ENVIRONMENTAL

Our Approach

Included in this report:

At BentallGreenOak, we manage ESG risk to generate long-term value for our clients. Our approach to environmental sustainability enhances value by increasing property occupancy and income, reducing risk of obsolescence, and strengthening tenant loyalty, all while reducing our footprint and protecting our environment.

We use the following programs and tools to drive, monitor, and demonstrate our portfolio's environmental performance:

Continuous Improvement:

- **Benchmarking Survey and Diagnostic**: Properties complete an annual Sustainability Benchmarking Survey which tracks property-level sustainability data and provides relevant information to the Property, Asset Management, and Portfolio Management teams to inform budget decisions, drive performance, and enable continuous improvement. The survey benchmarks properties and funds against best practices in the following areas: energy, water, waste, health and well-being, building certifications, and tenant engagement. A property's response to survey questions determines whether the property's management actions are considered to Not Meet, Meet, Exceed or Lead the Best Practice. The management action needed to Meet, Exceed or Lead each Best Practice is stated at the start of each Best Practice section in the Benchmarking Survey and a Diagnostic is produced for each property to inform property level sustainability strategy.
- **ISO 14001-certified Environmental Management System:** The EMS covers the collection, monitoring, record keeping, analysis, evaluation and reporting of environmental and sustainability data flowing from our managed properties within operational control. This EMS demonstrates our commitment to continual improvement and ensures the successful implementation of sustainability programs.

Sustainability Data Management and Analytics:

- **Proprietary Sustainability Data Management System:** This state-of-the-art system provides comprehensive energy, water, waste and emissions tracking and reporting supported by analytics and engineering, with surveys capturing qualitative sustainability metrics. This system has an automated data exchange service with ENERGY STAR Portfolio Manager to streamline data entry requirements and externally benchmark our properties against similar buildings. This system also includes our proprietary energy modeling, forecasting, and tracking tool that is used to facilitate the process of setting energy reduction targets, while also predicting reductions in cost, consumption, and GHGs from implementing energy efficiency measures.

Asset-Level Sustainability Programs:

- **Target Setting Program:** This program represents our formalized approach to planning and implementing energy efficiency improvements to reduce energy consumption, GHG emissions, and operating costs across our office, residential and enclosed retail portfolios. Through this program, property management teams identify opportunities for energy/cost savings through energy audits, develop an implementation plan over a 6-year timeframe, implement measures and track performance against the plan.

- **Third-party green building certifications:** We certify eligible properties across our North American portfolio to LEED, BOMA BEST, IREM Certified Sustainable Property, ENERGY STAR, and Fitwel certification programs. These certifications drive operational excellence and serve as a key indicator for investors that our certified assets are designed and/or operated according to independent sustainability criteria aligned to industry best practice and provide benefits for occupants, society, and the environment.
- **ForeverGreen Tenant Engagement & ForeverGreen@Home Resident Engagement programs:** These programs are implemented in all asset types across North American goal of the program is to increase tenant loyalty and improve building performance associated with tenant utility consumption, waste, and occupant health and well-being. These programs equip property managers and tenants with actionable content around monthly sustainability, health, and wellness themes.

About the Data

Portfolio-Wide Environmental Performance Data: The reported GHG, energy, water, and waste data reflects office, retail (enclosed and other), medical, multi-family, and light industrial assets for which we track utilities on our proprietary sustainability data management platform (Eco Tracker). 98% of emissions data and 98% of energy data on Eco Tracker, as well as 86% of water data, is based on actual utility consumption from utility bills. Where verifiable utility data is not available, consumption is estimated based on a linear regression of available utility data and actual weather data. In the case of non-weather dependent accounts, historical consumption is assumed to be equal to recent year consumption. Historical data has been adjusted to reflect any acquisitions, dispositions, and changes in emission factors in 2021, and new developments are added as completed. Estimated bills during the pandemic period (March 2020 forward) are adjusted based on the actual vs. estimated values for the past three actual bills available to take into account reduced consumption during the pandemic. GHG, energy, water, and waste intensity values shown are based on gross leasable area (GLA). Scope 1, 2, and 3 emissions are reported in accordance with the GHG Protocol using the equity share approach for our clients' assets under management. The table below describes the changes in portfolio size over the reporting year:

Total Area Change (ft^2)	2020	2020 vs 2019	2020 vs 2016
Effective GLA	98,116,282	-	-
Net Developments / Demolitions	2,025,189	-	-
Growth	-	2.1%	13.7%

Corporate Environmental Performance Data: Our GHG emissions are calculated using several data sources. Energy use is based on energy consumption in corporate offices, which is based on proportional share of a building's energy use where that data is available. Otherwise, a standard energy use factor is applied. In previous years, emissions from business travel were based on employees' travel expenses, and commuting data was a result of an employee survey. For 2020, estimates were made based on previous years' data and multiplied by a factor to account for the change in employee workforce.

Scope: Effective July 1, 2019, GreenOak Real Estate merged with the Bentall Kennedy real estate investment management platform and now operates as BentallGreenOak (BGO) through various legal entities on a global basis. For the 2021 reporting cycle, BentallGreenOak has elected to include only assets under management ("AUM") related to the firm's investment advisory activities in this corporate responsibility ("CR") report Summary. This includes the sustainable investing commitments and management standards implemented across BentallGreenOak's investment advisory activities worldwide. Environmental performance (greenhouse gas emissions, energy, water, waste, and green building certifications) data for BentallGreenOak's North American debt series and mortgage investments, European & Asian Core Plus and global Value-Add strategies, and Asian and European separate accounts and Asian debt series has been excluded. BentallGreenOak is in the process of applying the environmental performance data collection process globally and implementing a consistent data collection approach across the firm. The environmental performance data reported excludes the greenhouse gas emissions, energy, water, waste data associated with tenant-paid invoices. All figures are as of December 31, 2020, unless otherwise stated.

GHG Emissions

Total Emissions

BentallGreenOak's Greenhouse Gas (GHG) emissions breakdown for 2020 are described in the table below.

Scope 1, 2, and 3 emissions are reported in accordance with the GHG Protocol using the equity share approach for our clients' assets under management. Scope 3 emissions are related to the consumption of water and generation of waste, as well as emissions associated with tenant sub-metered electricity.

