

Annual GHG and Energy Limits By-law Year 1 implementation



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Q & A

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Land Acknowledgement



Agenda

- 1. Policy Overview**
- 2. Year 1 Results**
- 3. Support Programs**
- 4. What's coming up in 2025**
- 5. Q&A**

1. Policy Overview

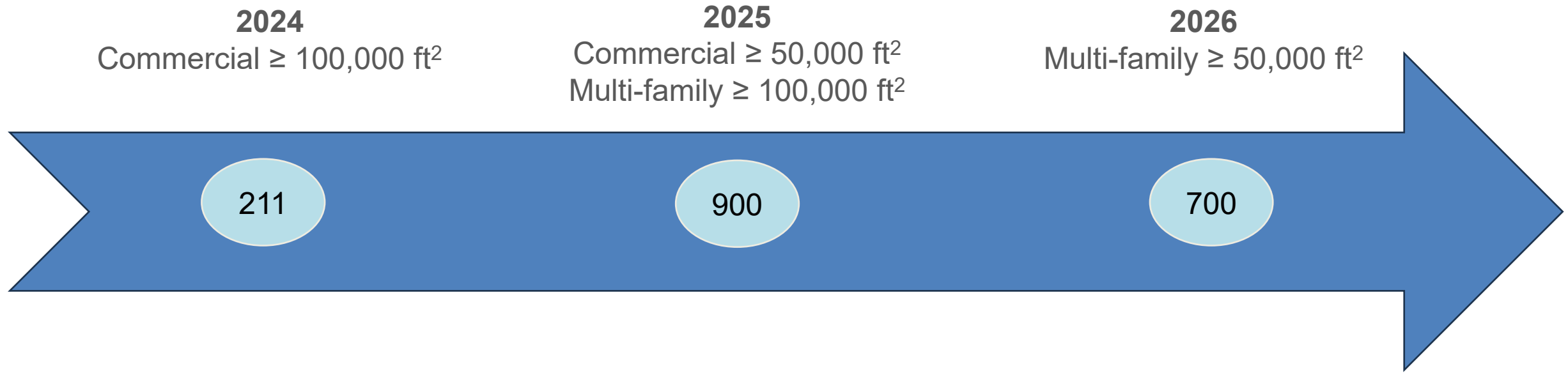


Annual GHG and Energy Limits By-Law

- Establishes energy and carbon reporting rules for large commercial and multi-family buildings
 - Energy & Carbon Reporting (ECR)
 - Commercial and multi-family buildings $\geq 50,000$ ft²
 - Greenhouse Gas Intensity (GHGI) and Heat Energy Intensity (HEI) Limits
 - Office & Retail Buildings $\geq 100,000$ ft² **ONLY**
- Goal to cut emissions from all buildings 50% by 2030 and 100% by 2050



Energy & Carbon Reporting (ECR) Timeline



GHGI & HEI Limits - Timeline

2026
GHGI Limits
Office + Retail $\geq 100,000 \text{ ft}^2$

139

Office = $25 \text{ kg CO}_2\text{e/m}^2/\text{year}$
Retail = $14 \text{ kg CO}_2\text{e/m}^2/\text{year}$

2040
GHGI + HEI Limits
Office + Retail $\geq 100,000 \text{ ft}^2$

139

Office and Retail
GHGI = $0 \text{ kg CO}_2\text{e/m}^2/\text{year}$
HEI = $0.09 \text{ GJ/m}^2/\text{year}$

Requirement	Timeline
ECR Report	Starting with 2024 submission; Annually (June 1)
Carbon Emissions Operating Permit	Starting in 2027; Annually (Aug 1)
Third-Party Certification	Starting in 2027; Every 4 years (June 1)

