Oregon Building Performance Standards

BESF Webinar

November 7, 2024

OREGON DEPARTMENT OF ENERGY

Today's Agenda

I. BPS Introduction

II. House Bill 3409, Oregon BPS Overview

III. General BPS Requirements

IV. BPS Rulemaking

V. Energy Target Setting

VI. What's Next

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Leading Oregon to a safe, equitable, clean, and sustainable energy future.

Our Mission

The Oregon Department of Energy helps Oregonians make informed decisions and maintain a resilient and affordable energy system. We advance solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and future generations.

What We Do

On behalf of Oregonians across the state, the Oregon Department of Energy achieves its mission by providing:

- A Central Repository of Energy Data, Information, and Analysis
- A Venue for Problem-Solving Oregon's Energy Challenges
- Energy Education and Technical Assistance
- Regulation and Oversight
- Energy Programs and Activities

Building Performance Standards - Introduction

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BUILDING PERFORMANCE STANDARDS

- Building Performance Standard (BPS) policies are an emerging type of policy that establishes:
  - Specific performance levels that buildings must achieve
  - Timeframe by which buildings must meet the target
- Important tool for reducing energy use and emissions from the existing building sector
- Key part of helping the jurisdictions meet climate goals
- Complementary to energy codes
- Adopted by jurisdictions and applied to existing commercial and multifamily buildings

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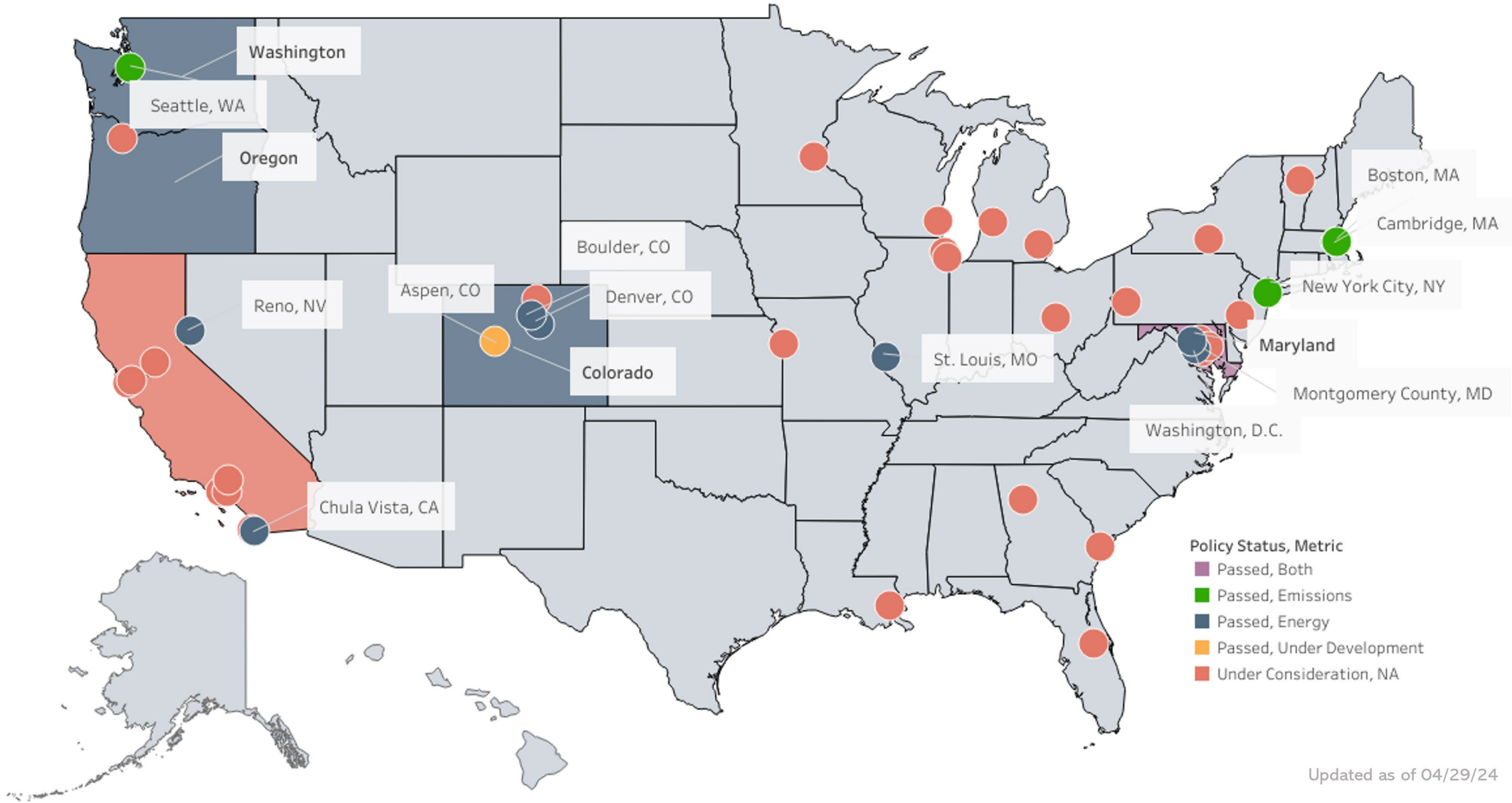
State and Local Building Performance Standards



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https://www.energycodes.gov/BPS

BUILDING PERFORMANCE STANDARDS

Program components include:

- Scope – *size, type, exceptions?*
- Performance Metrics – *site energy, source energy, GHG, water?*
- Targets – *by building type, climate zone, how aggressive, basis?*
- Compliance and Phasing – *First in, compliance pathways?*
- Implementation Mechanisms – *documentation, database?*

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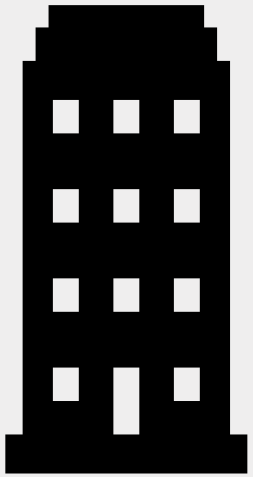
BPS KEY CONSIDERATIONS



Building Performance Standards require certain buildings and owners to meet certain performance targets by a specified date.

Align and Establish Goals
- Alignment with decarbonization goals
- Performance metrics

Determine Covered Properties
- Property Types
- Exemptions and Accommodations

Consider Compliance Approaches
- Compliance Approaches
- Enforcement for Non-compliance

Provide Support to Building Owners
- Technical Support
- Funding Support

Establish Reporting Requirements
- Reporting Mechanism
- Access to Historical Data

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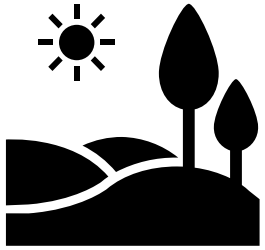
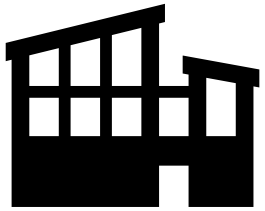
https://www.epa.gov/sites/default/files/2021-04/documents/webinar-bbps-toolkit-2021-03-17.pdf

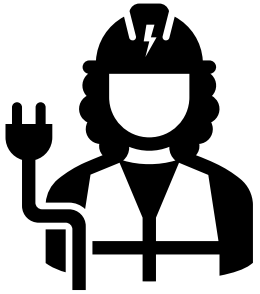
BENEFITS OF BUILDING PERFORMANCE STANDARDS



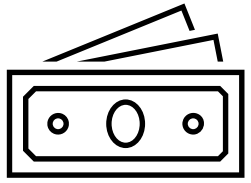
Energy use and greenhouse gas emissions reductions to support climate goals



Improved heating, cooling, ventilation, and lighting systems in buildings to use less energy and improve indoor air quality and comfort



Support local workforce and jobs to improve building performance through investment in energy efficiency measures and technology



Implementation of cost-effective energy measures to reduce operating costs for building owners and tenants

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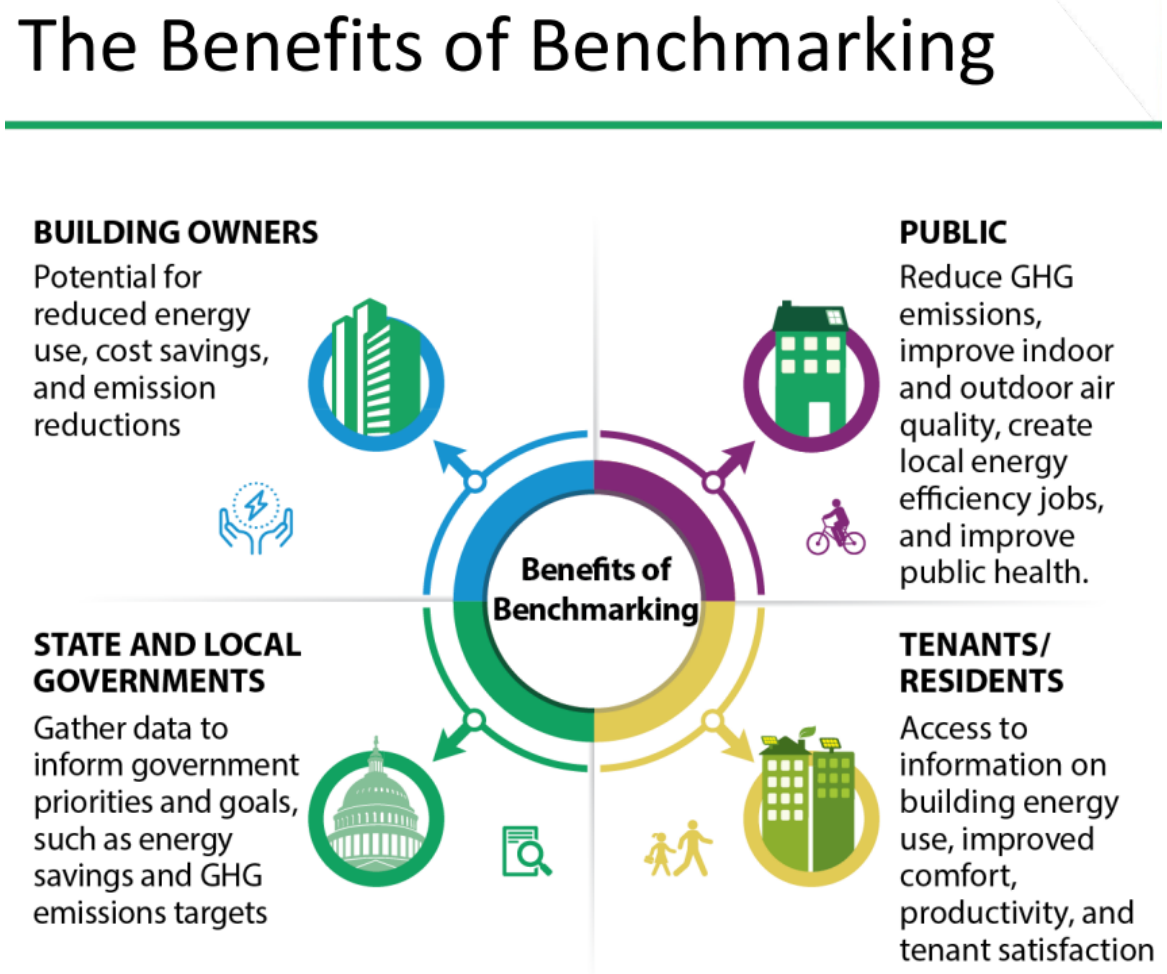
BUILDING ON ENERGY BENCHMARKING

- Building performance standards build upon energy benchmarking by acting on the energy use information to lead to improvements



https://www.epa.gov/sites/default/files/2021-04/documents/webinar-bbps-toolkit-2021-03-17.pdf

