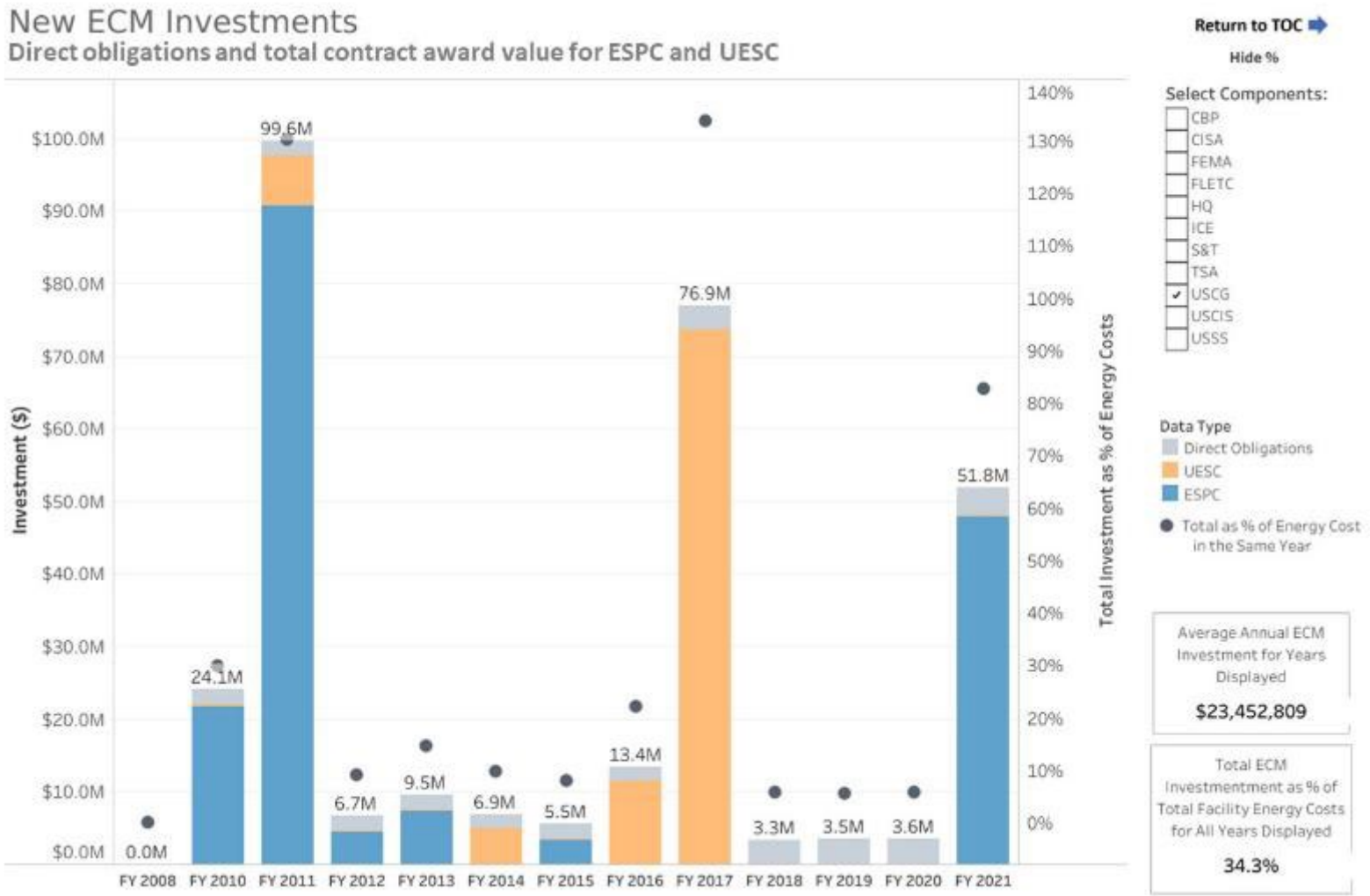
# DHS ECM Investment and Energy Performance Contracting




**Current DHS unimplemented ECM backlog = $152M**

Homeland Security

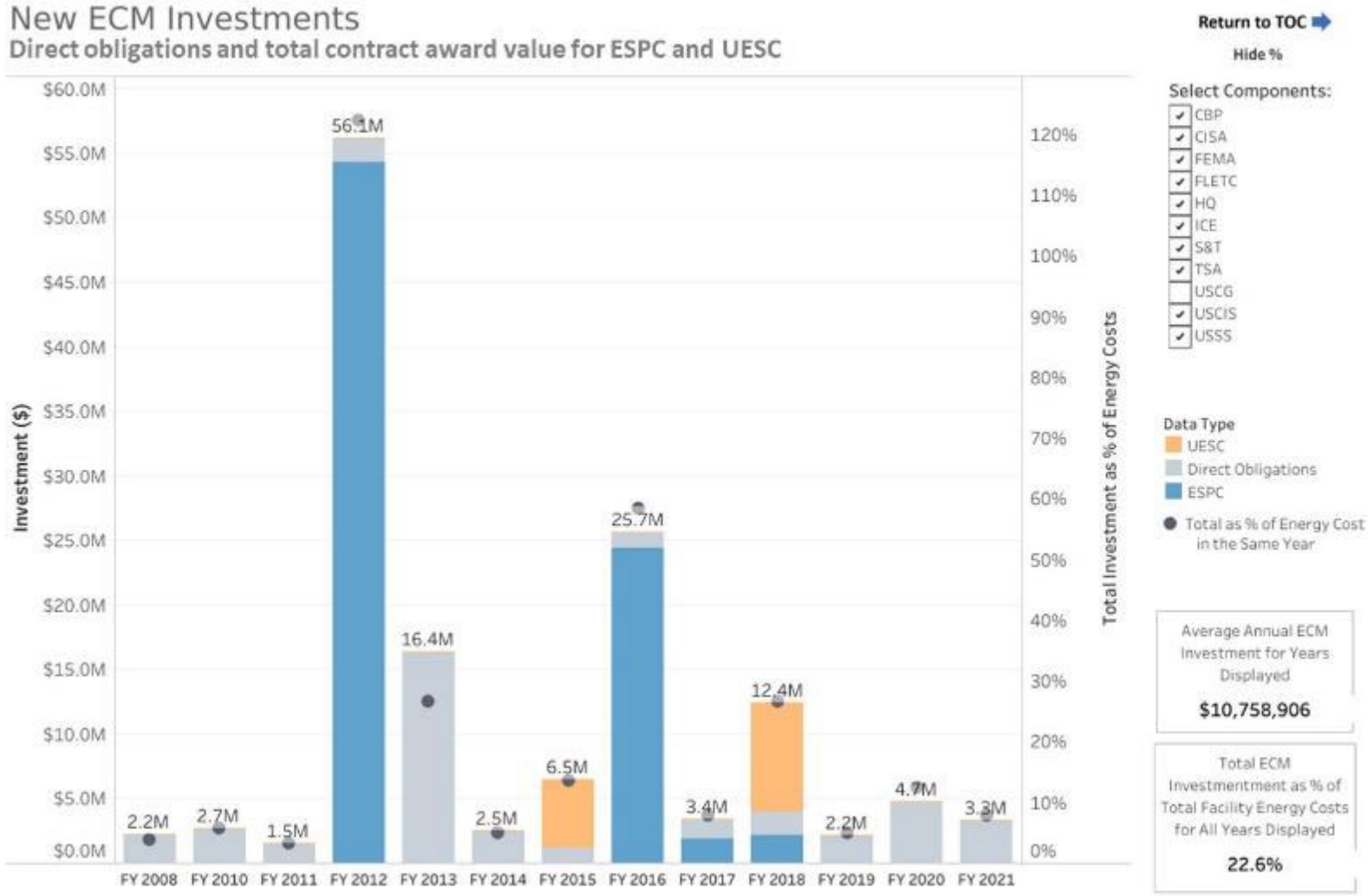
# USCG ECM Investments




**Current USCG unimplemented ECM backlog = $80M**

Homeland Security

# All Other Operational Components




**Current unimplemented ECM backlog outside USCG = $72M**

Homeland Security

# Next Steps for DHS

- Training and Accountability for Securing Appropriations for Energy Projects
- Training and Resources for Performance Contracting
- Formal establishment of DHS EPC COE as a partnership between Office of Chief Procurement and Office of Chief Readiness Support Officer
- Obtain necessary EPC COE federal FTEs and operational support funding
- Establish DHS/Components EPC Work Group
- Develop DHS Share Point site for informational resources on energy performance contracting, the EPC COE support available to Components, and associated business processes

*The vision of the DHS Energy Savings Contract Center of Excellence is the efficient, effective, and consistent award, use, and administration of Energy Savings Contracts across the Department*

*The ESC COE will provide project support by making the process easier and less costly to implement and manage, while maintaining adherence to federal law and diligently protecting the financial interest of the government.*

Homeland Security

# Q&A

# Thanks!

Crystall Merlino.

Director, Resilience, Energy, and Sustainability

crystall.merlino@hq.dhs.gov

Homeland Security

# Roadmap to Implementing Climate and Resilience Goals: Federal Agency Solutions

*Rising to Today's Challenges*

**2022 Federal Utility Partnership Working Group Seminar**

Seth Kirshenberg
seth.kirshenberg@kutakrock.com

Brian Oakley
brian.oakley@am.jll.com

# Carbon Free Power and 24/7 Availability

Energy needs and priorities of the New Administration and Federal Agencies

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## Climate Change

Carbon Free power is a goal of the New Administration
Promote Clean Energy Development

## Resilience

On site power production and self sufficiency at certain sites for mission critical activities (especially defense sites)

## 24/7

Power Available at all times

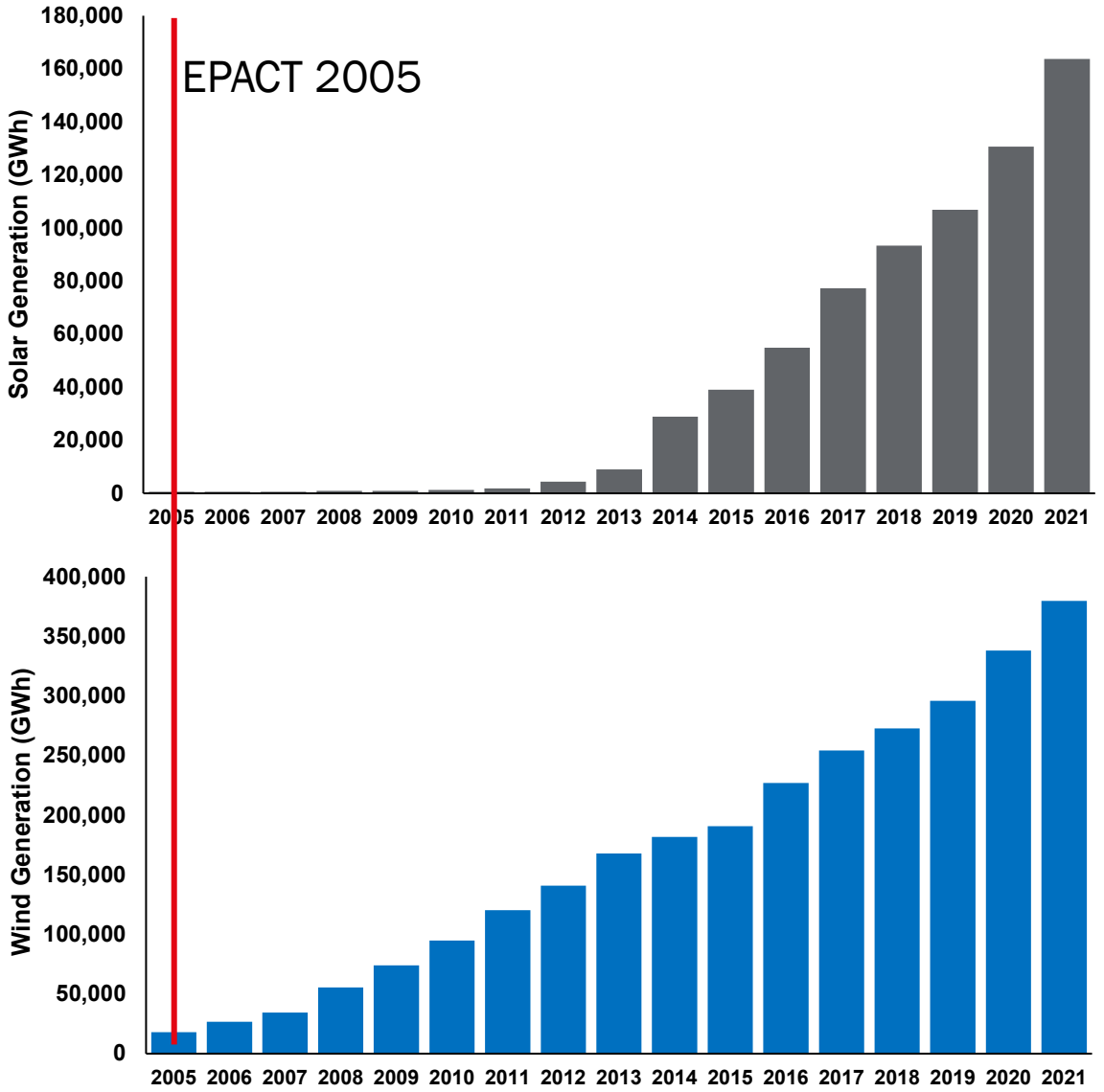
# Federal Government Can Create and has Created the Market for Less Expensive Power Through Development, Purchases and Incentives

