Building Performance Standards: The Next Frontier in Utility Program Evaluation and Attribution

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Climate + Clean Energy Solutions for everyone.

The knowledge, people, and resources to solve our biggest energy challenges.

Agenda

Project overview

Benchmarking / BPS Overview

Attribution and utility role for BPS

Framework for utility attribution

Next steps/working with utilities

Overview of Project

About ClearlyEnergy

ClearlyEnergy works at the nexus of public policy and software solutions using data-driven analytics and reporting to facilitate the energy transition.

ClearlyEnergy for Homes

Home energy cost, consumption and greenhouse gas modeling, labeling, and finance

ClearlyEnergy for Buildings

Data driven building analytics and reporting to facilitate the energy transition

ClearlyEnergy Targeted Assistance

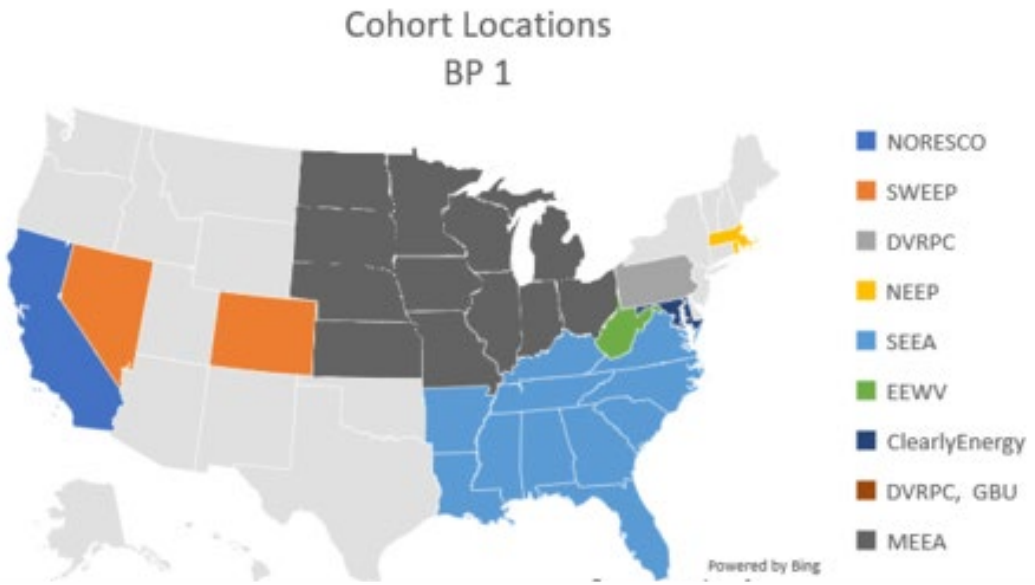
Targeted energy efficiency projects, software development, and policy implementation support

ClearlyEnergy for Climate Finance

CLEARLYENERGY

Designing & Implementing Building Performance Standards in Small, Rural, and Urban Communities

- **Jurisdiction Engagement**
  - **Cohorts**
- **Policy Adoption**
- **Software and Tools Support**
- **Innovative Funding Models**



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GREEN BUILDING UNITED
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LOTUS Engineering & Sustainability
CLEARLYENERGY
MEEA MIDWEST ENERGY EFFICIENCY ALLIANCE
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Our Task: Utility Working Group

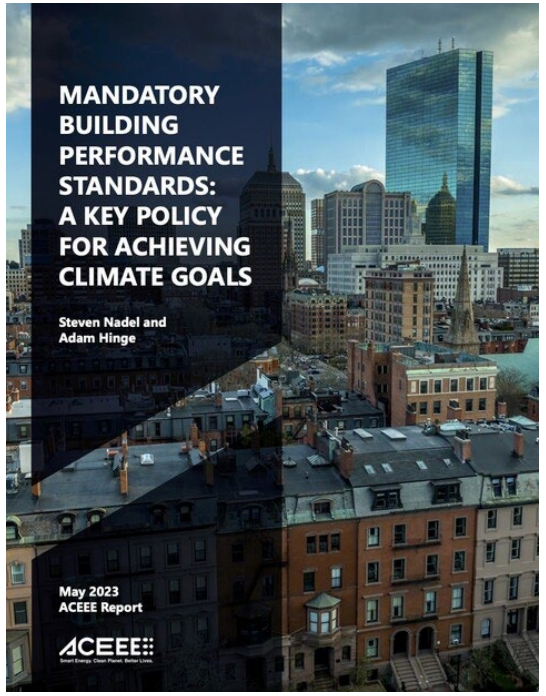
Goal: **Gather input on what an Attribution Model Framework for BPS could look like from the utility perspective.**

- Included approximately 60 members from utilities across the country, non-profit sector, REEO's and national labs
- The Utility Working Group met five times throughout 2025
- Member contributions included providing insight into utility attribution challenges, reviewing and commenting on the logic model and report