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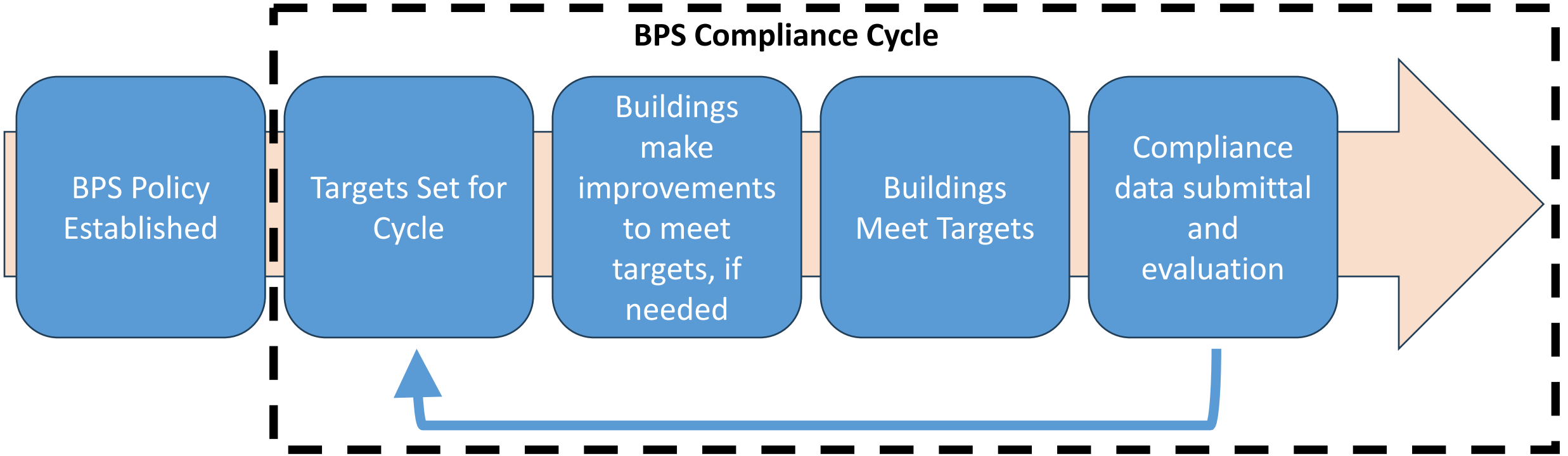
BUILDING PERFORMANCE STANDARDS: AN ITERATIVE PROCESS

For Jurisdictions



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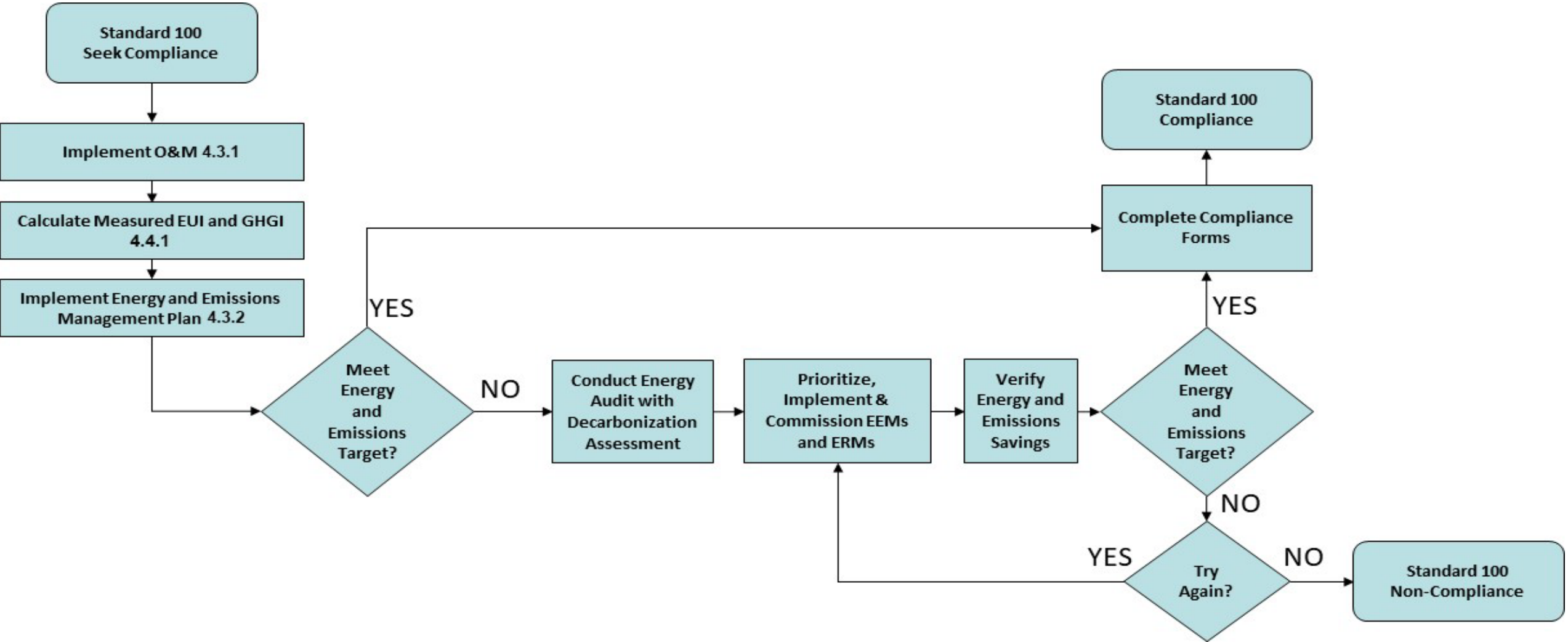
BUILDING PERFORMANCE STANDARDS: AN ITERATIVE PROCESS

For Building Owners (example from ASHRAE Standard 100-2024)



BPS IMPLEMENTATION

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Reviewing House Bill 3409

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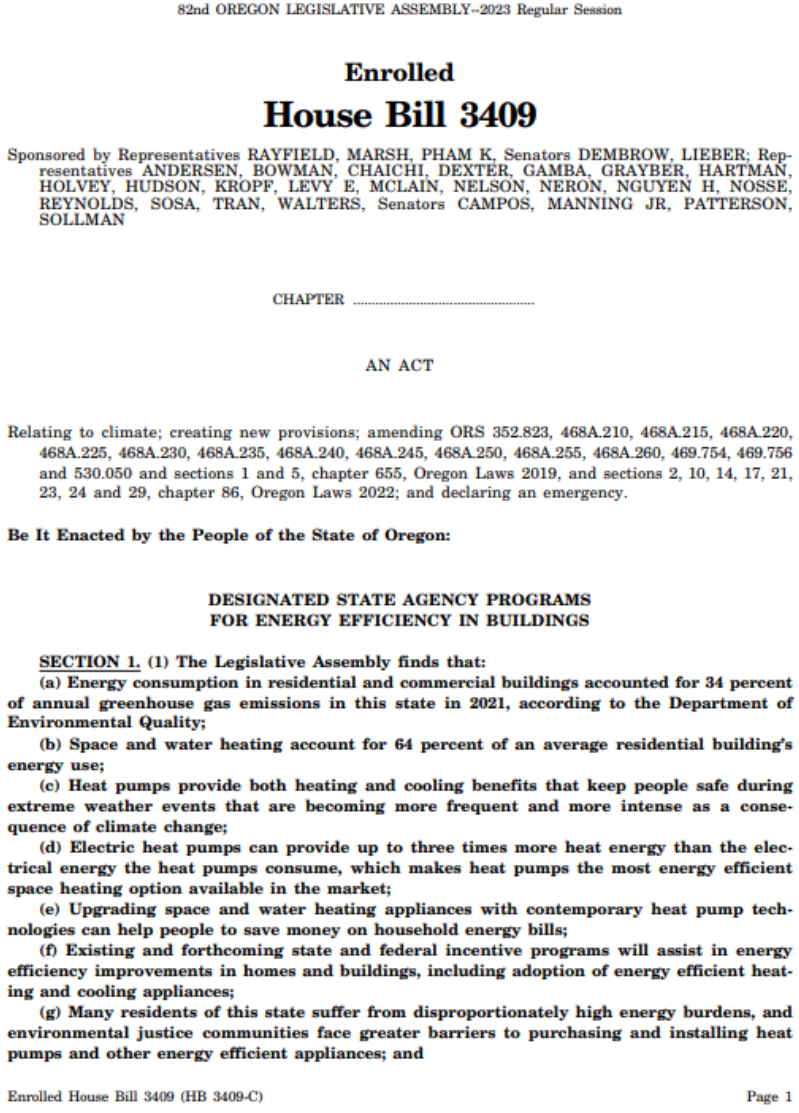
HOUSE BILL 3409



82nd OREGON LEGISLATIVE ASSEMBLY--2023 Regular Session

Enrolled

House Bill 3409

Sponsored by Representatives RAYFIELD, MARSH, PHAM K, Senators DEMBROW, LIEBER; Representatives ANDERSEN, BOWMAN, CHAICHI, DEXTER, GAMBA, GRAYBER, HARTMAN, HOLVEY, HUDSON, KROPF, LEVY E, MCLAIN, NELSON, NERON, NGUYEN H, NOSSE, REYNOLDS, SOSA, TRAN, WALTERS, Senators CAMPOS, MANNING JR, PATTERSON, SOLLMAN

CHAPTER .....

AN ACT

Relating to climate; creating new provisions; amending ORS 352.823, 468A.210, 468A.215, 468A.220, 468A.225, 468A.230, 468A.235, 468A.240, 468A.245, 468A.250, 468A.255, 468A.260, 469.754, 469.756 and 530.050 and sections 1 and 5, chapter 655, Oregon Laws 2019, and sections 2, 10, 14, 17, 21, 23, 24 and 29, chapter 86, Oregon Laws 2022; and declaring an emergency.

Be It Enacted by the People of the State of Oregon:

DESIGNATED STATE AGENCY PROGRAMS FOR ENERGY EFFICIENCY IN BUILDINGS

SECTION 1. (1) The Legislative Assembly finds that:

(a) Energy consumption in residential and commercial buildings accounted for 34 percent of annual greenhouse gas emissions in this state in 2021, according to the Department of Environmental Quality;

(b) Space and water heating account for 64 percent of an average residential building's energy use;

(c) Heat pumps provide both heating and cooling benefits that keep people safe during extreme weather events that are becoming more frequent and more intense as a consequence of climate change;

(d) Electric heat pumps can provide up to three times more heat energy than the electrical energy the heat pumps consume, which makes heat pumps the most energy efficient space heating option available in the market;

(e) Upgrading space and water heating appliances with contemporary heat pump technologies can help people to save money on household energy bills;

(f) Existing and forthcoming state and federal incentive programs will assist in energy efficiency improvements in homes and buildings, including adoption of energy efficient heating and cooling appliances;

(g) Many residents of this state suffer from disproportionately high energy burdens, and environmental justice communities face greater barriers to purchasing and installing heat pumps and other energy efficient appliances; and

Enrolled House Bill 3409 (HB 3409-C) Page 1

- BPS is part of HB 3409 from the 2023 Legislative Session
- This policy addresses energy use and emissions from existing commercial buildings, which account for nearly 20% of energy use in Oregon.
- It will require many large commercial buildings to enhance energy management practices and implement efficiency measures to meet energy use targets and will be modeled after ASHRAE Standard 100.
- Will be administered by ODOE
- Modeled after Washington state program

WHY ASHRAE STANDARD 100?

- From HB 3409 [3] : *"use…Standard 100 as an initial model for specifying an energy performance standard for covered commercial buildings"*
- Alignment with:
  - Oregon's Energy Code - based on ASHRAE Standard 90.1
  - State-owned building energy management process
  - Washington state
- Provides an established, national framework under continuous maintenance and with support of many resources and experts
- Customizable for Oregon needs