## Federal Hosting of Energy Facilities

## Federal Purchasing of Power

## Federal Incentives

Tax (ITC, PTC, Depreciation, etc), Grants, Direct Purchases, Other



# Federal Agencies are the Largest Purchasers of Power in the United States

"Given the magnitude of power purchases by federal users, **federal PPAs have long been cited as a meaningful method to spur the siting and development of power projects using innovative technologies.** By providing a contractual commitment to purchase power from a plant, certain business risks associated with the project are reduced, thereby **improving the financial profile of the project for private investors**. PPAs may be attractive from a public policy perspective because: (i) power supply is essential to the day-to-day operations of federal facilities and represents an expense that will be funded regardless of the source of supply, and (ii) **purchases under a PPA would align the federal government's energy expenditures with federal policy objectives under a near budget neutral profile**"

**Links Provided below:**

2017 DOE Report Provides Guidance to Federal Agencies on Purchasing Power

2021 American Bar Association -- ***Roadmap to Implementing Climate and Resilience Goals: Federal Agency Solutions***

# History of DOD Financing Energy/Resilience Projects

## Options Deployed

- Upfront Appropriations
- Power Purchase Agreements (2922a)
- REC Purchases
- UESCs
- ESPCs
- Enhanced Use Leases
- Utility Conveyance
- Energy Service Agreements
- WAPA
- Conventional power buys

## Outcomes Achieved

- Market Evolved where DOD/Private Sector created a Market – Renewable Energy Gigawatt Challenge
- Decreased Cost of Borrowing
- Decreased Time to Execute Project
- Project Proceeds Increased
- More could be built

# Challenges – Federal Agency Issues

## Site Perspective

- Interest at site / installations for energy production / resilience project?
- Mission Impact
- Term of Contract
- Contracting entity's ability to execute agreements
- Site budgeting and budgetary scoring
- Long-term cost – unpredictable project economics
- NEPA
- Out-grant processes

## Issues Confronted

- Cost as compared to current energy supplier
- CERCLA
- Politics
- Withdrawn Land Complexities – Interagency Agreements
- Limited Transmission Line Access
- Long Project Lead Times
- Market History
- DOD's long-term commitment
- Approvals
  - Long term PPAs – OSD
  - Scoring issue – OMB
  - 2667 (long term lease notifications)

*While significant progress has been achieved, Federal purchases of renewable energy remain "one-off" processes*

# Do Virtual PPAs Offer a Solution?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A Virtual PPA is a contract structure in which a power buyer (or offtaker) agrees to purchase a project's renewable energy for a pre-agreed price. In this agreement, the renewable energy project receives the market price at the time the energy is sold.

If the market price is greater than the fixed VPPA price, the offtaker / buyer receives the difference.

If the market price is less than the fixed VPPA price, the offtaker / buyer pays the project to make up the difference.

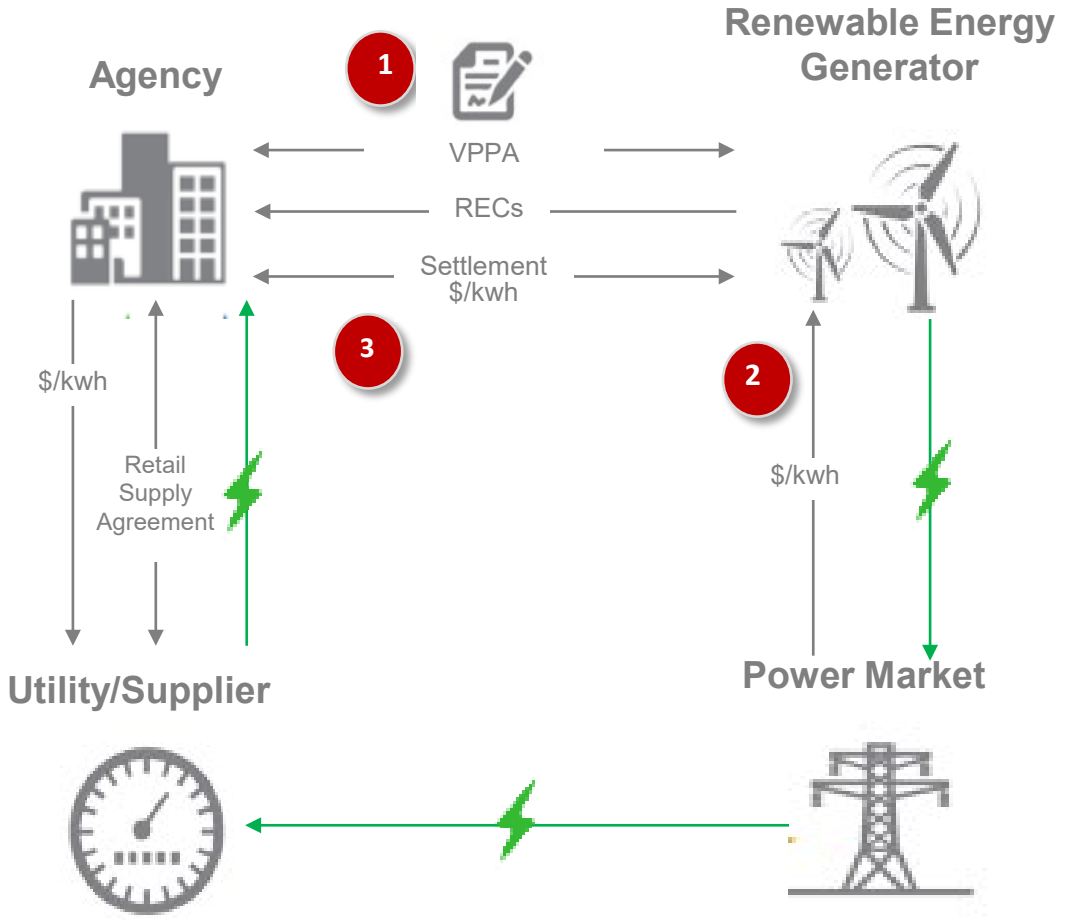
There is no physical delivery of power to the buyer's load centers. Purchases pay their utility bills as they always do.

# VPPA Structure

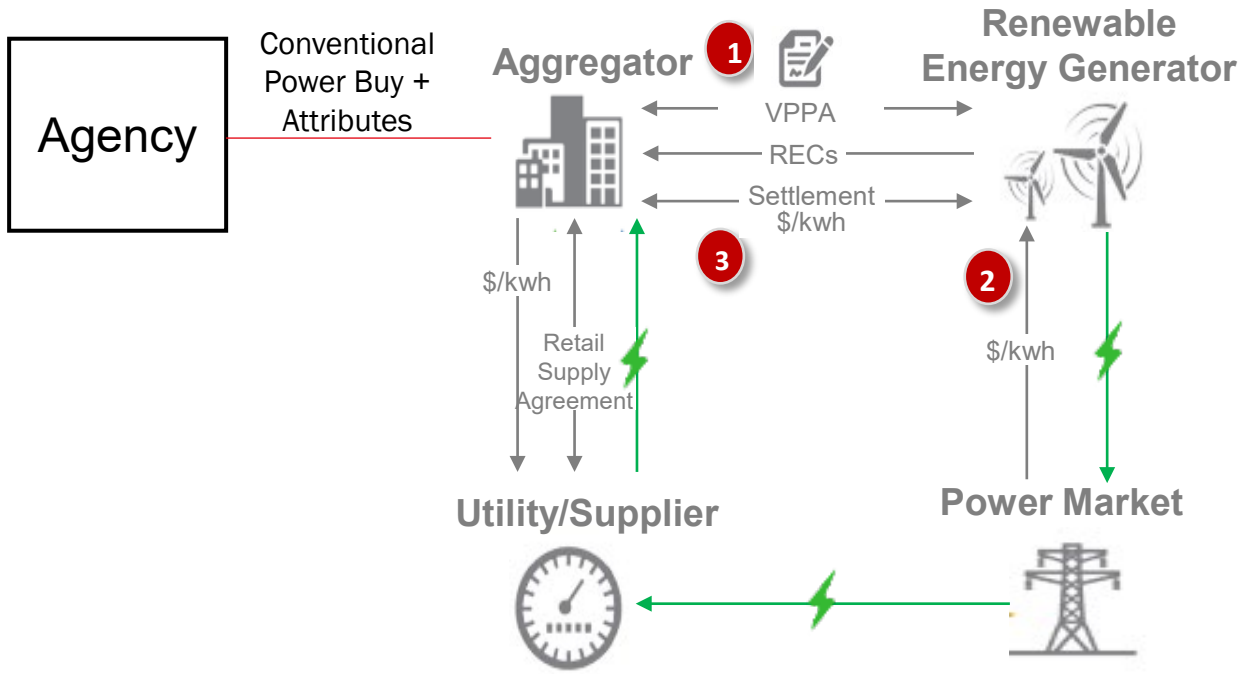
1. Agency signs VPPA with renewable energy generator, establishing the **strike price** for agency's purchase.

2. Renewable energy generator sells power produced into power market, receives market price and provides replacement RECS to Agency.

3. Renewable energy generator sends/receives settlement to/from Agency *(Settlement = wholesale price minus strike price).*



# Is a VPPA a contract to buy energy?




## It can be…

# How can a Virtual PPA work for the Federal Government?

## Minimal Load Profile Impacts

Virtual PPAs do not impact a Federal agency's load profile

## Benefit

Purchase larger amounts of clean energy

## Site Agnosticism

Does not need to be on site

## Legal Authority

(Military/Civilian)

## Contract Payments

Term and Party

## Risk

Can the Federal Government take Market Risk?

## Delivery of Clean Power

What is the Federal Government Buying?

## Manageable Budget Scoring

For a virtual PPA, the current rules should only score the expected value of differences over the contract term expressed in today's dollars—allowing for far more reasonable budget scoring and broader application across federal agencies.

# Recommendations for Federal Agency Leaders

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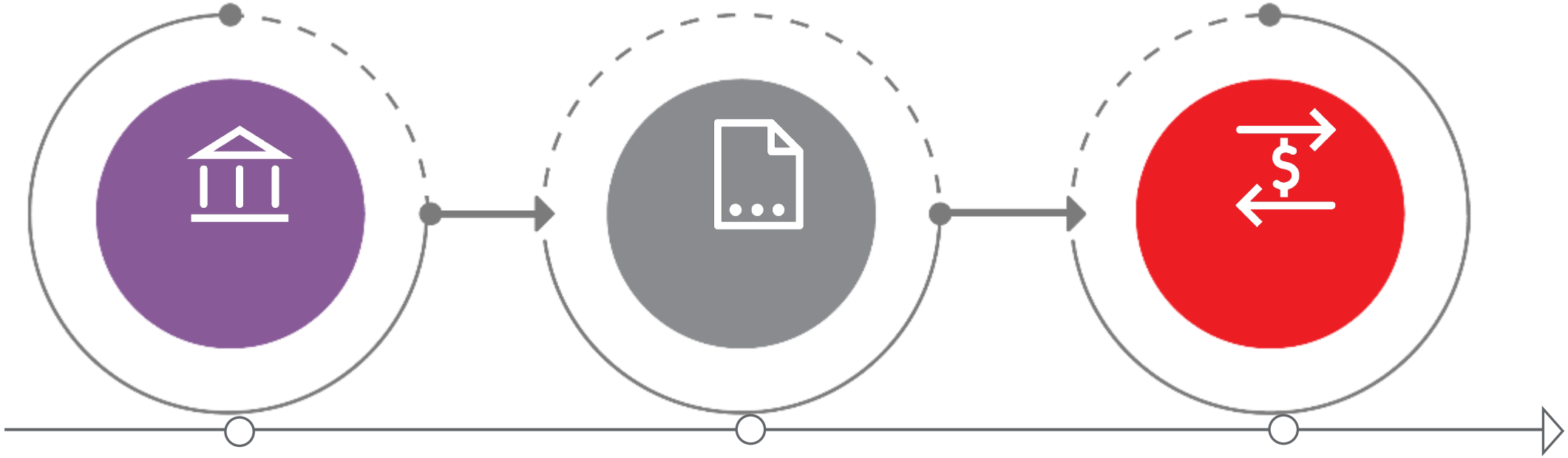
| | |
|---|---|
| **Prioritize** | Prioritize carbon-free energy |
| **Create** | Create accountability measures for meeting carbon-free energy goals<br>Create teams and develop expertise to implement carbon-free energy projects |
| **Acknowledge** | Acknowledge that carbon-free energy may cost more than fossil fuels in the short run |
| **Utilize** | Utilize Agency offices that actually purchase the power and manage the real estate to implement the programs. |
| **Take Action** | Focus on what can be done – not what can't; be creative. |

# How to Move Forward



## POLICY DECISIONS

Policy Decision to Promote Large Scale Power Purchases of Any Technology will create the demand and likely lower the cost to other purchasers over time.

