



ENVIRONMENT

# GHG Emissions

## Reducing Environmental Impact

By their nature, buildings affect their environments – changing the landscape, defining new skylines, becoming a destination, impacting traffic patterns, and, of course, using energy and water and generating waste.

According to the United Nations Environment Programme (UNEP), buildings consume 40% of global energy, making greenhouse gas (GHG) emissions the most material environmental impact of a real estate company. We track and analyze energy, water, and waste data to understand consumption patterns, identify conservation opportunities, strategically focus on capital improvements and innovation, and drive performance. We take a proactive approach to utility and resource management that establishes annual and long-term goals and objectives, tracks and reports key performance indicators and uses best management practices.

We report data on a 5 year rolling baseline to align with industry best practice. Here you will find Bentall Kennedy’s GHG emissions reported by:

- **Actual GHG Emissions:** Scope 1 and 2 emissions reported in accordance with the GHG Protocol for areas under our operational control. Historical data has been adjusted to reflect any acquisitions, dispositions, and changes in emission factors in 2018 and new developments are added as completed. This does not account for variances in weather, occupancy, and exceptional loads (data centers).
- **Normalized GHG Emissions:** Scope 1 and 2 emissions adjusted for the impact of weather, occupancy, and exceptional tenant loads and includes newly developed buildings but does not include buildings that have been acquired or disposed of in the past 5 years.
- **Normalized GHG Intensity:** Normalized GHG emissions calculated on a per square foot basis. This is a suitable metric for the real estate sector, allowing for comparability of GHG performance at the property and portfolio level.

**USD \$12.1M / CAD \$16.0M** | total utility costs avoided across North America since 2014.

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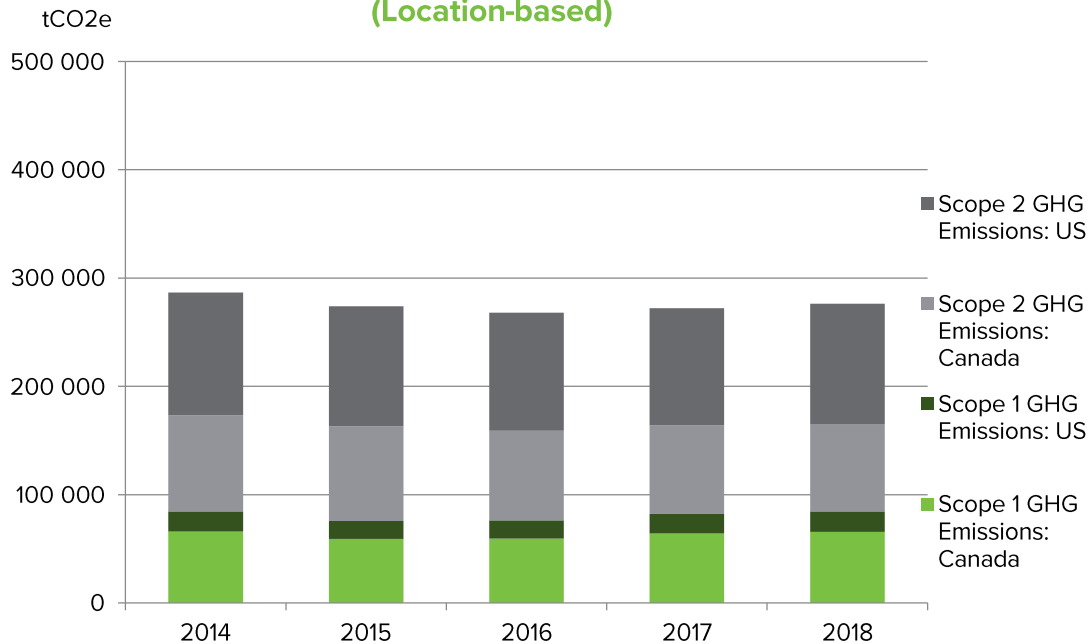
### Actual GHG Emissions

Actual greenhouse gas (GHG) emissions have decreased by 3.6% since 2014 when adjusted to reflect any acquisitions, dispositions, completed new developments during the year, and in 2018 GHG emissions amounted to 276,387 tCO<sub>2</sub>e<sup>^</sup>. This decrease is a result of several initiatives Bentall Kennedy has rolled out in recent years, including the LEED Volume, Energy Target Setting and BOMA BEST Portfolio Programs. Compared to 2017, however, GHG emissions increased slightly by 1.6%. The increase is largely the result of new property developments in the US portfolio. In 2019, we will continue to use our LEED Volume, Energy Target Setting and BOMA BEST Portfolio Programs to drive reductions, encouraging properties to conduct regular audits to identify opportunities that will increase efficiency, while also reducing our emissions. The GHG emissions breakdowns for 2018 are as follows:

	Location-Based	Market-Based
Scope 1 GHG Emissions	84,460 tCO <sub>2</sub> e <sup>^</sup>	84,460 tCO <sub>2</sub> e <sup>^</sup>
Scope 2 GHG Emissions	191,927 tCO <sub>2</sub> e <sup>^</sup>	181,955 tCO <sub>2</sub> e <sup>^</sup>
<b>Total Actual GHG Emissions</b>	<b>276,387 tCO<sub>2</sub>e<sup>^</sup></b>	<b>266,415 tCO<sub>2</sub>e<sup>^</sup></b>

<sup>^</sup> Indicates data assured by KPMG

### Actual Scope 1 & 2 Greenhouse Gas Emissions (Location-based)



[GRI 305-1, 305-2, 305-5]

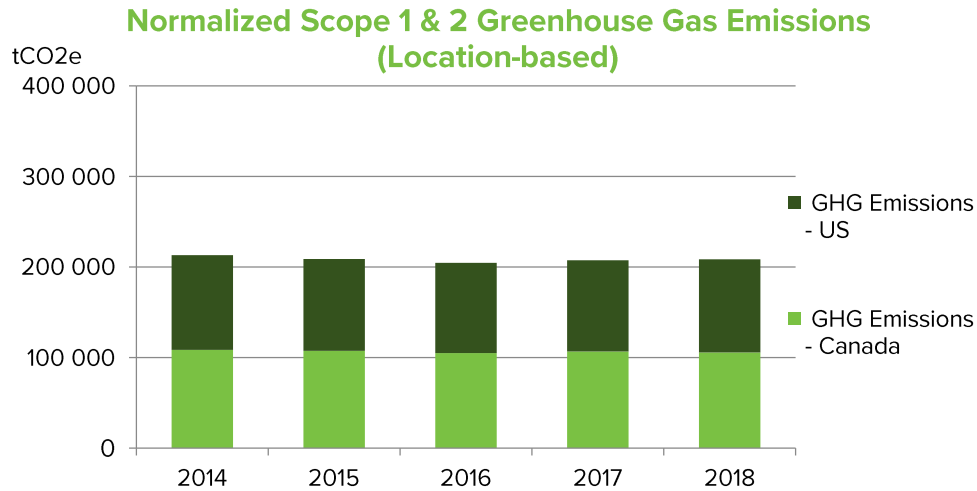
Our Scope 3 emissions across North America in 2018 totaled 58,086 tCO<sub>2</sub>e. Scope 3 emissions are related to the consumption of water and generation of waste, as well as emissions outside of Bentall Kennedy's operational control (e.g. tenant sub-metered electricity).

[GRI 305-3]



### Normalized GHG Emissions: Location-based

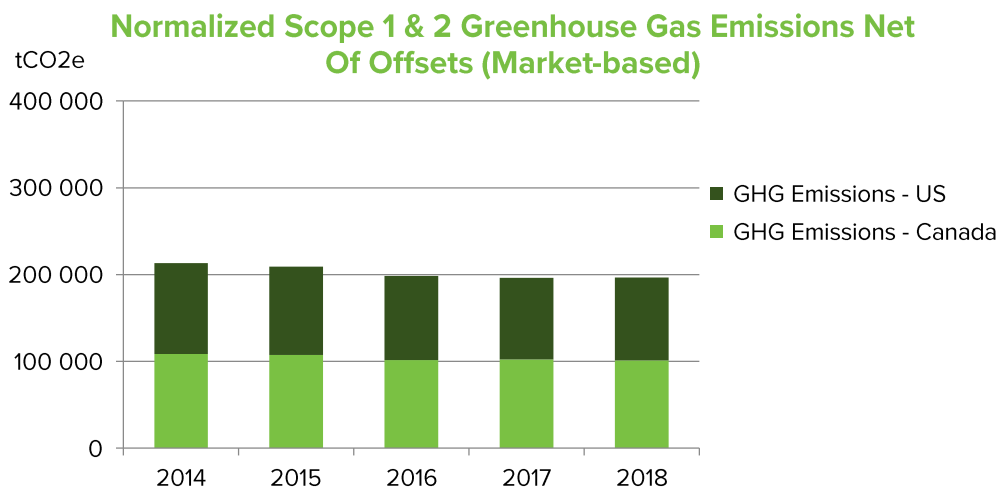
As a manager, we monitor performance using normalized data, meaning we adjust our data for the impact of weather, occupancy, exceptional tenant loads and includes newly developed buildings but does not include buildings that have been acquired or disposed of in the past 5 years. The graph below demonstrates a slight increase in normalized location-based GHG emissions of 0.4% since 2017. Since 2014, normalized GHG emissions have decreased by 2.3%. These do not account for the purchase of renewable energy credits (market-based emissions) or carbon offsets.



