

Building Seattle Better

Improving Performance in Existing Buildings

Technical Advisory Group – Meeting #6



06/02/2022

Office of Sustainability & Environment



City of Seattle


Technical Advisory Group: Meeting #6

AGENDA

- Welcome
- Recap (10 min.)
 - Stakeholder Engagement Summary
 - TAG Meetings 4 & 5
- SBW Analysis Results (20 min.)
- Draft Policy Framework (~80 min.)
- Wrap Up (5 min.)



TAG Meetings Topic Schedule

| TAG Meeting | Draft Topics |
|---|---|
| Meeting #1 ✓ | <ul style="list-style-type: none"> • Introduction, background, context |
| Meeting #2 ✓ | <ul style="list-style-type: none"> • 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 ✓ | <ul style="list-style-type: none"> • Metrics: input on how to structure Seattle carbon-based metric and other relevant metrics |
| Meeting #4 ✓ | <ul style="list-style-type: none"> • Targets: final performance targets, interim targets |
| Meeting #5 ✓ | <ul style="list-style-type: none"> • 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  | <ul style="list-style-type: none"> • SBW analysis results • Review draft policy framework • Closing |



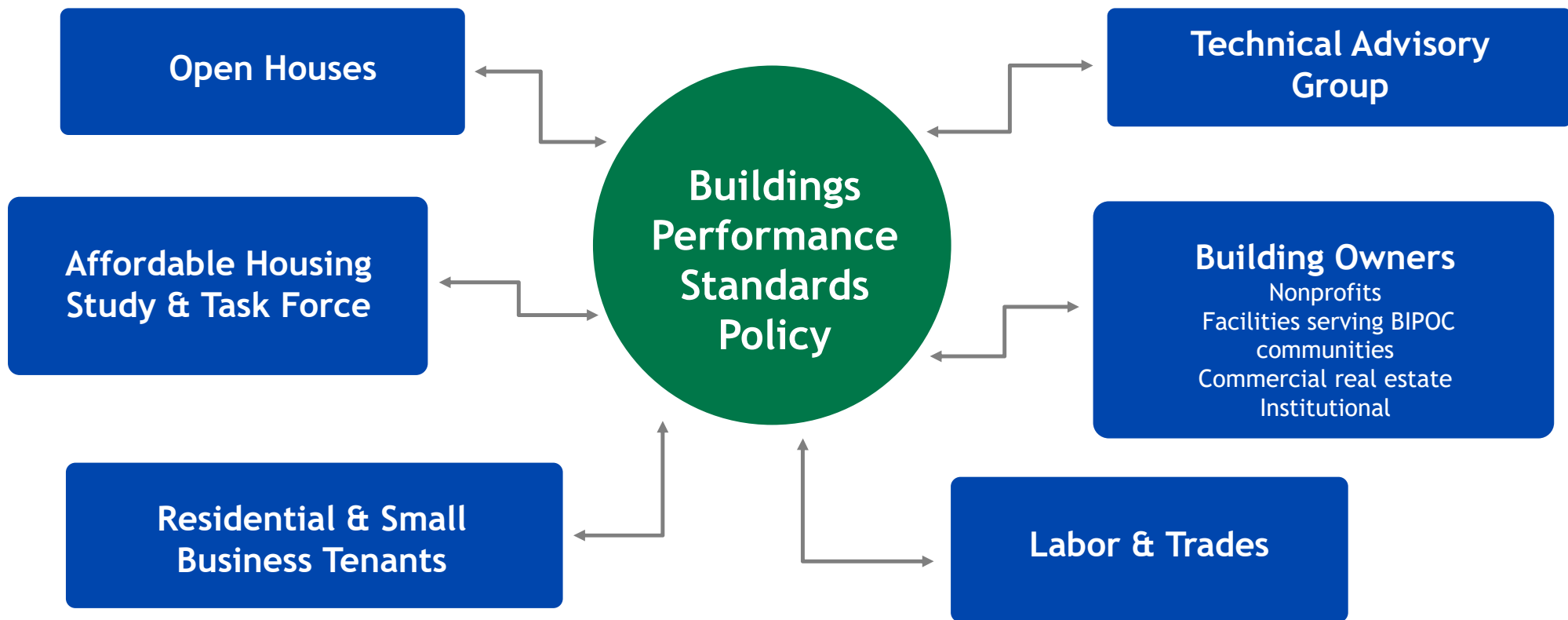


Stakeholder Engagement Summary

Nov '21 - May '22



Many voices are helping shape this policy.