- Federal Agency Direction to all large power purchasers must be clear and direct. (For example SMR PPAs)
- Leadership in the agencies need to make this a priority
- Accountability for Meeting the goals
- Recognize Costs may be more expensive in the short run

## LEGAL AUTHORITIES

Legal Authorities Exist but Improvements Are Needed

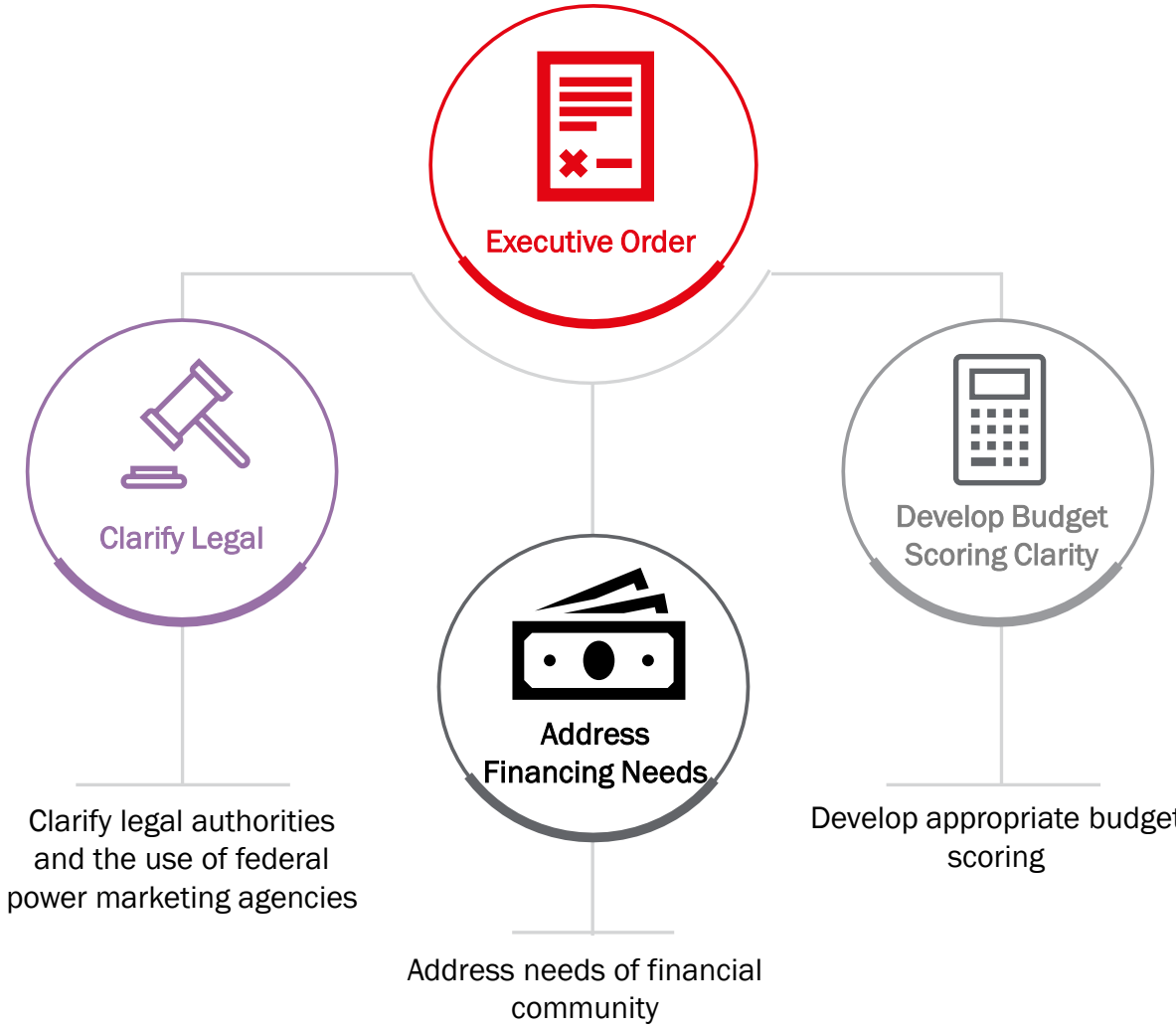
- Longer term PPAs (DOD has 30 year authority – Provide same or longer authority to GSA and DOE – proposals have been up to 40 years)
- Use Existing Authorities Now

## FINANCIAL INCENTIVES

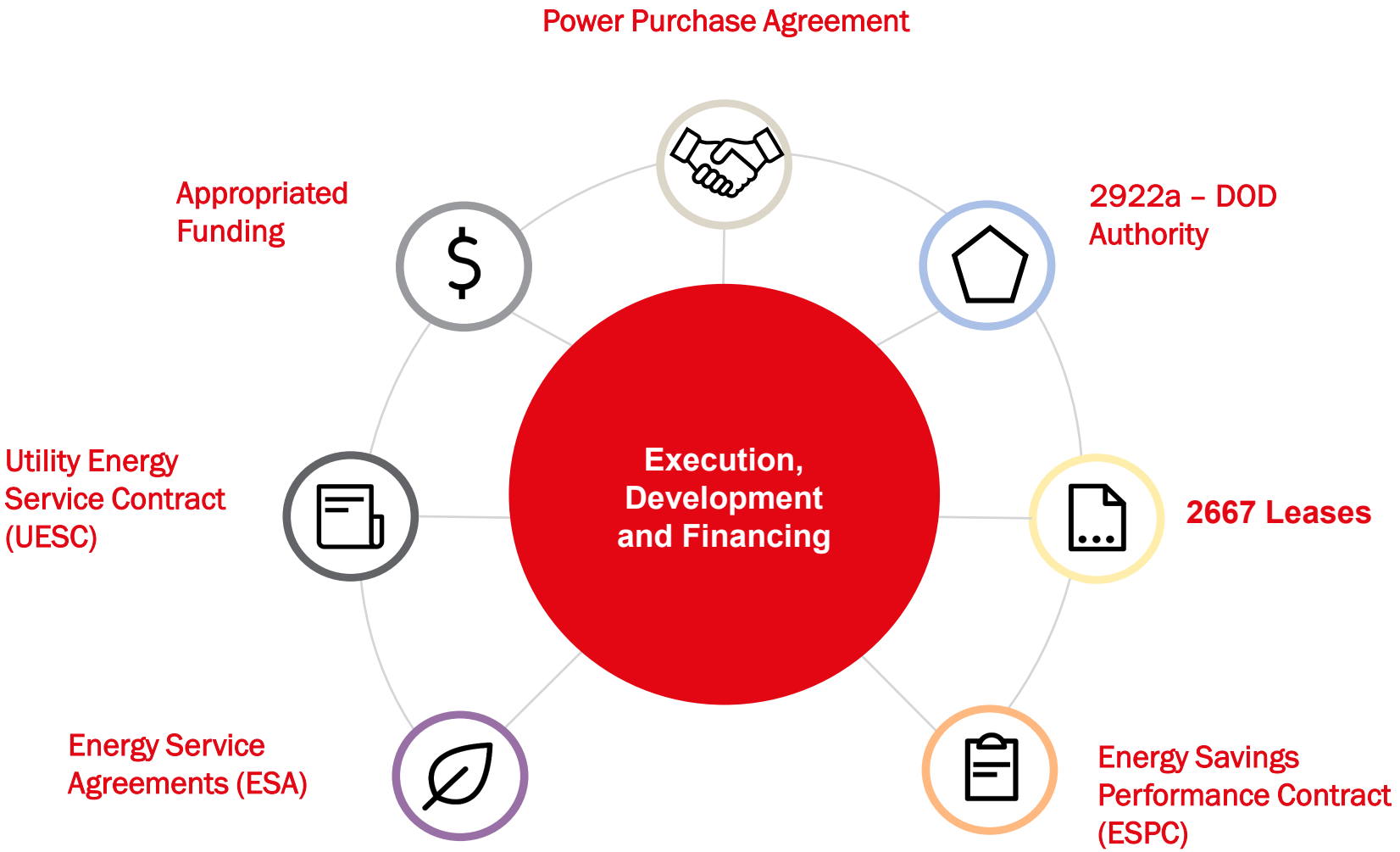
All power sources in the US have incentives – focus the incentives on the goals

- Tax Credits and other incentives (ITC, PTC, Accelerated Depreciation) have worked well in the energy market

# Empower Agencies Through Executive Order



# Key Challenges for Each Authority Option




Don't forget WAPA and Power Marketing Authorities

# Recommended improvements to legal authority

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01

Empower GSA and DOE to authorize agreements for up to 40 years

02

Enable current authorities to execute virtual PPAs

03

Enable all Federal agencies to authorize PPAs

# Background
# Federal Agency Contracting Options

- **Appropriated Funding –** Pay for it upfront
- **Power Purchase Agreements – GSA Authority** (40 U.S.C. 501 / FAR Part 41) -- Up to 10 years
- **2922a - DOD Authority –** (10 U.S.C. 2922a) – Up to 30 years
- **"2667 Leases" –** (10 U.S.C. 2667)
- **Energy Savings Performance Contract (ESPC) –** (42 U.S.C. 8287)
  - Contracts for the sole purpose of achieving energy savings and benefits ancillary to that purpose. Period not to exceed 25 years.
- **Energy Service Agreements (ESA)**
  - ESPCs can incorporate the purchase of on-site renewable energy, if the result is lower energy consumption and costs. ESPCs with an ESA, requires Office of Management and Budget (OMB) review as per Aug 16, 2011 memo.
- **Utility Energy Service Contract (UESC) –** (42 U.S.C. 8256 and 10 U.S.C. 2913)
  - DoD may enter into UESCs for up to 25 years.
- **Utility Conveyance/Privatization –** (10 U.S.C. 2688)
  - Enables a Secretary of a military department to convey a utility system, or part of a utility system, under the jurisdiction of the Secretary to a municipal, private, regional, district, or cooperative utility company or other entity. (up to 50 years).
- **WAPA –** Several authorities including using Section 9(c) of the Reclamation Project Act of 1939 (43 U.S.C. § 485h(c)) (Reclamation Act) and the Economy Act. Long-term contracts up to 40 years.
- Other - (10 USC 2916, 10 USC 2917, 10 USC 2662, 40 USC 591, DoD Instruction 4170.11, DoDI 4165.70, etc.)

# Questions?

# Closing Remarks Day – Day 1

- Thank you for attending!
- Thank you to our presenters!
- Use same link for FUPWG Day 2
- ELCOF – Feds only from 9-10:30am

  Separate Registration
- See you all tomorrow at 11am for FUPWG Virtual Day 2!
- UESC Overview Training – Part 1 is next!

# Closing Remarks – FUPWG Day 1

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U.S. DEPARTMENT OF ENERGY

Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

# Utility Energy Service Contract (UESC) Overview | Day 1

May 3, 2022 | 3:05 – 3:55 PM (EDT) | Federal Utility Partnership Working Group


FEMP Federal Energy Management Program

# Instructor Introductions

## Jeff Gingrich

Project Manager
Accelerated Deployment & Decision Support Center
National Renewable Energy Lab

## Russ Dominy

Performance Contracting Advisor
Former Navy Contracting Officer
Boston Government Services

FEMP Federal Energy Management Program | NREL NATIONAL RENEWABLE ENERGY LABORATORY

# FEMP Utility Team


**Tracy Niro | DOE/FEMP Program Lead**
Tracy.Niro@ee.doe.gov

Chandra Shah | Chandra.Shah@nrel.gov
Deb Vásquez | Deb.Vasquez@nrel.gov
Jeff Gingrich | Jeffrey.Gingrich@nrel.gov
Katy Christiansen | Katy.Christiansen@nrel.gov
Philip Voss | Philip.Voss@nrel.gov
John Myhre | john.myhre@nrel.gov
Matt Joyner | matthew.joyner@nrel.gov

Eda Giray | eda.giray@nrel.gov
Elisabeth McClure | elisabeth.mcclure@ee.doe.gov
Brian Boyd | brian.boyd@pnnl.gov
Christine Walker | walkerce@ornl.gov
Phil Coleman | pecoleman@lbl.gov
Matt Roney | mroney@bgs-llc.com
Susan Courtney | scourtney@bgs-llc.com

Not sure who to reach out to?
Contact us via the FEMP Assistance Request Portal and we'll connect you with the right folks: https://www7.eere.energy.gov/femp/assistance/




# What are IACET-Certified CEUs?

## What is a CEU?

According to the International Association for Continuing Education and Training (IACET), a CEU is a unit of credit equal to 10 hours of participation (contact hours) in an accredited program designed for professionals with certificates or licenses to practice various professions (e.g., engineers, lawyers, accountants, educators, nurses, architects, mental health professionals, and social workers). The CEU provides a standard unit of measurement for continuing education and training, quantifies continuing education and training activities, and accommodates for the diversity of providers, activities, and purposes in adult education.

