Designing Utility Programs and Credit Models for BPS Support

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About ACEEE

The **American Council for an Energy-Efficient Economy** (ACEEE), a nonprofit research organization, develops policies to reduce energy waste and combat climate change. Its independent analysis advances investments, programs, and behaviors that use energy more effectively and help build an equitable clean energy future.

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Contents

Executive summary

Key findings

- Building Performance Standards (BPS) have become an important policy in the United States, with the potential for reducing building sector energy use by an estimated 25–45% for most cities and property types (Webb and McConnell 2023). Utilities have a key role to play in realizing the potential of these policies.
- Utilities, local agencies, and BPS policymakers should coordinate resources to reduce cost barriers and ensure equitable benefits of BPS for under-resourced building owners and occupants.
- Utilities should assist affordable housing and other under-resourced buildings in complying with BPS requirements. Utilities can do this through existing programs such as measure-based incentives, operations and maintenance programs, and financing programs.
- Utilities should also support jurisdictions with BPS adoption and enforcement. If utilities do not already provide access to building energy data, utilities and regulators should enable data access for jurisdictions and building owners, with appropriate privacy protections. Utilities can also develop new programs or enhancements to existing offerings (e.g., technical assistance and enforcement support) to support jurisdictions.
- Regulators should extend program evaluation timelines to align with BPS compliance cycles and establish a baseline for savings evaluation to allow utilities to receive credit for their contributions to BPS policy compliance.

Building Performance Standards (BPS) are policies that set energy or emissions performance requirements for existing buildings. As of late 2025, six U.S. jurisdictions have BPS policies in effect with active compliance deadlines, and 11 jurisdictions have passed BPS policies that will go into effect by 2030 (IMT 2025; Nadel and Hinge 2023). Significant energy and emissions reductions are associated with these policies, but challenges with policy implementation include compliance costs and technical challenges for building owners and limitations in the workforce available in jurisdictions.

Under-resourced buildings face greater compliance challenges due to limitations in staff capacity and sources of financial assistance (Jarrah, Garfunkel, and Ribeiro 2024). In this paper, we use the term *under-resourced buildings* to refer to building owners and occupants who face limited access to financial and technical resources to undertake building retrofits, drawing on the definition by Kelley, Koolbeck, and Duer-Balkind (2025). Under-resourced buildings may be affordable housing, nonprofits, community centers, schools, and others.

Utilities have an important role as key partners to governments enacting BPS by addressing these barriers to BPS implementation and facilitating achievement of the energy and emissions reduction goals of the policies. This paper outlines the landscape of existing and potential utility program offerings

that can support jurisdictions and under-resourced buildings with BPS adoption and compliance and expand the impact of utility portfolios. We build upon prior ACEEE research and offer insights from utility interviews to capture the current opportunities for utility involvement in BPS implementation.

Utilities can support BPS policies through new and existing programs

As shown in figure ES1, a number of existing utility programs can provide BPS adoption and implementation support to jurisdictions and building owners. Some utility programs provide anonymized building energy data to the U.S. Environmental Protection Agency's (EPA) ENERGY STAR Portfolio Manager tool for benchmarking building energy use, which helps building owners comply with benchmarking ordinances that mandate building energy data reporting. Building energy data from utilities can also be useful to jurisdictions in developing targets for BPS policies, especially for jurisdictions without prior benchmarking ordinances in place. Utilities can leverage energy expertise to offer technical assistance and education to jurisdictions in the policy development process. Given limitations in staff capacity in some jurisdictions, utilities can also assist with enforcement through providing tools and data.

Further, to help under-resourced buildings meet BPS targets and upgrade at lower cost, utilities can focus existing measure-based incentives, operations and maintenance programs, and financing toward under-resourced buildings. In addition to existing incentives, utilities can also coordinate with other entities like green banks and local agencies to help braid together financial resources for under-resourced buildings complying with BPS policies. Additionally, utilities can leverage existing workforce development programs and relationships with contractors to expand workforce skills and availability for BPS retrofits.

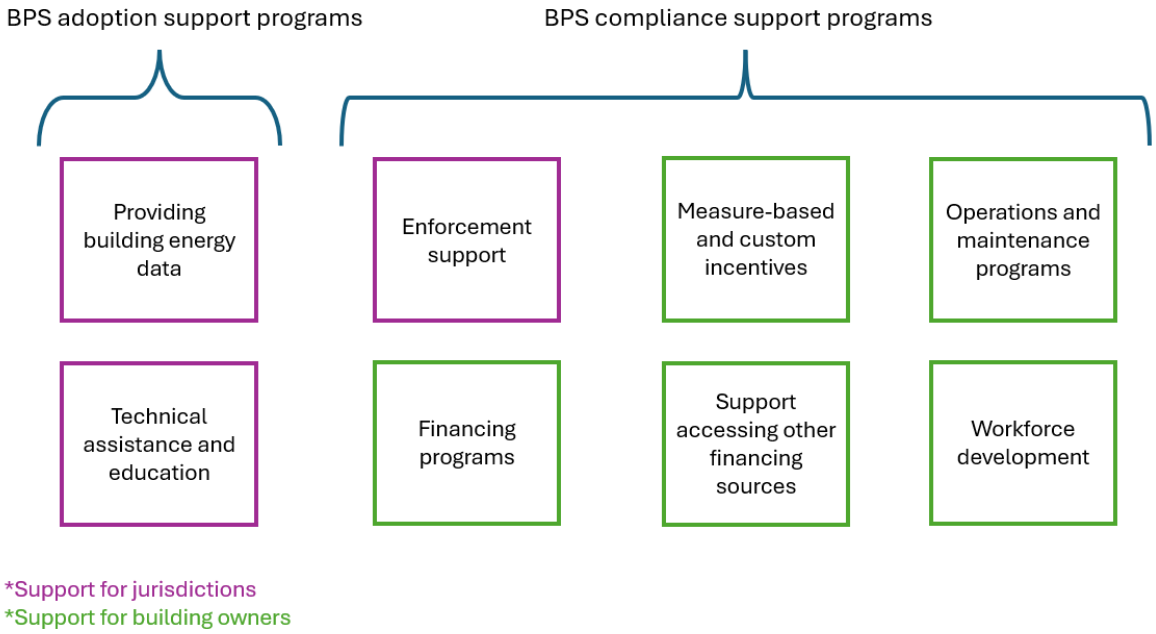

Figure ES1. Landscape of potential utility BPS support program prototypes

Considerations for program design, savings attribution, and evaluation

In tailoring program offerings to BPS support, utilities may encounter challenges related to delivering programs to a larger number of buildings, given that the number of buildings covered by BPS policies often far exceeds typical utility program enrollment. Utilities will need to consider the suite of BPS offerings that aligns with their regulatory requirements and territory, but we identify a few common considerations for structuring programs in the BPS context.

As many BPS policies are designed with long-term targets and phase in an increasing number of buildings over time, utilities may need to consider how to enable greater flexibility within their program timelines and develop strategies to provide advance information to building owners about their offerings. Most utilities develop energy efficiency plans on a three-year cycle (Relf et al. 2020), while many BPS policies set compliance dates for five to eight years after policy enactment, with increasingly stringent interim targets thereafter (Nadel and Hinge 2023). In addition to education and outreach, utilities can support building owners, particularly owners of under-resourced buildings, with audits and technical assistance in identifying compliance measures prior to upgrades. These contributions to greater building owner compliance with BPS can be classified as market transformation activities of utilities where permitted by regulation (Nadel 2022). Utilities and regulators may need to consider changes to attribution and evaluation models to ensure utilities receive credit for their needed contributions.

Another challenge for attribution of savings from utility BPS support activities is avoiding double counting of savings from overlapping efforts. As utilities already claim savings from measure-based incentive and whole-building programs, utilities and regulators will need to determine methods for crediting utilities for additional efforts that support BPS. Utilities can pursue attribution of savings from efforts like technical assistance for policy design and enforcement, which is unrelated to existing program offerings. Regulators will also provide pivotal guidance in how BPS policy impacts are considered in state or regional energy targets for utilities, and careful consideration will be needed to ensure utilities can receive appropriate credit for their contributions to these policies. As the BPS landscape rapidly evolves, policymakers and utility program administrators should coordinate efforts to ensure maximum energy and emissions reduction and community benefits from these policies.