Cross-Cutting Themes



Timing – communicate targets now to provide long lead time for owners to plan and the labor workforce to grow, diversify and transition.



Flexibility – create a streamlined but flexible policy to allow for a diversity of compliance needs by ownership and building types.



Support – increased financial incentives (equipment & electric service), lower interest financing and robust technical help are critical for all types of owners and buildings – and to the successful implementation of a BPS policy. This should be prioritized for under resourced building owners.

Stakeholder Engagement - Highlights to Date

- **Open House in April:** 350 people & 80 questions and comments
- **Technical Advisory Committee:** 14 members, 6 meetings
- **Affordable Housing Advisory Task Force (HDC):** 25 members, 7 meetings, draft recommendations
- **Equity Engagement**
 - Green New Deal Oversight Board Presentation, Puget Sound Sage, Beacon Hill Council, Low Income Housing Institute Tour of Frye Apartments.
 - Nonprofit-Owned Buildings (Wing Luke Museum, United Way, Space Needle + Chihuly Holy Names Academy, Africatown Community Land Trust, Temple De Hirsch, Chief Seattle Club, Salvation Army)
 - Multifamily Tenant Survey and Multifamily/Small Business Tenants (DON – underway)
- **Labor Organizations**
 - Roundtables: Seattle Building Trades, UA Local 32, Insulators Local 7, LiUNA
 - 2020-2021: IBEW Local 46, UA Local 32, Teamsters Local 176, Blue Green Alliance, LiUNA, WSLC, MLK Labor
- **Climate Advocates**
 - Sierra Club + Environmental Coalition, Green Buildings Now, People for Climate Action, Shift Zero, NW Energy Coalition Lunch & Learn



Stakeholder Engagement - Highlights to Date (cont.)

- **Nonresidential Building Owners**
 - Seattle 2030 District, BOMA Seattle/King County, NAIOP WA State Chapter, IFMA Seattle Chapter, Urban Land Institute NW, BOMA Lunch & Learn
 - U. of Washington, Seattle Hotel Association
 - Midsize Nonresidential Buildings Cohort, Samis Land Company (Pioneer Square Building Owner)
 - Hospitals (Kaiser, Swedish, Fred Hutch, Seattle Children's)
- **Multifamily Housing Building Owners**
 - Rental Housing Association (RHA) and WA Multifamily Housing Association (WMFHA)
 - WA State Community Associations Institute (WSCAI) – Condos
- **Building Professionals**
 - American Institute of Architects (AIA) Seattle, Historic Seattle, WA Trust for Historic Preservation
- **City Departments and State of WA**
- **District Thermal Energy** - CenTrio





Recap

Recap from TAG Meetings 4 & 5

- Mixed support for individualized and universal targets
- Option to comply as a portfolio provides flexibility to owners, but:
 - Could delay improvements to buildings most needing them
 - Unfair to individual building owners
- Detailed decarbonization plans not favored
 - Consider using for alternative compliance
- Uncertainty around ability to meet 2030 goal of 39% emissions reduction
 - Some DHW and space heating may be doable by 2030
 - Harder for some, e.g., school districts, buildings with newer equipment



Recap from TAG Meetings 4 & 5

- 5-year intervals favored over 10-year
 - Consistent with state
 - Keep requirement in sight
- Targeting zero emissions by 2040 plausible for many buildings
 - Some buildings may need until 2050
- Later initial compliance (after 2030) recommended for some sectors
 - Multifamily comply after 2030, but assist to meet targets (especially affordable MF)
 - Potential nonresidential 20-50K SF comply after 2030
 - But have some education & engagement, like a light required planning step before