## What is the IACET?

The IACET offers the most industry-wide accreditation of official continuing education units (CEU). IACET worked with the U.S. Department of Education to create and define the CEU in 1970. The Federal Energy Management Program (FEMP) is an authorized provider of CEUs under the ANSI/IACET 1-2018 Standard.  IACET Course Accreditation is an industry-recognized training quality control system; FEMP is utilizing this system to ensure our trainings meet the highest standards for professional development.

## How do I earn CEUs for a training I've taken?

When you take a FEMP IACET-certified training, you will be provided with a link to the assessment and evaluation for the training completed. To earn CEUs, attendees must score 80% or higher on the assessment and complete the course evaluation.

# Benefits of Having a WBDG Account

**The National Institute of Building Sciences' (NIBS) Whole Building Design Guide (WBDG) hosts the FEMP training program's learning management system (LMS).**

**The NIBS WBDG LMS:**

- Allows for taking multiple trainings from multiple organizations through one platform
- Houses the assessments and evaluations for all accredited courses
- Allows you to:
  - Track all of your trainings in one place
  - Download your training certificates of completion
- Eases the CEU-achievement process
- **Log into the WBDG LMS by choosing a course at** https://www.wbdg.org/continuing-education/femp-courses

# To Receive IACET-Certified CEUs

- **Attend the training in full–no exceptions**
- **Within six weeks of the training:**
  - Complete the assessment (a minimum score of 80% is required)
  - Complete an evaluation of the training

## Access the UESC Training Assessment and Evaluation

*Click here to view WBDG's FEMP Course Catalog*

*For logistical questions related to the webinar or evaluation, email Elena Meehan at elena.meehan@ee.doe.gov.*

# Training Agenda - Day 1

- Overview: What is a UESC?
- Authorizing Legislation and Federal Requirements
- Contracting: Areawide Contracts and BOAs
- Resources and Q&A

# Why Do Federal Agencies Choose UESCs?

## UESCs enable agencies to leverage financing to meet energy- and water-related goals and requirements, including:

- Statutory requirements and executive orders
- Agency-specific energy program priorities
- Site requirements and facility needs
- Opportunities identified by facility and energy audits

**Federal Energy Management Laws and Requirements**

www.energy.gov/eere/femp/federal-energy-management-laws-and-requirements

# New Federal Goals and Requirements

## Energy Act 2020:

- Requirements related to implementation of lifecycle cost effective (LCE) energy and water conservation measures identified in facility audits (use of performance contracting to address at least 50% of LCE measures identified)

## EO 14057: Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability

- Net-zero emissions from overall federal operations by 2050
- 100% carbon pollution-free electricity (CFE) by 2030, including 50 percent 24/7 CFE
- 100% zero-emission vehicle (ZEV) acquisitions by 2035, including 100% zero-emission light-duty vehicle acquisitions by 2027;
- A net-zero emissions building portfolio by 2045, including a 50% emissions reduction by 2032; and
- A 65% reduction in scope 1 and 2 GHG emissions by 2030 from 2008 levels;

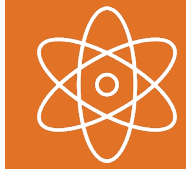
## EO 14008: Tackling the Climate Crisis at Home and Abroad

- Use the power of procurement to increase the energy and water efficiency of installations, buildings, and facilities and ensure they are climate-ready

# FEMP Performance Contracting Impact

**Since 1998, performance contracts have helped agencies reduce costs, energy intensity, and GHG emissions of their facilities.**

**Over $11.45 billion in project investments awarded**
**(DOE ESPC IDIQ, ESPC ENABLE, UESC)**



**ENERGY**

Estimated over
**41.9 trillion BTU**
reduced annually

**ECONOMIC**

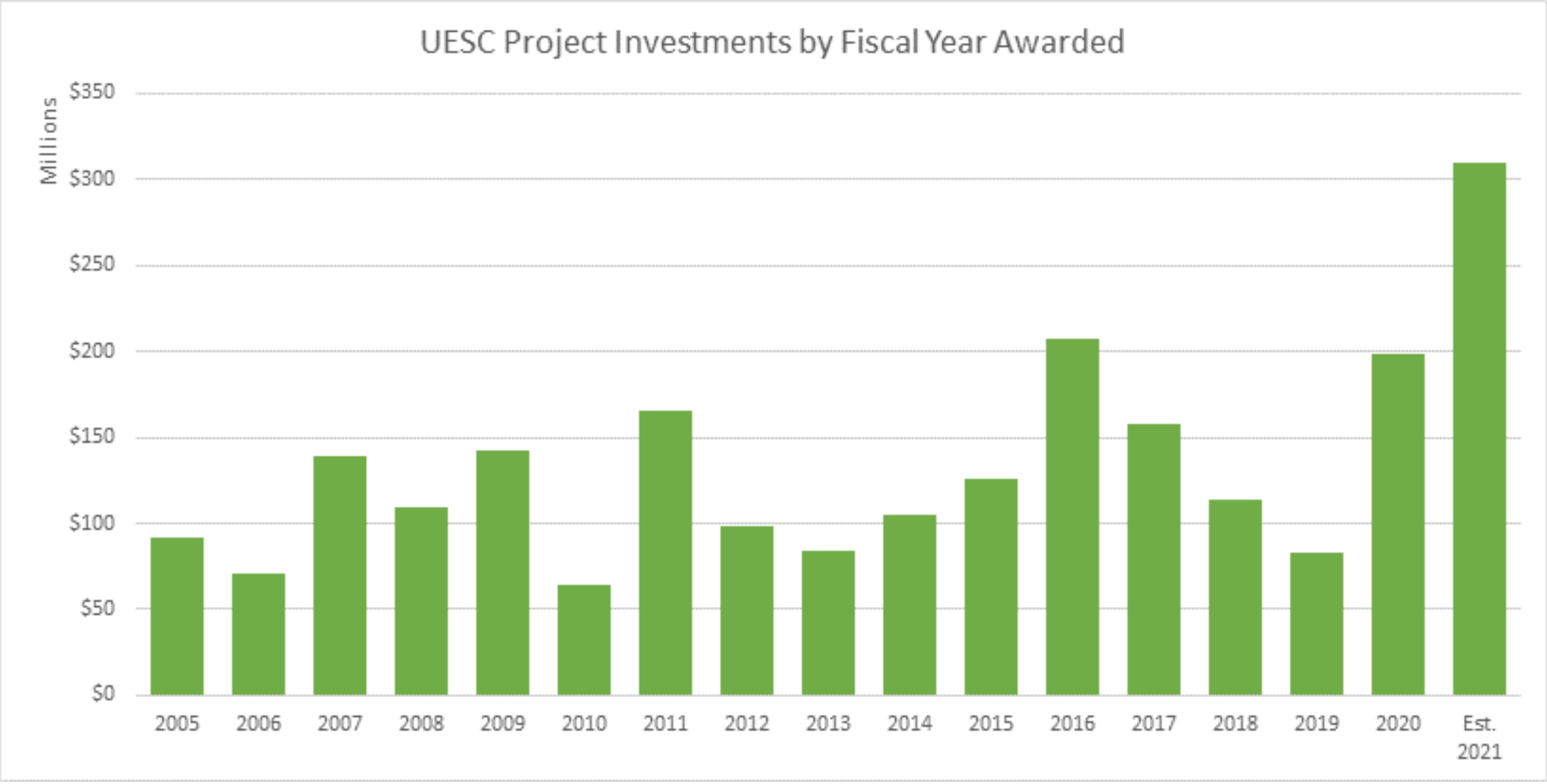
Estimated over
**91,600 job-years**
(direct jobs)

**ENVIRONMENTAL**

Estimated over
**2.8 million metric tons $CO_2e$***
reduced annually

*Using eGrid 2019 values, inclusive of awarded projects through FY2021

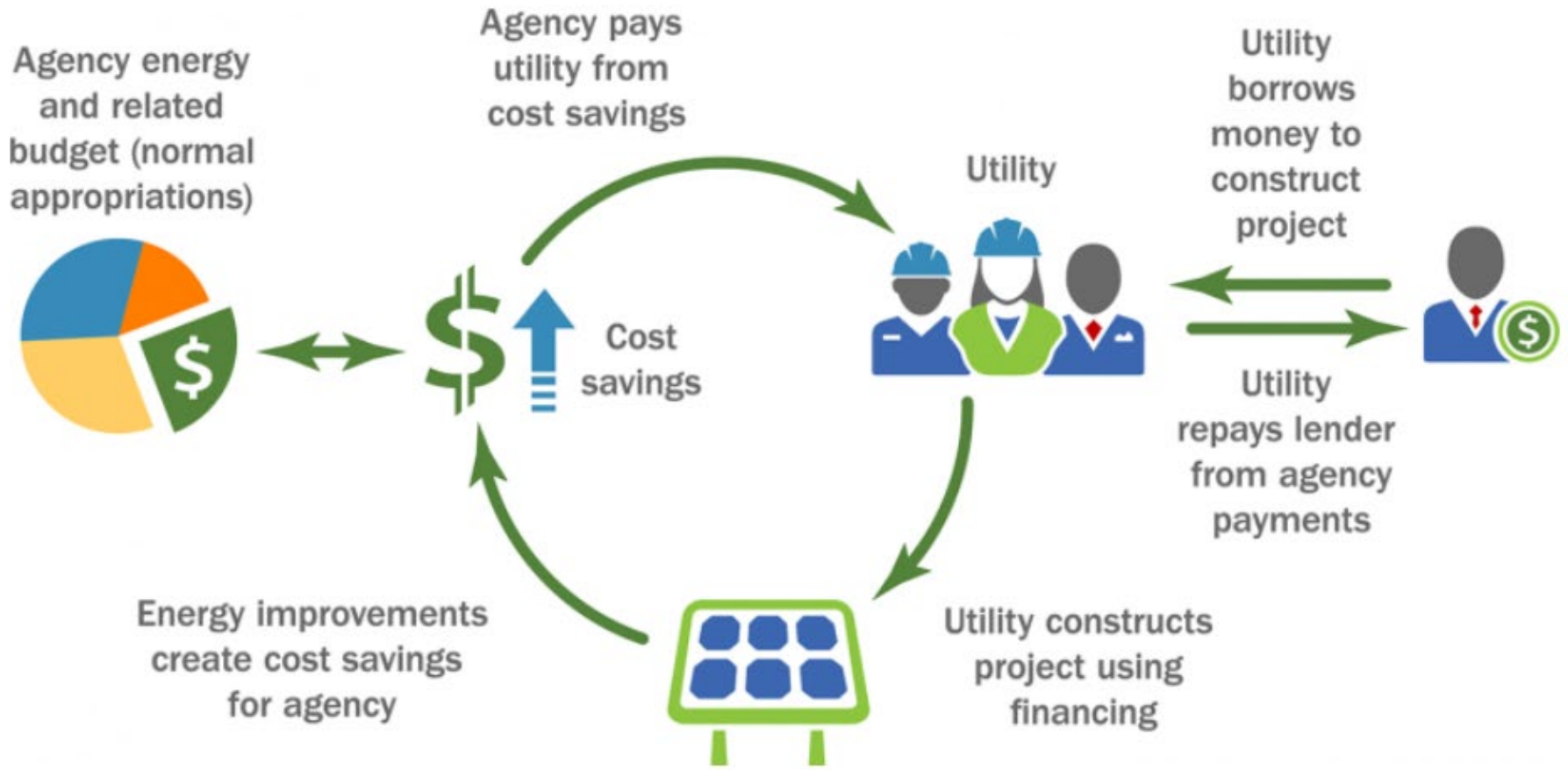
# UESC Investment



# UESC Overview: What is a UESC?

# What is a UESC?

A contract that allows agencies to do energy projects with no up-front costs and no additional appropriations from Congress.



