CANADIAN APARTMENT PROPERTIES • REIT

2024 Environmental, Social and Governance (ESG) Reporting Methodology

Table of Contents

1.0 BACKGROUND

This document details the methodologies used by Canadian Apartment Properties Real Estate Investment Trust (CAPREIT) to measure the energy and water consumption, greenhouse gas (GHG) emissions, waste generated, and affordable housing reported for its Canadian real estate portfolio in its 2024 Environmental, Social and Governance Report (ESG Report) for the reporting year January 1, 2024, to December 31, 2024 (Fiscal 2024).

2.0 ENERGY AND WATER CONSUMPTION AND GHG EMISSIONS

2.1 Background

CAPREIT has engaged a third party utility asset manager software firm to assist with the measurement and reporting of energy use, water consumption, and GHG emissions for the Canadian real estate portfolio following the guidance of the GHG Protocol[1]. The methodology includes reporting of Scope 3 emissions with coverage of three categories of CAPREIT's Scope 3 emissions: Category 1 (purchased goods and services) emissions related to water use, Category 3 (fuel and energy related activities not included in Scope 1 or 2) emissions related to transmission and distribution (T&D) losses for electricity consumed at CAPREIT properties, and Category 13 (downstream leased assets) emissions related to tenant utilities outside CAPREIT's operational control. These emissions have been calculated following the guidance of the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard[2].

2.2 Organization Boundaries

Organizational boundaries define the approach to determining ownership or control over the energy and emissions reported for the property portfolio.

CAPREIT applies the operational control approach for the purposes of emissions reporting, defined as follows in the GHG Protocol:

> *A company has operational control over an operation if the former or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation. Under the operational control approach, a company accounts for 100% of emissions from operations over which it or one of its subsidiaries has operational control.*

[1] The GHG Protocol – A Corporate Accounting and Reporting Standard, Revised Edition (World Resources Institute, 2004).

[2] Corporate Value Chain (Scope 3) Accounting and Reporting Standard: Supplement to the GHG Protocol Corporate Accounting and Reporting Standard (World Resources Institute, 2011).

2.2.1 Determining Responsibility for Emissions

Per the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, for reporting emissions from leased assets, the responsibility for emissions associated with leased assets depends on the economic substance of the lease (capital or operating) and the choice of organizational boundary approach (financial control, equity share, or operational control). Under the operational control approach, responsibility for emissions associated with a space with an operating lease is defined as follows:

> *Lessor does not have operational control, therefore emissions associated with fuel combustion and use of purchased electricity are scope 3 (Downstream leased assets).*
>
> *Some companies may be able to demonstrate that they do have operational control over an asset leased to another company under an operating lease, especially when operational control is not perceived by the lessee. In this case, the lessor may report emissions from fuel combustion as scope 1 and emissions from the use of purchased electricity as scope 2 as long as the decision is disclosed and justified in the public report.*

For the purposes of CAPREIT's GHG reporting, common-area utility data (owner-controlled spaces) is reported as Scope 1 and 2. In cases where CAPREIT pays whole-building utility bills, and where sub-meter data is available to separate tenant electricity use from base-building / common area electricity, tenant use is reported as Scope 3, Category 13. Where only bulk-metered, whole-building utility data is available, fuel and electricity use are reported as Scope 1 and 2. Where tenants pay for electricity directly to the utility provider, CAPREIT does not have access to data for in-suite consumption. These Scope 3 tenant emissions are estimated as per the estimation approach outlined in Section 2.6.

2.3 Operational Boundaries

CAPREIT's emissions reporting includes Scope 1, 2 and 3 emissions resulting from the operation of CAPREIT properties. CAPREIT's Canadian portfolio consists of multi-unit residential (residential) properties, manufactured home communities (MHCs), and commercial retail properties existing as part of a CAPREIT residential complex.

