SCEP
STATE & COMMUNITY ENERGY PROGRAMS

ESPC Campaign Training – The Performance Period: Best Practices for Measuring ESPC Impact and Ensuring Success

February 25, 2025

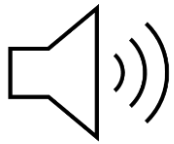
A copy of the slides from today's presentation will be provided to you for reference.

ENERGY SERVICES COALITION
A Public Private Partnership
www.energyservicescoalition.org

ESPC Campaign

Virtual Housekeeping

Drop your questions in the Q&A box – or raise your hand at the end!



Unmute your microphone to ask questions or join the conversation

A recording of this training (minus the final Q&A) will be posted

Speakers

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Presenter's Bios

- **Dub Taylor:** Dub is the Executive Director of the Energy Services Coalition, and the COO of the Texas PACE Authority. Dub has over 25 years of clean energy policy, programmatic, operations and technology deployment experience, including 20 years as the Director of the Texas State Energy Conservation Office.

- **Chris Halpin:** Chris runs Celtic Energy, PLLC, based in Las Vegas, NV. ESC, U.S. DOE, and Berkeley Lab are his primary clients. He has 40 years' experience in the energy efficiency industry, including founding and running an ESPC Owner's Rep firm for 18+ years where he oversaw over $2.5 billion of ESPC projects. He has a BS Mechanical Engineering, is a registered PE in Nevada, and Certified by the Association of Energy Engineers (AEE) as a Certified Energy Manager (CEM) and Certified Measurement & Verification Professional (CMVP). He is also a USDOE FEMP certified Project Facilitator.

- **Tracy Phillips:** Tracy is the Director of the Colorado C-PACE Program, Director of the Energize Denver Energy Navigation Program, and is a Certified Energy Manager, Certified Demand Side Management Professional, Performance Measurement and Verification Analyst, and holds a Master's Degree in Physics. His 27 years of experience with commercial building efficiency and sustainability includes energy audits, recommissioning, measurement and verification, master planning, sustainable design assistance, program management and third-party technical reviews. He is currently serving as the Chair of the IPMVP Committee and is the former Technical Director of GBCI's Investor Confidence Project.

- **George Buchanan:** George is the Founder and CEO of 2KB Energy Services, an Atlanta-based firm specializing in comprehensive energy efficiency projects. With nearly 30 years in the industry, George specializes in translating complex technical concepts into actionable strategies for sustainable energy solutions. He holds a BS in Electrical Engineering, an MBA, and is certified as a USDOE FEMP Project Facilitator and Certified Energy Manager (CEM).

About ESC

The Energy Services Coalition (ESC) is a national nonprofit organization composed of a network of experts from a wide range of organizations working together at the state and local level to increase energy efficiency and building upgrades through **E**nergy **S**avings **P**erformance **C**ontracting.

Local chapters; public and private sector individuals coming together to provide outreach and education.

Acronyms Explained

- BAS = Building Automation System
- Cx = Commissioning
- DOE = Department of Energy
- ECM = Energy Conservation Measure
- ESCO = Energy Services Company
- ESPC = Energy Savings Performance Contract
- FA = Financial Advisor
- HVAC = Heating, Ventilation, and Air Conditioning
- IGA = Investment Grade Audit
- IGAA = Investment Grade Audit Agreement
- M&V = Measurement & Verification
- OMR&R = Operations, Maintenance, Repair and Replacement
- OR = Owner's Representative
- PIR = Post-Installation Report
- RFP = Request for Proposal

Agenda

Learning Objective: An overview of measurement & verification of savings in an ESPC project, and employing best practices to ensure successful outcomes :

- Introductions
- What is ESPC?
- Where are we in the ESPC Process?
- Review of the Measurement & Verification Process
- Application of International Performance Measurement & Verification Protocols
- Examples of M&V Best Practices in Successful ESPC Projects
- Questions and Discussion
- Resources, Closing Thoughts, and Next Steps

This symbol indicates that more information on this topic will be featured in future trainings.

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What is ESPC?

The use of **guaranteed** savings from the maintenance and operations budget (utilities) as capital to make needed upgrades and modernizations to your building environmental systems, financed over a specified period of time."

