Annual GHG and Energy Limits By-law

Webinar 1: Policy Overview & How-To Overview

April 16, 2024



Land Acknowledgement





Policy Overview



Three Parts of the Annual Greenhouse Gas (GHG) and Energy Limits By-Law

Energy & Carbon Reporting (ECR)
 Greenhouse Gas Intensity Limits (GHGI)
 Heat Energy Intensity Limits (HEI)

GHG 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
- Goal to cut emissions from all buildings 50% by 2030 and 100% by 2050





Energy & Carbon Reporting (ECR) Timeline





To comply, commercial & multi-family buildings 50,000 ft² and larger must **submit an annual error free energy and carbon report** containing building energy use from the previous year (365+ days) **by June 1**

- First reporting year is based on the ECR timeline
- All reports will be reviewed and owners will be notified of the report status by email
 - **Pending Revisions:** Report contains errors. To reach compliance, the owner must resubmit an updated report or provide an explanation for the errors identified.
 - In Compliance: No errors are found and report is approved.



Starting in 2026, Office and Retail buildings greater than or equal to 100,000 ft² will need to keep GHG emissions **from natural gas and district energy** below a set limit. Emissions from electricity do not count toward your limit.

GHGI Limit (Reporting Year)	Office	Retail
2027	25 kg CO ₂ e/m²/year	14 kg CO ₂ e/m²/year
2041	Zero Emissions	Zero Emissions



Heat Energy Intensity Limits

- HEI limits are for office and retail buildings 100,000 ft² or larger beginning with the 2041 ECR submission (2040 energy data)
- Heat Energy: the total gas used in a building operation + district heat (excluding electricity)
- Owners must meet a limit of 0.09 GJ/m² of gross floor area per year





- Starting in 2026, owners of buildings subject to the GHGI and HEI limits must have their reports verified by a third-party professional for their 2027 ECR submission
- Professional verification will then be required every 4 years or any year where the building's energy and carbon report shows a change of at least 15% in the GHGI or a change in floor area



Carbon Emissions Operating Permit

Starting in 2027, to comply with GHGI Limit requirements, owners of Office and Retail buildings 100,000 ft² (9,290 m²) and larger must obtain an **annual** Carbon Emissions Operating Permit (CEOP) by August 1





GHGI & Heat Energy Intensity Limits - Timeline





GHGI & Heat Energy Intensity Limits - Details

Year	GHGI & HEI Limits - Requirements and Protocol Office & Retail ≥ 100,000 ft² ONLY
2024 - 2025	Submit Annual ECR Report starting in 2024 and every year after Plan for and implement energy efficiency measures to reach GHGI goal by 2026
2026	Overall energy use for 2026 must meet GHGI targets: • Office: 25 kg CO ₂ e/m ² /year • Retail: 14 kg CO ₂ e/m ² /year
2027	 Third-Party Certification of 2026 Energy & Carbon Report: Due by Jun 1 and every 4 years after Report submission containing 2026 energy data shows GHGI Requirements are met Application for an annual Carbon Emissions Operating Permit is required (Aug 1 deadline each year) starting in 2027 and every year after
2024-2039	Plan for and implement energy efficiency measures to reach HEI limit goal by 2039 (0.09 GJ/m²/year)
2040	Overall energy use for 2040 must meet GHGI and HEI Limit targets: Office <u>and</u> Retail HEI limit target: 0.09 GJ/m²/year GHGI limit target: Zero emissions
2041	Report submission containing 2040 energy data shows HEI (0.09 GJ/m²/year) & GHGI limits (Zero Emissions) are met



How-To Overview: ENERGY STAR® Portfolio Manager® (ESPM)



Quick Guide for Energy & Carbon Reporting in ESPM

- 1. Find your Vancouver Building ID
- 2. Create an ESPM account
- 3. Add Property and Use Details
- 4. Upload Energy Data
- 5. Connect & Share Property with the City of Vancouver



