SCEP
STATE & COMMUNITY ENERGY PROGRAMS

# Webinar
# ESPC Resource Tour

July 8, 2025

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

ESPC Campaign

# Virtual Housekeeping

Drop your questions in the Chat or Q&A Box

# Agenda

**Learning Objective:** There are a lot of resources to aid the MUSH Market as well as the Private Sector through ESPC program development. During this webinar we take you on a tour through currently available ESPC resources from these organizations and sites:

# Introductions

# Speakers

**Dub Taylor**
Executive Director,
Energy Services Coalition
dtaylor@energyservicescoalition.org

**Chris Halpin**
Celtic Energy, PLLC
ESC Consultant
chalpin@energyservicescoalition.org

# 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 Energy Savings Performance Contracting.

ENERGY SERVICES COALITION
A Public Private Partnership

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

# Resources Walk-Through

# You might be wondering…

- "What is ESPC?"
- "What scope items are possible within an ESPC program?"
- "How do I get started?"
- "How do I engage stakeholders (internal and external)?
- "How are ESPC projects financed?"
- "Who are typical project partners?"
- "Are there lessons learned?"
- "What is an ESCO?"
- "How can grants be applied towards a project?"
- "Is there a step-by-step guide to ESPC?"
- "Does my state allow ESPC?"
- "Are there sample template documents we can use and modify?"
  - RFX, IGA, etc.
- "Where can I find examples of past projects?"
- "How do I measure and guarantee savings?"

*You can find answers to these questions via various published, verified resources.*
*Let's take a look…*

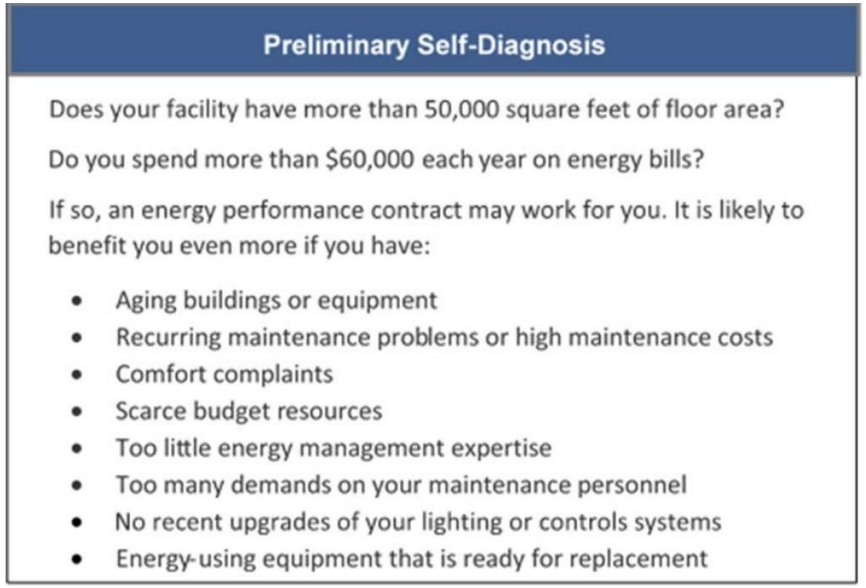
# Better Buildings

Better Buildings is an initiative of the U.S. Department of Energy (DOE) designed to improve the lives of the American people by driving leadership in energy innovation. Through Better Buildings, DOE partners with leaders in the public and private sectors to make the nation's homes, commercial buildings, and industrial plants more energy-efficient by accelerating investment and sharing successful best practices.

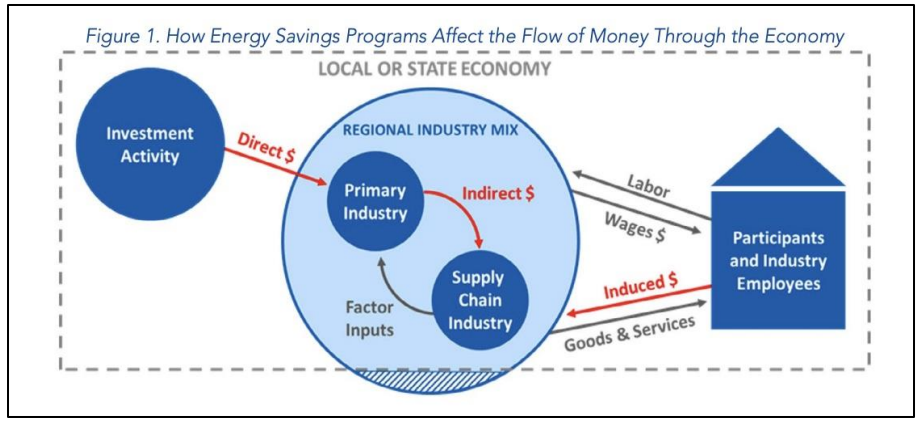
**Types of resources you'll find here:**

- Comparison of ESPC to Design-Bid-Build
- ESPC Preliminary Diagnosis Tool
- ESPC Fact Sheet
- ESCO Market Study
- Legislation Library

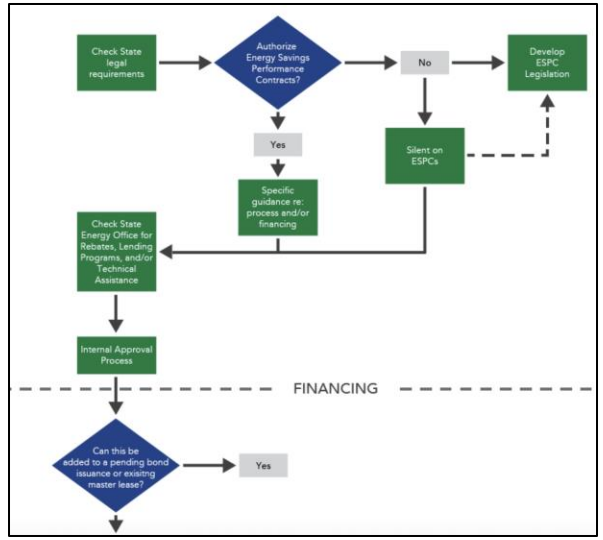
# Better Buildings




**ESPC Preliminary Diagnosis Tool**
Answers to this quick list of questions might help you determine whether ESPC is the right solution for your energy efficiency goals.




