Building Seattle Better

Improving Performance in Existing Buildings

Technical Advisory Group – Meeting #5

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AGENDA

- Welcome
- Target cycles (compliance intervals)
- Building Tune-Ups
- Alternative compliance
- Extensions and Exemptions
- Wrap Up

TAG Meetings Topic Schedule

TAG Meeting	Draft Topics
Meeting #1 ✓	• Introduction, background, context
Meeting #2 ✓	• **Policy pathways and parameters:** discussion on ordinance vs rule; zeroing in on TAG focus and priority near-term decisions • **Envisioning Outcomes:** input on how to define/assess a successful and equitable GHG BPS policy • **Covered buildings:** recap property type, size, vintage considerations • **Measuring outcomes:** overview discussion on possible metrics, structures, and key considerations
Meeting #3 ✓	• **Metrics:** input on how to structure Seattle carbon-based metric and other relevant metrics
Meeting #4 ✓	• **Targets:** final performance targets, interim targets
Meeting #5 →	• **Compliance intervals and compliance timing:** how many cycles, timing of cycles, relationship with final and interim targets • **Alternative compliance, exemption, exceptions** • **Building Tune-Ups**
Meeting #6	• **Review draft policy framework:** e.g., energy vs emissions targets, target cycles, alternative compliance, alignment with state, target and impact analysis • **Closing:** Synthesis and summary of TAG process and input

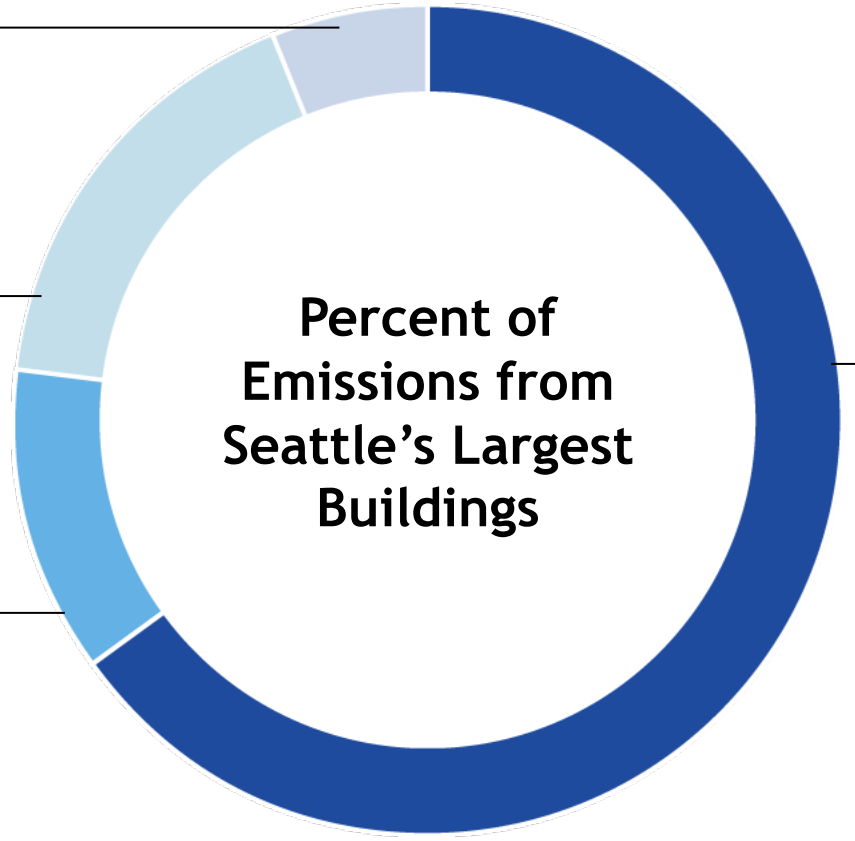
Target Cycles (Intervals)

Performance standards will focus on existing nonresidential and multifamily buildings 20,000 ft² and larger.