2.3.1 Scope 1 – Direct Emissions

Scope 1 emissions are emissions generated at properties that are under CAPREIT's operational control. This includes fuel consumption for space heating, water heating and, in some cases, cooking. Natural gas and heating oil consumption and emissions are reported.

2.3.2 Scope 2 – Energy Indirect Emissions

Scope 2 emissions are emissions from purchased electricity that is consumed at properties under CAPREIT's operational control but generated elsewhere.

2.3.3 Scope 3 – Value Chain Indirect Emissions

Scope 3 emissions are reported at properties where CAPREIT has operational control in respect of certain electricity and water consumption.

For electricity consumption, CAPREIT reports emissions related to electricity T&D losses under Scope 3, Category 3 (fuel- and energy-related activities not included in Scope 1 or 2) at all properties with in-scope (owner-controlled) electricity use.

CAPREIT also reports emissions related to water consumption at properties where CAPREIT has operational control (Category 1: purchased goods and services) and tenant-controlled electricity (Category 13: downstream leased assets).

2.3.4 Manufactured Home Communities (MHCs)

At MHCs, residents own their respective homes, which exist on land CAPREIT owns and leases. Since CAPREIT does not have ownership of the homes, emissions related to energy use in these homes are not considered to fall under the definition of "downstream leased assets" and are therefore out of scope. CAPREIT reports Scope 2 and Scope 3 Category 1 emissions related to utilities in its control at MHCs, which generally include street lighting and some water use.

During Fiscal 2024, CAPREIT sold most of its MHC portfolio, with the sale of the remainder closing in early 2025.

2.3.5 Inventory Exclusions

Of the relevant emissions applicable to CAPREIT, the following sources are not included in reporting for Fiscal 2024:

Fugitive emissions from refrigerants: Information regarding chiller specifications and refrigerant types has not been compiled. Fugitive emissions from refrigerants are anticipated to be immaterial.

Scope 3 emissions: Scope 3 emissions from purchased goods and services (apart from municipal water), capital goods, life-cycle fuel- and energy-related activities (apart from electricity T&D losses), upstream transportation and distribution of purchased products, waste generated in operations, business travel, employee commuting, and upstream leased assets are outside of the scope of CAPREIT's ESG Report as reliable data cannot currently be obtained.

Many of these categories are expected to be immaterial. Other Scope 3 emission sources such as downstream T&D, downstream emissions related to sold products, franchises, and investments are also excluded as they are either not relevant for CAPREIT, do not exist for its type of business, or cannot be obtained.

Scope 3, Category 13 emissions for downstream leased assets are reported where tenant-controlled utility data is available via sub-metering. At many residential properties, tenants pay for utilities directly. The associated Scope 3, Category 13 emissions are estimated according to the methodology described in Section 2.6.

European Residential Real Estate Investment Trust (ERES) Portfolio: CAPREIT's methodology and the ESG Report focus exclusively on CAPREIT's properties located in Canada. Data related to properties owned by ERES are excluded. Netherlands apartment suites owned by ERES represented approximately 6% of the suites and sites of CAPREIT on a consolidated basis as at December 31, 2024.

Leased Offices: CAPREIT offices located in buildings that are not owned by CAPREIT are excluded from emissions reporting. Operational emissions related to these offices are expected to be immaterial[3] with respect to CAPREIT's Scope 1 and 2 emissions.

Other Excluded Properties: Certain CAPREIT-managed properties with no property owner-controlled utilities have been excluded. In addition, one property acquired in 2024 – 555 College Street – had no available 2024 utility data at the time of reporting and has been excluded. The list of excluded properties is below.

Property Name	City	Province
Harbourview Commercial	Halifax	NS
Strada – 555 College Street	Toronto	ON

[3] CAPREIT has estimated excluded corporate office GHG emissions to be on the order of 0.1% of total Scope 1 and 2 emissions.