This information sheet outlines the key elements needed for an **economic impact analysis**. Statistics on the economic impact of energy savings projects help tell the story of an effective energy savings performance contracting (ESPC) program or compare the anticipated benefits of a program to those of other investment options.



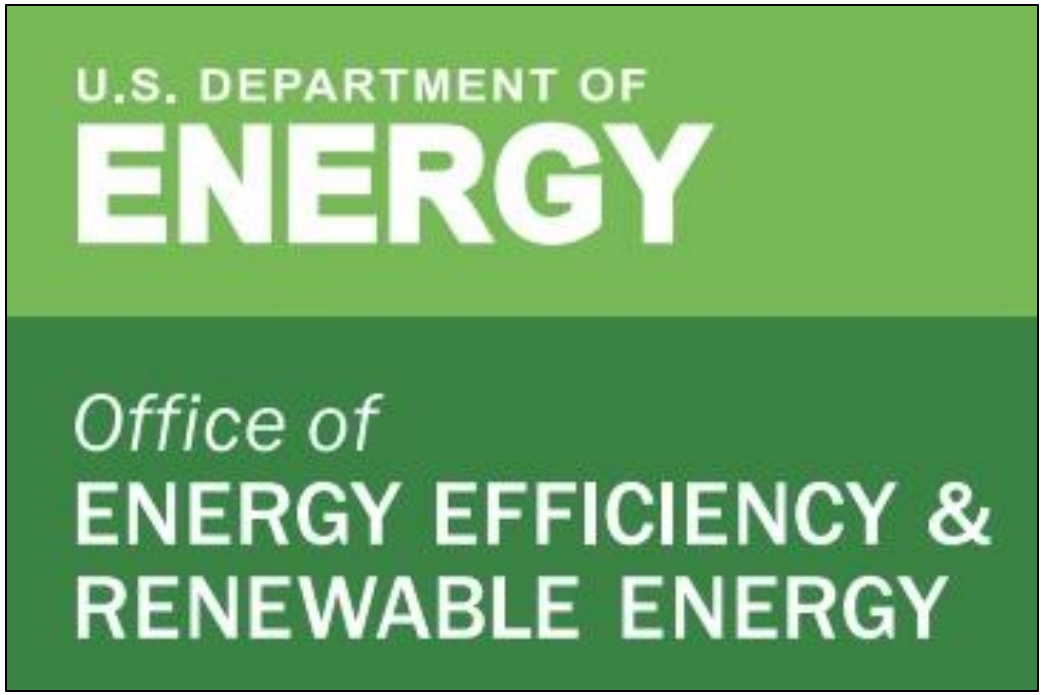

**ESPC Financing Decision Tree**
This flowchart walks users through questions corresponding to the considerations that go into deciding on the financing options available for state and city government ESPC projects. The tool includes a mini-glossary of each financing type. Click on individual financing options below the dashed financing line to get a description of the option and some pros and cons to consider.

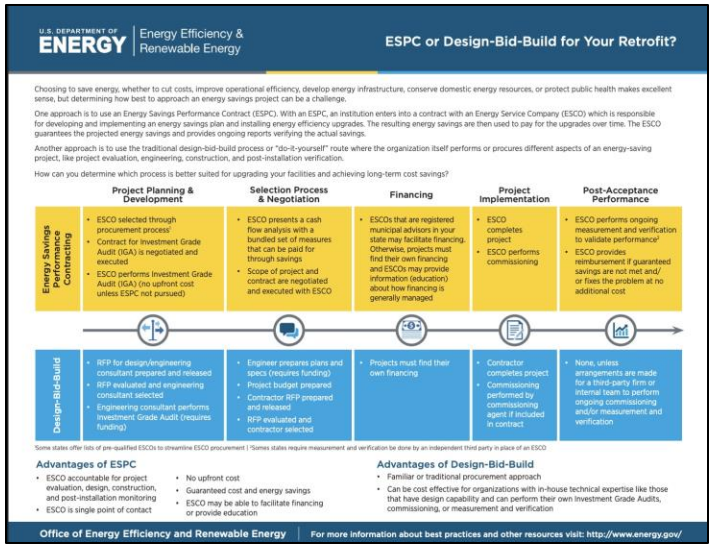
# US Department of Energy
# Office of Energy Efficiency and Renewable Energy

EERE is working to ensure that all Americans benefit from energy innovation. Part of Office of the Under Secretary for Science and Innovation, EERE supports the advancement of energy technologies and processes through core mechanisms.

**Here you can find resources related to these core mechanisms:**

- Funding
- World-class research and development
- Technical assistance
- Developing our brain trust





U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

**ESPC or Design-Bid-Build for Your Retrofit?**

Choosing to save energy, whether to cut costs, improve operational efficiency, develop energy infrastructure, conserve domestic energy resources, or protect public health makes excellent sense, but determining how best to approach an energy savings project can be a challenge.

One approach is to use an Energy Savings Performance Contract (ESPC). With an ESPC, an institution enters into a contract with an Energy Service Company (ESCO) which is responsible for developing and implementing an energy savings plan and installing energy efficiency upgrades. The resulting energy savings are then used to pay for the upgrades over time. The ESCO guarantees the projected energy savings and provides ongoing reports verifying the actual savings.

Another approach is to use the traditional design-bid-build process or "do-it-yourself" route where the organization itself performs or procures different aspects of an energy-saving project, like project evaluation, engineering, construction, and post-installation verification.