6% Multifamily
20,000-50,000 ft²
1,014 Properties | 20,870 MT/CO2e

17% Multifamily
50,000 ft²+
605 Properties | 61,090 MT/CO2e

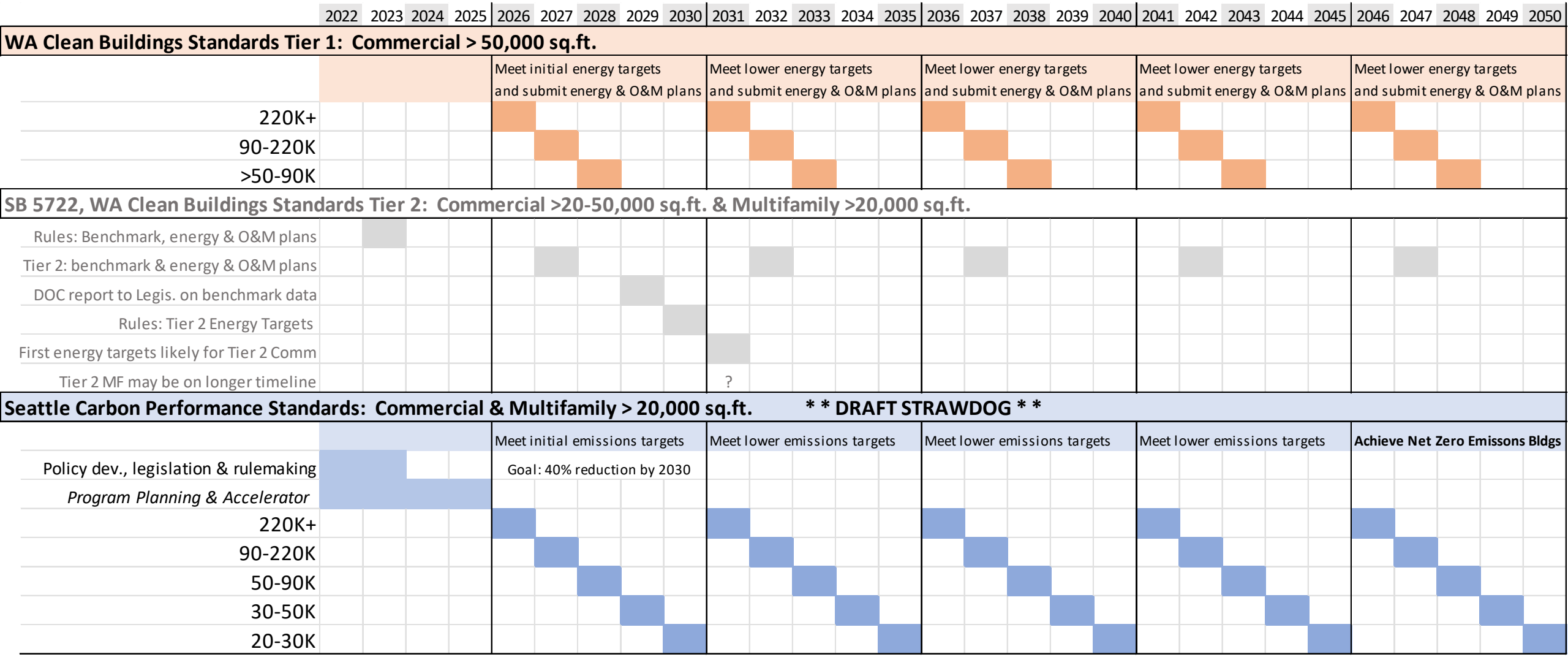
12% Nonresidential
20,000-50,000 ft²
709 Properties | 40,970 MT/CO2e



65% Nonresidential
50,000 ft²+
740 Properties | 232,750 MT/CO2e

Source: 2019 Energy Benchmarking data

Target Cycles (Intervals)



Breakout Discussion

Intent to align initial Seattle emissions targets for commercial buildings >50K with WA Clean Buildings timeline

- 2026: 220K+
- 2027: 90-220K
- 2028: >50K

Questions:

- Should the timeframe between meeting consecutively lower emissions targets be 5 years, so that it mirrors the state's energy target cycles?
- Should the time timeframe between meeting consecutively lower emissions targets be 10 years instead, but there is a performance check-in at 5 years (to ensure the emissions reductions are persistent)?

