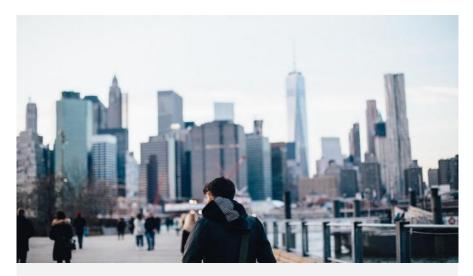


A Game-Changing Opportunity: Building Performance Standards



North American Insulation Manufacturers Association June 25, 2021

About The Institute for Market Transformation (IMT)



Mission

Catalyze widespread and sustained demand for high-performing buildings.



How we work

Advancing policies and business practices that enable people to build and operate healthy, high-performing buildings.





Why Building Performance Standards?

- Buildings waste ~30% energy and role in decarbonizing energy supply is not defined by markets
- Current energy-related renovation rates: 2% of commercial buildings and <.5% of residential buildings
- Building performance standards make performance meaningful to business: shift from a nice to have
- BPS establish the role of buildings in decarbonizing energy supply

Photo: Onion Flats, by Sam Oberter



BPS Around the United States

	Washington, DC	New York City	WA State	St. Louis, MO	Montgomery County
Year Adopted	2019	2019	2019	2020	Pending
First Compliance Deadline	2026	2024	2026	2025	~2026
Minimum Threshold Performance by building type	Standards set no lower than median ENERGY STAR score (or equivalent)	CO₂e emissions limits on a sq. ft. basis	Site EUI targets are 15% less than 2009- 2018 averages	Standards set no higher than 35 th percentile site EUI (so 65+% of buildings must improve)	In development to be set in regulation, based on site EUI
Covered Buildings	Commercial and multifamily > 10K sq. ft.	Commercial and multifamily > 25K sq. ft.	Commercial > 50K sq. ft.	Commercial and multifamily > 50K sq. ft.	Commercial and multifamily > 25K sq. ft.
Compliance Cycle	5 years	Buildings must comply annually; limits get stricter every ~5 years	5 years	4 years (6 years for affordable housing and houses of worship)	Long-term target with 4 year interim check ins

IMT's BPS Model Ordinance

- IMT published the first model ordinance for building performance standards in January 2021
- Reviewed by expert stakeholders in real estate, equity, building science, building performance policy, law
- Model ordinance
- Summary of ordinance
- Summary presentation



Model Ordinance for a Building Performance Standard

Introduction

The model ordinance precented below serves as a temptate for local and state governments to develop building performance standards. The ordinance benefits from lessons learned from the four jurisdictions (District of Columbia, New York Chy, St. Louis, and State of Washington) that had adopted building performance standards as of Junuary 2021. Since 2018, IMT has worked in varying capacities with over a dozen jurisdictions on building performance standards and was heavily involved in the development of the adopted performance standards in the District of Columbia and St. Louis.

As a model ordinance, the intended purpose is to provide the structural foundation for a strong building performance standard ordinance that suits the conditions and goals of any jurisdiction. MIT encourages governments to modify or remove language as necessary to reflect policy priorities and to sorth with community members and professionals with expertise in fields such as real eatate, energy efficiency, and sustainability to develop performance standards that are specific to the needs of their community. Lawmakers should also consult with legal experts and tailor their legislation to the authority of their pursicition.

IMT considers this model ordinance a living document. It will be updated and amended based on the input of expert stakeholders and feedback from governments, community-based organizations, and other stakeholders that use the model ordinance in their policy development processes.

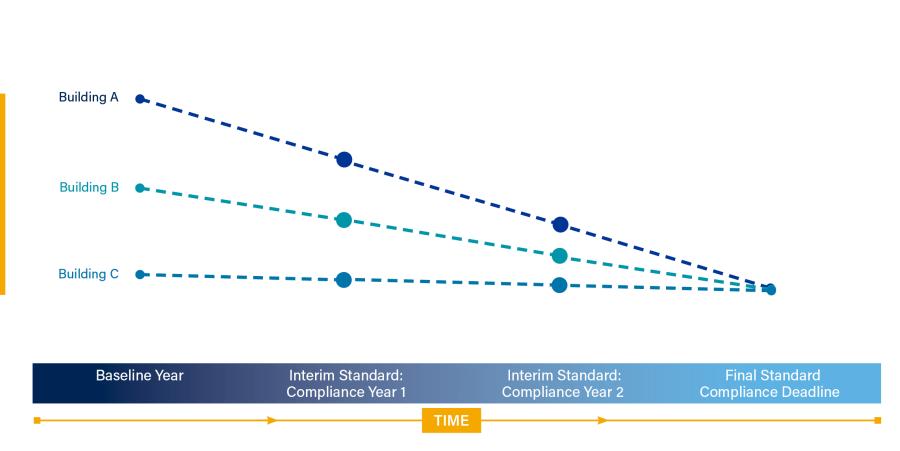
Note that this model assumes the adopting jurisdiction has an energy and water benchmarking ordinance in place with high compliance rates and data available to the jurisdiction. Jurisdictions without a benchmarking law should include the relevant requirements in this ordinance. For a model benchmarking ordinance, see <a href="https://www.chienengydmiget.org/htms/uneoslancotated-model-ordinance-language-fur-e-pulse-benchmarking-ordinance-language-fur-e-pulse-benchmarking-ordinance-language-fur-e-pulse-benchmarking-ordinance-or-satisfur-benchmarking-ordinance-or-satisfur-benchmarking-ordinance-or-satisfur-benchmarking-ordinance-or-satisfur-benchmarking-ordinance-or-satisfur-benchmarking-ordinance-or-satisfur-benchmarking-ordinance-or-satisfur-benchmarking-ordinance-or-satisfur-benchmarking-ordinance-or-satisfur-benchmarking-ordinance-or-satisfur-benchmarking