How can you determine which process is better suited for upgrading your facilities and achieving long-term cost savings?

| | Project Planning & Development | Selection Process & Negotiation | Financing | Project Implementation | Post-Acceptance Performance |
|---|---|---|---|---|---|
| Energy Savings Performance Contracting | • ESCO selected through procurement process[1]<br>• Contract for Investment Grade Audit (IGA) is negotiated and executed<br>• ESCO performs Investment Grade Audit (IGA) (no upfront cost unless ESPC not pursued) | • ESCO presents a cash flow analysis with a bundled set of measures that can be paid for through savings<br>• Scope of project and contract are negotiated and executed with ESCO | • ESCOs that are registered municipal advisors in your state may facilitate financing. Otherwise, projects must find their own financing and ESCOs may provide information (education) about how financing is generally managed | • ESCO completes project<br>• ESCO performs commissioning | • ESCO performs ongoing measurement and verification to validate performance[2]<br>• ESCO provides reimbursement if guaranteed savings are not met and/or fixes the problem at no additional cost |
| Design-Bid-Build | • RFP for design/engineering consultant prepared and released<br>• RFP evaluated and engineering consultant selected<br>• Engineering consultant performs Investment Grade Audit (requires funding) | • Engineer prepares plans and specs (requires funding)<br>• Project budget prepared<br>• Contractor RFP prepared and released<br>• RFP evaluated and contractor selected | • Projects must find their own financing | • Contractor completes project<br>• Commissioning performed by commissioning agent if included in contract | • None, unless arrangements are made for a third-party firm or internal team to perform ongoing commissioning and/or measurement and verification |

Some states offer lists of pre-qualified ESCOs to streamline ESCO procurement | [2]Some states require measurement and verification be done by an independent third party in place of an ESCO

**Advantages of ESPC**

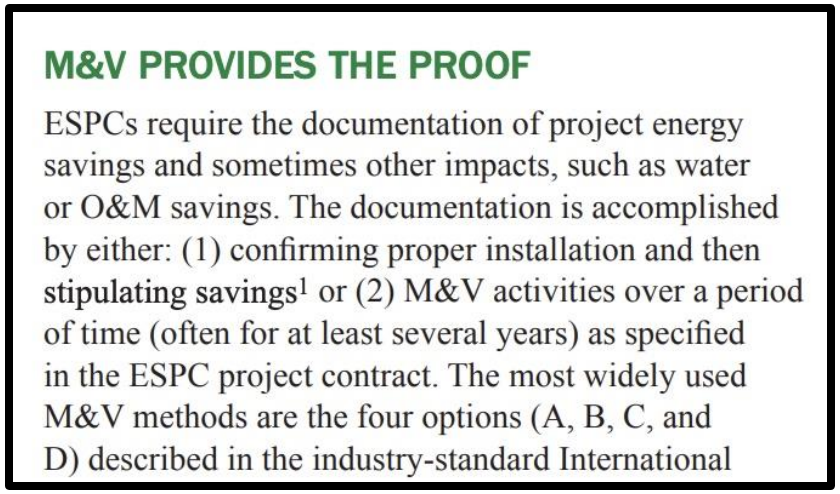
- ESCO accountable for project evaluation, design, construction, and post-installation monitoring
- ESCO is single point of contact
- No upfront cost
- Guaranteed cost and energy savings
- ESCO may be able to facilitate financing or provide education

**Advantages of Design-Bid-Build**

- Familiar or traditional procurement approach
- Can be cost effective for organizations with in-house technical expertise like those that have design capability and can perform their own Investment Grade Audits, commissioning, or measurement and verification

Office of Energy Efficiency and Renewable Energy | For more information about best practices and other resources visit: http://www.energy.gov/

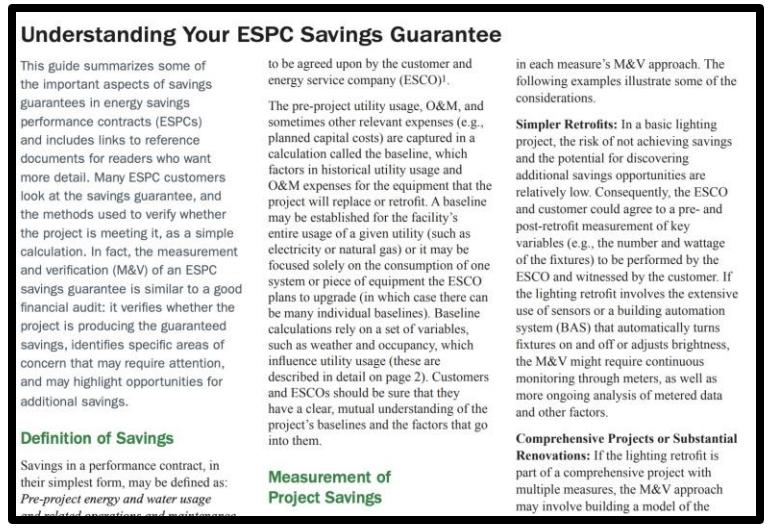
This illustrated fact sheet enables users to decide whether ESPC or design-bid-build is more suited to their planned retrofit project by comparing the development, management, and outcomes of each approach.



## M&V PROVIDES THE PROOF

ESPCs require the documentation of project energy savings and sometimes other impacts, such as water or O&M savings. The documentation is accomplished by either: (1) confirming proper installation and then **stipulating savings**[1] or (2) M&V activities over a period of time (often for at least several years) as specified in the ESPC project contract. The most widely used M&V methods are the four options (A, B, C, and D) described in the industry-standard International

This document highlights the substantial, cost-effective benefits of incorporating well-documented measurement and verification (M&V) of savings in state and local ESPC projects.



## Understanding Your ESPC Savings Guarantee

This guide summarizes some of the important aspects of savings guarantees in energy savings performance contracts (ESPCs) and includes links to reference documents for readers who want more detail. Many ESPC customers look at the savings guarantee, and the methods used to verify whether the project is meeting it, as a simple calculation. In fact, the measurement and verification (M&V) of an ESPC savings guarantee is similar to a good financial audit: it verifies whether the project is producing the guaranteed savings, identifies specific areas of concern that may require attention, and may highlight opportunities for additional savings.

### Definition of Savings

Savings in a performance contract, in their simplest form, may be defined as: *Pre-project energy and water usage*

to be agreed upon by the customer and energy service company (ESCO)[1].

The pre-project utility usage, O&M, and sometimes other relevant expenses (e.g., planned capital costs) are captured in a calculation called the baseline, which factors in historical utility usage and O&M expenses for the equipment that the project will replace or retrofit. A baseline may be established for the facility's entire usage of a given utility (such as electricity or natural gas) or it may be focused solely on the consumption of one system or piece of equipment the ESCO plans to upgrade (in which case there can be many individual baselines). Baseline calculations rely on a set of variables, such as weather and occupancy, which influence utility usage (these are described in detail on page 2). Customers and ESCOs should be sure that they have a clear, mutual understanding of the project's baselines and the factors that go into them.

