

2021 Annual Sustainability Report



The Victoria Conference Centre

January 1 to December 31, 2021

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Completed	30/6/2022

synergy 

Executive Summary

The Victoria Conference Centre (VCC) is a 56,295 square foot landmark building offering flexible meeting space in the heart of Victoria, BC. The VCC is committed to eco-friendly best practices and has been recognized as a BOMA BEST Platinum Building in 2016. A kitchen, shared with an adjacent hotel, services the needs of a wide range of conferences and events throughout the year.

Total emissions in 2021 comes to 30.5 tCO₂e. The highest emissions source is electricity (22.8 tCO₂e), followed by waste (4.3 tCO₂e). In 2021, the VCC experienced a steady increase in consumption of natural gas, electricity, water, paper and waste. This is attributed to the COVID vaccination clinics hosted at the VCC everyday from April to October, increasing the number of operational days. 2021 is also the first year that Biogenic Carbon is included in the VCC's carbon footprint, resulting in 95.6 BiotCO₂. Biogenic emissions do not need to be offset and are included as a distinct category for completeness and accuracy of the carbon inventory.

2021 marks the twelfth year that the VCC has measured and reported its carbon footprint. In 2012, more accurate reporting was available for water and electricity, and serves as the baseline for comparisons. The VCC began purchasing offsets in 2019 and is a carbon neutral facility. They have joined the Greater Victoria 2030 District and are committed to reduce energy consumption and greenhouse gas emissions per delegate day by 50% of 2012 levels by 2030.

Inventory Information

Company Name	The Victoria Conference Centre		
Contact Information	Nathan Gauld	ngauld@victoriacentre.com	250.415.0560
Company Description	Conference Centre, 720 Douglas Street - including shared Kitchen		
Reporting Period	January 1 to December 31, 2021		
Inventory Boundary	Scope 1 (Direct Emissions) - Natural Gas, Diesel (back-up generator), Propane		
	Scope 2 (Indirect Emissions from Purchased Electricity) - Purchased Electricity (BC Hydro)		
	Scope 3 (Indirect Emissions from Other Sources) - Water, Waste, Stationery, Paper Products		
Scope 2 Approach	Location Based Emissions Calculation		
Consolidation Approach	Operational Control: Accounting for 100% of emissions from operations over which the company has operational control.		
Primary Measurement	Carbon Dioxide Equivalent (CO ₂ e)		
Reporting Guidelines	Aligned with those defined in <i>The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition (The GHG Protocol, www.ghgprotocol.org)</i> . Emissions factors reviewed & approved by Ostrom.		

Summary of Results

Total
tCO₂e **30.5**

Offset
Cost **\$930**

These
emissions
are
equivalent
to:

 **8.2**
Cars per Year

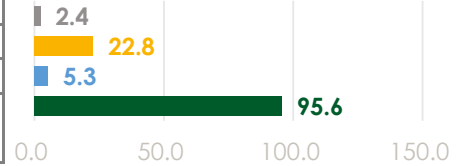
 **1.48**
kgCO₂e / DD

**Reduction
Target**

VCC commits to reduce energy consumption and greenhouse gas emissions per delegate day by 50% of 2012 levels by 2030.

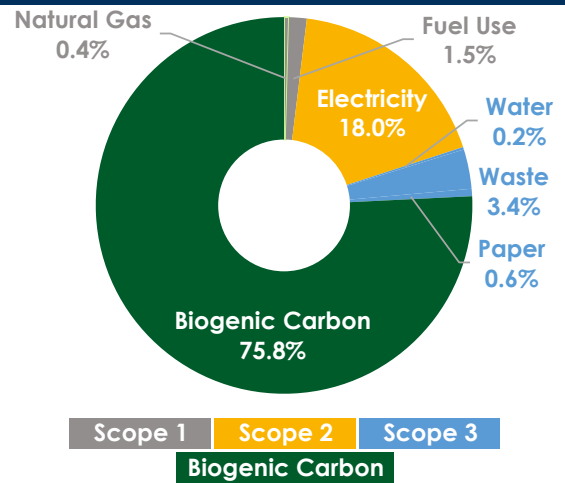
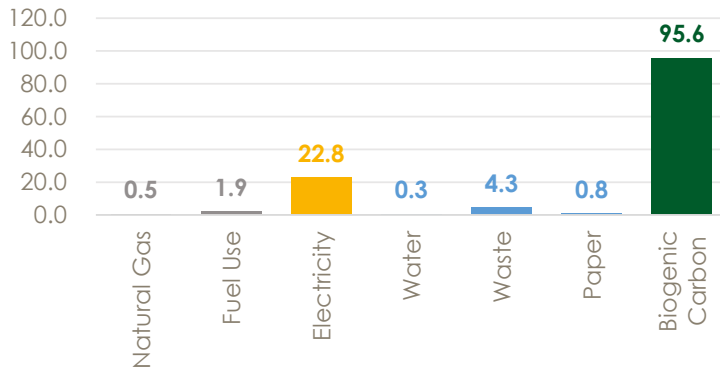
Carbon Footprint by Scope

