



# Utility Open House for Federal Customers: Duke Energy

August 15, 2024 | 10:00 AM – 2:00 PM ET

# This Training Offers IACET CEUs

How to obtain your CEUs:

1. Visit the Whole Building Design Guide (WBDG) at [wbdg.org](http://wbdg.org) to log in or create an account
2. Enroll in the training
3. Attend the training in full
4. Return to your WBDG account's Enrolled courses
5. Select the training's "Proceed to Course" button
6. Complete an assessment
7. Submit a training evaluation
8. Download your certificate.

## What's an IACET CEU?

An International Association for Continuing Education and Training (IACET) continuing education unit (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.



# Agenda

<b>10:00 PM (ET)</b>	<b>Welcome and Opening Remarks</b>
<b>10:20 AM</b>	<b>Demand Response and Time-Variable Pricing</b>
<b>10:55 AM</b>	<b>Fleet Electrification and Electric Vehicle Supply Equipment (EVSE)</b>
<b>11:30 AM</b>	<b>Carbon Pollution-Free Electricity (CFE)</b>
<b>12:05 AM</b>	<b>Break</b>
<b>12:35 PM</b>	<b>Utility Energy Service Contracts (UESC)</b>
<b>1:10 PM</b>	<b>Leveraging GSA Areawide Contracts (AWC)</b>
<b>1:45 PM</b>	<b>Final Q&amp;A, Resources and Next Steps</b>
<b>2:00 PM</b>	<b>Adjourn</b>



# FEMP Welcome

---

**Anna Siefken**

Deputy Director, Federal Energy Management Program  
U.S. Department of Energy

# Federal Goals Lead to Electrification



## Energy Act of 2020

- Use performance contracting to address at least 50% of cost-effective ECMs identified in facility audits (w/in 2 years)



## Executive Order 14057

- Net zero federal operations by 2050
- 100% net zero buildings, zero-emission fleets, 100% carbon pollution-free electricity by 2030



## Federal Building Performance Standard

- Support achievement of net-zero emissions for federal building portfolio
- Zero scope 1 emissions from on-site fossil fuel use in 30% of federal buildings by 2030

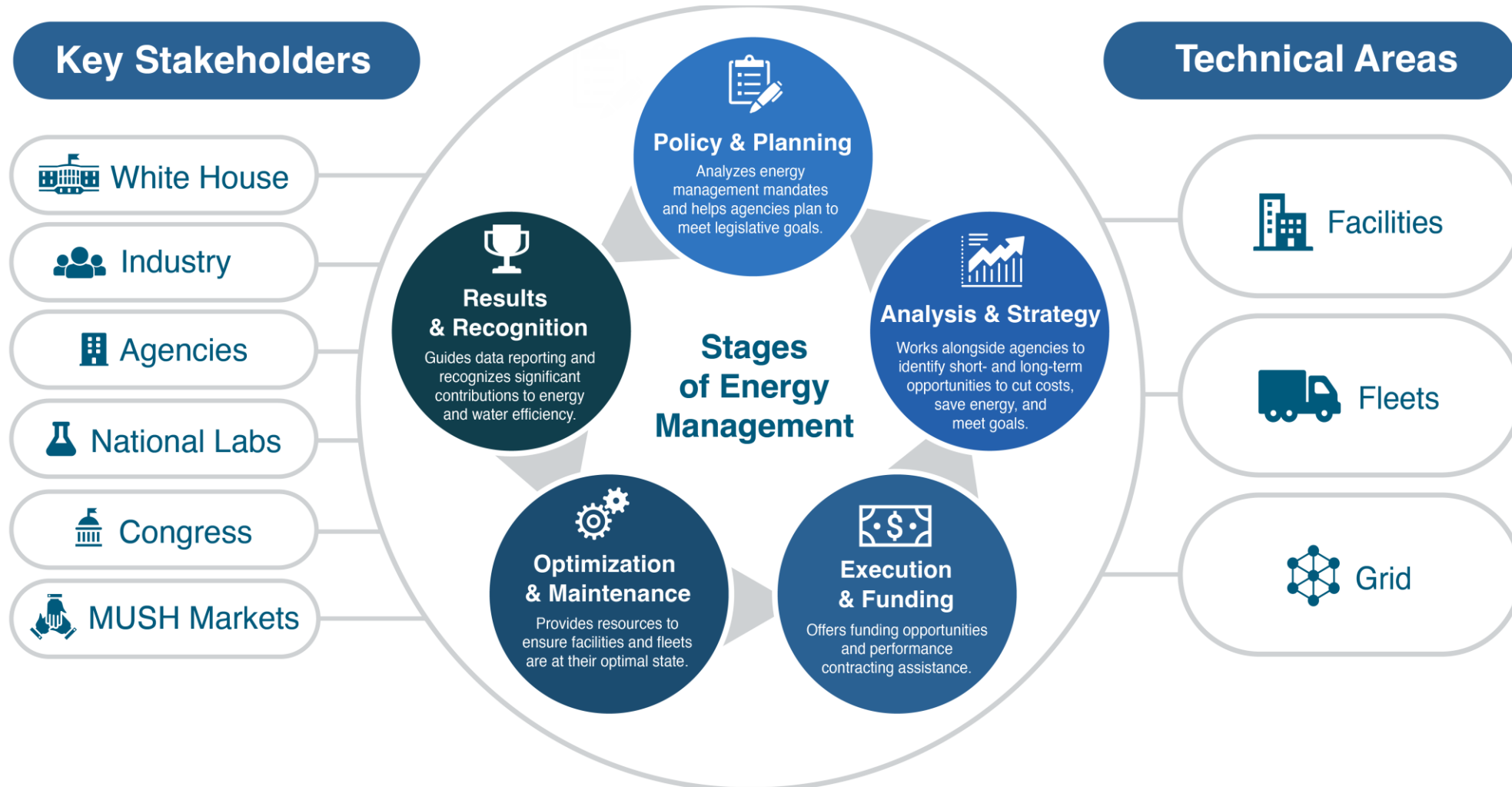


## Climate Smart Building Initiative

- Establish emissions reduction targets delivered through performance contracting
- Increase on-site clean electricity generation

# FEMP Focuses on Federal Agency Support

FEMP works with **key stakeholders** to support **all stages of energy management** in federal agencies' **critical areas**



# FEMP Support Moves Agencies Forward

Access off-the-shelf resources and request specialized support.



## Request Technical Assistance

FEMP's technical experts learn about your needs and provide customized support.



## Access Tools

Available tools help collect data, assess resilience, identify opportunities for carbon pollution-free electricity, and much more.



## Join a Community

Communities are available for federal employees & industry stakeholders to share lessons learned and drive decision-making.



## Apply for Funding & Access Support

\$250M in AFECT funding is available as well as performance contracting support.



## Get Recognition

















Nominate individuals, projects, and sites for a variety of available federal recognition programs.



## Take Training

On-site, in-person, and on-demand FEMP-delivered training supports an informed, capable workforce.

### FEMP Tools & Support

-  Smart Facility Accelerator
-  FEDS Spotlight
-  REopt
-  ESPC
-  Technical Resilience Navigator
-  **Federal Utility Partnership Working Group**
-  Re-tuning Trainings
-  EVI Locate
-  **UESC**
-  CDF Calculator
-  Treasure Hunts
-  Interagency Task Force
-  **Federal Energy & Water Management Awards**
-  Energy Exchange
-  **AFECT Funding**
-  Electricity Procurement Analysis  
and much, much more...

# FEMP's Goal for Today: Agencies Take Action!

## Request a consultation with FEMP or your utility to:

- *Discuss your site's energy goals, challenges, and priorities*
- *Identify program offerings that align with your needs*
- *Sign up for incentives*
- *Connect with subject matter experts to learn more about any of the topics discussed today*

## Consultation Request Form

Fill out this [linked form](#) or scan the QR code below.

*FEMP will connect you with the appropriate party for follow-up, which may include FEMP technical experts, utility POCs, and/or the relevant Utility Lead Agency.*





# Opening Remarks

---

August 15, 2024

**Ashley Edwards**

Director, Federal Project Development and Execution



BUILDING A SMARTER ENERGY FUTURE®

# Demand Response and Time Variable Pricing (DR/TVP)

---

**Billie Holecek**

Research Associate

Lawrence Berkeley National Lab

# What is Demand Response?

**Demand response is a short-term, voluntary decrease in electrical consumption by end-use customers to stabilize the grid, triggered by:**

- compromised grid reliability,
- high wholesale market prices, or
- supply/demand imbalance



Image Source: DOE ([www.energy.gov/oe/demand-response](http://www.energy.gov/oe/demand-response) )



# Program Types

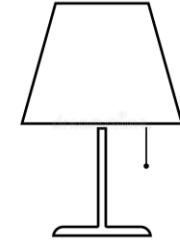
- **Formal DR Programs**
  - Run by utilities and ISO/RTOs
  - Reliability-based and price-based programs
- **“Informal” DR – load management to:**
  - Reduce demand charges
  - Lower electricity costs by optimizing TVP rates



# Load Management Techniques (Common Examples)

- **Lighting**

- Dimming via control
- “Bi-level” switching: 2 or 3 lit lamps/fixture to 1 or 2



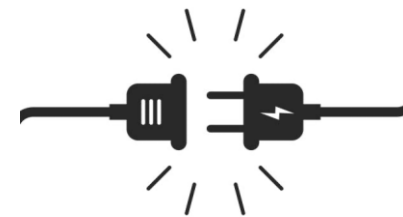
- **Cooling**

- Raising set points of space or chilled water
- “Demand-limiting” air handling unit (AHU) fans



- **Plug Load**

- Notifying employees to minimize lighting and office equipment power (via on-off switch or sleep settings)



- **Miscellaneous**

- Shut down (and power off) bank of elevators
- Shut down pool and irrigation pumps



# DR/TVP Programs Benefits

## Participating in DR/TVP programs can help agencies meet federal goals by:

- Lowering the price of energy consumed
- Enabling greater use of on-site storage and generation
- Reducing carbon emissions during periods of peak demand
- Contributing to federal resilience and grid stability through reduced peak energy consumption



# Authorizing Law

## Both informal (tariff-based) and formal DR Programs are legal

- 10 USC 2913/2919 (DoD) and 42 USC 8256 (civilian)
  - “Agencies are authorized and encouraged to participate in programs to increase energy efficiency and for water conservation or the management of electricity demand conducted by gas, water, or electric utilities and generally available to customers of such utility”
  - “Each agency may accept financial incentives, goods, or services generally available from any such utility, to increase energy efficiency or to conserve water or manage electricity demand.”



# Case Studies



William S. Moorhead Federal Building in Pennsylvania enrolled in a TVP rate and **implemented load shifting resulting in \$285k of savings (12%) over the first 3 years.**



VA MD Health Care System enrolled 1-3 MW annually in a demand response program. Using small generators and manual curtailment strategies **they have been able to save over \$490,000 to date.**



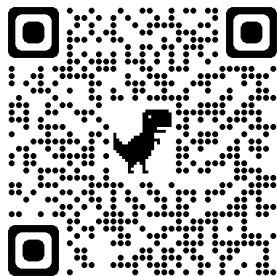
GSA Region 9 enrolled facilities in California's statewide Emergency Load Reduction Program. Sites enrolled **receive \$2/kWh for reduction** when an event is called. In 2023, these facilities delivered over 0.5 MWh in load reduction






# Resources and Support

- [FEMP's Demand Response and Time-Variable Pricing Website](#)
- [FEMP's Technical Assistance Portal](#)
- [FEMP's On-Demand Training on Demand Response and Time-Variable Pricing](#)



## Demand Response and Time-Variable Pricing Programs

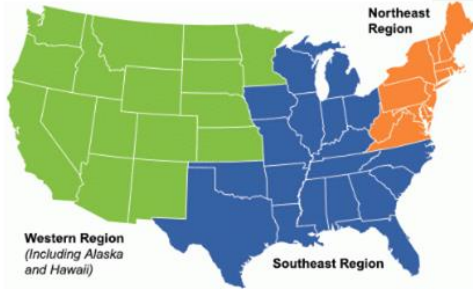
Federal Energy Management Program



Federal Energy Management Program » Demand Response and Time-Variable Pricing Programs

The Federal Energy Management Program developed profiles of demand response and time-variable pricing programs throughout the United States. These profiles are grouped regionally by state.

- Western States
- Northeastern States
- Southeastern and Midwestern States



Demand response (DR) is a short-term, voluntary decrease in electrical consumption by end-use customers that is generally triggered by compromised grid reliability or high wholesale market prices. In exchange for conducting (and sometimes just committing) to curtail their load, customers are remunerated.

<https://www.energy.gov/femp/demand-response-and-time-variable-pricing-programs>



# Time-Variable Pricing & Demand Response (DR) Programs

Carolinas Focused Programs

---

August 15, 2024

Teresa Reed  
Director, Rates and Regulatory Planning

Mark Kametches  
Program Manager, Carolinas Large Business DR



BUILDING A SMARTER ENERGY FUTURE®

# Duke Energy's Time-Variable Pricing Programs



Time-of-Use Modernization



Hourly Pricing



Demand Response

# Types of Rate Structures



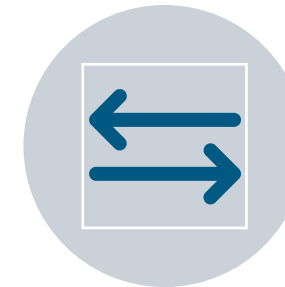
**Standard Rates** – Pricing is based on total monthly usage and (if applicable) maximum monthly demand. Most residential and small business customers are on standard rates.



**Time-of-Use (TOU) Rates** – Pricing varies by time of day, day of week, and season. TOU rates are beneficial for customers with high utilization, flexible load, or load that naturally occurs off-peak.

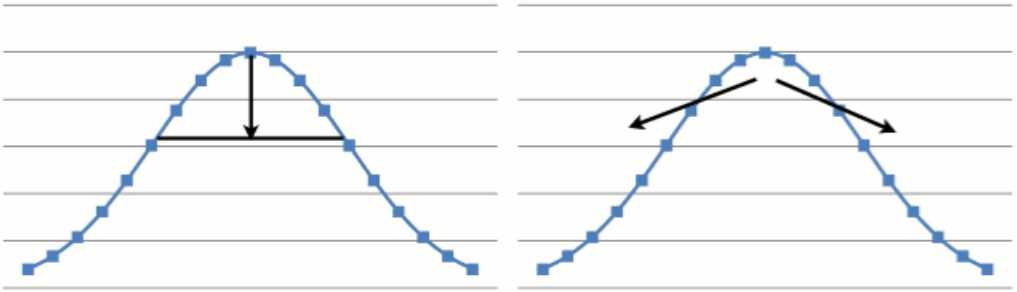
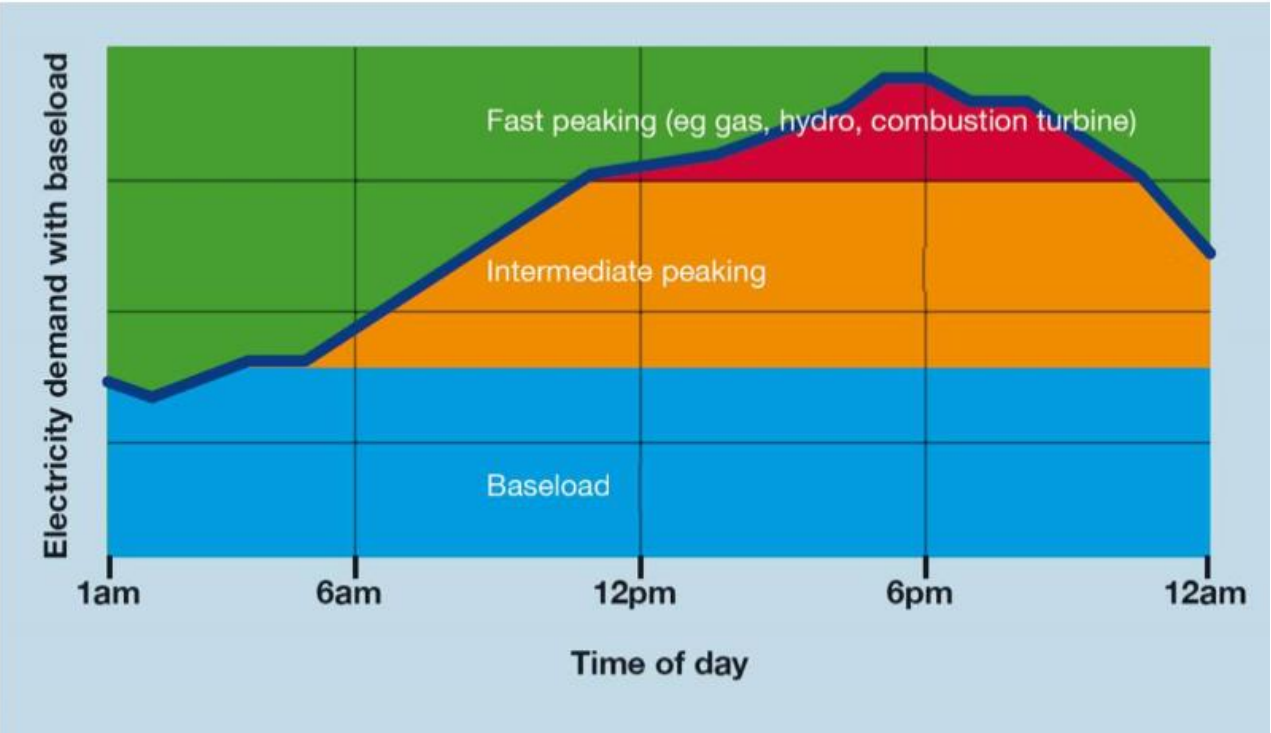


**Hourly Pricing Rates** – Pricing is set on a day-ahead basis and varies by hour. Only available to large business customers. Beneficial for customers that can manage their load and comfortable with greater price volatility.