Introduction

In the United States, Building Performance Standards (BPS) are policies that require existing buildings to meet an energy use or greenhouse gas (GHG) emissions target. While building energy codes have long established energy efficiency requirements for new buildings, BPS policies are a relatively recent development. BPS policies require buildings to comply with energy or carbon intensity targets by set deadlines, facing a penalty for noncompliance. While BPS policies vary in the floor area and type of buildings addressed, the majority cover large commercial and multifamily buildings, and they are often designed to phase in requirements for smaller buildings over time.

The landscape of BPS policies in the United States is shown in figure 1. Currently, six U.S. jurisdictions have BPS policies[1] in effect, meaning compliance deadlines have already passed: Boulder, New York City, St. Louis, Chula Vista (California), Boston, and Denver (IMT 2025). Many more jurisdictions have passed BPS policies that will have performance levels enforced over the next five years, including four states (Washington (2026), Colorado (2028), Oregon (2028), and Maryland (2030)); one county (Montgomery County, Maryland (2028)); and five cities (Reno (2026), Cambridge, Massachusetts (2026), Newton, Massachusetts (2026), Seattle (2027), and Evanston, Illinois (2030)); and Washington, DC (2026) (IMT 2025; Nadel and Hinge 2023).

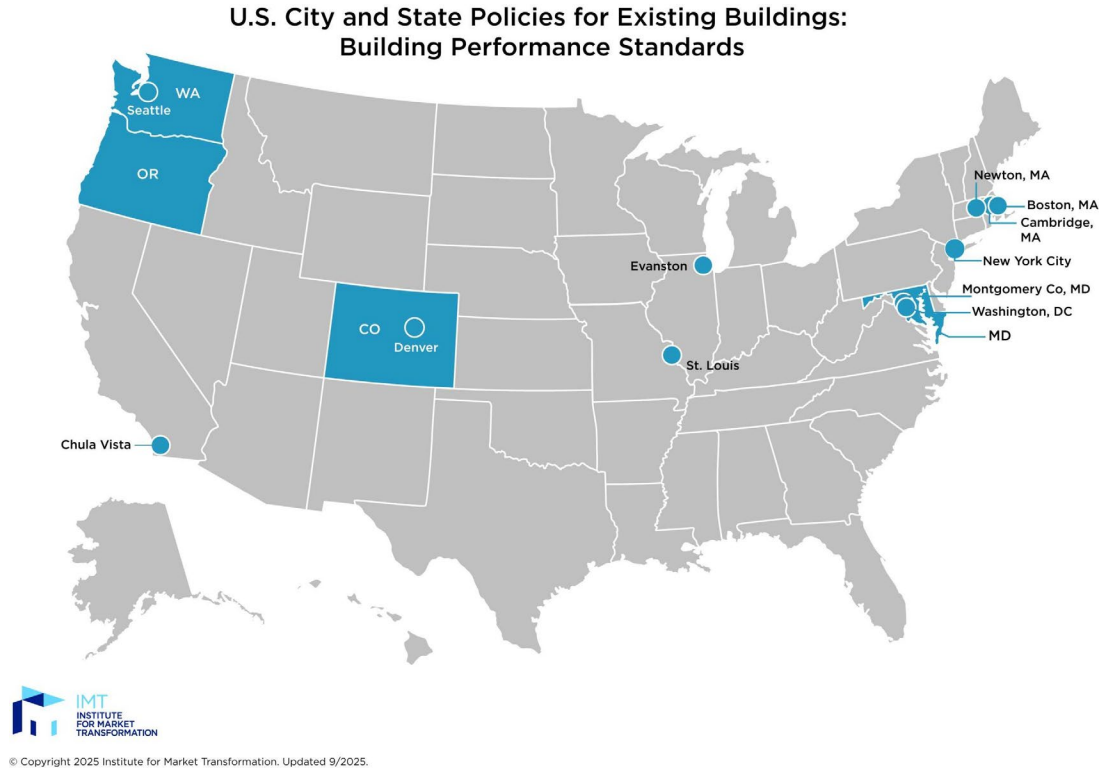

Figure 1. Landscape of BPS policies in the United States (IMT 2025)

[1] This report utilizes the designation of BPS policies defined by Nadel and Hinge (2023), which includes any policy that nominally requires whole-building performance standards.

Together, a significant number of buildings throughout the United States are facing BPS requirements, representing considerable potential for energy and emissions reductions in the buildings sector. An analysis of the potential energy savings impact of BPS in the United States estimated a 25–45% reduction in building sector energy use for most cities with policies (Webb and McConnell 2023). In the absence of BPS policies, only approximately 1–2% of U.S. buildings are retrofitted annually, while under most BPS policies, 65–85% of covered buildings will need to undergo retrofits (Webb and McConnell 2023).

However, a number of challenges are associated with BPS implementation. Jurisdictions may lack staff to develop and enforce BPS targets. Building owners may also lack staff to comply with the BPS, technical assistance to identify and implement building retrofit measures, financial resources to undertake retrofits, and a contractor workforce to implement them. In this paper, we use the term *under-resourced buildings* to refer to building owners and occupants who face limited access to financial and technical resources to undertake building retrofits, drawing on the definition by Kelley, Koolbeck, and Duer-Balkind (2025). Under-resourced buildings may be affordable housing, nonprofits, community centers, schools, and others. Past ACEEE research on the affordable housing sector found that limitations in upfront capital and staff capacity pose barriers to BPS compliance (Jarrah, Garfunkel, and Ribeiro 2024). Existing financial support is often insufficient to overcome those barriers (Jarrah, Garfunkel, and Ribeiro 2024).

With their customer relationships and history of incentive programs, electric and gas utilities can play a key role in overcoming such challenges and supporting effective BPS adoption and implementation. Utilities can support BPS adoption by providing data and technical support to jurisdictions. Then, utilities can support BPS implementation by providing incentives to building owners, specifically targeting under-resourced buildings, and offer technical assistance to both building owners and jurisdictions for BPS compliance.

This paper outlines opportunities for utilities to leverage their existing programs to support BPS and to develop BPS-specific programmatic offerings. Most utility energy efficiency program portfolios include a range of measure-based incentive programs as well as whole-building programs. Additionally, some utilities and other organizations administer market transformation programs, which advance the adoption of higher efficiency standards and innovations in the market to effect lasting change (Geller and Nadel 1994; York, Nadel, and Subramanian 2022). Utility programs to support BPS implementation may fall under all three of these program types, as discussed later in this paper. By discussing a range of BPS program prototypes, we aim to provide a set of models that can be replicated and adapted to many utility contexts. This paper offers a starting point for utilities and regulators considering program offerings, potential barriers, and attribution approaches for savings associated with BPS support efforts.

This research builds on past ACEEE work on energy efficiency program support for BPS (Nadel 2020), strategies to advance equity in BPS compliance (Jarrah, Garfunkel, and Ribeiro 2024), and the extension of utility energy code attribution models to BPS (Garfunkel and Waite 2024). Research for this paper was conducted in early 2025 and included interviews with three utilities, two regional energy efficiency organizations, and four energy efficiency industry stakeholders. The BPS landscape is changing quickly, with more policies coming into effect each year. We aim to update this research in the coming years to provide evolving guidance.

Potential utility BPS support programs

Many utilities have building energy code programs that support the adoption of codes and help improve compliance. In 14 U.S. states and Washington, DC, utilities are able to claim energy savings associated with energy code support programs through savings attribution models (Garfunkel and Waite 2024). As there are similarities between how utility programs can support energy codes and BPS policies, utility energy code programs provide a potential model that can be adapted to the BPS landscape.

The savings attribution model is critical for incentivizing utilities to administer energy code programs. As more advanced energy codes can result in fewer opportunities for savings from incentive programs, utilities may not have an incentive to support energy code advancement without a mechanism for claiming associated savings (Garfunkel and Waite 2024). The same logic applies to BPS policies: Incentivizing utilities to support BPS policies may require a mechanism for claiming BPS-related savings.

Similar to energy code support programs, BPS support programs can be categorized as either adoption support or compliance support programs. As shown in figure 2, utilities can support BPS adoption through existing programs that provide building energy data to jurisdictions, as well as by offering technical assistance to jurisdictions in setting BPS targets and education to jurisdictions' staff on technical aspects of building energy efficiency. To support BPS compliance, utilities can provide technical solutions to help jurisdictions with enforcement.