The data in this table does not account for variances in weather, occupancy, and exceptional loads (data centers).

Environmental Performance Data *(Totals Across N. American Portfolio)*	**2016**	**2017**	**2018**	**2019**	**2020**	**2020 vs. 2019**	**2020 vs. 2016**	**GRI Indicator**
GHG Emissions (tCO_2e)								
Scope 1 emissions	40,212	43,942	46,199	47,686	40,882 ^	-14.3%	1.7%	**305-1**
Scope 2 emissions								
Location-Based	109,973	105,019	107,674	103,935	93,273 ^	-10.3%	-15.2%	**305-2**
Market-Based	107,485	98,180	98,517	101,314	83,772 ^	-17.3%	-22.1%	
Scope 3 emissions								
Location-Based	31,494	35,722	35,806	35,937	29,420	-18.1%	-6.6%	**305-3**
Market-Based	31,474	35,424	35,529	35,735	29,271	-18.1%	-7.0%	
Total (scopes 1 - 3) emissions								
Location-Based	181,679	184,682	189,679	187,558	163,575	-12.8%	-10.0%	**305-1,2,3**
Market-Based	179,172	177,545	180,244	184,735	153,926	-16.7%	-14.1%	
Carbon Offsets Purchased	1,491	1,491	1,882	2,648	1,788 ^	-	-	**305-5**
Renewable Energy Credits (RECs) (MWh)	10,513	43,335	58,313	37,396	57,723	-	-	**N/A**

^ **Performance data assured by KPMG**

USD $11.1 M / CAD $ 14.3 M total utility costs avoided across North America since 2016.

Emission Intensity

The table below shows the GHG emission intensity (actual and normalized) by asset type for our North American portfolio.

- **Actual (Non-Normalized) GHG Intensity**: Scope 1 and 2 GHG emissions (as reported in accordance with the GHG Protocol using the equity share approach for our clients' assets under management) calculated on a per square foot basis.
- **Normalized GHG Intensity**: Scope 1 and 2 GHG emissions—normalized to remove variances for weather, occupancy, acquisitions/dispositions and exceptional loads (data centers)—calculated on a per square foot basis.

Environmental Performance Data *(Totals Across North American Portfolio)*	2016	2017	2018	2019	2020	2020 vs 2019	2020 vs 2016	GRI Indicator
GHG Emissions Intensity (tCO2e/1000 ft^2/year)								
Location-Based	-	-	-	-	-	-	-	
Office (GLA)	4.6	4.5	4.5	4.4	3.8	-13.6%	-17.2%	
Multi-family	3.8	3.8	3.7	3.6	3.3	-7.6%	-11.2%	
Enclosed Retail	2.3	2.3	2.2	2.3	1.9	-15.3%	-15.9%	305-4
Other Retail	0.5	0.5	0.5	0.4	0.4	-1.8%	-16.8%	
Medical	3.6	4.3	4.2	4.0	4.1	1.4%	15.1%	
Industrial	0.1	0.1	0.1	0.1	0.1	-11.5%	-27.1%	
Market-Based	-	-	-	-	-	-	-	
Office (GLA)	4.5	4.2	4.1	4.3	3.5	-18.6%	-22.1%	
Multi-family	3.8	3.8	3.7	3.6	3.2	-10.5%	-14.1%	
Enclosed Retail	2.3	2.3	2.2	2.3	1.8	-19.1%	-19.9%	305-4
Other Retail	0.5	0.5	0.5	0.4	0.4	-10.7%	-24.5%	
Medical	3.6	4.3	4.3	4.1	4.0	-1.2%	11.9%	
Industrial	0.1	0.1	0.1	0.1	0.1	-24.5%	-37.9%	
Normalized GHG Emissions Intensity (tCO2e/1000 ft^2/year)								
Location-Based (Gross)	2.44	2.40	2.34	2.28	2.04	-	-16.6%	N/A
Market-Based (Net)	2.36	2.23	2.13	2.18	1.83	-	-22.3%	

Total Emissions (Corporate Offices)

BentallGreenOak's corporate carbon footprint is described in the table below. BGO's corporate carbon footprint includes GHG emissions from its corporate operations, including our corporate offices, employee commuting and business travel. Total gross emissions for select offices are offset by a combination of Renewable Energy Credits (RECs) and carbon offsets.

From 2014-2018, BGO (formerly Bentall Kennedy) achieved carbon neutrality for its corporate operations through renewable energy credits (RECs) and carbon offsets. Following the merger with GreenOak in 2019, BGO maintained carbon neutrality for corporate operations at select North American corporate offices & its associated workforce.

Environmental Performance Data *(Totals Across select N. American offices)*	**2016**	**2017**	**2018**	**2019**	**2020**	**GRI Indicator**
GHG Emissions (tCO_2e)						
Scope 1 emissions	0	0	0	0	0	**305-1**
Scope 2 emissions *(location-based)*	N/A	18	17	14	15	**305-2**
Scope 3 emissions *(location-based)*	N/A	2,622	2,408	2,310	1,260	**305-3**
Total (scopes 1 - 3) Gross Emissions (*location-based*)	**2,738**	**2,640**	**2,425**	**2,324**	**1,275**	**305-1,2, 3**
RECs and Carbon Offsets					-	
RECs (**kWh**)	3,647,984	3,801,765	3,212,848	2,993,105	2,490,228	**N/A**
Carbon Offsets	2,005	1,893	1,857	1,859	898	
Total (scopes 1 - 3) Net Emissions	**0**	**0**	**0**	**0**	**0**	**305-1,2, 3**

Energy

Energy Consumption

The breakdown of our portfolio-wide energy consumption is described in the table below. Direct energy consumption stems from fuel and natural gas sources, while indirect consumption stems from electricity, steam, chilled water, and hot water. This data does not account for variances in weather, occupancy, and exceptional loads (data centers).