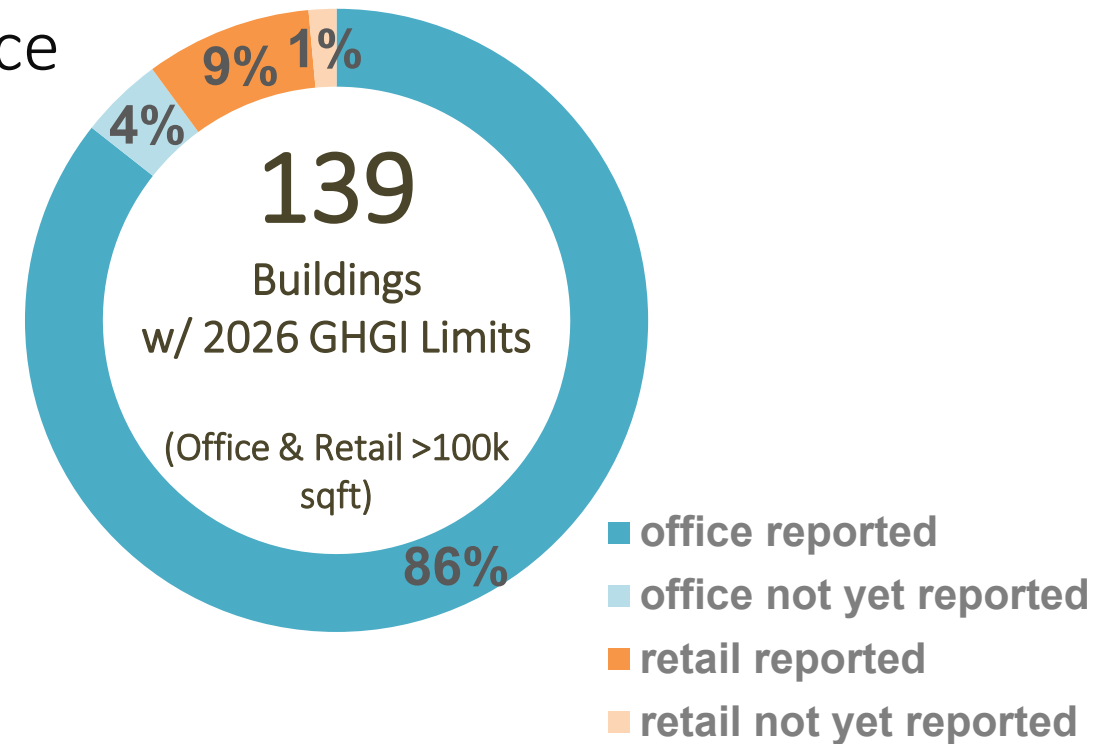
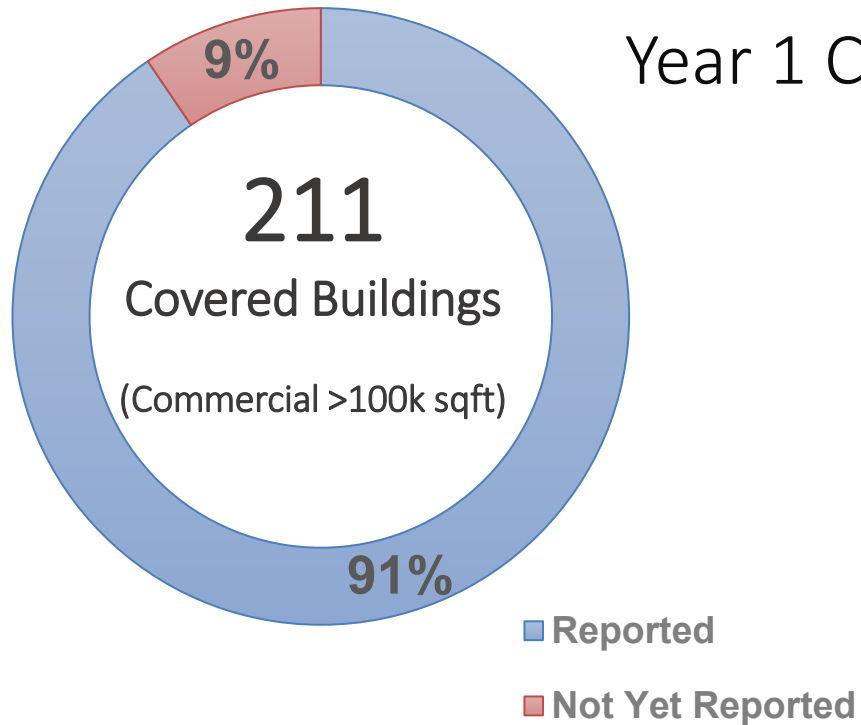
2. Year 1 Results