# What is a UESC? (continued)

**A limited-source acquisition between a federal agency and serving utility for energy management services, including:**

- Energy efficiency improvements
- Water efficiency improvements
- Demand reduction services
- Distributed Energy

- **Authorized and encouraged by 42 U.S.C. § 8256 and 10 U.S.C. § 2913**
  - "[Agencies] may accept any financial incentive, goods, or services generally available from any such utility…"*
  - "[Agencies are] encouraged to enter into negotiations with electric, water, and gas utilities to design cost-effective demand management and conservation incentive programs to address the unique needs of facilities utilized by such agency."**

# Key Features of the Contract

## Objective: Achieve energy savings & related benefits

- Project financing obtained by utility and paid through energy savings and/or available agency funds
- Energy Conservation Measures (ECMs) must produce measurable energy, water, or demand reduction
- Max contract term is 25 years (starting with contract award)
- Contracts are firm-fixed-price
- Multiple sites/facilities may be included in a single task order
- Performance Assurance Plan is required - may include O&M, repair & replacement
- No project size restrictions

# Eligible Utility Contractors

**Eligible utilities are local serving distribution utilities that maintain infrastructure (poles, wires, pipes) for distribution of electricity, natural gas, or water in a specific geographic area**

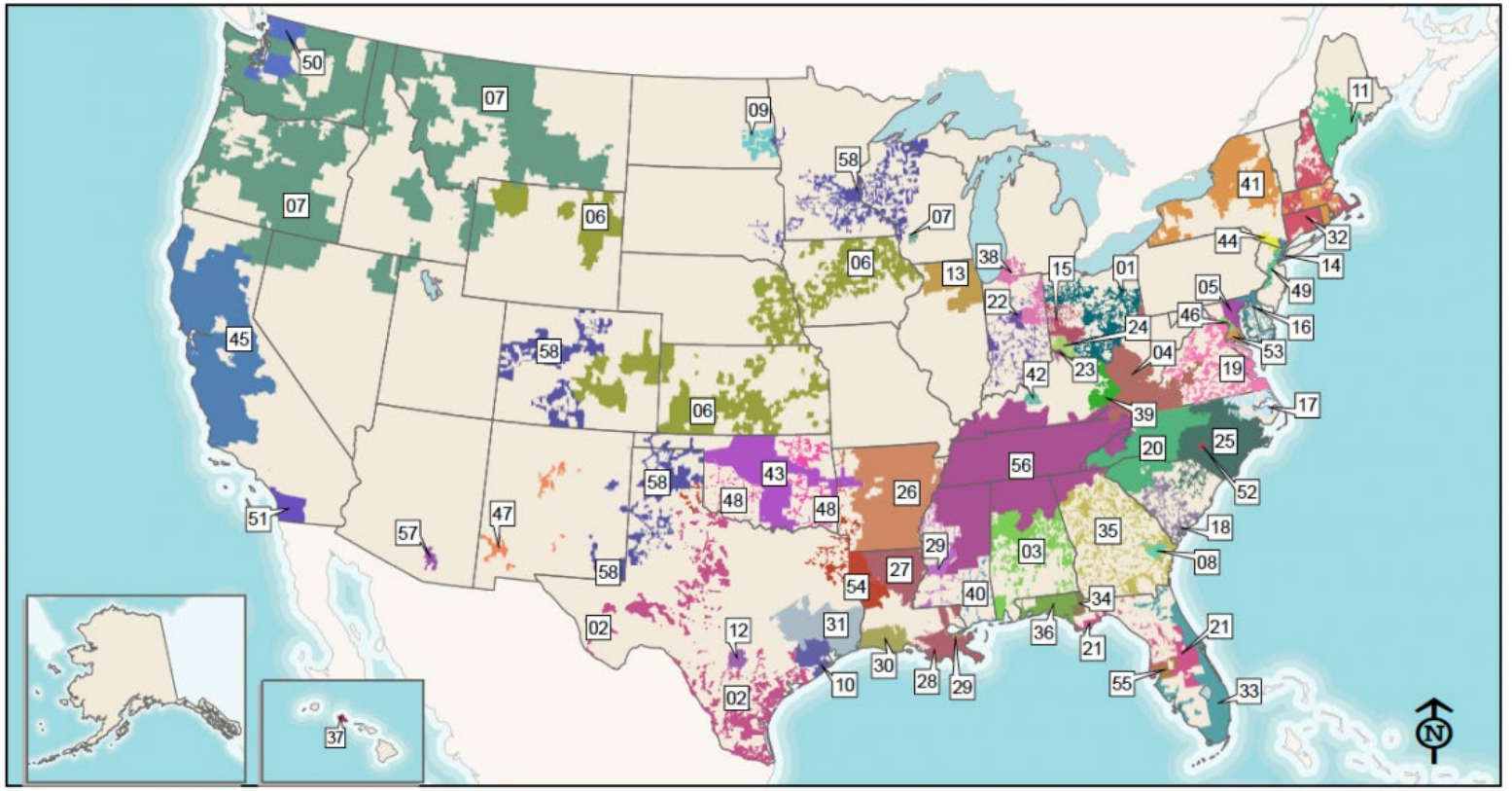
- Agency site must be located within utility franchise service territory
  - Geographical area that utility has a right and obligation to serve based on a franchise, a certificate of public convenience and necessity, or other legal means
- Utility must be subject to regulatory oversight from governing authority such as a public utility commission
- Water utilities do not generally offer UESCs; however, they may have incentives and should be considered

Investor-Owned | Rural Coops | Municipal | Federal (TVA)

# Utilities Offering UESCs

**Visit the [FEMP Utility Program Partners] website for a list of utilities currently offering UESCs to their federal customers.**

- Help FEMP keep this information up to date!
- If your utility is not listed on the website, reach out for support in approaching your utility about offering a UESC program



Source: Ventyx Data ©2012 Ventyx

**Companies with UESCs**

01. AEP Ohio
02. AEP Texas
03. Alabama Power Co
04. Appalachian Power
05. Baltimore Gas & Electric Co
06. Black Hills Electric
07. Bonneville Power Administration
08. Canoochee EMC
09. Cass County Electric Coop
10. CenterPoint Energy
11. Central Maine Power Co
12. City Public Service Energy
13. Commonwealth Edison Co
14. Consolidated Edison New York
15. Dayton Light & Power Co
16. Delmarva Power & Light Co
17. Dominion Energy N. Carolina
18. Dominion Energy South Carolina*
19. Dominion Energy Virginia
20. Duke Energy Carolinas
21. Duke Energy Florida
22. Duke Energy Indiana
23. Duke Energy Kentucky
24. Duke Energy Ohio
25. Duke Energy Progress
26. Entergy Arkansas
27. Entergy Gulf States Louisiana
28. Entergy Louisiana
29. Entergy Mississippi
30. Entergy New Orleans
31. Entergy Texas
32. Eversource Energy
33. Florida Power & Light Co
34. Florida Public Utilities
35. Georgia Power Co
36. Gulf Power Co
37. Hawaiian Electric Co, Inc
38. Indiana Michigan Power
39. Kentucky Power
40. Mississippi Power Co
41. National Grid
42. Nolin Rural Electric Coop
43. Oklahoma Gas & Electric Co
44. Orange & Rockland Utilities
45. Pacific Gas & Electric Co
46. Potomac Electric Power Co
47. Public Service Co of New Mexico
48. Public Service Co of Oklahoma
49. Public Service Electric & Gas Co
50. Puget Sound Energy
51. San Diego Gas & Electric
52. Sandhills Utility Services, LLC
53. Southern Maryland Electric Coop
54. Southwestern Electric Power Co
55. Tampa Electric
56. Tennessee Valley Authority
57. Tucson Electric Power
58. Xcel Energy*

*** = Incentives Only**

1 in = 379 miles

0 205 410 820 Miles

This map was produced by the National Renewable Energy Laboratory for the Department of Energy. October 2019.

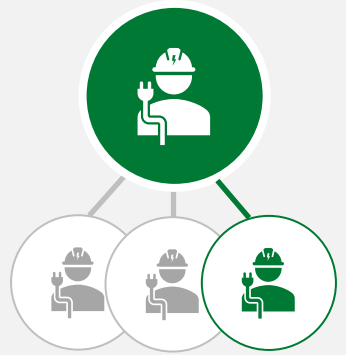
NREL
NATIONAL RENEWABLE ENERGY LABORATORY

# Utility Responsibilities and Implementation Approach

## Utility may self-perform or assign implementation responsibilities to an ESCO.

**Responsibilities:**

- Analysis and assessments (PA, IGA, etc.)
- Engineering and design
- Performance Assurance Plan development
- Competitive subcontractor selection
- Attaining financing (as needed)
- Project management and construction
- Performance period services (as assigned in the TO)



### ESCO Subcontracting

- One ESCO per project
- Utility is always the prime contractor and should remain actively engaged as the project manager
- ESCOs should be competitively selected

# Energy Conservation Measures (ECMs)

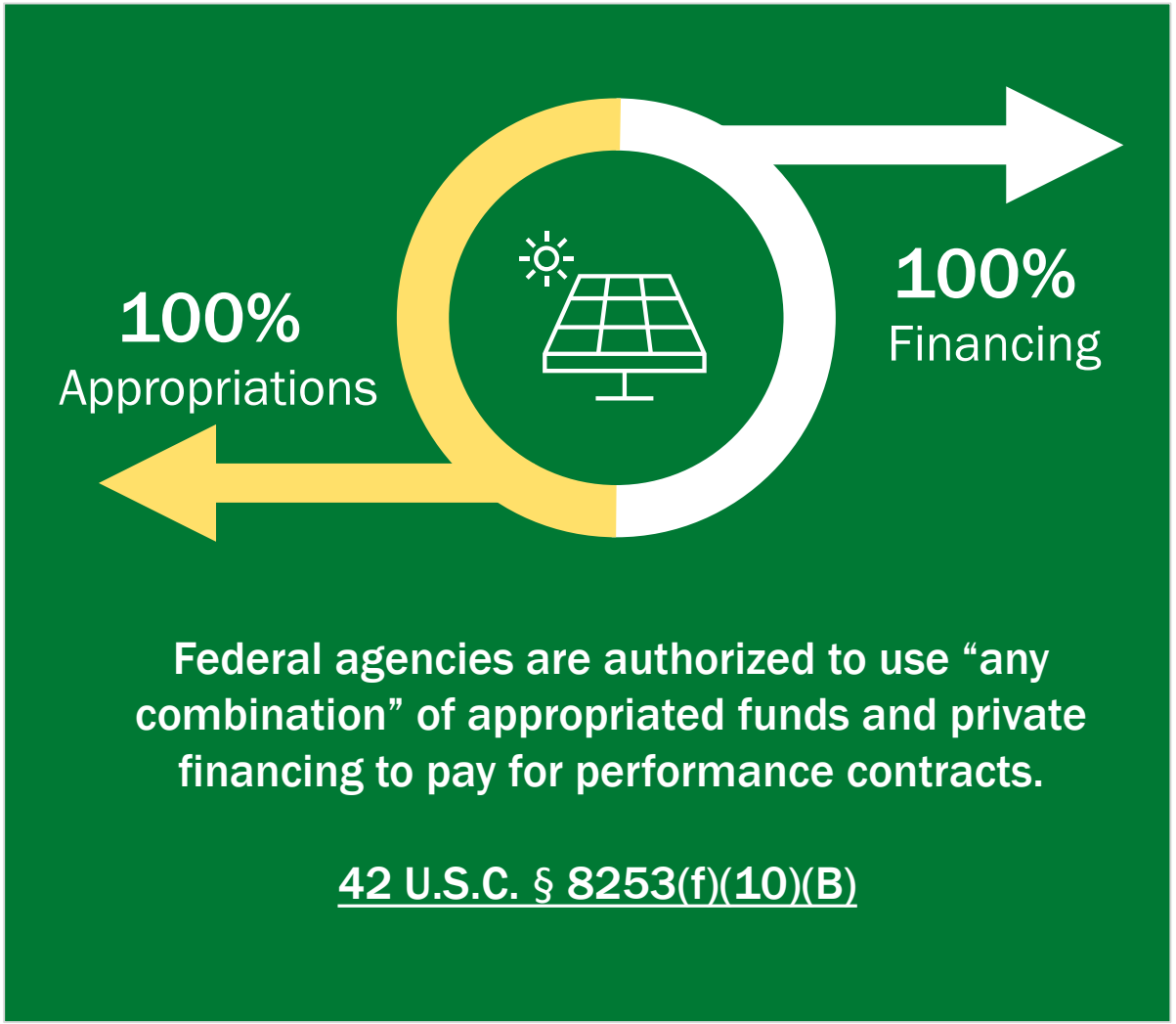
## ECMs must produce measurable energy, water, or demand reduction.