Scope 1 (tCO ₂ e)	2.4	8.0% of tCO ₂ e total
Scope 2 (tCO ₂ e)	22.8	74.5% of tCO ₂ e total
Scope 3 (tCO ₂ e)	5.3	17.5% of tCO ₂ e total
Biogenic Carbon (tCO ₂)	95.6	GROSS EMISSIONS (tCO₂e + tCO₂)
NET EMISSIONS (tCO₂e)	30.5	



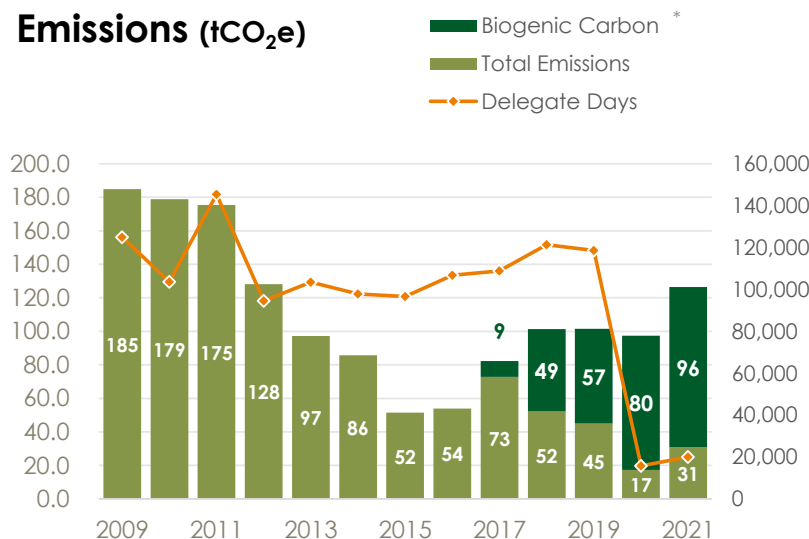
Carbon Footprint By Activity

Emissions by Activity (tCO₂e)



Carbon Footprint Year Over Year

Emissions (tCO₂e)

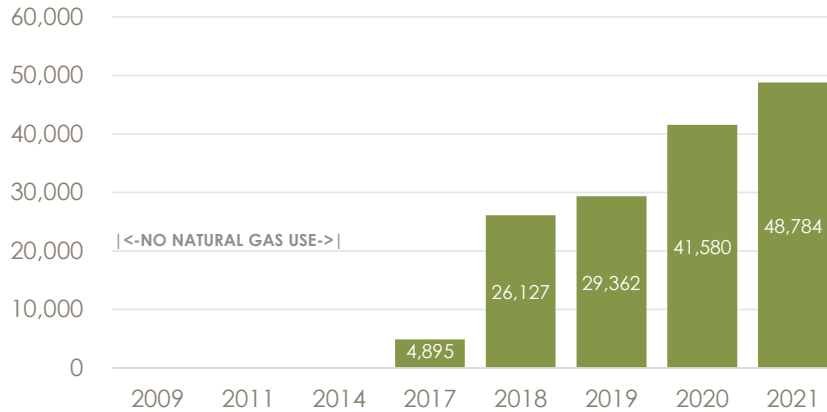


Year	Net tCO ₂ e	Change since Baseline	
		kgCO ₂ e/DD	Percent
2009	184.9		
2010	178.9		
2011	175.4		
2012	128.2	1.36	
2013	97.3	0.94	-30.7%
2014	85.7	0.88	-35.4%
2015	51.6	0.53	-60.6%
2016	54.0	0.51	-62.7%
2017	72.8	0.67	-50.7%
2018	52.2	0.43	-68.3%
2019	44.9	0.38	-72.1%
2020	17.3	1.10	-19.2%
2021	30.5	1.48	8.9%

* Note: Biogenic Carbon has been added for each year that RNG was purchased at the VCC for completeness and accuracy of the carbon inventory, and for a more accurate annual comparison

Natural Gas

Natural Gas (m³)



Analysis

In 2017, the VCC installed a natural gas boiler fueled by renewable natural gas (RNG). The total carbon savings from purchasing RNG in 2021 resulted in 95.5 tCO₂e.