Environmental Performance Data *(Totals Across North American Portfolio)*	2016	2017	2018	2019	2020	2020 vs. 2019	2020 vs. 2016	GRI Indicator
Total Energy Consumption (eMWh)	-	-	-	-	-	-	-	
Direct	216,638	236,690	248,885	256,916	220,129 ^	-14.3%	1.6%	**302-1**
Indirect	471,535	468,747	459,577	443,038	398,989 ^	-9.9%	-15.4%	
Tenant Consumption (Electricity)	29,472	34,190	44,673	46,355	39,507	-14.8%	34.0%	**302-2**

^ **Performance data assured by KPMG**

68.19M ekWh of normalized total energy reductions across North America vs. 2016 (GRI 302-4)

Energy Intensity

The table below shows the energy intensity (actual and normalized) by asset type for our North American portfolio. Normalized intensities account for variances for weather, occupancy, and exceptional loads (data centers).

Environmental Performance Data *(Totals Across North American Portfolio)*	2016	2017	2018	2019	2020	2020 vs. 2019	2020 vs. 2016	GRI Indicator
Energy Intensity (ekWh/ft^2/year)	-	-	-	-	-	-	-	
Office (GLA)	21.2	21.4	21.2	20.9	18.1	-13.4%	-15.0%	
Multi-family	17.8	17.9	17.3	17.0	15.6	-8.3%	-12.6%	
Enclosed Retail	15.4	15.1	15.1	14.8	12.3	-16.8%	-20.0%	**302-3**
Other Retail	1.7	1.6	1.5	1.3	1.3	-7.1%	-25.3%	
Medical	13.6	16.5	16.3	15.7	16.0	2.0%	17.5%	
Industrial	0.4	0.4	0.3	0.3	0.3	-10.0%	-23.7%	
Normalized Energy Intensity (ekWh/ft^2/year)	9.7	9.5	9.0	8.9	8.1	-	-15.9%	
Office (GLA)	21.8	21.4	20.6	20.3	18.2	-	-16.4%	
Multi-family	19.1	18.6	17.0	16.8	16.5	-	-14.0%	
Enclosed Retail	16.0	15.8	15.3	14.7	12.9	-	-19.7%	**CRE 1**
Other Retail	1.9	1.9	1.7	1.4	1.4	-	-27.7%	
Medical	24.6	32.3	33.1	30.7	33.2	-	34.9%	
Industrial	0.5	0.5	0.5	0.5	0.4	-	-16.9%	

Water

Water Consumption

The breakdown of our portfolio-wide water consumption is described in the table below. This data does not account for variances in weather. All water reported is from municipal water sources and does not consider on-site capture or re-use.

Environmental Performance Data *(Totals Across N. American Portfolio)*	2016	2017	2018	2019	2020	2020 vs. 2019	2020 vs. 2016	GRI Indicator
Water Withdrawn (m^3)	4,383,459	4,376,387	4,550,723	4,369,008	3,993,301 ^	-8.6%	-8.9%	303-1

^ Performance data assured by KPMG

Water Consumption Intensity

The table below shows the water consumption intensity (actual and normalized) by asset type for our North American portfolio. Normalized intensities account for variances for weather and includes newly developed buildings but does not include buildings that have been acquired or disposed of in the past 5 years. All water reported is from municipal water sources and does not consider on-site capture or re-use.

Environmental Performance Data *(Totals Across N. American Portfolio)*	2016	2017	2018	2019	2020	2020 vs. 2019	2020 vs. 2016	GRI Indicator
Water Consumption Intensity (L/ft^2/year)	-	-	-	-	-	-	-	
Office (GLA)	58.8	58.2	57.4	55.7	41.9	-24.7%	-28.7%	
Multi-family	132.3	131.1	128.4	125.5	131.7	5.0%	-0.4%	
Enclosed Retail	91.1	85.0	87.5	82.7	52.1	-37.0%	-42.8%	N/A
Other Retail	85.8	73.7	74.6	68.8	61.1	-11.2%	-28.8%	
Medical	70.9	76.5	77.7	65.3	58.3	-10.7%	-17.8%	
Industrial	18.9	18.5	18.4	16.0	15.8	-1.2%	-16.5%	
Normalized Water Consump. Intensity (L/ft^2/yr)	63.9	61.3	60.9	57.3	50.3	-	-21.3%	
Office (GLA)	60.8	60.1	59.7	58.3	41.2	-	-32.2%	
Multi-family	140.7	134.8	130.8	126.2	132.5	-	-5.8%	
Enclosed Retail	95.2	90.8	91.8	89.0	54.6	-	-42.6%	N/A
Other Retail	93.9	80.1	79.4	71.6	62.6	-	-33.3%	
Medical	211.5	222.7	214.9	161.5	160.0	-	-24.4%	
Industrial	34.1	33.7	33.1	29.7	29.1	-	-14.5%	

Waste

Waste Generation and Diversion

The breakdown of our portfolio-wide waste generation and diversion is described in the table below.

Environmental Performance Data *(Totals Across N. American Portfolio)*	2016	2017	2018	2019	2020	2020 vs. 2016	GRI Indicator
Waste Generated (kg)	22,956,292	25,058,707	22,956,352	25,462,289	18,945,790	19.1%	
Office (GLA)	8,371,033	7,723,016	7,853,922	9,245,391	4,849,187	-42.1%	
Multi-family	4,037,814	4,079,303	3,973,154	5,033,496	5,201,807	28.8%	
Enclosed Retail	3,482,590	5,741,719	3,435,849	3,184,880	1,937,459	-44.4%	306-2
Other Retail	5,990,286	6,590,897	6,475,863	6,763,329	6,092,263	1.7%	
Medical	537,857	380,183	443,906	405,137	222,524	-58.6%	
Industrial	536,711	543,590	773,659	830,057	642,550	19.7%	
Waste Generated - By Disposal Method (kg)	-	-	-	-	-	-	
Waste to landfill	14,705,305	14,994,953	15,264,609	15,768,507	12,525,739	-14.8%	
Recycled	5,945,952	5,340,316	6,115,221	8,044,425	5,247,289	-11.8%	306-2
Organics	1,944,806	4,365,178	1,381,174	1,414,994	1,038,621	-46.6%	
Waste to energy	360,229	358,260	195,347	234,363	134,140	-62.8%	
Waste Diversion Rate (%)	-	-	-	-	33.8%	-	
Office (GLA)	41.2%	40.1%	41.3%	48.7%	45.9%	11.4%	
Multi-family	16.7%	14.5%	12.6%	25.5%	21.9%	30.6%	
Enclosed Retail	44.3%	65.9%	45.5%	45.8%	46.8%	5.4%	N/A
Other Retail	34.3%	32.1%	28.6%	26.5%	28.3%	-17.5%	
Medical	19.6%	14.3%	19.4%	26.4%	31.5%	61.0%	
Industrial	11.3%	11.3%	32.3%	37.5%	34.7%	207.2%	