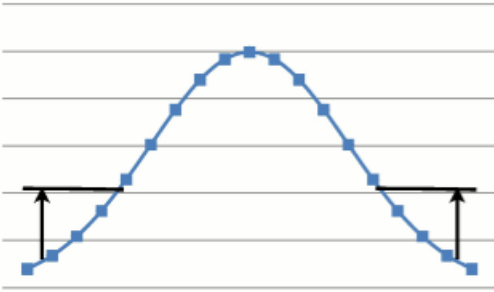
**Purchased Power & Parallel Generation Rates** – Rates for customers to operate their own generation interconnected with the grid. These rates typically allow customers to sell all or a portion of the generation to Duke.

# Good Rate Design Incentivizes Efficient Usage



Peak Clipping

Load Shifting



Valley Filling

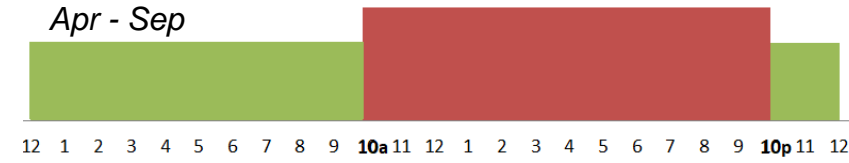
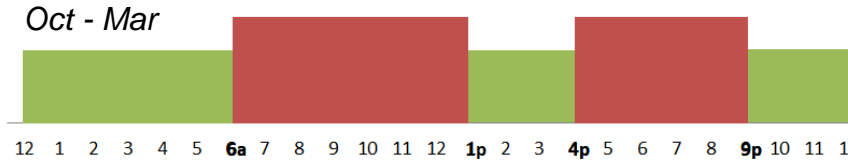
Sources: NC Public Staff  
<https://files.nc.gov/pubstaff/documents/files/Ratemaking%20Presentation%20%283-18%29.pdf>



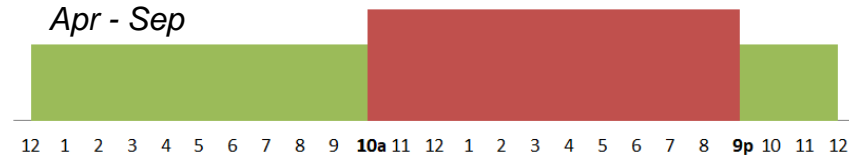
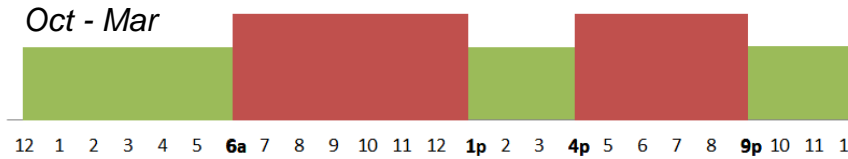
# Time-of-Use Periods

(Legacy TOU examples from DEP NC)

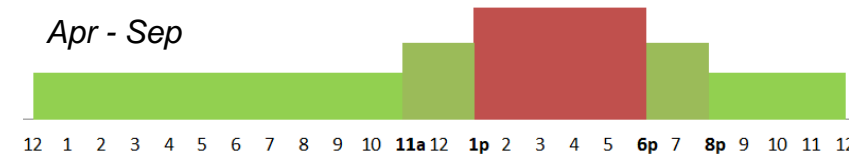
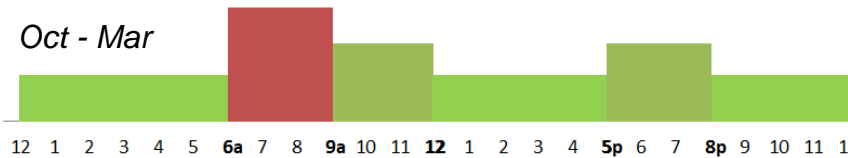
SGS-TOU  
LGS-TOU



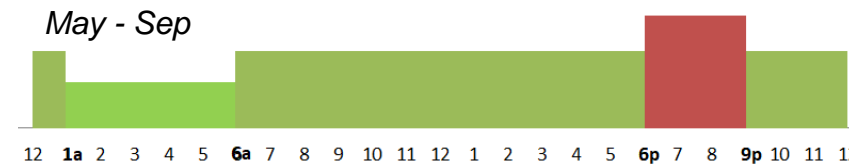
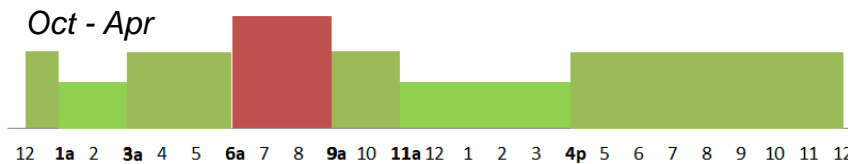
R-TOUD



R-TOU



NEW



**New TOU hours will be standard across the Carolinas:**

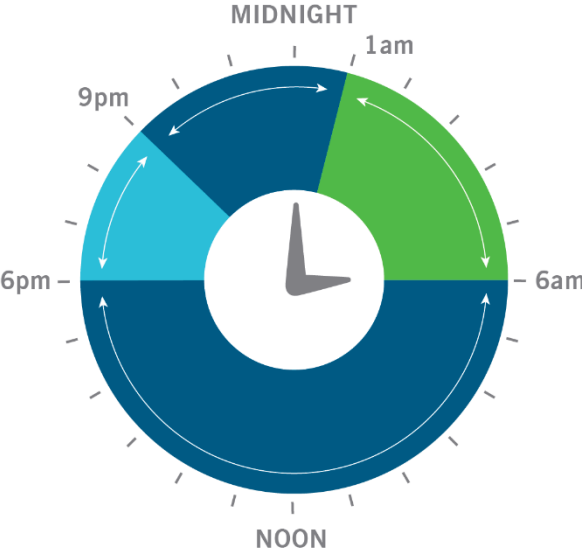
Duke Energy Progress (DEP) Schedules R-TOU, R-TOUD, R-TOU-CPP, SGS-TOU-CPP, MGS-TOU and LGS-TOU  
Duke Energy Carolinas (DEC) Schedules RT, RSTC, RETC, SGSTC and OPT-V



# Time-of-Use Modernization

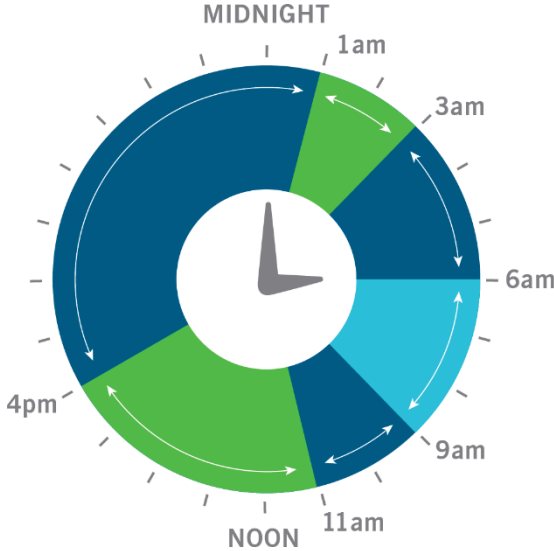
- Stakeholder collaborative yielded Rate Design Roadmap in March 2022.
- Designs supported by population level analyses.
- Modernization includes:
  - System-aligned TOU Periods
  - Cost-based demand charge restructuring
  - 3-hour on-peak period vs. historic 8-12 hours
  - New rates that better support distributed energy technology

SUMMER  
May–September  
New time-of-use periods

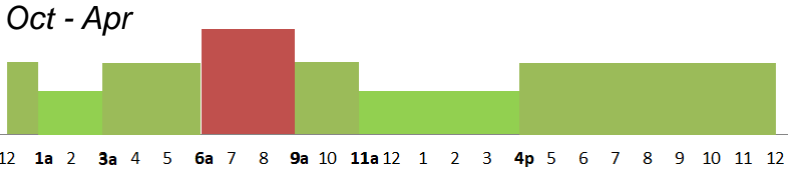


- Discount Period
- Off-peak Period
- On-peak Period

NON-SUMMER  
October–April  
New time-of-use periods

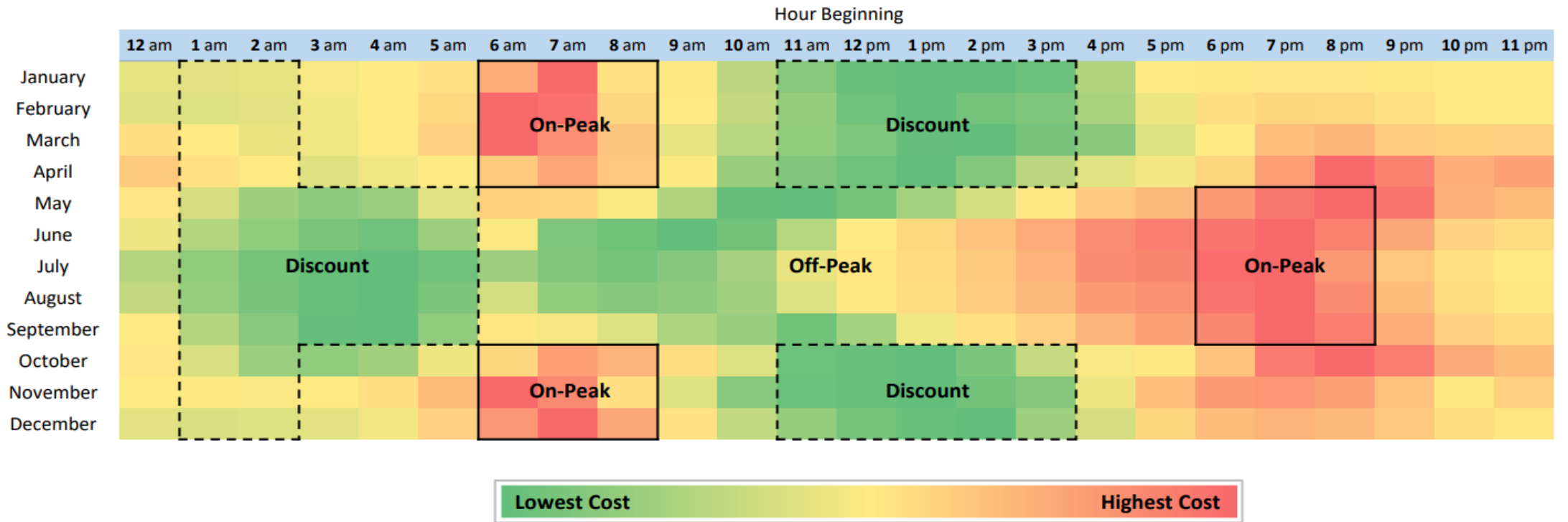


- Discount Period
- Off-peak Period
- On-peak Period



# How Were The TOU Periods Derived?

- Company has adopted the Cost Duration Model (“CDM”) to analyze historical and forecasted costs and load patterns
- Gross load, net load, retail load, and marginal energy cost are examined in the model along with how and when certain generation, transmission, and distribution assets are used
- Patterns were analyzed using model data through 2030





# Time-of-Use Schedule Features



## Time-of-Use

- On-peak, off-peak, and discount kWh
- Aligns with new TOU periods



## Time-of-Use with Critical Peak Pricing

- On-peak, off-peak, and discount kWh
- Critical peak days can be called up to 20 days per calendar year and are called by 4 PM the day ahead
- When critical peak days are called, the on-peak period becomes critical peak pricing period
- Critical peak hours can shift one-hour earlier or one-hour later to provide flexibility for system needs
- Aligns with new TOU periods



## Time-of-Use with Demand (Residential)

- On-peak, off-peak, and discount kWh
- Peak and max demand (kW)
- Peak demand is the highest demand during on-peak hours during the billing period
- Max demand is the highest demand during the billing period
- Aligns with new TOU periods



## Time-of-Use with Demand (Non-Residential)

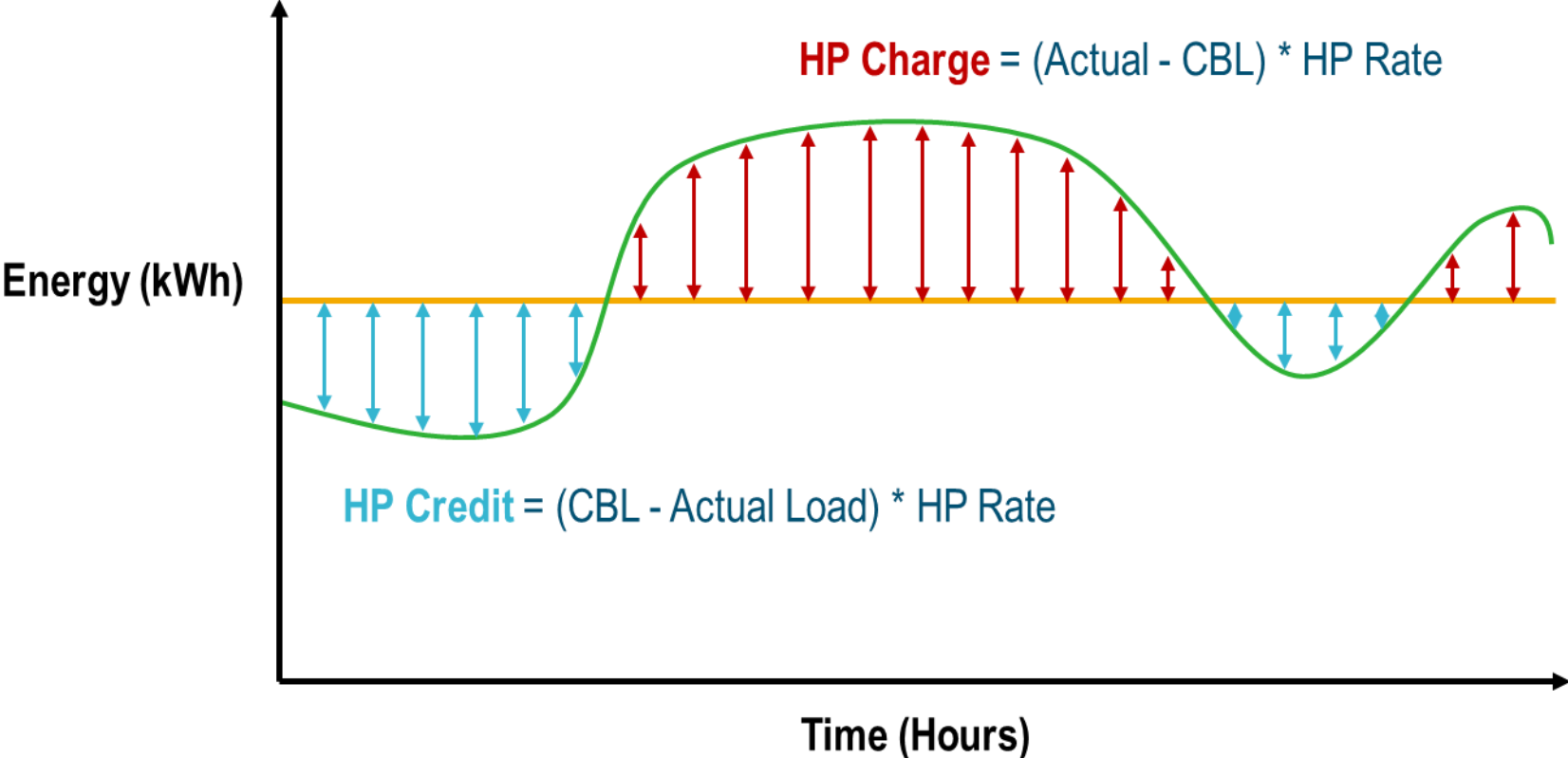
- On-peak, off-peak, and discount kWh
- On-peak, mid-peak, and base demand (kW)
- Mid-peak is the higher of the on-peak or off-peak demand during the billing period
- Base demand is the higher of the highest demand during current and last 11 months, or 50% of contract demand
- Aligns with new TOU periods