The VCC used 48,784 m³ of RNG, 17.3% higher than 2020. This is attributed to system issues in late 2020 and early 2021, as well as additional heating requirements for the vaccination clinics.

Note: Natural gas was converted from GJ to m³ to apply the appropriate RNG factor

m³ / Month
4,065.3

tCO₂e
0.52

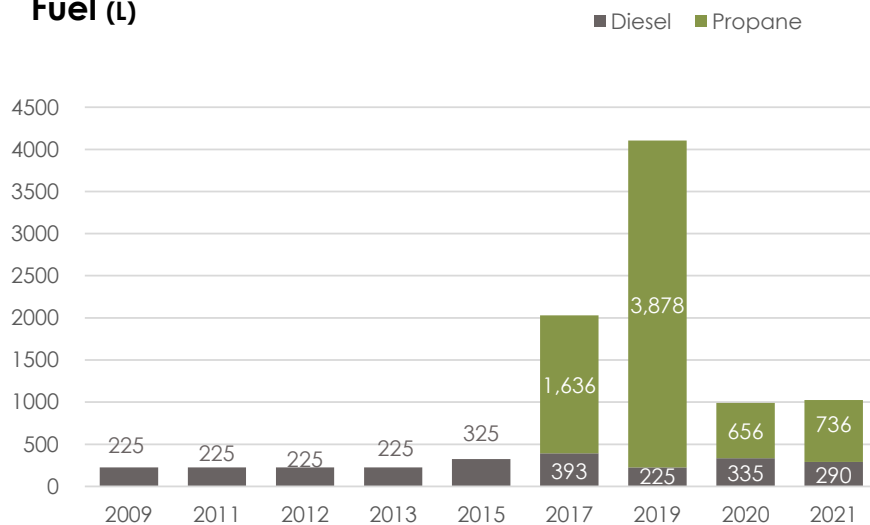
% of Total Emissions
1.7%



530
Houses

Other Fuel

Fuel (L)



Analysis

The VCC has a back-up diesel generator that is tested an average of nine times per year. Diesel use of the generator is tracked in a logbook. In 2021, the generator was run for 11.5 hours, burning 290.0 L of diesel.

Propane is only used in the lower pavilion, which is in the process of being taken down. It was only used once in 2021, when it snowed, consuming 735.9 L of fuel.

Litres /Month
85.5

tCO₂e
1.92

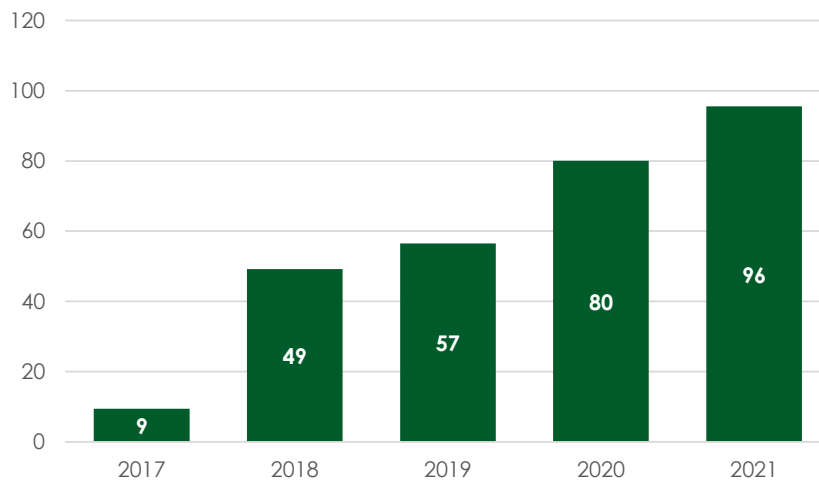
% of Total Emissions
6.3%



0.5
Cars / Year

Biogenic Carbon (CO₂)

Biogenic Emissions (tCO₂)



Analysis

The VCC emits biogenic emissions by using renewable natural gas. These emissions come from natural sources that already existed in the carbon cycle and are being re-emitted through the combustion of biofuel.

