



**Building Performance Standards  
Advisory Task Force Meeting Agenda  
Monday, November 29, 2021  
10:30am-12:00pm**

**Zoom [LINK](#)**

**Meeting ID: 812 5869 2967**

**Passcode: 989176**

TIME	ITEM
10:30 AM	<b>Welcome &amp; Thank You.</b>  <b>Land Acknowledgement*:</b> <i>We would like to open this convening by recognizing that we are on the unceded ancestral land of the Coast Salish peoples, the traditional home of all tribes and bands within the Duwamish, Suquamish, Tulalip and Muckleshoot nations.</i>  <b>Personal introductions.</b>
10:45 AM	<b>Presentation by Steve Gelb of Emerald Cities Seattle:</b> What are Building Performance Standards?
11:00 AM	<b>Presentation by Seattle Office of Sustainability and Environment (OSE):</b> The Role this Task Force could play in informing the BPS recommendations.
11:10 AM	<b>Workplan overview.</b>
11:20 AM	<b>Mural activity around hopes, fears, needed info, and involvement.</b> Please find the link to the activity <a href="#">HERE</a>
11:50 AM	<b>Next steps.</b>
12:00 PM	<b>Meeting concludes.</b>

Additional Background Information for your perusal:

<https://www.imt.org/public-policy/building-performance-standards/>

<https://www.usdn.org/projects/building-performance-standards.html>

<https://www.imt.org/wp-content/uploads/2019/10/IMT-Building-Performance-Standard-Basics-2-PG.pdf>

\*The Duwamish Tribe has yet to be justly compensated for their land, resources, and livelihood. You can do something today to stand in solidarity with First Peoples of this land by paying Real Rent at [realrentduwamish.org](http://realrentduwamish.org). All funds go directly to Duwamish Tribal Services.

## BUILDING PERFORMANCE STANDARDS ADVISORY TASK FORCE

NOVEMBER 29, 2021 MEETING NOTES

<b>PARTICIPANTS</b>	Alistair Jackson, Bambi Chavez, Becky Bicknell, Bobby Coleman, Eli Lieberman, Jonathan Heller, Julie Nelson, Loren Tierney, Madeline Kostic, Marty Gleaves, Nicole Ballinger, Patience Malaba, Perry England, Ryan Meno, Robert Shepphard, Steve Gelb.
<b>PRESENTATION</b>	<p><a href="#">Presentation</a> by Steve Gelb of Emerald Cities on Building Performance Standards.</p> <p>After the presentation there were questions asked about mixed-use buildings and those 10,000+. Mixed-use 20,000+ buildings will be considered by this Advisory Task Force, but 10,000+ will not, however, there is some legislative action happening around 10,000+ and they certainly are an important part of the puzzle.</p>
<b>OSE NOTES</b>	<p>Seattle has benchmarking for buildings 20,000+ so the BPS will also be for buildings 20,000+. The City wants to develop equity, climate, and housing goals in tandem. What are barriers, concerns, challenges and opportunities in the multi-family sector? In 2022 OSE will have formal meetings engaging property managers, owners, and communities. OSE website has been updated with rationale behind standards. 1/3 of Seattle emissions from built environment – ½ commercial and ½ residential (single and multi-family).</p> <ul style="list-style-type: none"> <li>• Typologies: age, system types, etc.?</li> <li>• Alternative compliance paths?</li> <li>• Potential implementation time frame differences?</li> <li>• What areas of support are needed: incentives, financing, etc.?</li> <li>• In 2022 have funds for Clean Buildings Accelerator program for commercial to meet BPS and this effort can inform support for those buildings as well.</li> <li>• Draft BPS by July 2022. Q1 + Q2 work here in order for deadline to be met.</li> </ul> <p>After the presentation there were questions around Unreinforced Masonry (URM) and around what policies should be considered to lessen the impact of single-family and small multi-family properties as they are contributors as well.</p>
<b>Workplan</b>	<p>A quick overview of the <a href="#">workplan</a>.</p> <ul style="list-style-type: none"> <li>• Goal is to build capacity for affordable housing sector in planning for retrofits – uncover the financial, technical, capital, refinancing needs and assessment and typology key factors.</li> <li>• Conduct 10-15 audits. Look at actual buildings and see what is really going on inside so we can have more informed recommendations – physical and technical barriers, as well as organizational and structural barriers. This is not a stratified random sample, but we can get an idea of what is out there in the local inventory and extrapolate from our data.</li> <li>• Develop decision tree and policy recommendations and engage HDC membership.</li> </ul>
<b>Mural Activity</b>	<p>Hopes and concerns, what other info needed, and who else should be in this Advisory Task Force. Find the sticky note compilations <a href="#">HERE</a>.</p>
<b>Q&amp;A</b>	<p>What about easements? Some buildings need more space to convert to electricity.</p> <p>What about properties that can't feasibly be converted? Let's not ignore these outliers.</p>