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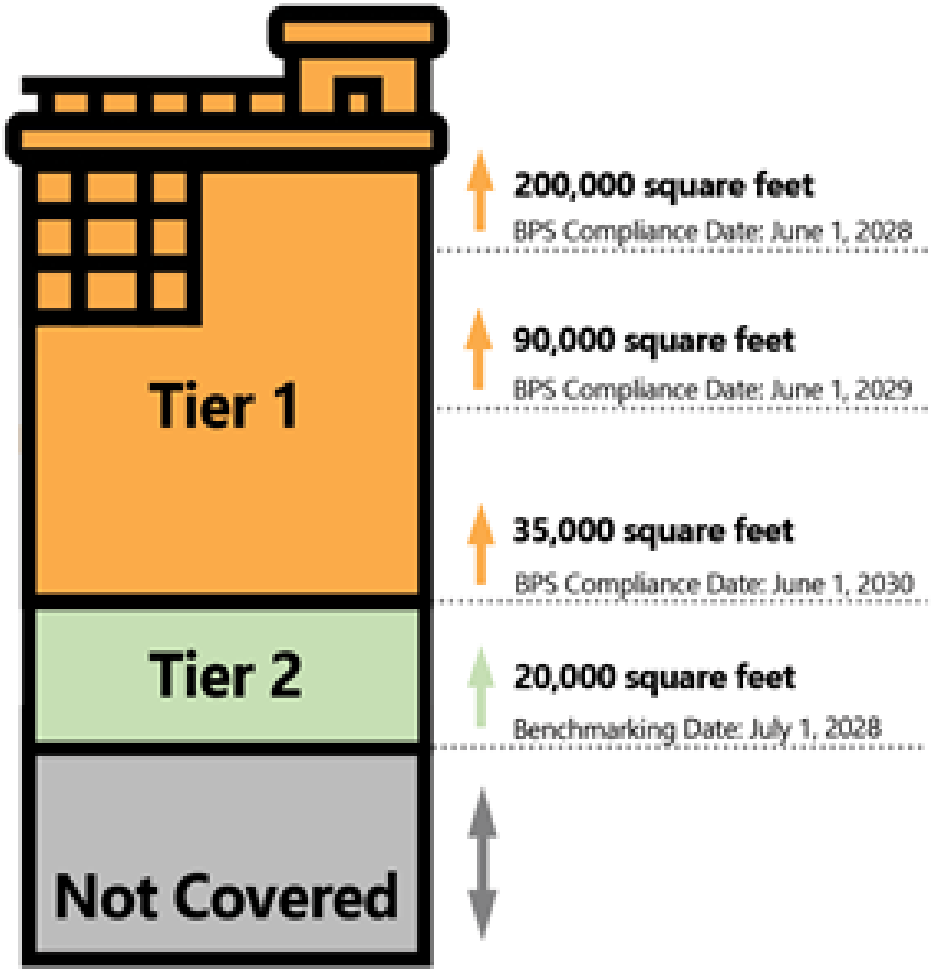
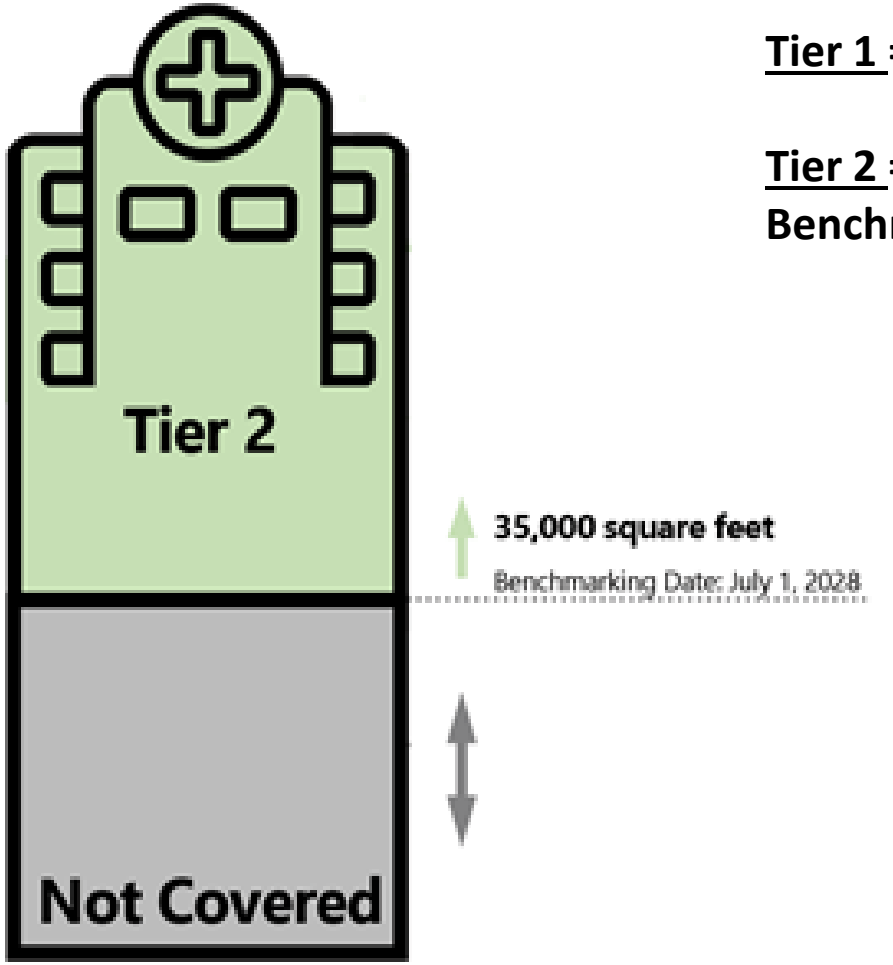
BUILDING PERFORMANCE STANDARDS - SCOPE

Commercial (Non-Residential), Hotels, and Motels



Multifamily Residential, Hospitals, Schools, Dormitories, and University Buildings



<u>Tier 1</u> = BPS Compliance

<u>Tier 2</u> = Energy Benchmarking / Reporting

BUILDING SIZE REFERENCES

~ 35,000-45,000 square feet

~ 100,000 square feet

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Note: the images on this slide are only meant to help visualize building sizes and do not imply any specific compliance requirements

HOUSE BILL 3409 – SECTION HIGHLIGHTS

Section 8

- Definitions
- Tier 1, Tier 2 buildings
- "Energy use intensity" means a measurement that weather normalizes a building's **site energy use** relative to the building's size, calculated by dividing the total net energy the building consumes in one year by the building's gross floor area, excluding any parking garage, and that is reported in **thousands of British thermal units per square foot per year**.
- "Net energy use" means the sum of metered and bulk fuel energy that enters a building, minus the sum of metered energy that leaves the building

HOUSE BILL 3409 – SECTION HIGHLIGHTS

Section 9

- Direction to ODOE for administrative rules, establishes BPS criteria
- Adopt rules for BPS, using ASHRAE Standard 100 as a model, that:
  - Seeks to maximize GHG emissions from covered commercial buildings
  - Includes EUI Targets for specific types of buildings
  - Offers conditional compliance pathway (energy management plan, audits, etc.)
- Develop EUI targets that are not more stringent than the average energy use intensity for each covered commercial building occupancy classification, adjusting as necessary for a covered commercial building's unique energy-using features;
- May require utilities, eligible building owners, and other entities to aggregate data for covered commercial buildings that have multiple meters

HOUSE BILL 3409 – SECTION HIGHLIGHTS

Section 9 (continued)

- May consider occupancy classifications set forth on Standard 100 and US EPA Energy Star Portfolio Manager

ENERGY STAR® PortfolioManager®

List of Property Types Aug 2023

Portfolio Manager contains more than 85 property types to choose from when setting up your property.
Property types with an asterisk are eligible to receive a 1-100 ENERGY STAR Score *(country in parentheses)*.

Category	Property Type	Detailed Property Type
Banking/Financial Services	**Bank Branch* *(U.S., Canada)***	
	Financial Office* *(U.S., Canada)*	
Education	Adult Education	
	College/University	
	K-12 School(U.S., Canada)***	
	Pre-school/Daycare	
	Vocational School	
	Other - Education	
Entertainment/Public Assembly	Convention Center	
	Movie Theater	
	Museum	
	Performing Arts	
	Recreation	Bowling Alley
		Fitness Center/Health Club/Gym
		Ice/Curling Rink* *(Canada)*
		Roller Rink
		Swimming Pool
		Other - Recreation
	Social/Meeting Hall	
	Stadium	Indoor Arena
		Race Track
		Stadium (Closed)
		Stadium (Open)

ENERGY STAR® PortfolioManager®

List of Property Types Aug 2023

Category	Property Type	Detailed Property Type (where needed)
Healthcare	Ambulatory Surgical Center	
	Hospital	**Hospital (General Medical & Surgical)* (U.S., Canada)**
		Other - Specialty Hospital
	Medical Office* *(U.S., Canada)*	
	Outpatient Rehabilitation/Physical Therapy	
	Residential Care Facility* *(Canada)*	
	Senior Living Community* *(U.S., Canada)*	
	Urgent Care/Clinic/Other Outpatient	
Lodging/Residential	**Barracks* *(U.S.)***	
	Hotel* *(U.S., Canada)*	
	Multifamily Housing* *(U.S., Canada)*	
	Prison/Incarceration	
	Residence Hall/Dormitory* *(U.S.)*	
	Senior Living Community* *(U.S., Canada)*	
	Single Family Home* *(U.S.)*	
	Other - Lodging/Residential	
Manufacturing/Industrial	Manufacturing/Industrial Plant	
Mixed Use	Mixed Use Property	
Office	**Medical Office* *(U.S., Canada)***	
	Office* *(U.S., Canada)*	
	Veterinary Office	

HOUSE BILL 3409 – SECTION HIGHLIGHTS

Section 9 (continued)

- Create a database of eligible building owners and covered buildings based on county assessor records and other sources
- Not later than July 1, 2025, notify eligible building owners of requirements for Tier 1 buildings
- Local municipalities may adopt energy performance and GHG emissions reduction standards that are more stringent or have broader application (with limitations)

HOUSE BILL 3409 – SECTION HIGHLIGHTS

Section 10

- Tier 1 building owner reporting requirements
- New reports required at the end of every successive 5 year period
- Exemption criteria
- Requires ODOE support program that includes information, periodic training, technical assistance, phone, and email support
- Compliance timelines, phased, starting with largest buildings first
- Civil penalties for non-compliance: up to $5,000 + $1/square foot/year

HOUSE BILL 3409 – SECTION HIGHLIGHTS

Section 11

- ODOE to adopt rules to:
  - Ensure timely, accurate, and complete reporting for Tier 1 buildings
  - Enable ODOE to effectively enforce the standard and EUI targets
  - Provide means for affected eligible building owners to appeal decisions and enforcement actions
  - Ensure that eligible building owner is responsible for paying the costs of compliance
- ODOE to consult with an advisory committee before adopting rules

Section 12

- County assessors to provide information about covered commercial buildings at ODOE's request

HOUSE BILL 3409 – SECTION HIGHLIGHTS

Section 13

- ODOE to report to Governor and Legislative Assembly on January 15 each year from 2025-2035 concerning the implementation of the energy performance standard, adoption of ASHRAE Standard 100 as an initial model, the financial impact the standard has had on eligible building owners of Tier 1 buildings, and incentives provided

Section 14

- Clarifies that Tier 2 buildings are not required to meet the energy performance standard
- Clarifies that eligible Tier 1 building owners are not required to act before ODOE adopts rules
- ODOE may offer incentives for early or voluntary compliance with the energy performance standard

HOUSE BILL 3409 – SECTION HIGHLIGHTS

Section 15

- Sets initial rulemaking deadline of December 31, 2024 to establish a requirement and standards for owners of Tier 2 buildings to provide data that would enable ODOE to establish a benchmark for energy use in, and GHG emissions from, Tier 2 buildings
- ODOE to cooperate with Department of Education on schools data
- ODOE to notify Tier 2 building owners by July 1, 2025
- Tier 2 building owners to provide ODOE with energy benchmarking data by July 1, 2028 and every 5 years thereafter

HOUSE BILL 3409 – SECTION HIGHLIGHTS

Section 15 (continued)

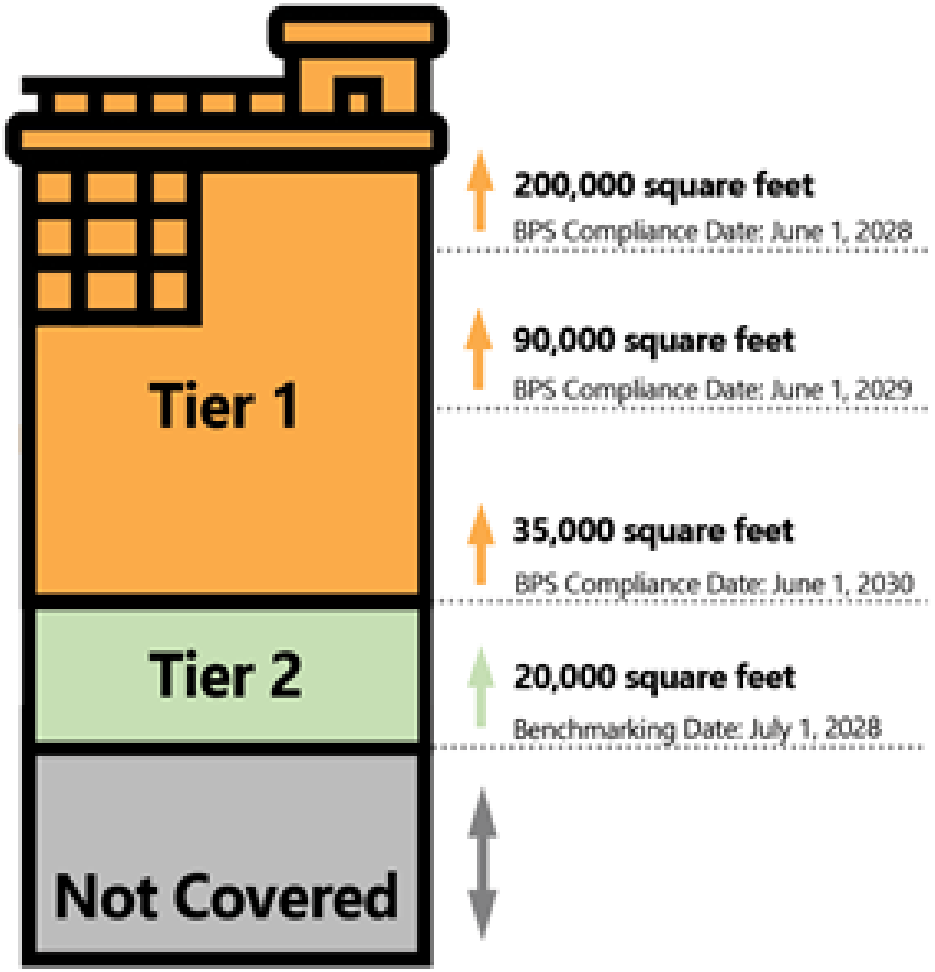
- By July 1, 2029, ODOE shall evaluate and use the Tier 2 data to calculate average energy use and GHG emissions for Tier 2 building categories
- By July 1, 2025 ODOE to consult an advisory committee to identify financial and nonfinancial implications of an energy performance standard for Tier 2 buildings
- By October 1, 2030 ODOE to report to Governor and Legislative Assembly on a recommendation for a cost-effective energy performance standard for Tier 2 buildings, including costs and challenges