As indicated in figure 2, utilities can help building owners meet BPS targets through existing programs, including measure-based and custom incentives, operations and maintenance programs, and financing programs. In particular, utilities can target programs toward under-resourced buildings or buildings that are at elevated risk for paying the noncompliance fee rather than making improvements to reduce energy consumption. Some utilities may want to extend support beyond under-resourced buildings to other buildings covered under BPS requirements, dependent upon their state context and program offerings. Further detail on this topic is discussed in previous ACEEE work (Nadel 2020). Utilities can also coordinate with other institutions to help under-resourced building owners access additional financing resources and leverage workforce development programs to expand the number of contractors skilled and available for BPS-related retrofits.

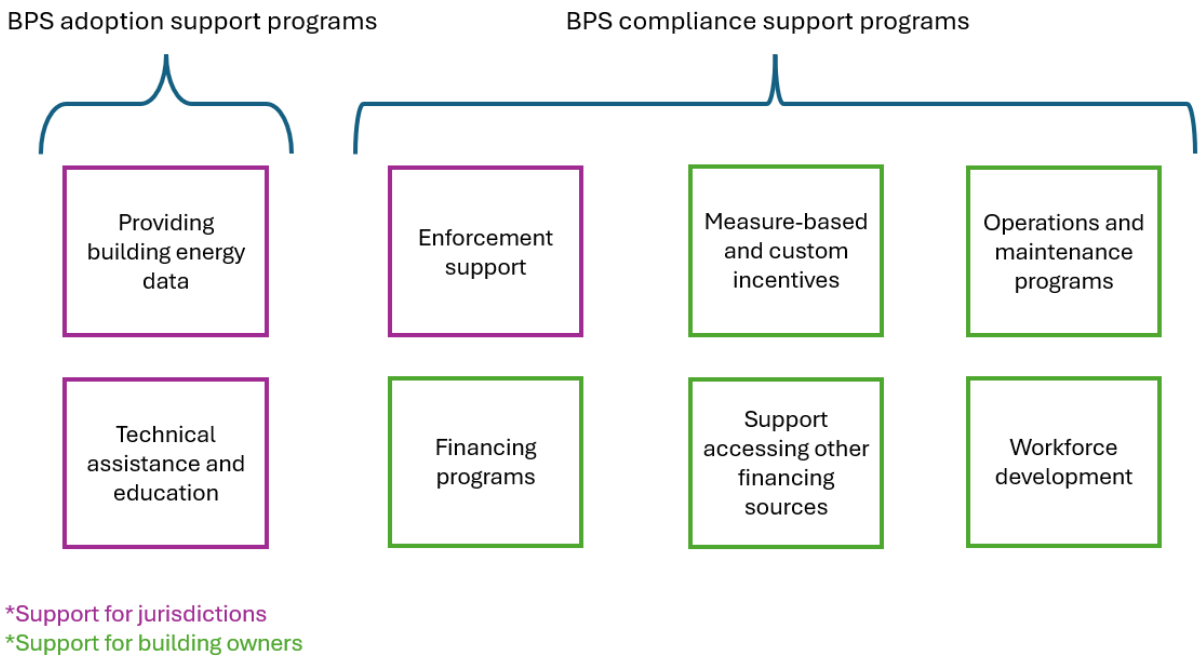

Figure 2. Landscape of potential utility BPS support program prototypes

BPS adoption support programs

Providing building energy data to jurisdictions

Utilities have a wealth of building energy data they can share with jurisdictions designing BPS requirements. This support may be particularly useful for jurisdictions that aim to set BPS targets without a prior benchmarking ordinance. Benchmarking ordinances are policies that require buildings of certain types above a given size threshold to measure and report their energy usage data, typically using the U.S. EPA's ENERGY STAR Portfolio Manager (ESPM) tool, and compare a building's energy performance to similar buildings in similar climates. Some jurisdictions have used energy data collected under benchmarking ordinances to set BPS targets for buildings in their jurisdiction, as 10 of the 17 jurisdictions that have adopted BPS policies had at least three years of required benchmarking preceding BPS adoption (Nadel and Hinge 2023). In these cases, measured energy performance of buildings in the jurisdiction can inform realistic and sector-specific targets under BPS policies. However, the other seven jurisdictions have adopted BPS policies without prior benchmarking (Nadel and Hinge 2023). Jurisdictions can use industry standards or energy modeling to set targets (ASHRAE 2023), but utilities can provide policymakers with anonymized energy usage data aggregated at the building level to use in designing BPS targets.

Some utilities already run programs for sharing building energy data with the ESPM tool through an automated or manual process. In 2023, over 80 utilities in the United States provided access to building energy data for some building owners (Morris, Hall, and Narel 2024). For example, Xcel Energy's Community Energy Reports Program allows jurisdictions to request anonymized building data, with rules for levels of aggregation to protect customer information (Xcel Energy 2025a). ComEd also offers a web-based tool that provides access to anonymized whole-building energy usage for owners of multi-tenant buildings of four or more units (R. Tonielli, senior energy efficiency program manager, ComEd, pers.

comm., February 24, 2025). However, one challenge for utilities in delivering building energy data for benchmarking is the mismatch between the utility data available at the customer level and the need for benchmarking data at the building level. Many multi-tenant buildings, which can be commercial, residential, and mixed-use, have multiple customers and meters, meaning that aggregating data at the building level requires combining data and mapping buildings to meters (Morris, Hall, and Narel 2024). For utilities looking to develop programs to share building data, the EPA has resources on best practices for data aggregation, privacy, and delivery to the ESPM tool (Morris, Hall, and Narel 2024; EPA 2023).

In 2024, the National Association of Regulatory Utility Commissioners (NARUC) issued a resolution recommending state utility commissions develop standardized processes for utilities to share aggregated whole-building data for multi-tenant buildings with provisions that protect customer privacy (NARUC 2024). Additionally, the NARUC resolution recommends that utilities develop processes for customers to authorize sharing building energy usage data with privacy protections (NARUC 2024). Guidance from the NARUC resolution, as well as other resources including past ACEEE research on data sharing best practices (ACEEE 2020), can help regulators and utilities enable and implement programs to share aggregated building data with jurisdictions developing BPS policies. To prioritize utility efforts to enable data access, regulators can establish cost recovery methods for utilities for their development of data tools for supporting BPS policies. It will be important for utilities and regulators to take action on enabling data access where they have not yet done so, as providing policymakers with data is one key avenue of BPS support utilities can offer.

Technical assistance and education

Utilities can offer technical assistance and education for jurisdictions looking to adopt BPS policies. Many jurisdictions lack capacity to establish a complex policy like a BPS, and utilities often have the energy expertise and resources to provide support. In a BPS implementation guide for jurisdictions, Engelmann et al. (2024) identify a role for utilities in mitigating capacity challenges for jurisdictions through offering technical assistance and reducing software costs.

Currently, Commonwealth Edison (ComEd) provides education and technical assistance for jurisdictions looking to adopt the stretch energy code[2] in its territory in Illinois. The stretch code adoption support activities include assisting jurisdictions in raising awareness of the code, helping stakeholders understand its technical elements, educating staff and impacted buildings, and answering questions (R. Tonielli, senior energy efficiency program manager, ComEd, pers. comm., February 24, 2025). Additionally, ComEd and its partners Slipstream, the Midwest Energy Efficiency Alliance (MEEA), the Illinois Green Alliance, and the Metropolitan Mayor's Caucus are currently providing education and technical assistance for benchmarking and BPS adoption to jurisdictions in Illinois. This technical assistance involves supporting jurisdictions to develop a list of covered buildings, helping building owners submit benchmarking data, reviewing policy language, and answering questions from city staff (J. LeZaks, director of research and innovation, Slipstream, pers. comm., November 20, 2025).

In focusing on education and technical support, BPS adoption support programs would likely fall under a market transformation program model. Market transformation programs introduce higher energy

[2] As defined by the U.S. Department of Energy (DOE) (2025), a stretch energy code is an "adoptable and enforceable code that exceeds the requirements of the base code." The base energy code is typically mandated at the state level, with the exception of home-rule states. In states where stretch codes are available, jurisdictions can elect to adopt the stretch code to enhance energy efficiency requirements for new buildings in their jurisdiction.

efficiency standards and innovations into the market to effect lasting change, targeting market barriers to transform business-as-usual practices (Geller and Nadel 1994; York, Nadel, and Subramanian 2022). Examples of such programs include initiatives to promote advanced technologies like cold-climate heat pumps as well as advancement of standards like energy codes (York, Nadel, and Subramanian 2022; Garfunkel and Waite 2024). ComEd's stretch code support program is a market transformation program, as the support activities take place over multiple years and the savings impacts are measured over a long time horizon. Not all utilities are able to offer market transformation programs, as that depends on regulatory approval, which varies by state.