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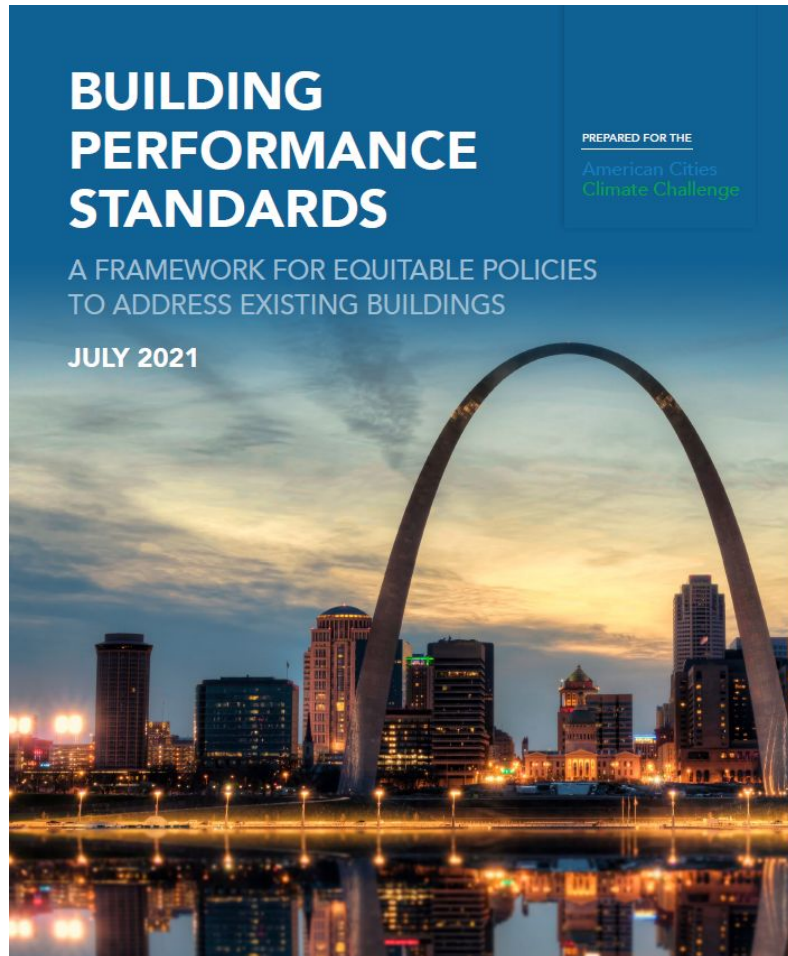
# Building Performance Standards

## *A Framework for Local Governments*



# WELCOME!

Webinar series and BPS Framework brought to you by...



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**USDN** | urban sustainability  
directors network

**The Building Electrification  
Initiative**



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institute

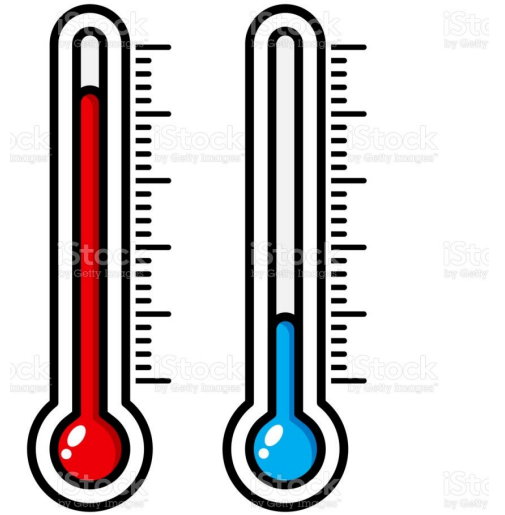


# Taking the Group Temperature

What do you know about BPS?

What would you like to know about building performance standards?

What is something that you would like to hear from the city and county presenters on this topic?



# Building Performance Standards 101

# Why look at building performance?

Buildings disproportionately:

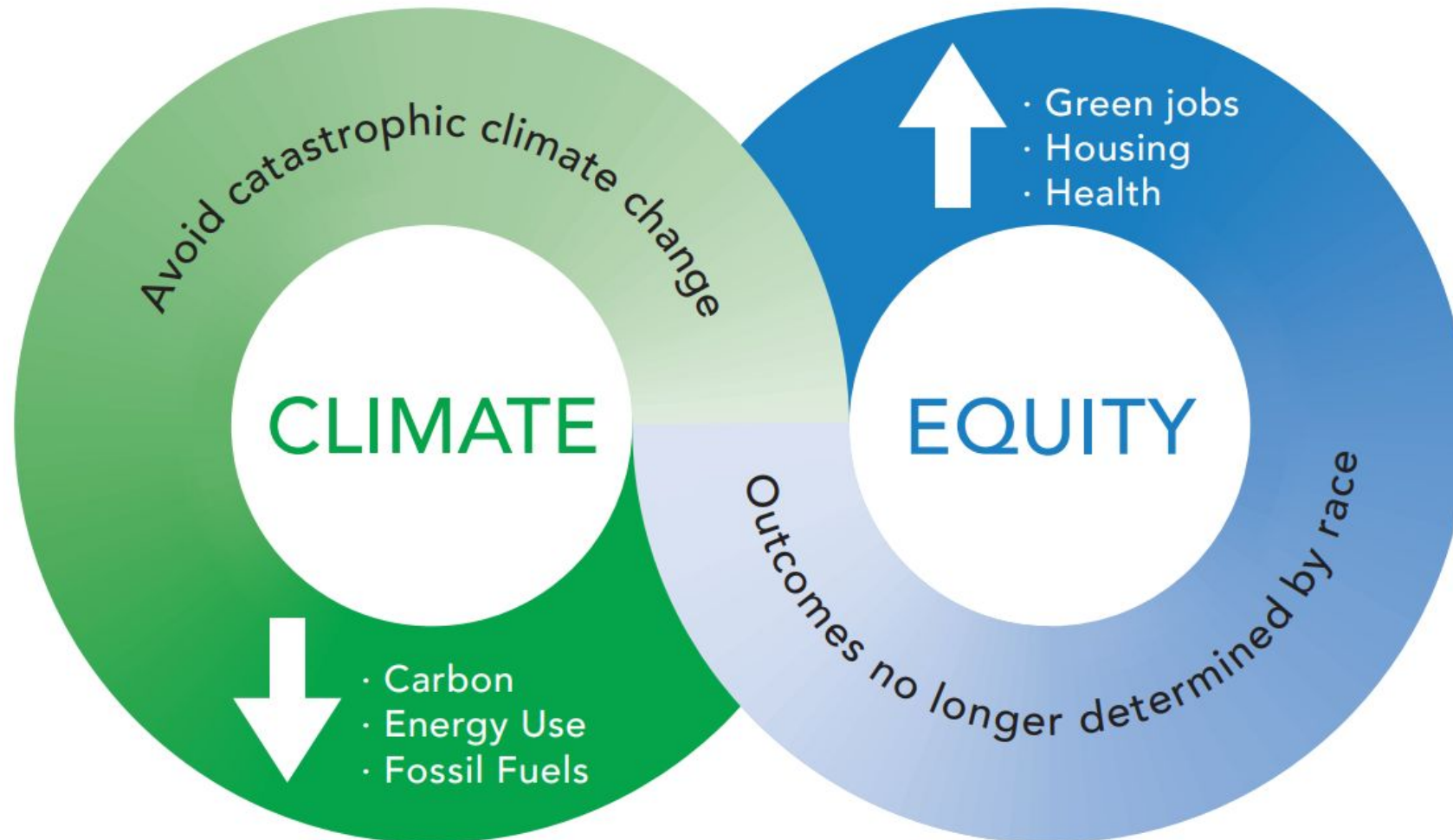
- expose people to health risks
- are sources of GHG emissions
- waste energy