### Normalized GHG Emissions: Market-based

To mitigate our carbon impact, GHG emissions are managed through the purchase of renewable energy credits (RECs) and Carbon Offsets. We continue to purchase RECs and Offsets to help reduce our emissions and support more sustainable sources of energy. Bentall Kennedy is proud to support the development of renewable power in both Canada and the United States. At the same time, we are aware that greater efforts to conserve energy and reduce GHG emissions are required. The combined benefits of reducing GHG emissions, environmental and social impacts from new generation required, and the cost savings associated with it, make energy efficiency and conservation a triple bottom line winner.

The Normalized GHG Emissions graph below shows the effect of the RECs (market-based Scope 2 emissions) and is net of Offsets purchased - demonstrating a decrease in net normalized GHG emissions of 7.9% since 2014. This significant decrease can primarily be attributed to the purchase of a large quantity of RECs, as well as the Offsets purchased by a number of large properties to cover 100% of their buildings' emissions.





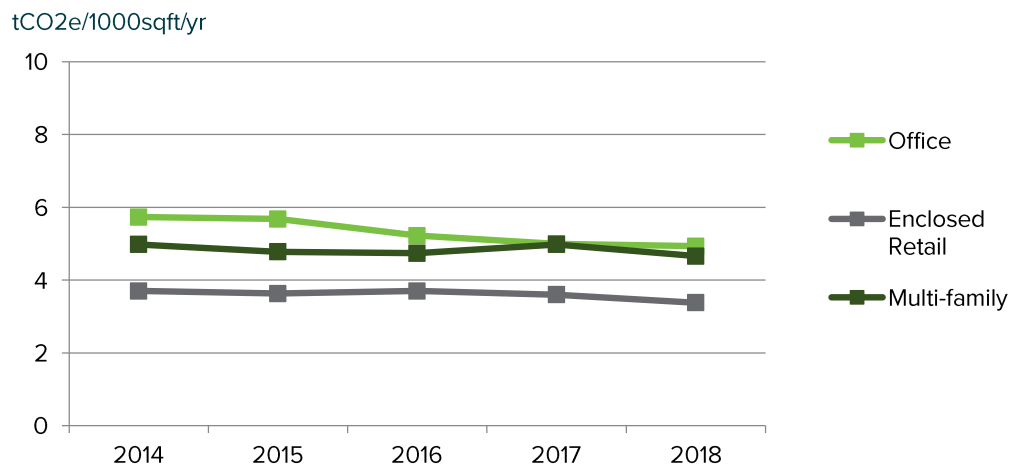
### GHG Emissions Intensity

Emissions intensity by asset type is calculated based on the total annual normalized gross location-based GHG emissions and the total square footage, based on gross leasable area (GLA). The graphs below show the intensity by asset type in Canada and in the U.S.

