NASEO
National Association of State Energy Officials

NASEO Buildings Committee Meeting: *ESPC Lessons from the Field and the Role of Owner's Representatives (Public Buildings Collaborative #2)*

March 5, 2026

Public Buildings Collaborative: Series Objectives

- To provide a forum for State Energy Offices to discuss programs to support energy efficiency and beneficial electrification in MUSH market and community-serving buildings.
  - Day-to-day implementation
  - Stakeholder engagement processes
  - Funding and financing solutions
- To discuss how public building energy improvement programs have evolved over time and can best align with and prepare for federal incentives.
- To establish strategic partnerships between State Energy Offices and relevant stakeholders, including ESCOs, green banks, and other service providers.
- To share expertise across NASEO's member network.

Public Buildings Collaborative: ESPC Questions

- What is the uptake of Energy Savings Performance Contracting (ESPCs) in your state?
- What is your office's role in administering your state’s ESPC program? Is the program housed separately from your office?
- Do you have any anecdotes on the most successful / challenging ESPC projects in your states?
- Does your office engage owner’s representatives as part of your state’s ESPC program?

NASEO Buildings Committee: ESPC Lessons from the Field and the Role of Owner's Representatives (Public Buildings Collaborative Webinar #2)

Kris Anderson (Moderator)

- Director of Energy Resources, Georgia Environmental Finance Authority

George Buchanan

- Founder and CEO, 2KB Energy Services, LLC

Natasha Shah

- Vice President of Government Strategy, National Association of Energy Services Companies

NASEO Buildings Committee and Financing Committee Webinar:

ESPC Lessons from the Field and the Role of Owner's Representatives

(Public Buildings Collaborative Webinar #2)

George Buchanan

CEO & Founder – 2KB Energy Services

Why ESPC Matters Right Now

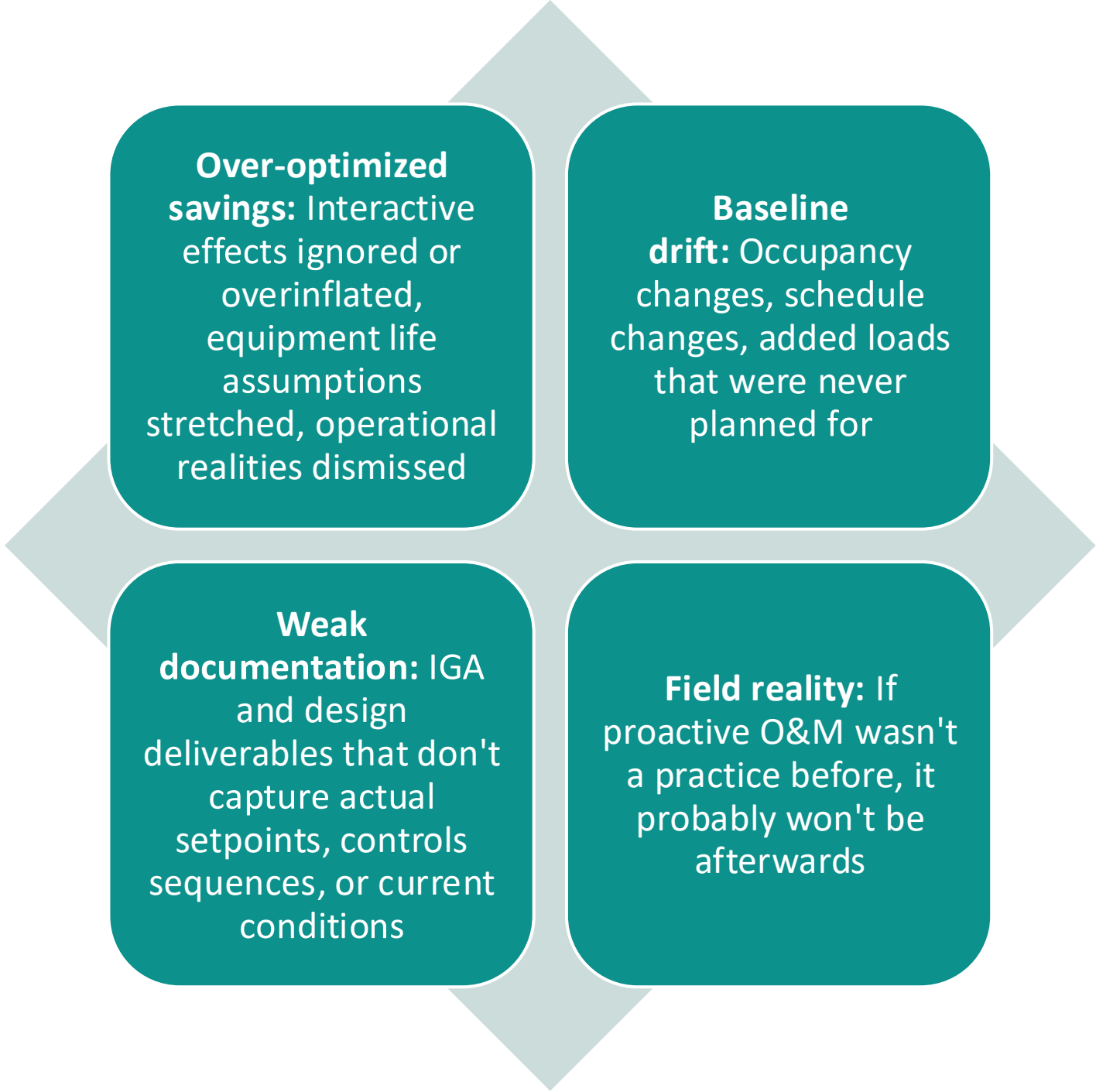
- The Need:
  - Public buildings face deferred maintenance, aging HVAC/envelope, and new decarbonization mandates
  - Limited upfront capital and competing budget priorities