Building Certifications

The breakdown of our portfolio-wide building certifications is described in the table below. The data for LEED, BOMA, ENERGY STAR, Fitwel, and Fitwel Viral Response certification schemes reflects the total number of buildings certified, while the data for IREM reflects the number of certificates issued. The total building floor area refers to the total asset floor area and is not pro-rated for BentallGreenOak's Asset Managed funds' equity share in each property. LEED BD+C includes Core & Shell and New Construction. Some buildings maintain more than one type of LEED certification and thus the total number of LEED-certified properties may exceed the number of properties certified under each LEED rating scheme (e.g., BD+C or O+M).

Environmental Performance Data *(Totals Across N. American portfolio for 2020)*	No. of Buildings Certified	Total Floor Area (ft^2)	GRI Indicator
LEED	145 ⮝	28,587,243	
LEED for Building Design and Construction (BD+C)			
Platinum	2	1,161,451	
Gold	32	3,768,333	
Silver	36	7,579,705	
Certified	30	4,187,864	
LEED for Building Operations and Maintenance (O+M)			
Platinum	6	2,914,343	
Gold	24	6,924,753	
Silver	9	1,409,995	
Certified	4	795,564	
LEED for Neighborhood Development (ND)			
Platinum	1	338,885	**CRE 8**
LEED for Homes			
Gold	9	674,878	
BOMA Best	423 ⮝	67,195,405	
Platinum	5	3,571,092	
Gold	31	5,332,111	
Silver	69	7,120,996	
Bronze	10	1,068,784	
Certified	308	50,102,422	
ENERGY STAR	69 ⮝	14,029,694	
IREM Certified Sustainable Property	65 ⮝◆	12,507,289	
Fitwel	8	3,493,843	
Fitwel Viral Response	21	5,679,614	

⮝ **Performance data assured by KPMG**

◆ Data reflects the number of certificates issued

BentallGreenOak

BentallGreenOak

Annex 1: 2020 GHG Reporting Methodology

April 2021

Contents

Energy Profiles Limited

1. Background

BentallGreenOak tracks utility use for their Investment Management portfolio, i.e. properties where BentallGreenOak is the asset manager, including office, retail, medical, residential and industrial assets.

Energy Profiles Limited (EPL), in concert with BentallGreenOak, prepares an energy and emissions report each year, summarizing progress made in reducing energy / emissions across the overall property portfolio, as well as individual reports for select clients' portfolios. There are two goals for this exercise:

1. To determine the energy / emissions for asset managed properties following the guidance of the GHG Protocol[i], the industry standard practice for corporate disclosure purposes.

2. To determine the portfolio's performance vs. historical years, normalized to remove the impact of outside influences such as changes to weather and occupancy, and exceptional tenant loads.

This document details the methodology used to derive the greenhouse gas (GHG) emissions reported by BentallGreenOak on behalf of their clients for the 2020 emission reporting year.

2. Operational Boundaries

Operational boundaries define the parts of the operation, or 'activities', for which emissions will be reported. Emissions are reported for energy and water consumed and waste generated across the portfolio. Scope 1, 2 and 3 emissions resulting from the operation of properties are reported, as follows:

Scope 1 Emissions

Scope 1 emissions are direct emissions that originate at asset managed properties. These include natural gas and fuel oil consumption for space heating, water heating and, in some cases, cooking. Emissions resulting from refrigerants used on-site are outside of the reporting scope.

Scope 2 Emissions

Scope 2 emissions are indirect emissions from purchased electricity, steam and chilled water that is consumed at asset managed properties, but generated elsewhere. Emissions from submetered tenant consumption are outside of BentallGreenOak's organizational boundary, as discussed in Section 3, and are therefore not included as Scope 2 emissions.

Scope 3 Emissions

Scope 3 emissions are reported for water consumption, waste generation, and tenant submetered energy consumption at properties. While submetered tenant consumption is the responsibility of tenants, it is reported as Scope 3 (other indirect emissions) for completeness and comparability of overall emissions to historical years where submeter-based billing was not present.

3. Organizational Boundaries

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

BentallGreenOak reports energy and emissions using the equity share approach, defined as follows by the GHG Protocol:

> *Under the equity share approach, a company accounts for GHG emissions from operations according to its share of equity in the operation. The equity share reflects economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation. Typically, the share of economic risks and rewards in an operation is aligned with the company's percentage ownership of that operation, and equity share will normally be the same as the ownership percentage.*

In other words, in cases where BentallGreenOak has partial ownership of a property, emissions are reported only for the portion of the property/operation owned by BentallGreenOak.