Benchmarking and Building Performance Standards (BPS) Overview

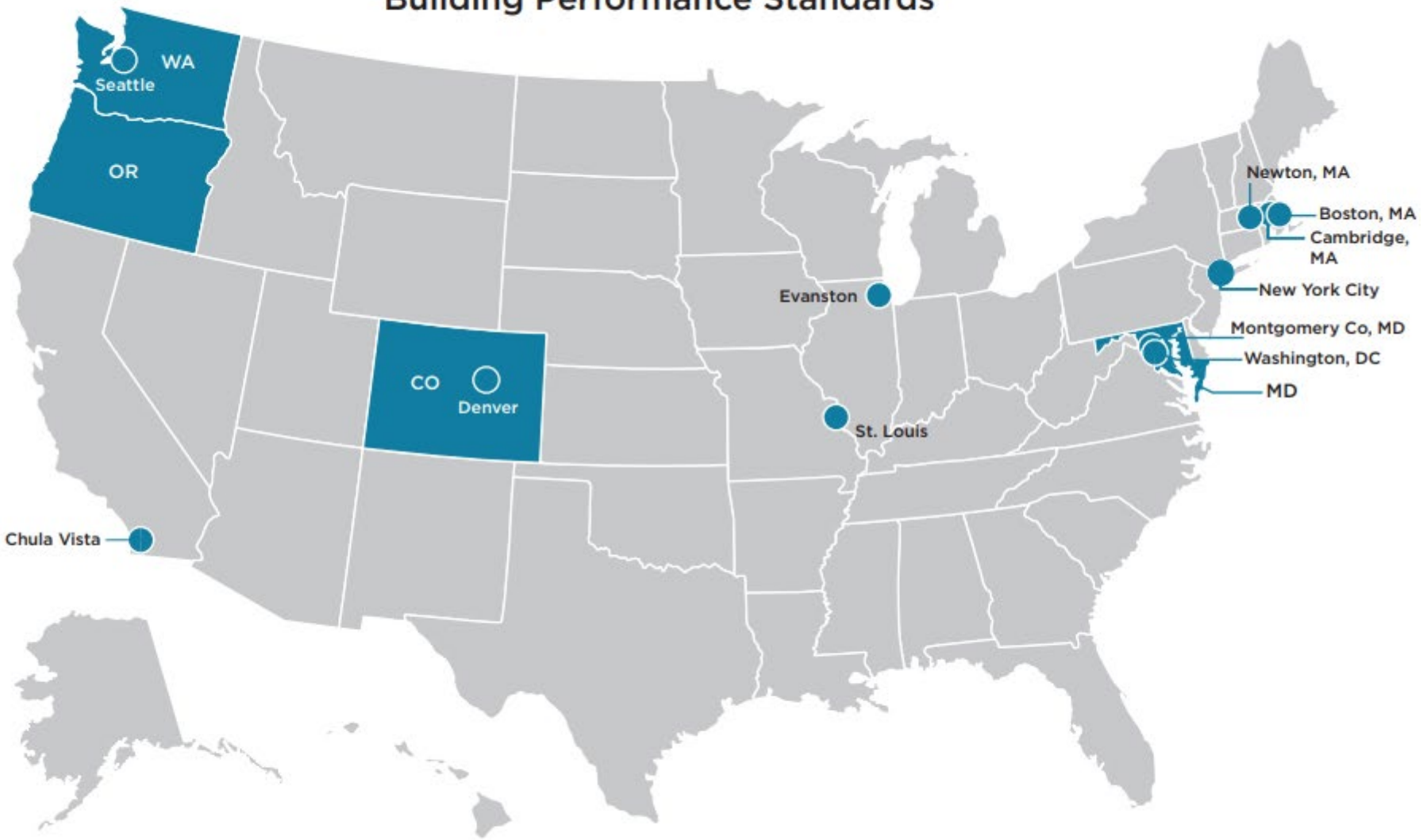
Benchmarking and Building Performance Standards (BPS)

- **Building Benchmarking** is the tracking of a building's energy use and measuring its energy efficiency by comparing it to similar buildings.
- **Building Performance Standards** (BPS) is a policy tool designed to reduce emissions and achieve climate goals for existing buildings.
- **States or municipalities enact BPS policies**, and BPS laws set performance levels for improving existing public or private commercial and multifamily buildings over a specific size and over a designated timeframe.
- **BPS policies establish interim and long-term performance goals** to achieve one or more objectives, such as reducing a building's energy use, improving indoor air quality, enhancing resilience, lowering water consumption, and/or reducing greenhouse gas emissions.



https://www.buildinggreen.com/newsbrief/existing-building-performance-standards-urgently-needed

U.S. City and State Policies for Existing Buildings: Building Performance Standards



IMT
INSTITUTE FOR MARKET TRANSFORMATION

What is Utility Attribution?

Utility attribution is the process of determining how much of the energy savings or performance improvements in a utility territory can be directly credited to a utility's initiatives, such as rebates, technical assistance, or energy efficiency and energy code programs.