Compliance Rate

91%

Year 1 Compliance



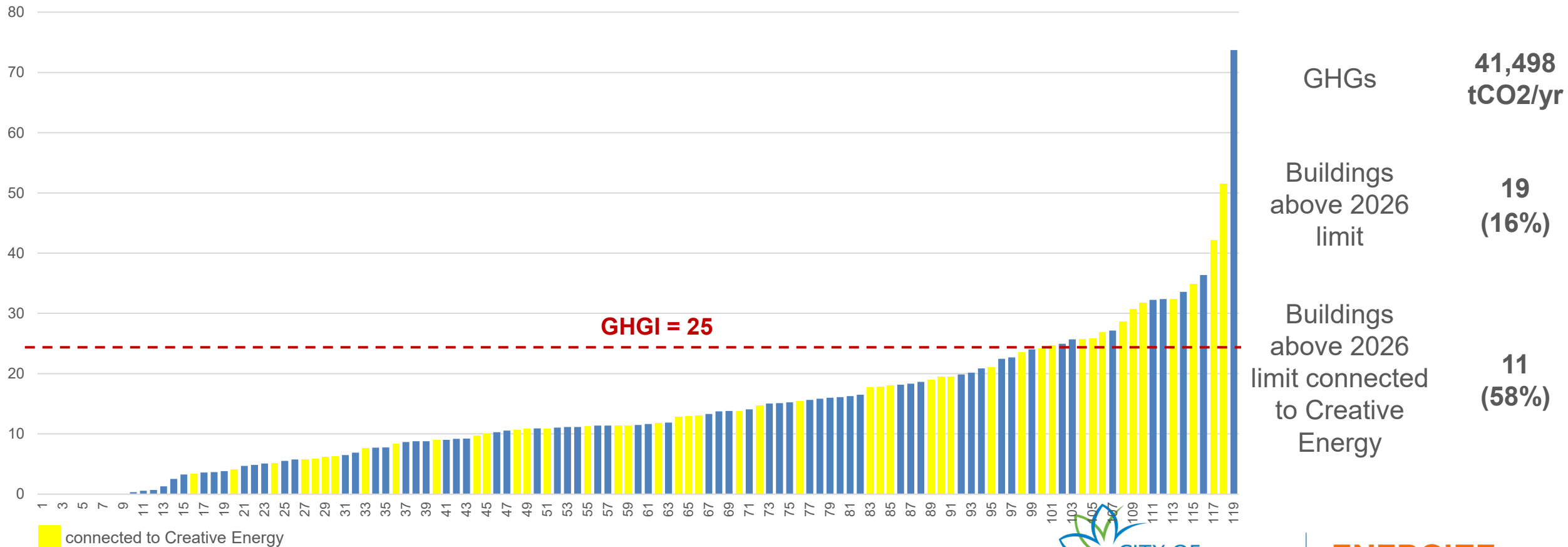
Challenges

- Utility data access
- Connection issues with BPRS
- Metering questions
- Reporting restaurant energy use