2.4 Comparison to Historical Years

2.4.1 Base Year Recalculation Policy

CAPREIT has updated its base year for GHG accounting from 2010 to 2019, starting with the 2023 ESG Report. This change is driven by the fact that 2019 was the most recent year with normal, pre-COVID operations, providing an accurate and representative reference point. Furthermore, changes in our portfolio, including acquisitions and dispositions, call for a new base year to better align with the current portfolio and its emissions profile.

1. Utility use and emissions are recalculated for the base year and each comparative historical year, in keeping with the GHG Protocol, to account for the following factors: Property acquisitions and dispositions by CAPREIT.
2. Properties or accounts owned in the base year but previously excluded from scope.
3. Corrections to historical data based on availability of more accurate information.
4. Changes to emission factors.

In cases where historical data is not available, historical consumption is estimated based on the best data available. The base year is not recalculated to account for new property developments or demolitions.

Adjustments for acquisitions / dispositions are treated using the 'Same-year, Pro-rata'[4] approach, meaning that buildings only owned for a portion of the reporting year (2024) are included in all historical years for the same period. Utility use, emissions and 'effective' number of suites are all adjusted proportionately for the period of ownership in 2024.

2.4.2 Restatement Details

The restatement categories outlined above resulted in the following impacts on reported Scope 1 emissions.

	% Impact on Scope 1 Emissions	
Cause of Restatement	2019	2023
Changes to emission factors	-0.1%	-0.1%
Acquisitions and dispositions	-3.3%	-2.2%
Increased data availability or activity data corrections	0.0%	0.3%

[4] Base year recalculation methodologies for structural changes - Appendix E to the GHG Protocol Corporate Accounting and Reporting Standard – Revised Edition (World Resources Institute, 2005).

The restatement categories outlined above resulted in the following impacts on reported Scope 2 emissions.

	% Impact on Scope 2 Emissions	
Cause of Restatement	2019	2023
Changes to emission factors	0.0%	1.8%
Acquisitions and dispositions	-1.1%	1.1%
New Tenant Meter Data Availability (Moved to Scope 3)	-1.6%	-2.5%
Other Increased data availability, activity data corrections	-0.3%	0.5%

2.4.3 Treatment of Scope 2 Electricity Emission Factors

Electricity emission factors vary over time as the generation mix throughout Canada changes. Environment and Climate Change Canada (ECCC) publishes a '*National Inventory Report*' (NIR) each year. CAPREIT relied upon the latest available NIR as of December 31, 2024 (the 2024 NIR)[5]. The 2024 NIR contains annual location-based electricity emission factors reflecting the electricity generation mix in each year from 2005 to 2022. Emissions are calculated using the 2024 NIR annual emission factors for the corresponding year for each year prior to 2022, and the 2022 emission factors to report emissions from 2022 to 2024.

Note that water emission factors are based on electricity emission factors.

Since CAPREIT has not purchased any contractual instruments to reduce market-based Scope 2 emissions and residual mix grid emissions rates are not available in Canada, market-based emissions are not disclosed. See Section 2.8 for more information on the emission factors.

[5] National Inventory Report 1990-2022: Greenhouse Gas Sources and Sinks in Canada (ECCC, 2024).

2.4.4 Reporting Normalized Results

To understand how the portfolio performed with respect to energy use and GHG emissions, a detailed variance analysis is performed to determine 'normalized' results as compared to the previous year.

Only properties owned by CAPREIT from January 2023 to December 2024 are included in the normalized results.

Normalization of Weather: For 2023 to 2024 comparisons, utility use and emissions data for 2023 are normalized to reflect 2024 weather conditions.

To do so, linear regression models are developed for 2023 consumption for each individual utility account as a function of heating degree hours (for accounts providing heating energy) and cooling degree hours (for accounts providing cooling energy), using hourly weather data from Environment Canada for the closest weather station to each property.