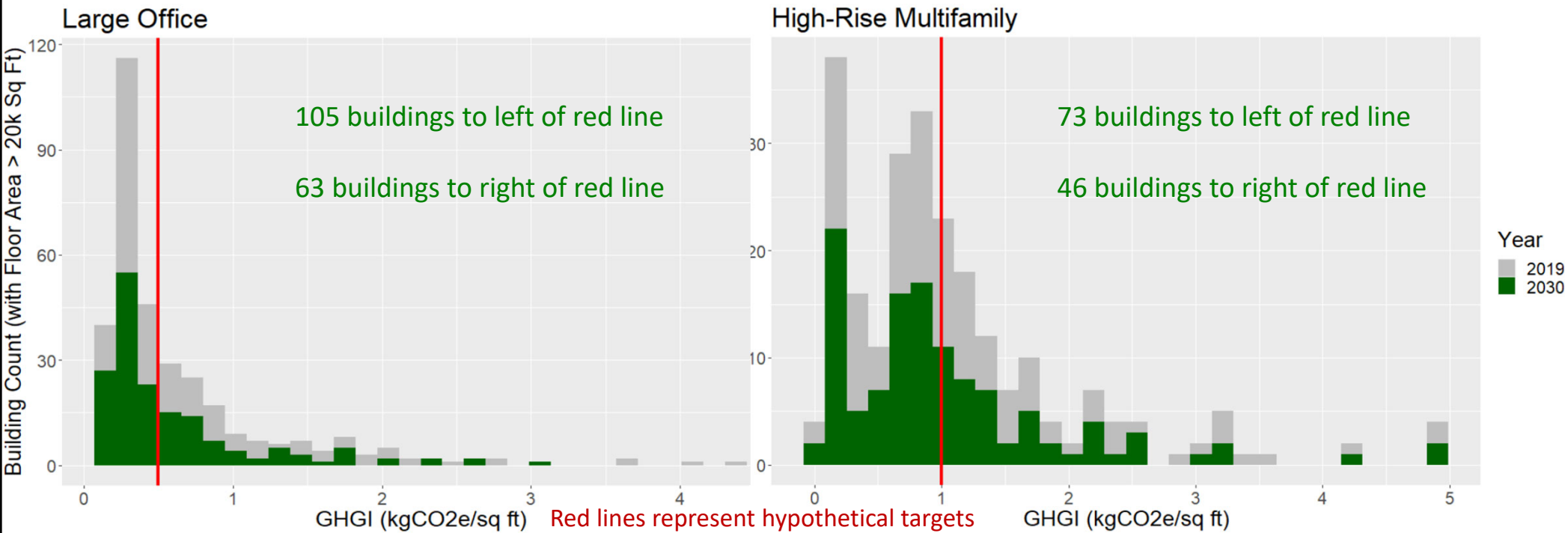
SBW Analysis Results



Distribution of GHGs by Building Type