Section 16-17

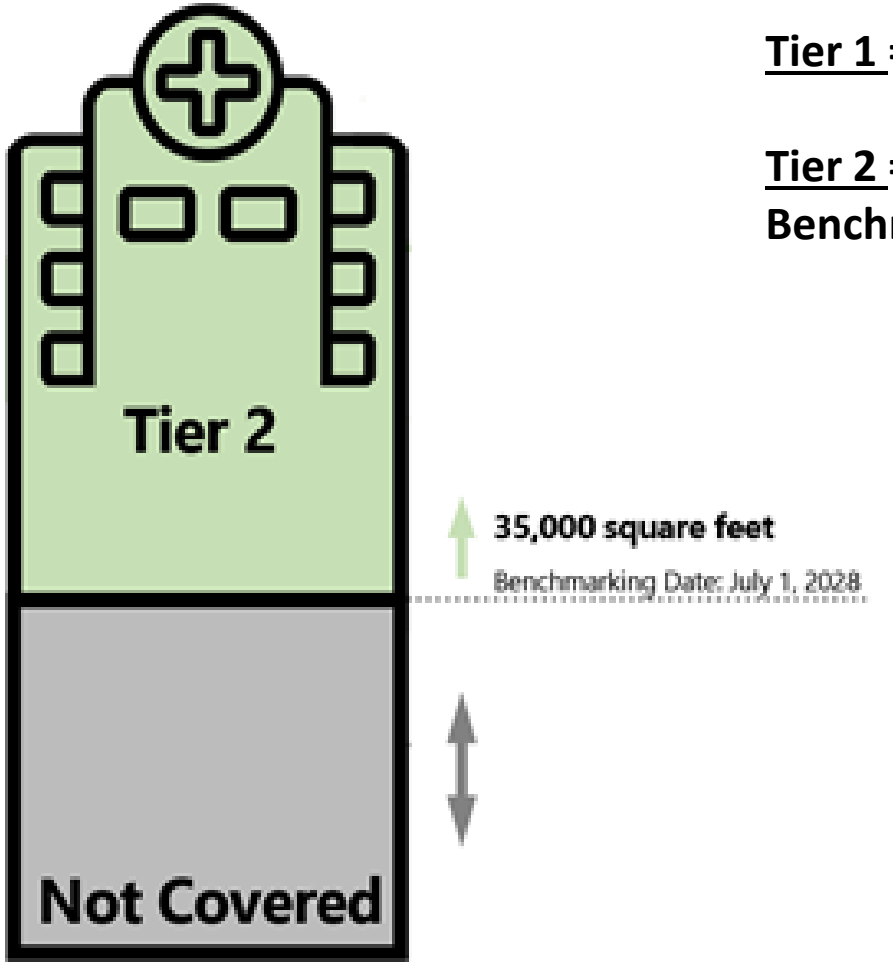
- Establishes incentives program for early or voluntary compliance

BUILDING PERFORMANCE STANDARDS - SCOPE

Commercial (Non-Residential), Hotels, and Motels



Multifamily Residential, Hospitals, Schools, Dormitories, and University Buildings



<u>Tier 1</u> = BPS Compliance

<u>Tier 2</u> = Energy Benchmarking / Reporting

BUILDING PERFORMANCE STANDARDS

Tier 1 building means a building in which the sum of gross floor area for hotel, motel and nonresidential use equals or exceeds 35,000 square feet, excluding any parking garage.

Tier 2 building means:

1. A building with gross floor area, excluding any parking garage, that equals or exceeds 35,000 square feet and that is used as a multifamily residential building, a hospital, a school, a dormitory or university building; or
2. A building in which the sum of gross floor area for hotel, motel and nonresidential use exceeds 20,000 square feet but does not exceed 35,000 square feet, excluding any parking garage.

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TIER 1 AND TIER 2 BUILDINGS

Tier 1 buildings:

Not later than December 31, 2024, the State Department of Energy, in consultation with the Department of Consumer and Business Services, shall adopt rules that use the American National Standards Institute's standards for Energy Efficiency in Existing Buildings (ANSI/ASHRAE/IES Standard 100) as an initial model for specifying an energy performance standard for covered commercial buildings.

Tier 2 buildings:

Not later than December 31, 2024, the State Department of Energy by rule shall establish a requirement and standards under which eligible building owners of tier 2 buildings must provide to the department data that would enable the department to establish a benchmark for energy use in, and greenhouse gas emissions from, tier 2 buildings.

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BUILDING PERFORMANCE STANDARDS

Compliance will generally require either:

- Meeting energy use intensity (EUI) targets;

  *"Develop energy use intensity targets that are **not more stringent than the average energy use intensity** for each covered commercial building occupancy classification"*

  "Energy use intensity means a measurement that weather normalizes a building's site energy use relative to the building's size, calculated by dividing the total net energy the building consumes in one year by the building's gross floor area, excluding any parking garage, and that is reported in thousands of British thermal units per square foot per year."

- Investment criteria pathway
- Meeting conditional compliance requirements
- Receiving approval for an eligible exemption allowed under HB 3409
  A. No certificate of occupancy
  B. Low occupancy [1]
  C. Total gross floor area, less unconditioned and semiheated spaces, is <35,000 sq. ft.[2]
  D. Primary use is manufacturing or industrial (Factory Group F, High Hazard Group H) [2]
  E. Agricultural buildings [1]
  F. Financial hardship [1]

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[1] *Refer to text of HB 3409 for more detail*
[2] *Refer to the building code for more detail*

BUILDING PERFORMANCE STANDARDS

Potential for penalties:

- *The department may impose a civil penalty…upon an eligible building owner of a tier 1 building …*
- *A civil penalty the department imposes…may not exceed **$5,000 plus** an amount for the duration of a continuing violation, which may not exceed a daily amount that the department calculates by multiplying **$1 per year per square foot of gross floor area** of the tier 1 building that is the subject of the department's notice.*
- *The department shall deposit the proceeds of any civil penalty the department imposes and collects under this subsection into the State Department of Energy Account established under ORS 469.120 and shall allocate the proceeds for the purpose of administering the department's energy efficiency programs.*

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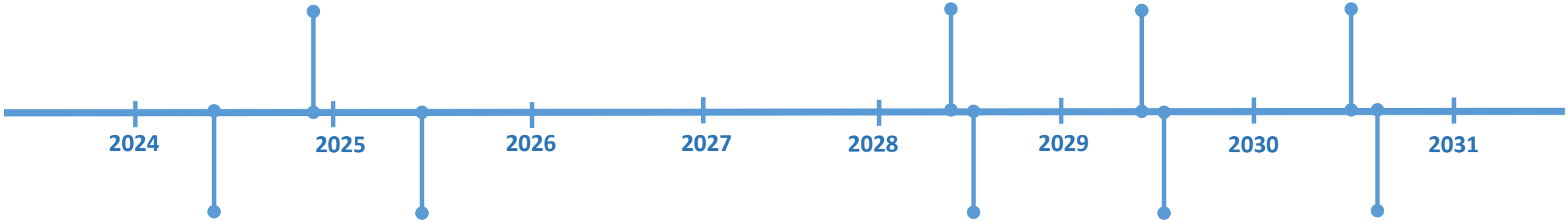
BPS PROGRAM TIMELINE – KEY DATES



December 31, 2024:
ODOE Rulemaking complete

2024: Multiple stakeholder and RAC meetings to support rulemaking

July 1, 2025:
ODOE to notify Tier 1 and Tier 2 Building Owners

June 1, 2028:
200,000+ sq. ft. Tier 1 compliance required

July 1, 2028:
Tier 2 building benchmarking required

June 1, 2029:
90,000+ sq. ft. Tier 1 compliance required

July 1, 2029:
- ODOE evaluation of Tier 2 benchmarking data
- ODOE update rulemaking and EUI targets (every 5 years after)

June 1, 2030:
35,000+ sq. ft. Tier 1 compliance required

October 1, 2030:
ODOE report to Governor and Legislature on recommendation for Tier 2 BPS

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Building Performance Standard Rulemaking and Draft Rules

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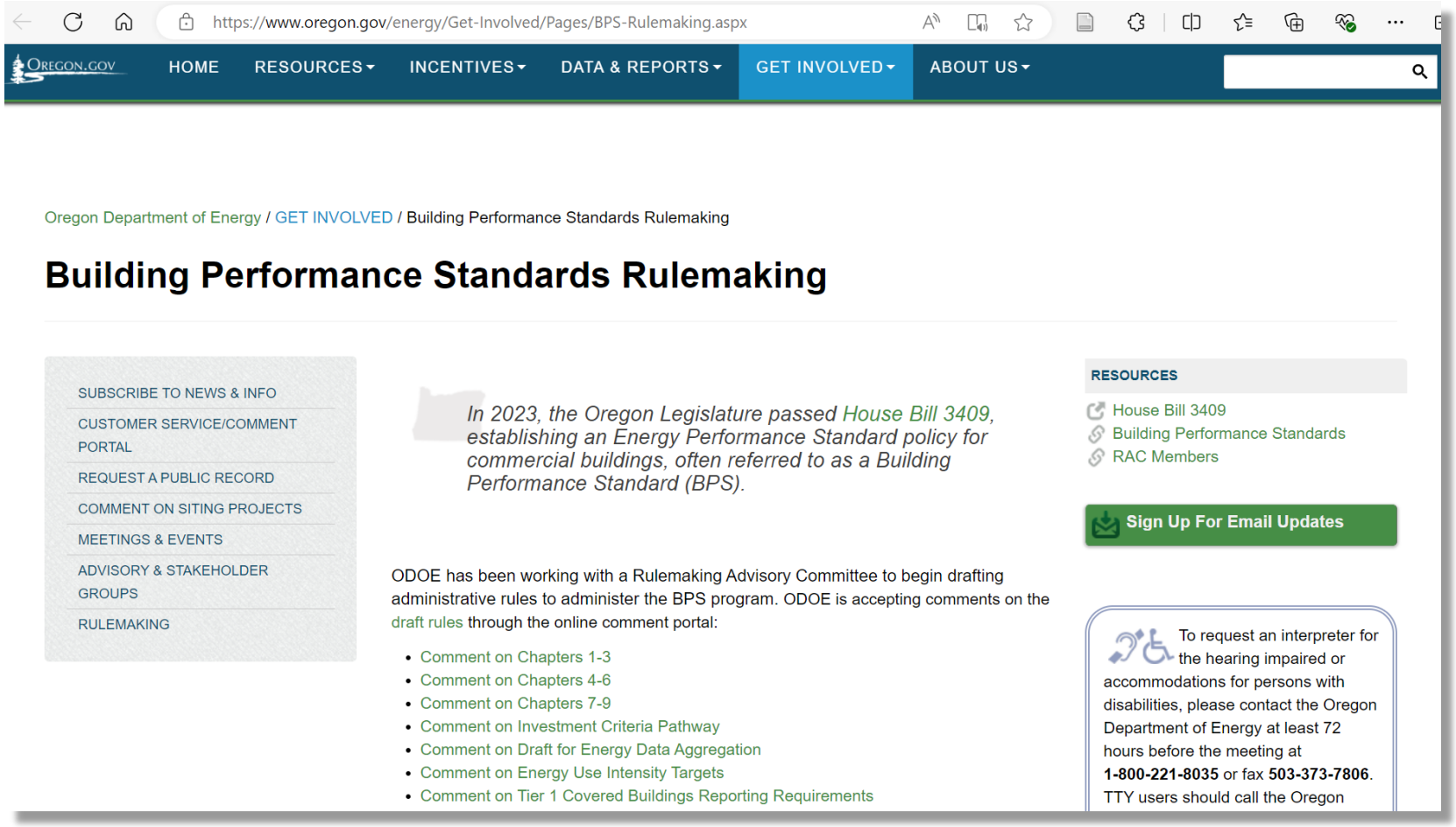
BPS PROGRAM TIMELINE – KEY DATES

Program Rulemaking Website: https://www.oregon.gov/energy/Get-Involved/Pages/BPS-Rulemaking.aspx