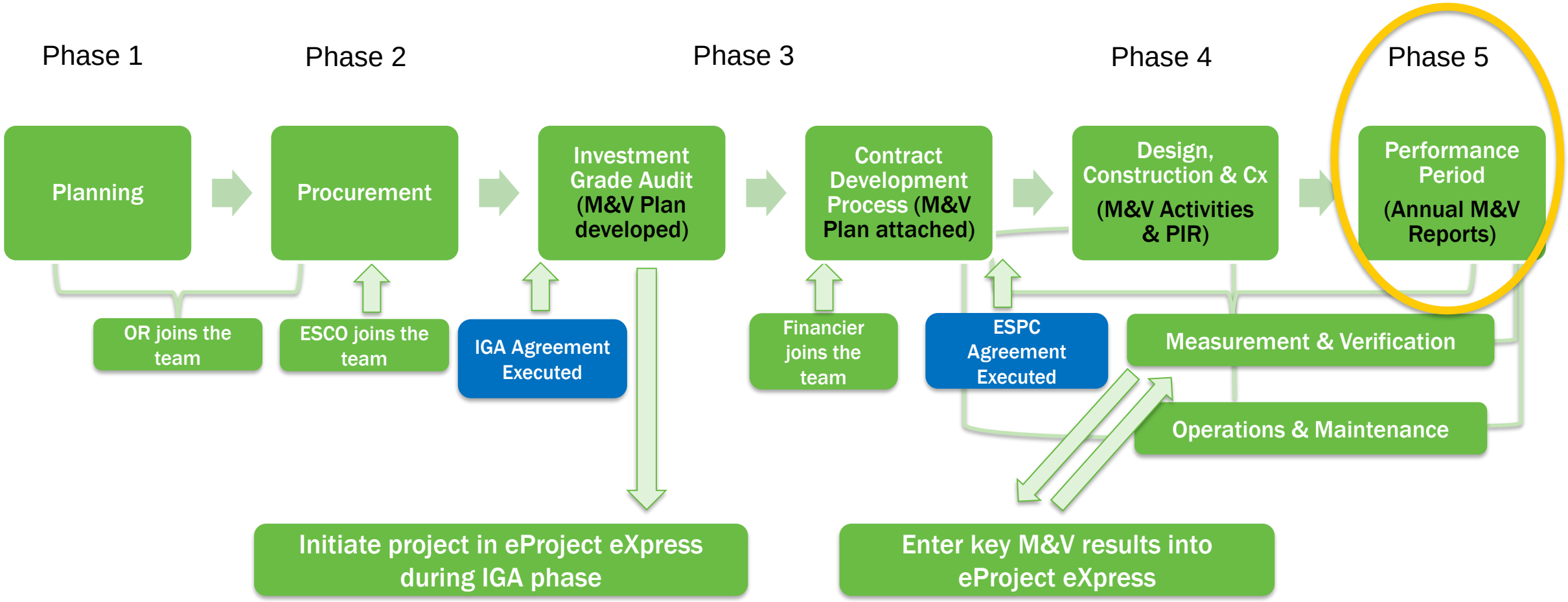
- United States Department of Energy - 1999

"ESPC is a financial mechanism used to pay for today's facility upgrades with tomorrow's energy savings – without tapping your organization's capital budget. Done properly, it has the performance of a hedge fund, with the risk of a T-bill."

- Chris Halpin - seems like every day

A version of **design-build** contracting, with a focus on guaranteed energy savings.

Where are we in the ESPC Process?



Review of Measurement & Verification Process

Measurement & Verification (M&V) Plan

2. M&V & Commissioning Plan

A detailed plan to verify that the ECMs are delivering the promised energy savings. **This involves ongoing monitoring and assessment to ensure that energy savings are achieved and sustained over time.**

This includes:

- Selection of M&V methods (e.g., IPMVP options)
- Determination of key performance indicators
- Scheduling of M&V activities
- Commissioning plan and activities
- ***Owner's Reps provide great value for whole project, but especially M&V***

(slide from 10/24/24 Workshop: Reviewing Investment Grade Audits and Project Proposals)

M&V Overview (from U.S. DOE's PCNRC Training Certificate Series)

Customer and ESCO agree to general M&V approach prior to developing the plan (preliminary M&V workshop).

M&V methods chosen affect how baseline is defined, savings are calculated, and performance is verified.

	Energy Service Company (ESCO) Responsibilities	Recommended Customer Activities
Baselines	Estimate for scoping, define in Investment-Grade Audit (IGA) phase	Provide utility data, witnessing, review in IGA
M&V Plan	**In IGA, include a detailed M&V plan for each ECM, including description of pre- /post-install activities and performance period activities to determine ECM performance and methods for determining energy and O&M savings. Submit M&V plan in final IGA report.**	Review, approval
Post-Installation M&V	Complete after Cx and before project acceptance. First formal M&V report (post-install report) to verify ECMs' potential to perform.	Witnessing, review, approval
Annual M&V in Performance Period	Complete per M&V Plan. Document findings in M&V reports and eProject eXpress. Address performance issues or savings shortfalls.	Witnessing, review, approval

Types of M&V Reports

Commissioning (Cx) Report

- Closely related to M&V, prior to post-install M&V activities
- Purpose: Verify equipment operating as intended and delivering specified conditions
- Functional performance testing to meet “design intent”

Post-Installation (Year 0) M&V Report

- Prior to acceptance (Gives Customer some leverage with ESCO prior to acceptance)
- Not always a requirement, but highly recommended
- Purpose: Verify potential for savings
- Ensure that ECMs meet performance requirements

Annual M&V Reports

- Annually according to contract
- Purpose: Verify achievement of savings
- Ensure ESCO followed M&V plan, ECM operations & maintenance (O&M) and repair & replacement (R&R) documented
- Note that customer witnessed savings validation

Customer obligations:

- Timely review of M&V reports
  - Documents report review and acceptance recommendation (or not!)
  - Fill any gaps
- Document customer impacts on savings
- Maintain current contract file (Use eProject eXpress!)