Step 1: Find Your Vancouver Building ID

- 1. Go to <u>https://energycarbonreport.vancouver.ca/building-lookup/</u>
- 2. Select "Search By Address"
- 3. Search Your Address
 - Parcel Address
 - Utility Address
 - Alternative Address(es)

incouver buildin	g lookup tool
eed to find yo	our building?
ıd your building ID, gr	oss floor area, use type, current compliance status, and what regulation program your buildings subject to.
Search by Address	Search by Building ID
* Address	-

For address updates or any additional questions, contact the ECR Help Centre



Step 2: Create An ESPM Account

https://portfoliomanager.energystar.gov/pm/signup

Velcome to Portfolio Manager Helping you track and improve energy efficiency across your entire portfolio of properties.	ENERGY STAR Buildings Homepage
Username:	Take a Training
Lforgot my password, I forgot my username, Sign In	Dertfolio Manager
Create a New Account	These links provide more information from ENERGY STAR and are not available in French
su are accessing a LLS. Government information system. System usage may be monifored, recorded, and subject to	unit Linauthorized use of the sustem is prohibited and subject



Enter Company Information

Create an Account					
Accessing Your Acc	count				
Username:	*				
Password:	Create a password that is at least 8 characters long and includes at least three of the following: lowercase letters, uppercase letters, numbers and/or special characters (such as *, #, %, etc.).				
Confirm Password:	*				
About Yourself					
First Name:	*				
Last Name:	*				
Job Title:	*				
Email:	*				
Confirm Email:	*				
	Note: We never share your email address with third parties.				
Phone:	*				
Country:	* Select Country				
Language:	English 🗸				
Reporting Units:	 Conventional EPA Units (e.g., kBtu/ft²) Metric Units (e.g., GJ/m²) 				

- Use a company email
 - Info@vancouverproperties.com
- Choose your reporting units
- Do you want your Account Name (and username) to be searchable by other Portfolio Manager users? Select YES

 Utility companies, City of Vancouver, owner transfers

Do you want your / other Portfolio Mar	Account Name (a ager users?	and username) to be searchable by
Do you want your username to be searchable by other Portfolio Manager users? You must select "Yes" if you want to connect with other users to allow automatic upload of utility data or to share properties.	● Yes ○ No	



Once you've completed your account, select "Add a Property"

ENERGY STAR® PortfolioManager®			к	Welcom ashaMalling	ie Acc g: Set	count Notifications ttings	ENERGY 9 (STAR Notifications	Contacts Help Sign Out	
MyPortfolio	Sharing	Reporting	Recognition						
Properties (37) Dashboard			Dashboard					Search by	D or Name
	Add a Property		Please refresh	h to see your curre	nt metrics.				
Refresh to	see Source EU	Trend	View All Proper	rties (37) 🗸 🗸	Energy H	Highlig	jhts 🗸	Refresh	Metrics
			Add/Edit/Delete	Add/Edit/Delete Groups Add/Edit/Delete Views					
Change Metric		Name	•	Energy Current Date	\$	ENERGY STAR Score *	Site EUI (kBtu/ft²) \$	Source EUI (kBtu/ft²)	
			233 Maple 31304356	e <u>St</u> S					



Property Type

- 1. Select the property type that best describes the building
 - If there is more than one property type, select the use type that occupies the majority of your building's gross floor area
 - Add additional use types later
- 2. Select "One: My Property is a single Building"
- 3. Select "Existing" for construction status
- 4. Select "Get Started"



Property Basic Information

About Your Property	
Name:	*
Country:	* Select 🗸
Street Address:	*
City/Municipality:	*
County:	
State/Province:	* Select •
Postal Code:	*
Year Built:	*
Gross Floor Area:	* Sq. Ft. Temporary Value
	Gross Floor Area (GFA) is the total property floor area, measured from the principal exterior surfaces of the building(s). Do not include parking. Details on what to include.
Irrigated Area:	Sq. Ft. 🗸 🗱
Occupancy:	* Select 🗸 %
Property Photo (optional):	Choose File No file chosen Select an image file on your computer with the format type of .jpg, .jpeg, .png or .gif; photos will be resized to fit a space of 2.78 inches wide x 2 inches tall.

