

Completed

27/6/2019

# **Executive Summary**

The Parkside Hotel & Spa is a 126-suite hotel in downtown Victoria, BC. Parkside was designed and built to the LEED Platinum building standard, minimizing energy requirements and environmental impact. Since opening in 2009, the hotel has received numerous sustainability awards such as 5 Green Keys in the Green Key Eco-Rating program for hotels.

This report measures greenhouse gas (GHG) emissions from hotel activities, including natural gas, electricity, water, waste, paper, staff commuting and travel. Total GHG emissions for the 2019 inventory come to 474 tCO<sub>2</sub>e, a 3.5% decrease over the 2017 baseline. Parkside will be offsetting their emissions starting with this 2019 inventory!

Waste data from 2017 and 2018 has been updated as more accurate data was made available.

# Company Information

Company Name	Parkside Hotel & Spa				
Contact Information	Trina White	trina.white@parksidevictoria.ca 250-940-1200			
Company Description	Hotel in downtown Victoria with 126 suites, 5 meeting rooms, 1 pool, and 1 gym. 1 company vehicle				
Reporting Period	March 1st, 2018 - February 28th, 2019				
Inventory Boundary	Scope 1 (Direct Emissions)   - Natural Gas, Gasoline   Scope 2 (Indirect Emissions from Purchased Electricity)   - Purchased Electricity (BC Hydro)   Scope 3 (Indirect Emissions from Other Sources)   - Water, Waste, Stationery, Paper Products, Company Travel, Staff Commuting				
Consolidation Approach	Operational Control: Accounting for 100% of emissions from operations over which the company has operational control.				
Primary Measurement	Carbon Dioxide Equivalent (CO2e)				
Reporting Guidelines	Aligned with those defined in The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition (The GHG Protocol, www.ghgprotocol.org) . Emissions factors reviewed & approved by Offsetters.				

## Inventory Results

	tCO <sub>2</sub> e						
Scope 1 (Direct)	375.8	79.3% of annual total.					375.8
Scope 2 (Indirect)	23.5	5.0% of annual total.		23.5			
Scope 3 (Indirect)	74.8	15.8% of annual total.		74.8			
TOTAL EMISSIONS	474.0		0.0	100.0	200.0	300.0	400.0
		-					

# Carbon Footprint (Summary)

Parkside Hotel & Spa 2019 Report synergy

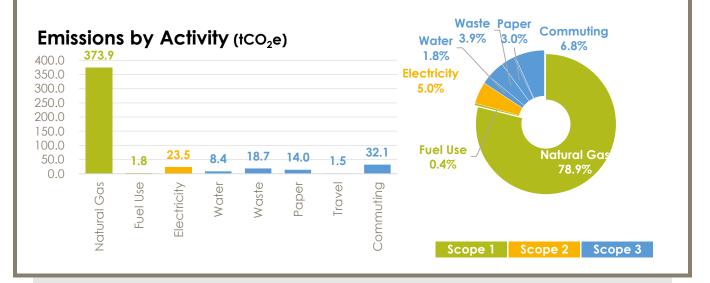
Total emissions:

issions: **474.0** tCO<sub>2</sub>e

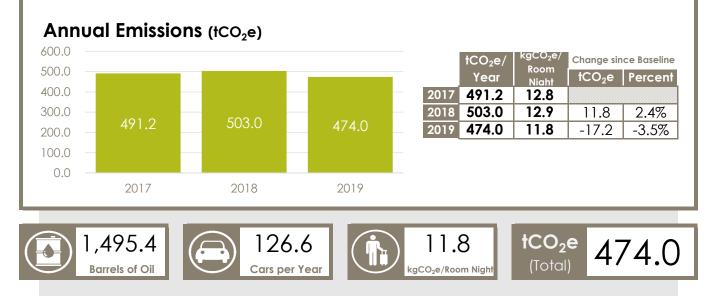
Offset cost: \$9,480

Total emissions came to 474 a 3.5% decrease from the baseline year. Emissions per room night have also decreased by 8.2%. Emissions are below average for a typical hotel.