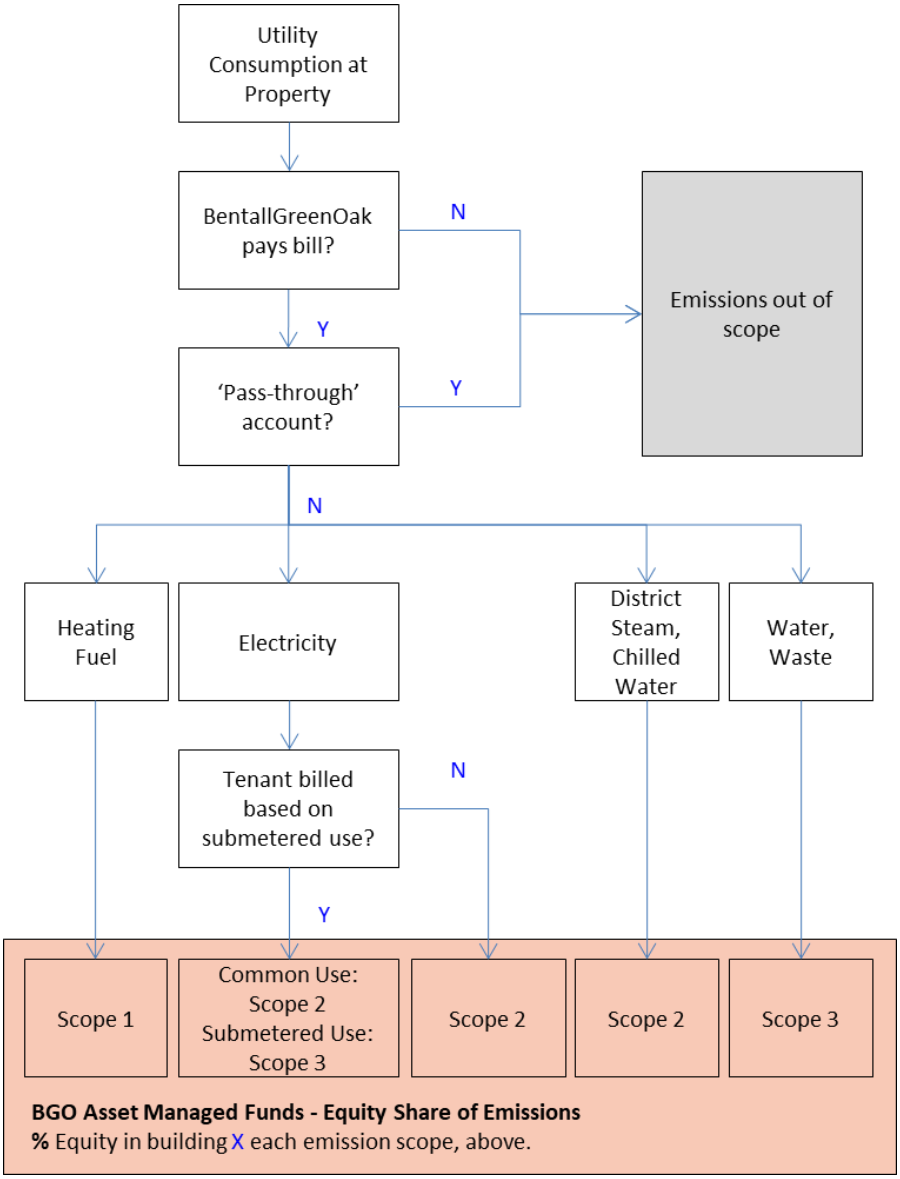
Determining Responsibility for Emissions

The responsibility for emissions from utility consumption is that of the party responsible for paying the utility costs. In general, utility accounts billed to BentallGreenOak or the property owner are the responsibility of BentallGreenOak. Utility accounts paid directly by tenants are not reported.

One exception is 'pass-through' utility accounts. Typically, these accounts exist at industrial properties or buildings with triple-net leases where the owner / property manager pays the utility bills but has no influence over utility use or building systems. In these cases, BentallGreenOak does not have the authority to introduce operating policies as they relate to the account, so they are treated as if the tenant were billed directly by the utility company.

4. Application of Boundaries

The boundaries defined above are applied to utility consumption based on the following decision tree.



5. Comparison to Historical Years

For comparative purposes, BentallGreenOak reports GHG emissions on a five-year-rolling basis. 2016 is the Base Year for the 2020 reporting year, and energy and emissions are trended from 2016-2020. This method has been selected to allow for a meaningful presentation of historical performance, while focusing on recent portfolio performance.

Base Year Recalculation Policy

Energy and emissions are recalculated for the Base Year and each historical year to account for the following factors:

1. Property acquisitions and divestments by BentallGreenOak clients.
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. More recently published emission factors.
5. Changes to reporting methodology.

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 / divestments are treated using the 'Same-year, Pro-rata'[ii] approach, meaning that buildings only owned for a portion of the reporting year (2020) are included in all historical years for the same period. Utility use, waste, emissions, and 'effective' gross leasable area are all adjusted proportionately for the period of ownership in 2020.

Treatment of Scope 2 Emission Factors in Historical Years

Canada

Electricity emission factors vary over time as the generation mix throughout Canada changes. Environment Canada publishes a 'National Inventory Report' (NIR) each year. The 2020 NIR, used in the preparation of this emission report, contains annual electricity emission factors reflecting the electricity generation mix in each year from 2000-2018. Emissions could be calculated in two ways:

Method 1: Using the 2020 NIR annual emission factors for the corresponding year for each year prior to 2018, and the 2018 emission factors to report 2018-2020 emissions

Method 2: Using the 2018 emission factors for all years

This is an important issue, as the majority of portfolio emissions are Scope 2 indirect electricity emissions, and the difference in provincial emission factors can vary by up to 60% year-over-year. There is no specific guidance in the GHG Protocol as to which approach should be used.

An international survey of other available standards and industry practices in addition to an informal survey of local industry experts suggests that a best practice has not emerged in this regard. Specific guidance is limited to that from climate registries, whose objectives are markedly different from that of an independent corporate entity such as BentallGreenOak and their clients.

For BentallGreenOak reporting, Method 2 has been applied in order to allow for a clear assessment of changes in emissions influenced by BentallGreenOak. Note that the water emission factors are dependent on electricity emission factors and are therefore also affected by this choice of calculation method.

USA

The US Environmental Protection Agency (EPA) periodically publishes the Emissions & Generation Resource Integrated Database (eGRID), specifying electricity emission factors. The 2018 values from eGRID2018, published in 2020, are used for this report. The 2018 emission factors are applied across all years.

6. Treatment of Waste

BentallGreenOak began reporting emissions generated from waste in 2008. Emissions are reported for trash that is sent to landfill only. No emissions are reported for recycled or composted waste.

Emission reductions occur at some properties that send trash to Waste-to-Energy (WTE) facilities where it is used to generate electricity.

In order to conservatively estimate emissions from trash sent to WTE facilities, it is assumed that 10% of the material sent to WTE facilities still ends up in landfill.