Both building owners and tenants routinely make decisions that heavily impact building performance. Accordingly, while this model ordinance follows standard practice of placing requirements on owners, the ordinance is structured to encourage landords and tenants to work together to improve building performance. Given heasing plays a critical role in helping owners and tenants cooperate, it is recommended as part of broader educational and technical assistance instative to complement a building performance standard.

IMT's model ordinance provides a starting point for regulating building performance in a variety of ways. Recognizing that building performance intersects with a variety of other social priorities such as health, economic development, resiliency, housing affordability, and racial equity, the model ordinance reserves sections for addressing these issues. IMT is currently working with



IMT's BPS Trajectory Approach: Final and Interim Standards for Three Office Buildings



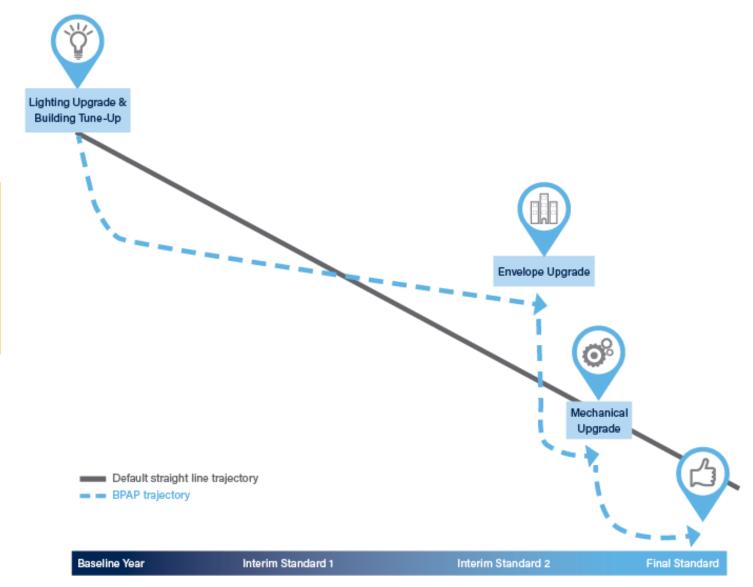




Compliance Flexibility: Building Performance Action Plan (BPAP)

- Method by which building owner can propose an alternative compliance plan to avoid penalties for missing upcoming standard(s)
- The BPAP, if approved, is a binding agreement between building owner and jurisdiction
- Newly created attachment to building's deed and any for-sale listings shall reference BPAP

BPAP Example: Building Ahead on Compliance





How IMT's BPS Strategy Addresses Building Performance



Standards Based on Performance Metrics

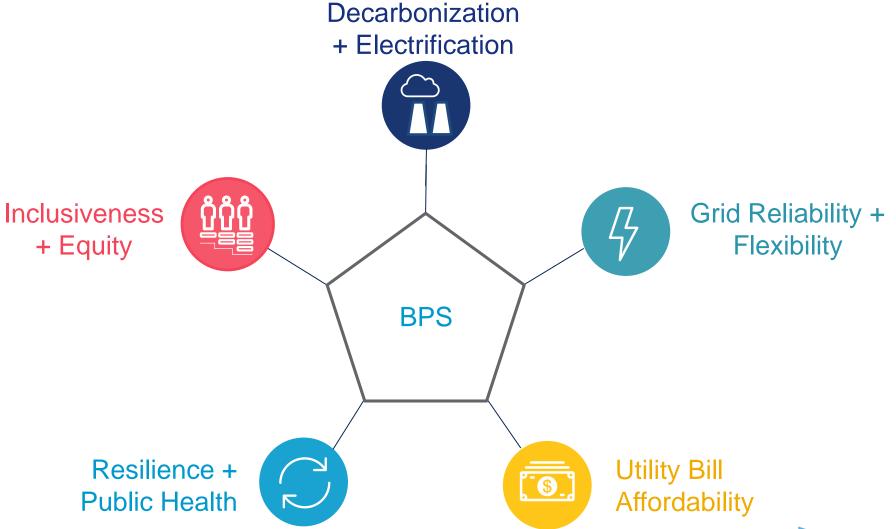
- Site Energy Use Intensity
- Onsite and District Thermal GHGs
- Water Use Intensity
- Coincident Peak Demand



Actions to Advance Community Priorities

- Exploring affordable housing protections
- Owners seeking additional flexibility could be required to advance community priorities

BPS: A Platform for Building Regulation





Community Priorities Policy Toolkit









Health

- Ventilation system design – ASHRAE 62.1 compliant?
- CO2 monitoring ramping up to include PM, VOCs, etc.