In order for utilities to receive credit for supporting BPS adoption through technical assistance and education, utilities will need to document efforts to improve the stringency and effectiveness of BPS policy design. Potential evaluation approaches for utility support for BPS adoption are discussed in more detail later in this paper.

BPS compliance support programs

Utilities can also provide data and tools to jurisdictions to help them enforce the BPS and to property owners to help them comply. As mentioned previously, a number of resources from ACEEE, the EPA, NARUC, and others can guide policymakers and utilities on enabling building energy data sharing with privacy protections.

Providing enforcement support

In addition to supporting jurisdictions with BPS adoption through providing building energy data and technical assistance, utilities can offer jurisdictions enforcement support. BPS policy administration requires building data verification, management, and analysis (Engelmann et al. 2024). BPS enforcement also requires administration for noncompliance, as jurisdictions often use penalties, also known as alternative compliance payments, as an enforcement mechanism for buildings that do not meet the performance targets (Nadel and Hinge 2023). As staff capacity is often a challenge for jurisdictions implementing BPS policies, utilities could provide support for streamlining checks for BPS compliance, such as through funding data management software or technical experts who provide analysis support. Where utilities support BPS enforcement, the enforcing agency and the utility should define their roles and responsibilities, so that the utility avoids adversarial relationships with customers.

This technical assistance is similar to support some utilities provide building enforcement officials for energy code compliance, which includes tool development and funding for energy code circuit riders who travel around the state to provide expertise to jurisdictions (Eversource et al. 2022). ComEd plans to expand its stretch code support to include enforcement as jurisdictions adopt the stretch code in Illinois, and could offer a similar form of enforcement support for jurisdictions that adopt a BPS (R. Tonielli, senior energy efficiency program manager, ComEd, pers. comm., February 24, 2025). Supporting and simplifying compliance for jurisdictions can help to relieve the administrative burden of enforcement for jurisdictions with limited staff capacity.

Measure-based and custom energy efficiency incentives

Utilities already offer a number of measure-based energy efficiency incentives, which can help buildings work toward BPS targets. Standard prescriptive incentives cover one energy end use, such as lighting measures and heating, ventilation, and air conditioning (HVAC) equipment upgrades (Srivastava and Mah 2022). Utilities also offer custom incentives for items not covered by their prescriptive rebate programs, such as ComEd's Custom Incentives program and Xcel's Custom Efficiency rebates program.

Custom programs often address multiple energy end uses and may administer multiple measures at the same time or in phases (Srivastava and Mah 2022). Custom programs may also include load management measures and new technologies such as smart thermostats, energy storage, and electric vehicle charging (Srivastava and Mah 2022).

To support multifamily buildings with BPS compliance measures, utilities can tailor incentive offerings to suit different types of multifamily customers. Best practices for delivering multifamily programs include providing a "one-stop shop" and layering incentives (Samarripas 2025). For example, Pacific Gas and Electric (PG&E)'s Multifamily Home Upgrade Program offers a one-stop shop for customers, where a single point of contact assists the customers with applications for incentives and offers technical assistance for benchmarking and operations and maintenance training (ACEEE 2021). PG&E's program offers tiered incentives to both market-rate and affordable housing buildings, under which customers receive higher dollar amounts of per-unit savings for deeper levels of energy savings (ACEEE 2021).

Retrofit incentives can be offered both before and after a BPS requirement takes effect, although as discussed later in this paper, there are often additional restrictions after the BPS take effect and compliance is required.

Operations and maintenance programs

In addition to measure-based incentives, operations and maintenance (O&M) programs are likely to provide considerable energy savings that buildings will need to comply with BPS requirements. O&M programs offer building owners incentives that scale with the energy they save without large upfront investments, which can support under-resourced buildings with BPS compliance. We discuss four types of O&M programs in this section: strategic energy management programs, retro-commissioning programs, monitoring-based commissioning programs, and virtual commissioning programs.

Strategic energy management programs

Strategic energy management (SEM) programs are one type of whole-building O&M program offering, typically for large commercial and industrial customers. SEM programs include training and operational changes to unlock behavioral and operational savings (Read, Honeychuck, and Zheng 2025). Operational changes may include adjustments or upgrades to building systems, such as through lighting or HVAC controls, equipment optimization, or set point adjustments (PSE 2025a). Behavioral changes may include improving staff or occupant awareness of inefficient energy practices or implementing new standard operating procedures (BetterBricks 2022). Xcel's SEM program in its Colorado territory provides consulting to customers to identify energy usage and savings measures and implement continuous performance improvements over up to three years (Xcel Energy 2025b). Utilities in Washington State, including Puget Sound Energy (PSE) and Tacoma Power, also offer SEM programs for commercial customers (PSE 2025b; Tacoma Power 2025). Customers with at least 1 GWh of energy use per year are eligible for participation, and receive performance incentives for energy saved—$0.02 per kWh (Xcel), $0.025 per kWh (Tacoma Power), or $0.04 per kWh or therm (Puget Sound Energy). In addition to performance incentives, SEM participants may also qualify for prescriptive incentives for implementing specific efficiency measures identified by utility consultants.

Seattle City Light is launching its new commercial and multifamily SEM programs in fall 2025 and early 2026, designed to help buildings prepare to meet the Washington State Clean Building Performance Standard and the Seattle Building Emissions Performance Standard (BEPS) (City of Seattle 2025). The program will offer both performance incentives for energy saved and milestone incentives for key steps of energy management through the program, such as establishing an energy team and appointing an executive sponsor to manage the project on the customer side (City of Seattle 2025). In targeting

buildings that are required to comply with the state and city BPS policies, Seattle City Light's SEM program highlights a new best practice in designing programs to support BPS compliance. SEM programs are well-suited to BPS compliance through tailored technical assistance with both performance and prescriptive incentives, helping building owners to offset the cost of energy upgrades while improving building performance.

Four Washington utilities (Puget Sound Energy, Seattle City Light, Snohomish County PUD, and Pacific Power) offer a distinct SEM-based program specifically targeting the requirements of the Washington BPS (and local to Seattle, the Seattle BEPS). These are typically referred to as Accelerator programs and they use a lighter touch approach than a typical SEM program. While PSE's commercial SEM program is a three-year program, its Clean Buildings Accelerator program is a four-month program (PSE 2025a, 2025b). The lighter effort approach of the Accelerator program targets early compliance with the BPS requirements while requiring less budget per customer than a typical SEM program; this alleviates budget strain for the utility by accommodating the larger numbers of customers such a program aims to engage as well as the lower savings per customer returned by each program engagement. In addition to delivering energy savings, the Accelerator programs allow utilities to strengthen customer relationships and often act as an on-ramp to other utility program offerings, generating additional savings (Gilless, Ip, and Robinweiler 2022). PSE has had approximately two-thirds of its Accelerator participants move into another PSE program after completing the Accelerator, such as its commercial SEM, capital projects, or commissioning programs (B. Robinweiler, senior product development manager, Puget Sound Energy, pers. comm., November 13, 2025). Utilities may find value in this Accelerator approach as an additive program to a new or existing SEM program or as an alternative to a more traditional SEM program. Programs like the Accelerators can play an important role in addressing challenges faced by buildings with limited building staff capacity to manage compliance with BPS requirements.

Seattle City Light works in conjunction with their sister city agency (Seattle Office of Sustainability and Environment) to run an Accelerator program that targets GHG emissions addressed in BEPS and also specifically supports frontline communities[3] (Ballinger et al. 2024). The program targets buildings serving or owned by frontline communities, nonprofit owned or operated buildings, and buildings in neighborhoods identified by the City of Seattle's Race and Social Equity Index[4] (Ballinger et al. 2024). The program is funded by the city and Seattle City Light claims deemed savings from the program, which are "trued-up" with statistical models (Ballinger et al. 2024).

Retro-commissioning, monitoring-based commissioning, and virtual commissioning programs

Three other types of whole-building O&M programs that can support buildings with BPS compliance are retro-commissioning programs, monitoring-based commissioning programs, and virtual commissioning programs. These programs assist buildings to operate at optimal levels and implement measures to improve building system performance, such as through changes to the controls or scheduling of HVAC systems (Nadel 2023; Gunasingh, Hackel, and Zhou 2019). Similar to SEM programs, these programs target operational savings as well as some follow-on capital measures (Nadel 2023). Retro-commissioning involves identifying, implementing, and verifying a set of operational energy efficiency

[3] In the Seattle City Light program, frontline communities are defined to include Black people, indigenous people, sovereign tribal nations, communities of color, immigrants, youth, elders, houseless people, disabled people, LGBTQ+ people, people with low or no income, and people who work in outdoor occupations (Ballinger et al. 2024).