Increasing biogenic emissions while reducing non-biogenic emissions will reduce the total amount of new carbon into the atmosphere and is a positive step towards reducing carbon emissions.

Note: 2021 is the first year that biogenic carbon has been included in the VCC's report. BioCO₂ has been added for each year that RNG was purchased at the VCC for a more accurate comparison.

GJ
/Month **160.6**

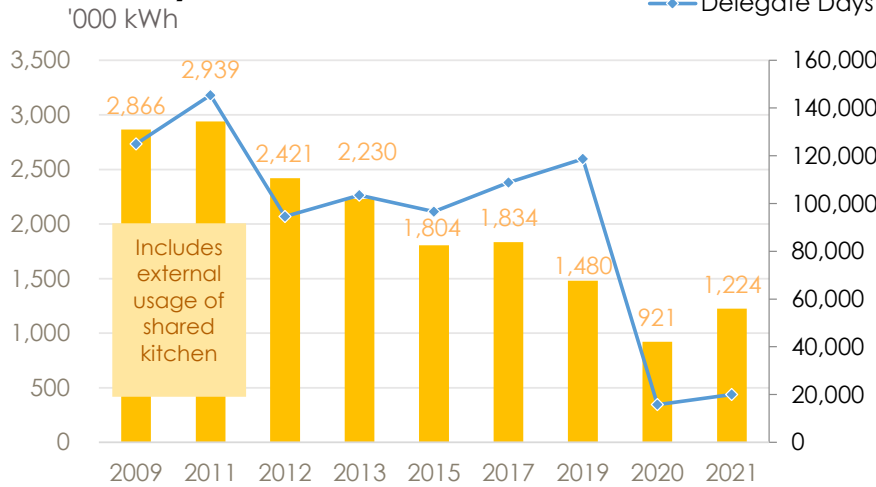
Bio-
tCO₂e **95.6**

% of
Total **75.8%**
Net Emissions

 **25.6**
Cars / Year

Electricity

Electricity (kWh)



Analysis

In 2021, total electricity use grew 32.8% over the previous year, totaling 1,223,513 kWh. This is due to a 21% increase in delegate days, and a 74% decrease in dark days.

The VCC used 797,400 kWh during the months that the vaccination clinics were held (April to October). This equates to 65.2% of all electricity consumed in 2021, and is 74.5% greater than the same period in 2020.

Note: The emissions factor for BC's electricity has increased 55% since 2020. Changes to the emissions factor are updated to be most accurate to the type of electricity generation mix feeding BC's grid.

kWh / Delegate Day
61.1
(Up from 58.5)

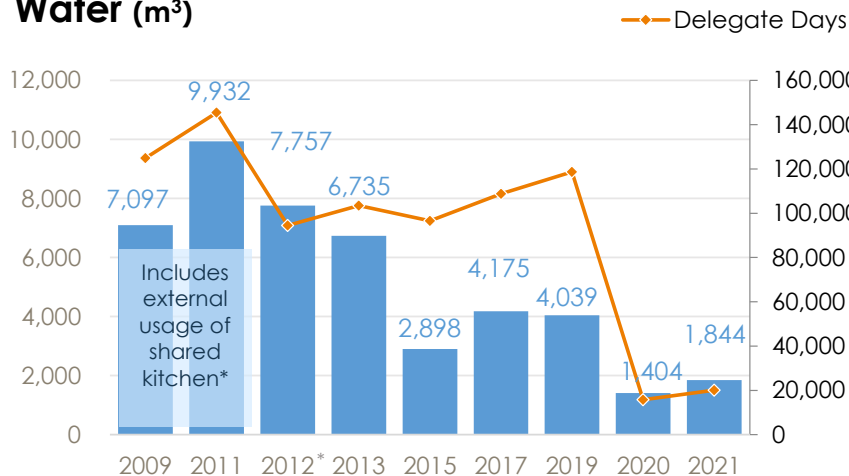
tCO₂e **22.8**

% of Total Emissions **74.5%**

 **111.2**
Houses

Water

Water (m³)



Analysis

Water usage was 1,844 m³, a 28.5% increase from 2020. The rise in consumption was likely caused by an increase in the number of individuals visiting the VCC as a result of the vaccination clinics.