Application of International Performance Measurement & Verification Protocols

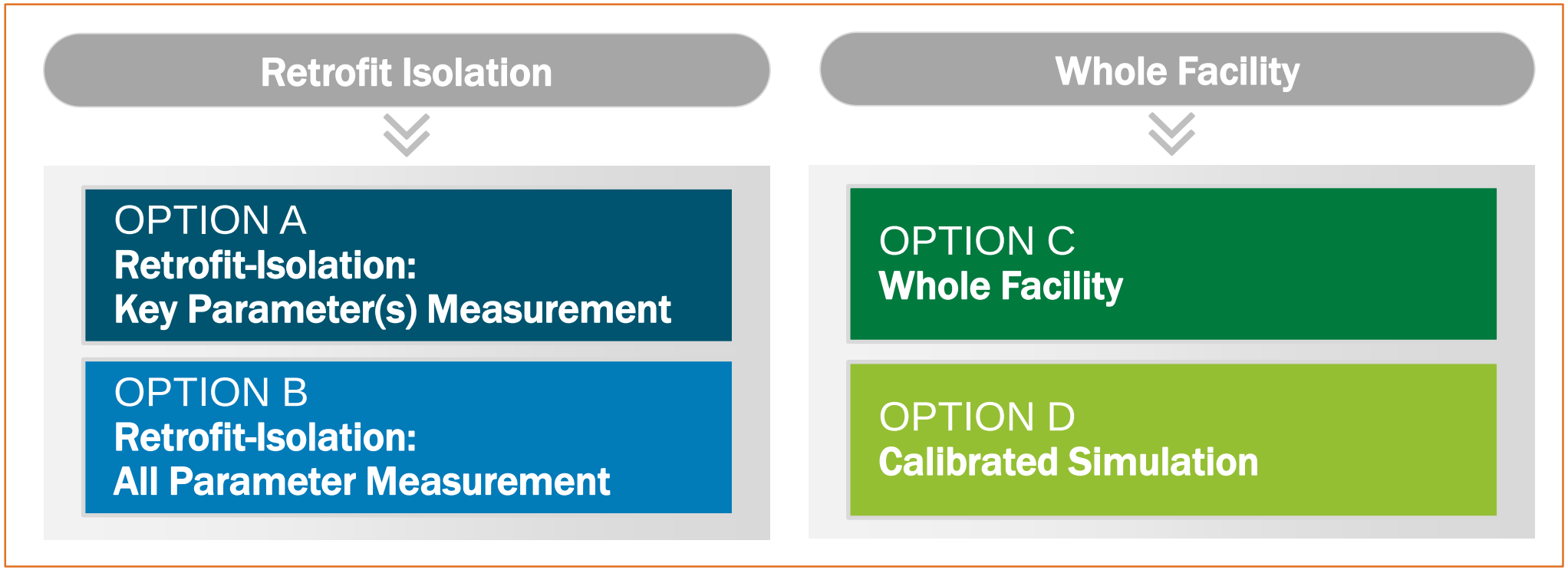
Tracy Phillips

EVO - Chair IPMVP Committee

Benefits of M&V Plan

- A solid M&V plan (that is included in the contract and followed) provides benefits, such as:
  - Limit uncertainty
  - Allocate risks appropriately
  - Potentially identify operations and maintenance issues
  - Safeguarding against future audits
    - Verifying and documenting performance
    - Documenting ESCO and owner due diligence
  - Demonstrating performance to external stakeholders
    - Elected officials can claim credit for proven success ... or point fingers when performance cannot be determined
    - Share progress with community
    - Shows financial responsibility
  - Supporting success of overall organizational ESPC program
    - Quantifying and tracking total actual verified savings for entire ESPC portfolio
  - Understanding the cost of M&V, compared to the risks. Typically, 1%-5% of savings.

Selecting a Method



2 FLAVORS OF EACH METHOD…
… TO ALLOW FLEXIBILITY FOR VARIOUS SITUATIONS!

M&V Measurement Options

International Performance Measurement and Verification Protocol (IPMVP) (Efficiency Valuation Organization)

IPMVP provides a framework that is used to:

1) verify a project has the potential to perform and save energy, and
2) quantify site-level energy and cost impacts from a targeted project

Option	Performance (e.g., power)	Usage (e.g., hrs.)	Total Energy	Calculations	Cost	Typical ECMs
A: Retrofit Isolation w/ Key Parameter Measurement	Short- or long-term	Measured or agreed upon		Spreadsheets	$	Lighting Motors Water
B: Retrofit Isolation w/ All Parameter Measurement	Usually long-term	Usually long-term	Often (via meter), but at component level	Spreadsheets	$$	Chiller repl. Solar PV
C: Whole-Facility Measurement			Whole-building level	Utility bills	$$	Deep retrofits Plant replaced
D: Calibrated Computer Simulation	Component level for calibration		Building level for calibration	Simulation	$$$	Repurposed building