[4] The City of Seattle's Racial and Social Equity (RSE) Index combines data on race, ethnicity, and related demographics with data on socioeconomic disadvantages and health disadvantages (City of Seattle 2023).

improvements, and monitoring-based commissioning involves an iterative, ongoing commissioning process with continuous data analysis and monitoring (Srivastava and Mah 2022; Nadel 2023). In an analysis of six monitoring-based commissioning programs, Nadel (2023) found average energy savings of 9%.

While retro-commissioning and monitoring-based commissioning are generally done by skilled engineers in person, some utilities also offer virtual commissioning programs that are done remotely. In its Virtual Commissioning program, ComEd analyzes a building's energy performance through its smart meter data and offers recommendations for performance improvements (ComEd 2025). While ComEd's Retro-Commissioning Flex program and Monitoring-Based Commissioning program are available to buildings with high annual energy usage (at least 0.5 GWh or 3 GWh, respectively), ComEd's virtual commissioning program is available to buildings with any annual energy usage and peak demand of 500 kW or less (ComEd 2025).

This range of program offerings can meet the needs of buildings of various sizes and energy usage profiles looking to comply with BPS targets. In an interview, ComEd discussed that its retro-commissioning projects may become more common under BPS policies, as targeted operational improvements can advance buildings toward required BPS performance (R. Tonielli, senior energy efficiency program manager, ComEd, pers. comm., February 24, 2025).

Affordable housing stakeholders identified gaps in the technical support and financing available for building tune-ups and retro-commissioning to help bring affordable housing buildings into compliance with BPS (Jarrah, Garfunkel, and Ribeirio 2024). Utility retro-commissioning programs can deliver both technical assistance and financial incentives to under-resourced buildings and provide an important avenue for low-cost improvements to bring buildings into BPS compliance.

Financing programs

To complement utility incentive offerings, utilities and other program administrators may be able to help building owners access other financing mechanisms to support BPS compliance. A number of utilities offer loans repaid through consumer bills either provided by the utility (called on-bill financing or OBF) or a third party (on-bill repayment or OBR) (ACEEE 2017; Mah et al. 2025). As the up-front costs of capital-intensive energy efficiency improvements can be cost prohibitive for under-resourced buildings, OBF and OBR programs provide a mechanism for spreading out BPS compliance costs.

Several BPS policies offer alternative compliance paths for affordable housing buildings that extend compliance deadlines to allow affordable housing owners to align compliance measures with capital refinancing timelines, which are often longer timelines than those of other buildings (Jarrah, Garfunkel and Ribeiro 2024; Silverman, Miller, and Biever 2022). Further discussion on alternative compliance paths for affordable housing is included later in this paper. OBF and OBR programs may support affordable housing and other under-resourced buildings with energy efficiency upgrades that can be financed over extended time periods and align with other refinancing cycles.

With financing programs for affordable housing, it is important that the financing improve rather than harm affordability. This generally means that annual bill savings should be greater than annual financing costs (Mah et al. 2025). Further, it is imperative that utilities ensure financing programs include strong consumer protections (Mah et al. 2025). Best practices for consumer protections and program design for financing programs are discussed in ACEEE's report *How to Pay for Low- and Moderate-Income Home Energy Retrofits* (Mah et al. 2025).

Connecting customers to other financing sources

Utilities have an opportunity to collaborate with public agencies and private investors to help inform building owners of other financing sources that can be paired with utility incentive offerings. While assistance can be provided to all building owners, in the paragraphs below we particularly focus on affordable housing and other under-resourced buildings, as these buildings generally need financial assistance the most.

As discussed in past ACEEE research on affordable multifamily programs, utility program administrators can coordinate with public housing authorities, state finance housing agencies, and other stakeholders to address gaps in resources and assist building owners in combining available financing sources (Tanabe 2021). In doing so, utilities can help deliver greater savings and health benefits of energy retrofits to residents of affordable housing by ensuring utility program investments complement other sources of support.

To assist building owners to access financing sources in order to comply with BPS requirements in Washington or Oregon, the Northwest Energy Efficiency Alliance (NEEA) is creating a resource library with information about grants and private financing sources available in their jurisdiction, in addition to utility incentives (D. Driscoll, principal market transformation manager, NEEA, pers. comm., March 3, 2025). As many BPS policies increase in stringency of requirements and scope of covered buildings over time, greater financial resources are likely to be needed in future compliance cycles. In an interview, NEEA discussed that to meet a growing need for capital to finance energy and emissions reduction projects, there may be opportunities to aggregate building retrofit projects to investment-grade groupings to source investment capital for more capital-intensive retrofits, in partnership with organizations like green banks (D. Driscoll, principal market transformation manager, NEEA, pers. comm., March 3, 2025).

In Maryland, the Montgomery County Green Bank offers financial support to small buildings in complying with the county BPS. The green bank covers the costs of benchmarking and most of the costs of energy audits, which are completed by verified partners of the green bank (A. Landsman, president and chief executive officer (CEO), Landsman Building Performance Services, pers. comm., July 29, 2025). Audits help identify low-cost measures for BPS compliance, and building owners are able to finance energy upgrades through the green bank, further reducing the costs of compliance (A. Landsman, president and CEO, Landsman Building Performance Services, pers. comm., July 29, 2025).

Existing utility programs that work with affordable housing stakeholders can serve as models for utilities in BPS jurisdictions, demonstrating how to dedicate resources toward ensuring an equitable distribution of retrofit benefits. In Massachusetts, the Low-Income Energy Affordability Network (LEAN) Multifamily program provides energy efficiency upgrades to affordable housing buildings. The program, administered jointly by LEAN and utilities, offers audits and energy assessments, efficiency upgrades by program contractors, and inspections to verify projects (LEAN 2025). The LEAN program requires property owners to maintain affordability for 5 or 10 years, a best practice in tenant protections (MassSave 2019; NHT and HAND 2019).

In the BPS landscape, a number of city resources are available to support under-resourced buildings that can be paired with utility incentives. In Washington, DC, the DC Sustainable Energy Utility (DCSEU), the District Department of Energy & Environment (DOEE), and the DC Green Bank administer the Affordable Housing Retrofit Accelerator, which offers both financial and technical assistance to affordable multifamily housing building owners to support compliance with the DC BPS requirements (DCSEU 2025). The Retrofit Accelerator offers qualified affordable housing buildings resources to identify energy upgrades, access financing sources, and find approved contractors (DCSEU 2025).

Workforce development

Affordable housing stakeholders note a key challenge with BPS implementation is workforce availability for the scale of retrofits needed (Jarrah, Garfunkel, and Ribeiro 2024). Utilities can play an important role in expanding and upskilling the workforce for executing BPS-compliant retrofits. A number of utilities already run workforce development programs that train for energy efficiency careers (Srivastava, Ayalam, and Aquino 2025). Utilities can leverage existing workforce development programs and relationships with contractors to support the expansion of retrofits under BPS policies. Where utilities do not already have programs in place, regulators can enable utilities to develop workforce development programs to support BPS policies.

Program design: barriers and strategies

In interviews with utilities, interviewees identified barriers they anticipate in adapting current programs to a BPS context and developing BPS-specific programmatic offerings. Many challenges of implementing BPS support are specific to the utilities' regulatory structures, but three general challenge areas are the scale of buildings covered by BPS policies, noncompliance of building owners, and regulatory limitations on utility program offerings.

Potential barrier: scale of covered buildings

While the initial requirements of most BPS policies cover larger buildings (e.g., floor area greater than 50,000 square feet), some BPS policies are designed to cover a wider set of smaller buildings in future compliance cycles. The expanding scope of BPS coverage may present a challenge for utilities, as policies will cover many more buildings than typical utility program enrollment. With growing demand for program offerings, utilities may need to provide more resources for program outreach and delivery.

For example, Washington State's Clean Buildings Performance Standard phases in energy performance requirements for commercial buildings meeting various size thresholds over three years, starting with buildings over 220,000 square feet in 2026, then buildings over 90,000 square feet in 2027, and buildings over 50,000 square feet in 2028 (WA DOC 2025). While the BPS does not require multifamily and small commercial buildings to meet energy performance targets, it will require multifamily and commercial buildings over 20,000 square feet to benchmark, create an energy management plan, and establish an operations and maintenance program by 2027 (WA DOC 2025). NEEA, in supporting its member utilities and building owners in Washington, identifies a potential challenge for utilities to reach an increasing number of buildings covered under future phases of BPS requirements (D. Driscoll, principal market transformation manager, NEEA, pers. comm., March 3, 2025). The District of Columbia Sustainable Energy Utility (DCSEU) expressed similar concerns over their ability to administer programs to the expanding scope of buildings covered under the DC Building Energy Performance Standard (BEPS) in future compliance periods (P. Boyd, director of technology and innovation, DCSEU, pers. comm., March 10, 2025).