Emissions are calculated using the following formulas for properties that send trash to WTE facilities:

Landfilled trash trash weight produced by site – 0.9 * trash weight sent to WTE facility

Emissions landfilled trash * waste emission factor

Emissions produced from power production at WTE facilities are not included in this report on the basis that the trash is used as a fuel source, as opposed to being wasted. Analogously, a natural gas producer would not report emissions from the combustion of fuel at generating stations to which it sells fuel. Emissions from the combustion of waste at WTE facilities would be accounted for in the electricity emission factor for the region in which the power is generated.

7. Renewable Energy Credits and Carbon Offsets

Renewable Energy Credits and Carbon Offsets are two distinct mechanisms used to reduce GHG emissions. This section details how each is handled with respect to emission reporting.

Renewable Energy Credits

Renewable Energy Credits (RECs) represent the rights to the environmental benefits from generating electricity from renewable sources. RECs are purchased for some properties in the BentallGreenOak portfolio and are reported using the Market-based Approach, as discussed below.

Market-based Approach vs. Location-based Approach

In January 2015, the World Resource Institute published the GHG Protocol Scope 2 Guidance[iii], defining two approaches to emission reporting and specifying that emissions should be reported using both approaches (dual reporting), effective as of the 2015 reporting year.

- The *location-based approach* reflects the average emissions intensity of grids on which energy consumption occurs and does not account for REC purchases or any other contractual instruments.
- The *market-based approach* reflects the emissions from electricity that BentallGreenOak has chosen to purchase via contractual instruments. This approach does account for REC purchases.

In light of this guidance, both location-based and market-based emissions are reported for BentallGreenOak's portfolio. Base Year and historical year market-based emissions have been calculated based on the GHG Scope 2 Guidance, as per the Base Year Recalculation Policy detailed in Section 5.

Quality Criteria

The GHG Protocol Scope 2 Guidance, discussed in Section 7.1, sets out 8 'Quality Criteria' for the inclusion of contractual instruments, such as RECs, in market-based accounting.

RECs purchased in 2016-2020 and accounted for in the 2020 reporting year are Green-e certified and specify 100% wind power, or otherwise meet the Quality Criteria. Green-e has stated publicly that their certified RECs meet the Quality Criteria requirements[iv].

Volume Allocation

REC contracts typically specify the volume of RECs purchased in one of two ways:

1. As a percentage of a building's electricity consumption
2. As a fixed amount, approximating a percentage of the building's total electricity (or in some cases total energy) use over a specified number of years.

In cases where a fixed volume of RECs are purchased, there are often no start and end dates associated with the agreements; the contracts confirm only the amount of renewable energy that will be delivered to the grid and a number of years for which the contract applies. In these cases, assumptions have been made as to the intended start date of application of the RECs.

In cases where RECs cover common area and tenant electricity use at a property, RECs are first applied to the common area consumption and the remainder are applied to tenant consumption (Scope 3).

Market-based emissions calculations

Market-based emissions are calculated as follows, in accordance with the GHG Protocol Scope 2 Guidance:

1. Electricity consumption at a property for which RECs are purchased is reported as having zero emissions, given that all RECs reported are from 100% wind generation sources.
2. For all other electricity consumed at a property, emissions are calculated using the appropriate "residual mix" emission factors, where available[v]. Residual mix emission factors represent the emissions from the grid, after discounting reductions achieved by RECs sold on the market. Residual mix emission factors were available for the first time for the US in 2019 based on 2017 data.
3. In cases where RECs are purchased for more than 100% of a property's electricity consumption, emissions from electricity are reported as zero (i.e. negative emissions are not reported).

Carbon Offsets

Carbon Offsets, or Verified Emissions Reductions, are direct reductions in GHG emissions that can be purchased to 'offset' property emissions. Unlike RECs, Carbon Offsets are purchased in units of 'tonnes of CO_2 equivalent' (tCO_2e) and are not related to electricity purchased or consumed at a property. Carbon Offsets are purchased for some properties in the BentallGreenOak portfolio to offset Scope 1 emissions. Offsets are subtracted from the total location-based and market-based emissions to report 'Net location-based' and 'Net market-based' emissions.

8. Utility Data Estimation

There are two situations in which utility data is estimated:

1. Properties where utility data is tracked but some bills are missing.
2. Properties that are within the reporting boundary, but utility data is not tracked.

Missing Utility Bills

Best efforts are made to collect actual utility consumption from utility bills or utility meters for all properties/accounts. Where verifiable utility data is not available, consumption is estimated based on a linear

regression of available utility data and actual weather data. In the case of non-weather dependent accounts, historical consumption is assumed to be equal to recent year consumption.

Adjustments for pandemic:

Estimated bills during the pandemic period (March 2020 forward) are adjusted based on the actual vs. estimated values for the past three actual bills available to take into account reduced consumption during the pandemic.

'Not Tracked' Properties

For some properties within the reporting scope, utility data is not available for reporting. In these cases, where BentallGreenOak-paid utility accounts are known to exist, consumption is estimated based on the average 2014 energy use intensity of a representative sample of properties from the same asset class.

For properties within the reporting scope where there are known to be no BentallGreenOak paid utility accounts, consumption is set to zero.

9. Reporting Normalized Results

To understand the change in energy use and emissions intensity excluding the impact of outside influences, a detailed variance analysis is performed to calculate 'normalized' results for the Investment Portfolio.

Reporting Periods

This analysis is performed for two reporting periods and corresponding sub-sets of properties:

1. 2020 vs. 2019, for properties managed for the duration of 2019-2020

2. 2020 vs. 2016, for properties managed for the duration of 2016-2020

In other words, properties acquired since 2019 and 2016, respectively, are not included in the analyses. New developments, however, are included in normalized results.

The impact of the following factors on energy use and emissions is calculated and subtracted from the results determined per the GHG Protocol:

1. Weather and occupancy
2. Exceptional tenant loads

Normalization for Weather

2016 and 2019 energy and emissions are normalized to reflect 2020 weather conditions.

To do so, linear regression models are developed for 2016 and 2019 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 (in Canada) and the National Oceanic and Atmospheric Administration's National Weather Service (in the US) for the closest weather station to each property.

