

Operational energy consumption and carbon emissions inventory

ENERGY CONSUMPTION SCOPE 1 AND 2 (gigajoules)

	2022	2021	2020	2019
Gasoline	6,413	5,798	7,599	13,232
Fuel oil	111	217	267	275
Natural gas	37,755	37,799	43,680	45,391
Electricity	57,187	59,062	62,170	69,684
Steam	935	769	759	766
Total energy	102,401	103,645	114,475	130,645

CARBON EMISSIONS (tonnes of carbon dioxide equivalent)

	2022	2021	2020	2019
Corporate offices - Fuel oil	8	16	20	21
Corporate offices - Natural gas	1,967	1,970	2,278	2,366
Fleet	432	391	510	888
Total Scope 1 (Energy)	2,407	2,377	2,808	3,275
Corporate offices - Electricity (Location-based)	2,828	3,058	3,237	4,026
Corporate offices - Electricity (Market-based)	2,828	482	447	593
Corporate offices - Steam	61	50	49	50
Total Scope 2 (Energy Indirect, Location-based)	2,889	3,108	3,286	4,076
Advisor and service offices	5,189	5,110	5,315	5,427
Air travel	1,852	66	749	5,403
Auto travel	351	133	248	891
IT services	1,123	1,026	1,047	1,066
IT assets	1,810	1,878	725	1,616
Commuting	1,698	483	2,031	9,184
Work from home	3,213	3,387	2,720	579
Total Scope 3 (Other Indirect)	15,236	12,083	12,835	24,106
Total emissions (Location-based)	20,532	17,568	18,929	31,457
Total emissions (Market-based)	20,532	14,992	16,139	28,024
Carbon offsets	20,532	15,581	4,524	4,882
Net carbon emissions	0	0	11,615	23,142

CARBON EMISSIONS INTENSITY

	2022	2021	2020	2019
Tonnes of carbon dioxide equivalent (location-based) per \$1 million of income	4.6	3.4	3.5	6.1

METHODOLOGY

Approach and Boundary

Our greenhouse gas inventory is calculated using the operational control approach, as outlined by the World Resources Institute and World Business Council for Sustainable Development's [Greenhouse Gas Protocol](#). The organizational boundary of this inventory includes data from the vast majority of companies in our group, consistent with reporting in our Integrated Annual Report (page 128), and accounts for 99% of our operations by income.

Carbon dioxide, methane and nitrous oxide are included in all emission totals and are reflected in the emission intensity figures; the intensity figures include emissions from scopes 1, 2 and 3. Scope 1 emissions are direct emissions from an organization's owned operations, including company-owned or controlled vehicles and buildings. Scope 2 emissions are indirect emissions from purchased electricity, steam, heating, and cooling. Scope 3 emissions are all other indirect emissions generated throughout an organization's value chain. Location-based scope 2 electricity emissions reflect the average emissions intensity of the electricity grid where the consumption has occurred. Market-based scope 2 electricity emissions reflect the emissions from electricity that we have selected through contractual instruments, such as renewable electricity certificates. Beginning in 2022, we no longer purchase renewable electricity certificates for our corporate locations, so our location-based and market-based emissions are the same. We continue to purchase renewable electricity certificates for our Advisor and service office locations, and the avoided emissions through these purchases are taken into account in our accounting of our net carbon emissions.

Having met our goal to become carbon neutral by 2020, in 2021 we revised our carbon inventory. Scope 1 and 2 emissions were adjusted to include an estimate of emissions from smaller offices, which were previously excluded. We expanded the emissions sources that are included in scope 3 to include our third-party Financial Advisor offices, service offices, IT services, IT assets, commuting and working from home; business travel by air and auto were previously included and remain so.

We selected 2019 as our new base year. This was to ensure we had complete and accurate data, to the extent possible, for each of the new sources included in our inventory. It is also the base year against which we will measure our progress on our goal of being net zero in our operations by 2040.

The following emission sources were assessed and deemed to be immaterial:

- fugitive emissions from buildings
- emissions from building generators
- upstream emissions from fleet vehicles
- waste
- wastewater treatment

- fugitive emissions from fleet vehicles
- business travel by train
- business travel in rental vehicles
- commuting by public transit
- non-controlled subsidiaries

We expect that these scope 3 sources may be material, but they are not included in our inventory at this time due to lack of data availability and methodologies for emissions accounting:

- Purchased goods and services, in particular those associated with insurance claims activities (except IT services and IT assets, which are included in our inventory)
- Insurance-associated emissions (emissions related to our underwriting portfolio)

We have begun to work on the possibilities of tracking claims-associated emissions through our resilient and sustainable claims options, and we continue to track global developments on emissions accounting in insurance underwriting portfolios. We will continue to explore opportunities to expand on our inventory.