2024 weather data is applied to the 2023 models to calculate, in effect, what consumption in historical years would have been had the properties experienced 2024 weather. The difference between the actual 2023 consumption and the consumption modeled using 2024 weather provides a reasonable estimate of the impact of changes in weather on energy and emissions.

Normalization of Occupancy: For 2023 to 2024 comparisons, utility use and emissions data for 2023 are normalized to reflect 2024 occupancy levels. It has been assumed that electricity consumption at residential properties is the only utility materially affected by occupancy.

Monthly vacancy data is tracked for each property[6] for 2023 and 2024. A 'gross-up factor' for both years is then calculated by assuming that if vacant space were occupied by a typical tenant, building consumption would increase by 240 kWh/suite/month[7]. The impact of occupancy on energy consumption is determined as the difference between the gross-up factors in 2024 as compared to 2023.

Note that there are factors that can affect energy consumption in addition to weather and occupancy which may be beyond the control of the property owner including, for example, changes to occupant energy use habits. These factors have not been addressed.

[6] Complete 2023 - 2024 vacancy data was tracked for 96% of properties. Where complete vacancy data was not available for a year-to-year comparison, vacancy was assumed to be constant.

[7] The figure 240 kwh/suite/month is based on the approximate average consumption of sub-metered suites in the CAPREIT Canadian portfolio. At properties where sub-metering is used for tenant billing, the gross-up factor is based on the average per-suite consumption for the property in question.

2.5 Data Sources

The primary activity data for calculation of emissions for CAPREIT is building utility consumption, i.e. heating fuel (natural gas, oil, or propane), electricity and water use. CAPREIT records this activity data based on utility bills, including remittance statements from residential utility sub-metering providers. Electricity T&D loss emissions are also calculated using the billed electricity consumption.

Utility bill data records from CAPREIT's accounting system are validated by comparing billed costs to expected rates and billed usage to expected usage based on historical trends and weather. Significant variances between actual and projected consumption are reviewed, investigated, and corrected if needed.

2.6 Utility Data Estimation

2.6.1 Unavailable Utility Bill Data – Owner-Paid Utilities

Best efforts are made to collect actual utility consumption data for all properties and utility accounts. Utility bills for some time periods may not be available in certain scenarios, in which cases utility consumption is estimated.

Historical months: Per the base year recalculation policy outlined in Section 2.4.1, CAPREIT may be required to report base year and comparative year emissions for buildings acquired after the base year. Where historical (pre-acquisition) utility data is not available, consumption is estimated based on a linear regression of available utility data and actual weather data. These estimations are based on building-specific utility consumption data, and account for known external factors and their expected impacts. As each new utility bill is received, models are checked for their ability to predict recent billed consumption and therefore are expected to estimate missing utility bill data with high accuracy.

Where utility consumption for a particular utility account does not demonstrate significant seasonality, recent average historical consumption is used to estimate any missing utility bill data.

At many properties, sub-metered tenant energy use is included in the utility data compiled by CAPREIT and is therefore estimated according to the same methodology.

Missing months during CAPREIT's period of ownership: Where utility bill data is not available for certain months, an estimate for historical months is generated as described above.

Fiscal year end accruals: Due to the timing of data aggregation for reporting, some utility bills covering part of the reporting year may not be issued at the time of computation for purposes of the ESG Report. In these cases, utility consumption and costs are estimated and accrued based on historical consumption patterns for the particular building as part of CAPREIT's utility accounting processes.

2.6.2 Tenant Direct-Billed Utilities

In cases where CAPREIT tenants' in-suite electricity use is sub-metered (downstream of a main meter, paid by CAPREIT), CAPREIT reports the associated sub-metered tenant emissions as Scope 3, category 13 emissions.

However, at buildings where tenants are billed directly for utilities by the utility provider, CAPREIT does not generally have access to tenant utility data. To ensure complete coverage of reported tenant electricity, CAPREIT estimates electricity usage of tenants at these buildings using the average per-suite electricity use intensity of sub-metered tenants in CAPREIT buildings in each calendar year.