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2024 RULEMAKING ACTIVITY

	2024											
	January	February	March	April	May	June	July	August	September	October	November	December
RAC Meeting		2/21		4/24	5/22	6/26	7/17	8/21	9/4	10/15		
Public Meeting			3/21			6/5			9/11	10/15		
ODOE File Draft Rules with SOS									9/30			
Rulemaking Comments Open												
Rulemaking Hearing											11/13	
Final Rules Filed												by 12/31

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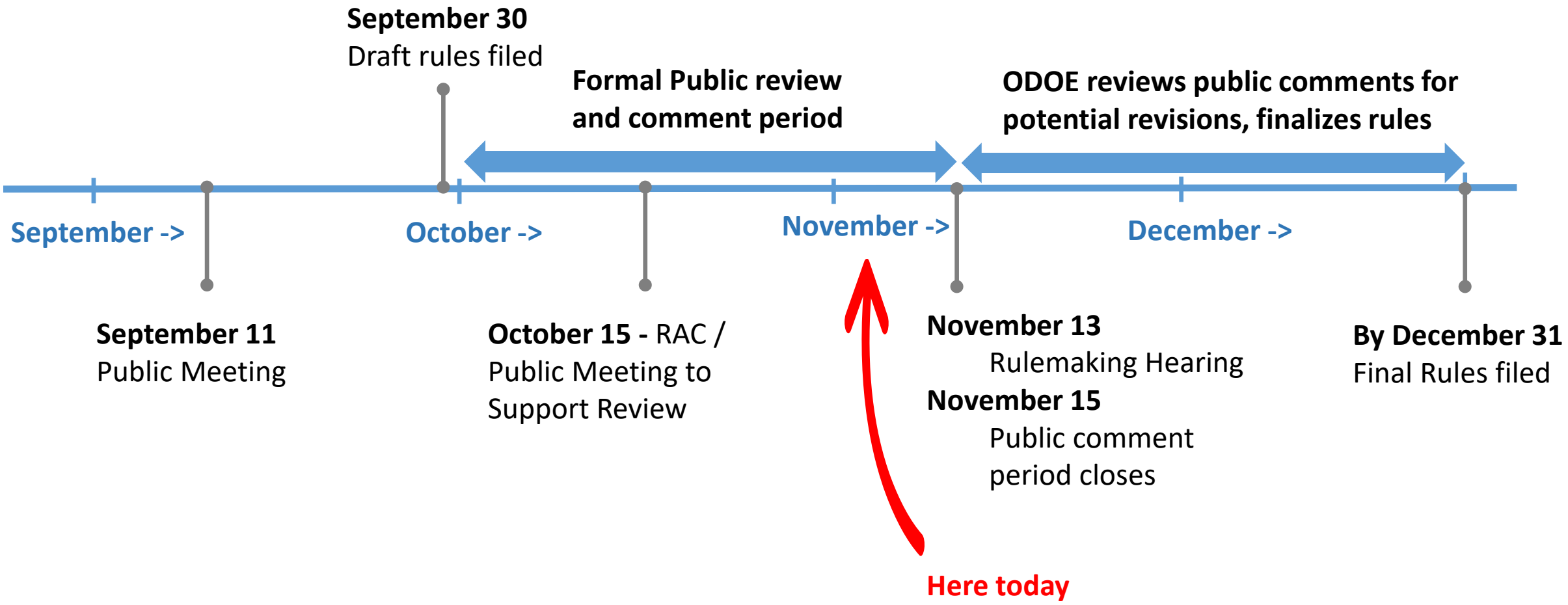
BPS RULEMAKING SCHEDULE



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DRAFT RULES FOR REVIEW

- ODOE has posted the following draft rules for preliminary review, coming out of the Rulemaking Advisory Committee Process
  - ASHRAE Standard 100-2024, with Oregon Modifications, Chapters 1-9
  - Investment Criteria Pathway appendix
  - Tier 1 Covered Buildings Reporting Requirements Appendix
  - Tier 2 Covered Buildings Reporting Requirements Appendix
  - Utility Energy Data Aggregation
- **Comment portals** are posted on the ODOE BPS Rulemaking Website and will remain open through the Public Comment Period.
- https://www.oregon.gov/energy/Get-Involved/Pages/BPS-Rulemaking.aspx

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DRAFT RULES FOR REVIEW

Note: all rule text presented in this presentation is in draft form and currently open for public comment

ASHRAE Standard 100-2024, modified for Oregon BPS

Chapter 1 – Purpose

- General purpose of the standard

Chapter 2 – Scope

- Covers the scope of the standard

Chapter 3 – Definitions

- Provides definitions for common and important terms used in the standard

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DRAFT RULES FOR REVIEW

Chapter 1 – Purpose

1. PURPOSE

1.1 {This standard establishes energy consumption performance levels for existing *buildings*. This standard provides compliance requirements that will result in improved energy efficiency and reduced *GHG emissions* of existing *buildings*. In adopting this standard, the Oregon Department of Energy seeks to maximize reductions of greenhouse gas emissions from covered commercial buildings.

1.2 This standard is directed toward

a. Setting *performance targets* based on operational energy consumption
b. Accommodating progressively more stringent *performance targets*
c. Providing a technical basis for setting *building performance* standards
d. Providing procedures and programs essential to energy-efficient operation, maintenance, management, and monitoring
e. Increasing the energy efficiency of the energy-using systems and components
f. Upgrading the thermal performance of the *building* envelope and
g. Promoting the use of district energy system decarbonization plans aligning with district energy policy in coordination with statewide building performance standards policies to reduce commercial and building emissions}

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DRAFT RULES FOR REVIEW

Chapter 3 – Definitions

- Combination of definitions from ASHRAE 100-2024, HB 3409, other relevant terms
- Some key definitions

energy use intensity (EUI): a measurement that weather normalizes a building's site energy use relative to the building's size, calculated by dividing the total net energy the building consumes in one year by the building's gross floor area, excluding any parking garage, and that is reported in thousands of British thermal units per square foot per year. ~~an expression of *building* energy use per year in terms of *gross energy* divided by gross floor area.~~

Tier 1 building: a building in which the sum of gross floor area for hotel, motel and nonresidential use equals or exceeds 35,000 square feet, excluding any parking garage.

Tier 2 building:

(A) A building with gross floor area, excluding any parking garage, that equals or exceeds 35,000 square feet and that is used as a multifamily residential building, a hospital, a school, a dormitory or a university building; or

(B) A building in which the sum of gross floor area for hotel, motel and nonresidential use exceeds 20,000 square feet but does not exceed 35,000 square feet, excluding any parking garage.

"Tier 2 building" does not include a covered commercial building that is classified as a Tier 1 building.

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

ASHRAE Standard 100-2024, modified for Oregon BPS

Chapter 4 – Compliance Requirements

- Overview of requirements needed for covered building compliance

Chapter 5 – Energy and Emissions Management Plan

- Required for Tier 1 buildings, each covered building must develop and implement an energy and emissions management plan
- Consideration of GHG emissions remains, although targets are based on site energy

Chapter 6 – Operations and Maintenance Requirements

- Similar requirements for an O&M plan for Tier 1 covered buildings

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

Chapter 4 – Compliance Requirements

4. COMPLIANCE REQUIREMENTS

4.1 Compliance Forms. {Forms for recording information used for demonstrating compliance with standard are located in Appendix Y and Appendix Z. Submittal to the authority having jurisdiction (AHJ) will be done electronically in a manner specified by the AHJ.}

4.2 Building Type Requirements

4.3 Energy and Emissions Management Plan and Operations and Maintenance Program

4.4 Building Performance

4.5 General

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

Chapter 5 – Energy and Emissions Management Plan

5. ENERGY AND EMISSIONS MANAGEMENT PLAN

5.1 Establish the Energy and Emissions Management Plan

5.1.1 {The Tier 1 covered *building owner* shall designate an *energy manager* (*EM*) to develop and *maintain* an energy and emissions management plan for the *building*. The emissions portion of the plan shall consider *greenhouse gas* (*GHG*) *emissions* associated with the *building*'s energy consumption.}

5.1.2 The energy and emissions management plan shall incorporate the following.

5.1.2.1 An *energy and emissions accounting system* to record the energy use and *GHG emissions* in accordance with Section 5.2.

5.1.2.2 {In the initial year of compliance, the *building*'s *energy use intensity* (*EUI*).}

5.1.2.3 {Annual updates of the *net energy* use and *EUI*.}

5.1.2.4 {For *buildings* with *performance targets*, annual comparison of the *building*'s *EUI* to its *EUI target*.}

5.1.2.5 {For *buildings* without *performance targets*, annual comparison of the *building*'s *EUI* to the adjusted *EUI* established by its most recent energy audit with decarbonization assessment. (Refer to detailed requirements in Sections 8 and 9.)}

5.1.2.6 {Documentation of original, current, and changes in number of occupants, weekly operating hours, or time of day scheduled for occupancy, and energy-using equipment that would have caused change in the measured *EUI*.}

5.1.2.7 {Energy audit with decarbonization assessment reports, if required based on Section 4.4.2, and recommended *energy efficiency measures* (*EEMs*) from those audits. (Refer to Section 8.)}

5.1.2.8 {Contact information for serving utilities and programs that may offer incentives for energy efficiency measures.}

5.1.2.9 {A list of *EEMs* that have been implemented and dates of implementation, including the following:

a. An operations and maintenance (O&M) program as defined in Section 6 for the *EEMs*
b. An implementation plan for *EEMs*, including commissioning
c. Staff training plan for *EEMs*
d. Ongoing commissioning plans for the *EEMs*}

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

Chapter 5 – Energy and Emissions Management Plan

5.1.3 {The energy and emissions plan may also incorporate, but is not limited to, the following:}

5.1.3.1 A method to inform occupants about the benefits of efficient energy use, and to instruct them in the use and adjustment of operable windows, *HVAC system* controls, and lighting system components and controls. This shall include materials (electronic or printed) as appropriate.

5.1.3.2 A training plan for the O&M personnel to operate the *building* systems to achieve established indoor environmental targets with optimum energy efficiency.

5.1.3.3 A *capital management plan* identifying the following:

a. {*EEMs* not selected for implementation that were designated as future opportunities in Section 9}
b. Equipment and systems for replacement in case of failure that will result in the maximum reduction in energy use and *GHG emissions* consistent with reasonable financial *performance*, including ENERGY STAR® rated equipment
   Exception to (b): Equipment intended for standby or emergency use only.
c. Estimated end of useful life for envelope, lighting, space heating and cooling, and water heating systems
d. Sizing calculations for the replacement of heating and cooling equipment based on the *building* as modified by the *EEMs* identified in Section 5.1.2.7
e. Opportunities for addition of updated system controls and demand response integration
f. Restrictions on the use and application of electric resistance heat for space and water heating
g. Recommendations on use of dual-fuel systems to ease *building* transition off fossil fuel
h. A phase-out plan for all on-site fossil-fuel combustion equipment and systems
   Exception to (h): Equipment intended for standby or emergency use only.
i. Plan for fuel-gas pipe testing every five years and at the time of installation of new or replacement combustion equipment
j. Opportunities for installation of on-site renewable energy

5.1.3.4 A contact list of suppliers and manufacturers' local representatives of energy efficient equipment, low *GHG* equipment, qualified installers, *qualified energy auditors*, the *EM*, and the *building owner*.

5.1.3.5 The current *lighting schedule* and the calculated *lighting power density* along with the potential savings from any potential *EEMs*.