### Measurement of Project Savings

in each measure's M&V approach. The following examples illustrate some of the considerations.

**Simpler Retrofits:** In a basic lighting project, the risk of not achieving savings and the potential for discovering additional savings opportunities are relatively low. Consequently, the ESCO and customer could agree to a pre- and post-retrofit measurement of key variables (e.g., the number and wattage of the fixtures) to be performed by the ESCO and witnessed by the customer. If the lighting retrofit involves the extensive use of sensors or a building automation system (BAS) that automatically turns fixtures on and off or adjusts brightness, the M&V might require continuous monitoring through meters, as well as more ongoing analysis of metered data and other factors.

**Comprehensive Projects or Substantial Renovations:** If the lighting retrofit is part of a comprehensive project with multiple measures, the M&V approach may involve building a model of the

This document examines the savings guarantee in energy savings performance contracts (ESPC) and provides a list of resources for more detail.

# Lawrence Berkeley National Laboratory (LBNL)

LBNL's research focuses on discovery science and solutions for abundant and reliable energy supplies. LBNL's six research areas contribute unique expertise that supports the DOE's mission, advances scientific understanding, and addresses the most urgent challenges of our time.

LBNL developed and maintains (on behalf of the U.S. Department of Energy (DOE) eProject Express(ePX).

ePX is a free, secure, web-based system that enables states, agencies, institutions and ESCOs to preserve, track, and report information for their project or portfolio of energy services projects.



Contact: Dana Robson
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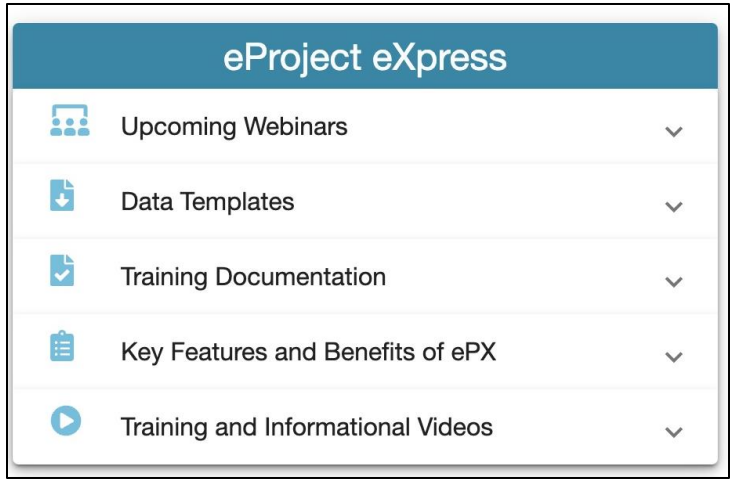
# Lawrence Berkeley National Laboratory




Training guides and videos, including new Quick-Start guides, Legacy Data Guides, and specific documentation aimed at ESPC Campaign partners.

**Coming soon:** Under the Training and Informational videos section, we are adding new "mini-training" videos to assist new users in getting started with ePX. When completed this will be a series of eight videos, which are in progress for completion and posting over the next few months.

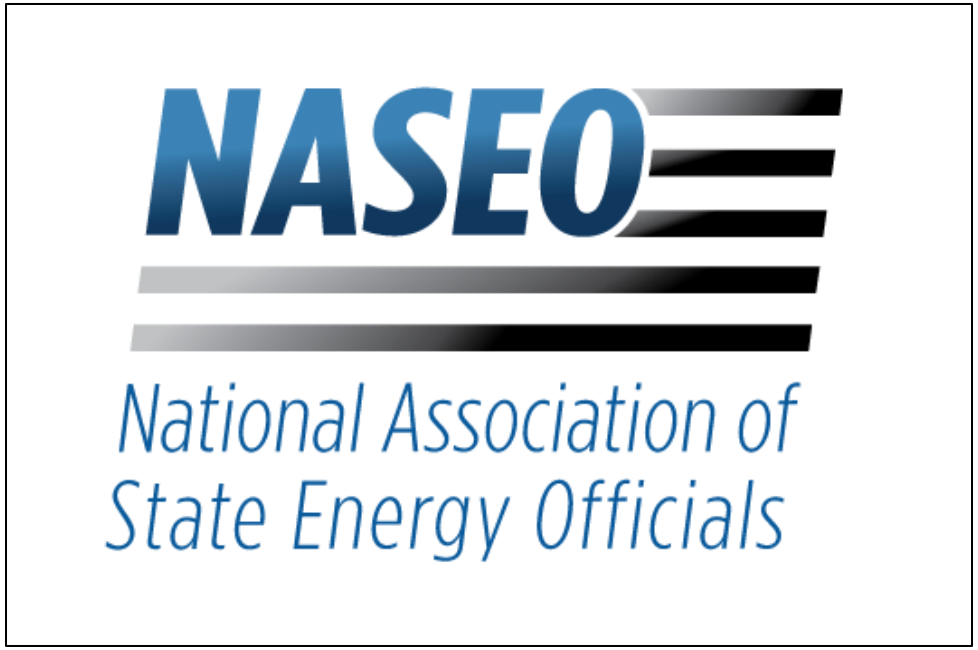

Deep-Dive Training from January 2025. (Slides here)

# NASEO

NASEO is the only national non-profit association for the governor-designated State Energy Directors and their offices from each of the 56 states and territories. Formed by the states in 1986, NASEO facilitates peer learning among state energy officials, serves as a resource for and about State Energy Offices, and advocates the interests of the State Energy Offices to Congress and federal agencies.