Gross Floor Area: square footage for the building only – exclude parking square footage

Select "Details on what to include" for additional details on what to include and exclude in your building's gross floor area (GFA)



Standard IDs

Standard IDs

Standard IDs are typically used in data collection, including by most state and local governments with benchmarking laws. If your property is covered by a benchmarking law, you probably need to fill this in. See <u>this</u> <u>FAQ</u> if you need help finding your Standard ID.



Do any of these apply?

- My property's energy consumption includes parking areas
- My property has a Data Center that requires a constant power load of 75 kW or more
- My property has one or more retail stores <u>(that are eligible for a Retail score)</u>
- My property has one or more restaurants/cafeterias



Property Details

More on this rule.

Property Use Detail	Value	Current As Of	Temporary Value
🛊 Gross Floor Area	* 150,000 Sq. Ft. ~	1/1/2005	
* Weekly Operating Hours	Use a default	1/1/2005	
* Number of Workers on Main Shift	Use a default	1/1/2005	
* Number of Computers	Use a default	1/1/2005	
Percent That Can Be Heated	✓ □ Use a default	1/1/2005	
A Percent That Can Be Cooled	✓ Use a default	1/1/2005	0

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This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

Property Use Detail	Value		Current As Of	Temporary Value	
Open Parking Lot Size	*0	Sq. Ft. 🗸	1/1/1990		
Partially Enclosed Parking Garage Size	*[0	Sq. Ft. 🗸	1/1/1990		
Completely Enclosed Parking Garage	* 50,000	Sq. Ft. 🗸	1/1/1990		
Supplemental Heating	Yes 🗸 🗌 Use a defau	t	1/1/1990		VANCOUVER

Edit Use Details

If you need to make updates to property use type details, select "Edit Use Details"

View as Diagram	Add Another Type of	Use			► Add
Name	Property Use Type		Gross Floo Area	Action	
Building Use	Office	278	5,000 ft²	I want to	~
Parking Use F	Parking	50,	000 ft ²	Edit Use Details Delete use	
Custom Use Details				I want to	~



Additional Use Types

- If you have multiple property use types, add them to your property use and details section
- •Select the "Details" tab on your property's building page
- Add each use type in the "Add Another Type of Use" dropdown box.
 Select "Add"
- •Fill out the property use details
- Select "Save Use"



Step 4: Upload Energy Data





Selecting Energy Sources

**	Sources of Your Property's Energy What kind of energy do you want to track? Please Electric purchased from the grid How Many Meters? generated from onsite solar panels generated from onsite wind turbines Natural Gas	select all that apply.	BC Hydro	
	How Many Meters?		FortisBC	
	Propane			
	Fuel Oil (No. 2)			
	Diesel			
	✓ District Steam			
	How Many Meters?		District Energy Provider	
	 District Hot Water 		FIOVILLEI	
	District Chilled Water			
	Fuel Oil (No. 4)			
	Fuel Oil (No. 5 and No. 6)			
	 Coal (anthracite) 			
	Coal (bituminous)			
	Coke			
	Wood			
	C Kerosene			
	Fuel Oil (No. 1)		Banawahla	
	Other:		Gas	
			Ous	
				VANCOUVER





Energy Meter Details

Meter Name	Туре	Other Type	Units	Date Meter became Active	ln Use?	Date Meter became Inactive	Enter as Delivery?
Natural Gas	Natural Gas		GJ	01/01/2023			
District Steam	District Steam		Lbs. (pounds)	01/01/2023			
Electric Grid Meter	Electric - Grid		kWh (thousand Watt- hours)	01/01/2023			

Name Meter ID	Туре
Electric Grid Meter 175067463	Electric - Grid
<u>Natural Gas</u> 179710096	Natural Gas
District Steam 182521019	District Steam

*
These meter(s) account for the total energy consumption for <u>233 Maple St</u> (a single building).

These meter(s) do not account for the total energy consumption for 233 Maple St (a single building).



Obtaining and Uploading Utility Data

Building owners can upload wholebuilding energy data in 3 ways:

1.) Auto-upload

2.) Manual Entry

3.) Spreadsheet upload

Contact your utility for auto-upload, tenant energy data acquisition, and troubleshooting questions.