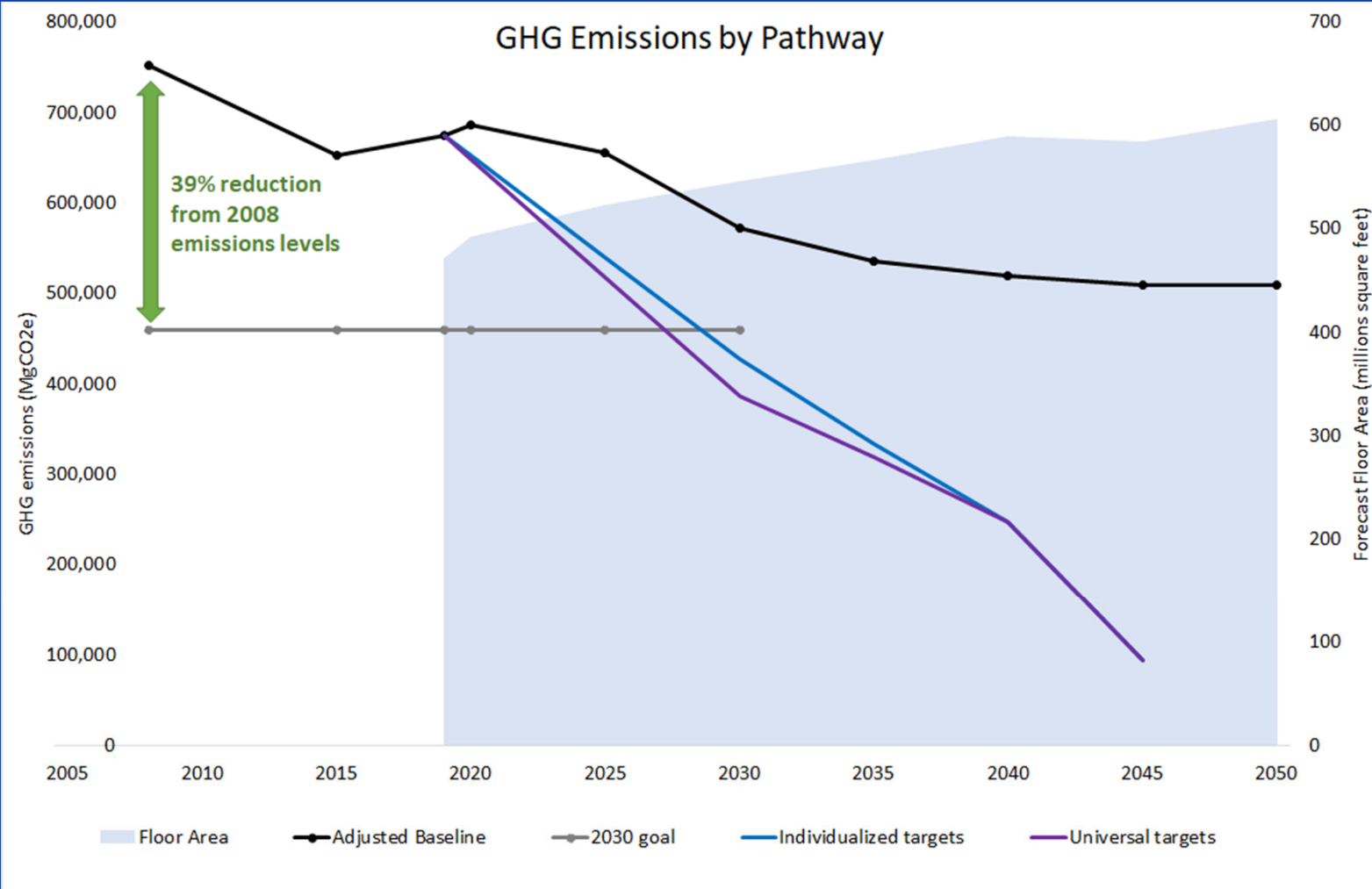
Distribution of GHGs - two examples

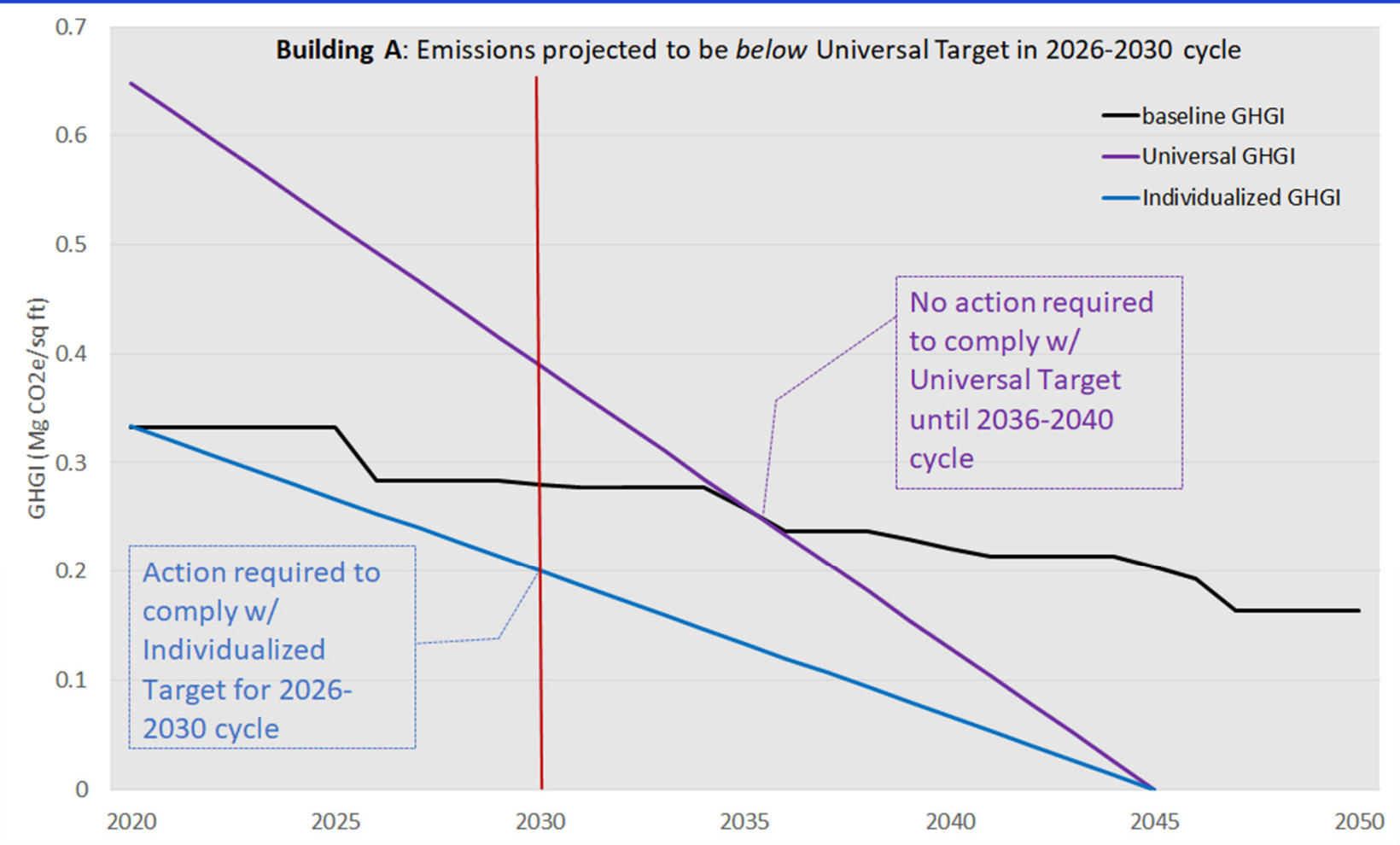


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Emissions Reductions with Targets