Attribution accounts for the utility's contributions, allowing the utility to receive credit for its efforts and meet state or federal energy savings goals.

Quick overview of how it works

- Consider Programmatic and Market Factors
- Identify Program Impact
- Quantify Utility Contributions
- Allocate Savings (full/partial)

The Role of Utilities in Advancing Benchmarking and Building Performance Standards (BPS)

Utilities already play a key role in implementing programs that help their customers use less energy

Program structure can be adapted to provide research and development to:

- inform the local impacts of BPS,
- training for building professionals and officials to navigate new regulations and reporting practices,
- and incentives on energy efficiency measures to help customers remain compliant and avoid potential penalties.

Two ways for utility influence

Supporting policy **advancement** through technical guidance and policy development

Providing technical assistance & incentives to increase **compliance** after policies has been enacted

Evanston, Illinois

Benchmarking Support to Evanston, IL, through ComEd

ComEd is funding staff time from Slipstream and MEEA to assist the City of Evanston with various tasks necessary to implement its benchmarking ordinance.

Activities include responding to inquiries from building owners and developing resources to educate stakeholders on policy and compliance requirements.

Evanston uses the Building Energy Analysis Manager (BEAM) tool to track compliance and streamline policy implementation for its current benchmarking ordinance and lay the groundwork for future Building Performance Standards (BPS) enforcement.

First BPS in Illinois

Evanston, Illinois, is the latest city to adopt an ordinance creating a BPS as of March 10, 2025.2 Evanston joins St. Louis as the second BPS in the Midwest. Beginning in 2031, this policy will cover around 500 buildings in Evanston and require commercial buildings over 20,000 sq. ft. and residential buildings over 50,000 sq. ft. to meet the new performance standards.

Utility Attribution Framework

Why Logic Model is Important

What is a Logic Model: Graphical representation that visualizes the connection between a utility's program activities, resources, and desired outcomes