A BPS can help meet priorities such as:

- decarbonization
- resilience
- affordability
- public health



# Equity Imperatives





# Why regulate existing buildings?

In 2040:

- 2/3 of the buildings that exist today still exist
- Global building floor area will double

Current pace of major improvements annually is:

- 2% commercial buildings
- 0.5% residential buildings

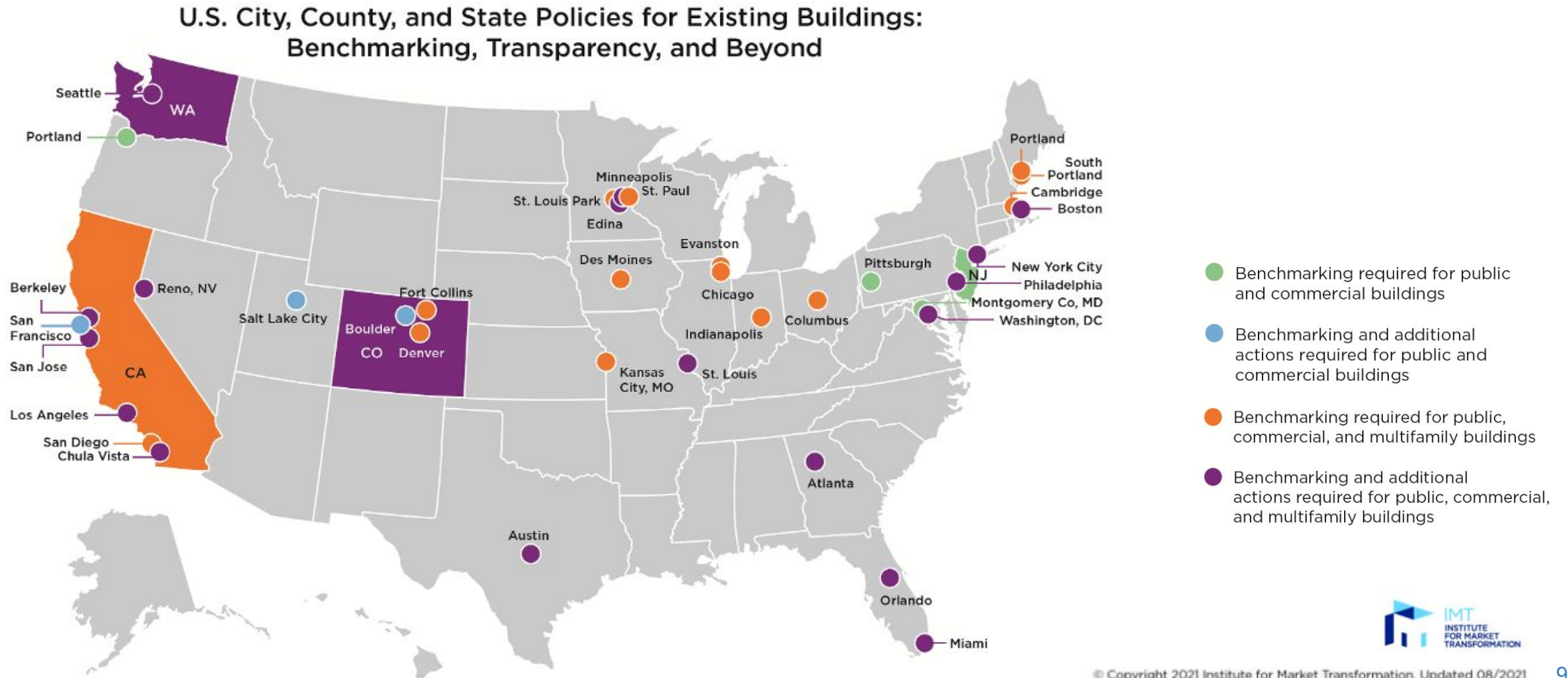


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Data Source: IEA Energy Technology Perspectives 2020, February 2021 Revised Edition

# History of Building Regulation



# Existing Building Policies: Benchmarking to BPS





# What is a BPS?

- Establishes targets for building to reduce energy use or GHG emissions
- Over a long-term timeframe, with intermediate reporting and compliance periods
- Requires all buildings to hit a final defined target