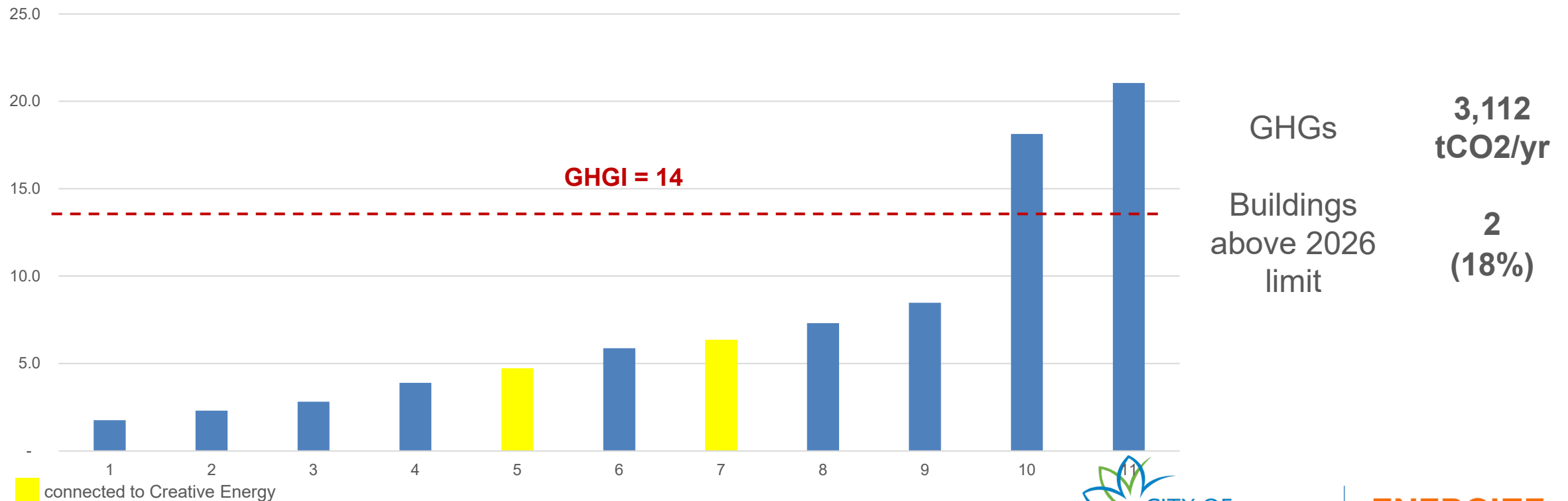
Office >100k sqft – GHGI Distribution

2023 GHGI Data (2024 Reporting Year) - Office Buildings with 2026 Limits



Retail >100k sqft – GHGI Distribution

2023 GHGI Data (2024 Reporting Year) - Retail Buildings
with 2026 Limits



GHGs

3,112
tCO₂/yr

Buildings
above 2026
limit

2
(18%)

Outlook on 2026 GHGI Limit Compliance

84% OF BUILDINGS MEET LIMIT

4%

11%

1%

TUNE-UP

LIGHT - MOD
ACTION

DEEP
ACTION

Recommissioning / Tune-ups | 1-3% operating cost savings

Recommissioning / Tune-ups + RNG | 0.1 - 0.5% operating cost

Equipment replacement | \$100-\$350/tCO₂e capital, 1% operating cost savings

Creative Energy “Community Rate” (20%)*: 1% operating cost

Creative Energy 50% Low Carbon Rate*: 1.5% operating cost

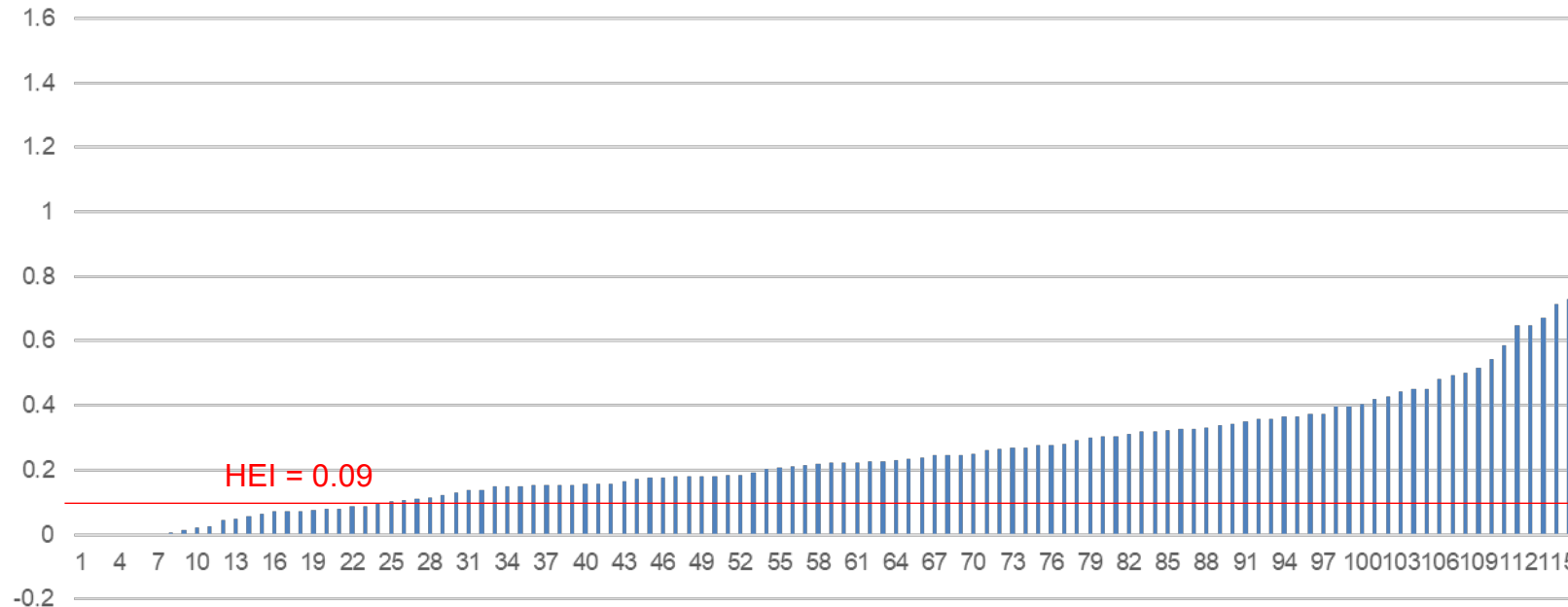
Creative Energy 100% Low Carbon Rate*: 3% operating cost