For > 20k sq ft buildings reaching zero emissions in 2045

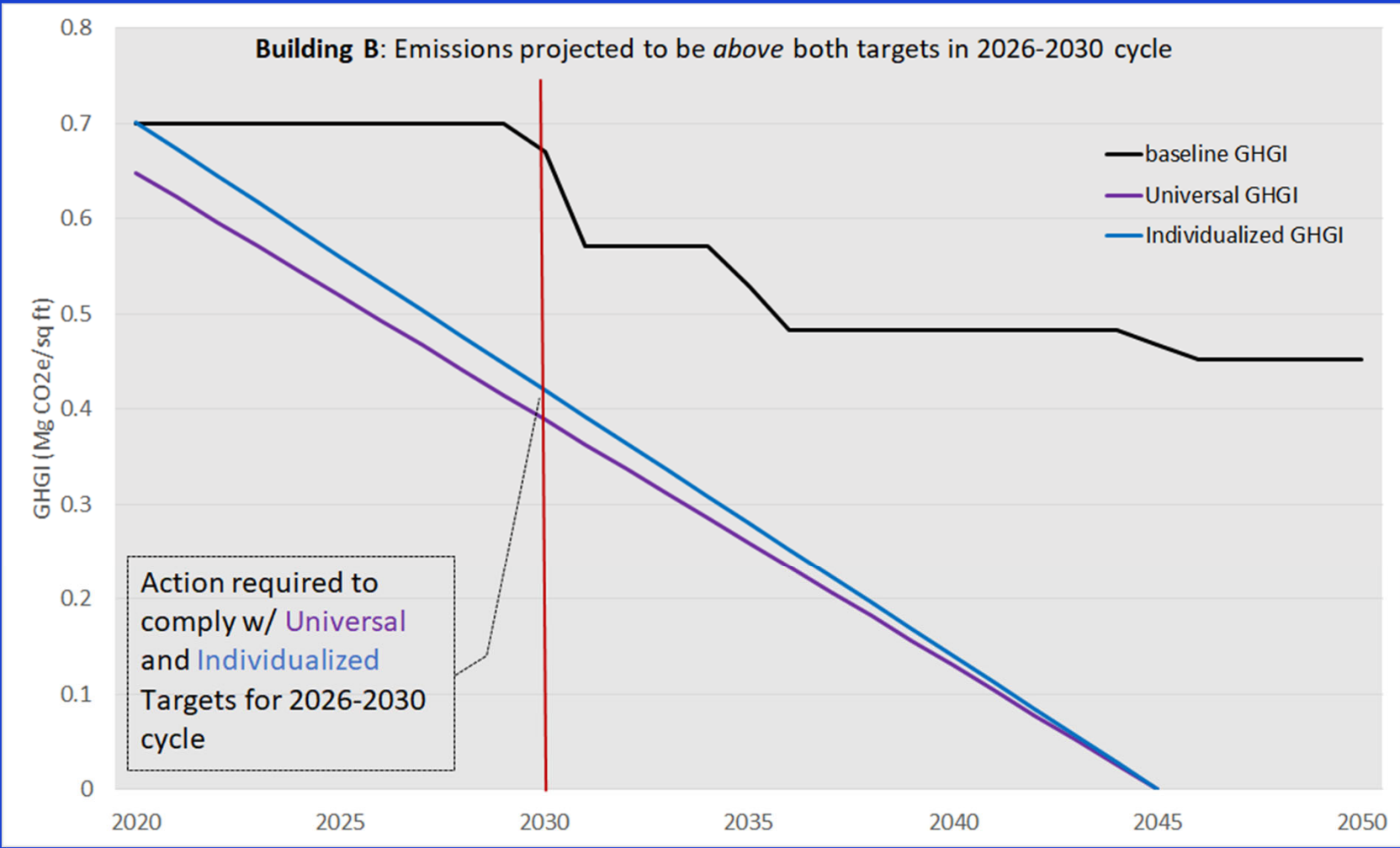




Comparing
Projected
Emissions to
Universal and
Individualized
Targets

06/02/2022

Comparing Projected Emissions to Universal and Individualized Targets



06/02/2022

Discussion





Draft Policy

Process / Timing

- June 16 (noon – 1:30pm): Online Open House
 - Review draft policy framework
- July – August: draft legislation
- July/early Aug: Public input opportunities
- August – September: City Council process
- 2023: Rulemaking

Related Programs Underway

- Seattle Clean Buildings Accelerator launching this summer.
- Funding available for engineering and capital to decarbonization 2-3 affordable housing buildings
- Clean energy jobs & construction training – 2022 \$1.8M RFP



Draft Policy Proposal – Overview

- **Emissions-focused performance metric**
 - No energy use intensity metric requirement. Track energy progress from State Clean Buildings mandate, and utility incentive. Re-evaluate if needed
 - Emissions counted for all energy sources, including electric, to encourage conservation.
- **Long compliance runway**
 - Will mean minimal emissions reduction impact by 2030 (due to regulation itself)
 - End date for achieving net-zero emissions 2045
- **First compliance cycle to include benchmarking verification, a limited ‘planning’ step, and some action.**
- **Sunset Building Tune-Ups mandate after second compliance cycle**
 - Compliance deadlines 2023-2026
- **Refrigerants:** Track/engage in state rulemaking for HB 1050, includes refrigerant management and end of life
- **Indoor air quality:** per current building code requirements, no additional city action currently proposed



Draft Policy Proposal - Metrics

- **Metric: Greenhouse Gas Intensity (GHGI, kgCO₂e/SF/year)**
 - Normalized for weather and occupancy
 - Multifamily metric to be adjusted to account for variations in unit size, e.g., emissions per unit or emissions per bedroom
- **Emissions = annual energy use for each energy source x emissions factor for each energy source**
 - Includes all energy serving the building: on-site gas, district, electricity, other
 - Exclusions, e.g., for process energy or de minimus uses such as backup generation, to be defined in rule
- **Emissions factors for each fuel to be established in rule**
 - For interim GHGI targets, SCL pre-offset emissions factor applies
 - WA Clean Energy Transformation Act requires 100% clean electricity by 2045



Draft Policy Proposal - Universal Targets

Why:

- Provides defined, publishable, targets
- Clear compliance metrics for owners and city staff
- Avoids complexities of tracking targets as building ownership changes

How:

- Targets for mixed-use buildings calculated based on pro-rated mix of spaces

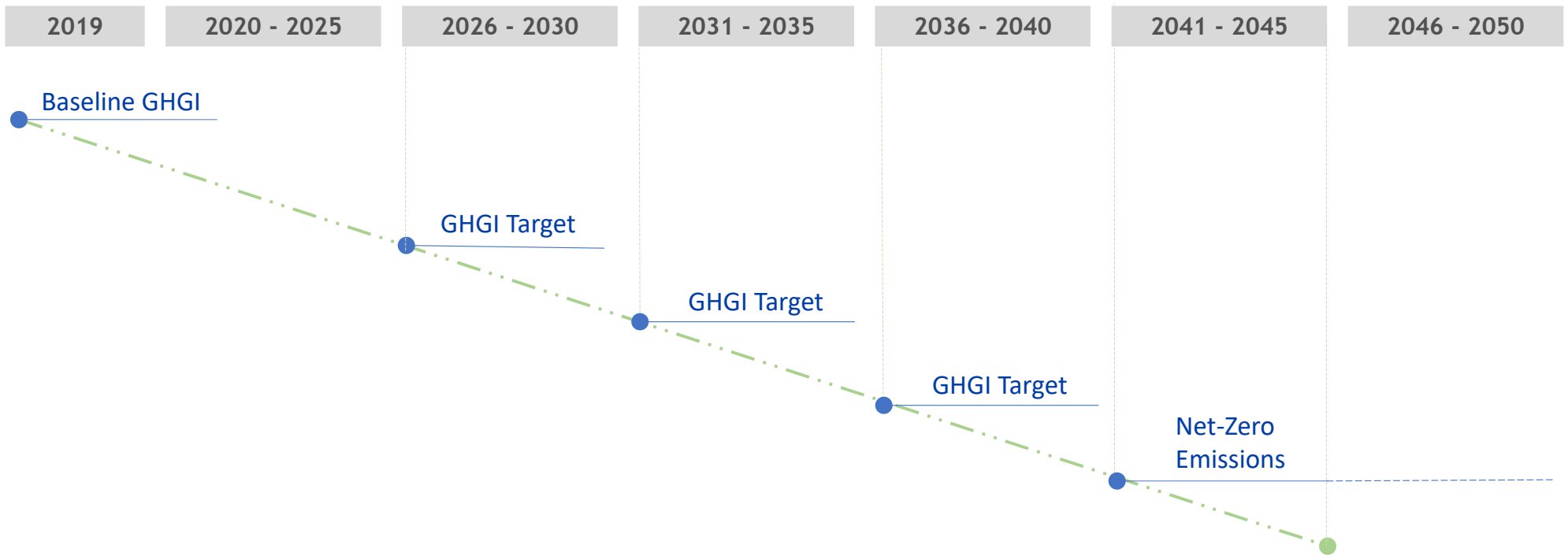
When:

- Final GHGI Targets set by rule in 2023
 - Analysis now to identify rough order of magnitude targets
 - Targets to be refined, as needed, and codified in rulemaking

Individualized Targets Pathway as an Alternative Compliance pathway



Draft Policy Proposal - Targets Pathway



Draft Policy Proposal - Required Actions 2026 - 2030

➤ All Buildings

- Benchmarking verification
- Simple documentation of current performance & equipment, actions identified to achieve 2031-2035 targets

➤ Commercial > 50K, including portfolios and campuses (2026-2028)

- Buildings above GHGI target for their building type, must reduce their GHGI by *the lesser* of the following
 - 20% (10%), or
 - by the % needed for the building to meet the GHGI target.
- Opportunities for alternative compliance or extension based on circumstances

➤ Commercial > 20 - 50K (2029-2030)

- Buildings above GHGI target for their building type, must reduce their GHGI by *the lesser* of the following
 - 10% (5%), or
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- Opportunities for alternative compliance or extension based on circumstances

➤ Multifamily

- Education & Outreach
- Voluntary Action



Break-Out Discussion - Required Actions 2026 - 2030

➤ All Buildings

- ❑ Benchmarking verification
- ❑ Simple documentation of current performance & equipment, plus opportunities to achieve 2031-2035 targets

➤ Commercial > 50K, including portfolios and campuses (2026-2028)

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Draft Policy Proposal - Special Building Types

- **Affordable Housing**
 - Extended compliance timeline
 - Applicable to both subsidized (~150 bldgs) and “naturally-occurring” (~100 bldgs) affordable housing
 - Non-profit housing providers could utilize a portfolio approach to meeting targets
- **Unreinforced Masonry (~150 bldgs)**
 - Compliance timeline TBD in coordination with future URM regulations
- **Historic Properties**
 - Compliance extensions, where there are cost and/or complexity constraints
 - Provide exemptions where historic limitations won't allow certain upgrades
- **Financial Hardship**
 - Compliance extensions
- **Other**
 - TBD in Rule



Draft Policy Proposal – Alternative Compliance

- **Individualized Targets Pathway**
- **Building Portfolio / Campus**
 - Portfolio: multiple buildings with the same long-term owner (e.g. public entity or non-profit)
 - Campus: multiple buildings on district system or jointly metered
 - Emissions target would be applied in aggregate, pro-rated based on building types
 - Portfolio / campus compliance would be expected in the first year of each compliance cycle
- **Prescriptive options in lieu of meeting interim emissions targets, e.g.**
 - MF: Replace central gas domestic hot water system with electric heat pump system
 - Small Commercial (20-50K): Replace gas rooftop unit (RTU) with heat pump
- **Deep Energy Efficiency**
 - Applicable as alternative to meeting 2031-2035 emissions targets
 - No fossil fuel equipment to be installed
 - Minimum X% energy efficiency improvement (weather & occupancy normalized EUI)
- **Payment into Climate Investment Fund**





Wrap Up

Online Open House | June 16

June 16th from 12pm - 1:30pm

Zoom Webinar

Register at

www.seattle.gov/building-performance-standards

THANK YOU!!