**Resources you can expect to find here:**

- Data and Resources for State Energy Offices on how they can best support local energy efficiency programs, especially the MUSH market
- Publications and research regarding economic growth, job creation, and other impacts of energy programs
- Updates on energy related issues and policies
- Information on each State's Energy Office




Contact: Sam Cramer
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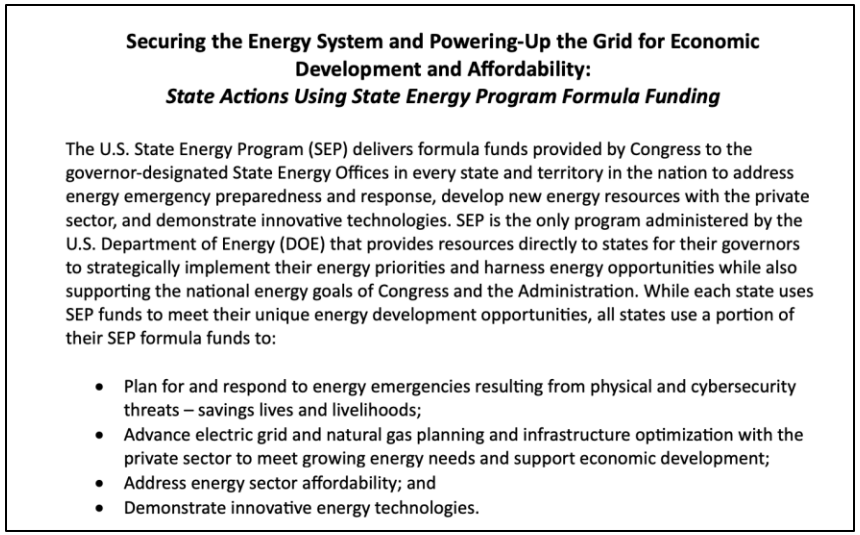
# NASEO


This report focuses on the strategic partnerships between State and Territory Education Agencies and State and Territory Energy Offices. Collaboration among these agencies can help states better support energy efficient and healthy school facilities by lowering utility and maintenance costs for schools and improving the learning environment for students



**Securing the Energy System and Powering-Up the Grid for Economic Development and Affordability:**
***State Actions Using State Energy Program Formula Funding***

The U.S. State Energy Program (SEP) delivers formula funds provided by Congress to the governor-designated State Energy Offices in every state and territory in the nation to address energy emergency preparedness and response, develop new energy resources with the private sector, and demonstrate innovative technologies. SEP is the only program administered by the U.S. Department of Energy (DOE) that provides resources directly to states for their governors to strategically implement their energy priorities and harness energy opportunities while also supporting the national energy goals of Congress and the Administration. While each state uses SEP funds to meet their unique energy development opportunities, all states use a portion of their SEP formula funds to:

- Plan for and respond to energy emergencies resulting from physical and cybersecurity threats – savings lives and livelihoods;
- Advance electric grid and natural gas planning and infrastructure optimization with the private sector to meet growing energy needs and support economic development;
- Address energy sector affordability; and
- Demonstrate innovative energy technologies.

US State Energy Program:
Stories of Impact and Innovation from 50 States


This report draws on the principles of technology-based economic development, as well as ways states have invested in energy technology innovation and commercialization, to shed light on strategies that states can use to realize the long-term job creation, revenue generation, and environmental benefits of clean energy technologies

# NAESCO

The National Association of Energy Service Companies, (NAESCO) is the leading advocacy and accreditation organization for Energy Service Companies dedicated to modernizing America's building infrastructure through performance contracting.

**NAESCO provides support through:**

- Advocacy – finding pathways to make business happen, and to solve problems that arise
- Engagement – actively involving ourselves in the energy community to encourage cost-effective solutions to infrastructure improvement
- Training – providing workshops, webinars and conferences that will educate providers and users of energy services
- Support – developing solutions to direct problems that arise on projects and issues our membership encounters
- Accreditation and Awards for ESCOs and ESPs


Contact: Tim Unruh
timothy.unruh@naesco.org

# NAESCO

## Past Winners

2024:

Member Award, Ameresco

Member Award, ENGIE Services U.S. Inc.

2023:

Historic Community Impact Award, Centrica Business Solutions

Member Award, McClure Company

Member Award, Lighting Services

2022:

Member Award, Performance Services

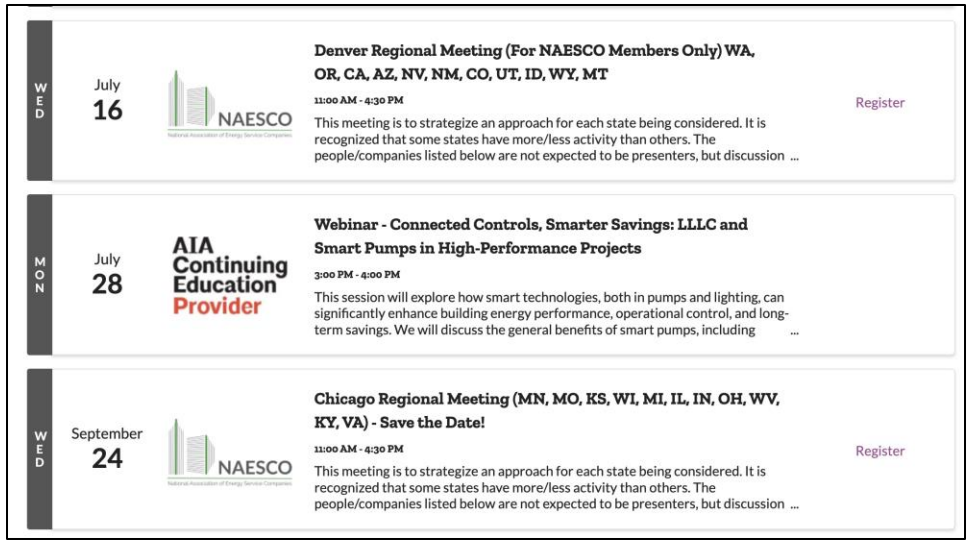
Member Award, Excel Energy Group

Member Award, ECM Holding Group

2021:

Member Award, Johnson Controls

The Award Program recognizes the accomplishments of member companies.




NAESCO Events Calendar


NAESCO offers three categories of Accreditation for companies in the energy service business: Energy Service Company (ESCO), Energy Service Provider (ESP) and Energy Efficiency Contractor (EEC).

# Efficiency Valuation Organization

EVO is a non-profit organization whose products and services help people engineer and invest in energy efficiency projects worldwide. EVO´s Mission is to ensure that the savings and impact of energy efficiency and sustainability projects are accurately measured and verified.