**proposed*



Office $\geq 100\text{k sqft}$ – HEI Distribution

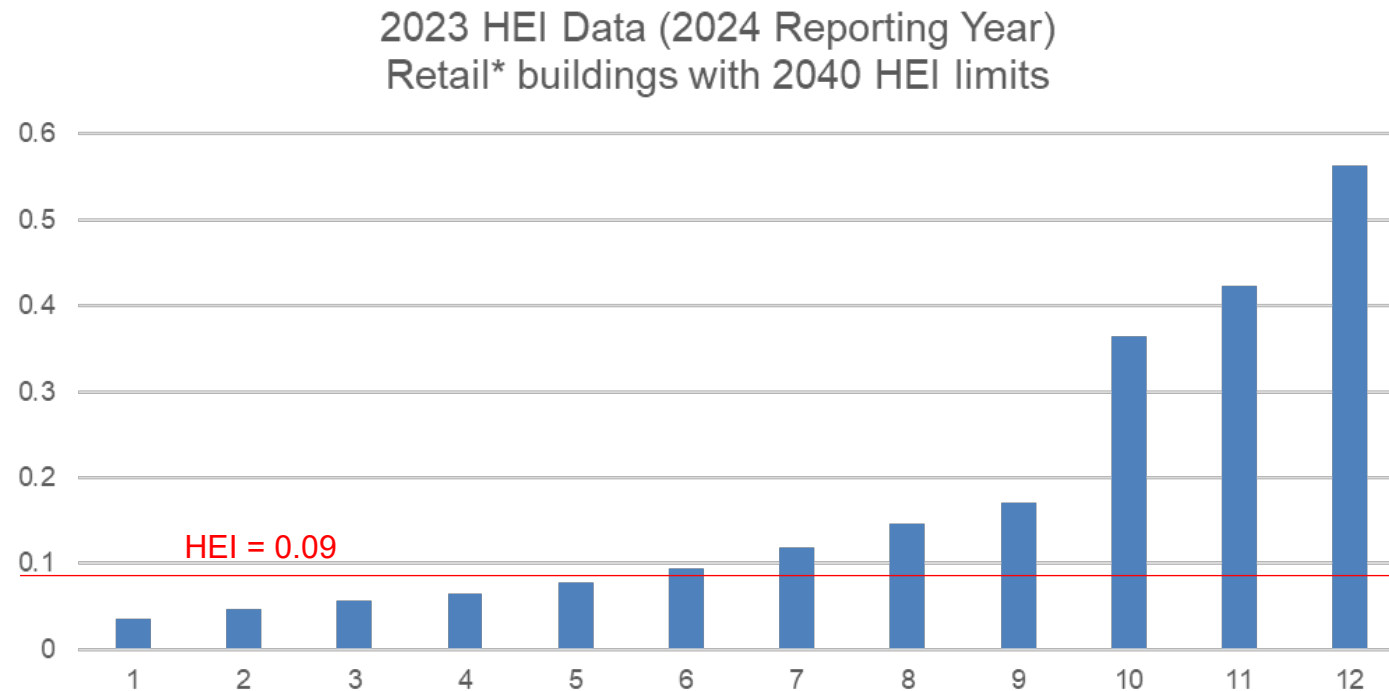
2023 HEI Data (2024 Reporting Year)
Office buildings with 2040 HEI limits (n=117)



Heat Energy GJs	687,445
Buildings above 2040 limit	94 (80%)

*includes office primary (n=95) + office-dominant mixed-use buildings (n=22)

Retail $\geq 100k$ sqft – HEI Distribution



Heat Energy GJs **49,309 GJ/yr**

Buildings above
2040 limit **7
(58%)**

*includes primary retail (n=10) and retail-dominant mixed-use buildings (n=2)

Energize Vancouver Map

An aerial photograph of the Vancouver waterfront, featuring the Burrard Bridge, numerous high-rise buildings, and a marina filled with boats. The entire image is covered with a semi-transparent blue filter. The text 'Energize Vancouver Map' is centered in white.