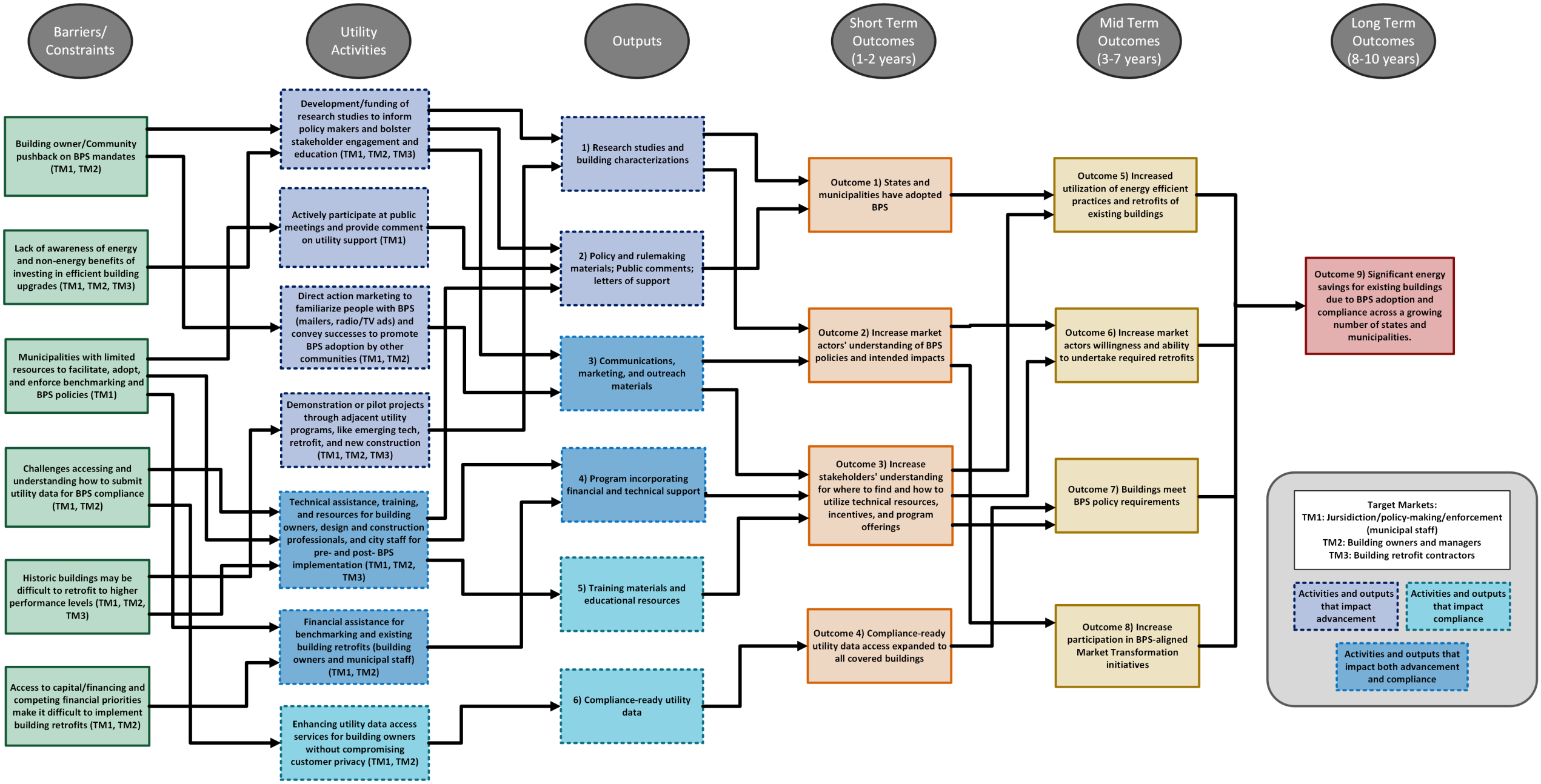
Subhead

Subhead

Needs to be fine-tuned for individual utilities

Figure 1. Logic Model for Utility Support of Building Performance Standards

Purpose: Support the market transformation of existing building stock by advancing building performance standards and implementation



Barriers to BPS (from a Municipal Perspective)

- Building owner/Community pushback on BPS mandates (TM1, TM2)
- Challenges accessing and understanding how to submit utility data for BPS compliance (TM1, TM2)
- Lack of awareness of energy and non-energy benefits of investing in efficient building upgrades (TM1, TM2, TM3)
- Historic buildings may be difficult to retrofit to higher performance levels (TM1, TM2, TM3)
- Municipalities with limited resources to facilitate, adopt, and enforce benchmarking and BPS policies (TM1)
- Access to capital/financing and competing financial priorities make it difficult to implement building retrofits (TM1, TM2)

Logic Model Output	MPI Number	Specific utility-supported activity associated with output	Data Source
Research Studies and building characterizations	OP1.1	Building stock analysis	Spreadsheet file with stock analysis, building segmentation analysis
	OP1.2	Completed research report on costs, energy savings, impacts of policy	File with research results, savings values, description of policy impacts
	OP1.3	Digital catalogue to host research results (e.g., shared drive file)	Link to digital catalogue/drive
Policy and rulemaking material; Public comments; letters of support	OP2.1	Repository of sample BPS adoption ordinances, policy requirements, and policy language templates from other municipalities with BPS	Template policy language, email communication sharing with staff
	OP2.2	Rulemaking and technical guidance templates/support	Template language, email communication and presentations sharing with staff
	OP2.3	Data on potential energy savings + costs	PDF file, email communications
	OP2.4	Roadmap for municipalities on policy steps	PDF file, email communications
	OP2.5	Presentation to city council	Attendance records, meeting notes, presentation
	OP2.6	Presentation to city staff	Attendance records, meeting notes, presentation
	OP2.7	Presentations to community members	Attendance records, meeting notes, presentations
Communications, marketing, and outreach materials	OP3.1	Website/repository of BPS sample educational materials, marketing, outreach materials from other municipalities with BPS	Website link/repository location
	OP3.2	Fliers, fact sheets, media, presentations, mailers for building owners and managers	PDF file, email communications
	OP3.3	Fliers, fact sheets, media, presentations, mailers for the general public	PDF file, email communications
	OP3.4	Fliers, fact sheets, media, presentations, mailers for design professionals, retrofit contractors	PDF file, email communications
	OP3.5	Programmatical data reports or dashboards (compliance percentage, progress towards interim goals, etc.)	PDF file, dashboard website link/location
Program incorporating financial and technical support	OP4.1	Draft implementation plans for advancement support	Files of draft plans with budgets
	OP4.2	Draft implementation plans for technical guidance support	Files of draft program plans with budgets, emails or support of potential Building Hubs, development documents around tools for benchmarking support

Market Progress Indicators (MPIs)

- Track progress toward key utility outputs and outcomes in the logic model
- Measure the effectiveness of both advancement and compliance support activities
- Used to evaluate the impact of market transformation efforts over time

BPS Attribution Framework:

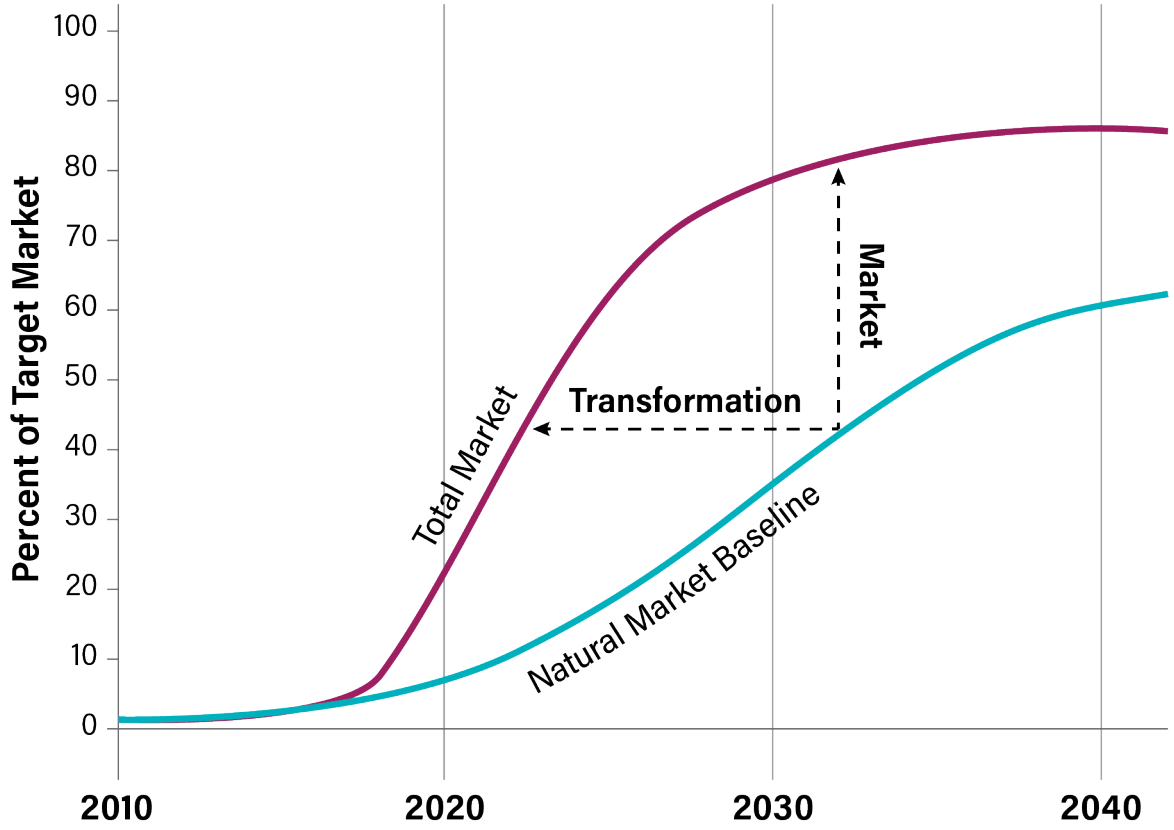
Evaluation methods

Claiming Savings for BPS Using a Market Transformation (MT) Model

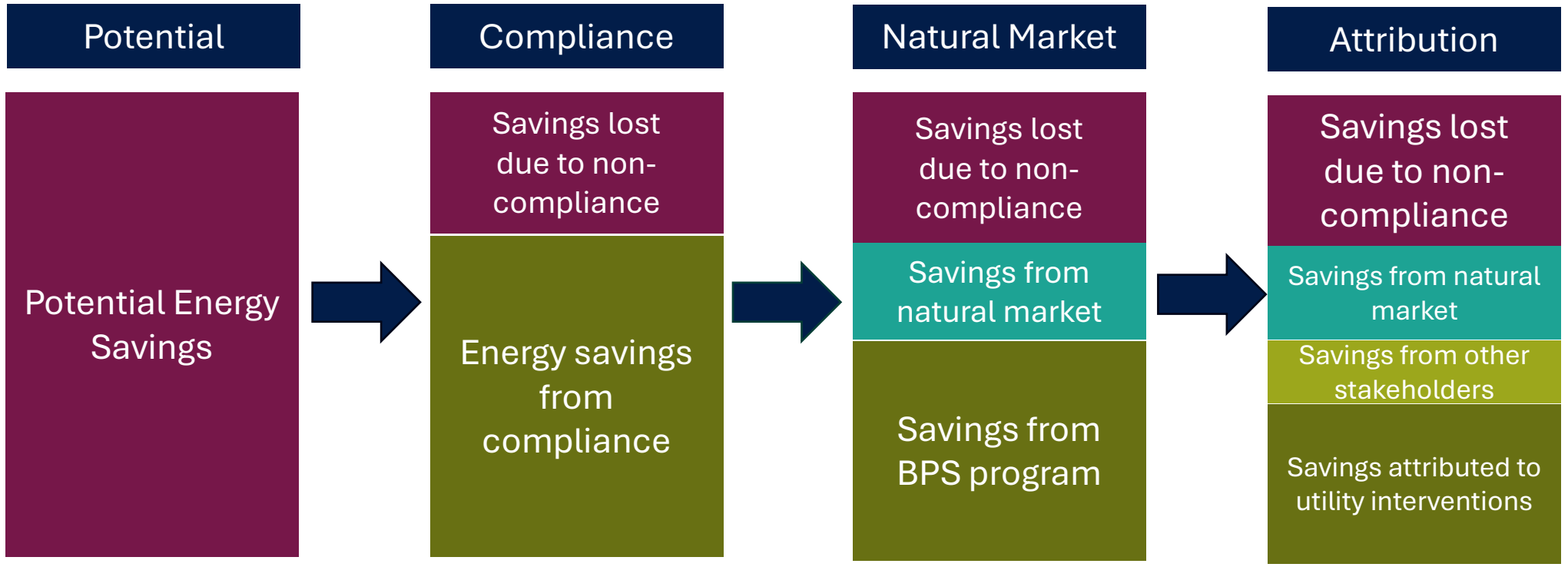
Most of the framework provides evaluation context from a Market Transformation (MT) perspective

Market transformation efforts address barriers across many market actors, have a long-term horizon, and may encompass multiple levels of engagement.