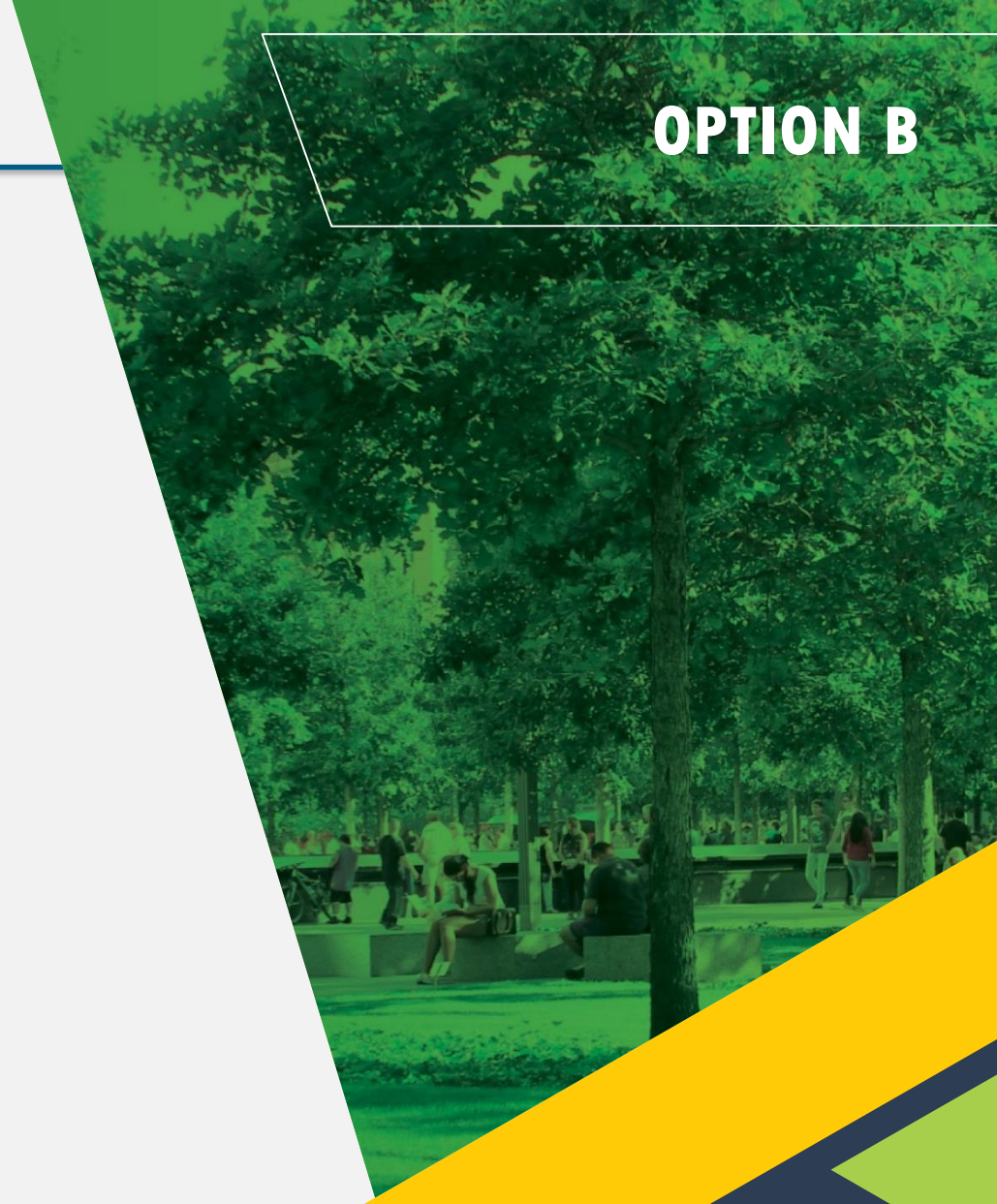
Best Applications

OPTION A

- **Retrofit Isolation: Key Parameter(s) Measurement**
  - Level of savings is lower
  - A contractor is not responsible for all parameters affecting energy consumption
  - Able to assume a parameter with a level of certainty acceptable to all parties
  - On-going measurement is not required, but to be sure savings are still happening in future, regularly verify that equipment remains in place and is operated and maintained properly. E.g. Perform operational verification

Best Applications

OPTION B



- **Retrofit Isolation: All Parameter Measurement**
  - Energy consumption of ECM can be isolated
  - Equipment has variable loads and variable hours
  - A contractor is responsible for all aspects of energy use in the system that was retrofitted
  - On-going measurement helps to verify that the ECM remains in place and savings persist
  - Metering system installation, operation, maintenance and data evaluation costs are small relative to savings

Best Applications

- **Whole-Facility**
  - Significant energy saving (usually 10% or more of consumption measured by the utility meter)
  - Multiple ECMs with potential interactive effects
  - Complex ECMs
  - Soft savings ECMs (eg. building leakage reduction, operator training, occupant/user awareness)

Best Applications

OPTION D

- **Calibrated Simulation**
  - If missing either baseline or reporting period data:
  - Buildings built in a compound with one central meter
  - Repurposed building
  - Gives the opportunity to use the IPMVP with new construction
  - Can help determine a building's performance relative to a Standard, a Code, or to some energy performance objectives

M&V Best Practices in Performance Period

- Stipulated or deemed savings can be used (agreed upon savings values with no M&V), but this is not an IPMVP "option" (there is no Option E)
  - Essentially this is an agreement that no M&V will be performed for an ECM
- Adjustments are made to the baseline based on post-retrofit conditions (routine and non-routine)
  - E.g., non-routine adjustment: equipment schedules longer than previous year
  - How much of the "savings lost" were due to schedule change?