Map

- Compliance status of buildings
- Key performance metrics for disclosed buildings
- Anonymized and non anonymized data export

Building Performance Scorecards

An aerial photograph of a city waterfront, likely Vancouver, featuring a large bridge, a marina filled with boats, and several high-rise buildings. The image is overlaid with a semi-transparent blue filter.

[Redacted]

Timeframe
Jan. - Dec. 2023

Building ID

[Redacted]

Square Footage

[Redacted]

Year Built

[Redacted]

GHGI and HEI Limits Table

	GHGs in Excess Limits (tons kgCO ₂)	0
2026 Limit	Projected GHG over emission permit fee (\$)	\$0
	Carbon Emissions Operating Permit fee (\$)	\$500
	GHGs in Excess Limits (tons kgCO ₂)	96
	Heat Energy in Excess of Limit	1,079
2040 Limit	Projected GHG & HEI over emission permit fee limits (\$)	\$XX,XXX
	Carbon Emissions Operating Permit fee (\$)	\$500

GHGI: 10.3
kg CO₂e/m²/yr

Heat Energy Intensity:
0.21
GJ/m²/yr

- Your building stands **46th** in terms of GHGI and **56th** in terms of HEI out of **119 buildings**

- For further compliance with the 2026 GHG Limit/2040 GHG and HEI limit, conduct an energy audit and take advantage of utility programs for energy efficient and greener buildings

EMISSIONS COMPLIANCE STATUS

Year of Emissions Compliance: 2026
(GHGI Limit = 25 kg CO₂e/m²)

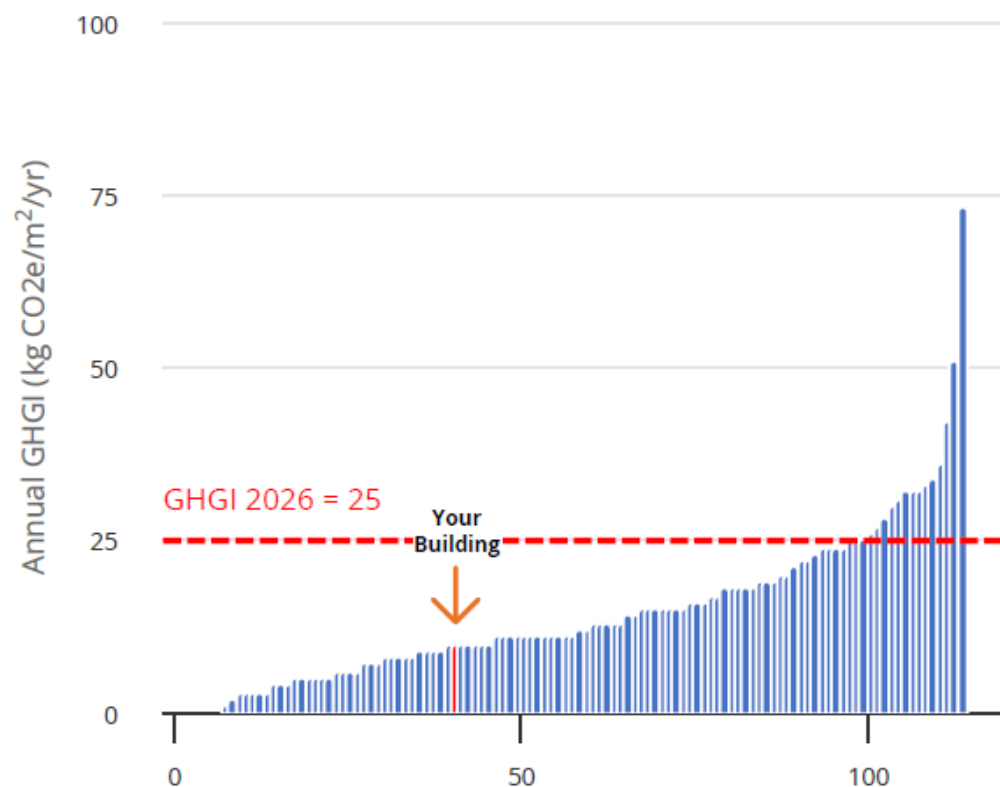
ON TRACK

Year of Emissions Compliance: 2040
(GHGI Limit = 0 KgCo₂/m² & HEI = 0.9 GJ/m²)