Water consumption remains low due to an 83% decrease in delegate days since 2019, pre-COVID numbers.

* Note: In 2012 the Victoria Conference Centre started accurately measuring their portion of the shared kitchen's water usage. 2012 is considered the new baseline for water.

L/ Delegate day
90.1
(Up from 89.1)

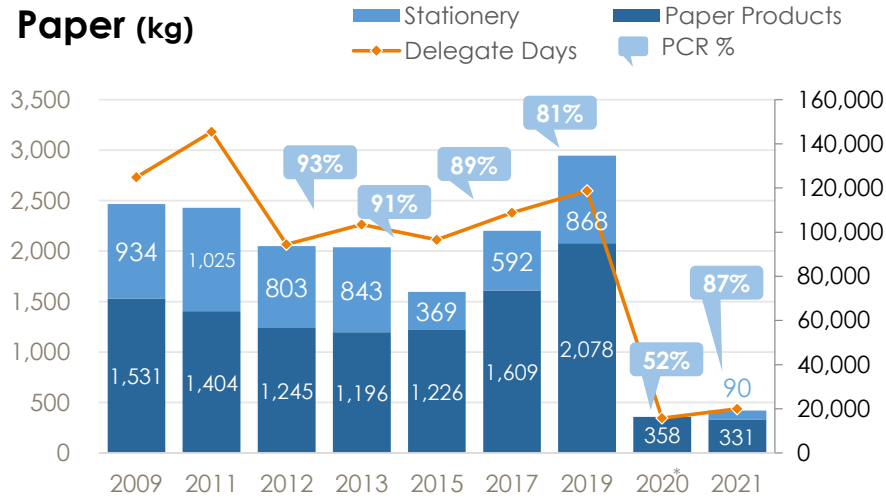
tCO₂e **0.27**

% of Total Emissions **0.9%**

 **8,214**
Baths (50gal)

Paper

Paper (kg)



Analysis

Paper emissions were low in 2021, contributing 0.80 tCO₂e to the total carbon footprint. Despite a minor increase in overall paper purchased over 2020, the VCC increased its average recycled paper content purchased from 52% to 87%, saving 3.1 trees. By ensuring all paper products purchased are tree-free or 100% PCR, VCC could save an additional 1.4 trees.

* Note: No stationery paper was purchased in 2020 due to a surplus of paper from 2019.

Treeless Content **87%**

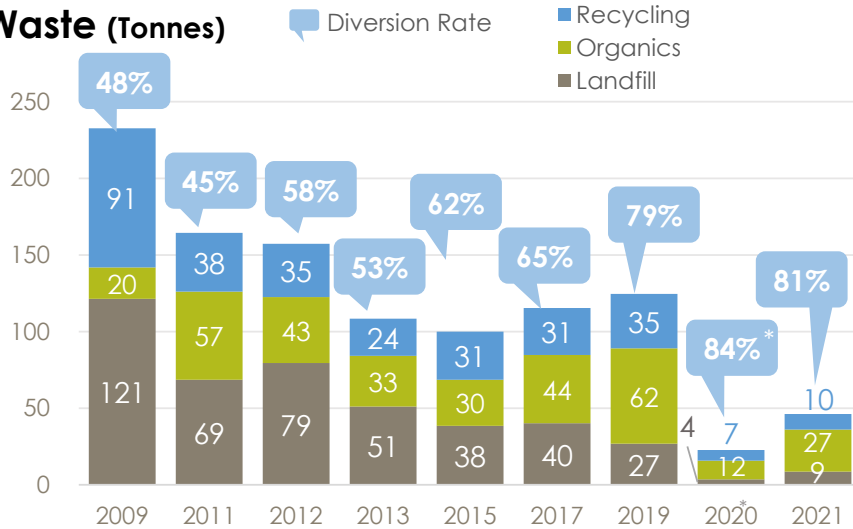
tCO₂e **0.80**

% of Total Emissions **2.6%**

 **1.4**
Trees / Year

Waste

Waste (Tonnes)



Analysis

The total waste generated at the VCC was 46.2 tonnes.

The VCC shares some responsibility for the Empress Hotel's waste pickups. Shared waste was calculated using a 50% responsibility of generated shared waste for each of VCC's operating days. For calculating waste, total operating days exclude vaccination clinic days due to no shared waste being generated over that time.