Strategies to address scaling challenges

Given that BPS policies will cover a greater number of buildings than typical utility program enrollment, innovative strategies will be needed to expand the reach and types of support utilities can offer building owners. First, utilities should prioritize support of under-resourced buildings, including affordable housing and nonprofit buildings, in allocating program resources. In particular, programs providing technical assistance, incentives, and financing should prioritize enrollment of under-resourced buildings.

To increase program reach and participation among under-resourced buildings, utilities can conduct outreach through public housing authorities, community organizations, property-owner organizations, and trade allies with building owner relationships (Tanabe 2021; Ross, Jarrett, and York 2016). ACEEE research has identified program marketing best practices, including effective and diverse messaging in multiple languages, to reach a broader audience and to ensure benefits of program participation are clearly illustrated (Samarripas 2025; Ross, Jarrett, and 2016). Energy upgrades to comply with BPS can deliver important financial and health benefits to building tenants and owners—an important message for utilities to communicate in recruiting more program participants.

Utilities will also likely need to coordinate with other actors like policymakers, public agencies, and third-party implementors. As discussed previously, utility program administrators should design program offerings that complement BPS support offered by state and city programs and other entities like green banks. For example, in Washington State, a BPS compliance workgroup recommended policymakers collaborate with the Bonneville Power Administration to help public utilities establish BPS support programs (Fong 2024).

For affordable housing or other under-resourced buildings, utilities may be able to expand program delivery of energy efficiency improvements through co-funding programs with other entities. As discussed by Gordon et al. (2022), some utilities have designed co-funding approaches for energy efficiency programs with government agencies providing low-income or health services. For example, programs in New York, Washington, and Wisconsin combine funding from health agencies with energy efficiency programs to deliver weatherization and other energy efficiency improvements (Gordon et al. 2022). These co-funding strategies can address scaling challenges by elevating participation and reducing BPS compliance costs for under-resourced buildings.

Potential barrier: building owner compliance challenges

Utility programs will play a key role in addressing building owner compliance challenges, which may be due to a number of factors. During interviews with those working in the energy efficiency industry, interviewees identified lack of awareness of BPS requirements as a prevalent issue among property managers and building owners (A. Landsman, president and CEO, Landsman Building Performance Services, pers. comm., July 29, 2025). Many building owners who will be required to comply with BPS policies would not be voluntary adopters of energy efficiency upgrades, and may not be aware of their energy or emissions performance requirements or the utility programs available to support them. In particular, under-resourced buildings owners and operators often do not have the capacity to research and find contractors to execute measures to meet BPS requirements (A. Landsman, president and CEO, Landsman Building Performance Services, pers. comm., July 29, 2025). Limited awareness of BPS policies and support available may contribute to building owners' decisions to pay noncompliance penalties.

In some cases, the costs of BPS compliance may exceed the noncompliance penalties. A Washington State study of compliance with the BPS energy use intensity (EUI) reduction targets found that many bundles of measures were not cost effective, although some individual measures were cost effective (Fong 2024). The study showed that the total annualized net life-cycle costs of compliance were 2 to 20 times the fines for noncompliance (Fong 2024). These findings underscore the challenge of driving compliance with BPS policies and the need for mechanisms to reduce compliance costs. However, New York City has experienced high compliance rates with their initial BPS targets, as 92% of covered buildings were estimated to comply with NYC's 2024 BPS targets based on 2023 benchmarking data, and a projected 43% would already meet the city's 2030 targets as well (Urban Green Council 2024). The high compliance rates with initial targets and significant early compliance with future targets in New York City indicates the widespread impact that is possible with successful policy implementation.

Many of the compliance challenges discussed are particularly pronounced for under-resourced buildings. While utility program offerings can be especially beneficial for these under-resourced buildings, utilizing utility programs requires administrative capacity that some buildings may not have (A. Landsman, president and CEO, Landsman Building Performance Services, pers. comm., July 29, 2025). Utilities can dedicate additional outreach and stakeholder involvement to engage under-resourced buildings. As mentioned previously, utilities can utilize a one-stop shop approach to program offerings, with dedicated program staff support for under-resourced buildings in applying for incentives and other financing, and accessing energy assessments and technical assistance. Sustaining relationships with under-resourced building owners will be important for overcoming BPS compliance challenges.

Addressing compliance challenges through forward-looking program structures

Longer program timelines

As the rollout of BPS policies takes place over long time periods that vary across jurisdictions, utilities will likely need to consider how their program offerings can be structured with greater flexibility and longer timelines. Both utilities and building owners benefit when owners are given advance notice of utility program offerings as they plan and prepare to meet BPS requirements. Given that building owner noncompliance poses a challenge for successful BPS implementation, providing advance information about available utility support is likely to be a key driver of greater compliance, as it helps building owners make informed decisions and reduces the costs and technical challenges they face.

Utilities can consider informing customers about BPS requirements and marketing utility program offerings before requirements go into effect (N. Minderman, DSM policy and strategy consultant, Xcel Energy, pers. comm., February 26, 2025). For example, PSE began informing customers through webinars about the Washington State BPS as soon as the rulemaking was finalized, to encourage early compliance with the BPS requirements (B. Robinweiler, senior product development manager, Puget Sound Energy, pers. comm., November 13, 2025). As many BPS targets will go into effect between 2026 and 2030, utilities may consider developing program offerings and beginning marketing them as soon as they are able. Supporting building owners with BPS compliance in advance of the BPS target effective dates will require multiyear plans. Early program outreach and enrollment can influence building owners to comply rather than incur noncompliance penalties. This lever of influence on overall BPS compliance rates is a key utility contribution that should not be overlooked.

Utilities and regulators can work together to enable extended program timelines for delivery and engagement. In jurisdictions like Illinois, the market transformation model used for programs like ComEd's stretch code support program could be used for BPS support programs with multiyear efforts. Where permitted by regulation, utilities can consider implementing market transformation programs to support jurisdictions to adopt BPS targets, educate building owners on the requirements, and offer technical assistance in identifying measures and incentives to achieve compliance. In many states, market transformation programs are run by other organizations, and utilities can coordinate with these organizations around efforts to support BPS compliance.

Aligning program offerings with BPS compliance cycles

While the phasing-in of BPS requirements for more buildings over time may create scaling challenges for utilities as discussed previously, it also creates lead-in time for buildings to undertake steps toward compliance. In jurisdictions where benchmarking ordinances precede BPS policies, building owners are generally given multiple years between beginning benchmarking and BPS requirements taking effect.

With this lead-in time, program participation is likely to be staggered, as some building owners will engage earlier than others.

Also, since BPS programs are designed with increasingly stringent targets, the cyclical design of compliance timelines may spread out customer participation in utility programs, a point emphasized by Xcel in our interview (N. Minderman, DSM policy and strategy consultant, Xcel Energy, pers. comm., February 26, 2025). To promote early compliance with BPS requirements, utilities could structure incentive offerings to expire a given amount of time after BPS targets are in effect, with a longer window for under-resourced buildings. This strategy could encourage covered buildings to take advantage of incentives while they are available and allow utilities to anticipate BPS-driven enrollment. By aligning program offerings with BPS compliance cycles, utilities can sustain greater energy savings impacts over time.

Workforce development and building owner engagement

Additionally, utilities can tailor workforce development programs to inform all industry professionals about BPS requirements in their jurisdictions. Utilities have experience expanding the contractor workforce to meet growing demands for energy retrofits under BPS policies, and can consider these contributions as further market transformation efforts.

These contractors often have existing relationships with building owners or managers and can help educate them about BPS requirements (A. Landsman, president and CEO, Landsman Building Performance Services, pers. comm., July 29, 2025). Additionally, there may be other professional organizations that can help with outreach and education, including local chapters of the Building Owners & Managers Association (BOMA), International Facility Management Association (IFMA), Urban Land Institute (ULI), American Institute of Architects (AIA), American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE), U.S. Green Buildings Council (USGBC), engineering firms, chambers of commerce, and business improvement districts. Utilities can engage with these organizations to reach more building owners with BPS program offerings and to expand workforce development programs.