**REDUCTION
PLAN REQUIRED**

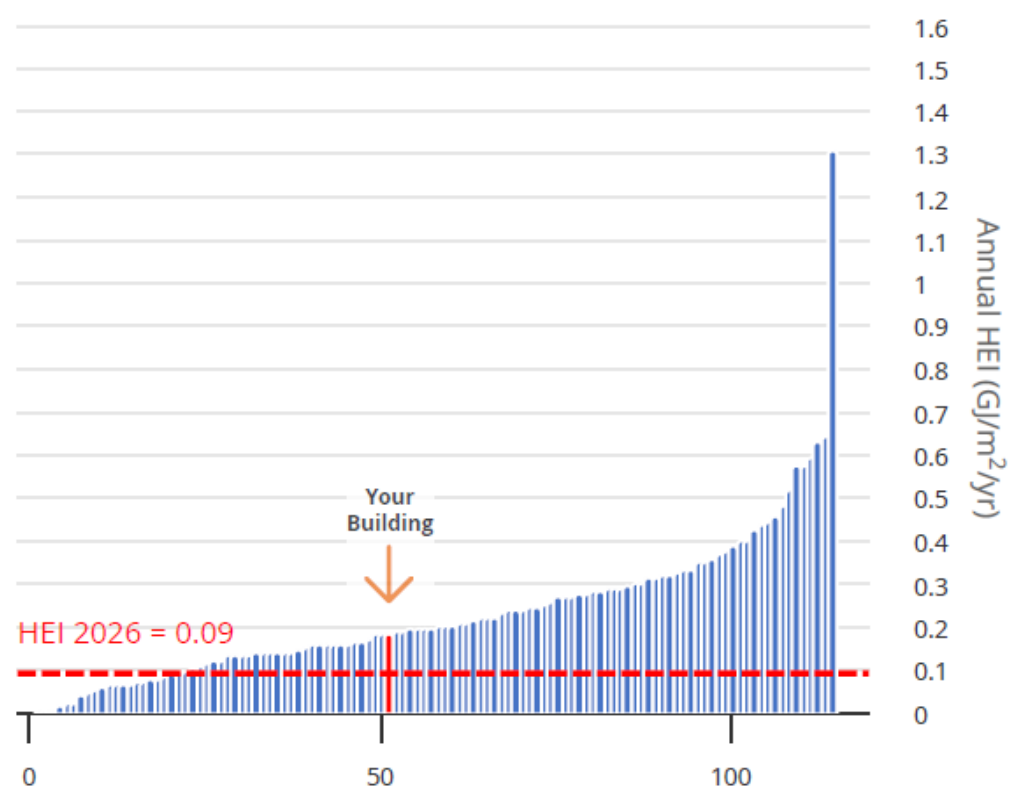
Greenhouse Gas Intensity (GHGI) Comparison

See how your building's GHGI measures up against other office buildings in Vancouver



Heat Energy Intensity (HEI) Comparison

See how your building's HEI measures up against other office buildings in Vancouver



Resources and Recommended Actions

Energy-efficient and greener buildings provide financial savings, stand out in the market, and add resilience. Here are the recommended programs for your building.

Identify inefficiencies in your building

[BC Hydro Integrated Energy Audit](#): offers up to 100% funding for an energy audit.

[CleanBC Feasibility Funding](#): Custom Program supports up to 50% of an energy study's cost, up to a maximum of \$20,000.