* Note: 2020 waste data was calculated using the average kg/DD in 2019, and applying it to the number of DD in 2020, in order to be a more accurate representation due to COVID-19 closures.

kg / Day **127**

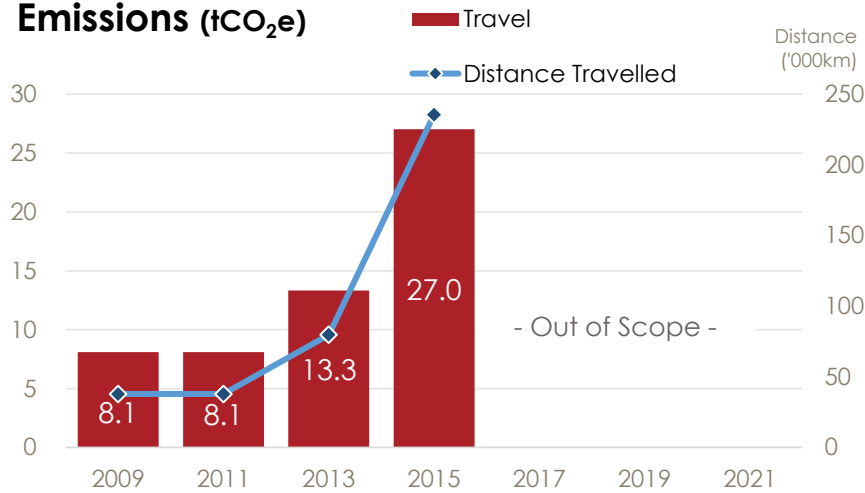
tCO₂e **4.3**

% of Total Emissions **14.0%**

 **82%**
Diversion Rate

Travel

Emissions (tCO₂e)



Analysis

Sales and associated travel for the VCC have been taken over by an outside organization and are no longer under VCC's control. The reporting scope has been updated to reflect this change and will no longer include travel.

Travel emissions have been removed from VCC's historical emissions for accurate comparisons.

Note: All emissions from flights are now the responsibility of Destination Greater Victoria (DGV). DGV has also committed to carbon neutrality.

VCC Highlights - 2020 vs 2021

Carbon Footprint increased by

77%

31 tCO₂e



6 more cars on the road for one year

2021 Emissions per Delegate Day:

1.48 kgCO₂e

Increased by 35%



Due to increased operations

Electricity increased by 32.8%

302,242 kWh

Equivalent to 28 houses



2021 Diversion Rate: 81%

Decreased by 3%

Second highest since reporting began



Water increased by 28.5%

90L per Delegate Day

Due to more operations and events



Natural Gas emissions averted:

95.5 tCO₂e

By opting for Renewable Natural Gas



VCC Reduction Summary

Year	Reduction in tCO ₂ e	Total Emissions % reduction	Electricity % reduction	Water % reduction	Landfill % reduction	kgCO ₂ e/ Del. Day
2009	--	--	--	--	--	1.48
2010	6.0	3%	2%	-13%	4%	1.73
2011	3.5	2%	-5%	-24%	41%	1.21
- 2012 -	47.2	27%	18%	22%	-16%	1.36
2013	31.0	24%	8%	13%	36%	0.94
2014	11.6	12%	11%	48%	6%	0.88
2015	34.1	40%	10%	17%	20%	0.53
2016	-2.4	-5%	-2%	-19%	-2%	0.51
2017	-18.8	-35%	0.1%	-21%	-2%	0.67
2018	20.6	28%	27%	0.2%	7%	0.43
2019	7.3	14%	-10%	3%	29%	0.38
2020	27.6	62%	38%	65%	87%	1.10
2021	-13.3	-77%	-33%	-28%	-140%	1.48
Total Reduction Since Baseline (2012)	97.7	76%	49%	77%	89%	-9%

Carbon Reduction Strategy

The Victoria Conference Centre (VCC) has been monitoring and reducing their carbon footprint since 2009. Improvements over the years include adding waste streams and providing education around sorting waste, installing meters to accurately track water and electricity usage, changing HVAC operations from constant to variable systems for real-time energy management, lighting upgrades, efficient scheduling, and installing a natural gas boiler fueled by RNG.

Total emissions in 2021 resulted in 30.5 tCO₂e, an increase of 77% over 2020 due to a significant increase in operational days. Another factor to this increase involves the COVID-19 vaccination clinics that ran 12 hours a day, 7 days a week for 6 months of the year, causing a significant increase in electricity and waste emissions. Despite this, the VCC has achieved its second highest waste diversion rate and is continuing to install LED upgrades throughout the building to reduce and conserve energy.