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Seattle Carbon Performance Standards: Comm / MF > 20,000 sq.ft.														
					Meet initial emissions targets (Goal: 40% reduction by 2030)									
Commercial														
220K+	(205)													
90-220K	(390)													
50-90K	(415)													
30-50K	(430)													
20-30K	(465)													
Multifamily														
220K+	(110)													
90-220K	(320)													
50-90K	(370)													
30-50K	(560)													
20-30K	(625)													

Breakout Discussion

- Which building cohorts (MF >50K, MF 20-50K, Comm 20-50K) should meet targets sooner, or later?
  - e.g. MF >50K consistent with Commercial >50K in 2026-2028? Beginning 2029?
  - Commercial 20-50K and/or MF 20-50K beginning in 2029?
- Should certain cohorts be delayed until 2031 or beyond? Pros/Cons
- Should affordable MF housing have its own timeline?
  - for subsidized housing only?
  - include “naturally occurring affordable housing,” market-rate housing whose rents are at levels appropriate for defined income levels (e.g. 80 or 100% of area median income)?
  - Why? Pros/cons of acceleration vs delaying.

Building Tune-Ups

Seattle Building Tune-Ups Refresher

- City Ordinance passed in 2016.
- Low and No-Cost O + M
- Nonresidential ≥50,000 every five years
  - 1st round implementation complete
  - 2nd round will be required (may be minor modifications)
  - Program Continuation (3rd cycle+) TO BE DETERMINED
- Prescriptive set of 39 assessment elements
  - 20 required implementation if deficient
  - 19 voluntary implementation if deficient
- Person meeting "Tune-Up Specialist" reqs. reports
- "Tune-Up Accelerator" - with US DOE funding and City Light support, incentives for early compliance

SEATTLE building tune-ups

Size Cohorts	1st Round Deadlines*	2nd Round Deadlines
200K SF+	Mar. 1, 2019	Oct 1, 2023
100K-199K SF	Oct. 1, 2019	Oct 1, 2024
70K-99K SF	Apr. 1, 2021	Oct 1, 2025
50K-69K SF	Oct. 1, 2021	Oct 1, 2026

**Covid extensions made dates inconsistent*

www.seattle.gov/buildingtuneups

How Effective Have Tune-Ups Been in Reducing Energy and Emissions?

~5% first year energy savings – with a wide distribution

- Very rough estimates of energy savings from Tune-Ups suggest ~4-7% typical first year energy savings
- Wide range of outcomes from small increases in energy to 20% energy savings
- We expect drop-offs in energy savings before five-year cycle but don't have data on this

	# Buildings	Estimated Energy Savings
OSE Internal	~50 buildings	**6.8%** *average* savings in first year
LBNL	~80 buildings	**4.1%** *median* savings in first year
Seattle Public Schools	~50 buildings	**4.6%** *average* savings in first year

WA Clean Buildings O+M Requirements

Tier 1 Buildings – Nonresidential 50K+

- O+M Program developed and submitted that defines equipment, systems to be maintained and a plan defining objectives
- Living document and continuous in nature
- Building systems define frequency of tasks to meet condition indicators and performance objectives
- Minimum one year of implementation in advance of deadline
- No template/form to follow

Tier 2 Buildings – Multifamily 50K+ plus Nonresidential + Multifamily 20K-50K

- To be defined in rulemaking
- Requirements will be “consistent” with Clean Buildings RCW energy management + O+M

How Does Seattle's Building Tune-Ups (BTU) Policy Compare to WA Clean Buildings O+M Requirements