## Carbon Footprint (By Activity)



# Carbon Footprint (Historical)



#### Natural Gas Natural Gas (GJ) **Analysis** Natural gas is used for 8,000 heating throughout the hotel 7,000 and powers the boilers. It accounts for 79% of Parkside's 6,000 total carbon footprint. At 5,000 373.9 tCO $_2$ e in 2019, emissions have remained fairly 4,000 7,499 7,521 7,512 consistent over the past three 3,000

years. Parkside is currently exploring new boiler options. Suggestion: purchase

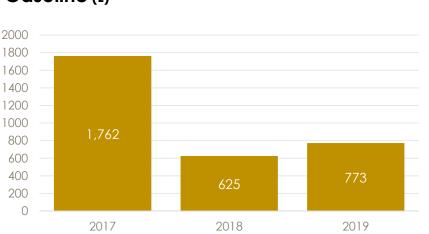
renewable natural gas to minimize emissions.

Note: Separate metering was not available for natural gas. A responsibility rate of 92.15% has been applied based on an estimate of square foot.

2018

2019

Fuel



### Analysis

Gasoline accounts for 0.4% of Parkside's total carbon footprint. The company van is used by Parkside staff for work purposes. The 2017 user of this vehicle had additional contractual driving responsibilities that were no longer required in 2018, hence the large drop between 2017 and 2018. Between 2018 and 2019, gasoline consumption increased by 24%.

Note: Parkside has a backup generator that is tested regularly throughout the year. There has been no fuel purchased over the past three years.



Gasoline (L)

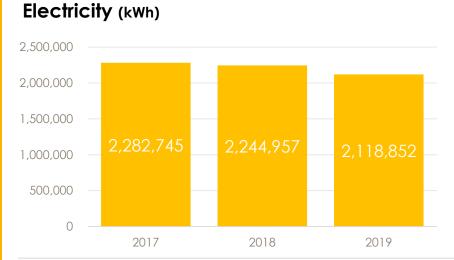
2,000

1,000

0

2017

# Electricity

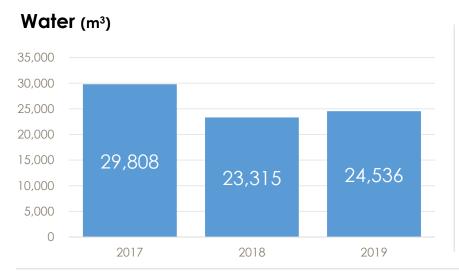


#### Analysis

Electricity consumption accounts for 5% of Parkside's total carbon footprint. Lighting upgrades resulted in a 15% decrease in electricity consumption since the baseline of 2017. A spike in the emissions factor for BC electricity in 2018 means emissions from electricity are down 52% over last year.

Note: Separate metering was not available for electricity. A responsibility rate of 92.15% has been applied based on an estimate of square foot.

## Water



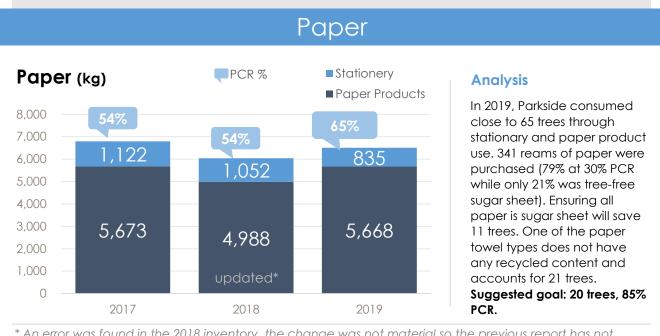
### Analysis

Water consumption is up 5.2% over last year but is still 17.7% lower than the baseline year. Low-flow fixtures and new laundry equipment have saved a total of 11,765 m<sup>3</sup> since 2017.

Due to its size, Parkside is in the top 90 percentile of hotel water use in Victoria. Parkside currently uses 609 L of water per room night (RN). This was 778 L/RN in 2017 and 596 L/RN in 2018.