- The Premise
  - ESPC offers guaranteed savings, private financing, and a path to address both comfort and operational goals
- The Challenge
  - Turning the promise into reliable, repeatable results

What ESPCs and Performance Guarantees *Should* Be and Do

- What it is:
  - A design-bid-build capital project
  - A contractual commitment to achieve net savings
  - A guarantee of equipment/system performance
- What it is not:
  - A promise that monthly utility bills always go down
  - A risk-free path to new equipment
  - A set-it-and-forget-it approach to facilities

Common Failure Modes – Baseline & Scope



Common Failure Modes: Operational & Organizational

Staff turnover and capability: Building operators who received training are gone by year two

Controls and ECMs overridden: Occupants adjust thermostats, schedules revert to manual

Misaligned expectations: State Energy Office, ESCO, and facility manager all have different definitions of "success"

Lesson: Technical solutions fail without organizational buy-in and continuity plans

M&V Practicality

- **Rigorous M&V** in plain language: Agreed IPMVP options, clear data needs, independent review of models, simple annual reporting
- **Ideal M&V:** Submetering for every ECM, real-time dashboards, interval data, monthly true-ups
- **Workable M&V:**
  - Option A – one time or periodic measured savings – not inherently “bad”
  - Early M&V plan review (before construction) to lock in methods and catch baseline errors
  - Periodic check-ins/adjustments that balance precision with administrative burden
- **Owner's rep role:** Translate technical M&V findings into risk and financial implications for decision-makers

Separating Construction from Performance Acceptance

- Don't confuse "project is built" with "savings are proven“
- Best practice: Withhold final acceptance (or a holdback %) until construction-period M&V report is reviewed and verified
  - Gives owner leverage to address discrepancies, recalibrate baselines, or adjust guarantee if conditions changed
  - Protects both parties: ESCO gets paid when they deliver; owner doesn't pay for phantom savings
- Owner’s Rep role: ensure owners truly *accept* the project.

How Strong State Programs Reduce Risk

- Standardized procurement and contract templates with clear audit, baseline, Work, and M&V language
- Prequalified ESCO and lender rosters (technical capacity, T/C acceptance, qualified staff, past performance)
- Owner's rep scope that includes state program management, helicopter support for agencies, technical reviews, M&V validation
- **Results**
  - Fewer surprises and fewer horror stories
  - Local agencies – yes, even small ones – can participate in ESPC without reinventing the wheel or hiring FTEs

Workable Best Practices

Desired Outcome:

Projects that deliver measurable savings

Protect the owner

Lessons learned from every project

Maintain a healthy ESPC market

Ideal Scenario:

Perfect data

Unlimited budget

Projects align with all requirements

Never ever any change orders

Full staff continuity

What's Workable:

ESCO "fits" the agency

ECMs match capabilities

Best available data

Realistic M&V

Plan for the unknowns

Clear roles and expectations

Q&A

George Buchanan, CEM, US DOE PF

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CASE STUDY

PUEBLO COUNTY SCHOOL DISTRICT 70

Holistic Facilities Solutions

Engineering for Success

Pueblo County School District 70 (Pueblo) selected Willdan to complete a performance contract for energy-efficient facility improvements. This contract followed a collaborative effort between Pueblo and Willdan to develop a district-wide, 15-year master plan to maintain and update K-12 facilities.

Willdan conducted a detailed evaluation of all the district's 25 school and administrative buildings, including the facilities' existing construction, as well as their mechanical, electrical, controls and other systems. By providing accurate energy savings projections, detailed building upgrade data, and the resources to aid the district in implementing the desired improvements, Willdan helped Pueblo to develop the best overall project scope that fits their needs.