UTILITY	CONTACT			
BC Hydro	pmwebservices@bchydro.com			
FortisBC	<u>commercial.energy@fortisbc.com</u>			
Creative Energy	<u>info@creative.energy</u> (<u>604) 688 9584</u>			
Natural Resources Canada	info.services@nrcan-rncan.gc.ca			



Auto-Upload

BC Hydro How-To page:

https://www.bchydro.com/powersmart/business/re sources/energy-efficiency-benchmarking.html

FortisBC How-To page:

https://www.fortisbc.com/services/commercialindustrial-services/energy-efficiency-tools-fornatural-gas-business-customers **Auto-Upload Data Aggregation Thresholds**

UTILITY	USE TYPE	THRESHOLD
	Commercial	3+ meters
BC Hydro	Multi-Family	5+ meters
FortisBC	All Use Types	11+ meters



Manual Entry

Manage Bills (Meter Entries) for Building Performance Colorado Test Live Demo

Meter Selection: Natural Gas - 137317680

Basic Meter Information (***clic	k on the arrow to the left to expand this section)	
Name:	* Natural Gas	× Delete Meter
Meter ID:	137317680	
Туре:	Natural Gas Need to change?	
Units:	* GJ ~	
Date Meter became Active:	* 01/01/2023 III In Use	
Date Meter became Inactive:		
Is this an Aggregate Meter?:	No○ Yes	
Custom Meter IDs	None 🕂 Add Another Custom Meter ID	Save Changes



Ма	Manage Bills (Meter Entries) for <u>233 Maple St</u>									
Mete	Meter Selection: Natural Gas - 179710096									
	• Basic Meter Information (***click on the arrow to the left to expand this section)									
-	Month	ly Entries								
					Display Year(s):	Show All Years ×				
		Start Date	End Date	Usage		Total Cost (\$)	Estimation	Last Updated		
		1/1/2023	2/1/2023	3,654						
		2/1/2023	3/1/2023	3,456						
		3/1/2023	4/1/2023	3,042						
		4/1/2023	5/1/2023	3,543						
		5/1/2023	6/1/2023	2,322						



Spreadsheet Upload

If you upload your utility data using the spreadsheet, you'll need to download the template and fill in data

Upload data in bulk for this meter:



Upload

Start Date (Required)	End Date (Required)	Usage (Required)	Cost (Optional)	Estimation (Required)
1/1/2023	1/31/2023	3654		No
2/1/2023	2/28/2023	3456		No
3/1/2023	3/31/2023	3042		No
4/1/2023	4/30/2023	3543		No
5/1/2023	5/31/2023	2322		No
6/1/2023	6/30/2023	2930		No
7/1/2023	7/31/2023	2888		No
8/1/2023	8/31/2023	3777		No
9/1/2023	9/30/2023	3888		No
10/1/2023	10/31/2023	3827		No
11/1/2023	11/30/2023	2943		No
12/1/2023	12/31/2023	2932		No



Energy Data Stats



Export Data by Calendar Month



Metrics Summary							
Metric 🦊	Dec 2019 (Energy Baseline)	Mar 2023 (Energy Current)	Change 🕜				
ENERGY STAR Score (1-100)	79	76	-3.00 (-3.80%)				
Source EUI (kBtu/ft²)	51.4	51.1	-0.30 (-0.60%)				
Site EUI (kBtu/ft²)	31.4	31.1	-0.30 (-1.00%)				



Energy Star Score Eligibility

- Distribution Center
- Financial office
- K-12 school
- Hospital
- Ice/Curling Rink
- Library
- Medical Office
- Museum
- Non-refrigerated warehouse

- Office
- Refrigerated warehouse
- Retail store
- Residential Care
- Self-storage facility
- Senior living community
- Supermarket/Grocery store
- Wholesale club/supercenter



Step 5: Connect & Share Property With The City of Vancouver





Your Search Criteria	Gurmeet Ghera (CityofVancouver) Sr. Green Building Planner with City of Vancouver	Connect
Name:	14 4 Page 1 of 1 >> >> 50 V	1 - 1 of 1
Organization:		
Username: CityofVancouver		
Email Address:		
Searc	h	



Connect & Share Property With The City of Vancouver

MyPortfolio Sharing F

Reporting Recognition

Share (or Edit Access to) Properties

Sometimes it's really important to be able to share your property with someone else. Maybe they need to help (perhaps automatically) or process applications for recognition. If this sounds like what you need, start out by s who you'd like to share with them. If you have already shared properties, you can also use this form to edit per



Select Properties

We'll get into the details of the level of access later. For now, which properties do you want to share and/or edit access to?