The 2016 and 2019 models are applied to 2020 weather data to calculate, in effect, what consumption in historical years would have been had they experienced 2020 weather. The difference between the actual historical year consumption, and the consumption modeled using 2020 weather provides a reasonable estimate of the impact of changes in weather on energy and emissions.

Normalization for Occupancy

2016 and 2019 energy and emissions are normalized to reflect 2020 occupancy levels. It has been assumed that electricity consumption at office and residential properties is the only utility materially affected by occupancy.

Monthly vacancy data is extracted from BentallGreenOak's accounting system for each property for 2016 through 2020. A 'gross-up factor' for each year is then calculated by assuming that if vacant space were occupied by a typical tenant, building consumption would increase by 10 kWh/ft^2/year[vi] for office properties, and 6,000 kWh/suite/year for residential. The impact of occupancy on energy consumption is determined as the difference between the gross-up factors in 2020 vs. 2016 and 2019, respectively.

Note that portfolio energy use may increase while emissions decrease, or vice versa, depending on the electricity emission factors in the regions where the changes to occupancy occur. For example, a small increase in energy use in Alberta may result in a larger increase in emissions than the decrease in emissions resulting from a large decrease in energy use in Ontario.

Impact of Pandemic

The pandemic has resulted in a reduced number of occupants in office and retail properties, and increased time spent in residential properties by residents. Since the normalization for occupancy is based on the amount of occupied/leased space, rather than the number of occupants and time spent in properties, the impacts of these changes on energy, water, and emissions are not captured by the normalization approach at this time. Revisions to the normalization methodology are planned for the 2021 reporting year to adjust for some of these impacts.

Exceptional Tenant Loads

Energy and emissions from submetered tenant data centres are reported under scope 3, as discussed in Section 2. In some cases, data centre energy consumption changes significantly from year to year due to the addition or removal of computer loads.

When reporting normalized results, energy and emissions resulting from submetered data centres are removed, since BentallGreenOak does not influence this energy use. Note that data centres are only removed from the analysis where BentallGreenOak has access to submeter data for the full reporting period (2016 - 2020 or 2019-2020, respectively).

Submetered tenant data centres are identified on a site-by-site basis through communications with property management staff, or in some cases via submeter cost allocation studies. Submeter data is acquired via automated submeter systems or via manual meter readings performed by site staff depending on the property.

10. Emission Factors

Emissions were calculated using emission factors from publicly available sources wherever possible. The following sections detail the emission factors used for Canada and the US along with the source for each factor.

United States

Electricity emission factors are regionally specific. The US Environmental Protection Agency (EPA) periodically publishes the Emissions & Generation Resource Integrated Database (eGRID). eGRID assigns electricity emission factors to 'eGRID subregions', shown in the figure below, based on the generation resource mix. The factors used for reporting are the 2018 values from eGRID2018, published in 2020.

Emission factors for water all also regionally specific since they are partially based on the pumping energy used to deliver water to the properties.

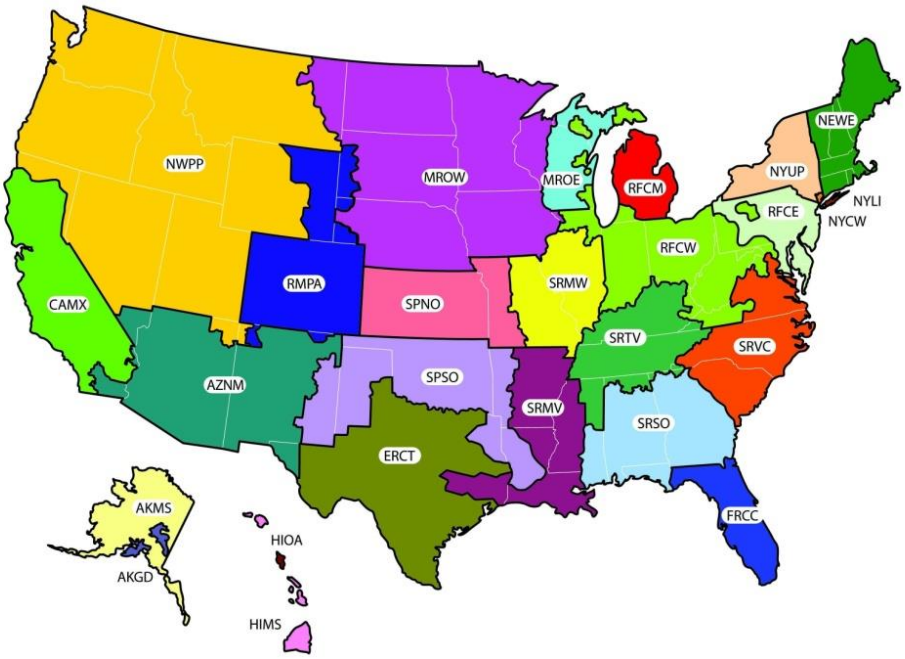


Figure 1: EPA eGRID Subregions

The following tables provide the source for each emission factor used.

Electricity

eGRID Subregion	Emission Factor (gCO_2/kWh)	Residual Mix Factor (gCO_2/kWh)	eGRID Subregion	Emission Factor (gCO_2/kWh)	Residual Mix Factor (gCO_2/kWh)
AKGD	474.0	478.5	NYLI	541.2	541.2
AKMS	239.0	239.0	NYUP	115.2	115.2
AZNM	466.1	466.8	RFCE	326.6	326.7
CAMX	226.2	226.9	RFCM	599.3	599.6
ERCT	424.6	448.8	RFCW	532.5	532.7
FRCC	424.6	426.9	RMPA	581.5	586.3
HIMS	507.6	507.6	SPNO	531.4	567.4
HIOA	763.2	763.2	SPSO	532.0	601.0
MROE	766.4	766.6	SRMV	389.4	389.9
MROW	566.6	589.6	SRMW	760.6	768.2
NEWE	239.3	239.3	SRSO	468.8	471.1
NWPP	291.8	296.8	SRTV	470.9	471.1
NYCW	271.1	271.1	SRVC	339.1	339.9

Sources:

EPA eGRID 2018 values, Residual mix from Green-e 2020 (2018 values)