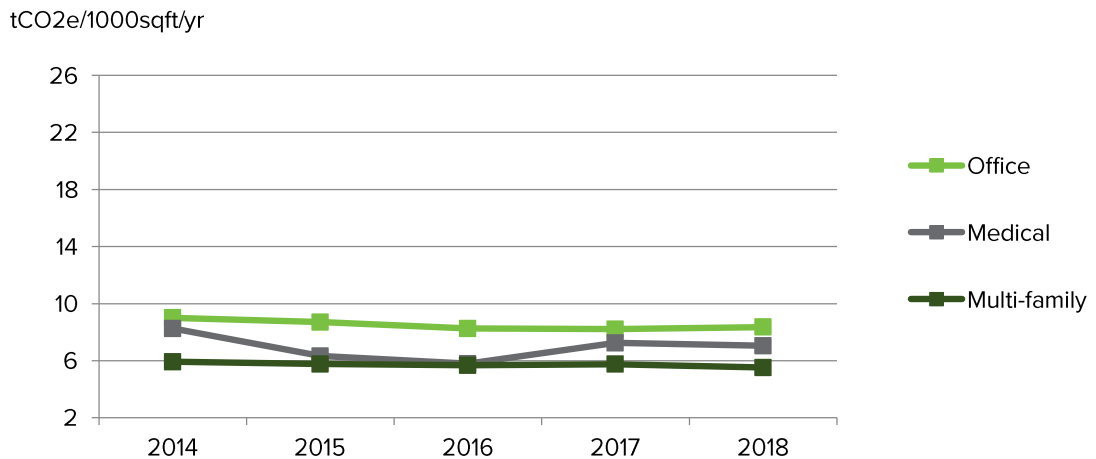
- **Canada:** Notable intensity improvements were achieved across all Canadian asset classes from 2014 to 2018. Office assets realized a decrease of 14.0%, while enclosed retail saw a decrease of 8.6% since 2014. This is largely due to the combination of improved energy performance and implementation of a number of initiatives, such as Target Setting, LEED & BOMA BEST Portfolio Programs.
- **U.S.:** Similarly, decreases were achieved across all US asset classes from 2014-2018. Office and multi-family properties decreased their GHG intensity by 7.2% and 6.9%, respectively. Medical Office properties also decreased their GHG intensity by 14.6%.

This intensity improvement in office properties can be attributed the continued engagement in the Target Setting Program in 2018, whereby energy audits were conducted and specific energy reduction targets were set in a systematic manner.

### Canada: Net GHG Intensity By Asset Type



### US: Net GHG Intensity By Asset Type



[GRI 305-4]



## About the Data

To understand the data shown here, it's useful to understand several of the terms being used: net vs. gross, location-based vs. market-based, normalization, and changes in the portfolio. The changes in portfolio size are shown in the table below.

Gross	Net
Emissions that do not account for Carbon Offsets	Emissions that account for Carbon Offsets
Location-Based	Market-Based
Emissions that do not account for RECs	Emissions that account for RECs

While we have data for several years prior to 2014, and strong GHG reductions for those years, we have aligned with best practice and use a 5 year rolling baseline. We do this in order to focus attention on continuous improvements in the existing portfolio.

- Actual GHG Emissions Data:** The current year actual GHG emissions data is calculated in accordance with the Greenhouse Gas (GHG) Protocol, including the Scope 2 Guidance amendment and using the Operational Control approach. The Scope 2 guidance requires reporting of the location-based method that reflects the average emissions intensity of grids on which energy consumption occurs and the market-based method which reflects emissions from contractual decisions such as the purchase of renewable energy credits. The data does not account for Offsets or the impacts of normalization. Historical data has been adjusted to reflect any acquisitions, dispositions, and changes in emission factors in 2018 and new developments are added as completed.

**Normalized GHG Emissions Data:** The current year normalized GHG Emissions data is calculated using both location and market-based methods. The normalized GHG emissions data are adjusted for the impact of weather, occupancy, and exceptional tenant loads and includes newly developed buildings but does not include buildings that have been acquired or disposed of in the past 5 years. Data for historical years is also adjusted to reflect 2018 emission factors.

- Estimates (GHG emissions, energy, water):** Reported data reflects office, retail, medical, multi-family and light industrial assets for which we track utilities on Eco Tracker. 98% of emissions data and 98% of Energy data on Eco Tracker, as well as 95% of water data, is based on actual utility consumption from utility bills. The balance is estimated using weather modeling and historical consumption. For properties not on Eco Tracker but under Bentall Kennedy's operational control, utility consumption and emissions are estimated to ensure completeness of portfolio GHG emissions.

## Total Area Change (sq.ft.)

	Canada	US
2016 Effective GLA	69,188,481	51,050,083
Net developments/demolitions (2017)	1,874,673	572,675
2017 Effective GLA	71,063,153	51,622,758
Net developments/demolitions (2018)	-305,539	752,015
2018 Effective GLA	70,757,614	52,374,772
Growth - 2017 vs. 2016	2.7%	1.1%
Growth - 2018 vs. 2017	-0.4%	1.5%

Detailed environmental performance data is available [here](#).