- Boiler and chiller upgrades
- Energy management control systems
- Commissioning/Retro-commissioning
- Building envelope
- HVAC
- Chilled/hot water, steam distribution
- Lighting and lighting control improvements
- Electric motors/drives
- Refrigeration
- Renewable Energy Systems
- Water and wastewater
- Electrical peak shaving/load shifting
- Rate adjustments
- Appliance/plug load reductions
- Energy consuming devices and support structures






# UESC Project Funding




**Capital contributions and cost offsets can be combined with financing to maximize project investment and impact:**

- Pay for project facilitator costs and investment grade audit
- Buy-down contract to shorten term
- Fund ECMs with long payback terms (>25 years)

**Capital contributions or cost offsets:**

- Appropriations
- Grants – FEMP AFFECT, state, etc.
- Rebates/other incentives
- Renewable energy credit (REC) sales/swaps

# Allowable Savings

## Energy and water cost savings

- Efficiency improvements, reduced usage, demand reduction, load management, load shifting, fuel switching, on-site generation, water/wastewater efficiency

## Energy- and water-related cost savings

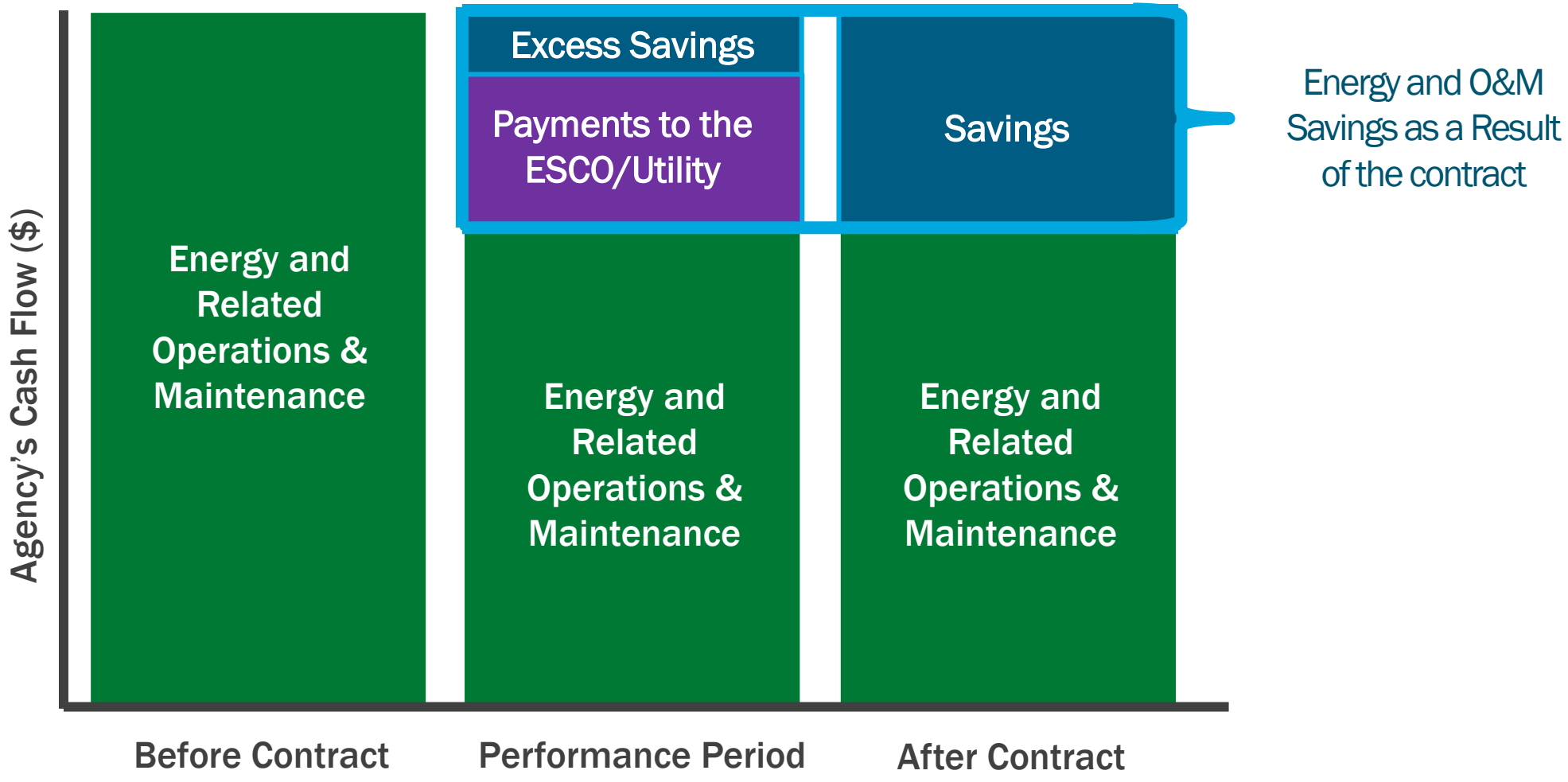
- Reduced O&M costs – contracts, materials

## Avoided costs

- Avoided/obviated equipment replacement

# UESCs Enable Budget-Neutral Solutions

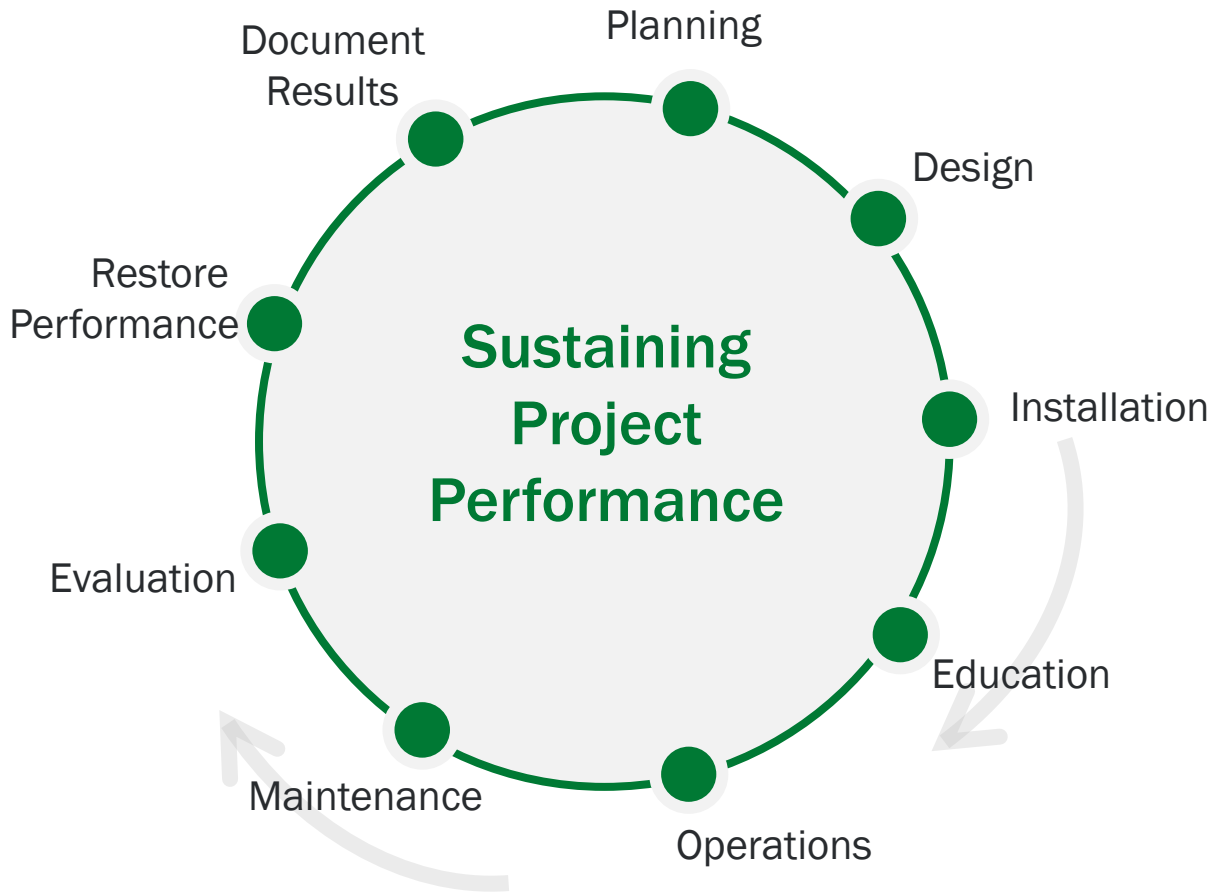
**Stop paying for wasted energy and carbon emissions |**
**Start paying for efficiency, resilience and low/no carbon solutions**



# Success = Sustained Performance

**Successful performance contracts sustain ECM performance and savings long into the future through**

- Performance Assurance Plans
- M&V Protocol
- Recommissioning/monitoring-based commissioning
- Operations and Maintenance
- Annual reporting and documentation



# Requirements Related to Performance Assurance

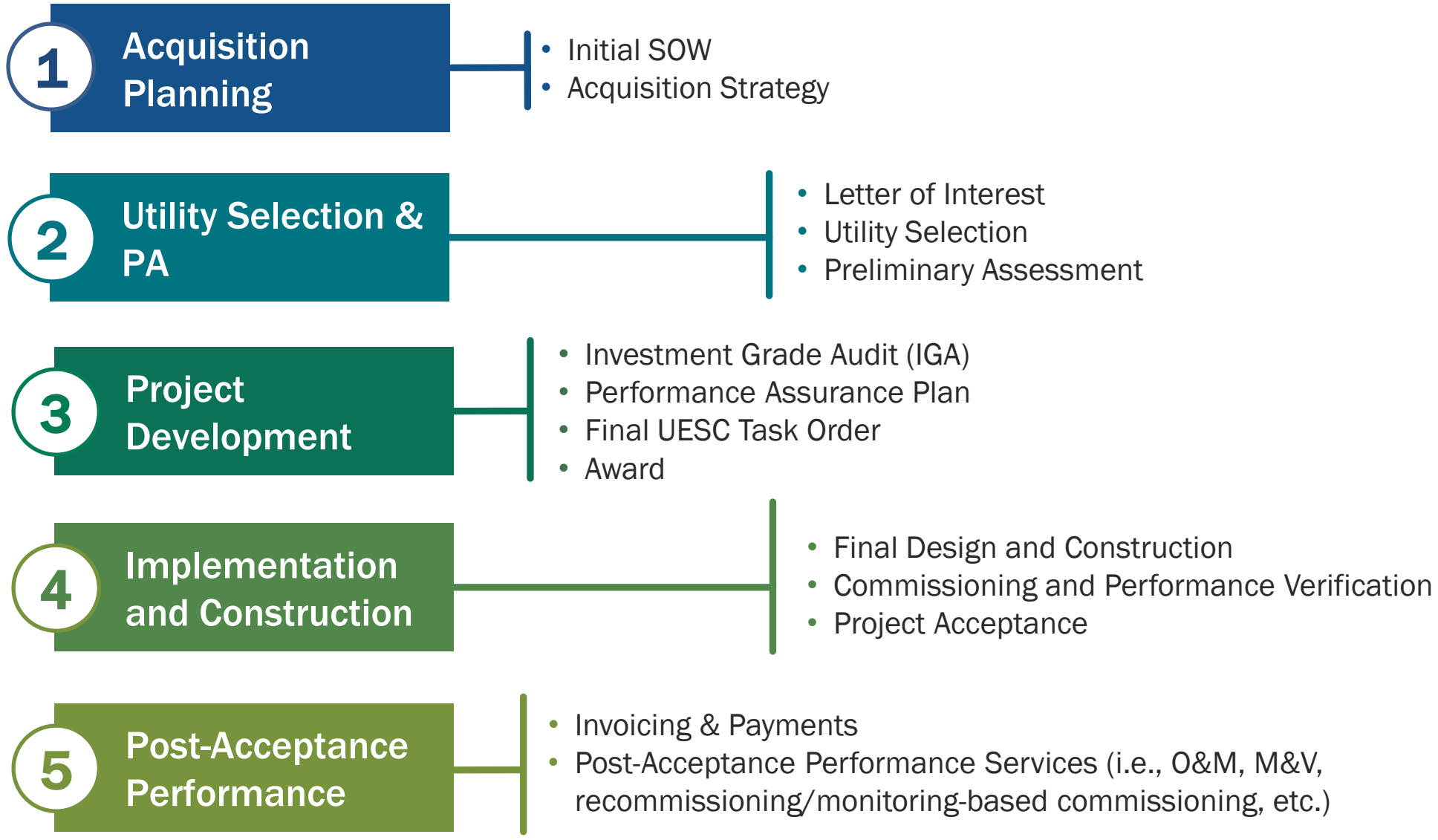
## OMB Memo 12-21 (Sep. 2012) annual scoring requirements

- Establishes requirement for performance assurance plans, including verification of ECM performance and savings

## 42 U.S.C. § 8253(f)(5) Follow Up on Implemented Measures

- For each measure implemented, ensure that:
  - A. Equipment and controls are fully commissioned at acceptance to be operating at design specifications
  - B. A plan for appropriate operations, maintenance, and repair of the equipment is in place at acceptance and is followed
  - C. Equipment and system performance is measured during its entire life to ensure proper operations, maintenance, and repair
  - D. Energy and water savings are measured and verified

# UESC Development and Implementation Milestones

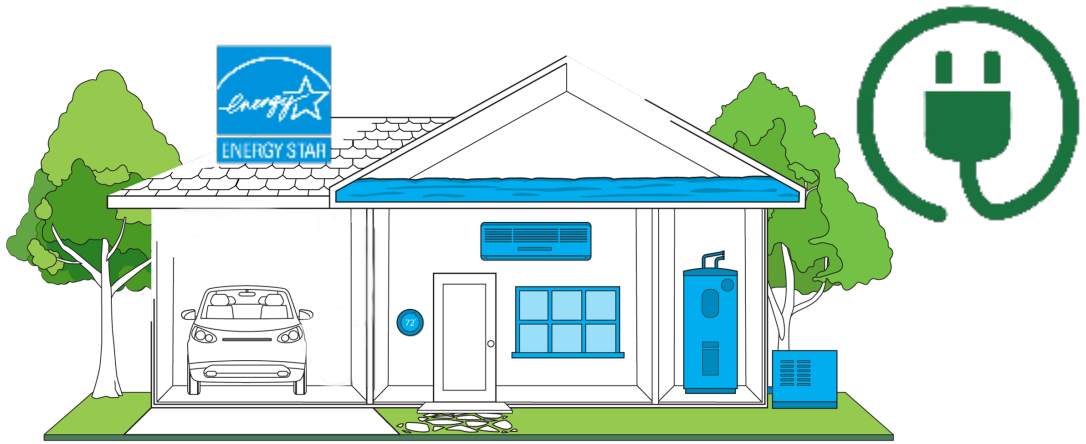


# Pursuing Decarbonization Through UESCs

## Strategy is unique to each site

- Primarily a function of on-site fossil fuel use (Scope 1)
- Influenced by serving utility's current and future generation mix (Scope 2)