Each utility must decide whether the MT or Resource Acquisition (RA) framework best fits them.



Evaluation Process for BPS



The evaluation begins with an estimate of overall potential savings. Each building has energy use and/or emissions data and a performance target; the difference between the two will be the estimated potential savings that we expect to see from a BPS program over the performance period.

Graphic modified from **Attributing Building Energy Code Savings to Energy Efficiency Programs,** February 2013.
https://neep.org/sites/default/files/resources/NEEP_IMT_IEE_Codes%20Attribution%20FINAL%20Report%2002_16_2013.pdf

Evaluation Process for BPS

Potential

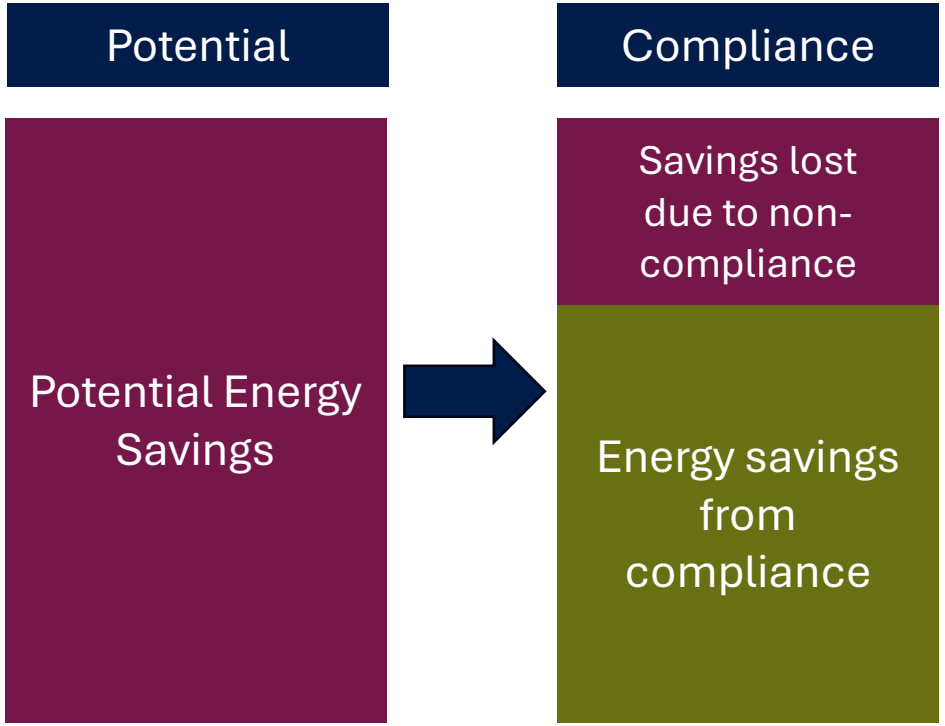
Potential Energy Savings

The following variables are used to calculate energy savings, primarily **defined by the compliance policy**:

- Total number of covered buildings
- Energy savings reduction required by building type
- Time horizon for compliance is 3 to 5 years. The evaluation period should align with the performance period of the BPS policy.

The utility creates a program that addresses the whole-building BPS approach, as opposed to single-measure rebates

Evaluation Process for BPS



Compliance can be assessed through tools such as BEAM, SEED, Portfolio Manager, or others