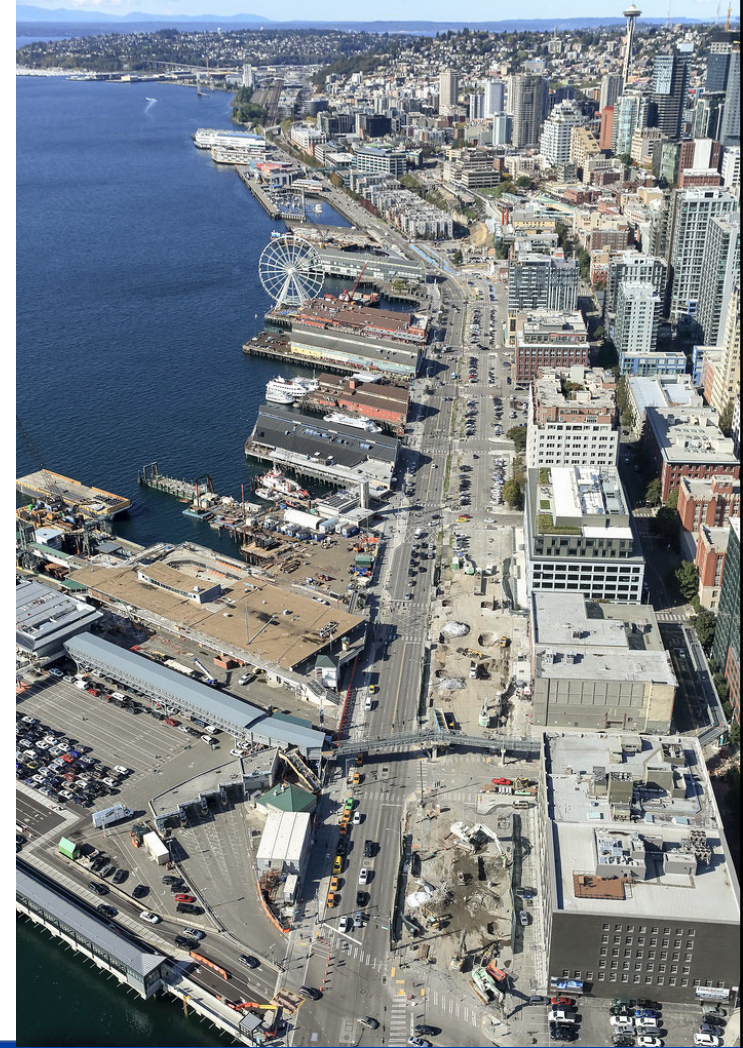
Seattle
Office of Sustainability
& Environment

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



TAG: recap from 2 & 3

- Keep it simple, clear, and certain!
- Owners want to know, soon, where we are headed to allow for long term planning
- Provide strong support – both technical and financial.
 - Reinvest fines towards incentives
- Compliance will be especially hard for owners of smaller buildings; will need greater assistance
- Avoid costs trickling down to tenants. Gentrification concerns.
- And, don't ignore smaller buildings, including single-family / townhomes, where there are emissions reduction opportunities.
- Is there an adequate workforce?



TAG recap 2 & 3

- Don't duplicate state's energy mandate; include energy targets only where not covered at State level
 - Alt views: Seattle GHG metrics *only* (even where no State energy targets)
 - Alt views: Seattle *should* lead the way with stronger energy metrics
 - Also - peak demand is a utility issue; Clean Energy Transformation Act will ensure carbon neutral electric utilities statewide
- Focus on onsite fossil fuel use and district systems; SCL carbon-neutral
 - Alt views: conservation still important; fairness and optics; consistency with other regulations; potential to encourage solar.
- Metrics should account for density, esp. relative to dense affordable housing (per person/bedroom vs. per sq. ft.)
- Consider compliance at a portfolio scale (public entities only?)
- Avoid regulatory overlap for refrigerants, indoor air quality, but...
 - Refrigerant leakage not being adequately addressed
 - IAQ could be compromised as buildings upgraded; health is a broad public concern