We adjust baseline and reporting period energy consumption to the same set of conditions for valid comparisons

THE **ADJUSTMENTS** CAN BE

- Trivial
- Simple
- Complex

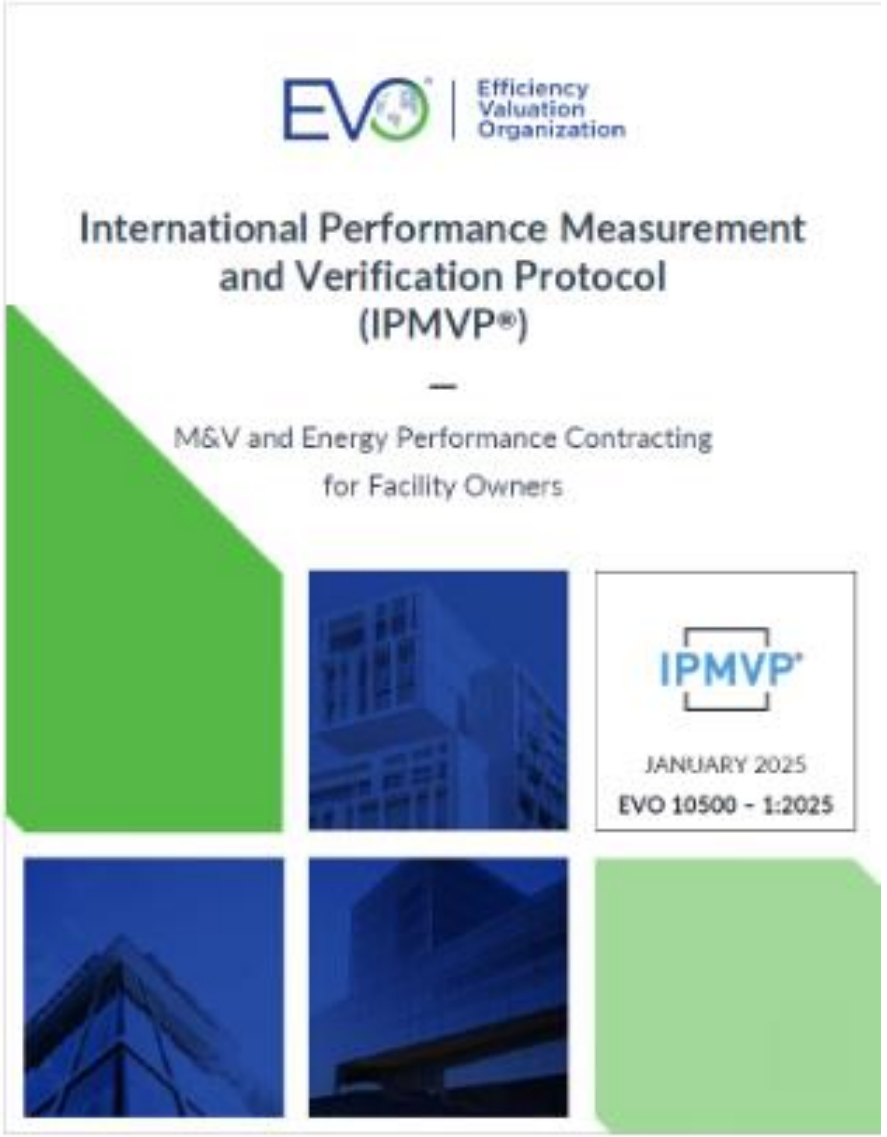
They can consist of engineering calculations.

THE EXTENT OF THE **ADJUSTMENTS** DEPENDS ON:

- the need for accuracy,
- the complexity of factors driving energy use and consumption and/or demand,
- the amount of equipment having its performance assessed (e.g., "measurement boundary"), and
- the available budget.

M&V Best Practices in Performance Period

- Owners should engage an “owner’s rep” to review the ESCO’s annual M&V reports
  - Ensure the M&V options selected in the plan and methodologies have been properly followed
  - Ensure appropriate data have been collected supporting the methods detailed in the M&V plan
  - Review the verified savings calculations – inputs based on data collected or agreed upon values, using the same methodology from the estimated savings estimates performed during the audit for Options A, B, C and D
    - Access to “live” spreadsheets or energy models
  - Ensure non-routine adjustments have been used appropriately when necessary
- **New IPMVP application guide on *M&V and Energy Performance Contracting for Facility Owners* (evo-world.org)**