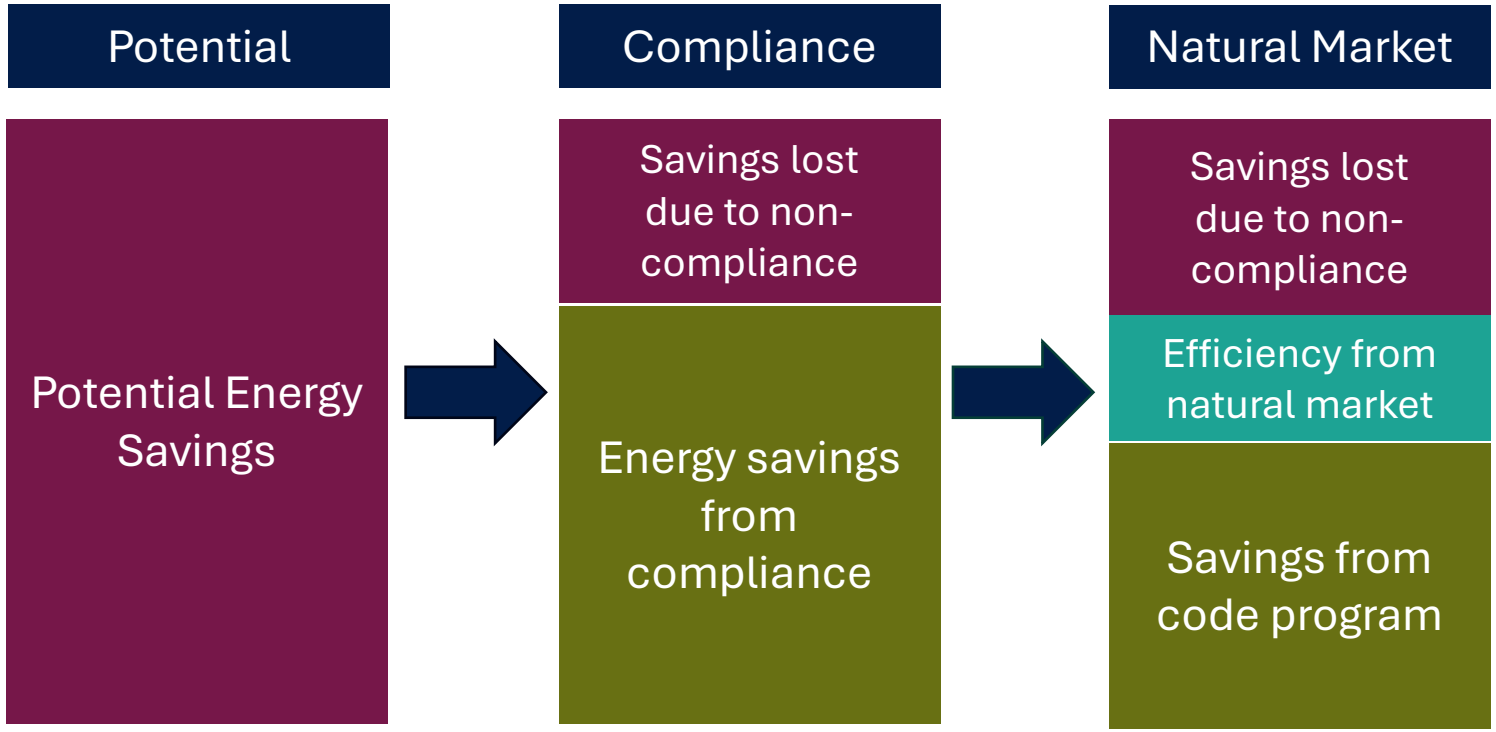
- Non-compliant buildings would pay a fine instead of compliance

OR

- Alternative pathway towards compliance (but may not yield energy savings) or yield energy savings beyond the typical compliance period.

Non-compliance *with BPS policies would include any buildings that were required to meet energy efficiency performance targets but were unable to within the performance period timeframe for policy compliance.*

Evaluation Process for BPS



Natural Market Baseline (NMB), or Natural Occurring Market Adoption (NOMAD), represents the state of the market that would occur in the absence of utility invention.

NOMAD also considers what would have happened in the absence of the BPS policy (for advancement programs).