	Tune Ups	Clean Buildings
Systems Covered	HVAC, DWH, Envelope, Lighting, Water Use	Mostly the same (no water use and must include refrigeration and on-site power)
Frequency	Every 5 Years	No specific frequency – defined by building O+M plan to maintain systems
Rigor	More defined tasks, more documentation and review by staff	Less defined tasks. Requires setting and hitting objectives and indicators
Exemptions	A range of options for high performance, equivalency, or special circumstances	No exemptions or alternative compliance

Seattle BPS: Some Possible Options for BTU

1. Include O+M requirements in Seattle BPS policy but align with State
   - Adjust Seattle BTU policy to meet all of State O+M requirements so it acts as an alternative compliance pathway (**contingent on State okay)

2. Phase out BTU requirements, State implements O+M as is
   - OSE phases out BTU after round 2, the State manages O+M policy
   - OSE provides education and support to help the market continue O+M practices

Discussion

- What do you consider the pros and cons of maintaining a Seattle BTU requirement? (next slide)
  - *Is there a role for BTU as an optional action between longer Seattle BPS compliance cycles?*
  - *Are there O&M (BTU) components that should be incorporated into Seattle BPS? (Either from the existing BTU or something new that addresses health or IAQ.)*

Discussion: Pros and Cons of Keeping BTU

Pros of BTU Stays	Cons of BTU Stays
Greater City oversight & assurance O&M happening	Greater regulatory complexity
Could gain more energy savings & better operating buildings	Cost for owners
Opportunity to address health (IAQ)	Administrative burden to city

SEATTLE building tune-ups


Alternative compliance

Alternative Compliance

- Standard Compliance should ideally work for 80% (80/20 rule)
- Alternative Compliance
  - optional approaches that achieve the same goal, e.g.
    - Boston has universal targets by building type. Allows ‘individual compliance schedules’, approved by a review board, if meet 50% emissions reduction by 2030 and 100% by 2050.
    - Denver: allows prescriptive option for smaller buildings in which 70% of space and water heating is electrified, and all lighting is replaced with LEDs.
  - optional approaches due to special circumstances
    - Boston: ‘hardship compliance plan’ with alternate timeline and/or targets for special circumstances, e.g. historic buildings, affordable housing refinancing, financial hardship

Discussion

- Do these examples make sense to you?
  - If Seattle adopts universal targets by building type, allow an individualized compliance pathway
    - Who? Under what conditions?
  - Portfolio level approach
    - Would need to determine which entities it applies to (public only? if private, how address buying/selling individual buildings)
    - Should portfolios achieve an accelerated timeline?
  - Prescriptive approach – agree to certain pre-defined equipment replacements / measures
    - Who? - Consider for MF or small commercial only?
- What other circumstances could be addressed through alternative compliance?

Extensions & Exemptions

Extensions

- Regular compliance with a target can be met, but an extension is needed.
  - Could be granted for one or a few years.
- Examples:
  - Building on track to meet targets but delayed by equipment availability or project schedule delay.
  - Need more time for M&V of emissions reduction of the upgrade.
  - Unforeseen events make reporting a challenge: BTU's Covid extension for healthcare facilities

Exemptions: Building Level

- Entire building must have significant barrier to compliance, such that even an “alternative compliance” path isn’t feasible.
- Exemption could be one compliance cycle or all cycles, depending on exemption reason.
- Examples:
  - Demolition permitted & scheduled = all cycles
  - Severe financial distress (at auction, foreclosure, etc…) = one cycle

Discussion: Building Level Exemptions

- What building level exemptions should be considered for Seattle BPS?

Exemptions: Other Types & Discussion

- Certain uses or equipment in a building may have a significant barrier to compliance, creating a need for a “partial” exemption.
  Possible Examples:
  - Unique spaces & uses
  - Space types
  - Space Sizes
  - Certain Equipment
- These exemptions could be noted in ordinance and further detailed in the Rule. (Allows for updating.)

Photo: dotshock / Shutterstock

Discussion: What types of exemptions should be considered?

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- www.seattle.gov/building-performance-standards
- Share comments at cleanbuildings@seattle.gov