Baseline Load




Optimized Load

### Step One: Deep energy efficiency and load reduction.

- Lighting, boilers, chillers, and load reduction
- When replacing inefficient fossil fuel-based equipment, begin with load reduction, then electrification and demand flexibility
- Avoid new long-lived fossil fuel burning equipment (boiler, etc.) when possible

### Step Two: Electrification (electric vehicles, heat pumps).

- Reduces emissions in most locations
- Largest reductions where current/future utility carbon emissions are relatively low

### Step Three: On-site carbon free energy generation / storage.

- Largest emissions reduction where current/future utility carbon emissions are relatively high

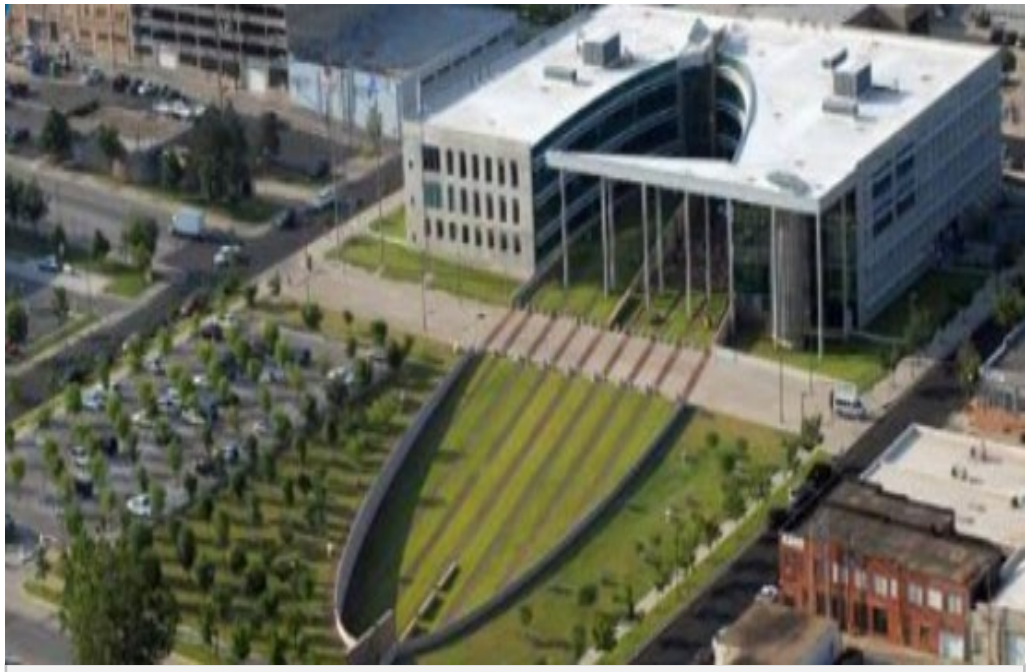
# Project Successes: GSA Region 7 Oklahoma (2020)

## UESC Quick Facts:

- **Location:** Five buildings in Oklahoma City and Edmonson, OK
- **Contractor:** Oklahoma Gas and Electric Company (OG&E)
- **Contract Term:** 24.5 years
- **Investment Value:** $8.9 million
- **Avoided Cost:** $412,000 per year
- **GHG Reduction:** 3,100 metric tons/yr.

## Energy Conservation Measures:

- LED lighting retrofits and lighting controls
- Building automation system (BAS) optimization
- Advanced metering system integration
- Microgrid controller
- Rooftop solar photovoltaic (PV) system
- High efficiency transformers
- Smart irrigation



*Awarded in September 2020, this UESC is expected to result in a 41% drop in energy use across the five buildings, as well as a 13% cut in water use. The project was designed with grid-interactive efficient building strategies as a priority.*

*Read the GSA News Release*

# UESC Authorizing Legislation

# UESC Legislation and Regulation

## UESCs are authorized and encouraged by:

- **42 U.S.C. § 8256(c), Utility Incentive Programs (all federal agencies)**
  - Energy Policy Act of 1992
  - Authorizes and encourages agencies to participate in utility incentive programs and accept any financial incentive, goods, or services generally available

- **Federal Acquisition Regulations Part 41: Acquisition of Utility Services**
  - Authorizes GSA to establish Areawide Contracts (AWCs) to be used by agencies to procure utility services within a utility's monopoly service territory

# Regulations and Requirements Related to UESCs

- **42 U.S.C. § 8253 Energy and Water Management Requirements**
  - Establishes annual requirements for evaluation and recommissioning or retro-commissioning of 25% of agency facilities
  - *EA 2020 Update* – Within 2 years of date of completion of each evaluation, energy manager shall implement measures determined to be life cycle cost effective
  - *EA 2020 Update* – Each agency shall use performance contracting to address at least 50% of the measures identified
- **42 U.S.C. § 8253(f)(5) Follow-up on Implemented Measures**
  - Establishes requirements to ensure equipment is fully commissioned, performance is measured and verified, and plans for appropriate O&M and ongoing performance verification are in place
- **OMB Memo 12-21 (Sep. 2012) annual scoring requirements**
  - Establishes requirement for energy savings performance assurances
  - Requires measurement and verification of savings through commissioning (Cx) and retrocommissioning (RCx); does not address how long M&V is required or how often a project is to be recommissioned

# UESC Regulations and Requirements for DOD

- 10 U.S.C. § 2913 Energy Savings Contracts and Activities (DOD)
  - National Defense Authorization Act of 2007
  - Permits and encourages DOD agencies to participate in utility incentive programs and accept any financial incentive, goods, or services to adopt technologies and practices that support DOD energy performance goals
  - Encourages agencies to pursue energy resilience projects in addition to energy conservation (National Defense Authorization Act Amendment FY19)
- DOD Memorandum on ESPC and UESC (Nov. 20, 2018)
  - Provides the nexus to the national defense strategy, installation energy plans, energy resilience, and cybersecurity
  - Requires resourcing of post-award contract management, maintenance, repair, and replacement (MR&R) by the utility, and requisite reporting
- DOD Memo (Apr. 2020) – Oversight of Third Party Financed Energy Projects
  - Establishes requirements for post-award oversight, including Quality Assurance Surveillance Plans, Performance and Post-Installation Reports, etc.

# Contract Term

## UESCs may have terms not to exceed 25 years in accordance with:

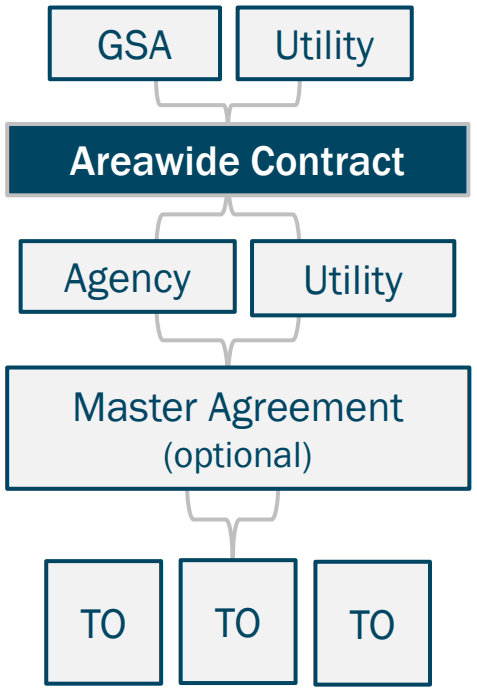
- GSA legal opinion, "Authority for Extended Utility Agreements," May 2000
- Defense Federal Acquisition Regulation Supplement (DFARS), Part 241.103(2), Acquisition of Utility Services, revised May 2016

*"Authorizations may be executed under this Areawide Contract at any time during the Term of this Areawide Contract, up to and including the last date this Areawide Contract is effective. The Term of any Authorization executed under this contract may be for a term of up to ten (10) years, which term may extend beyond the Term of this Areawide Contract. Authorizations executed pursuant to the authority under 42. U.S.C. Section 8256 may be for a term of up to 25 years, as long as the other requirements of this Section are met, and the term may extend beyond the Term of the Areawide Contract. Termination, modification or expiration of the Areawide Contract shall not affect in any way Authorizations previously entered into under this Areawide Contract."*

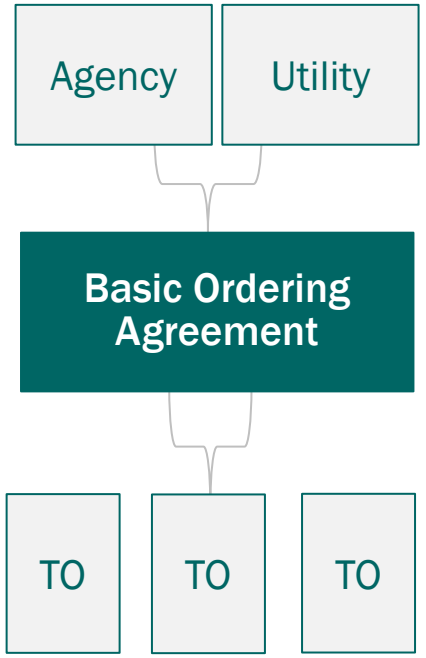
# Contracting Overview

# UESC Contracting Options

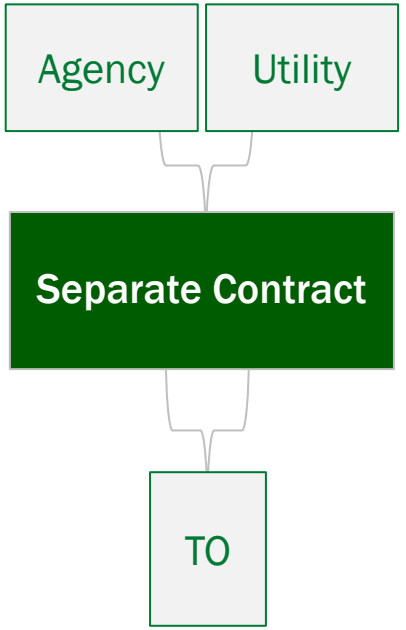
## GSA Areawide Contract




## Basic Ordering Agreement




## Separate Contract



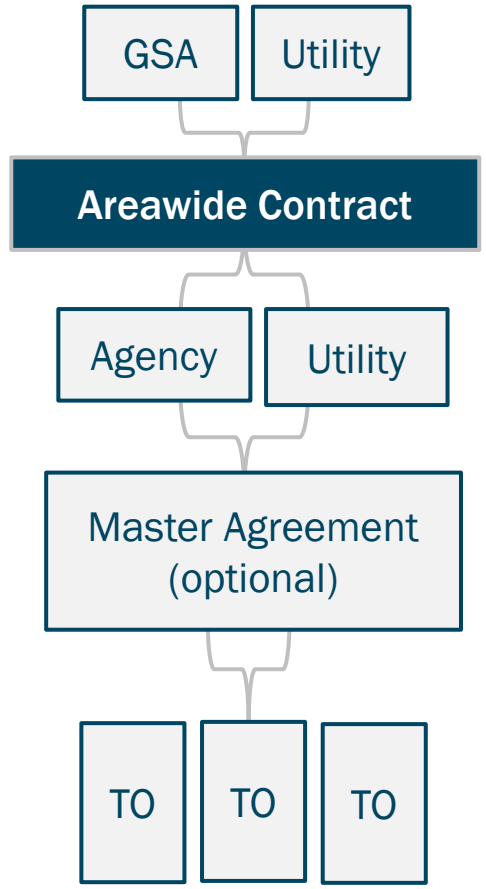

TO = Task Order

*FAR Part 41.204 GSA Areawide Contracts*
*FAR Part 41.205 Separate Contract*
*FAR Part 16.703 Basic Ordering Agreement*

# GSA Areawide Contract (AWC)

**FAR Part 41 authorizes GSA to establish AWCs to be used by all federal agencies to procure utility service within the utility's franchised service territory.**

- AWC is bilaterally signed by GSA and utility
- FAR requires agency use of AWC unless head contracting authority determines otherwise
- Agency places UESC TOs under the AWC using the Authorization for Energy Management Service
- Article 18 defines terms and conditions for UESCs
  - Agencies may supplement the AWC with agency-specific terms and conditions
- Visit the GSA Website to view and download AWCs




Federal Acquisition Regulations Part 41: Acquisition of Utility Services

# GSA AWC Authorizations

*Each AWC has certain Exhibits that apply for the specific utility:*

## Authorization for Electric Service

Nature of Service

- ❑ Connect
- ❑ Change
- ❑ DSM Work
- ❑ Line Extension, Alteration, Relocation or Reinforcement
- ❑ Special Facilities

Examples: EV Infrastructure, Advanced Meters

## Authorization for Natural Gas Service

Nature of Service

- ❑ Connect
- ❑ Change
- ❑ Continue service
- ❑ Line Extension, Alteration, Relocation or Reinforcement
- ❑ Transportation
- ❑ Billing & Ancillary Services

Example: Installation of gas line

## Authorization for Energy Management Services (EMSA)

Nature of Service

- ❑ Preliminary Energy Audit
- ❑ Investment Grade Audit
- ❑ Engineering & Design Study
- ❑ Energy Conservation Project Installation
- ❑ Demand Side Management Project

Examples: Lighting and Chiller Retrofits, Recommissioning, HVAC

## Authorization for Provisions of Services Under (insert appropriate Regulatory Authority)

Nature of Service

- ❑ _____ Interconnection of the Ordering Agency's renewable energy project

Examples: Interconnection of PV System

# AWC: Authorization for Energy Management Service (EMSA)

## The EMSA is a bilateral agreement between the agency customer and the utility for energy management services associated with each UESC phase.