Affordability

- Implementation support (\$\$+TA)
- Tenant Protections
- Rental Standards
- Reporting on energy burden impact

Resilience

- Risk & vulnerability assessments
- Grid Interactivity
- Compliance flexibility for adaptation measures

Economic Development

- Workforce development parameters
- Procurement standards

Community engagement



Building Turnkey Support Programs

Goals:

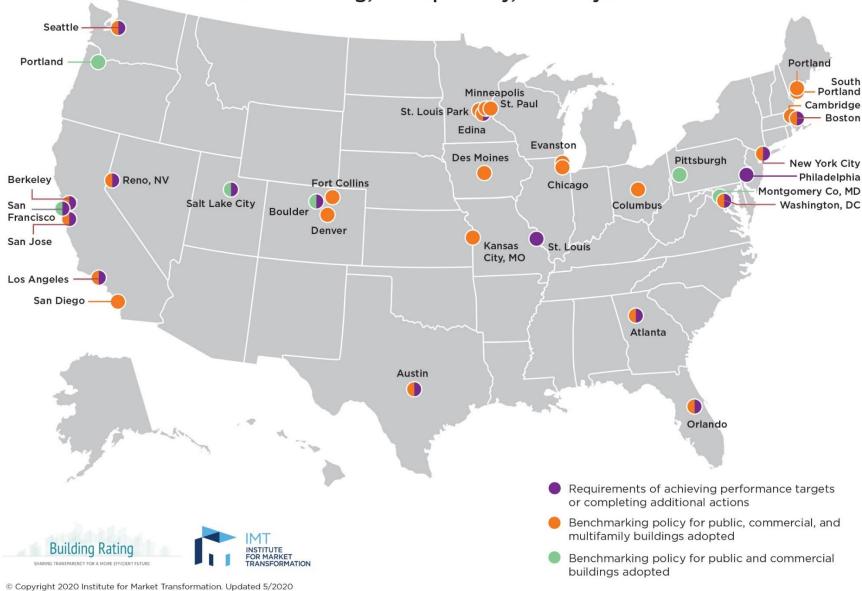
- Deep retrofits
- Provide necessary compliance support to priority buildings, neighborhoods, and owners

Program Components:

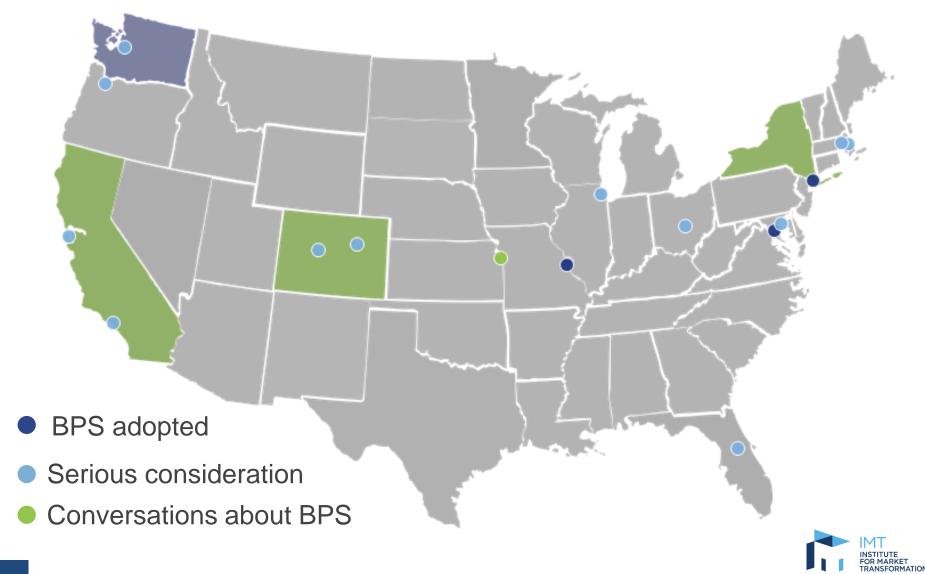
- 1. Turnkey technical assistance
- 2. Upfront capital
- Mandate = BPS
 Ideally this is a formal compliance option in order to take away owner uncertainty/risk of fine



U.S. City and County Policies for Existing Buildings: Benchmarking, Transparency, and Beyond



BPS: The Near-Term Opportunity





Q&A

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