Reduce GHGI and operational costs

Quick actions to meet 2026 limits

Incentives for GHGI reductions up to 20%

- [Continuous Optimization Program](#): offers no-cost recommissioning consultations to large, commercial buildings
- [HVAC Controls for Commercial and Industrial](#): offers rebates on connected thermostats, domestic hot water recirculation controls, hydronic additives
- [Pipe and Tank Insulation](#): offers rebate of \$4 - \$9 per square foot for pipe and tank insulation
- [Air Curtain Rebates](#): offers up to \$2,000 per door for installing a qualified air curtain

Long term actions to meet 2040 limits

Incentives for GHGI reductions up to 60%

- [Dual Fuel Rooftop Units](#): offers up to \$150,000 per installation or building
- [Custom Efficiency Program](#): offers up to \$500,000 to fund natural gas efficiency upgrades in commercial buildings

Sign up for FortisBC voluntary [Renewable Natural Gas](#) blend to lower your GHGI!

Reduce electrical load and operational costs

[BC Hydro Lighting Systems Incentives](#): offers average incentive of 25% of a lighting project's cost

[BC Hydro Custom Project Incentives](#): offers funding for the implementation of energy management opportunities

BC & Federal Tax Credit Programs

[Clean Buildings Tax Credit](#)

[Clean Technology Investment Tax](#)

For more information contact utilities:

FortisBC: Olivia.Sieniewicz@fortisbc.com

BC Hydro: Netu.Sidhu@bchydro.com

City of Vancouver Annual Greenhouse Gas and Energy Limits Bylaw:

Office and retail buildings in Vancouver with gross floor area greater than or equal to 9,290 m² (100,000 ft²) will be subject to Greenhouse Gas Intensity (GHGI) limits starting in 2026 and Heat Energy Intensity (HEI) limits starting in 2040. These limits focus on reducing emissions from space and hot water heating and transitioning to low-carbon and renewable energy sources. Compliance can be achieved through energy efficiency measures and/or using low-carbon energy like electricity and renewable natural gas.

Definitions & Terminology Used in the Scorecard:

- **2026 GHGI (Greenhouse Gas Intensity) Limit**

The 2026 GHGI limit is set at 25 kg CO₂e/m²/year for commercial office buildings and 14 kg CO₂e/m²/year for retail buildings.

- **2040 GHGI (Greenhouse Gas Intensity) Limit**

The 2040 GHGI limit is 0 kg CO₂e/m²/year for both commercial office and retail buildings.

- **2040 HEI (Heat Energy Intensity) Limit**

The 2040 HEI limit is 0.09 GJ/m²/year for both commercial office and retail buildings.

- **Carbon Emissions Operating Permit fee (\$)**

The fee is applicable annually to all buildings covered under GHGI and HEI limits and is set at a flat rate of \$500 per year.

- **Projected GHG over emission permit fee 2026 (\$)**

The over emissions fee applies to buildings that exceed their specified GHGI limit. This fee is calculated at a rate of \$350 per tonne of CO₂e that surpasses above the allowed annual limit.

- **Projected GHG & HEI over emission permit fee 2040 limits (\$)**

The over emissions fee applies to buildings that exceed the specified GHGI and HEI limits in 2040. This fee is calculated at a rate of \$350 per tonne of CO₂e and \$100 per gigajoule (GJ) for buildings that exceed the annual GHGI and HEI limits, respectively.

3. Support Programs



Support Programs

Utilities

- Continuous Optimization Program – BC Hydro/FortisBC
- Battery Storage + Solar Incentives – BC Hydro
- Studies & Custom Incentives – FortisBC
- Hybrid HP RTUs - FortisBC

BOMA BC

- Decarb Accelerator

Tax Credits

- BC Clean Buildings 5% Tax Credit
- Federal 30% Clean Technology Investment Tax Credit

Vancouver + BOMA *(Coming in 2025)*

- Decarbonization Planning Tool
- Commercial Building Accelerator



Energize Vancouver

- One stop shop for existing commercial and multi-family buildings
- Regulation details
- Compliance steps
- Resources and support available



vancouver.ca/energize-vancouver

4. 2025 Outlook



Upcoming activities

- Reporting for comm. and multi-family $\geq 50,000$ ft sq
- Continued reporting for comm. buildings $\geq 100,000$ ft sq
- Update adjustments for restaurant and residential use
- Publication of GHGI guide and technical reference manual – next week
- Monthly webinar series in 2025 till reporting deadline

Q&A



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Questions?

Stay up-to-date with Energize Vancouver mailing list at
<http://vancouver.ca/energize-vancouver>

ECR Help Centre: energycarbonreport@vancouver.ca (604) 330-3797



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