Examples of M&V Best Practices in Successful ESPC Projects

George Buchanan

CEO – 2KB Services

The Performance Period – Municipal Facilities

Building Name	Approximate Gross Area (SF)
Municipal Court Building and Garage	228,825
City Hall Annex and Tower	428,004
Detention Center	381,138
Public Safety HQ	181,000
Public Safety HQ Parking Deck	233,280
Gov't Center Parking Deck	321,300
Total Square Footage	**1,773,547**

SERVICE, EXECUTION, ACCOUNTABILITY
DEAM
DEPARTMENT OF ENTERPRISE ASSET MANAGEMENT

ECM #	Description	City Hall and Annex	Municipal Court	City Detention Center	Public Safety Headquarters	Public Safety Parking Deck	Government Center Parking Deck
ECM 1	Interior Lighting and Lighting Controls	-	X	X	X	X	-
ECM 3	Domestic Water Conservation	X	X	X	X	-	-
ECM 4	Cooling Tower Water Metering and Sewer Credit	X	X	X	X	-	-
ECM 5a, 8a	HVAC Control Upgrades, Optimization and Recommissioning	-	X	-	X	-	-
ECM 6c, 7c	Inlet Guide Vane to VFD Conversion	X	-	X	-	-	-
ECM 6d, 7d	Chiller Replacement	X	-	X	-	-	-
ECM 6g	Retrofit AHUs 1 and 2 with Fan Array Units		-	X	-	-	-
ECM 7f	City Hall Tower AHU-13 and 14 and System Mods, and City Hall Annex AHU Unoccupied Control Strategies	X	-	-	-	-	-
ECM 14	Kitchen Hood Controls	-	-	X	-	-	-

Performance – Construction Period Savings

ECM	Description	M&V Option
ECM 1	Interior Lighting and Lighting Controls	B
ECM 3	Domestic Water Conservation	A
ECM 4	Cooling Tower Water Metering and Sewer Credit	A
ECM 5a	HVAC Control Upgrades, Optimization and Recommissioning - Municipal Court	A
ECM 6c	Inlet Guide Vane to VSD Conversion - Detention Center	A
ECM 6d	Chiller Replacement - Detention Center	A
ECM 6g	Replace AHUs 1 and 2 with Fan Array Units. - Detention Center	Non-Measured (O&M Only)
ECM 7c	Inlet Guide Vane to VSD Conversion - City Hall	A
ECM 7d	Chiller Replacement - City Hall	A
ECM 7f	City Hall Tower AHU 13 and 14 and System Mods, and City Hall Annex AHU Unoccupied Control Strategies - City Hall	A
ECM 8a	HVAC Control Upgrades, Optimization and Recommissioning - Public Safety HQ	A
ECM 14c	Kitchen Hood Controls - Detention Center	A

Description	Sewer Savings (kGal)	Sewer Cost Savings ($)	TOTAL Cost Savings ($)
ECM 4a - Cooling Tower Water Metering and Sewer Credit - Municipal Court	1,431	$30,014	$30,014
ECM 4b - Cooling Tower Water Metering and Sewer Credit - City Hall	3,592	$75,322	$75,322
ECM 4c - Cooling Tower Water Metering and Sewer Credit - Detention Center	2,279	$47,797	$47,797
ECM 4d - Cooling Tower Water Metering and Sewer Credit - Public Safety HQ	1,224	$25,669	$25,669
TOTAL	**8,527**	**$178,802**	**$178,802**

ECM Description	Electric Consumption Savings (kWh)	Electrical Demand Savings (kW)	Electrical Cost Savings ($)	Non-Measured Cost Savings ($)	TOTAL Cost Savings ($)
ECM 1a - Lighting Upgrades and Controls - Municipal Court	-	-	$-	$30,993	$30,993
ECM 1b - Removed from Scope	-	-	$-	$-	$-
ECM 1c - Lighting Upgrades and Controls - Detention Center	1,010,480	1,998	$73,267	$18,199	$91,466
ECM 1d - Lighting Upgrades and Controls - Public Safety HQ	231,776	611	$22,001	$4,932	$26,933
ECM 1f - Lighting Upgrades and Controls - Public Safety HQ Parking Deck	117,130	181	$8,489	$1,625	$10,114
TOTAL	**1,359,385**	**2,790**	**$103,758**	**$55,749**	**$159,506**

Description	Electric Consumption Savings (kWh)	Electrical Cost Savings ($)	Natural Gas Savings (therms)	Natural Gas Cost Savings ($)	Water & Sewer Savings (kGal)	Water Cost Savings ($)	Sewer Cost Savings ($)	Non-Measured Cost Savings ($)	TOTAL Cost Savings ($)
ECM 3a- Municipal Court	3,459	$164	-	$0	134	$1,100	$2,803	$44	$4,111
ECM 3b- City Hall	14,334	$614	-	$0	506	$4,165	$10,613	$61	$15,453
ECM 3c- Detention Center	-	$0	3,600	$2,380	4,260	$35,059	$89,329	$163	$126,931
ECM 3d- Public Safety HQ	1,211	$49	-	$0	39	$320	$815	$39	$1,223
TOTAL	**19,005**	**$827**	**3,600**	**$2,380**	**4,938**	**$40,644**	**$103,560**	**$308**	**$147,718**