In 2020 we were carbon neutral relative to our previous boundary, and in 2021 and 2022 we maintained carbon neutrality, relative to our new boundary. Carbon neutrality was achieved through the following:

- Purchases of renewable energy certifications for select corporate offices in 2020 and 2021 (accounted for in the market-based emissions totals)
- Purchases of renewable energy certificates and carbon offsets specifically for our Financial Advisor and service offices, to make them 'carbon neutral' (accounted for in carbon offsets)
- Purchases of carbon offsets in an amount equivalent of the remaining total of our scopes 1, 2 and 3 emissions (accounted for in carbon offsets)

We require that the carbon offsets we purchase be verified to a recognized verification standard, to ensure additionality, accuracy, permanence, and the absence of significant social or environmental harm. Beyond verification, we avoid any offsets from projects where there is evidence that calls into question the quality of the offsets. The offsets we use are also included on public registries to confirm that they are unique and not double-counted.

Consumption Measurements and Calculations

Energy consumption data (electricity, steam and natural gas) for larger corporate offices were obtained from utility bills and prorated based on area occupied. Energy consumption in smaller corporate offices, Financial Advisor offices and service offices was estimated using office area and energy intensity. Energy intensity figures for each province or region were derived from the [Comprehensive Energy Use Database](#) published by Natural Resources Canada.

Business travel activity (air and auto) was collected from internal accounting systems.

IT services were measured via spend. IT services included cloud services, software, external data centres, hosting and telecommunications; it excluded consulting, outsourced staffing and hardware that was included in IT assets. IT assets included counts of laptop and desktop computers, monitors and printers.

Energy use associated with working from home was estimated using human resources records and energy intensity figures from [Estimating Energy Consumption & GHG Emissions for Remote Workers](#) by Anthesis. Commuting fuel consumption was estimated using data from a previously completed commuting survey and human resources records.

Electricity, natural gas, fuel oil and gasoline consumption was converted to gigajoules using the unit conversion factors in the National Energy Board's [Energy Conversion Tables](#). Steam consumption was converted to natural gas consumption using the unit conversion factor in [Energy Star Portfolio Manager - Portfolio Manager Technical Reference: Thermal Conversion Factors](#) and the efficiency factor in the EPA's [Emission Factors for Greenhouse Gas Inventories](#), table 7.

Emissions Calculations

All emissions were calculated using the global warming potential (GWP) values for the 100-year time horizon, from the [IPCC Sixth Assessment Report](#), 2021 (AR6).

Emissions from fuel oil, natural gas, gasoline, and electricity were calculated using emission factors from Environment and Climate Change Canada's [National Inventory Report 1990-2020: greenhouse gas sources and sinks in Canada](#).

Emissions from air travel were calculated using the emission factors in [Greenhouse Gas Reporting: conversion factors 2022](#), published by the government of the United Kingdom. Note that these emission factors were adapted to use the AR6 GWP values.

Emissions from IT services were estimated using the published emissions of twelve of our largest vendors by spend. The vendor's emissions were allocated to us based on our spend and the vendors' total revenue; emissions from all other vendors were estimating using the emissions data from these top vendors, excluding carbon neutral vendors to be conservative. We used location-based scope 2 emissions, and emissions before carbon offsets to calculate our emissions from IT vendors. When determining our net carbon emissions, IT vendor market-based emissions and purchases of carbon offsets were included in our determination, along with our own purchases of renewable electricity certificates and carbon offsets. Emissions from IT assets were calculated based on manufacturer carbon footprint documents; where carbon footprint documents for the specific make and model were not available, carbon footprints for products of similar make and model were used, to the extent possible.

Restatements

The results for previous years have been restated. The following changes led to restatements:

- Revised the methodology for estimating energy consumption in some corporate offices (where actual data has not been collected) and Advisor and Service offices to reflect the changes in average consumption over time in the data source (Canada's Comprehensive Energy Use Database).
- Replaced some historical estimated corporate office energy consumption data with actual data.
- Corrected the methodology for calculating emissions from employee commuting to reflect total commuting distance accurately.

- Updated the Global Warming Potential values to the most recently available figures from the IPCC's Sixth Assessment Report.
- Updated electricity emission factors to the most recently available data in Canada's National Inventory Report.
- Updated the natural gas emission factor to the updated result provided in Canada's National Inventory Report.
- Revised IT Services results based on a more comprehensive data gathering process, and restated results to include location-based scope 2 emissions and total emissions before carbon offset purchases.
- Revised IT Asset data to align results more closely with the year of purchase, to remove double counting of assets and to incorporate newly available product carbon footprint data that more accurately aligns to the products we purchase.