Selected Properties: 0

Select People (Accounts)

Which people (accounts) do you want to share these properties with (or modify their current access to)? The access for each can be different and you'll be able to specify that on the next page.

Select contacts from my contacts book:

Gurmeet Ghera (CityofVancouver)	

To select multiple contacts, hold down your Control (CTRL) key and click on each selection. Only your connected contacts appear in this list.

Choose Permissions



If you only need to choose one permission (because you are doing a single share or you want to give the same permissions for all of your shares), select "Bulk Sharing." If you need to assign different permissions, select the 2nd option.

O Bulk Sharing ("One-Size-Fits-All") - I only need to choose one permission (either because I am doing a single share OR I want to choose the same permission for all of my share requests)

O Personalized Sharing & Exchange Data ("Custom Orders") - I need to give different permissions for different share requests, and/or I need to give Exchange Data permission.















How-To Overview: Building Performance Reporting System (BPRS)



Quick Guide for the BPRS

- 1. Create a BPRS account
- 2. Claim your property
- 3. Confirm connect & share with the City of Vancouver
- 4. Complete data verification sections
- 5. Submit Energy & Carbon report



Step 1: Create A BPRS Account

- 1. Go to the BPRS Owner Dashboard: energycarbonreport.vancouver.ca
- 2. Select "Register for an account"
- 3. Fill out the required information
- 4. Select the "Submit" button

VANCOUVER.CA Skip to content Vancouver annual GHG limits by-law reporting

Welcome

Submit energy data and forms

* Email Address *

user.name@example.com

*Password *

Forgot your password?



Need an Account?

Register for an account

First Name	* Last Name *
* Email *	
user.name@example.co	m
Organization	
Phone *	Dhone extension
(###) ###-####	x1234
What is your affiliation wit	h the property(ies)? *
Select	~
Building Owner	
Third-Darty Deporter	
Condo Unit Owner	
Other - Not Listed	
* Confirm Password *	

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Step 2: Claim Your Property

- 1. Log in to your BPRS account and select "Claim Buildings" tab
- 2. In the search bar, search for your building address.
- 3. Select "Claim"

My buildings (1)



Claim buildings

Use search to find and claim buildings that you own

131						Search	
Building ID	Building Name	Address	Use Type	Gross Floor Area	Portal Owner	Compliance Status	
XX4	test college - educational bldg 1	131 benchmarking lane	college/university	125000	not available	not submitted	Claim
4							÷



Step 3: Confirm Connect & Share with the City of Vancouver

If your building is not successfully shared with the City of Vancouver in ESPM, the yellow message will appear after you add your building:

How to Report Guide

()	() This property has not been shared with the Vancouver account in ENERGY STAR® Po	ortfolio Manager yet.
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Step 4: Complete Data Verification Sections

- 1. Log in to the Building Performance Reporting System (BPRS)
- 2. Select the "My Buildings" tab in your account
- 3. Select the relevant reporting year.* For example, if you are submitting 2023 data, select the 2024 reporting year
- 4. Select the "Submit" button





My Buildings

Reporting Year			Search buil	dings		
2024 - for data c	ollected between 1/1/2023 and 12	/31/2023 🗸	Search by ac	ldress, building	name or building ID	
Building Name	Compliance Status	Due Date				
XX4	Test College - Educational Bldg 1	131 Benchmarking Lane	Vancouver	Not Submitted	06/01/2024 Submit More ~	



Complete Data Verification Sections

Complete all data verification sections in the GHG By-Law Submission Form:

- 1. Confirm information in ESPM: Confirm your GFA, Vancouver Building ID, and property use type(s) are correctly entered
- 2. District Energy and Shared Meters: Confirm your district energy provider (if applicable) and if your building shares an energy meter with another building
- Qualifying Energy Adjustments: (Office & Retail ≥ 100,000 ft² ONLY) Confirm and report specific natural gas, renewable natural gas, process loads, and district energy usage

 Confirm information in ENERGY STAR®
 2 District Energy and Shared Meters
 3 Qualifying energy adjustments

 Portfolio Manager
 3 District Energy and Shared Meters
 3 Qualifying energy adjustments



Step 5: Submit Energy & Carbon Report

- 1. After completing data quality sections, select "Submit Data"
- 2. Choose your data disclosure preference
- 3. Select "Submit My Data"
 - You will receive a notification from the City within 24 hours on your compliance status





Once you have shared your buildings with the City of Vancouver through ESPM and submitted your GHG Bylaw Submission Form, you will receive a response from the City of Vancouver:

- **Pending Revisions**: Report contains errors. To reach compliance, the owner must resubmit an updated report or provide an explanation for the errors identified.
- In Compliance: No errors are found and report is approved.





The City allows a two-month extension for energy and carbon reporting **ONLY**. Extensions will only be granted if the owner or property manager can demonstrate that their attempts to acquire energy data from the relevant utility or utilities were not successful – by the June 1st reporting deadline.

- 1. Log in to the BPRS Owner Dashboard
- 2. Select "My buildings"
- 3. Select "Extensions" under the "More" dropdown on the building you want to request an extension for
- 3. Briefly describe your need for an extension and upload the required documentation
- 4. Read through and ensure you selected all the check boxes that you affirm you completed the form and select "Submit"

*All extensions must be submitted by May 15th



Exemptions

The owner of a building is exempt from energy and carbon reporting if a demolition permit for the entire building was issued during the calendar year for which an energy and carbon report is required, provided that the demolition work had commenced and occupancy of the building was no longer possible prior to the end of that year.

- 1. Log in to the BPRS Owner Dashboard
- 2. Select "My buildings"
- 3. Select "Exemptions" under the "More" dropdown on the building you want to request an extension for
- 4. Upload a copy of the demolition permit for the building
- 5. Read through and ensure you selected all the check boxes that you affirm you completed the form and select "Submit"

*All exemptions must be submitted and approved by June 1st



Data Snapshot

- 1. Summarizes your building info and submission data
- 2. Provides visibility into reported data for building(s)
- 3. Helps to provide record-keeping for years to come

Build	ling ID	Building name	Address	City	Compliance Status	Due Date		
XX1		Test Retail	125 Benchmarking Lane	Vancouver	Not Submitted	06/01/2024	Submit	More 🗸
								Extensions
								Exemptions
• - "								Data snapshot
ons? Email <u>e</u>	<u>energycar</u>	rbonreport@vand	<u>couver.ca</u> or phone <u>604-33</u>	<u>50-5797</u> the H	elp Centre			Remove



Help Centre Support

- 1. Select "Support" in the BPRS Owner Dashboard
- 2. Select "Create New Ticket"
- 3. Fill out the New Support Ticket in detail
 - Upload relevant files
- 4. Select "Receive Email Notifications" for ticket updates
- 5. Select "Send"

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New Support Ticket

Select		~	·
* Category *			
Select		~	·
* Priority *			
Select		~	·
* Subject *			
Enter a subject			
* Description *			
Describe your issue			
Upload File			4
	1		
Choose a file or drag and dra	op		
Choose a file or drag and dr	qo		
Choose a file or drag and dro 2 * Receive Email Notifications?	op •		
Choose a file or drag and dra ? * Receive Email Notifications?	• •		
Choose a file or drag and dra ? • Receive Email Notifications?	op C	ancel Send	
Choose a file or drag and dr		ancel Send	
Choose a file or drag and dr • Receive Email Notifications?		ancel Send	
Choose a file or drag and dr Choose a file or drag and dr Receive Email Notifications?		ancel Send] ENERG
Choose a file or drag and dr.		ancel Send	



Energy & Carbon Reporting Help Center <u>Energycarbonreport@vancouver.ca</u> 604.330.3797



Thank you!

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

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