Performance – Construction Period Savings

ECM	Description	Electric Consumption Savings (kWh)	Electrical Cost Savings ($)	TOTAL Cost Savings ($)
5a	ECM 5a - HVAC Control Upgrades, Optimization and Recommissioning - Municipal Court	92,047	$4,363	$4,363

Description	Electric Consumption Savings (kWh)	Electrical Demand Savings (kW)	Electrical Cost Savings ($)	Natural Gas Savings (therms)	Natural Gas Cost Savings ($)	TOTAL Cost Savings ($)
ECM 6c - Inlet Guide Vane to VSD Conversion - Detention Center	26,702	42	$1,266	(361)	-$238	$1,027

Description	Electric Consumption Savings (kWh)	Electrical Demand Savings (kW)	Electrical Cost Savings ($)	TOTAL Cost Savings ($)
ECM 6d - Chiller Replacement - Detention Center	-	-	$0	$0

Description	Non-Measured Cost Savings ($)	TOTAL Cost Savings ($)
ECM 6g - Retrofit AHUs 1 and 2 with Fan Array Units. - Detention Center	$22,917	$22,917

Description	Electric Consumption Savings (kWh)	Electrical Demand Savings (kW)	Electrical Cost Savings ($)	TOTAL Cost Savings ($)
ECM 7c - Inlet Guide Vane to VSD Conversion - City Hall	401,365	431	$25,063	$25,063

Description	Electric Consumption Savings (kWh)	Electrical Demand Savings (kW)	Electrical Cost Savings ($)	Non-Measured Cost Savings ($)	TOTAL Cost Savings ($)
ECM 7d - Chiller Replacement - City Hall	109,874	219.6	$8,721	$10,000	$18,721

Description	Electric Consumption Savings (kWh)	Electrical Demand Savings (kW)	Electrical Cost Savings ($)	Non-Measured Cost Savings ($)	TOTAL Cost Savings ($)
ECM 7f - City Hall Tower New Floor-Mounted FCUs and AHU 13 and 14 Mods - City Hall	97,343	(78)	$2,733	$1,333	$4,066

Description	Electric Consumption Savings (kWh)	Electrical Demand Savings (kW)	Electrical Cost Savings ($)	TOTAL Cost Savings ($)
ECM 8a - HVAC Control Upgrades, Optimization and Recommissioning - Public Safety HQ	270,672	-	$10,989	$10,989

Description	Electric Consumption Savings (kWh)	Electrical Demand Savings (kW)	Electrical Cost Savings ($)	Natural Gas Savings (therms)	Natural Gas Cost Savings ($)	TOTAL Cost Savings ($)
ECM 14c - Kitchen Hood Controls - Detention Center	29,101	-	$1,379	2,270	$1,501	$2,880

M&V Best Practices in Real Projects – What to Avoid

Baseline Usage

Lack of data on Baseline Usage due to unreported / missing data.

Discrepancy in reported O&M savings vs GESPC savings.

Guarantee Period Usage

Inconsistencies in reported utility consumption and reported guarantee period usage.

Absence of reported O&M costs in the report.

Verified Savings

Mismatch between calculated and reported verified savings.

The Performance Period – Municipal Water Utility

Table E2: DWM Electricity Baseline, April 2013 to March 2016

Site	Annual Electricity Consumption (kWh)	Annual Electricity Demand (kW)	Marginal Electric Rate ($/kWh)	Annual Electricity Cost
Hemphill	25,391,180	45,357	$0.04	$1,015,647
R.M. Clayton	84,707,124	143,574	$0.036	$3,049,456
Adamsville Pump Station	7,006,968	12,523	$0.078	$546,543
Chattahoochee Pump Station	38,091,055	77,930	$0.045	$1,714,097
Hartsfield Pump Station	4,080,692	9,673	$0.078	$318,294
Northside Pump Station	6,088,520	12,258	$0.078	$474,905
Total	165,365,538	301,314	---	$ 7,118,943

Table E3: DWM Natural Gas Baseline, April 2015 to March 2016

Site	Annual Natural Gas Consumption (Therms)	Annual Natural Gas Rate ($/Therm)	Annual Natural Gas Cost
R.M. Clayton	1,244,244	$0.289	$359,587

Table E4: DWM Landfill Baseline, Adjusted for 2016 Incinerator Operation

Year	Total Plant Wet Tons	Total Plant Dry Tons	Wet Tons Incinerated	Adjusted Synagro Wet Tons	Adjusted Ash to Landfill Tons	Landfill Tons	Projected Landfill Cost	Material Handling Cost
2012	74,903	19,082	13,623	61,279	1,774	63,054	$1,907,370	$2,017,714
2013	84,805	21,459	15,424	69,381	1,824	71,205	$2,153,945	$2,278,554
2014	91,863	21,221	16,708	32,094	3,419	78,575	$2,376,886	$2,514,392
2015	83,373	22,584	15,164	43,697	2,188	70,397	$2,129,506	$2,252,701
2016	117,718	25,781	21,410	92,285	2,367	98,674	$2,984,886	$3,157,565
Baseline	90,532	22,025	16,466	59,747	2,314	76,381	$2,310,519	$2,444,185