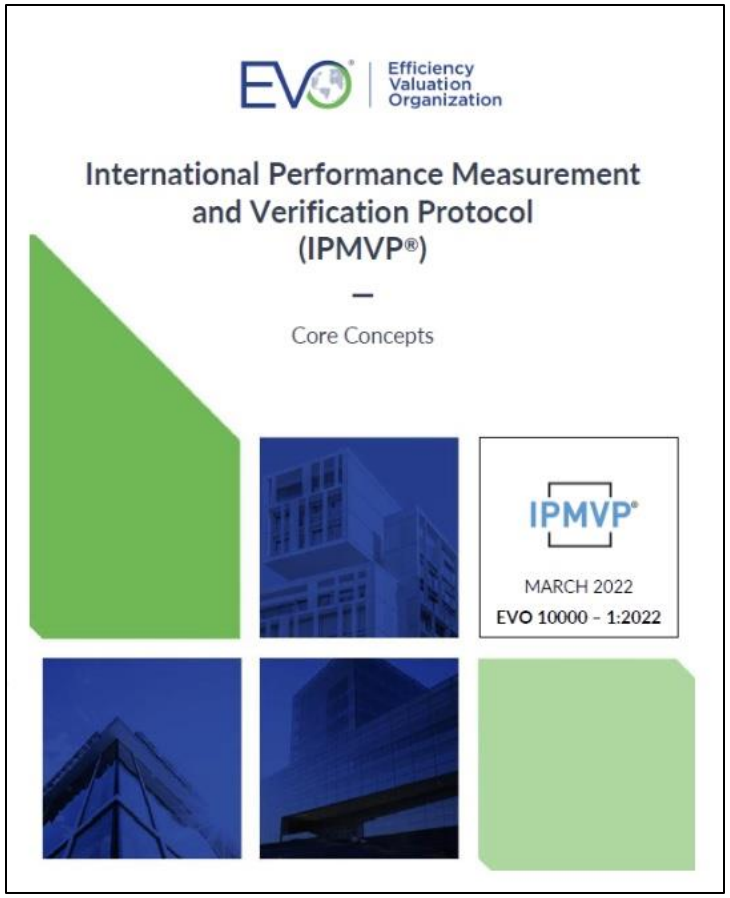



**Resources you can expect to find here:**

- About Measurement & Verification
- M&V Training, Protocols, and Certifications
- Written Guides & Reports
  - New IPMVP Application Guide: M&V and Energy Performance Contracting for Facility Owners

Contact: Denis Tanguay
Dtanguay@evo-world.org

# Efficiency Valuation Organization




The purpose of the IPMVP is to reduce barriers to the energy and water efficiency industries. IPMVP offers a consistent approach to measuring and verifying carbon emissions reduction in a broad range of energy sectors

## Training Course Event List

Toggle | Group by | Filter

| Training Partner | Course | Certification Track | Course Starting | Course Ending | Location | Language | Exam Format |
|---|---|---|---|---|---|---|---|
| AFNOR Compétences S.A.S.U. | M&V Fundamentals and IPMVP | PMVA™ | 2025-07-01 | 2025-07-03 | Paris, France | French | Online |
| ESTA | M&V Fundamentals and IPMVP | PMVA™ | 2025-07-01 | 2025-07-03 | Online UK | English | Online |
| EEVS Insight Ltd. | Introductory M&V Training | No Certification | 2025-07-08 | 2025-07-08 | London, UK | English | Online |
| AEEE | M&V Fundamentals and IPMVP | PMVA™ | 2025-07-24 | 2025-07-26 | India, Online | English | Online |

EVO offers a full range of M&V related training programs ranging from a one-hour introductory workshop to several days advanced training. Our programs are delivered by highly skilled instructors. EVO-approved instructors are M&V experts authorized by EVO´s Training Committee to provide trainees with M&V trainings. Instructors have a teaching background and experience in the field of M&V. They are approved by the Training Committee and must renew their instructor status periodically.

# US Department of Energy
# State and Community Energy Programs (SCEP)

The US Department of Energy's Office of State and Community Energy Programs supports a wide range of stakeholders by investing in place-based strategies that accelerate the development of innovative energy technologies to bolster communities, create jobs, save money, and strengthen energy independence and resiliency.

SCEP empowers states, local governments, Tribal Nations, nonprofit organizations, public schools, community partners and more to build local capacity to deliver the tangible benefits of sustainable energy to their communities. SCEP's investments include formula grants, competitive grants, vouchers, awards, prizes, and technical assistance to help communities achieve their energy goals.

SCEP's **ESPC Campaign** engages both public and private sector stakeholders through participant and supporter partnership pathways to support, expand, and enhance ESPC and cultivate a network of experienced ESPC practitioners.

What type of resources can you expect to find here?

- ESPC Campaign resources!
- Funding Opportunities
- State Energy Program Information
- Community Energy Program Information

SCEP
STATE & COMMUNITY ENERGY PROGRAMS

Contact: Sean Williamson
sean.williamson@hq.doe.gov

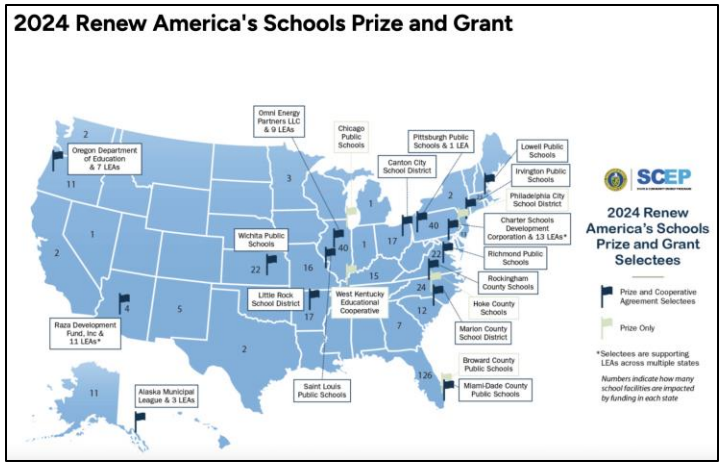

ESPC Campaign Technical Assistance Recordings Including Workshops, Webinars, and Trainings on:

- Stakeholder Engagement
- Reviewing an IGA
- M&V and Performance Period
- Best Practices
- Financing your ESPC Program
- Resources (like this one!)