# Hourly Pricing Rate Schedule

- The HP Rate is available for customers with Contract Demand over 1,000 kW
  - Not available to new customers with Contract Demands over 50,000 kW
  - Accompanies an applicable base rate schedule for large customers
- Administrative Charge
- Baseline Charges
  - Sum of charges up to the customer's CBL consumption on their base schedule CBL (Customer Baseline Load)
  - Consumption: Initially expressed using one complete year of Customer load history and are required to be re-established every 4 years with a minimum timeframe of 12 months from the previous CBL establishment
- HP Charges/Credits:
  - $(\text{New Load kWh} - \text{CBL kWh}) \times \text{Hourly Price}$
  - $\text{Hourly Price} = \text{Hourly Energy Price} + \text{Hourly Capacity Price}$
- Incentive Margin
  - A charge of 0.6 cents per kWh on Net New Load (Monthly New Load kWh – Monthly CBL kWh, but not less than 0 – for DEC)
  - For DEP, the incentive margin is embedded in the hourly rate. For DEC, the incentive margin is an additional charge
- Incremental Demand Charge
  - A charge on the max registered demand above the CBL



# Hourly Pricing Illustration



- Average kWh for the month in its simplest form
- More complex depending on rate schedule and contract



# CBL Update Methodology

- CBL is required to be updated every four years, or earlier at the customer's option
  - Minimum of 12 months before a CBL update
  - Same process as setting initial CBL for existing customers
- CBL may include a Load Response Adjustment based on demonstrated load responsiveness during capacity constrained hours on HP
  - On-Peak CBL will be reduced by 100% of the Load Response Factor
  - Off-Peak CBL will be reduced by 50% of the Load Response Factor
  - Discount CBL will not be adjusted
- Load Response Factor
  - Load Response Factor will be calculated as the weighted average Load Response during the previous 4 years on Schedule HP
  - Load Response: percent reduction in kW and kWh during Capacity Price hours, compared to all On-Peak hours in the same month/year

# Carolinas Demand Response (DR) Programs



Duke Energy’s demand response programs are developed to **reward businesses for adjustment to energy consumption levels during peak time periods** in response to time-based rates or other forms of financial incentives.

One of the toughest challenges that Duke Energy faces is balancing energy supply to meet our communities’ growing needs. **Building new generation facilities is costly**, time-consuming, and offers no immediate relief.

Demand response programs are a relatively cheap, fast, and **cost-effective way to meet energy demand**, while providing businesses with an opportunity to earn incentives for energy curtailment.

**DR Organization Focus:** Regularly evaluate all DR programs, both residential and nonresidential, to explore modifications and new concepts that will continue to align the portfolio of resources with the needs of an evolving grid.



# Carolinas DR Portfolio

## Demand Response Carolinas

Duke Energy Progress (DEP)	Duke Energy Carolinas (DEC)
----------------------------	-----------------------------

Residential	Commercial & Industrial	Residential	Commercial & Industrial
-------------	-------------------------	-------------	-------------------------

<b>EnergyWise Home</b> Direct Load Control for Central A/C & Heat Pumps, Water Heaters & Heat Strips; BYOT	<b>Demand Response Automation (Rider DRA)</b> <i>DSM</i>	<b>Power Manager</b> Direct Load Control for Central A/C & Heat Pumps, Water Heaters & Heat Strips; BYOT	<b>PowerShare® (Rider PS)</b> Emergency & Economic Options <i>DSM</i>
	<b>Large Load Curtailable (Rider LLC)</b> <i>Rate Base</i>		<b>Interruptible Service (Rider IS)</b> (NC Only; Closed to New Participants) <i>Rate Base</i>
	<b>EnergyWise Business</b> T-stat and AC Switch; BYOkW		<b>EnergyWise Business</b> T-stat and AC Switch; BYOkW



# Considerations for Potential DR Candidates



**Hourly Pricing Rates (HP/RTP)** – Eligible to participate in DR riders, but loads above the CBL do not qualify as curtailable demand



**TOU vs Exposure Period Hours** – With the exception of DEP’s Rider LLC, DR Exposure Periods (*hours curtailment events most likely to occur*) have not been adjusted and do not align with new TOU hours



**DSM/EE Opt-In Provision** – Opt-Out eligible Customers must Opt-In to the DSM rate to qualify for participation in a DR program introduced after 2007 (DEP’s Demand Response Automation and DEC’s PowerShare)



**Aggregation of Loads** – Not allowed in the Carolinas unless totalized for billing purposes, so each meter/Installation must individually meet any DR program minimums for curtailable demand



**Backup Generators** – Based on current DR program minimum annual hour commitment, EPA regulations require that backup generators used to meet curtailment obligations be classified as “non-emergency”

# Carolinas Large Business DR Program Details

## DEP

### Large Load Curtailable (Rider LLC)

- DSM Opt-In NOT required (*Legacy program*)
- 5-yr initial contract period w/ auto 2-yr renewals
- Firm Demand commitment
- Minimum of 1,000kW in curtailable demand
- Up to 400 hours per year (*no minimum*)
- Minimum 30-minute advanced notification
- Incentive Summary (NC / SC):
  - Monthly Facilities Fee = \$55 / \$55
  - Monthly Capacity Credit = \$4.90/kW / \$6.60/kW\* (*\*\$1.70/kW SC Env/PURPA/DERP add-on*)
  - Penalty Demand Charge = \$45/kW / \$40/kW

### Demand Response Automation (Rider DRA)

- DSM Opt-In required
- 5-yr initial contract period w/ auto 2-yr renewals
- Fixed Reduction commitment
- Minimum of 50kW in curtailable demand
- Up to 80 hours per year (*minimum 1 summer event*)
- Minimum 30-minute advanced notification
- Incentive Summary:
  - Monthly Facilities Fee = n/a
  - Participation Incentive (one-time) = \$50.00/kW
  - Monthly Availability Credit (MAC) = \$4.25/kW
  - Event Performance Credit (EPC) = \$6.00/kW
  - NonCompliance\* Penalty = lose 4 months of MAC (*\*defined as reducing less than 90% of contract*)

## DEC

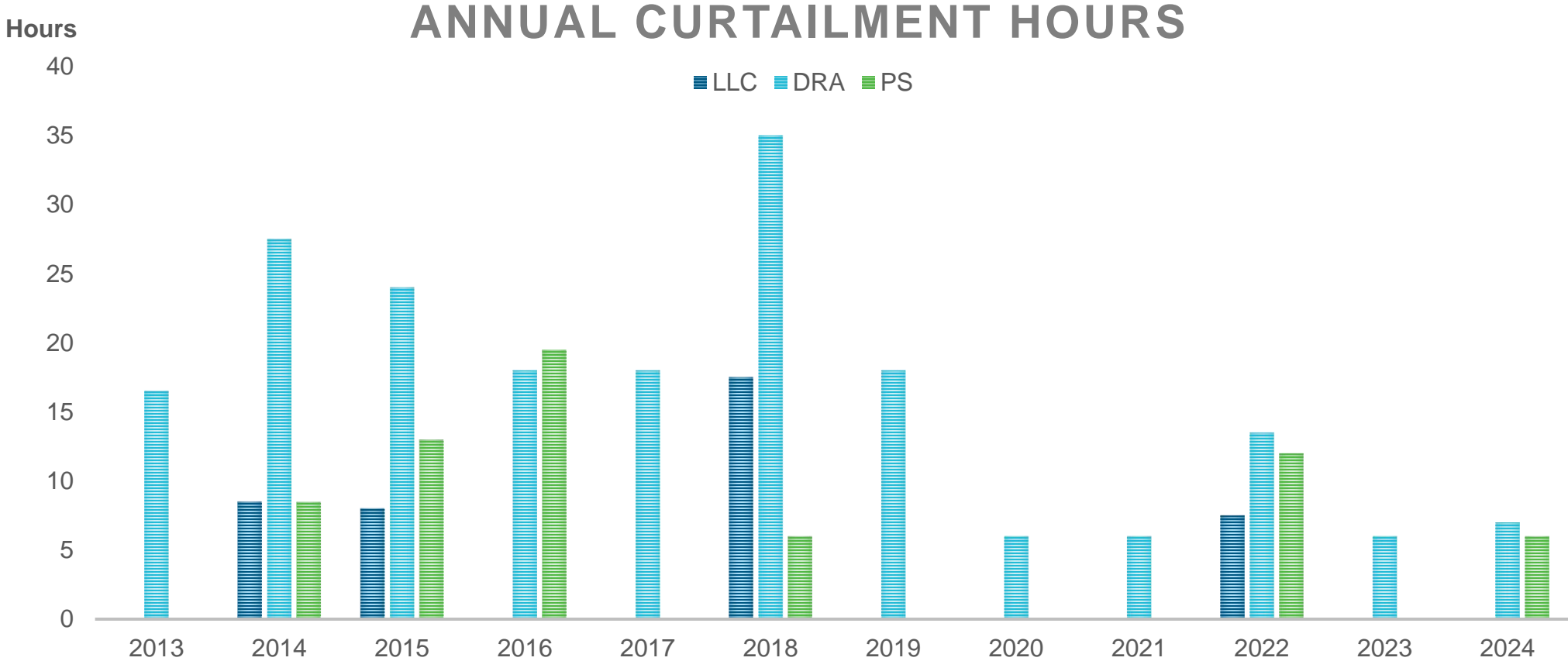
### PowerShare (Rider PS)

- Mandatory & Generator plus economic options
- DSM Opt-In required
- 3-yr initial contract period w/ auto 1-yr renewals
- Firm Demand commitment
- Minimum of 100kW in curtailable demand
- Up to 100 hours per year (*no minimum*)
- Minimum 30-minute advanced notification\* (*\*day-ahead for economic options*)
- Incentive Summary:
  - Monthly Facilities Fee = \$40 (Mand) / \$155 (Gen)
  - Monthly Capacity Credit = \$3.50/kW
  - Event Energy Credit = \$0.10/kWh
  - Penalty Energy Charge = \$2.00/kWh





# Carolinas Large Business DR Curtailment Event History



NOTE: Rider DRA required a minimum of 3 summer events prior to 2020





# Q&A

# Fleet and Electric Vehicle Supply Equipment (EVSE) Programs

---

**Jason Koman**

Energy Technology Program Specialist  
DOE FEMP

# Electric Vehicles as an Administration Priority

WH.GOV



## Executive Order on Tackling the Climate Crisis at Home and Abroad

January 27, 2021

GSA, Council on Environmental Quality, and Office of Management and Budget in coordination with DOE, Department of Labor, and Department of Commerce to develop a plan to convert Federal, state, local, and Tribal fleets to zero-emission vehicles (ZEVs)



WH.GOV



## Executive Order on Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability

December 8, 2021

### **Transition to a zero-emission federal fleet**

- Annual targets for ZEVs by agency
- 100% light-duty (LD) acquisitions by 2027
- 100% medium-duty (MD)/heavy-duty (HD) acquisitions by 2035

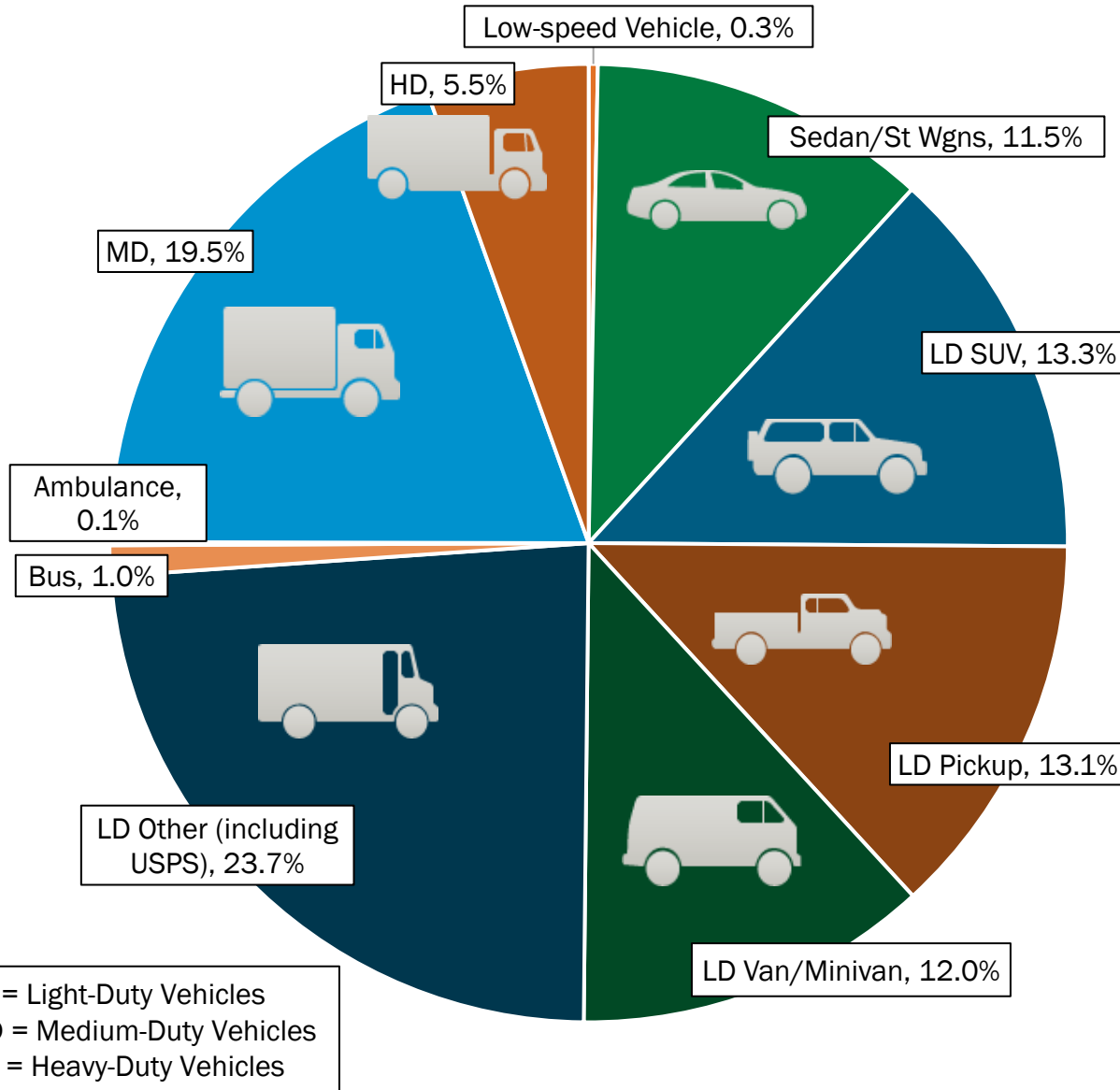


# ZEV Ready Framework

**FEMP's recommended site-level fleet electrification planning process consists of 15 process steps organized into 3 phases.**