Highlighted Result: Willdan helped Pueblo to not only improve efficiency, but also to improve comfort, temperature control, humidity, and other indoor environment issues that had begun to compound in recent years.

Willdan's also coordinated with the Colorado Energy Office, which provides direction for the Energy Performance Contracting Program and general oversight on projects and energy savings measurements in Colorado.

Incentives Received:

Utility Rebates

$232,671

Total Project Costs:

$14,465,469

Annual Savings:

$679,632 energy savings

4,364,567 kWh

10,914 MMBtu

Featured Solutions

- Engineering Analysis
- Energy Planning
- Energy Efficiency
- System Optimization

WILLDAN

www.willdan.com 800.424.9144

Improvement Details

- Districtwide lighting replacement and upgrade to flat-panel LED fixtures, generating more than $255K in annual energy savings
- Complete roof replacements at Liberty Point Elementary and Liberty Point Middle School
- New lay-in ceilings at Liberty Point Elementary and Liberty Middle School
- New condensing hot water boiler plants at 6 of the 19 K-12 facilities
- New HVAC and controls at 3 of 19 K-12 facilities: Liberty Point Elementary School, Liberty Point Middle School and Pueblo County High School
- Controls expansion and optimization of 5 of 19 K-12 facilities, generating more than $270K in annual energy savings
- New emergency power generator at Beulah Elementary School
- New RTUs and controls at Rye High School
- Controls retro-commissioning and graphics upgrade at 10 of 19 K-12 facilities and produced as-built drawings (All district facilities now on one new graphics interface)

"Over the 18-month collaborative development process with Willdan, their team of professionals and project managers worked closely with our facilities staff and district administrators to truly understand our district's short-term and long-term goals, not simply from a system needs point of view, but how could we improve operationally within the district.

As we confidently moved into Investment Grade Audit and engineered design, the project continued to reflect our feedback and goals, down to the equipment preferences, system selections and inclusion of local-based contractors for project implementation."

- Monte Montez,
Director of Facilities &
Special Projects

Warren County Public Schools
25 schools | 18,750 students

Warren County Public Schools is counting on energy tax credits to support its growing community

Warren County Public Schools (WCPS), Kentucky's fourth largest and fastest-growing district, is setting a national standard in building design and energy efficiency.

Home to over 140,000 residents, Bowling Green is projected to grow by an additional 90,000 residents within the next 25 years—a rate that has driven WCPS to take proactive steps to meet the needs of its expanding school community.

The district, which enrolls around 450 new students every year, is leading the charge in leveraging energy tax credits to create healthier learning environments for its growing population while generating substantial long-term savings.

The district earns these credits, which are accessible as a cash reimbursement thanks to Elective Pay, when installing highly efficient technologies like geothermal heat pumps and solar energy systems. **WCPS is expecting $1,742,406 in energy tax credits for the installation of a geothermal system at the recently renovated Briarwood Elementary School and WCPS Board Office.**

Warren County Public Schools
25 schools | 18,750 students

Working with CMTA, an industry-leading engineering and performance contracting firm headquartered in Louisville, the district has five additional facilities in construction or in design that will feature geothermal heating, three of which will also feature solar energy systems. Future projects include Warren Elementary, Greenwood High School (both under construction), Dillard Elementary, the Impact Center, and a new Central/Board Office. **These projects are expected to generate millions in additional energy tax credits for the district** (Investment Tax Credit - Sec 48 for geothermal and the Clean Electricity Investment Credit - Sec 48E for solar).

By integrating clean energy technologies, WCPS is set to secure millions of dollars in tax credits while significantly reducing energy costs. These savings will be redirected toward priorities that strengthen educational outcomes, provide additional classroom resources, and deliver on competitive salaries for teachers.

“Warren County Public Schools is dedicated to staying ahead of the curve when it comes to energy efficiency and innovation,” said Chris McIntyre, COO/CFO for the district. “By leveraging clean energy tax credits, we’re not just building better schools for today—we’re creating a sustainable foundation for generations of students to come.”

Warren County Public Schools
Energy Savings Performance Contract

Facility Spotlight:	Briarwood Elementary School Renovation & WCPS Board Office
Elective Pay-Eligible Technology:	Geothermal energy system
Tax Provisions:	Elective Pay (Sec 6417) Investment Tax Credit (Sec 48)
Anticipated Reimbursement:	$1,742,406
Anticipated Savings:	**$354,985 over 20 years**

Prepared by CMTA and UndauntedK12 in support of Warren County Public Schools | March 2025