CITY OF ATLANTA DEPARTMENT OF watershed management

Performance Period Savings

TABLE 0-1: GUARANTEED SAVINGS PER CONTRACT MODIFICATION – YEAR ONE "STUB YEAR"

ECM No.	ECM Name	Electricity (kWh/yr)	Natural Gas (Therms/yr)	Total Energy Cost Savings ($)	Other Energy Related and O&M Savings ($)	Total Cost Savings ($)
1	Water Distribution System Optimization	---	---	$---	$---	$---
2	Biosolids Beneficial Reuse	(4,175,536)	(738,110)	($397,352)	$2,641,027	$2,243,675
3	Ultraviolet Disinfection System Replacement	1,653,145	---	$65,032	$201,682	$266,714
Total		(2,522,392)	(738,110)	($332,320)	$2,842,710	$2,510,390

TABLE 0-2: VERIFIED SAVINGS – YEAR ONE "STUB YEAR"

ECM No.	ECM Name	Electricity (kWh/yr)	Natural Gas (Therms/yr)	Total Energy Cost Savings ($)	Other Energy Related and O&M Savings ($)	Total Cost Savings ($)
1	Water Distribution System Optimization	---	---	$---	$---	$---
2	Biosolids Beneficial Reuse	(4,542,574)	612,709	$14,796	$2,557,118	$2,571,914
3	Ultraviolet Disinfection System Replacement	2,457,973	---	$96,692	$201,682	$298,375
Total		(2,084,601)	612,709	$111,488	$2,758,800	$2,870,288

M&V Best Practices in Real Projects – What to Avoid

Data Inquiry

Unavailability / Absence of necessary data for savings calculations during inspections and reporting

Equipment Functionality

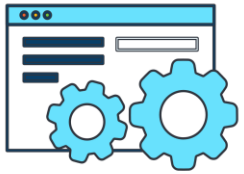
Operation issues and deficiencies identified affecting dryer runtime

(offline equipment, sensor failures, leaks)

Lack of Proper Maintenance

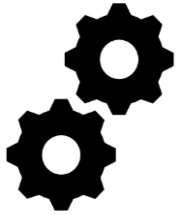
O&M activities required by the Owner staff not performed

M&V Best Practices – Prepare for Success



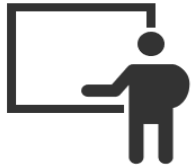
Maintenance tracking system

Implement robust maintenance tracking system to schedule / track / record maintenance issues



Equipment Functionality

Prioritize repair and replacement of equipment to ensure minimizing downtime, increase efficiency and maximizing energy savings



Training Priority

Prioritize additional training to ensure efficient maintenance and operations

Q&A and Discussion

Common Performance Period M&V Questions

- Should I hire an Owner's Rep to review the Annual M&V Reports submitted by the ESCO?
- How much does it cost for an ESCO to provide an annual savings guarantee, and M&V report?
- How many years should I pay for an M&V report?
- Are implementing building analytics in an ESPC project helpful for M&V of savings?

DOE Resources and Upcoming Events

Resources

U. S. DOE Better Buildings Program:

- ESPC Toolkit
  - Evaluating ESPC Results
  - The Business Case for Conducting Measurement and Verification In State and Local Government Energy Savings Performance Contract Projects

U.S DOE Federal Energy Management Program:

- Performance Contracting National Resource Center - Hub for ESPC resources: legislation by state, SEO contacts, trainings
- M&V Guidelines: Measurement and Verification for Performance-Based Contracts Version 5.0

Written Guides & Reports:

- IPMVP Core Concepts
- M&V and Energy Performance Contracting for Facility Owners

Resources: ESPC Campaign

The Energy Savings Performance Contracting (ESPC) Campaign engages states, local governments, school districts, universities and colleges, hospitals, and other market stakeholders to:

- **Support** the use of performance contracting to increase efficiency, modernize public buildings, reduce utility expenses, increase resilience, and meet lead-by-example goals
- **Share and Leverage Practical Resources** to strengthen ESPC and measurement & verification (M&V)
- **Amplify and Implement Best Practice Approaches** for ESPC projects and programs
- **Demonstrate Impact** with measured and verified energy and cost savings
- **Showcase Achievements** and share examples of successful ESPC implementation

- ✓ *Expert-led Trainings*
- ✓ *Webinars*
- *Peer Exchanges*
- *"Ask-an-Expert" Office Hours*
- *Resource Library*

Complete the Expression of Interest form to obtain a Partner Agreement

Upcoming Events

Trainings

- **Thursday, March 18th, 2025, 2PM ET -** ESPC Training Series Recap – This training will focus on a review of the key takeaways from the five phases of ESPC from previous training sessions.

Office Hours

- State and local ESPC Campaign partners are invited to set up a time to speak with a U.S. DOE PF (Owner's Representative for Federal Projects) virtual office hours. Discussion topics can be anything regarding an ESPC project, including specific questions on your project. **To request a meeting time,** please complete this **Office Hours Sign-Up Form**.

Thank you!

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