# Federal Fleet Electrification is Accelerating (FY23 FAST)

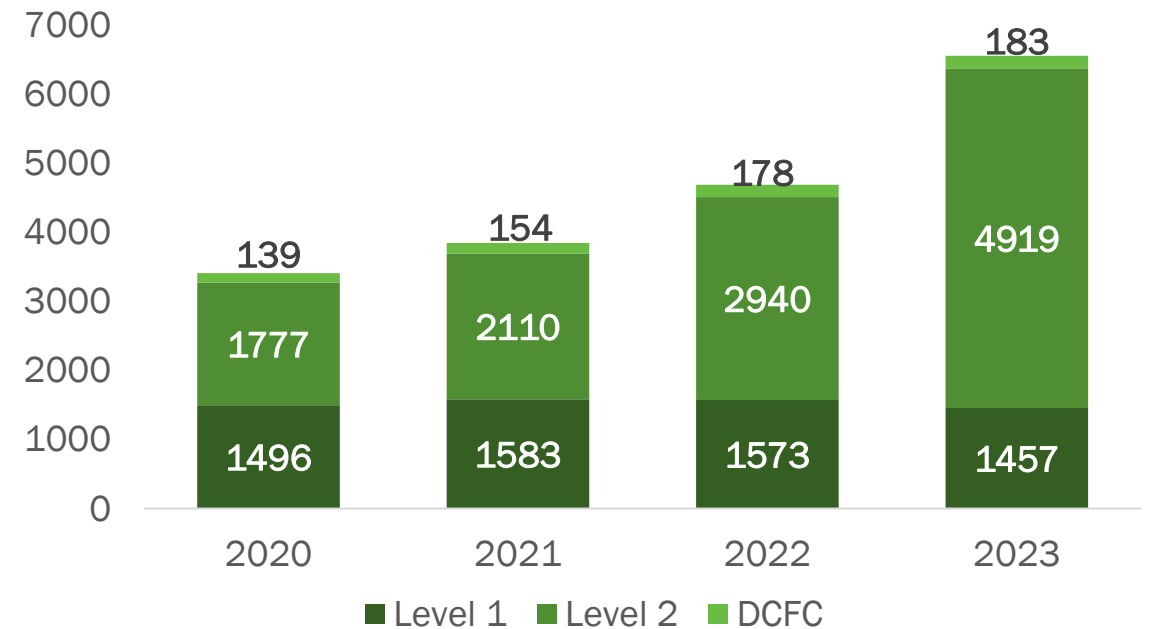


**3.6k FY22 ZEV orders**  
(9% of Federal Fleet Purchases)

**5.8k FY23 ZEV orders**  
(14% of Federal Fleet Purchases)

**5.1k FY24 ZEV orders as of 2/29/24**  
(18% of Federal Fleet Purchases)

Source: GSA, Excludes USPS



# Step 9 – Identify Utility Point of Contacts and Incentives

## FEMP's EV Utility Finder (EV U-Finder)

Database that helps federal agencies connect to electric vehicle supply equipment (EVSE) utility partners and incentives available by ZIP Code

Enter ZIP Code to identify local utilities, electric vehicle support programs, and Clean Cities Coalitions.

72863

Powered by the U.S. Utility Rate Database (<https://openei.org/apps/USURDB/>)  
Utility territories last updated February 2021.

See Introduction worksheet for notes on using EV U-Finder.

**\*Customer Types:**

G: Government or Public; C: Commercial; R: Residential

### Identified active utilities in 72863

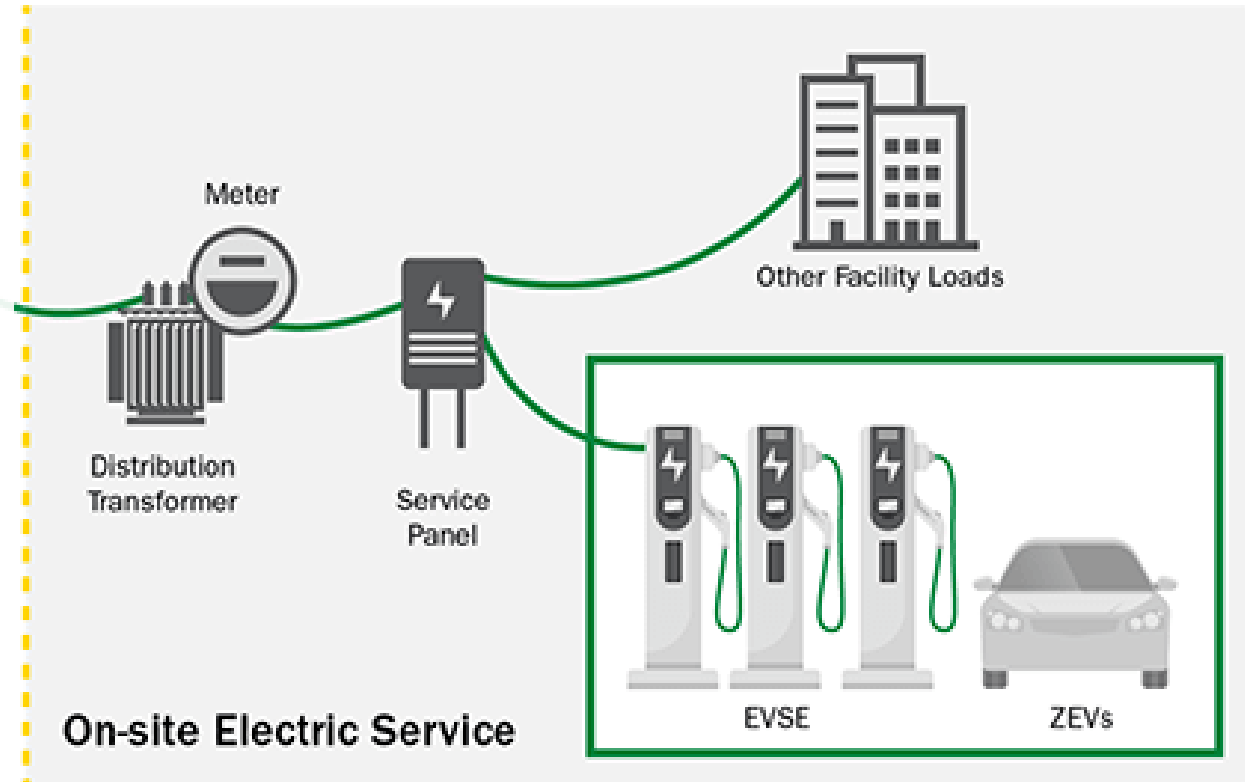
Utility	Utility Name	Utility Ownership	Known EVSE Funding Eligibility?*	Known Advisory Services Eligibility?*	Known Federal EVSE Incentives?	GS
1	Entergy Arkansas Inc	INVESTOR	GCR		Y	
2	Arkansas Valley Elec Coop Corp	COOPERATIVE				
3	Village of Brainard, Nebraska (Utility Company)	PUBLIC				

<https://www.energy.gov/femp/articles/ev-utility-finder-ev-u-finder>



# Step 9 – Coordinate with Local Utility Service

- **Evaluating EVSE impacts on electrical service equipment**
  - Facility versus utility equipment ownership
- **Evaluating EVSE impacts on power requirements**
  - Power Capacity
  - Power Load at the Service Panel Level
  - Power Load at the Facility Level
- **Utility Equipment Upgrades**
  - Plan for the future
  - Scale back when practical
  - Use managed charging





# Transportation Electrification Programs North Carolina

Helping non-residential customers provide electric vehicle charging.

8/15/2024

Jordan Wallpe, Electric Transportation  
Program Manager



*BUILDING A SMARTER ENERGY FUTURE*®



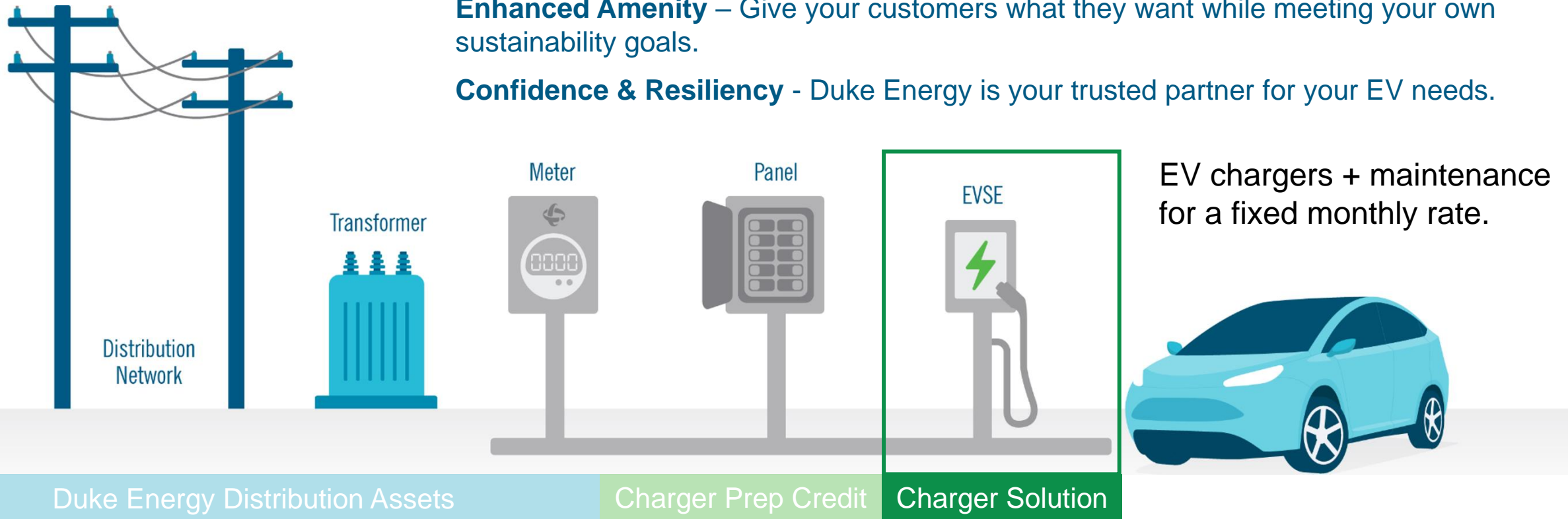
# What is Charger Solution?

**Simplicity** - Duke Energy installs, owns and maintains your EV charging stations all for a fixed monthly rate\*.

**Choice** - You choose the hardware, network, branding and usage fees you want.

**Enhanced Amenity** – Give your customers what they want while meeting your own sustainability goals.

**Confidence & Resiliency** - Duke Energy is your trusted partner for your EV needs.

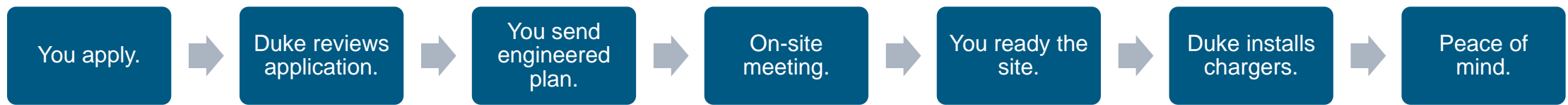


\*Fixed rate does not include site make-ready or energy to charge vehicles.

# Details

- Your choice of EV charger/s and network/s that you would like installed by Duke Energy on your site.
- A fixed monthly rate with little to no upfront cost. Does not include ongoing energy costs.
- Customer is responsible for preparing the site for charger installation which includes all infrastructure to the stub out point where the charging station will be installed. This is called your "make-ready."
  - Charger Prep Credit available to help offset these make-ready costs, detailed later
- Duke Energy can help coordinate your site design and refer you to a preferred electrical contractor if needed.
- You can set access controls & set your own pricing on networked chargers
- Duke Energy will maintain, warranty, service, repair, or replace any problematic chargers and resolve network issues as part of your rate.

## Program Roadmap



# Sample Offerings

- **Level 2**
  - 4-year term
  - Networked
  - Non-networked
- **DC Fast**
  - 7-year term



ABB  
Terra DC Fast Charge 184  
\$1,842.01 Per month



BTC Power  
180kW AIO Gen 4 Fast Charger  
Price starting at \$1,595.61 Per



ABB  
Terra DC Fast Charge 124  
\$1,555.99 Per month



BTC Power  
120kW AIO G4 Fast Charger  
Price starting at \$1,310.50 Per



ABB  
Terra DC Fast Charge 54HV  
Price starting at \$662.40 Per  
month



ABB  
Terra DC Wallbox 24 Fast  
Charger  
\$386.40 Per month



Blink  
IQ 200 Dual Port Pedestal  
\$187.43 Per month



Blink  
IQ 200 Advanced  
\$95.40 Per month

# Benefits of Networked Charging

Maximize asset utility and minimize operating risk



Flexible access mechanisms & payment facilitation



Networkwide monitoring, over-the-air updates, remote troubleshooting



Intelligence and insight through analytics & usage reporting



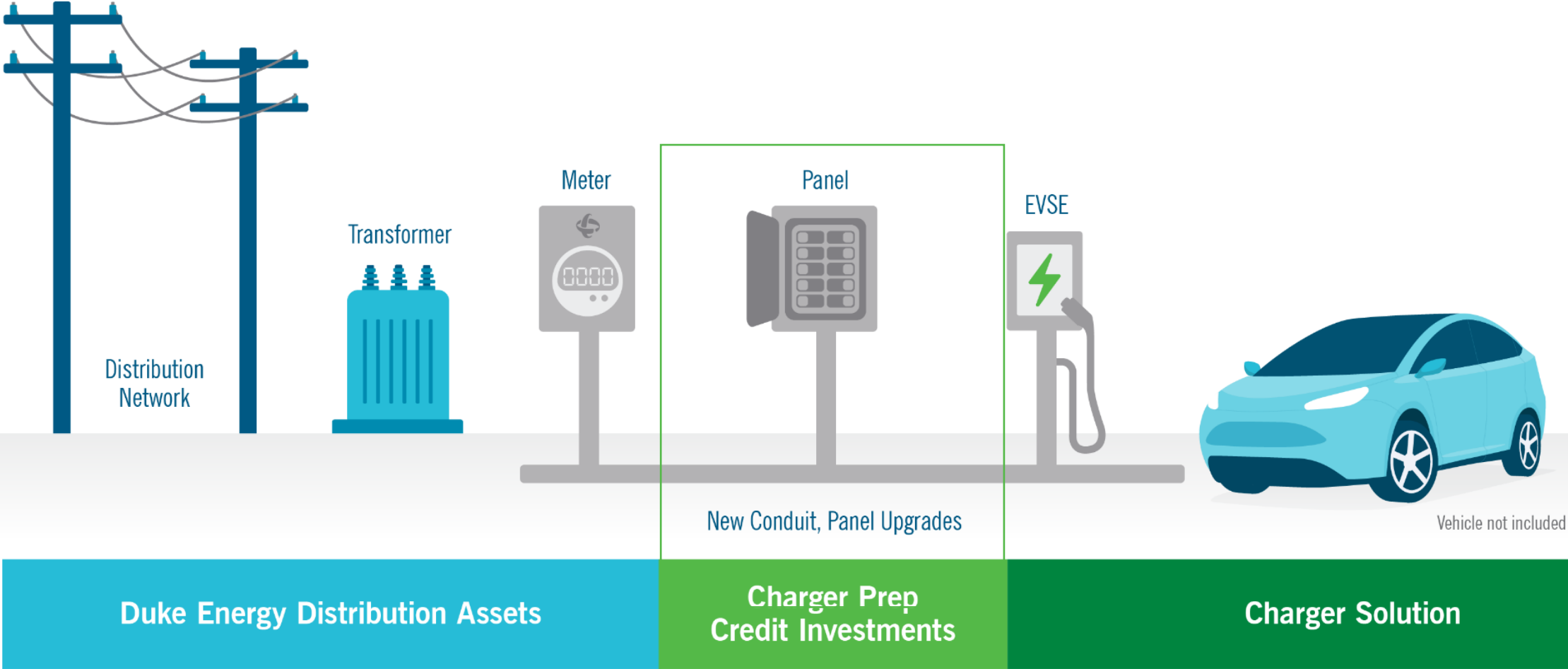
24/7/365 service, operations, maintenance support



Driver engagement & mobile app



# Charger Prep Credit – Non-Residential



# Charger Prep Credit – Non-Residential

- This program provides a one-time credit to help non-residential customers cover the cost of preparing their site for an electric vehicle (EV) charger. Acceptable upgrades include electrical wiring, conduit, panel replacements and other required electrical upgrades to support Level 2 or higher EV chargers.
- "Make Ready" work includes infrastructure costs from the panel to the charger. It does not include the labor associated with installation of the charger, the charger itself, or the required permitting cost.
- Once the EV charging make ready work is completed, or if it was completed within the last four months, the customer can apply for the credit.
- The customer must fill out an application and submit a copy of the approved permit, a paid invoice from the electrical contractor, a schematic diagram of installation and a Customer Usage Profile form. If everything is approved, the customer will receive a check within 30 days of the approval date.
- The invoice must be itemized and include separate line items for labor and material involved in make ready work.
- The Customer Usage Profile form includes information about the customer's account, contractor information, the type and number of EV charger(s) and expected usage.