# US Building Performance Standards Examples



## Washington, DC

Size: 10,000 sqft

Measuring: Energy

Metric: ENERGY STAR

Building Types: Commercial and multifamily

*Standard is recalculated each compliance cycle*



## New York, NY

Size: 25,000 sqft

Measuring: Carbon

Metric: kgCO<sub>2</sub>e/sf

Building Types: Commercial and multifamily

*Standard increases in stringency each cycle, identified through 2034*



## St. Louis, MO

Size: 50,000 sqft

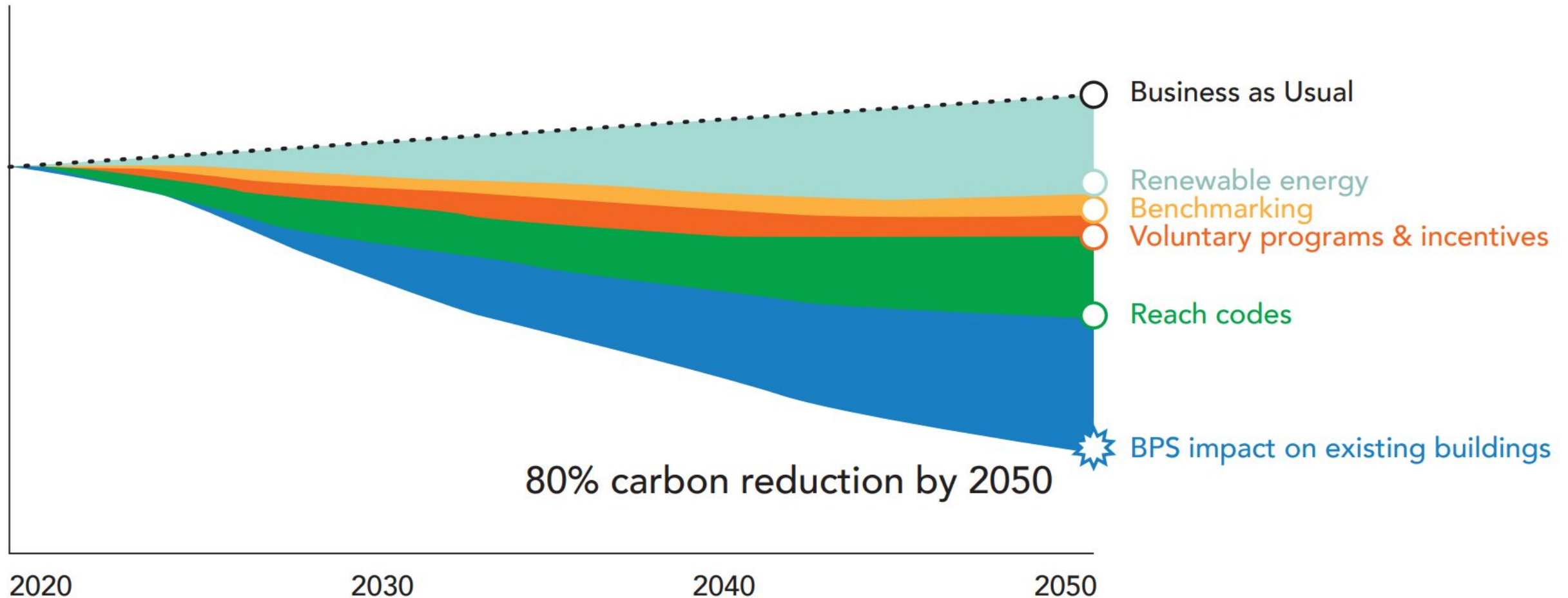
Measuring: Energy

Metric: Site EUI

Building Types: Commercial and multifamily

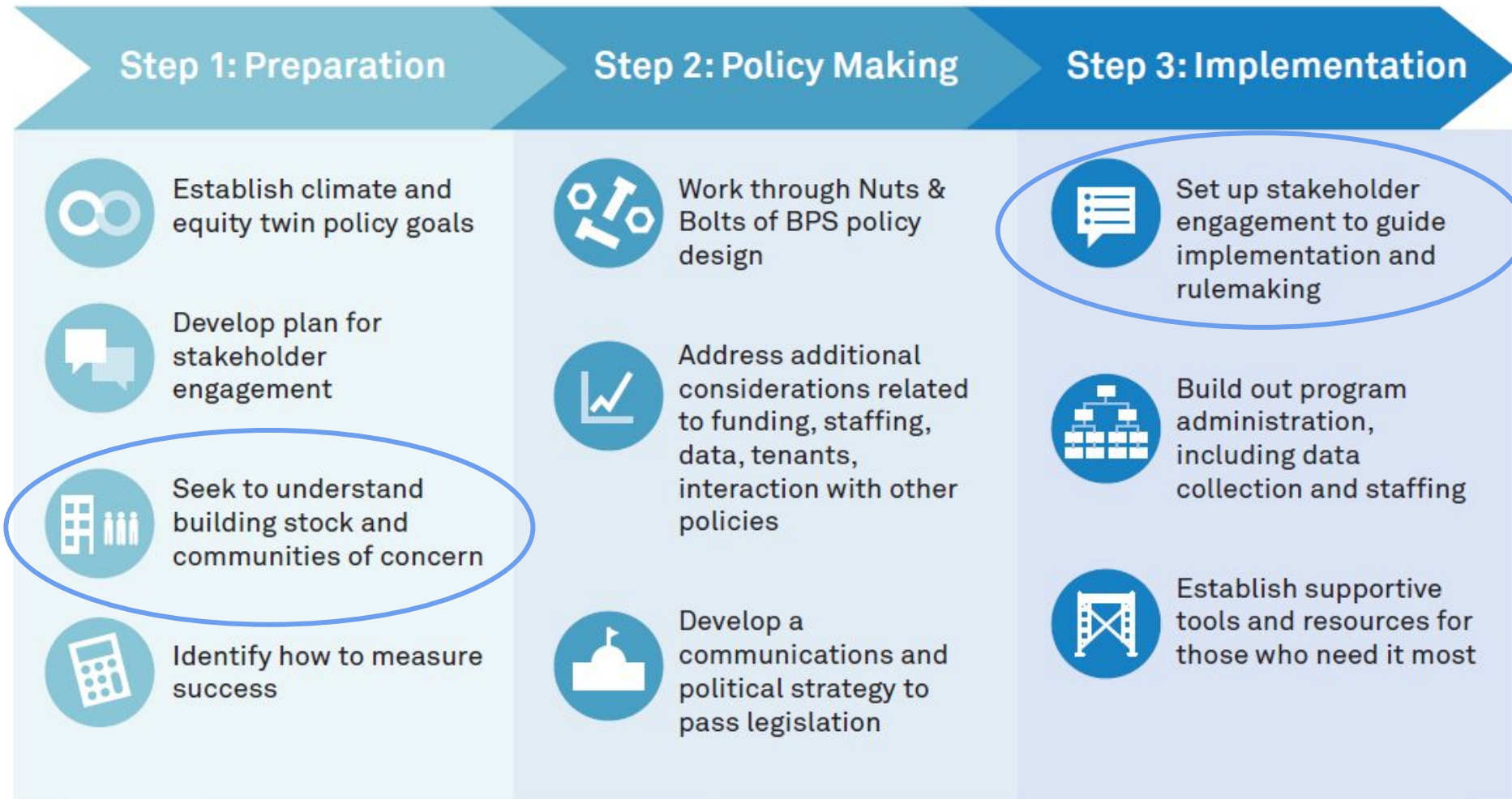
*Standard is recalculated each compliance cycle*