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

Chapter 5 – Energy and Emissions Management Plan

5.2 {Building Energy Monitoring. Covered *building net energy use* shall be monitored and recorded in accordance with following sections.}

5.2.1 {Provide measured *net energy use* data for each *building*, including all forms of imported energy, exported energy, and energy generated from active on-site renewable energy systems from at least 12 consecutive months of data monitored in a period not to exceed two years prior to the date an application for compliance is submitted to the *authority having jurisdiction* (*AHJ*). The net energy concept is illustrated in Figure 5-1, Table 5-1, and Table 5-2 and is calculated in accordance with Section 5.2.3.1. A *building*'s *net energy use* is illustrated in Figure 5-1 and Table 5-1 and shall be calculated using Equation 5-1:

Building net energy use =
Metered and bulk fuel energy that enters a *building* – Metered energy that leaves the *building*

$$\textit{Net energy use} = (1a + 1b + 1c + 1d) - (3a + 3b + 3c + 3d + 3e) \qquad (5\text{-}1)$$

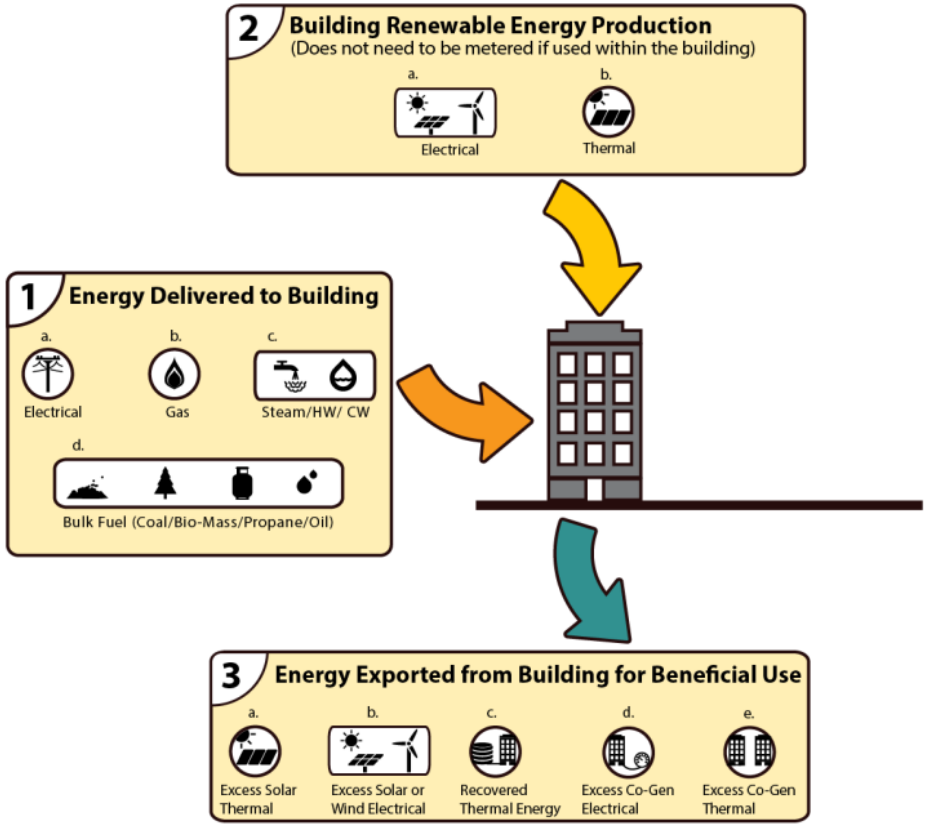

Figure 5-1 {Net energy concept.}

OREGON DEPARTMENT OF ENERGY

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Chapter 6 – Operations and Maintenance Requirements

6. OPERATIONS AND MAINTENANCE REQUIREMENTS

6.1 Scope. Section 6 applies to the *building* envelope, *building* systems, and *building* equipment that directly or indirectly consume energy.

6.2 Operations and Maintenance Program. A formal operations and maintenance (O&M) program shall be established and implemented in order that the *building* energy-using systems achieve their intended energy efficiency throughout their service life.

The program documents the O&M objectives, establishes the criteria for evaluation, and commits the *building operator* and maintenance personnel to basic goals of *performance* (such as minimizing equipment failures, ensuring ongoing efficient operation, and performing identified maintenance requirements).

6.3 Operations and Maintenance Implementation. The O&M program shall be implemented in accordance with Normative Appendix C.

Exception to 6.3: {O&M programs developed and implemented by the *building*'s serving utility or local government and approved as equivalent or more stringent by the *AHJ* may be used as an alternative to the requirement in Section 6.3. Where local government programs are more stringent than applicable utility programs, local government programs shall be selected over utility programs.}

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

ASHRAE Standard 100-2024, modified for Oregon BPS

Chapter 7 – Energy Use and GHG Emissions Analysis and Target Requirements

- Process for determining $EUI_{t,}$ particularly for buildings with mixed uses
- Modifications include removal of language referencing GHG Intensity Targets

Chapter 8 – Energy Audit with Decarbonization Assessment Requirements

- Outlines the process for energy audits, when required for BPS compliance
- “Decarbonization Assessment” language remains

Chapter 9 – Implementation and Verification Requirements

- Outlines the process for implementing the standard
- Modifications include removal of GHG intensity and Emissions Reduction Measure references

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

Chapter 7 – Energy Use and GHG Emissions Analysis and Target Requirements

7. ENERGY USE AND GREENHOUSE GAS EMISSIONS ANALYSIS AND TARGET REQUIREMENTS

7.1 {Building Type and Energy Use Intensity Targets}

7.1.1 Building Type. {*Buildings* are divided into activity types as shown in Table 7-1. *Buildings* with one or more activities listed in Table 7-1 have *energy use intensity* (*EUI*) *targets* as shown in Table 7-1.}

7.1.2 Energy Use Intensity Targets. {*EUI targets* based on *site energy* are shown in Table 7-2a in I-P units.}

7.2 Determining Energy Use Intensity Target

7.2.1 The *energy manager* (*EM*) or *qualified person* shall determine the *EUI target* according to Section 7.2.2 for single-type/activity *buildings* and Section 7.2.3 for mixed-use *buildings*, and shall complete Form B.

Many of these tables are not based on “site energy” and are not applicable for Oregon

Table 7-1 Commercial and Residential Building Types/Activities
{Adopted as modified and published in Section Z7.}

Table 7-2a Building Activity Site Energy Use Intensity Targets (EUI_{t1}) (I-P)
{Adopted as modified and published in Section Z7.}

Table 7-2b Building Activity Site Energy Use Intensity Targets (EUI_{t1}) (SI)
{Not adopted}

Table 7-3a Building Activity Source Energy Use Intensity Targets (EUI_{t1}) (I-P)
{Not adopted}

Table 7-3b Building Activity Source Energy Use Intensity Targets (EUI_{t1}) (SI)
{Not adopted}

Table 7-4a Building Activity Greenhouse Gas Intensity (GHGI) Targets (I-P)
{Not adopted}

Table 7-4b Building Activity Greenhouse Gas Intensity (GHGI) Targets (SI)
{Not adopted}

Table 7-5a Building Activity Electricity Site Energy Use Intensity Targets (EUI_{t1}) (I-P)
{Not adopted}

Table 7-5b Building Activity Electricity Site Energy Use Intensity Targets (EUI_{t1}) (SI)
{Not adopted}

Table 7-6a Building Activity Fossil-Fuel Site Energy Use Intensity Targets ($FEUI_{t1}$) (I-P)
{Not adopted}

Table 7-6b Building Activity Fossil-Fuel Site Energy Use Intensity Targets ($FEUI_{t1}$) (SI)
{Not adopted}

Table 7-7 Building Operating Shifts Normalization Factor
{Adopted as modified and published in Section Z7.}

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

Chapter 7 – Energy Use and GHG Emissions Analysis and Target Requirements

7.2.2 *EUI targets* for *buildings* with a single activity shall be calculated using Equation 7-1:

$$(EUI_t) = S \times (EUI_{t1}) \qquad (7\text{-}1)$$

{where (EUI_{t1}) is the *building* activity *EUI target* value in Table 7-2a for the appropriate *building* activity/ type and climate, and S is the *building* operating shifts normalization factor in Table 7-7.}

7.2.3 *EUI targets* for *buildings* with multiple activities shall be determined using weighted averages of *building* activity *EUI target* (EUI_t) for each area with a single activity using Equation 7-2 and shall be reported on Form B:

$$EUI_t = A_1 \times S_1 \times (EUI_{t1})_1 + \ldots + A_i \times S_i \times (EUI_{t1})_i + \ldots + A_n \times S_n \times (EUI_{t1})_n \qquad (7\text{-}2)$$

where

A_i = percentage of the gross floor area with single building activity i.

{$(EUI_{t1})_i$ = *building* activity target from Table 7-2a for space i}

S_i = operating shifts normalization factor from Table 7-7 for space i

Mixed-use buildings develop targets based on weighted average of floor space

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

Chapter 8 – Energy Audit with Decarbonization Assessment Requirements

8. ENERGY AUDIT WITH DECARBONIZATION ASSESSMENT REQUIREMENTS

8.1 {The *qualified energy auditor* shall complete Form D and submit to the *authority having jurisdiction* (*AHJ*) in a manner as specified by the *AHJ*. If an energy audit with decarbonization assessment is required (see Section 4), a copy of the audit summary results shall be included in the compliance documentation. Compliance with this standard shall be achieved by adopting *energy efficiency measures* (*EEMs*) that collectively reduce annual *building* energy use. The AHJ retains the ability to review and reject energy audits submitted for program compliance. The AHJ also retains the ability to monitor and evaluate energy auditors who perform energy audits for program compliance. Where energy auditors demonstrate repeated failure to

produce accurate and comprehensive audits, the AHJ may disqualify that auditor from performing future audit for program compliance.}

8.4 Energy Audit with Decarbonization Assessment. {This section outlines the general requirements for Level 2 energy audits for *buildings*. If required for compliance, the energy audit with decarbonization assessment shall be performed. A Level 2 energy audit with decarbonization assessment is a Level 2 *building* decarbonization assessment per all normative requirements in ANSI/ASHRAE/ACCA 211 [5], including Informative Appendix H, "Building Decarbonization Assessment."}

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

Chapter 9 – Implementation and Verification Requirements

9. IMPLEMENTATION AND VERIFICATION REQUIREMENTS

9.1 Developing and Implementing an Energy and Emissions Management Plan

9.1.1 Requirements. {*Buildings* that have *performance targets* shall comply with the requirements of Section 9.1.1.1. *Buildings* that do not have *performance targets* shall comply with the requirements of Section 9.1.1.2. All covered *buildings* shall implement an energy and emissions management plan as described in Section 5. The energy and emissions management plan shall include the elements listed in Section 5.}

9.1.1.1 Buildings with Performance Targets. {For *buildings* having *performance targets*, *energy efficiency measures* (*EEMs*) identified from the energy audit with decarbonization assessment shall be implemented in order to meet the *building*'s *energy use intensity* (*EUI*) *target*. Develop a written plan for maintaining the *building*'s *EUI* at or below the *EUI target*. Implementation of the *EEMs* and the plan for maintaining the *building* operations below the targets shall not result in an increase in the *building*'s *EUI*.}

{**Exceptions to 9.1.1.1:**

1. Investment criteria EEMs: Buildings may demonstrate compliance by implementing all of the EEMs that achieve the investment criteria in Normative Appendix X.
2. District energy system EEMs: Implementation of EEMs to district energy system(s) in lieu of or in combination with EEMs implemented directly to campus buildings is acceptable, provided the energy audit demonstrates the energy savings from the district energy system EEMs will be equal to or greater than the EEMs identified for the buildings. Energy savings shall be measured as a reduction in Btu per year.
3. Grouped buildings EEMs: Implementation of EEMs to non-Tier 1 covered buildings complying at the grouped buildings level is acceptable, provided the energy audit demonstrates the energy savings from the EEMs implemented at the grouped building level will result in a WNEUI at or below the energy target of the grouped buildings.}

9.1.1.2 Buildings without Performance Targets. {*Buildings* that do not have *performance targets* shall implement the *EEMs* that achieve the investment criteria in Normative Appendix X identified from the energy audit with decarbonization assessment. Implementation of the *EEMs* shall not result in an increase in the *building*'s *EUI*.}

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

Investment Criteria Pathway – Appendix X

- Modeled after Washington state's pathway
- Outlines the requirements for this compliance pathway which includes an energy audit **(ASHRAE Level 2)** and implementation of cost-effective optimized bundle of energy measures

Utility Energy Data Aggregation

- Provides requirements for larger qualified utilities (equal to or greater than 3% of retail sales) to provided aggregated data for upload into Energy Star Portfolio Manager

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

Investment Criteria Pathway – Appendix X

NORMATIVE APPENDIX X
INVESTMENT CRITERIA

X1. DEMONSTRATING COMPLIANCE WITH THE INVESTMENT CRITERIA

Buildings seeking compliance using the exception to Section 9.1.1.1 or Section 9.1.1.2 shall demonstrate compliance with the financial investment criteria of this appendix. The investment criteria shall be documented using a Level 2 energy audit and by performing the life-cycle cost analysis (LCCA) as per Section X2.2.

X1.1 General Guidance on Cost and Benefits for the Base Case and Alternative Case. The LCCA is a process that compares the base case of the existing *building* to the alternative case that implements *EEMs* proposed by the energy audit. Total life-cycle cost of each case is produced by the analysis, but the resulting cost and benefit of interest is the incremental life-cycle cost difference between each case. Measures and bundles of measures demonstrating positive life-cycle cost compared to the base case are to be implemented in accordance with Section 9.

The base case in the energy audit and LCCA will include all costs for energy, operations and maintenance, and other related costs scheduled in the analysis period. This may include replacement of existing equipment upon failure with code compliant equipment, in the analysis period of measure life of the alternative. All these costs are captured in the base case.

The alternate case captures all costs and benefits associated with implementing additional efficiency features beyond in-kind or code minimum replacement. All costs and all benefits of implementing *EEMs* required by Section 9 should be captured by the analysis. All documented costs may be considered.

Extended implementation periods are allowed by this standard. This allows more *EEMs* to be considered at time of failure, resulting in much of the cost of implementation being attributed to the base case. This requires including the implementation timing of the measure in the extended compliance period. Ultimately, this reduces the cost of the alternative case and will likely make *EEMs* that are not cost-effective as an early replacement be cost-effective as replacement upgrades.