# Example DEP Credits – Per Charger

Segment	Charger Type	kW Range	Credit Amount
Public L2 Charger	L2	See note below	Up to \$930
Workplace L2 Charger	L2	See note below	Up to \$700
Fleet Level L2 Charger	L2	See note below	Up to \$855
Multifamily L2 Charger	L2	See note below	Up to \$1,550
Multifamily DCFC Charger	DCFC	See note below	Up to \$4,476
Public DCFC	DCFC	50 kW	Up to \$2,686
School Bus — DCFC	DCFC	50 kW	Up to \$15,009
Transit Bus — DCFC	DCFC	50 kW	Up to \$27,705

\*If you are planning to install chargers totaling more than 50kW or a DCFC greater than 50kW, this requires a custom calculation. Typical nameplate kW range from a public/workplace L2 charger is 6.0 to 9.6; while typical kW range for fleet L2 charger is 6.0 to 19.



# Charger Prep Credit – Things to Note

- Credits are distributed to the account holder unless the credit waiver form is completed.
- Credits are per charger at the nameplate kW not per port.
- Third party funding information and documentation must be provided with the application.
- The landing page has a credit estimation calculator.

# Resources

## Charger Solution Program

- Commercial Program Website, DEC: [Duke Energy NC Carolinas Non-Residential Charger Solution](#)
- Commercial Program Website, DEP: [Duke Energy NC Progress Non-Residential Charger Solution](#)
- Charger Solution Team Mailbox: [ChargerSolutionNC@duke-energy.com](mailto:ChargerSolutionNC@duke-energy.com)

## Charger Prep Credit

- Commercial Program Website: [Commercial Charger Prep Credit - Duke Energy \(duke-energy.com\)](#)
- Charger Prep Credit Team Mailbox: [Chargerprepcredit@duke-energy.com](mailto:Chargerprepcredit@duke-energy.com)



*BUILDING A SMARTER ENERGY FUTURE*®

# Carbon Pollution-Free Energy (CFE) Purchasing Programs

---

**Tracy Niro**

Program Manager

DOE FEMP

# Executive Order 14057 CFE Goals

## Catalyzing Clean Energy Industries and Jobs through Federal Sustainability

(12/8/2021)



[Implementing Instructions for Federal Agencies](#)



100% carbon pollution-free electricity (CFE) by 2030, including 50 percent 24/7 CFE



A net-zero emissions building portfolio by 2045, including a 50% emissions reduction by 2032; and



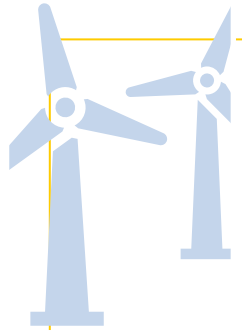
100% zero-emission vehicle (ZEV) acquisitions by 2035, including 100% zero-emission light-duty vehicle acquisitions by 2027



Net-zero emissions from overall federal operations by 2050



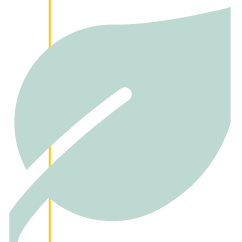
# What Qualifies as CFE?



CFE Technology



Placed in service  
10/1/2021 or newer



EACs delivered or  
retired

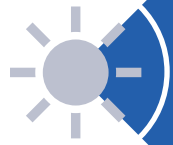


Delivered to  
balancing area



# What Technologies Are Considered CFE?

Per [E.O. 14057](#) Section 603(d):



Solar



Geothermal



Wind



Renewably-sourced  
hydrogen



Hydroelectric



Generation from fossil resources with  
active carbon capture and storage



Nuclear



Marine and hydrokinetic

Other technologies may also be eligible with carbon capture and storage



# CFE Resources on the FEMP Website


**Carbon Pollution-Free Electricity Resources for Federal Agencies**

Federal Energy Management Program

Federal Energy Management Program » Carbon Pollution-Free Electricity Resources for Federal Agencies


This page connects federal agencies to [Federal Energy Management Program \(FEMP\)](#) carbon pollution-free electricity (CFE) resources and provides information to increase federal agency understanding of on-site and off-site CFE options. Additionally, the steps outlined below represent a comprehensive approach to CFE planning and procurement.

**Assess**




Understand site utility markets and CFE usage

**Strategize**



Identify feasible, impactful pathways to increase CFE

**Implement**



Execute procurement strategies for CFE

Learn more: [CFE Resources for Federal Agencies](#)

## Assess

Assess the options available to your site based on the utility regulatory environment in which it is located. Available options will differ depending upon the market structure.

- UNDERSTAND AGENCY ELECTRIC UTILITY REGULATORY ENVIRONMENT +
- IDENTIFY BALANCING AUTHORITIES +
- REVIEW AVAILABLE DATA RELATED TO IDENTIFIED ECMS FOR EFFICIENCY OPPORTUNITIES +
- CONSIDER FUTURE LOAD +

## Strategize

Identify feasible, impactful pathways to increase CFE.

- UNDERSTAND POTENTIAL FOR ADDITIONAL ON-SITE CFE GENERATION CAPACITY +
- IDENTIFY CURRENT ELECTRICITY PROCUREMENT STRATEGY +
- UNDERSTAND OPTIONS FOR OFF-SITE CFE PROCUREMENT +

## Implement

Implement energy efficiency measures, off-site CFE procurement, and on-site CFE generation and/or energy storage projects.

- EXECUTE STRATEGIES TO INCREASE ON-SITE CFE GENERATION +
- EXECUTE STRATEGY TO INCREASE CFE FOR SITES IN VERTICALLY INTEGRATED MARKETS +
- EXECUTE STRATEGY TO INCREASE CFE FOR SITES IN RETAIL ELECTRIC CHOICE MARKETS +
- REPORT CFE USAGE +
- MEASURE PROGRESS +





# Where to Start to Purchase Qualifying CFE?



- **Identify the regulatory environment:**
  - In North Carolina, electricity is a vertically integrated market.
- **Identify the balancing area:**
  - Your balancing area depends on your serving utility:
    - DUK (for Duke Energy Carolinas customers), or
    - CPLE (for Duke Energy Progress customers)



# Evaluate Options to Determine What Qualifies as CFE



CFE Technology  
solar/wind/non carbon  
emitting, etc.



Placed in service  
10/1/2021 or newer



EACs delivered or  
retired



Delivered to *the*  
*applicable* balancing  
area





# Request Follow-Up to Be the First to Know About New Options

- Duke Energy's Green Source Advantage program is available for enrollment and meets the CFE requirements from Executive Order 14057

## Request Follow-Up!

Use this [linked form](#) or scan the QR code below and click the "Carbon Pollution-Free Electricity"



5. Please select the program areas that you are interested in learning more about:

- Demand Response, Time-Variable Pricing Programs, and Demand Side Management Programs
- EV Fleet and Electric Vehicle Supply Equipment (EVSE) Incentives and Rebates
- Carbon Pollution-Free Electricity



# Clean Energy

---

August 15, 2024

**Wendi Fleener**  
Director, Clean Energy



BUILDING A SMARTER ENERGY FUTURE®

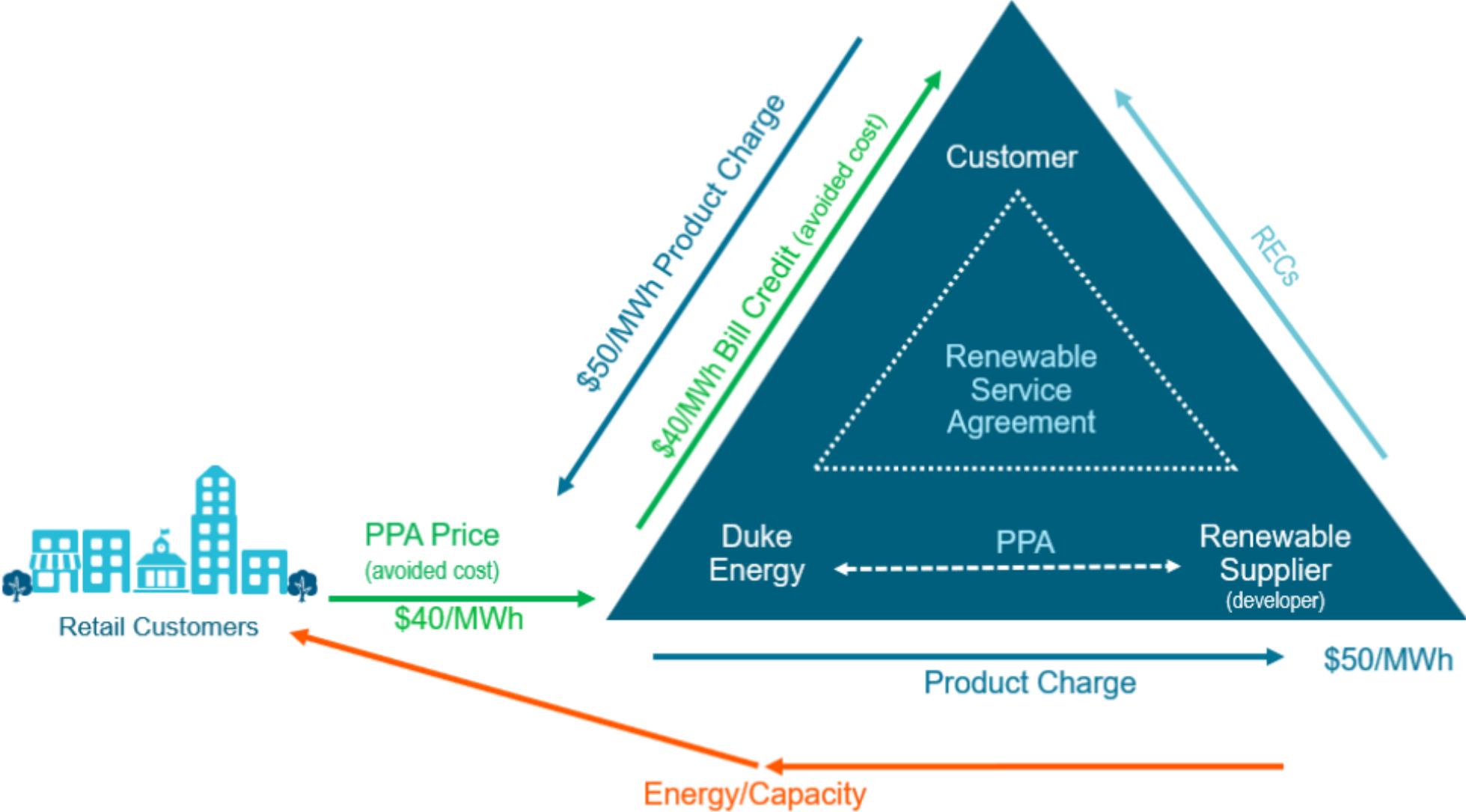
# Voluntary Renewable Programs

- Attribute Programs (RECs)
- Community/Shared Solar
- Green Tariff (Green Source Advantage)
  
- Customers are also considering on-site options

## Green Source Advantage

- Helps large customers meet sustainability goals with a flexible, off-site renewable energy generation solution
- Benefits (Today)
  - No equipment needed on site
  - No upfront capital investment
  - Flexibility for the customer to select and negotiate project terms directly with the renewable supplier of their choice
  - Available in NC, SC, KY

# Green Source Advantage - Illustrative Example





# Green Source Advantage - Evolution

- Feedback From Customers
  - Need an easier option
  - Would like to partner directly with the utility
  - Availability to do more/larger projects

# Emerging Trends for Customer Programs

- Local focus
- Requests for more data
- 24/7
- Program Update vs Compliance (ex. HB 951 in North Carolina)

## Learn More

- **Current offerings & information**
  - [Renewables and Electric Vehicles \(EVs\) - Duke Energy \(duke-energy.com\)](https://www.duke-energy.com)
- **Proposed programs**
  - [Renewables and EV Emerging Renewable Programs \(duke-energy.com\)](https://www.duke-energy.com)



*BUILDING A **SMARTER** ENERGY FUTURE®*

**Break until 12:35 PM**

---

# Utility Energy Service Contracts (UESCs)

---

**Jeff Gingrich**

Project Manager, FEMP Utility Program  
National Renewable Energy Laboratory

# What are Utility Energy Service Contracts (UESCs)?

**Performance contracts that allow agencies to do energy and water projects with little to no up-front costs and appropriations from Congress.**

- Savings from reduced consumption and improved efficiency used to pay for a variety of measures
  - Infrastructure upgrades
  - Replacement of aging, inefficient equipment
  - Renewable energy systems
- Capital costs paid for through financing and available agency funds



# Federal Drivers: EA 2020 and Energy Management Requirements

## 42 U.S.C. § 8253 Energy and Water Management Requirements

- Annual requirements for evaluation of 25% of covered facilities (EISA audits)
- **EA 2020** - Requires installation of life-cycle cost (LCC) effective energy conservation measures within 2 years of audit
- **EA 2020** – Requires use of performance contracting to address at least 50% of LCC ECMs
  - Applies to measures identified in evaluations completed on or after **December 27, 2020**



### **FEMP Guidance**

Performance Contracting Requirements Related to the Energy Act of 2020





# How do UESCs Work?



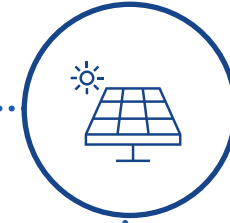
## Select utility

Competition limited to serving distribution utilities



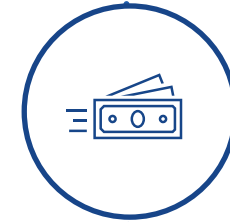
## Conduct assessments\* to evaluate energy/water savings opportunities

Duke Energy identifies cost effective energy conservation measures (ECMs)



## Implement ECMs

Duke Energy secures financing and installs measures



## Make payments from cost savings

Contract term of up to 25-years to pay for ECMs



## Duke and agency implement Performance Assurance Plan to monitor and sustain savings

Via operations & maintenance / savings verification/other

*\*Preliminary Assessment typically provided at no cost*



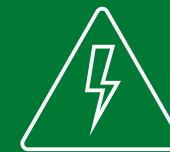
# Authorizing Law: Utility Energy Service Contract (UESC)

## Authorized and encouraged under the Energy Policy Act of 1992 (42 U.S.C. § 8256 and 10 U.S.C. § 2913 for DOD)

- Agencies are authorized to participate in utility incentive programs and accept any financial incentives, goods, or services generally available
- Defined as 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

### UESCs are Limited Source Acquisitions

Competition is limited to serving distribution utilities (electricity, natural gas, and water).