# Potential Impact of BPS





# BPS Framework



# BPS Framework



Step 2: Policy Making



# Nuts & Bolts of BPS



# Overview of Nuts & Bolts of BPS policy design

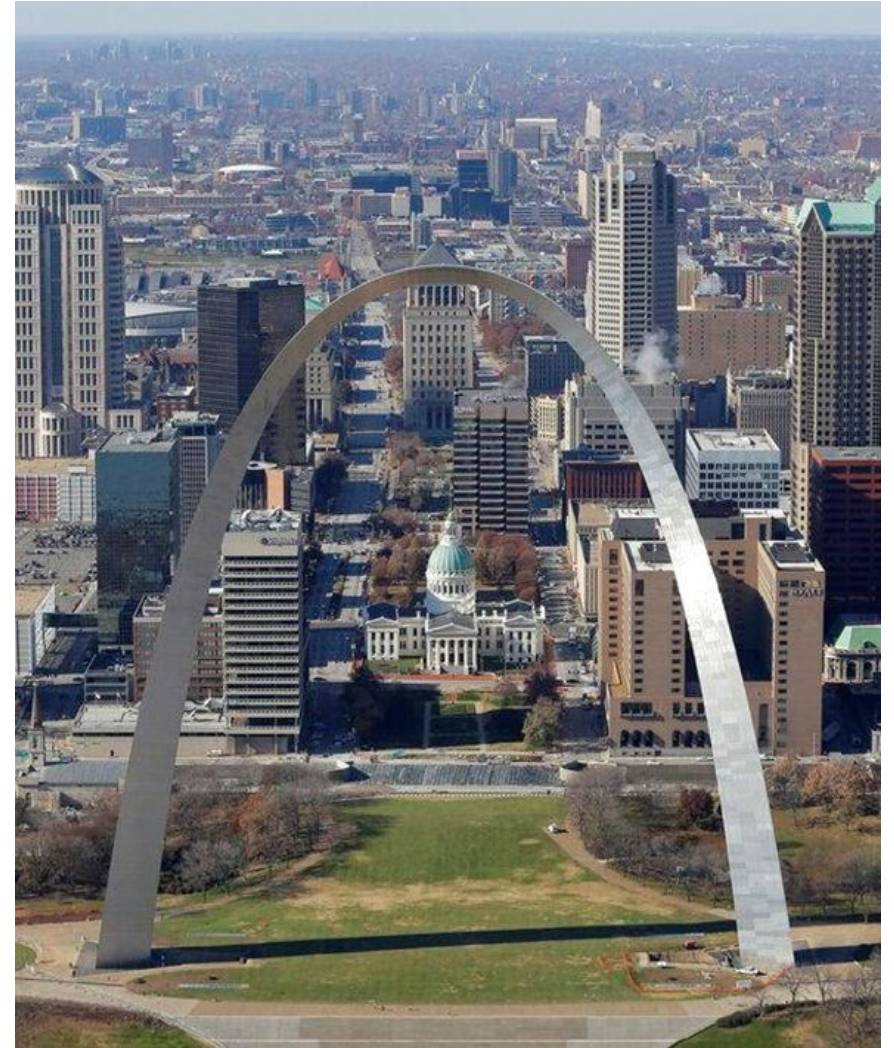


BPS Components	Ordinance Essentials
1) Defining scope of covered buildings	<ul style="list-style-type: none"><li>● Building type (e.g. commercial, multi-family, industrial)</li><li>● Building size threshold (e.g. &gt;25,000 sqft)</li></ul>
2) Choosing a building performance metric	<ul style="list-style-type: none"><li>● Primary metric (e.g. site EUI, GHG intensity, ENERGY STAR score)</li></ul>
3) Setting targets for covered buildings	<ul style="list-style-type: none"><li>● How targets are set</li><li>● How targets may change over time</li></ul>
4) Establishing a timeline	<ul style="list-style-type: none"><li>● When compliance begins</li><li>● Length of compliance periods</li></ul>
5) Determine compliance pathways	<ul style="list-style-type: none"><li>● Establish process and/or body that defines compliance pathways and penalties</li></ul>
6) Determine compliance penalties	<ul style="list-style-type: none"><li>● Clear framework for determining penalty amount over time (specific values in the ordinance may not provide enough flexibility)</li></ul>
7) Identifying supportive programs	<ul style="list-style-type: none"><li>● Designate staff to develop appropriate programs</li></ul>

# Covered Buildings and Exemptions

Fundamental to a BPS is determining which buildings will be covered. There are many ways to define the scope of the policy: will it prioritize certain building use types, sizes, or other classification criteria?