X2. ENERGY AUDITS AND INVESTMENT CRITERIA PATHWAY

X2.1 *Buildings* qualifying under the investment criteria must complete a LCCA and implement an *optimized bundle* of *energy efficiency measures* that provide maximum energy savings without resulting in a *savings-to-investment ratio* of less than one.

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

Utility Energy Data Aggregation

Excerpt from draft:

Beginning on January 1, 2026, a QUALIFIED UTILITY shall provide AGGREGATED USAGE DATA to a QUALIFIED DATA RECIPIENT within sixty days after receiving the DATA RECIPIENT's written or electronic request. AGGREGATED USAGE DATA shall

a. *Include at least the most recent 60 consecutive months of COVERED USAGE DATA prior to the initial date the data was requested, regardless of whether the QUALIFIED DATA RECIPIENT had a business relationship with the building or PROPERTY during that time period;*
b. *Include all necessary data points for DATA RECIPIENTS to comply with reporting requirements to which they are subject, including any such data that the utility possesses;*
c. *Be provided an electronic document formatted for direct upload to the United States environmental protection agency's energy star portfolio manager;*
d. *Be provided to the DATA RECIPIENT in no less than monthly intervals*
e. *Be accompanied by a list of all the QUALIFIED UTILITY'S meters associated with the COVERED USAGE DATA. The QUALIFIED DATA RECIPIENT shall assist the QUALIFIED UTILITY in identifying meters associated with the COVERED COMMERCIAL BUILDING.*
f. *Be provided at no cost to the QUALIFIED DATA RECIPIENT*

OREGON DEPARTMENT OF ENERGY

DRAFT RULES FOR REVIEW

Tier 1 Covered Buildings Reporting Requirements Appendix Z

- Modeled after Washington state's appendix
- Provides reporting process and requirements for Tier 1 buildings, including building and energy information that will be required on reporting forms
    - Form A: Compliance with Standard 100
    - Form B: Building activity and energy use intensity target
    - Form C: Energy Use Intensity Calculations
    - Form D: Energy Audit Forms (*Audit Template*)
    - Form E: n/a
    - Form F: Investment Criteria Tool
    - Form G: Documentation of a building of historic significance
    - Form H: Application for Exemption Certificate
    - Form I: n/a
    - Form J: Grouped Buildings Compliance with Standard 100

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DRAFT RULES FOR REVIEW

Tier 2 Covered Buildings Reporting Requirements Appendix Y

- Provides benchmarking requirement for Tier 2 buildings, per HB 3409
- Does not require energy management plans, operations management plans for Tier 2 buildings
- Provides reporting process and requirements for Tier 2 buildings, including building and energy information that will be required on reporting forms
    - Form A: Compliance with energy benchmarking requirements
    - Form B: Building activity and energy use intensity target
    - Form C: Energy Use Intensity Calculations and energy benchmarking information

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Average EUI Analysis and Target Setting

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ENERGY USE INTENSITY TARGETS

From HB 3409:

(2)(a) In adopting the energy performance standard described in subsection (1) of this section, the department:

(A) Shall:

(i) Develop energy use intensity targets that are not more stringent than the average energy use intensity for each covered commercial building occupancy classification, adjusting as necessary for a covered commercial building's unique energy-using features;

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UNDERSTANDING HB 3409: BPS

	Directive	Key Detail
Building Performance	Establish energy performance standards	Standards are for commercial buildings >35,000sqft
Average EUI	**Set energy use intensity targets (EUIt) for specific building types**	The **average** EUI serves as the **minimum allowable** EUIt for buildings.
Compliance Pathways	Buildings can comply using multiply pathways	Conditional compliance through energy audits, energy investments and energy management plans

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PROCESS OVERVIEW

To analyze energy use data and develop targets, ODOE worked with a team of consultants from SBW, Unrooz, and 2050 Institute

Step 1: Data Collection

Objective: Gather EUI data from various sources.

Sources Include: Regional, national, and local EUI data.

Step 2: 2019 Northwest Average EUIs

Objective: Determine the baseline EUI for the Northwest.

Approach: Combine regional and national data to establish the 2019 average.

Step 3: Oregon Average EUIs

Objective: Tailor EUI benchmarks for Oregon.

Approach: Make Oregon adjustments to specific building types and use trends to adjust to Oregon average EUIs.

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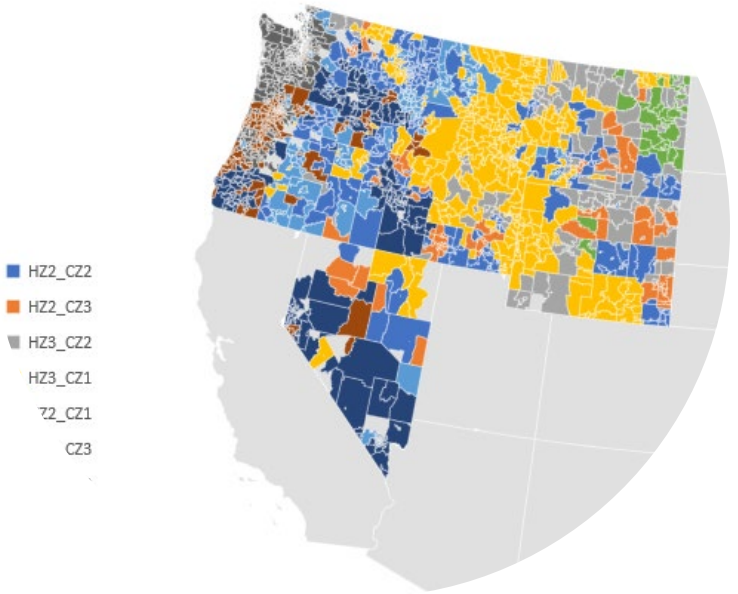
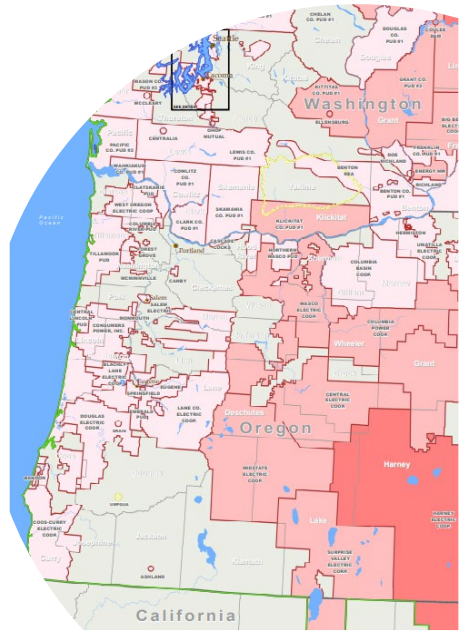
DATA AVAILABLE FOR AVERAGE EUIS

Northwest Regional Data

Climate Adjusted National Data

Oregon and Washington Data





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DEVELOPING OREGON AVERAGE EUIS

Objective: Tailor EUI benchmarks for Oregon.

Approach: Make Oregon adjustments to specific building types and use trends to adjust to Oregon average EUIs.

Establish "Oregon Average EUIs"

- Compare Oregon, Portland, and Seattle data against 2019 Northwest Average EUIs
- Recommend custom Oregon adjustments to specific building types
- Apply custom adjustments to specific building types in the 2019 Northwest Average EUIs
- Apply a 2027 adjustment factor to establish the Oregon Average EUIs

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PROCESS OVERVIEW

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TARGET SETTING CRITERIA

EUI targets must:	Source:
Be weather normalized, net energy	HB 3409
Be equal to or greater than average EUIs	HB 3409
Include two or more climate zones	HB 3409
Adjust as necessary for unique energy using features	HB 3409
Consider regional and local building energy use	HB 3409
Exclude EV supply equipment	HB 3409
Maximize GHG reductions	HB 3409
Recognize flexible loads (EUIt adjacent)?	RAC

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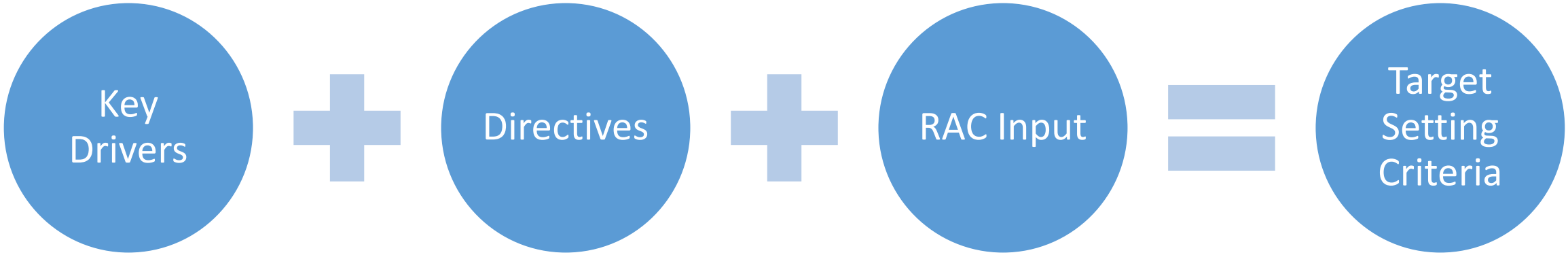
ESTABLISHING TARGET SETTING CRITERIA



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DRAFT EUI TARGETS

Table 7-2a Building Activity Site Energy Targets (EUI_{t1}) (I-P Units)

No.	Building Activity Type[1,2] Portfolio Manager Types	Portfolio Manager Subtypes	Subtypes: Detailed	Notes	Climate Zone 4C EUI_t	Climate Zone 5B EUI_t
1	Banking/financial services	Bank branch			53	55
2	Banking/financial services	Financial office			53	55
3	Education	Adult education			48	49
4	Education	College/university		8, 9	79	79
5	Education	K-12 school	Elementary/middle school	9	39	40
6	Education	K-12 school	High school	9	43	44
7	Education	Preschool/daycare			60	60
8	Education	Vocational school			48	49
9	Education	Other—education			48	49
10	Entertainment/public assembly	Aquarium			50	54
11	Entertainment/public assembly	Bar/nightclub			50	54
12	Entertainment/public assembly	Bowling alley			82	88
13	Entertainment/public assembly	Casino			50	54
14	Entertainment/public assembly	Convention center			63	65
15	Entertainment/public assembly	Fitness center/health club/gym			82	88
16	Entertainment/public assembly	Ice/curling rink			82	88
17	Entertainment/public assembly	Indoor arena			88	91
18	Entertainment/public assembly	Movie theater			88	91
19	Entertainment/public assembly	Museum			88	91
20	Entertainment/public assembly	Performing arts			50	54
21	Entertainment/public assembly	Race track			88	91
22	Entertainment/public assembly	Roller rink			82	88
23	Entertainment/public assembly	Social/meeting hall			63	65
24	Entertainment/public assembly	Stadium (closed)			88	91
25	Entertainment/public assembly	Stadium (open)			88	91
26	Entertainment/public assembly	Swimming pool			82	88
27	Entertainment/public assembly	Zoo			50	54
28	Entertainment/public assembly	Other—entertainment/public assembly	Entertainment/culture		88	91
29	Entertainment/public assembly	Other—entertainment/public assembly	Library		38	40
30	Entertainment/public assembly	Other—entertainment/public assembly	Other public assembly		50	54
31	Entertainment/public assembly	Other—entertainment/public assembly	Recreation		82	88
32	Entertainment/public assembly	Other—entertainment/public assembly	Social/meeting		63	65
33	Entertainment/public assembly	Other—recreation			82	88
34	Entertainment/public assembly	Other—stadium			88	91
35	Food sales and service	Bar/nightclub			281	293
36	Food sales and service	Convenience store with gas station			179	185
37	Food sales and service	Convenience store without gas station			179	185
38	Food sales and service	Fast food restaurant			266	282
39	Food sales and service	Food sales	Grocery/food market		153	157
40	Food sales and service	Food sales	Convenience store with gas		179	185
41	Food sales and service	Food sales	Convenience store		179	185
42	Food sales and service	Food sales	Other food sales			
43	Food sales and service	Food service	Fast food		266	282
44	Food sales and service	Food service	Restaurant/cafeteria		281	293
45	Food sales and service	Food service	Other food service			
46	Food sales and service	Restaurant			281	293
47	Food sales and service	Supermarket/grocery store			153	157
48	Food sales and service	Wholesale club/supercenter		4		
49	Food sales and service	Other—restaurant/bar			281	293
50	Healthcare	Ambulatory surgical center			92	99
51	Healthcare	Hospital (general medical and surgical)		9	203	203
52	Healthcare	Medical office		3		
53	Healthcare	Outpatient rehabilitation/physical therapy			92	99
54	Healthcare	Residential care facility			79	83
55	Healthcare	Senior care community			79	83
56	Healthcare	Urgent care/clinic/other outpatient			92	99
57	Healthcare	Other—specialty hospital			203	203