As operations increase, it is recommended that the VCC prioritizes energy conservation measures to reduce electricity and natural gas use. It is also recommended that the VCC promotes its Green Events Guide to event planners in order to contribute to the VCC's waste and paper reduction efforts.

Achievements

- Carbon Neutral facility since 2019
- 76% reduction in carbon emissions since 2012
- 49% reduction in electricity use since 2012
- 77% reduction in water consumption since 2012
- 81% waste diversion rate in 2021 (second highest since reporting began)
- Averted 95 tCO₂e by purchasing Renewable Natural Gas
- 87% of all paper purchased is tree-free
- Significant reductions in energy use through upgrades to HVAC, lighting and equipment
- Installed screen in the atrium to give clients information on their event's energy and water usage
- Installed on-site water bottle refilling stations
- Began purchasing 100% recyclable carpets
- Installed sub-meters in four different departments
- Replace all remaining T8 lighting in the parkade for LED tubes
- Further upgrades to HVAC and building automation systems through the BOMA BC Building Tune-Up program
- Committed to reducing energy and GHG emissions by 50% by the year 2030 through the Greater Victoria 2030 District program

Moving Forward

- Ensure all paper products are at least 88% - 100% PCR
- Convert facility to be 100% LED
- Prioritize energy conservation measures to reduce electricity and natural gas use
- Install rain sensors to irrigation controllers
- Re-certify for BOMA Platinum building certification
- Promote Green Events guide to event planners to contribute to the VCC's goals
- Review accomplishments with staff and educate them on the purpose of the initiatives taken by the VCC

Information on Inventory Uncertainty

* The VCC shares some responsibility for the Empress Hotel's waste pickups. In 2021, shared waste was calculated using 50% responsibility of generated shared waste for each operating day. This differs from 2020 waste methodology, which was adjusted to be more accurate due to closures from COVID.

Emissions References

1. 2020 B.C. Best Practices Methodology for Quantifying Greenhouse Gas Emissions

<https://www2.gov.bc.ca/assets/gov/environment/climate-change/cng/methodology/2020-pso-methodology.pdf>

2. Environment Canada's National Inventory Report (1990-2019); Part 2 & 3.

<https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/inventory.html>

3. Department for Environment, Food & Rural Affairs (UK) Carbon Factors 2020

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors->

4. Intergovernmental Panel on Climate Change (Global Warming Potentials)

http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html

All emissions factors are reviewed and approved by Ostrom (www.ostromclimate.com) on an annual basis.

Policy for Base Year Recalculation:

Base year emissions, and other previous emissions, shall be retroactively recalculated if a change in organisational structure or data quality is expected to exceed a significance threshold of 10% of base year emissions. These changes may arise from structural changes such as mergers, acquisitions, divestments, outsourcing or insourcing, changes in calculation methodology and improvements in accuracy, or discovery of significant errors.

Glossary of Terms

Term	Description
DD	Delegate Day: A delegate is defined as a person selected or requested to attend a convention, conference or meeting from another destination. Each day the delegate spends at the Victoria Conference Centre constitutes a Delegate Day.
CFL	Compact Fluorescent Light
GHG	Greenhouse Gas (emissions): Atmospheric gasses contributing to the greenhouse effect, including Carbon Dioxide (CO ₂), Methane (CH ₄), Nitrous Oxide (N ₂ O), etc.
GJ	Gigajoule: Unit of natural gas equal to 26.137 m ³ or 0.947 MMBtu
HVAC	Heating, Ventilation & Air Conditioning
kWh	Kilowatt-Hour: Common unit for measuring electrical consumption
LED	Light Emitting Diode: A form of highly efficient lighting technology
m ³	Cubic Meter: Unit of measurement equal to 1,000 Litres
PCR%	Post-Consumer Recycled Content (as a percentage)
psg-km	Passenger-Kilometer: Unit separating total emissions between passengers per km
Ream	Standard unit of paper measurement equal to 500 sheets (with 10 reams in one box)
tCO ₂ e	Tonnes of Carbon Dioxide Equivalent: a combined term capturing the emissions from various GHGs.
t-km	Tonne-kilometer: A unit of measurement used in shipping

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The logo for Synergy features the word "synergy" in a lowercase, serif font. A small green leaf icon is positioned above the letter 'y'.