# Key Advantages of UESCs

- **Intended to achieve savings or be budget neutral**
  - Paid for through energy/water savings and/or available agency funds
  - Utility is responsible for obtaining financing
- **Contract term up to 25 years**
- **Sites/facilities within Duke Energy's service territory may be bundled in a single task order**
- **Performance Assurance Plan and/or savings guarantee is required**
  - Utility can perform operations & maintenance, repair/replacement, measurement and verification
- **Contracts are firm-fixed-price**
- **Duke Energy is single point of contact for entire project – evaluation, design, installation, post-installation services**



# Energy Conservation Measures

## Common Examples

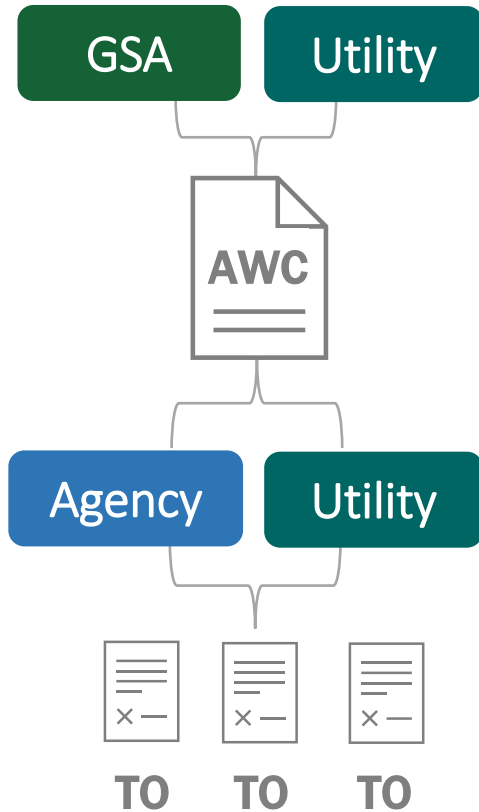
*(not exhaustive)*

- 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 Power Generation Systems
- Electrical peak shaving/load shifting
- Rate adjustments
- Appliance/plug load reductions
- Energy consuming devices and support structures
- Water and wastewater

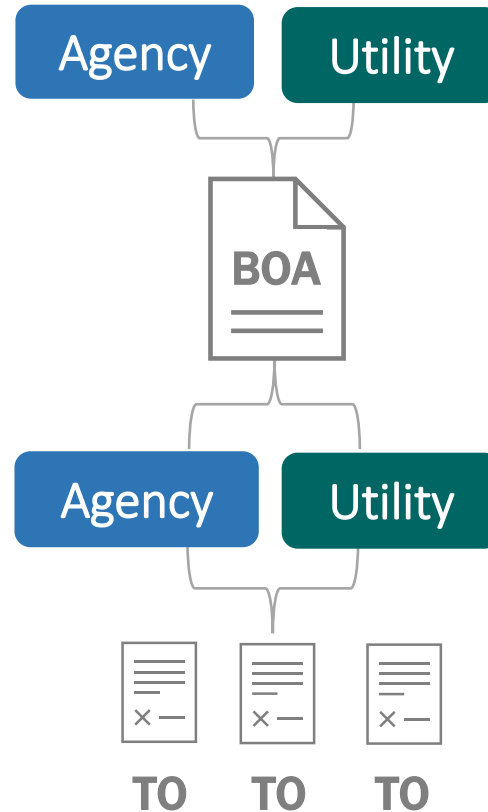


# UESC Contracting Options

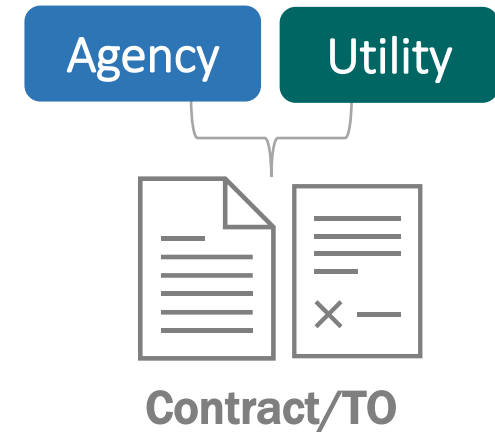
## Areawide Contract (AWC)



## Basic Ordering Agreement (BOA)



## Separate Contract



# Getting Started with a UESC

- **Set goals for your project**
  - Energy/water efficiency, equipment replacement, decarbonization and electrification, resilience, etc.
- **Review facility/energy consumption data and identify known ECM opportunities**
  - Leverage existing audits, multi-year site plans, and facility data
- **Identify eligible utility providers (*other than Duke Energy*)**
  - Contact your serving utilities (electricity, natural gas, water) to learn about program availability and experience
- **Evaluate funding options**
  - Identify available appropriations, grants, and incentives that may help expand scope or shorten contract term
- **Contact FEMP for training and technical support**



# UESC Support and Resources

## FEMP offers various types of support to set projects up for success:

- General consultations with [Federal Project Executives](#)
- [Project Facilitators \(PF\)](#) to act as advisors through the Preliminary Assessment
- [Project support](#) provide by technical and contracting SMEs through DOE National Labs
- [Training](#) on contracting and technical topics for agency teams
- [Online templates and other resources](#)
- [Federal Utility Partnership Working Group](#)
  - [2024 FUPWG Seminar](#) on Wednesday/Thursday August 21-22, 2024 in Houston, TX
  - [Free one day UESC training on Tuesday, August 20](#)



**How much does FEMP support cost?**

**Nothing!**

Most support can be provided at no cost\*

**[Visit the FEMP UESC website to learn more](#)**



# Duke Energy's Utility Energy Service Contract (UESC) Program

---

August 15, 2024

**Ashley Edwards**

Director, Federal Project Development and Execution

**Amanda Renjifo**

Business and Project Development



BUILDING A SMARTER ENERGY FUTURE®



## Our Federal Team



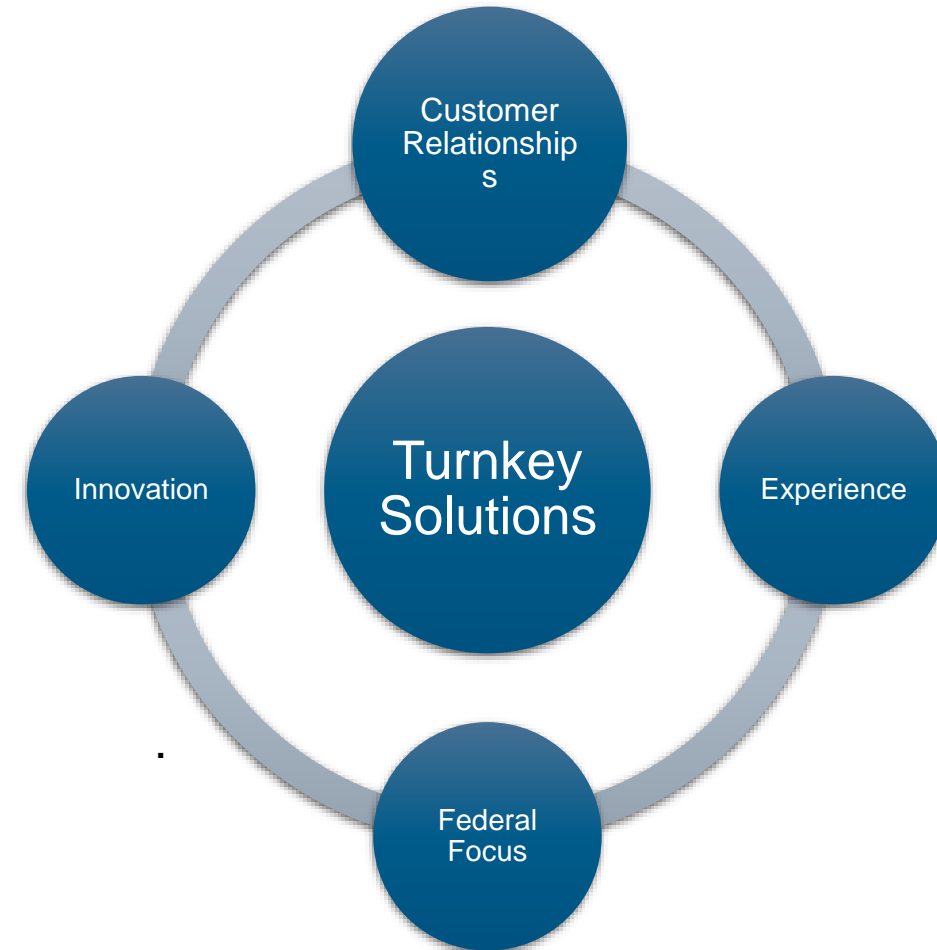
Core team of engineers, project managers, construction managers, and contract and business specialists focused on providing superior solutions for federal customers.



GSA Areawide Exhibit C. **Agencies can leverage Exhibit C to pursue utility energy service contracts (UESCs).** Energy management services include energy audits, energy conservation project (ECP) feasibility study, ECP engineering and design study, ECP installation, and demand side management projects.

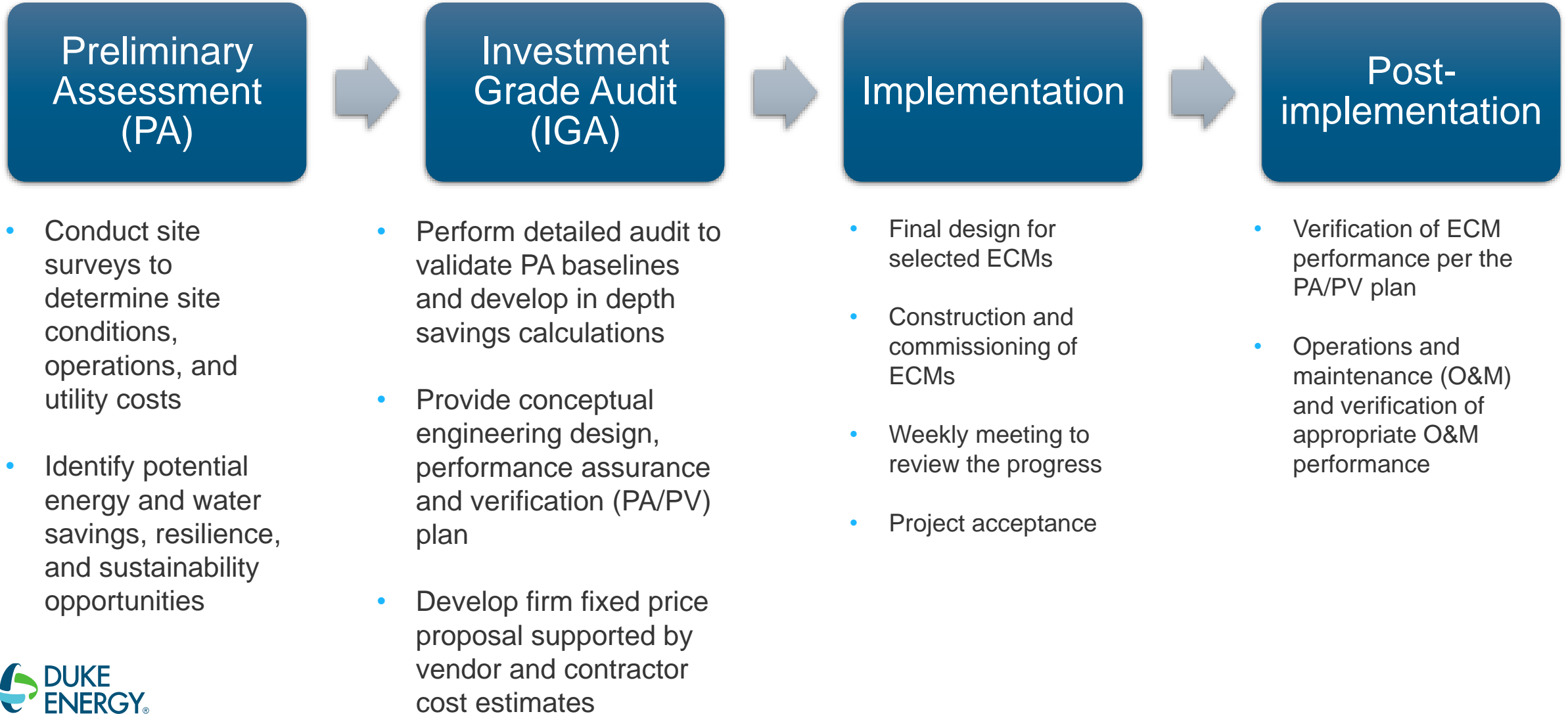
## Our Mission

- **Customer Relationships:** Create successful projects based on strong utility/federal partnerships.
- **Innovation:** Improve efficiency, reliability, sustainability, and resilience through development, contracting, engineering project and construction management, procurement, financing, PA/PV, and post-implementation services.
- **Federal Focus:** Share knowledge of and experience related to executive and federal agency requirements to achieve goals
- **Experience:** Continue to grow our UESC portfolio to expand where currently performing and engage additional federal customers.



**Our goal is to develop long-term relationships with federal customers, working closely onsite to coordinate and execute projects across multiple phases.**

# UESC Process



## UESC Benefits

- Utility performs role of general contractor providing oversight, project and construction management, and coordination with government stakeholders
- Streamline contracting with an established contract vehicle
- Allows federal agencies to take advantage of utility expertise
- Can provide holistic solution because UESCs are appropriate for a wide range of projects and facilities
- Fully understand agency challenges to closely align to agency needs
- Leverage and bundle financing and other funding options such as ERCIP and AFFECT grants
- Work with agencies to ensure coordination and cooperation between all stakeholders



# Duke Energy UESC Highlights

UESC Project	# Task Orders	Lighting	Water and Sewer Conservation	Controls/ SCADA	Electric Distribution	HVAC	Renewables	Utility Improvements
Marine Corps Base Camp Lejeune	5	X	X	X	X	X	X	X
Marine Corps Air Station Cherry Point	2	X	X	X	X	X		
Fleet Readiness Center East	2			X		X		X
National Institutes of Environmental Health Sciences	2	X	X					
Naval Health Clinic Cherry Point	1					X		X
Fort Liberty (formerly Fort Bragg)	1	X	X			X	X	X