Water

eGRID Subregion	Emission Factor (gCO_2/m3)	eGRID Subregion	Emission Factor (gCO_2/m3)
AKGD	455.0	NYLI	519.5
AKMS	229.5	NYUP	110.6
AZNM	447.4	RFCE	313.5
CAMX	1,210.2	RFCM	575.3
ERCT	407.6	RFCW	511.2
FRCC	407.6	RMPA	558.2
HIMS	487.3	SPNO	510.2
HIOA	732.7	SPSO	510.7
MROE	735.8	SRMV	373.8
MROW	544.0	SRMW	730.2
NEWE	229.7	SRSO	450.0
NWPP	280.2	SRTV	452.1
NYCW	260.3	SRVC	325.5

Sources:

Energy consumption for water use cycles in different countries: A review (Wakeel et al, 2016) and 2018 eGRID elec factors

Utility Type	Emission Factor (gCO_2/unit)	Units	Source
Natural Gas	1,931.4	cubic meters	AP-42: Compilation of Air Emissions Factors, Supplement D (US EPA, 1998)
Oil	2,705.4	liters	Energy Star Portfolio Manager, Aug 2020 Technical Reference, Figure 1
Trash	1,666.5	kilograms	US NIR 2019 Annex 3.14.
District Cooling - NWPP	291.8	ton-hours	EPA eGRID 2016 (US EPA, 2018) - assumes 1 kWh/tonh
District Steam - NYCW	53.6	pounds	NYC Local Law 97 and Energy Star Thermal Conversion to convert kBtu to lbs
District Steam - other regions	79.3	pounds	Energy Star Portfolio Manager, Aug 2019 Technical Reference, Figure 3

Canada

Provincial emission factors are published by Environment Canada. The factors used are primarily the 2018 values from Canada's Greenhouse Gas Inventory 2000 – 2018, published in 2020. The following table provides the source for each emission factor used.

Utility Type	Province	Factor	Units	Source
Electricity	AB	630.0	gCO2e/kWh	National Inventory Report 1990-2018: Greenhouse Gas Sources and Sinks in Canada (Environment and Climate Change Canada, 2020)
	BC	12.3		
	MB	1.3		
	NB	290.0		
	NL	26.0		
	NS	720.0		
	ON	29.0		
	PE	4.0		
	QC	1.3		
	SK	680.0		
Natural Gas	AB	1,939.4	gCO2e/m3	National Inventory Report 1990-2018: Greenhouse Gas Sources and Sinks in Canada (Environment and Climate Change Canada, 2020)
	BC	1,937.4		
	MB	1,897.4		
	NB	1,912.4		
	NL	1,912.4		
	NS	1,912.4		
	ON	1,899.4		
	PE	1,912.4		
	QC	1,898.4		
	SK	1,840.4		
Water	AB	803.9	gCO2e/m3	National Inventory Report 1990-2018: Greenhouse Gas Sources and Sinks in Canada (Environment and Climate Change Canada, 2020) Greenhouse Gas and Energy Co-Benefits of Water Conservation (Water Sustainability Project, 2009)
	BC	15.7		
	MB	1.7		
	NB	370.0		
	NL	33.2		
	NS	918.7		
	ON	37.0		
	PE	5.1		
	QC	1.7		
	SK	867.7		
Trash	AB	2,210.8	gCO2e/kg	National Inventory Report 1990-2018: Greenhouse Gas Sources and Sinks in Canada (Environment and Climate Change Canada, 2020) Assumes 200 years of waste emissions.
	BC	1,821.7		
	MB	1,986.8		
	NB	1,758.7		
	NL	1,975.3		
	NS	1,467.0		
	ON	2,055.0		
	PE	1,578.5		
	QC	2,100.0		
	SK	1,888.8		
Steam	BC	89.9	gCO2e/lb	2019 Creative Energy GHG Calculator for Customers
	QC	105.7		Energy Star Portfolio Manager, Aug 2020 Technical Reference, Figure 3
	ON	71.4		2020 EPL Enwave Study prepared in 2021
Hot Water	AB	233,970.4	gCO2e/MWh thermal	Gas factors from NIR 2020 Part 2, Table A6.1-1, A6.1-2. Assumed 80% plant efficiency.
	BC	70,000.0		2019 City of Vancouver report on SEFC NEU 2020 customer rates, does not apply to all of BC
Chilled Water	ON	19.6	gCO2e/ton-h	2020 EPL Enwave Study, NIR 2020; incl. distribution losses
Thermal Heating/ Cooling	BC	89.4	gCO2e/ekWh thermal	FortisBC Alternative Energy Services (FAES)

11. Glossary of Terms

Base Year	The earliest year selected for inclusion in reporting for comparative purposes, as per Section 5
Effective GLA	Gross leasable area, prorated for the period of ownership in the reporting year and the equity share of the owner for whom emissions are being reported.
WTE	Waste to energy, as described in Section 6
kWh	Kilowatt-hours of electricity
ekWh	Equivalent kilowatt-hours (all energy types)
$ekWh/ft^2$	Equivalent kilowatt-hours per square foot of Effective GLA
GHG	Greenhouse gases, for the purposes of this report: CO_2, CH_4, N_{20}
CO_2e	Carbon dioxide equivalent
gCO_2e	Grams of carbon dioxide equivalent
tCO_2e	Tetric tons of carbon dioxide equivalent
tCO_2e /1,000ft^2	Tetric tons of carbon dioxide equivalent per 1,000 square feet of Effective GLA

[i] The GHG Protocol – A Corporate Accounting and Reporting Standard (World Resources Institute, 2004)

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

[iii] GHG Protocol Scope 2 Guidance – An amendment to the GHG Protocol Corporate Standard (World Resources Institute, 2015)

[iv] Green-e Energy Summary of WRI Scope 2 Guidance (Centre for Resource Solutions, 2015)

[v] As per the GHG Protocol Scope 2 Guidance, where available, 'Residual Mix Emission Rates' should be applied to electricity not purchased via contractual instruments (e.g. RECs) to avoid double counting of renewable energy attributes. Residual Mix factors are not published for Canada. As such, the provincial factors have been used in place of Residual Mix factors for the purposes of this report.

[vi] Consistent with the method used by BentallGreenOak for gross-up calculations with respect to electricity costs