2.7 Purchased Renewable Natural Gas

CAPREIT has three properties that have contracts with the natural gas vendor to purchase renewable natural gas (RNG). RNG is natural gas produced from biomass sources, such as landfill or wastewater gas capture. Carbon dioxide released from biomass combustion originates from atmospheric carbon dioxide. Similar to carbon offsets, RNG contracts give the purchaser the right to claim the environmental benefit of a certain quantity of RNG supplied to the natural gas grid. As a result, in addition to reported Scope 1, 2, and 3 totals, CAPREIT separately reports a quantity of biogenic carbon dioxide (CO_2). Methane (CH_4) and nitrous oxide (N_2O) generated from combustion of RNG are reported as Scope 1.

2.8 Emission Factors

Emissions were calculated using emission factors from the 2024 NIR. The emission factors in the 2024 NIR use the Global Warming Potentials published in the Intergovernmental Panel on Climate Change's (IPCC's) Fourth Assessment Report[8] (i.e. including emission factors of 28 for methane (CH_4) and 265 for nitrous oxide (N_2O)). Since Prince Edward Island (PEI) imports most of its electricity from New Brunswick, the electricity emission factor for New Brunswick has been applied for properties located in PEI.

[8] Climate Change 2007: Synthesis Report, Fourth Assessment (IPCC, 2007).

CAPREIT has approximated the energy intensity of upstream water extraction and treatment per cubic meter of water used, based on information presented in the listed reference. Using this energy intensity together with the GHG emissions intensity of electricity generation provincially, an emission factor of tCO_2e per cubic meter of water used has been derived.

The water emission factor accounts for embedded wastewater, including its energy portion, to provide a conservative estimate of the total embodied energy associated with municipal water use. While IPCC guidance addresses emissions from wastewater treatment, it does not account for the energy inputs. Since the reported embedded energy value is distinct from Scope 3, Category 5 (wastewater), aligning it with Scope 3, Category 1 emission factors are considered reasonable.

Conversion factors used for m^3 to ekWh are sourced from the energy conversion tables available on the website of Canada Energy Regulator[9].

Emission factors for T&D losses are derived from the difference between the generation and consumption intensities as presented in the 2024 NIR. Consumption intensities, as calculated in the 2024 NIR, account for unallocated energy and sulphur hexafluoride (SF_6) emissions. This unallocated energy encompasses transmission line losses, metering discrepancies, and other losses. The emission factors used for measuring 2019, 2023, and 2024 are summarized below.

	Electricity T&D Factor (gCO2e/kWh)		Electricity Consumption Intensity (gCO2e/kWh)	
Province	2019	2023/2024	2019	2023/2024
AB	647.0	486.6	17.9	15.3
BC	22.0	14.5	1.8	1.1
NB	302.8	348.7	13.7	13.4
NS	736.1	704.2	49.2	44.0
ON	29.2	38.1	3.0	2.7
PE	302.8	348.7	13.7	13.4
QC	1.6	1.7	0.4	0.5
SK	718.5	666.7	49.0	42.2

[9] https://apps.cer-rec.gc.ca/Conversion/conversion-tables.aspx?GoCTemplateCulture=en-CA#s1ss1).

Emission Source & Unit	Province	Emission Factor (gCO2/unit)		Emission Factor Source
		2019	2023/2024	
Electricity (gCO2e/kWh)	AB	630.0	470.0	2024 NIR
	BC	20.2	13.5	
	NB	290.0	330.0	
	NS	690.0	660.0	
	ON	26.0	35.0	
	PE	290.0	330.0	
	QC	1.2		
	SK	670.0	630.0	
Natural Gas (gCO2e/m3)	AB	1972.3		
	BC	1976.7		
	NB	1929.3		
	NS	1929.3		
	ON	1931.1		
	PE	1929.3		
	QC	1936.2		
	SK	1930.2		
Oil (gCO2e/L)	BC	2,761.9	2,762.9	
	NB			
	PE			
Propane (gCO2e/L)	NB	1,544.3	1,547.8	
	PE			
Water (gCO2e/m3)	AB	803.9	599.7	2024 NIR and Greenhouse Gas and Energy Co-Benefits of Water Conservation (Water Sustainability Project, 2009)
	BC	25.8	17.2	
	NB	370.0	421.1	
	NS	880.4	842.2	
	ON	33.2	44.7	
	PE	370.0	421.1	
	QC	1.5		
	SK	854.9	803.9	