Potential barrier: offerings limited by regulation

Utilities also raised concerns that state regulatory structures can limit which customers are eligible for incentives, particularly for gas efficiency or fuel-switching measures. For example, Xcel explained that in Colorado, some of their large commercial customers enrolled in its SEM program are electric-only customers and use transport gas, procuring gas directly from the pipeline provider rather than using Xcel's distribution gas. Until a recent change in regulation, these customers were only eligible for rebates for improving electric equipment and could not receive rebates for upgrading the efficiency of or electrifying gas-fueled equipment. Following the regulation change in Colorado, Xcel's electric-only SEM customers only recently became eligible for fuel-switching rebates like heat pump installations (N. Minderman, DSM policy and strategy consultant, Xcel Energy, pers. comm., February 26, 2025). Given that BPS policies may encourage customers to switch from gas to electric equipment, some utilities may be challenged in providing incentives for these measures.

These examples highlight how regulatory structures can constrain or enable utility incentive offerings, and in some cases may impact the ability of utilities to support BPS-related efficiency and electrification measures. Regulators and other policymakers should consider removing these restrictions, as Colorado has done.

Strategies for maximizing program impact

In designing programs to support BPS adoption and compliance, it is important to consider how and where the programs' impacts can be maximized. As discussed earlier, existing utility measure-based and whole-building programs are well suited to support building owners to comply with BPS requirements. Given that BPS requirements will likely be a significant factor in increasing demand for these programs, utilities could consider offering additional incentives in BPS jurisdictions. Offering extra incentives for buildings in BPS jurisdictions, particularly for under-resourced buildings, would be one way to both support BPS compliance and increase the energy and emissions reduction impact of programs.

In ACEEE's 2020 research on utility programs to support BPS implementation, a utility discussed the use of stepped or tiered incentives that would scale per unit of energy saved as the building's savings increased (Nadel 2020). As mentioned previously, well-established multifamily energy efficiency programs already use stepped incentive structures (ACEEE 2021). Incentivizing deep energy savings from comprehensive retrofit programs could even result in buildings exceeding current BPS performance requirements (Nadel 2020). By enabling buildings to achieve greater energy reductions, utilities could support early compliance with future BPS targets and increase the impact of their programs.

Attribution approaches and considerations

In adapting existing utility programs and establishing new program offerings to meet the demands of BPS policies, utilities and regulators will need to consider approaches for attributing energy savings from these programs. Attribution is a regulated process by which utilities measure and claim energy savings associated with their program efforts. Attribution of energy efficiency program savings typically uses two methods—a deemed savings method, which assigns a given amount of savings for a specific measure, or a measured savings method, which calculates the modeled or actual savings for more complex interventions (EPA 2025). For nontraditional utility programs like energy code programs, where program efforts influence the market or improve compliance beyond specific measures, novel attribution approaches have been developed.

Currently, utilities in 14 states and DC have attribution approaches for energy savings from codes programs (Garfunkel and Waite 2024). Most states use a standard formal attribution approach based on California's Codes and Standards Advocacy Program Evaluation Protocol model, which involves the following calculations:

1. Gross savings by applying an estimated compliance rate
2. Net savings by subtracting savings associated with naturally occurring market adoption
3. Net program savings by applying an attribution factor for the percentage of savings associated with utility program efforts (Lee and Stacey 2018; Chase et al. 2021) (see figure 2)

As discussed in previous ACEEE research, the energy code savings attribution model can provide a framework for utilities to claim savings from BPS support programs (Garfunkel and Waite 2024). A recent report from Slipstream and Clearly Energy identifies methods utilities can use to attribute savings from BPS program efforts, with details on how net and gross savings can be calculated (LeZaks, Wells, and Port 2025).

Utility BPS support programs, similar to utility energy code support programs, present a new opportunity for utilities to claim energy savings, which have been diminishing in other areas like efficient lighting programs. However, a number of factors will influence the ability of utilities to receive credit for

BPS support efforts. In this paper, we discuss key considerations that utilities and regulators will need to address to enable utilities to attribute savings from BPS programs.

Double counting of savings

An important challenge for utilities attributing energy savings from BPS support activities is avoiding double counting savings from overlapping programs. Many existing utility programs can help building owners comply with BPS programs, but these savings are already accounted for through deemed savings for measure-based incentives or measured savings for whole-building programs. For example, DCSEU raised concerns over the issue of double counting preventing attribution for any additional BPS-related savings beyond their existing activities. DCSEU offers technical assistance to building owners, such as having engineers review bids that large building owners receive to help inform their decisions. However, if the building then receives a DCSEU rebate, DCSEU is already claiming savings from the rebates, meaning that attempting to claim savings from technical assistance would present a double-counting issue (P. Boyd, director of technology and innovation, DCSEU, pers. comm., March 10, 2025).

Utilities could take a few possible approaches to avoid the double-counting issue. According to an interview with ACEEE, PSE's approach to attributing savings from its Accelerator program, which is specifically designed to support buildings with BPS compliance, is dependent upon whether the customer goes on to enroll in another PSE program. If the customer only utilizes the Accelerator program, PSE attributes savings to the Accelerator program using regression analysis based on the customer's energy usage data. If the customer moves into another PSE program after completing the Accelerator program, PSE will not attribute savings to the Accelerator, and will only attribute savings to the other program they enroll in. As common off-ramp programs from the Accelerator are PSE's commercial SEM and commissioning programs, the performance savings attributed to those programs are likely to capture the additional savings the Accelerator program generated (B. Robinweiler, senior product development manager, Puget Sound Energy, pers. comm., November 13, 2025).

Utilities can also consider attributing BPS savings from efforts that are unrelated to existing program offerings. For example, DCSEU is able to claim savings from its code compliance support program—which is not associated with any rebates—as a market transformation program (P. Boyd, director of technology and innovation, DCSEU, pers. comm., March 10, 2025). The analogous example for BPS might be supporting jurisdictions with BPS adoption or enforcement.

In states where utilities administer market transformation programs, a market transformation model could be used to account for the savings associated with BPS technical assistance efforts or new programs to support BPS, such as offering extra incentives for under-resourced buildings in BPS jurisdictions. Alternatively, utilities could calculate broader market transformation savings and then subtract savings from traditional utility rebates provided in BPS jurisdictions, in order to avoid double counting.

Establishing a baseline

In order to attribute savings from BPS program efforts, it is necessary to establish a baseline level of building energy usage against which program savings can be measured. The baseline is the counterfactual scenario, or the level of program participants' building energy usage in absence of the program (State and Local Energy Efficiency Action Network 2012). As the counterfactual cannot be observed, energy efficiency program evaluation often uses several methods to estimate baseline energy usage, including existing conditions and codes and standards (State and Local Energy Efficiency Action

Network 2012). Given that BPS policies will influence the market, all our utility interviewees raised baseline issues.

Determination of a baseline will depend on the state regulatory context and BPS policy design, and may evolve with future BPS target deadlines. For example, in Washington State, the BPS policy was communicated to building owners starting in 2022 so that they could comply ahead of the 2026 effective date. The baseline consumption for a building or region may be assumed to be the historic performance up prior to the introduction of the policy. After 2026, the baseline may be revised to reflect the BPS target that a building would have to meet. However, Washington State also intends to raise the BPS targets every five years, meaning that in 2031 a given building would have to attain a more stringent BPS target. The baseline used between 2026 and 2031 could be the 2026 BPS target and then after 2031 it could be the 2031 BPS target.

In most cases, state and regional regulatory bodies govern baseline determination and set energy savings targets for utilities, so they have a key role to play in enabling utilities to claim savings from BPS support efforts. For utilities to receive credit for BPS support activities, regulators will need to exclude at least some BPS impacts from the baseline. If complete BPS compliance is assumed in the baseline, the contribution of utility support to overall compliance would not be captured in savings calculations. If the baseline excludes BPS impacts, such as for under-resourced buildings that may be likely to choose fines in lieu of BPS compliance, savings from utility contributions to BPS compliance can be counted toward utilities' energy efficiency targets.

In the Northwest, the Northwest Power and Conservation Council has directly addressed the treatment of BPS impacts in their baseline forecast (NWPCC 2025). The Council establishes targets for energy conservation for utilities in the region and the baseline energy usage level from which utility program contributions are measured. The Council determined that the impacts of the Washington and Oregon BPS policies will not be included in their baseline forecast for its next power plan and will instead be included in the regional energy targets, similar to the treatment of utility energy efficiency programs (NWPCC 2025). This determination enables utilities in the Northwest to claim BPS support savings toward their energy conservation targets.