- DC, NYC, and St. Louis policies are all aimed at commercial and multifamily, with DC having the lowest size threshold at 10,000 sq ft
- Exemptions vary by jurisdiction with allowances for affordable housing and certain specialty-use properties
- Additionally, some properties that do not fit into exemption categories may need alternative compliance options or assistance in meeting targets

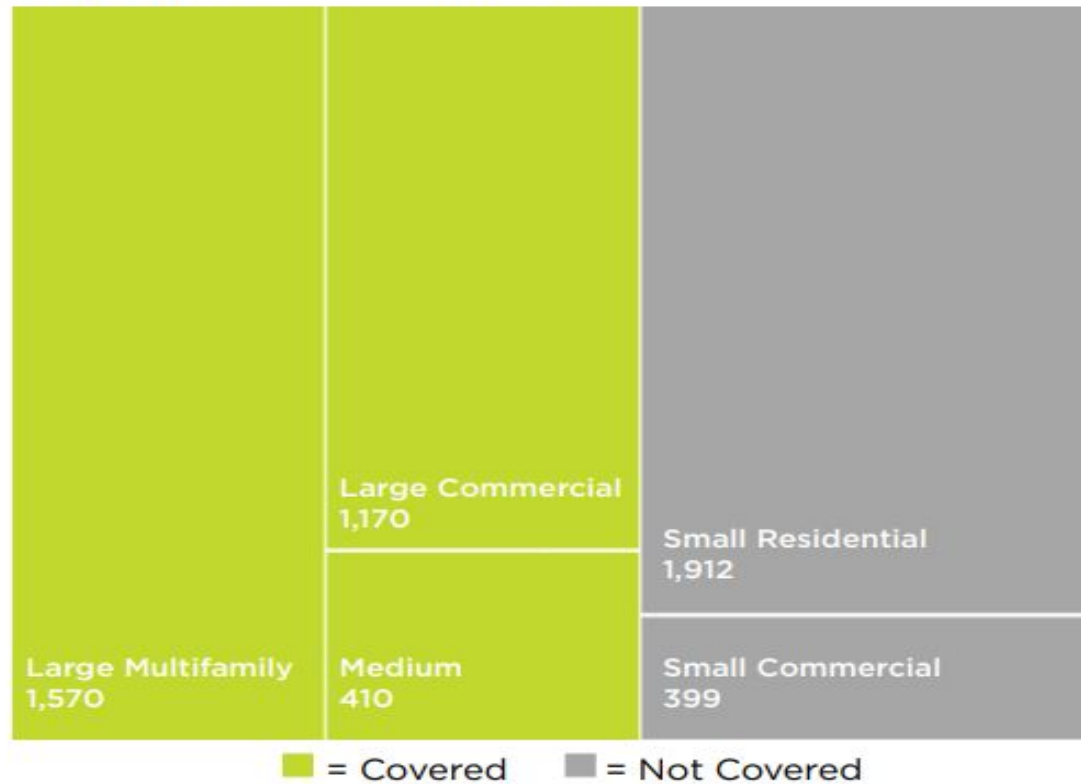


# Covered Buildings and Exemptions

**FIGURE 2**

## **Citywide Building Areas**

*Nearly 60 percent (3.15 billion SF) of NYC building area is covered by the emissions law. Medium buildings are between 25,000 SF and 50,000 SF.*



*\*Millions of square feet*

SOURCE: NYC DEPARTMENT OF PLANNING PLUTO DATASET 2017

Images from Urban Green NYC Emissions Law Summary



# Choosing a Metric

Selecting a metric should:

- Align with stated policy and/or community goal(s)
- Consider simplicity of measurement, reporting and verification
- Consider future analysis needs

Examples of metrics include:

- ENERGY STAR Score (Washington, DC)
- Site EUI (St Louis, MO)
- GHG Intensity (New York, NY)