**Duke Energy has executed over \$350M in UESC contracts since 2016, delivering ~\$14M/year in customer savings.**

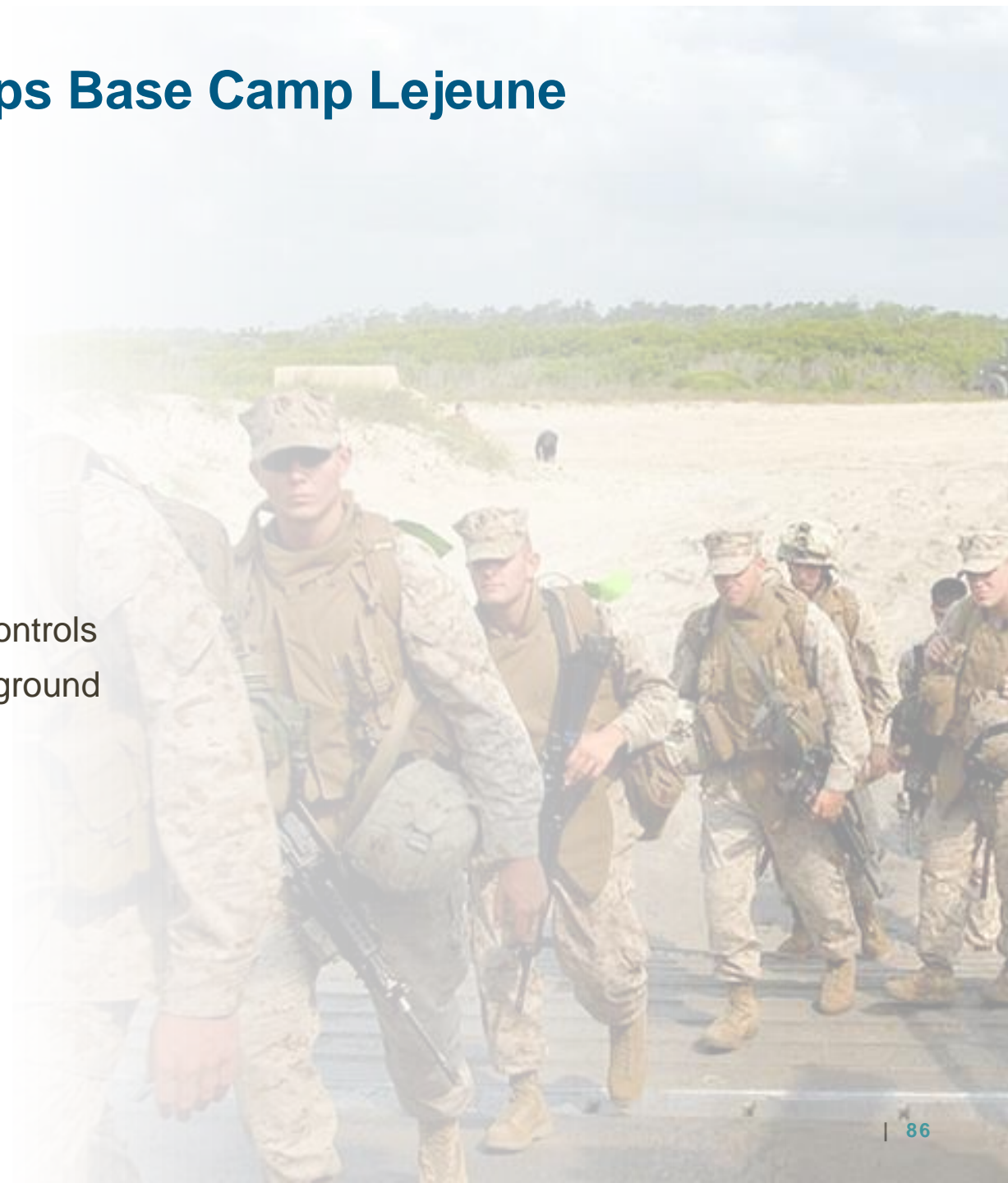
# Case Study: Marine Corps Base Camp Lejeune

## Task Order Project Highlights

- Investment Value: ~\$200M
- Contract Terms: 22 years
- Supplemental Funding: Hurricane Florence
- Location: Jacksonville, North Carolina

## Project Overview

- Retrofit >7M sqft lighting, airfield lighting, outdoor lighting controls
- Three Substation replacement/updates, overhead to underground
- Solar repair of 13MW arrays
- Gravity sewer to 42 lift stations
- SCADA for high voltage, water and wastewater
- Building management system (250 buildings)
- Surgical mechanical upgrades (170 buildings)



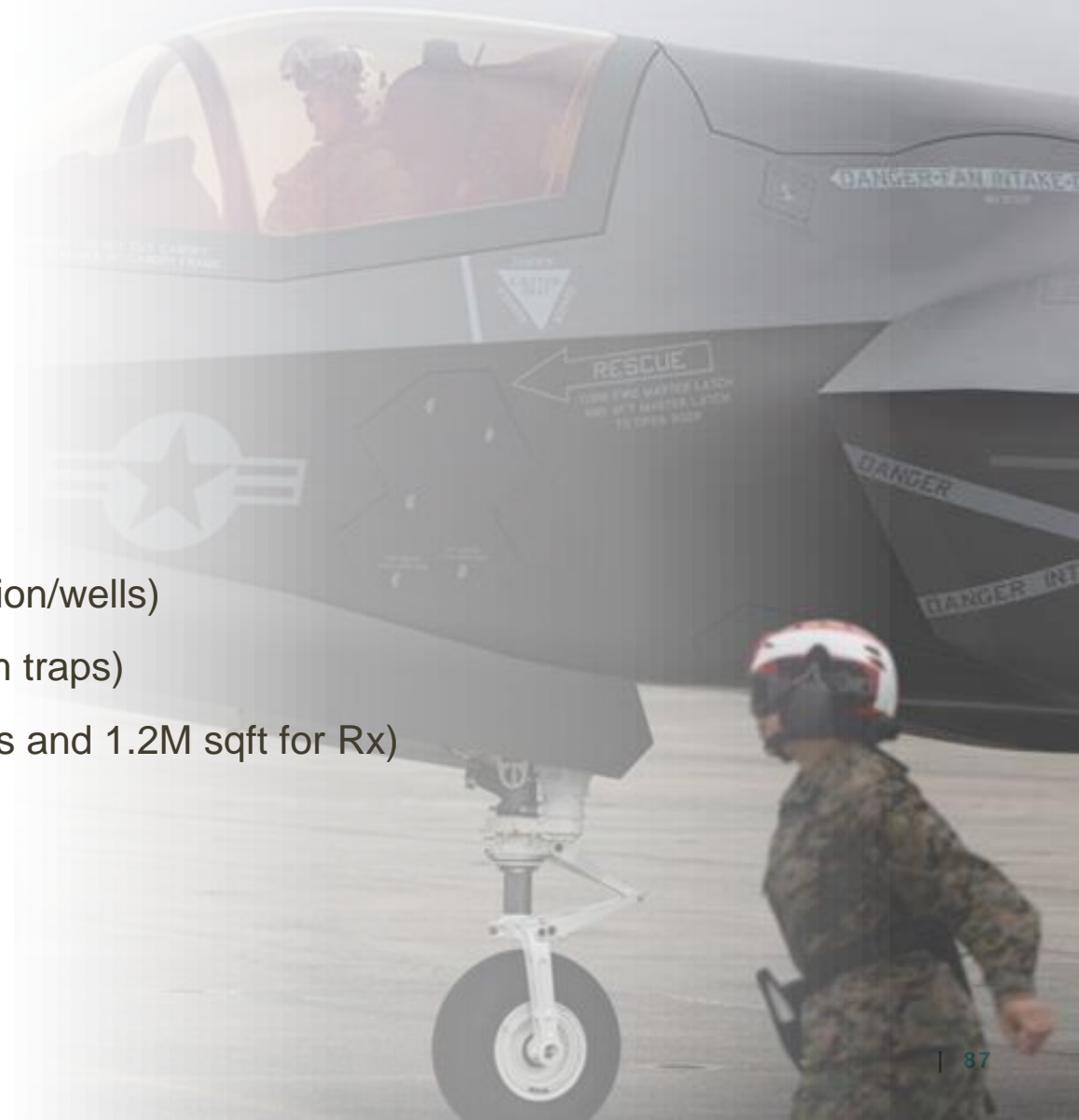
# Case Study: Marine Corps Air Station Cherry Point

## Task Order Project Highlights

- Investment Value: ~\$47M
- Contract Terms: 22 years
- Supplemental Funding: Hurricane Florence
- Location: Havelock, North Carolina

## Project Overview

- Lighting system improvements (30,257 LED fixtures)
- Water and sewer conservation (4,184 fixtures and 75 lift station/wells)
- HVAC Improvements (43 AC units, 11 boilers, and 528 steam traps)
- Controls and EMCS upgrades (60 bldgs. for control upgrades and 1.2M sqft for Rx)
- Electric system upgrades (2 switch stations)



# Case Study: National Institutes of Health

## Task Order Project Highlights

- Investment Value: \$13M
- Contract Terms: 19 years
- Location: Triangle Park, North Carolina

## Project Overview

- Lighting upgrades
- Reclaimed water use for cooling tower makeup water
- Central Chilled Water Plant Upgrades





# Contact Us



**Duke Energy**  
400 South Tryon Street  
Charlotte, NC 28202

**Amanda Renjifo**  
Business and Project Developer  
Energy Solutions

**C:** 850.485.3509  
[amanda.renjifo@duke-energy.com](mailto:amanda.renjifo@duke-energy.com)



# Leveraging GSA Areawide Contracts (AWCs)

---

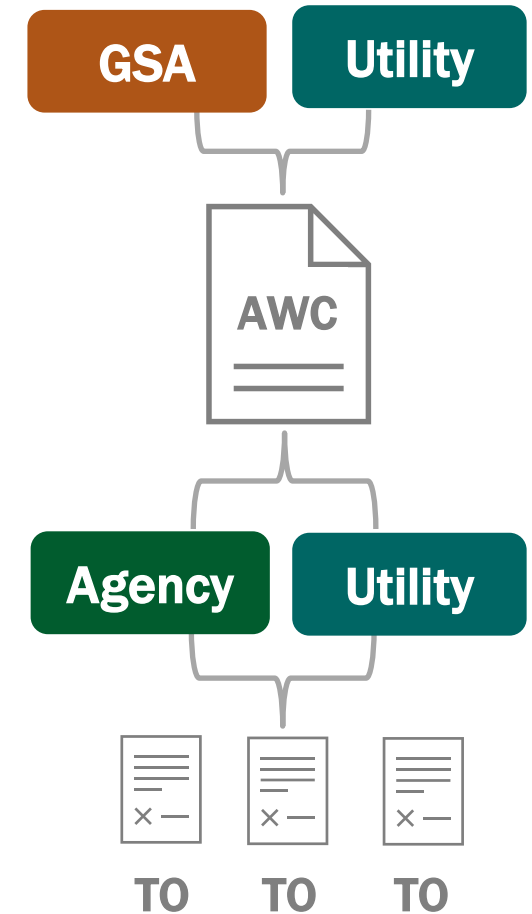
**Ebony Atkinson**

Chief, Public Utility Branch | Senior Contracting Officer  
GSA

# Areawide Contracts for Utility Services

**GSA negotiates AWCs with public utilities on behalf of the Federal Government to streamline procurement of utility services.**

- Contract Term - 10 years (25 years for UESCs)
- AWC bilaterally signed by GSA and utility
- FAR Part 41 requires agency use available AWC unless head of contracting authority (HCA) determines otherwise
- Exhibits for services signed by agency and utility



# AWC Exhibits/Authorizations

## 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

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



# Authorizations for Electric or Natural Gas Service

Used to obtain utility service and implement infrastructure projects that don't typically result in savings.

## Authorization for Electric Service

Nature of Service

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

## Authorization for Natural Gas Service

Nature of Service

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

\* *Special Facilities includes a variety of measures not otherwise listed in the Exhibit*



# Authorization for Electric Service: Project Examples

- EV Infrastructure
- Advanced Meters
- Solar Arrays
- Conversion of overhead lines to underground
- Utilities hardening
- Emergency & back-up generation
- Customer-owned substation and distribution system upgrades
- Distribution system mapping
- Osrose pole inspections/replacements
- Emergency restoration/repairs
- Redundant/alternate feeder
- Infrared scan
- Line extensions
- Lightning protection



# Using the EMSA for UESCs

**The Authorization for Energy Management Services (EMSA) is used to award UESCs under an AWC.**

- **UESC services include:**
  - Project development - preliminary assessment, investment grade audit
  - Task order award - engineering and design, ECM installation
- **How does it work?**
  - Agency and utility agree upon the scope, deliverables, and cost for the service
  - Agency completes EMSA form and attaches task order
  - Agency sends EMSA and customer agreement form to Utility for signature



# EMSA Example

**EXHIBIT "C"**

Contractor's ID NO. \_\_\_\_\_ (Optional)  
Ordering Agency's ID NO. \_\_\_\_\_ (Optional)

**AUTHORIZATION FOR, OR TERMINATION OF, ENERGY MANAGEMENT SERVICES**  
**CONTRACT NO. GS-OOP-14-BSD-1055**

Ordering Agency: \_\_\_\_\_  
Address: \_\_\_\_\_

Pursuant to Contract No. GS-OOP-14-BSD-1055 between the Contractor and the United States Government and subject to all the provisions thereof, service to the United States Government under such contract shall be rendered or modified as hereinafter stated. Contract Articles 2 and 4 shall be followed for the initiation of service under this contract.

PREMISES TO BE SERVED: \_\_\_\_\_  
SERVICE ADDRESS: \_\_\_\_\_

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

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

POINT OF DELIVERY: \_\_\_\_\_

ESTIMATED PROJECT COST: \$ \_\_\_\_\_  
ACCOUNTING AND APPROPRIATION DATA: \_\_\_\_\_

**LIST OF ATTACHMENTS:**

<input type="checkbox"/> General Conditions	<input type="checkbox"/> Payment Provisions	<input type="checkbox"/> Special Requirements	<input type="checkbox"/> Economic Analysis
<input type="checkbox"/> Facility/Site Plans	<input type="checkbox"/> Historical Data	<input type="checkbox"/> Utility Usage History	<input type="checkbox"/> ECP Feasibility Study
<input type="checkbox"/> Design Drawings	<input type="checkbox"/> Design Specifications	<input type="checkbox"/> Certifications	<input type="checkbox"/> Commission Schedules

[View and Download Duke Energy's AWC](#)





# Leveraging the AWC

## Steps for using AWCs for obtaining utility services:

- Obtain copy of AWC
  - AWC List: [Download Contracts/ Modifications | GSA](#)
- Complete applicable authorization form for utility services
  - Ensure applicable clauses are incorporated
- Complete necessary standard forms (SF) and customer agreement
  - Include applicable rate schedule and tariff options
- Send Authorization and customer agreement form to Utility for signature/Agency should fully execute documentation

## KEY REQUIREMENT

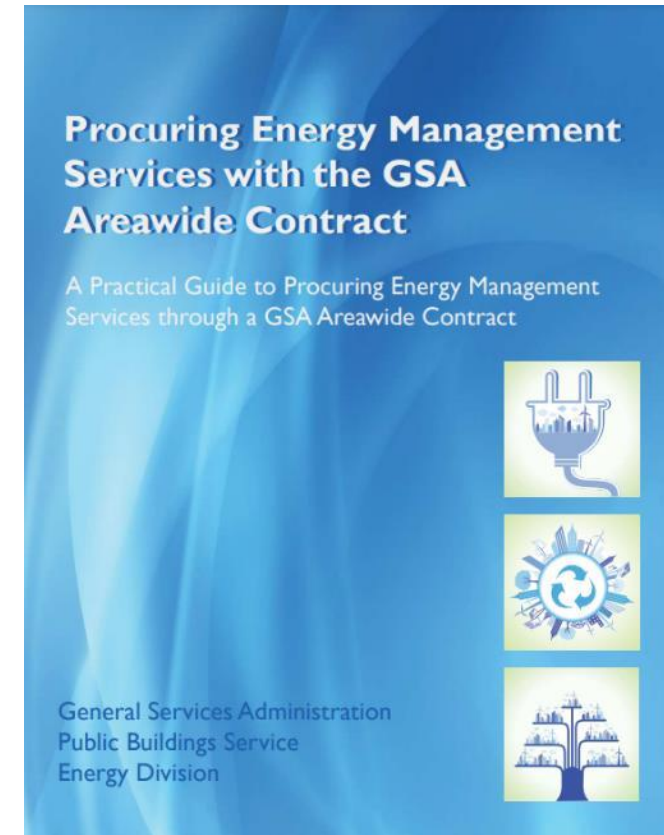
- Send signed forms to GSA for archiving
- FAR 41 requirement and important part of the process
- Copies of all agreements should be sent to GSA ([energy@gsa.gov](mailto:energy@gsa.gov))



# GSA AWC Resources

## GSA Energy Library - Utility Areawide Contracts

- Utility AWC Listing
- Procurement Guide for Public Utility Services
- Utility Areawide Guide
- Procuring Energy Management Services with the GSA AWC
- Sample EV Charging Infrastructure Exhibits (coming soon)