DRAFT EUI TARGETS

No.	Building Activity Type[1,2] Portfolio Manager Types	Portfolio Manager Subtypes	Subtypes: Detailed	Notes	Climate Zone 4C EUI_t	Climate Zone 5B EUI_t
58	Lodging/residential	Barracks			63	64
59	Lodging/residential	Hotel	Hotel		65	69
60	Lodging/residential	Hotel	Motel or inn		83	87
61	Lodging/residential	Multifamily housing			32	33
62	Lodging/residential	Prison/incarceration		9	100	105
63	Lodging/residential	Residence hall/dormitory			63	64
64	Lodging/residential	Residential care facility			79	83
65	Lodging/residential	Senior care community			79	83
66	Lodging/residential	Other—lodging/residential			78	81
67	Mixed-use	Mixed-use property		4		
68	Office	Medical office		3		
69	Office	Office	Admin/professional office		50	52
70	Office	Office	Bank/other financial		53	55
71	Office	Office	Government office		57	59
72	Office	Office	Medical office (diagnostic)	3	77	83
73	Office	Office	Other office		57	59
74	Office	Veterinary office			92	99
75	Office	Other—office			57	59
76	Public services	Courthouse			100	105
77	Public services	Fire station			64	67
78	Public services	Library			38	40
79	Public services	Mailing center/post office			80	83
80	Public services	Police station			64	67
81	Public services	Prison/incarceration		9	100	105
82	Public services	Social/meeting hall			63	65
83	Public services	Transportation terminal/station			50	54
84	Public services	Other—public service			48	51
85	Religious worship	Worship facility			50	54
86	Retail	Automobile dealership			52	58
87	Retail	Convenience store with gas station			179	185

No.	Building Activity Type[1,2] Portfolio Manager Types	Portfolio Manager Subtypes	Subtypes: Detailed	Notes	Climate Zone 4C EUI_t	Climate Zone 5B EUI_t
88	Retail	Convenience store without gas station			179	185
89	Retail	Enclosed mall		5	38	42
90	Retail	Lifestyle center	Enclosed mall	5	38	42
91	Retail	Lifestyle center	Other retail		40	45
92	Retail	Lifestyle center	Retail store		40	45
93	Retail	Lifestyle center		4		
94	Retail	Retail store			46	50
95	Retail	Strip mall		4		
96	Retail	Supermarket/grocery store			153	157
97	Retail	Wholesale club/supercenter		4		
98	Retail	Other—retail/mall	Enclosed mall	5	38	42
99	Retail	Other—retail/mall		4	40	45
100	Technology/science	Data center		6		
101	Technology/science	Laboratory			180	188
102	Technology/science	Other—technology/science	Other service		48	51
103	Services	Personal services (health/beauty, dry cleaning, etc.)			48	51
104	Services	Repair services (vehicle, shoe, locksmith, etc.)	Repair shop		45	48
105	Services	Repair services (vehicle, shoe, locksmith, etc.)	Vehicle service/repair shop		46	49
106	Services	Repair services (vehicle, shoe, locksmith, etc.)	Vehicle storage/ maintenance		33	35
107	Services	Other—services			48	51
108	Utility	Energy/power station		7		
109	Utility	Other—utility		7		
110	Warehouse/storage	Self-storage facility			23	29
111	Warehouse/storage	Distribution center			25	34
112	Warehouse/storage	Nonrefrigerated warehouse			23	29
113	Warehouse/storage	Refrigerated warehouse			76	79

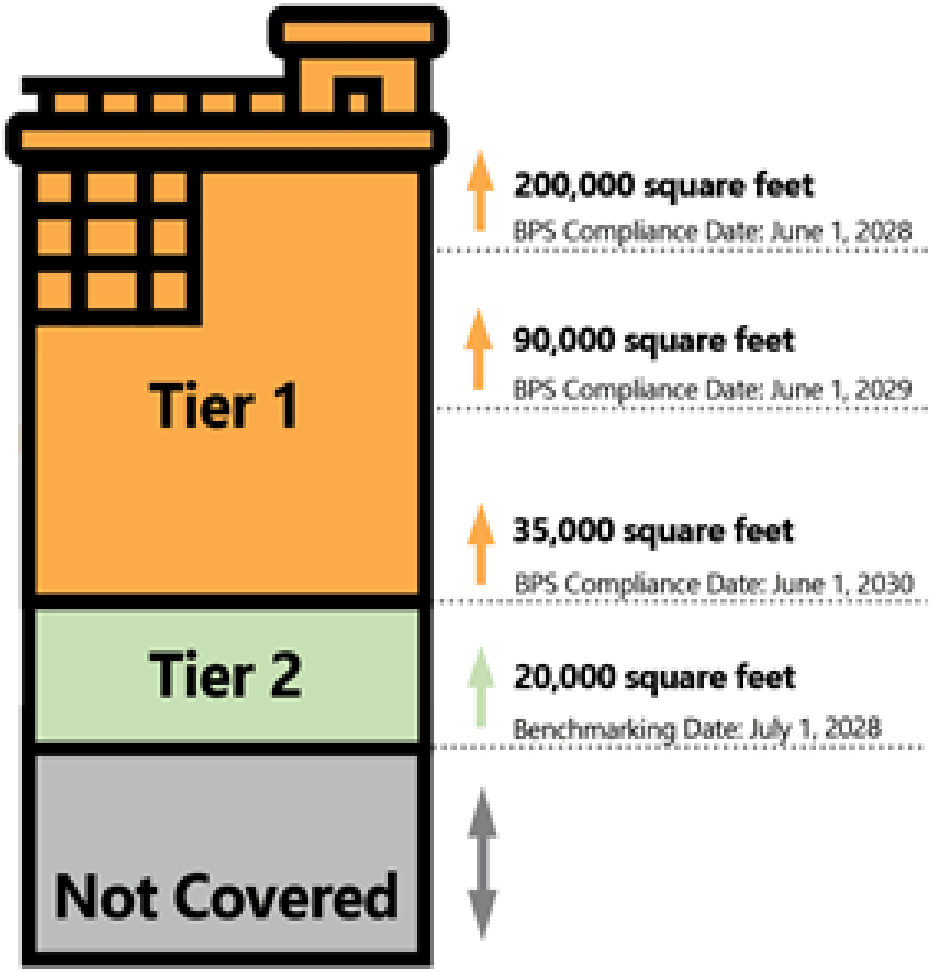
Notes:

What’s Next and Other Activities

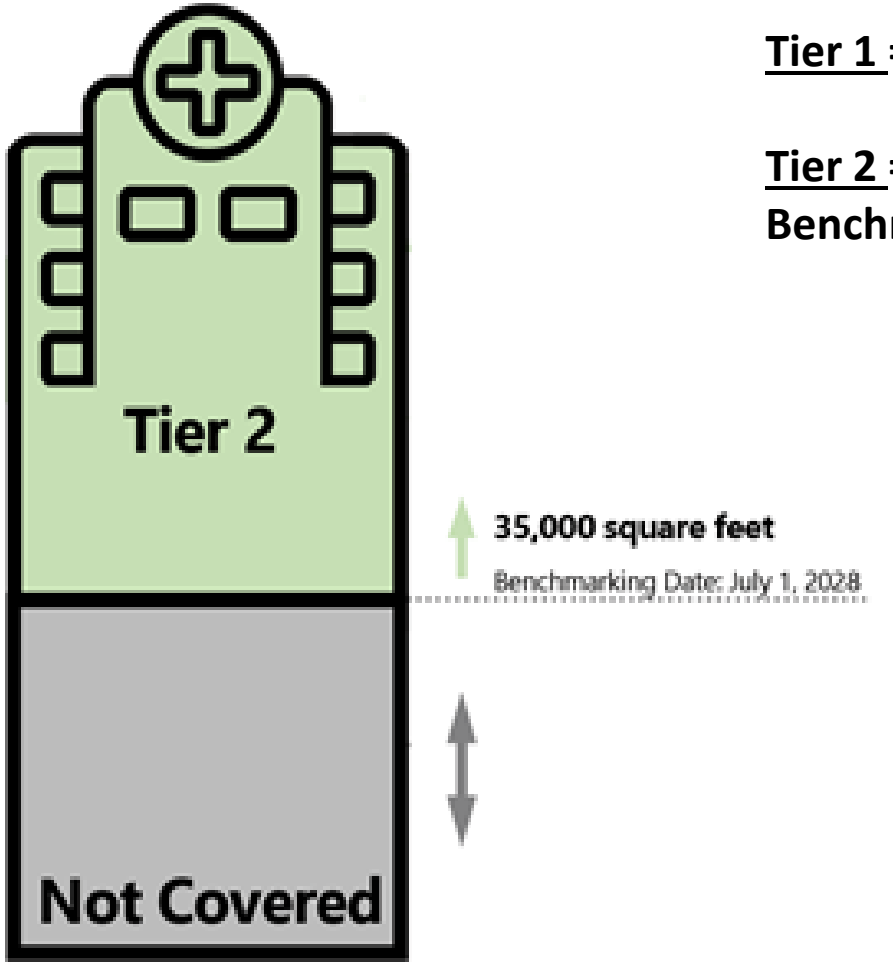
OREGON DEPARTMENT OF ENERGY

BUILDING PERFORMANCE STANDARDS - SCOPE

Commercial (Non-Residential), Hotels, and Motels



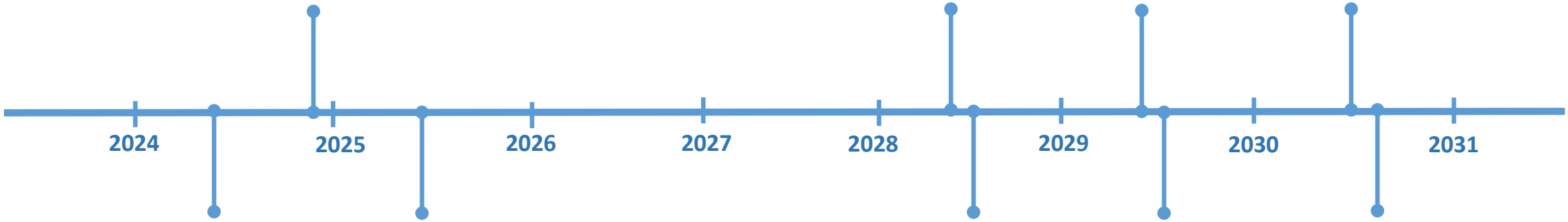
Multifamily Residential, Hospitals, Schools, Dormitories, and University Buildings



<u>Tier 1</u> = BPS Compliance

<u>Tier 2</u> = Energy Benchmarking / Reporting

BPS PROGRAM TIMELINE – KEY DATES



December 31, 2024:
ODOE Rulemaking complete

2024: Multiple stakeholder and RAC meetings to support rulemaking

July 1, 2025:
ODOE to notify Tier 1 and Tier 2 Building Owners

June 1, 2028:
200,000+ sq. ft. Tier 1 compliance required

July 1, 2028:
Tier 2 building benchmarking required

June 1, 2029:
90,000+ sq. ft. Tier 1 compliance required

July 1, 2029:
- ODOE evaluation of Tier 2 benchmarking data
- ODOE update rulemaking and EUI targets (every 5 years after)

June 1, 2030:
35,000+ sq. ft. Tier 1 compliance required

October 1, 2030:
ODOE report to Governor and Legislature on recommendation for Tier 2 BPS

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BPS SCHEDULE – OTHER ACTIVITIES

- Oregon-modified version of ASHRAE 100-2024, integrated with Oregon revisions to be made available on ODOE website for free download.
  Timing: ~ January 2025

- ODOE to develop incentive program for early and voluntary adoption. Additional rulemaking will occur.
  Timing: by mid 2025
  Considerations: incentive approach, availability for planning activity (audits, energy management plans, etc.), allocations, equitable distribution

- ODOE to notify Tier 1 and Tier 2 covered building owners
  Timing: by July 1, 2025. ODOE is currently working with tax assessors to identify covered buildings and owners

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BPS SCHEDULE – OTHER ACTIVITIES

- Develop education activities and implementation materials for building owner and industry support.
  Timing: 2025 and beyond

- BPS and Reporting Compliance Portal: ODOE is working through the software evaluation and project management process.
  Timing: Expected to be available in early 2026

- **Coordination with the design, engineering, architecture, and energy community to help building owners with energy improvements and compliance!**

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Thank You

Blake Shelide, PE

Manager, Codes and Standards

blake.shelide@energy.oregon.gov

https://www.oregon.gov/energy/save-energy/Pages/BPS.aspx

https://www.oregon.gov/energy/Get-Involved/Pages/BPS-Rulemaking.aspx