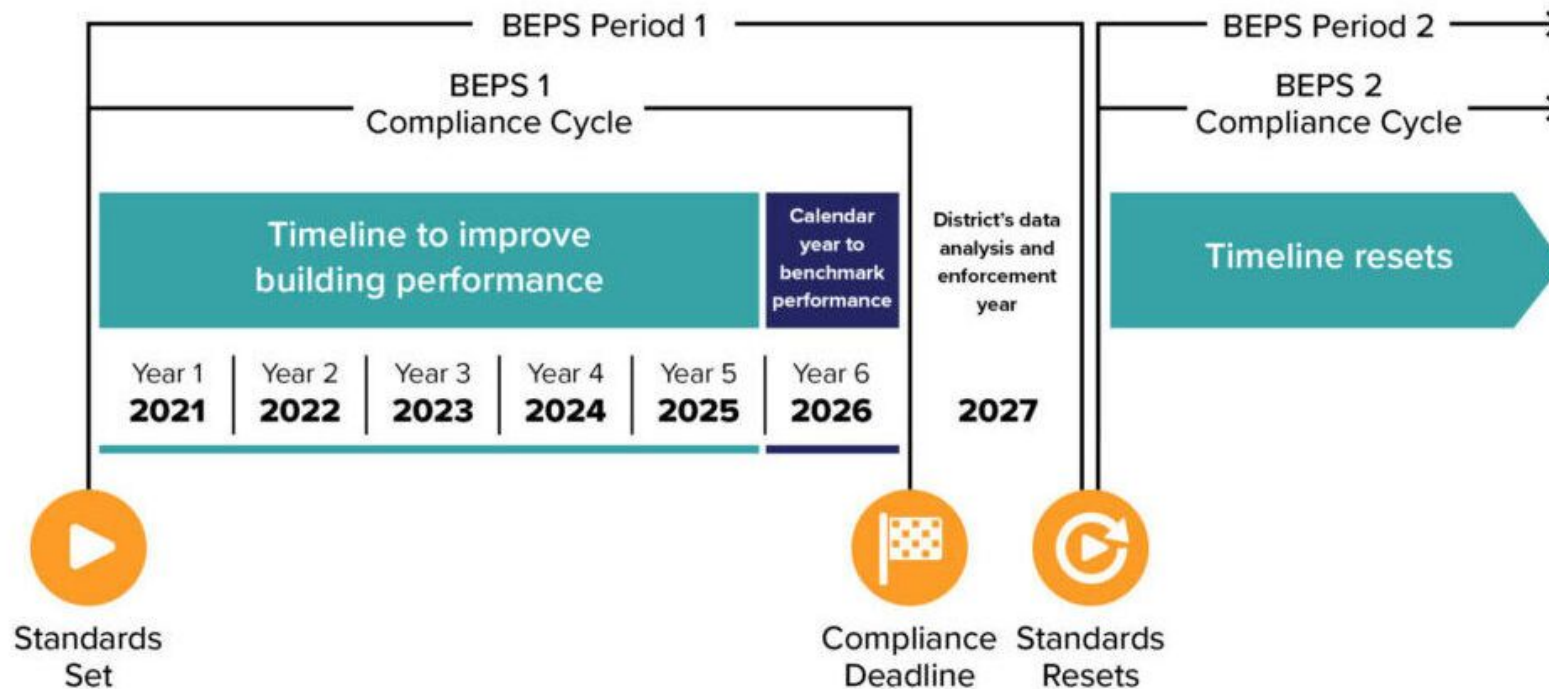
# Setting Targets

Building use	Emissions standard (kgCO <sub>2</sub> e/SF/yr.)					
	2025-2029	2030-2034	2035-2039	2040-2044	2045-2049	2050-
Assembly	7.8	4.6	3.3	2.1	1.1	0
College/ University	10.2	5.3	3.8	2.5	1.2	0
Education	3.9	2.4	1.8	1.2	0.6	0
Food Sales & Service	17.4	10.9	8.0	5.4	2.7	0
Healthcare	15.4	10.0	7.4	4.9	2.4	0
Lodging	5.8	3.7	2.7	1.8	0.9	0
Manufacturing/ Industrial	23.9	15.3	10.9	6.7	3.2	0
Multifamily housing	4.1	2.4	1.8	1.1	0.6	0
Office	5.3	3.2	2.4	1.6	0.8	0
Retail	7.1	3.4	2.4	1.5	0.7	0
Services	7.5	4.5	3.3	2.2	1.1	0
Storage	5.4	2.8	1.8	1.0	0.4	0
Technology/Science	19.2	11.1	7.8	5.1	2.5	0

*Developed by Synapse Energy Economics for the City of Boston.*

# Establishing a Timeline

Along with selecting a metric and setting building performance target(s), policymakers must choose when these standards are set and how long each compliance cycle will be.



# Defining Compliance Paths

Cities must decide what options or pathways will be made available to buildings to be in compliance with the BPS. Options for compliance may include:

- Meet the target (e.g. achieve 50% GHG intensity reduction by 2035)
- Percent Improvement. (e.g. 15% EUI improvement every 5 years)
- Prescriptive Improvement
  - Select from a list
  - Select package upgrades
  - Audit-based
- Alternative/Customized Improvement.
  - Defer compliance with a custom plan
  - Pay a fee/fine or pay into a fund for compliance support.



# Identify Supporting Programs

**Green Banks**

**Outreach**

**Technical Assistance**

**Grants and Incentives**

**Workforce Support and  
Development**

# Q&A

# Resilient Retrofits Workplan 2021-2022

**Project Description:**

The Resilient Retrofits program will build the capacity of the affordable housing community to plan for and implement retrofits in their existing multifamily building portfolios to contribute to Seattle’s carbon neutrality goals through a Building Performance Standards policy and potential expansion of the state Building Performance Standards policy to multi-family buildings. It will utilize subsidized multifamily housing portfolio analysis with representative building and owner typologies, conduct Level 1 Audits, and data compilation that associates retrofit costs to be extrapolated to the entire affordable housing portfolio and inform a decision tree and policy recommendations for the city.

**Goals:**

- 1. Build the capacity of the affordable housing community to plan for and implement retrofits in their existing multifamily building portfolios to contribute to Seattle’s carbon neutrality goals and potential expansion of WA State Building Performance Standards policy to multi-family buildings.
- 2. Utilizing subsidized multifamily housing as a pilot, provide models for decarbonizing market-rate multifamily housing, and naturally occurring affordable housing
- 3. Inform the City on key issues as they consider how Building Performance Standards would apply to the multifamily sector.
- 4. Engage with the City of Seattle on the most appropriate policy pathways for decarbonizing subsidized affordable multifamily housing

**Key Allies/Partners/Supporters:** TBD





**Project Management:** HDC

**Portfolio Analysis:** HDC, Emerald Cities Collaborative, O’Brien 360

**Asset Planning Process Integration:** HDC, Emerald Cities Collaborative

**Audits, Building and Measure Typologies and Costing:** O’Brien 360

**Policy Recommendations:** HDC, Emerald Cities Collaborative

KEY	 Not Started		 On Track		 Issues/Concerns		 Completed	
AREA OF WORK		STATUS	STATUS COMMENTS	NEXT STEPS	TIMELINE Start/End	PRIMARY OWNER PARTNERS/SUPPORTERS	NOTES	
PHASE 1 (November through January 2022): <ul style="list-style-type: none"><li>Stakeholder review of sector goals and BPS standards and portfolio analysis.</li><li>Capital Needs Assessment and financing review for integration.</li><li>Building typology review.</li><li>Identification and recruitment of targeted buildings for Level 1 Audits.</li></ul>								
Sector goals defined for multi-family affordable housing					End: December 30	Steve Patience		