# Duke Energy General Services Administration Areawide Contract

---

August 15, 2024

**Ashley Edwards**

Director, Federal Project Development and Execution

**Amanda Renjifo**

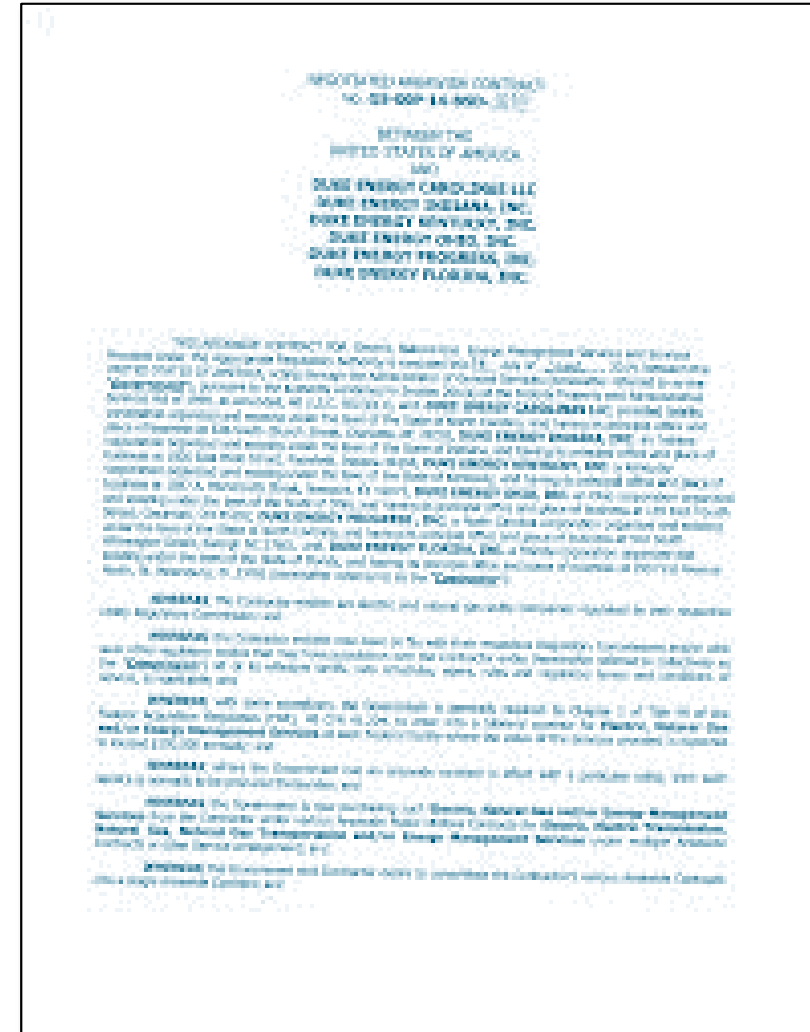
Business and Project Development



BUILDING A SMARTER ENERGY FUTURE®

# General Services Administration (GSA) Areawide Contract

- Agreement between GSA and Utility to streamline contracting between federal agency and Utility
- Authorized under 40 U.S.C. 501 and FAR Part 41
- Used to procure utility services for federal agencies such as electricity, natural gas, water, wastewater, and steam and establish long-term (10-year) government-wide contracts for utilities.



# GSA Areawide Capabilities

## Exhibit A. Electric Service

- New electric service, change in electric service, or disconnection and/or termination of electric service

## Exhibit B. Gas Service

- New gas service change in gas service, or disconnection and/or termination of gas service

## Exhibit C. Energy Management

- Agencies can leverage Exhibit C to pursue utility energy service contracts (UESCs). Energy management service including energy audits, energy conservation project (ECP) feasibility study, ECP engineering and design study, ECP installation, and demand side management projects.

## Exhibit D. Provision of Service

- Interconnection agreements and general energy services not covered with A, B or C



# Case Study: Marine Corps Camp Lejeune Load and Coordination Study

- Conduct surveys of the installation electrical distribution system to identify system assets and attributes necessary to inventory all assets and collect information for a comprehensive load study
- Used AWC Exhibit C
- Complete engineering (load and protective coordination) analysis
- Model the electrical distribution system, and make recommendations ensuring reliability, operational safety, and resilience, including:
  - load balancing
  - reduced line power loss
  - identification and correction of circuit overloads
  - identification and correction of circuit voltage level deficiencies (e.g., voltage regulator settings/locations).



# Contact Us



**Duke Energy**  
400 South Tryon Street  
Charlotte, NC 28202

**Amanda Renjifo**  
Business and Project Developer  
Energy Solutions

**C:** 850.485.3509  
[amanda.renjifo@duke-energy.com](mailto:amanda.renjifo@duke-energy.com)



# Closing Remarks

---

August 15, 2024

**Ashley Edwards**

Director, Federal Project Development and Execution



BUILDING A SMARTER ENERGY FUTURE®



# Final Q&A, Resources, and Next Steps

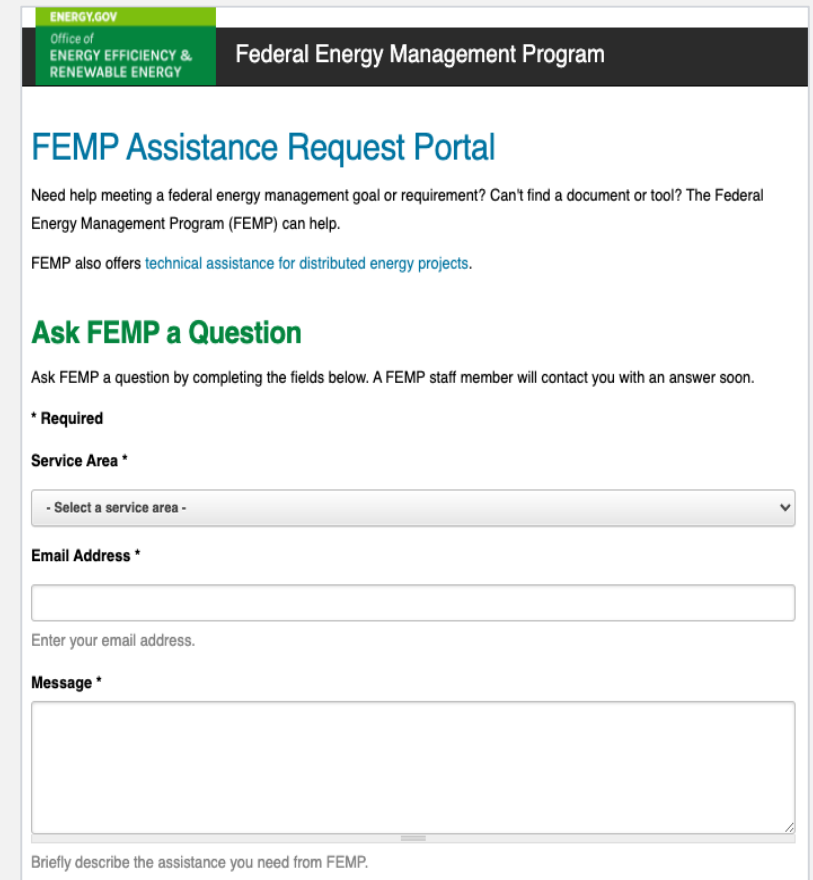
# FEMP Technical Assistance

## FEMP offers free support to federal agencies via the Assistance Request Portal:

- Staff training
- Project assistance
- Analysis\* (utility rates, renewable energy optimization, resilience, etc.)
- Resources (guides, templates, etc.)

\* Subject to available funding and scope of request

## FEMP Assistance Request Portal



The screenshot shows the FEMP Assistance Request Portal interface. At the top, there is a header with the ENERGY.GOV logo and the text "Office of ENERGY EFFICIENCY & RENEWABLE ENERGY" and "Federal Energy Management Program". Below the header, the title "FEMP Assistance Request Portal" is displayed. A paragraph of text explains that FEMP can help with federal energy management goals and requirements. Below this, there is a section titled "Ask FEMP a Question" with a sub-heading "Ask FEMP a Question" in green. A note states that FEMP staff will contact the user with an answer soon. The form includes a "Service Area" dropdown menu, an "Email Address" input field, and a "Message" text area. A note at the bottom of the form asks the user to briefly describe the assistance needed.

ENERGY.GOV  
Office of  
ENERGY EFFICIENCY &  
RENEWABLE ENERGY

Federal Energy Management Program

### FEMP Assistance Request Portal

Need help meeting a federal energy management goal or requirement? Can't find a document or tool? The Federal Energy Management Program (FEMP) can help.

FEMP also offers [technical assistance for distributed energy projects](#).

### Ask FEMP a Question

Ask FEMP a question by completing the fields below. A FEMP staff member will contact you with an answer soon.

**\* Required**

**Service Area \***

- Select a service area -

**Email Address \***

Enter your email address.

**Message \***

Briefly describe the assistance you need from FEMP.

# AFFECT BIL FAC: \$250M to Advance Net-Zero Facilities



Assisting Federal Facilities with Energy Conservation Technologies (AFFECT)  
Bipartisan Infrastructure Law (BIL) Federal Agency Call (FAC)  
**Advancing Net-Zero Federal Facilities (DE-FOA-0003026)**

## Topic Areas (updated March 22, 2024)

Topic Area 1A	Assistance with Net-Zero Buildings Project Development
Topic Area 1B	Assistance with Net-Zero Buildings Program and/or Procedures Development
Topic Area 2	Modify Existing Projects for Net-Zero Buildings
Topic Area 3	New and/or In Development Net-Zero Buildings Projects

## Resources

- [FAC and Application Forms](#)
- [FAC Informational Webinar Recording and Slides](#)
- [Slides Summarizing Recent FAC Modifications](#)
- [Applicant Questions and Answers](#)
- [Training and Guidance Information](#)

**Only Federal Agencies May Apply for AFFECT**

## Upcoming Application Deadlines

Phase 1 May 31, 2023 (closed)

Phase 2 June 27, 2024 (closed)

**Phase 3 April 18, 2025 (forthcoming)**

Selected projects announced approximately 6 months following the submission deadline.

Questions? Email [AFFECTBIL@hq.doe.gov](mailto:AFFECTBIL@hq.doe.gov).



# FEMP Webinars and On-Demand Training

## Live and on-demand webinars can be accessed through the FEMP Training Catalog

- Continuing Education Units available
- Curriculums include:
  - [UESC](#) and [DR/TVP](#)
  - [Distributed Energy Procurement](#)
  - [Resilience Planning and Integration](#)
  - [Facility and Fleet Optimized Design](#)
  - [Legislative and Mandate Guidance](#)
  - [Energy and Cyber Security Integration](#)

Utility Engagement			
Title	Level	Length	CEUs
Evaluating Your Utility Rate Options	Introductory	1 hour	0.20
Taking Advantage of Demand Response and Time-Variable Pricing Offerings	Introductory	1.5 hours	0.20
UESC Comprehensive Training: Day 1 - Fundamentals and Planning	Introductory	2 hours	.3
UESC On-Demand Webinar Series: Phase 1 - Acquisition Planning	Introductory	1 hour	0.20
UESC On-Demand Webinar Series: Phase 2 - Utility Selection and Preliminary Assessment	Introductory	1 hour	0.20
UESC On-Demand Webinar Series: Phase 3 - Project Development	Introductory	1 hour	0.20
UESC On-Demand Webinar Series: Phases 4 and 5 - Project Implementation and Construction and Post-Acceptance Performance	Introductory		0.20
UESC On-Demand Webinar Series: UESC Introduction Part 1 - Overview and Background	Introductory	1 hour	0.20
UESC On-Demand Webinar Series: UESC Introduction Part 2 - Legislation and Contracting	Introductory	1 hour	0.20
Utility Energy Service Contracts (UESC) New Utility Toolkit	Introductory	1 hour	0.2
Financing for UESCs: Ensuring the Best Value for the Government	Intermediate	1 hour	0.20
UESC On-Demand Webinar Series: Special Topic - Performance Assurance for Utility Energy Service Contracts	Intermediate	1 hour	0.20

[Click here to view all courses!](#)



# Federal Utility Partnership Working Group (FUPWG) 2024

## Registration Open!

August 21-22, 2024 | Houston, TX



### Learn More:

[FUPWG Webpage](#) | [Registration](#) | [Agenda](#)

## Event Info

- 2-day seminar led by FEMP to cultivate lasting partnerships between federal agencies and utilities for improved energy and water management
- Sessions and panels led by industry experts
- Knowledge sharing around UESC best practices, new technologies, and approaches to achieving energy goals
- [Full-day \(no cost!\) UESC Training held on August 20](#)
- Space will be limited to 200 attendees
- Hosted in partnership with CenterPoint Energy



# Next Steps: Schedule a Follow-Up Meeting

## Request a consultation with FEMP or your utility to:

- *Discuss your site's energy goals, challenges, and priorities*
- *Identify program offerings that align with your needs*
- *Sign up for incentives*
- *Connect with subject matter experts to learn more about any of the topics discussed today*

## Consultation Request Form

Fill out this [\*linked form\*](#) or scan the QR code below.

*FEMP will connect you with the appropriate party for follow-up, which may include FEMP technical experts, utility POCs, and/or the relevant Utility Lead Agency.*



# Next Steps: Review Available Duke Energy Programs

## Energy Efficiency Rebates

- [Energy Incentive Programs - Business - Duke Energy \(duke-energy.com\)](https://www.duke-energy.com)

## Demand Response Programs

- [DEC PowerShare](#)
- [DEP Demand Response Automation](#)
- [Duke Energy Rates](#) (must select State/Jurisdiction)

## Time Variable Pricing Rates

- [Duke Energy Rates](#) (must select State/Jurisdiction)

## EV/EVSE Programs and Rebates

- [Duke Energy NC Carolinas Non-Residential Charger Solution](#)
- Charger Solution Team Mailbox: [ChargerSolutionNC@duke-energy.com](mailto:ChargerSolutionNC@duke-energy.com)
- [Commercial Charger Prep Credit - Duke Energy \(duke-energy.com\)](#)
- Charger Prep Credit Team Mailbox: [Chargerprepcredit@duke-energy.com](mailto:Chargerprepcredit@duke-energy.com)

## Carbon Free Energy Program

- Current offerings & information: [Renewables and Electric Vehicles \(EVs\) - Duke Energy \(duke-energy.com\)](#)
- [Green Source Advantage](#)
- Proposed programs: [Renewables and EV Emerging Renewable Programs \(duke-energy.com\)](#)



# Contact Information

## DOE FEMP / Lab Staff / GSA

Name	Program
John Michael Forrest	UESC
Tracy Niro	CFE
Jason Koman	Fleet/EVSE
Billie Holecek (LBL)	Demand Response and TVP
Jeff Gingrich (NREL)	UESC

## Duke Energy

Name	Program
<a href="mailto:Mark.Kametches@duke-energy.com">Mark.Kametches@duke-energy.com</a>	Demand Response and Time-Variable Pricing
<a href="mailto:Wendi.Fleener@duke-energy.com">Wendi.Fleener@duke-energy.com</a>	CFE
<a href="mailto:Daniel.Schroyer@duke-energy.com">Daniel.Schroyer@duke-energy.com</a>	Fleet Electrification
<a href="mailto:amanda.renjifo@duke-energy.com">amanda.renjifo@duke-energy.com</a>	UESC and AWC Projects

Contact FEMP SMEs via the  
[FEMP Assistance Request Portal](#)





# This Training Offers IACET CEUs

## How to obtain your CEUs:

1. Visit the Whole Building Design Guide (WBDG) at [wbdg.org](http://wbdg.org) to log in or create an account
2. Enroll in the training
3. Attend the training in full
4. Return to your WBDG account's Enrolled courses
5. Select the training's "Proceed to Course" button
6. Complete an assessment
7. Submit a training evaluation
8. Download your certificate.

## What's an IACET CEU?

An International Association for Continuing Education and Training (IACET) continuing education unit (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.



# Stay in Touch

---

## **Ask Questions**

Visit FEMP's [Technical Assistance Portal](#) to ask questions ranging from general to project-specific.

## **Find More Trainings**

Search the [FEMP Training Catalog](#) to find upcoming live trainings, events, and on-demand courses.

## **Sign Up for FEMP Updates**

Receive periodic emails to [stay informed](#) of FEMP news, trainings, tools, resources, and more.

## **Follow FEMP**

[Follow FEMP on LinkedIn](#) for event announcements, examples of agency success, and of-the-moment news.



# Thank You!



**Ethan Epstein**

FEMP Resilience Program Manager



**Amanda Renjifo**

[amanda.renjifo@duke-energy.com](mailto:amanda.renjifo@duke-energy.com)