## ESPC Campaign Partners

The ESPC Campaign provides two partnership pathways: **Participants** and **Supporters**.

Join here:
Expression of Interest form
or by emailing
ESPCcampaign@hq.doe.gov




Information on past funding initiatives such as the Renew America's Schools Program

# Federal Energy Management Program (FEMP)

FEMP builds the capacity of the Federal agency workforce to achieve efficient, secure, and resilient energy use in facilities and fleets—saving taxpayers money.

FEMP works with its stakeholders to enable federal agencies to meet energy-related goals, identify affordable solutions, facilitate public-private partnerships, and provide energy leadership to the country by identifying government best practices.

Resources you can expect to find here:

- Funding Opportunities
- Interagency Collaboration Information
- Project Execution and Financing
- Technical Assistance
- Tools & Resources
- Workforce Training

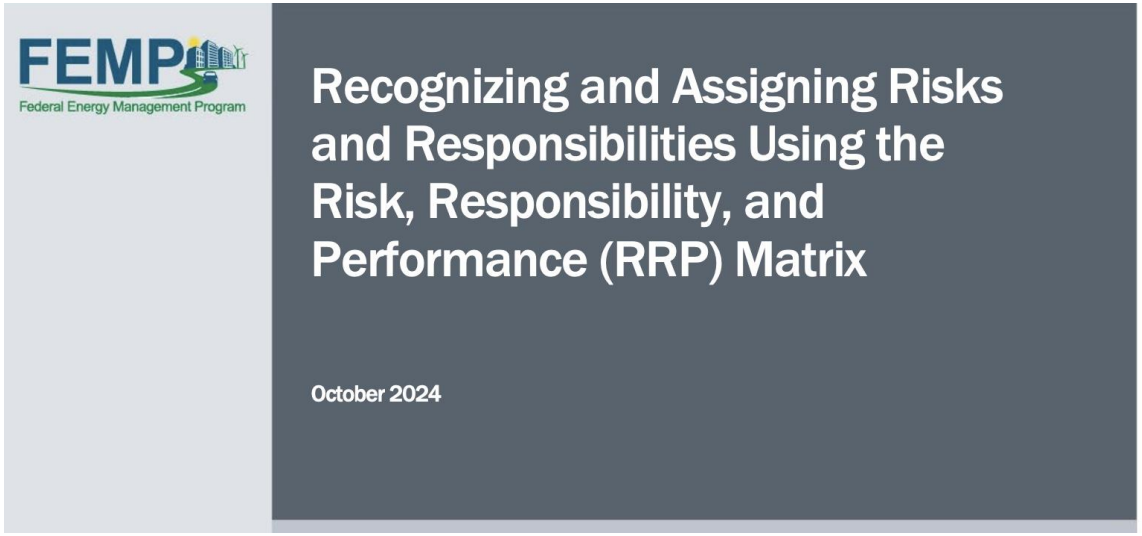

Contact: Priya Stiller
priya.stiller@hq.doe.gov

# Federal Energy Management Program (FEMP)


An accredited, on-demand, interactive series that offers users valuable performance contracting resources and best practices.

Training Takeaways include

- ESPC Benefits
- ESPC Process
- Best Practices
- Technical Expertise




This document offers guidance on how to recognize and assign energy savings performance contract (ESPC) risks and responsibilities using the risk, responsibility, and performance matrix, also known as RRP Matrix.

# Energy Services Coalition

**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 energy savings performance contracting.

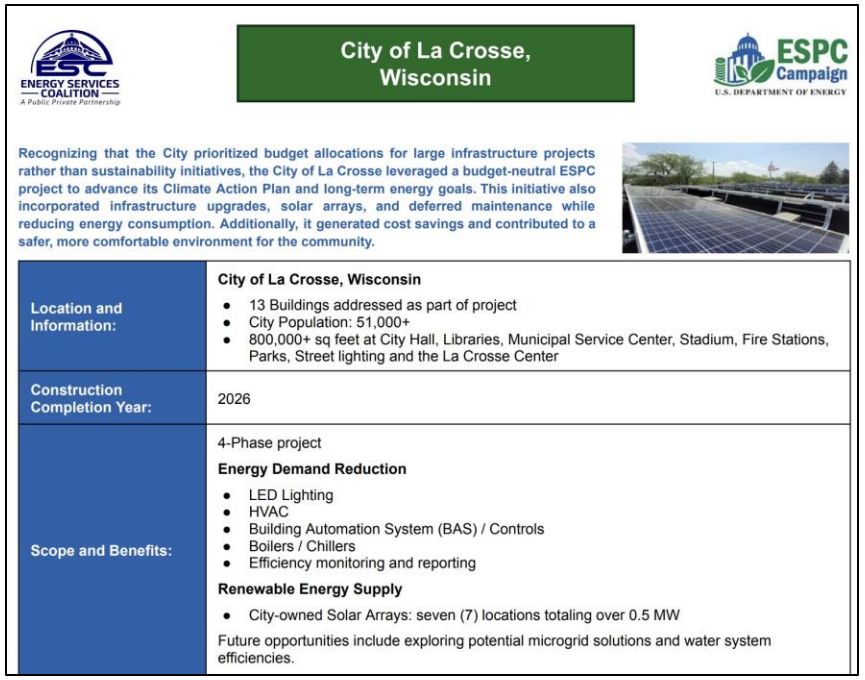
**Resources you can expect to find here:**

- ESC Chapter Resources, Contacts, Information
- Upcoming events related to ESPC
- Case Studies
- State by State ESPC Legislation and Executive Orders