Portfolio Analysis aligning sector goals with representative building typologies at the total portfolio level and then in more detail with targeted owner portfolios.				End: December 30	Steve	
Identify potential burdens and barriers to retrofit work – administrative perspective				End: January 30	Patience	
Document typical Capital Needs Assessment and re-financing processes for affordable housing to be used for future recommendations.				End: January 30	Steve Loren	
Buildings identified and owners recruited for permission to audit.				Start: December 30 End: January 30	Alistair Steve	
Engage HDC membership in this process.				Start: November 15 End: January 30	Patience Loren	
<b>PHASE 2 (February through April 2022):</b> <ul style="list-style-type: none"> <li>• <b>Level 1 Audits</b></li> <li>• <b>Analyze audit data, associate retrofit costs with buildings and extrapolate to the entire affordable housing portfolio.</b></li> <li>• <b>Feedback to city to inform their draft.</b></li> </ul>						
10-15 audits completed				Start: End: March 30	Alistair	
Preliminary analysis of audit data to develop retrofit measure decision tree with barriers/burdens/costs etc.				Start: March 1 End: April 30	Alistair	
Report out needs and cost by typology and total portfolio impact.					Steve	
Deliver preliminary policy recommendations to the city to inform their draft.				End: March 30	Patience	



**PHASE 3 (May 2022 through June 2022):**

- Develop decision tree and policy recommendations.**
- Report results to HDC Members.**

Final measure decision tree developed.					Alistair	
Final analysis of audit data to develop retrofit measure decision tree with barriers/burdens/costs etc.				Start: May 1 End: June 30	Alistair	
Develop recommendations for incentive, funding and financing of pilots including but not limited to utilities and WA State .				End: June 30	Steve	No more UHEE program. PSE not moving. Marty needs to reach out to Craig before he leaves to discuss future SCL
Policy recommendations to the City.					Patience	
Webinar report out on program.					Patience	



## **BUILDING PERFORMANCE STANDARDS ADVISORY TASK FORCE**

NOVEMBER 29, 2021 MURAL ACTIVITY NOTES

### **WHAT HOPES DO YOU HAVE AROUND NEW BUILDING PERFORMANCE STANDARDS?**

The standards apply to all buildings 10,000+.

Standards that can be used for single family and small multifamily.

Funding for needed improvements.

Focus on tenant health/utility costs instead of emissions.

Improving comfort and reducing emissions.

Getting resident utility costs more affordable.

Long-term data collection for learning what works/provides biggest impact.

Future-proofing (e.g., EVs and EVSE).

Affordable Housing sector leads in the decarbonization of the built environment.

Can make our housing more resilient as well (e.g., AC for heat emergencies).

Clear and deliberate standards.

Policy that is clear/ streamlined to understand, but also meets a variety of BO needs.

Simplicity for process, tracking, measurement.

Hopefully meeting new standards will simplify reporting.

Standardized approaches can bring down cost.

Costs, funding, vendor sourcing.

Better understanding of energy use and climate impacts of existing buildings.

Market shifts in regulated buildings in Seattle will transform market for other buildings outside Seattle.

### **WHAT CONCERNS DO YOU HAVE AROUND NEW BUILDING PERFORMANCE STANDARDS?**

The standards create financing vehicle(s).

Avoiding "checking the box" syndrome vs. achieving true BPS per building.

Initial funding readily available vs. drawn out funding process.

Administrative redundancy with state policies.

How all the building regs are interacting (or overlapping).

Slow progress and nibbling on the edges with policy.

Capacity to assess needs and benchmark performance effectively over time.

That the policy will not create incentive for building owners to act.

Will there be typology outliers that are ignored/ passed over?

Uncertainty around 2022 legislative session outcomes (and how they interact).

How can SFH owners support this work directly?

How will we fund improvements and still maintain basic property needs?

Higher costs on those that can least afford it.

Costs, funding, vendor sourcing.

How building owners can pay for improvements with limited resources and how performance standards will be set and achieved.

How will we phase out gas and gas infrastructure,

If older buildings need to move towards electrification, they will need more space to do so. What about easements?

Info access for private owners, access to funding.

Cost driving rents upward.

What do we do with buildings that are not easily converted or improved.



## **BUILDING PERFORMANCE STANDARDS ADVISORY TASK FORCE**

NOVEMBER 29, 2021 MURAL ACTIVITY NOTES

### **WHAT OTHER INFO DO YOU NEED?**

What type of credit is city willing to provide for a backstop or top loss?

What is the primary outcome we are looking for from affordable housing?

What are the defined "equity" BPS goals? Where did they come from?

Ops and challenges for AH with large portfolios?

How will SOH programs and associated policies be modified to support this work?

How will we split out multi-use buildings?

Can we shift SCL incentive thinking to bring money from energy bills to pay for low-income projects?

How has RRIO influenced health/ safety for naturally-occurring affordable housing stock? Is there anything to learn from that policy?

### **WHO ELSE SHOULD BE INVOLVED?**

Housing finance folks - developers & consultants.

People from FNMA, FHLMC, FHA.

Need to ensure there a couple for-profit affordable housing developers.

Commercial building owners must be brought along - must see advantages - not just penalties.

SCL Incentive Administrators.

Commerce has new building performance staff.

Building operations staff to consider long term impacts and costs resulting from changes.

Facility staff rep that would need to operate new electric systems (what are their concerns?)

Dan Foley - Office of Housing Asset Management Team.

Sandra Nelson, DESC.