To support utilities in developing and expanding BPS support programs, regulators should provide guidelines for determining the treatment of BPS-related savings in their established baselines.

Calculating program savings

As mentioned previously, the standard approach used to attribute energy savings from utility energy code support programs can be adapted for BPS program attribution. This section gives an overview of a potential attribution approach for BPS-related savings, based on previous ACEEE work (Garfunkel 2024; Garfunkel and Waite 2024) and the work of other organizations (Chase et al. 2021; LeZaks, Wells, and Port 2025). As shown in figure 3, the potential savings from BPS policies could be calculated as the difference between BPS target building performance levels and baseline building performance (Garfunkel and Waite 2024).

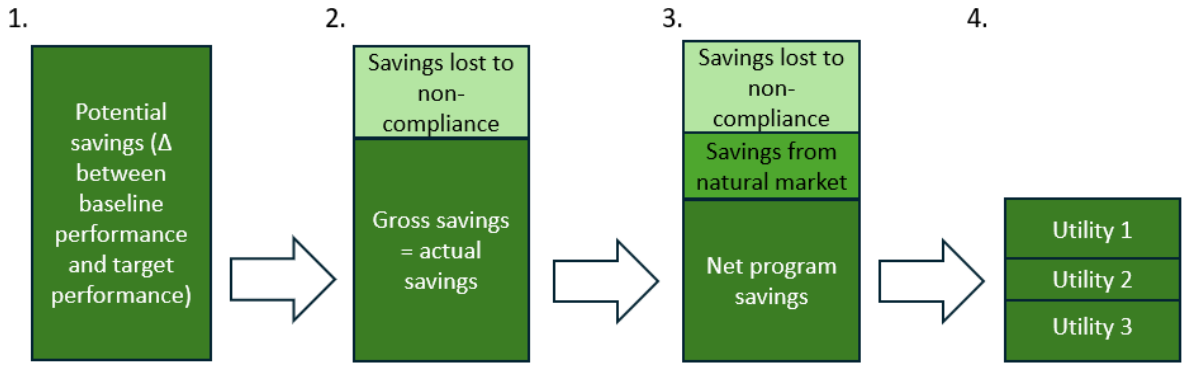

Figure 3. Adapting the energy code savings attribution approach (Chase et al. 2021) to BPS savings

Estimation of net savings from BPS policies would require the calculation of natural market savings. There are two types of natural market savings, one of which is due to utility programs already in the market. To address potential double-counting issues, it would be important to subtract savings associated with other utility programs when determining net program savings for a BPS program. The other type of natural market savings is those that occur in the absence of any utility intervention in the market. Those natural market savings would also need to be subtracted out from gross savings. As some buildings would be unlikely to undertake energy upgrades without BPS requirements, utility efforts to support retrofits, especially for under-resourced buildings, are likely to generate net savings.

As shown in figure 3, where multiple utilities are active in a given area with a BPS policy, net program savings can be allocated to each utility based on their contribution to the BPS support efforts.

Changes to evaluation approaches

Given the factors that make BPS savings attribution more challenging than attribution for other programs, utilities, regulators, and evaluators may need to consider how to adapt existing approaches to more effectively evaluate BPS-related activities. As discussed, some of the program activities that support BPS compliance are not directly associated with energy savings, such as benchmarking, audits, and some technical assistance. For these activities, utilities may use a market transformation program model where possible. Regulators can identify methods to credit utilities for efforts to support benchmarking, audits, and technical assistance that precede implementation of upgrades and retrofits, as this will be an important piece of the business case for holistic utility support of BPS compliance.

In states where utilities are not permitted to run market transformation programs, utilities still have an important role to play in supporting BPS policies. Utilities can engage with market transformation organizations in their states or region, and may have opportunities to co-fund programs or partner with city agencies to deliver support for BPS. LeZaks, Wells, and Port (2025) discuss that it is possible, though not ideal, for utilities to claim savings for BPS support through a resource acquisition model, with a focus on support through incentive programs, instead of through technical assistance and education efforts. As mentioned, this approach is likely to raise issues such as double counting and limitations of shorter evaluation time periods. Regulators can explore innovative program evaluation approaches to address these issues.

In the evaluation of existing utility programs like incentive and O&M programs, utilities and regulators will need to consider how to conduct program evaluations with participants that are both BPS-covered

buildings and exempt buildings. In our interview, Xcel mentioned that it may simplify evaluation to treat BPS compliance as one of the range of motivations that customers have for participation in a program (N. Minderman, DSM policy and strategy consultant, Xcel Energy, pers. comm., February 26, 2025). To isolate the influence of a BPS on program participation, utilities and regulators may consider offering credit to utilities for BPS support in a limited fixed window following the effective date of a BPS target.

In evaluation of utility energy code support programs, there is generally a two-year gap between the program year when utility efforts take place and the year when associated savings are realized (Garfunkel and Waite 2024). Energy code program savings are usually projected two years into the future and then evaluated, verified, and claimed at that time (Garfunkel and Waite 2024). Regulators can consider how this approach may be adapted to evaluate savings from utilities' BPS-related efforts.

While most of our discussion has focused on attribution of energy savings from BPS support activities, 5 of the 17 BPS policies nationwide are based on greenhouse gas emission intensity rather than (or in addition to) energy use intensity of buildings. In a 2024 ACEEE report on approaches for reducing GHG emissions through energy efficiency programs, Specian (2024) outlines steps that state legislatures and public utility commissions can take to establish GHG emission reduction goals and metrics for utilities to measure emissions reduction. Some utilities have begun incorporating GHG performance metrics into their portfolio planning, such as Efficiency Vermont (Vandette, Levin, and Parker 2022). In addition, Maryland, Massachusetts, and Washington, DC, have GHG emissions reduction goals for utility energy efficiency programs (Specian 2024). Where BPS policies are based on emissions intensity metrics, regulators should establish methods for evaluating the contribution of BPS program efforts to GHG emissions reduction.

In program design, utilities will need to establish priority areas for BPS support efforts to most effectively allocate resources and maximize impact. This paper has aimed to provide a menu of program options and evaluation considerations to help utilities and regulators determine how, when, and where utilities can support BPS policies and claim savings for those efforts.

Conclusion

In the rapidly expanding landscape of BPS policies, utilities have an important role in both policy adoption and compliance. Utility programs are essential to realizing the estimated 25–45% energy use reductions from BPS policies (Webb and McConnell 2023). As unlocking this potential impact will require significant scaling up of building retrofits, utilities, regulators, and policymakers can take key actions now to accelerate progress toward these policy goals.

Utilities should assist affordable housing and other under-resourced buildings in complying with BPS requirements and support jurisdictions with BPS adoption and enforcement. Utilities can do this by

- Targeting under-resourced buildings with existing measure-based incentives, operations and maintenance programs, and financing programs to support upgrades for BPS compliance
- Enhancing program offerings to assist jurisdictions with BPS adoption and enforcement
- Enabling building energy data access for jurisdictions and building owners (if not already enabled) with appropriate privacy protections
- Coordinating with green banks and public agencies to help under-resourced buildings access other sources of financing

- Coordinating with market transformation organizations in their area to support BPS-related efforts

Regulators should

- Enable expanded utility program offerings in priority areas (e.g., affordable housing) to support achievement of BPS targets
- Develop standardized processes for utilities to share building energy data
- Provide guidelines for establishing a baseline for BPS program savings evaluation to allow utilities to receive credit for contributions to BPS policy compliance
- Adapt evaluation models to allow for longer program timelines that align with BPS compliance cycles, establish approaches for evaluating utility efforts to reduce greenhouse gas emissions, and adapt savings attribution methods to enable utilities to receive credit for supporting jurisdictions with BPS adoption and enforcement

State and local policymakers should

- Leverage utility data and expertise in developing BPS targets and enforcement strategies
- Collaborate with utilities to co-fund programs and help under-resourced building owners braid financing sources

This paper has identified the suite of opportunities for utilities to advance BPS adoption and compliance, crucial to the success of these policies and a lever for expanding utility portfolio impact. While our research has looked at BPS programs through a national lens, further research and coordination at the regional, state, and local levels can help determine the utility programs and regulatory structures that will unlock greater building owner compliance and benefits of specific BPS requirements. Utility support can be essential to maximizing the impact of BPS policies in driving widespread compliance, ensuring equitable distribution of benefits, and reducing energy use and emissions in the building sector.

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