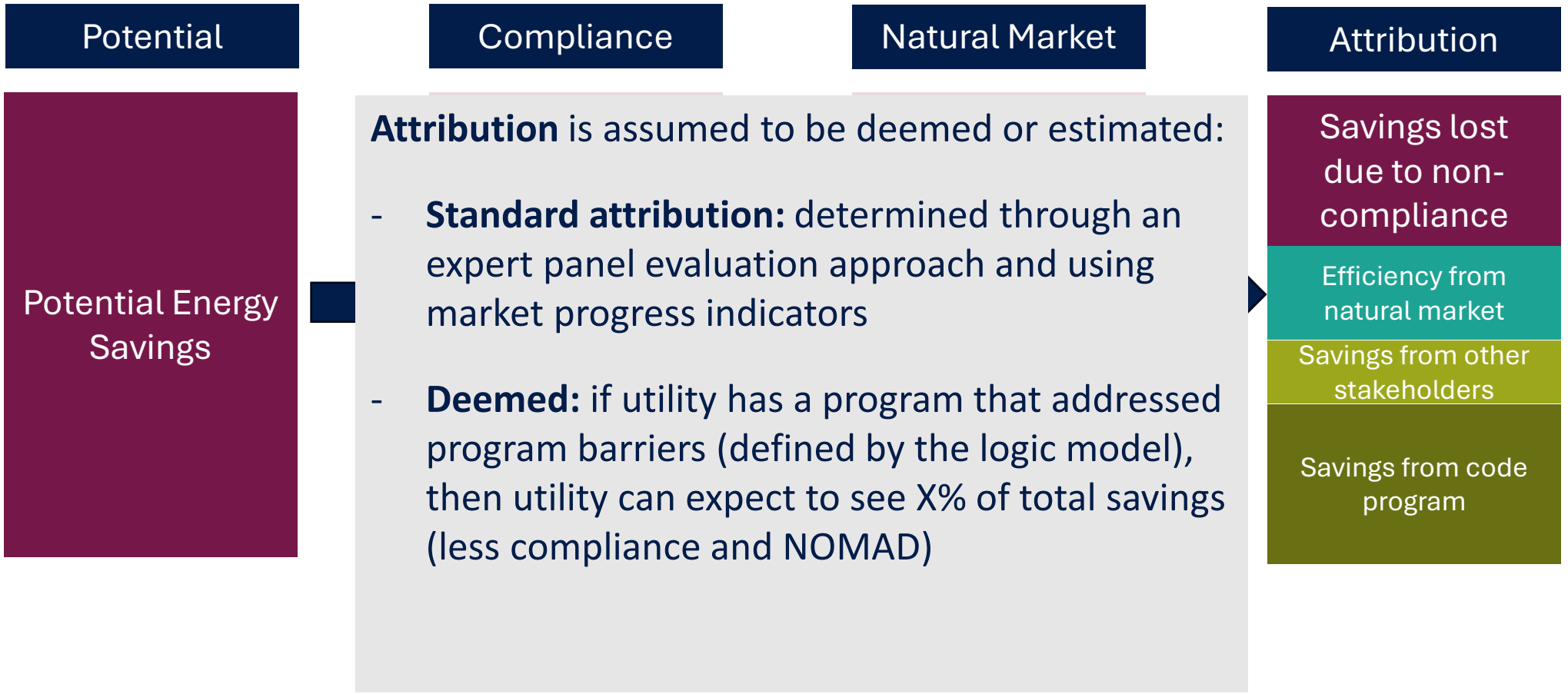
Evaluation Process for BPS

To estimate the **NOMAD**, use historical energy consumption and apply an assumed energy savings over time that would be considerably smaller than the savings achieved through compliance with the BPS program.

The utility or evaluation team reviews prior participation levels in EE programs to use this value as an estimation for expected savings in the absence of a BPS program.

External Market Factors
Utilities may consider federal funding or other external market factors play into overall changes in the market; if data is available for federal funding uptake for energy conservation measures, the evaluations should consider their impact on the natural market baseline in the absence of a BPS policy.

Evaluation Process for BPS



Assigning Utility Influence

This step involves reviewing several sources of information to understand the utility's influence on the program's success. These should reflect the **Market Progress Indicators (MPI)**

Evaluating the utility effect may need to consider more qualitative feedback and incorporate information from multiple sources. These sources of information could include:

- Participation data and compliance data from BPS databases
- Interviews and surveys of program implementors (city staff, typically) on utility role in BPS adoption and implementation
- Interviews and surveys of building owners to understand the utility role on their support for BPS policy and reducing barriers to complying with the BPS
- Interviews and surveys with building contractors to understand impact of training and/or technical materials to understand and comply with the BPS

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BPS Utility Attribution
Next steps

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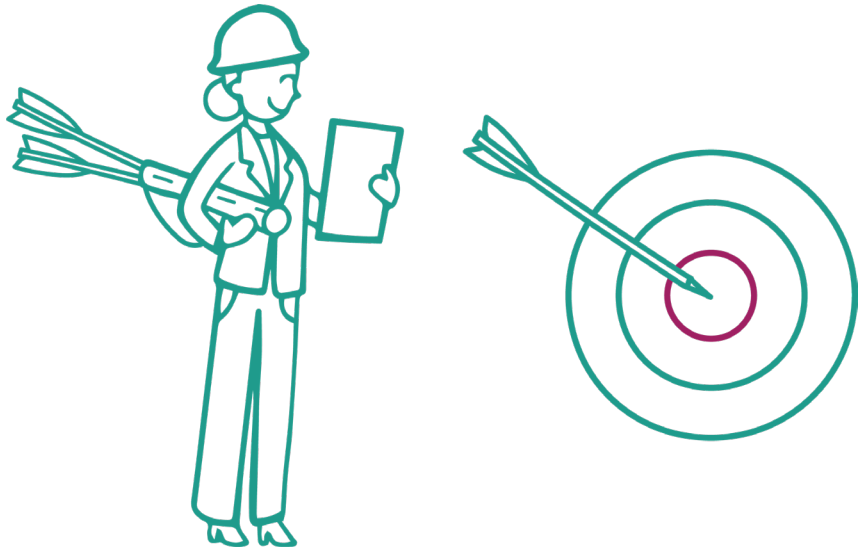
Moving forward with utilities to apply these concepts

- Technical Assistance
- Research toward understanding utility initiatives and programs
- Customized Logic Model
- BPS Attribution Model



Thank You and Questions

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