3.0 WASTE

3.1 Data Coverage

CAPREIT has engaged a third party waste management services firm (firm), as its primary waste services coordinator to assist with the measurement and reporting of waste generated for 39% of its Canadian real estate portfolio. The firm is engaged for sites where municipal services are not provided to multi-residential or commercial properties and where waste volumes exceed municipal tolerances or special pick-ups may be required at certain times of the year.

Acquisitions and dispositions are included for the period of CAPREIT's ownership. CAPREIT properties that are not managed by the firm are excluded. The waste data that is collected refers to non-hazardous waste only.

3.2 Data Collection and Measurement

For the purposes of data measurement, all front-end bins[10] and totes[11] are assumed to be full at the time of pick-up. The categories of waste that are used in waste data collection and calculations are as follows:

- All compacted[12] and loose[13] bins
- All contaminated[14] loads that have been dumped and recorded as waste
- All bulk[15] items that have been dumped and recorded as waste

The categories that are used for data collection for waste diverted from landfill are organics and recyclables.

The waste data is then calculated using the following criteria:

- Number of pick-ups
- Stream type: (e.g.) waste, cardboard, organics

[10] Front-end bin refers to a front-end static container designed for storing and collecting waste and recyclables, typically used by businesses and commercial establishments, that is emptied by a front-end loading truck.
[11] Tote refers to a portable container, often a wheeled bin or a large plastic container, used for storing and collecting waste materials.
[12] Compacted waste refers to waste that is compressed (compacted) by a compactor at the site.
[13] Loose waste refers to garbage collected in black bags.
[14] Contamination-non recyclable materials are put in the recycling bin. Contamination rates vary by municipalities and regions
[15] Bulk refers to large items such as furniture, mattresses, and other Items not allowed in waste bins.

- Industry weight by stream type[16]
- Container type / size
- Number of containers per stream type

3.3 Data Quality

There are several haulers in each region and each of them are vetted by the firm prior to working at CAPREIT properties. The vetting process includes the review of corporate policies, environmental and occupational health and safety policies and processes, declaration of ethics, workers compensation and certificates of insurance and licenses/permits.

The haulers' acceptable materials list and downstream processes for waste and recycling are also evaluated. To align with the best practices in waste collection, data analysis and reporting for CAPREIT, the firm works closely with the Circular Innovations Council and has certified waste auditors on its staff. CAPREIT reviews the firm's monthly data to reconcile the waste generated, the amount paid for the services rendered and any extra services charged to ensure accuracy.

[16] Estimated based on historical experience in residential audits in which the third-party waste management services firm participated.

4.0 AFFORDABLE HOUSING

CAPREIT measures the number of affordable housing suites (excluding MHCs) based on guidance provided by Canada Mortgage and Housing Corporation (CMHC) for its MLI Select financing product. For this purpose, CMHC defines an affordable housing unit as one where rent is less than 30% of household pre-tax income in the particular city or town. CMHC provides household pre-tax income figures for each province and territory and various urban and rural centres based on 2019 income data. For purposes of its analysis, CAPREIT adjusted CMHC's 2019 income data for the various urban centres for Consumer Price Index inflation from 2019 to 2024. To determine affordability, CAPREIT compared the rent as of December 31, 2024, for each of its suites to the adjusted CMHC income data for the urban centre that is closest to the particular suite.