ESC
ENERGY SERVICES COALITION
*A Public Private Partnership*

Contact: Dub Taylor
Dtaylor@energyservicescoalition.org

# Energy Services Coalition



City of La Crosse, Wisconsin

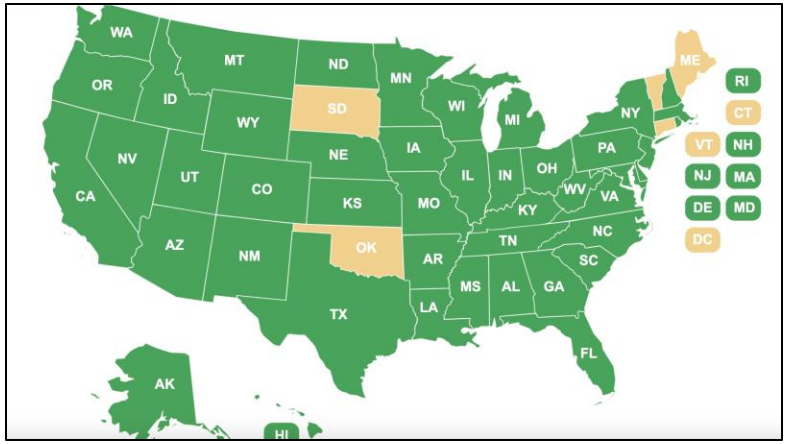
ESPC Campaign
U.S. DEPARTMENT OF ENERGY

Recognizing that the City prioritized budget allocations for large infrastructure projects rather than sustainability initiatives, the City of La Crosse leveraged a budget-neutral ESPC project to advance its Climate Action Plan and long-term energy goals. This initiative also incorporated infrastructure upgrades, solar arrays, and deferred maintenance while reducing energy consumption. Additionally, it generated cost savings and contributed to a safer, more comfortable environment for the community.

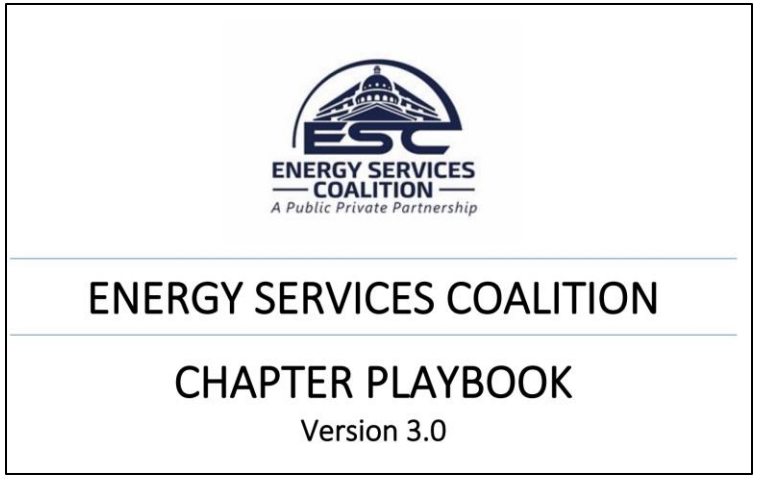
| | |
|---|---|
| Location and Information: | **City of La Crosse, Wisconsin**<br>• 13 Buildings addressed as part of project<br>• City Population: 51,000+<br>• 800,000+ sq feet at City Hall, Libraries, Municipal Service Center, Stadium, Fire Stations, Parks, Street lighting and the La Crosse Center |
| Construction Completion Year: | 2026 |
| Scope and Benefits: | 4-Phase project<br>**Energy Demand Reduction**<br>• LED Lighting<br>• HVAC<br>• Building Automation System (BAS) / Controls<br>• Boilers / Chillers<br>• Efficiency monitoring and reporting<br>**Renewable Energy Supply**<br>• City-owned Solar Arrays: seven (7) locations totaling over 0.5 MW<br>Future opportunities include exploring potential microgrid solutions and water system efficiencies. |

Case studies include a summary of Energy Savings Performance Contracting (ESPC) projects from throughout the country.

Case Study Submission Form Here




Map of Energy Savings Performance Contracting investments in state and local buildings in particular states
(In process of being updated)




The Energy Services Coalition Chapter Playbook is a living document updated regularly and represents an ongoing process of collecting examples of successes and challenges emerging from state programs and state ESC Chapters. The Playbook outlines approaches from around the country of how to operate a successful state ESC Chapter in support of a statewide GESPC public program and to increase GESPC activity in a state

# Case Studies

# Featured Case Study:
# Clark County School District, Nevada

Link to more information on this Case Study

Clark County School District, serving Las Vegas and the surrounding area, is one of the largest school districts in the nation. Rising energy costs, a backlog of deferred maintenance, and sustainability goals necessitated a district need for a comprehensive facility investment strategy. This project will achieve economic, environmental, resiliency, comfort, safety, and deferred maintenance goals. It facilitates scalable future growth and technology implementation for the District and will improve the learning environment for students and faculty, emphasizing sustainability and long-term efficiency, and deliver guaranteed operational savings to the District.

**Scope and Benefits:**

Safety Improvements, user friendly, wireless control and increased long-term controllability for:

- LED Lighting
- Building Automation Systems / Controls
- Dwell time adjustments
- Motion activation
- Daylight Harvesting

Waste management and efficiency analysis to reduce waste in materials, storage needs, and transit miles

Decreased O&M costs and burden

Futureproofing

- To reduce need for rework of an additional ESPC by deploying BACnet
- To expand into HVAC and renewable energy in later phases of work

276 Local Subcontractors Engaged

>40% Subcontractors are MWBE

- Student population: 300,000
- Fifth largest District in the US
- 205 campuses retrofitted as part of project
- 23,639,650 square feet addressed as part of project

ESCO: Willdan Engineering
OR: NV5

# Featured Case Study:
# Rockingham County School District, North Carolina

Link to more information on this case study

Rockingham County School District was facing the challenge of aging facilities and systems. A Guaranteed Energy Savings Performance Contract including lighting and HVAC upgrades, water conservation, and enhanced indoor air quality breathed new life into Rockingham County Schools and provided the District significantly more control over its facilities.


## Scope and Benefits

Improved indoor air quality

- HVAC deferred maintenance
- Installed a new chiller and replaced two Air Handler Units

LED lighting upgrades

Upgraded digital controls

Water conservation

- Upgraded plumbing fixtures
- Submetering for irrigation

Insulated chilled water piping (addressed deferred maintenance)

Streamlined internal operational processes

- 21 School Sites, 6 District Locations
- 12K+ student population
- 2,330,216 sq feet addressed as part of project

ESCO: Johnson Controls Inc.
OR: Locklear, Locklear, and Jacobs

# Final Thoughts

# Upcoming Events


## Direct Technical Assistance

State and local ESPC Campaign partners are invited to set up a time to speak with a U.S. DOE Project Facilitator (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 Technical Assistance Sign-Up Form.

# Thank you!

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