- Agency and utility agree upon the scope, deliverables, and cost for each service
- Agency attaches accompanying TO related to the Nature of Service (when applicable)
- If an agency wishes to combine UESC services within a single EMSA, the CO should notify GSA (energy@gsa.gov)
- Copies of all agreements should be sent to GSA (energy@gsa.gov)

### Nature of Service under an EMSA

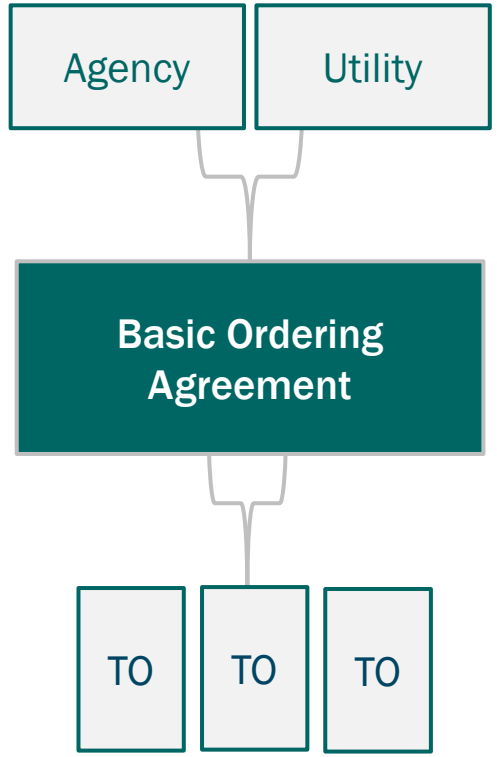
- ❑ Preliminary Energy Audit / Preliminary Assessment)
- ❑ Comprehensive Energy Audit / Investment Grade Audit
- ❑ EMS Engineering & Design
- ❑ EMS Installation
- ❑ Demand Side Management Project

EMS = Energy Management Service

# Basic Ordering Agreement (BOA)

## In the absence of an AWC, a BOA is an effective contracting vehicle for executing UESCs:

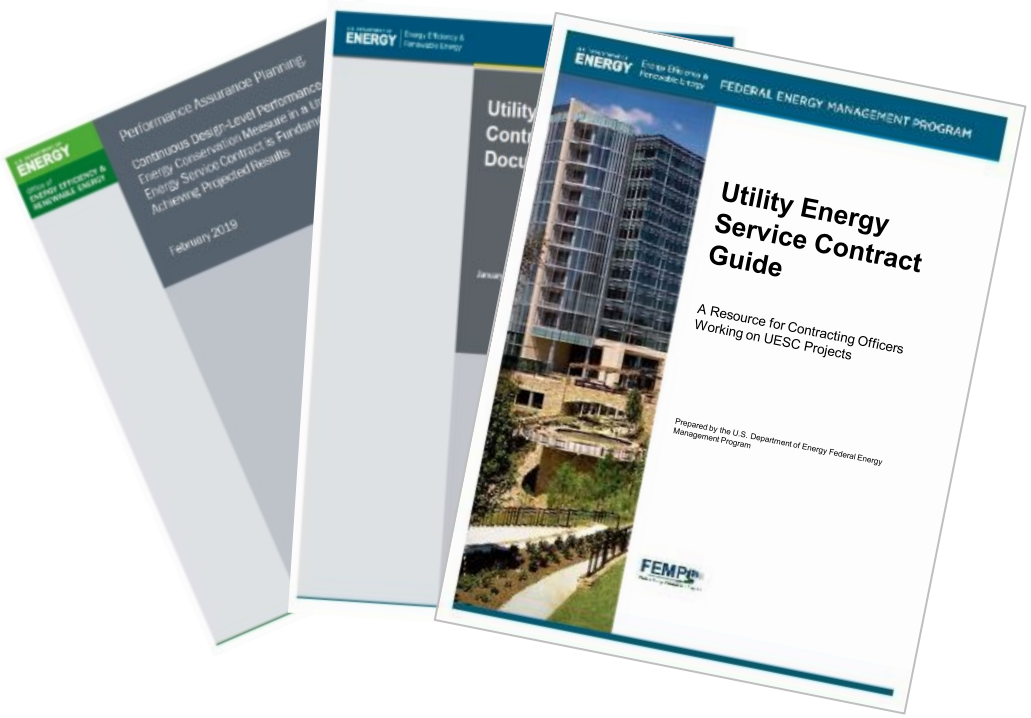
- Executed as a pre-contractual agreement between an agency and utility for issuing UESC TOs
- A BOA is **NOT** a contract
- Establishes terms and conditions applicable to future task/delivery orders
- A single BOA may be used to issue multiple TOs for the type of supplies or services covered by the BOA (i.e., UESCs)
- Helps maximize economies of scale and reduce administrative lead-time related to task orders



# FEMP Resources Review and Project Support

# UESC Resources

- **UESC Website** – access to basic information, case studies, resources, and more!
- **UESC Project Development Resources** – downloadable guides, templates, and tools listed by topic and project phase
- **On-Demand Training** – learn at your own pace (CEUs available)
- **Step-by-Step Implementation Process**



# Upcoming Training and New On-Demand Courses

## Upcoming Live Webinars and Training

- UESC Implementation Best Practices for Utilities | May 24, 2022
- 2-Day Advanced UESC Training | June 28-29, 2022

## New On-Demand Courses

- Financing For UESCs: Ensuring The Best Value For The Government
- Leveraging Utility Partnerships For Fleet Electrification
- Decarbonization Considerations: Performance Contracting (Coming soon)
- Decarbonization Considerations: Onsite DE Projects and Offsite Purchases (Coming soon)

**Courses will be listed in the FEMP Training Catalog when available!**

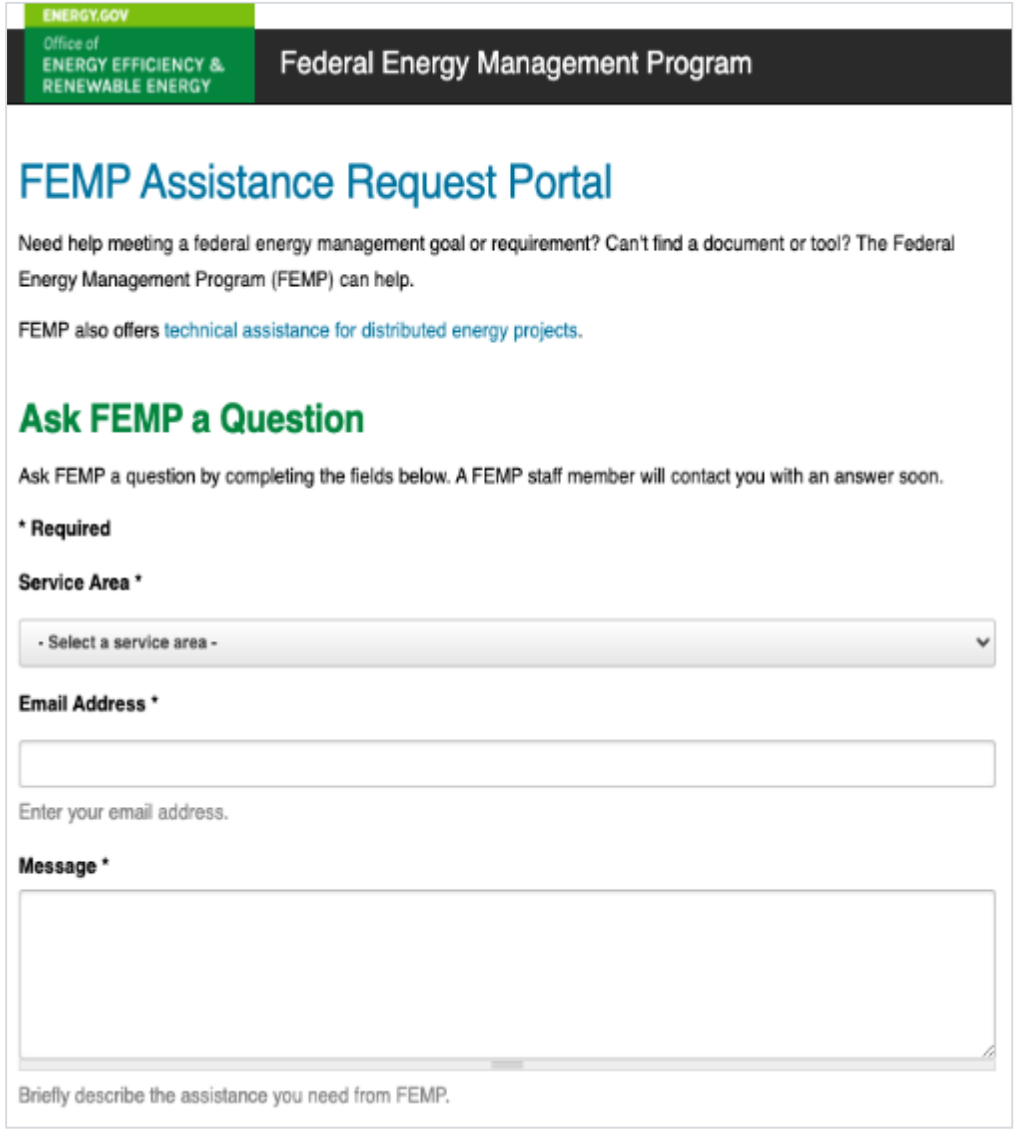
# FEMP Project Support

- Project guidance and discussions with Federal Project Executives (FPEs)
- Technical assistance provided by DOE National Labs
- Tailored training for agencies and utilities
- Strategic partnership meetings between utilities and federal customers

Submit questions or requests for support through the

**FEMP Assistance Request Portal**

*(https://www7.eere.energy.gov/femp/assistance/)*



# Taking the First Step

## Talk to the FEMP Federal Project Executive (FPE) in your region for assistance.

Northeast Region

**Tom Hattery**
Northeast Region
202-256-5986
thomas.hattery@ee.doe.gov

Southeast Region

**Doug Culbreth**
Southeast Region
919-870-0051
culbrethcd@ornl.gov

Western Region

**Scott Wolf**
Western Region
360-866-9163
wolfsc@ornl.gov

energy.gov/eere/femp/energy-savings-performance-contract-federal-project-executives-0

# Q&A

# To Receive IACET-Certified CEUs

- **Attend the training in full–no exceptions**
- **Within six weeks of the training:**
  - Complete the assessment (a minimum score of 80% is required)
  - Complete an evaluation of the training

## Access the UESC Training Assessment and Evaluation

*Click here to view WBDG's FEMP Course Catalog*

*For logistical questions related to the webinar or evaluation, email Elena Meehan at elena.meehan@ee.doe.gov.*

# FEMP Utility Team


**Tracy Niro | DOE/FEMP Program Lead**
Tracy.Niro@ee.doe.gov

Chandra Shah | Chandra.Shah@nrel.gov
Deb Vásquez | Deb.Vasquez@nrel.gov
Jeff Gingrich | Jeffrey.Gingrich@nrel.gov
Katy Christiansen | Katy.Christiansen@nrel.gov
Philip Voss | Philip.Voss@nrel.gov
John Myhre | john.myhre@nrel.gov
Matt Joyner | matthew.joyner@nrel.gov

Eda Giray | eda.giray@nrel.gov
Elisabeth McClure | elisabeth.mcclure@ee.doe.gov
Brian Boyd | brian.boyd@pnnl.gov
Christine Walker | walkerce@ornl.gov
Phil Coleman | pecoleman@lbl.gov
Matt Roney | mroney@bgs-llc.com
Susan Courtney | scourtney@bgs-llc.com

Not sure who to reach out to?
Contact us via the FEMP Assistance Request Portal and we'll connect you with the right folks: https://www7.eere.energy.gov/femp/assistance/