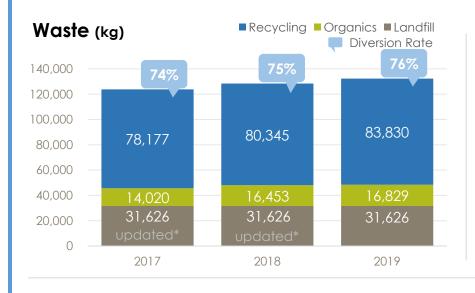
Note: Separate metering was not available for water. A responsibility rate of 92.15% has been applied based on an estimate of square foot.





\* An error was found in the 2018 inventory, the change was not material so the previous report has not been restated.

## Waste



### Analysis

Waste accounts for 18.7 tCO<sub>2</sub>e, or 3.9% of Parkside's overall carbon footprint. Current diversion rate is 76.1%. Many improvements have been made to recycling practices, but are not being reflected in the data, which comes from waste pick-ups. Suggestion: track how full the landfill bin is and set a goal to reduce size or pickup frequency.

64.7

Trees / Year

kg / Day

362 tCO<sub>2</sub>e

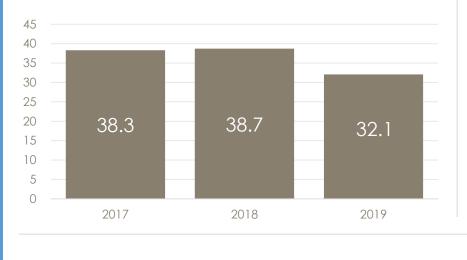
2e 18.7

% of **3.9**%



# Commuting

### Emissions (tCO<sub>2</sub>e)



### Analysis

Staff commuting is Parkside's second highest source of emissions behind natural gas, but accounts for only 6.8% of the total carbon footprint. Emissions from staff commuting are down 16% from the baseline year.

#### Car Walk Walk Car

Commuting Percentages by Method per Day

34% 33% 35% 39% Bus Bus Bike 23% **29**% 5% Baseline (2017) Current (2019) Average Average 0.144 0.130 kgCO<sub>2</sub>e/km kgCO<sub>2</sub>e/km Low-Emission Low-Emission 61% 65.6% Commuting % Commuting %

tCO<sub>2</sub>e

32.1

### Analysis (Breakdown)

Over 65% of Parkside staff commute by low-emission methods. This is way up from the 53% in 2018 and above the 61% from the baseline year proving that efforts to encourage biking, walking and bussing have been successful! Parkside provides secure bike storage, a bike pump station and shower facilities. The Parkside maintenance team also restores bikes left by guests for staff to use.

8.6

Cars / Year

Bike

2%

% of

Total

6.8%



# Travel

% of

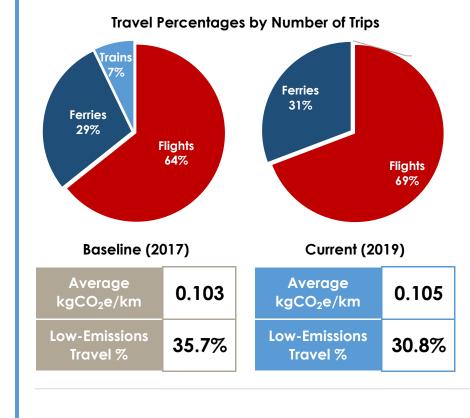
Total

0.3%



#### Analysis

As expected, staff travel is closer to 2017 levels as the sales team has been reestablished and is similar to its original size. Emissions are up 15% over 2017. **Suggested** goal: aim to get emissions back down to 2017 levels and maintain minimal travel.



tCO<sub>2</sub>e

1.5

#### Analysis (Breakdown)

18 flights (10 with carbonneutral Harbour Air) and 8 BC Ferry trips were taken in 2019. This is only two flights more than were taken in 2018, but with one longer trip to Halifax and one less trip on Harbour Air, emissions were up 400%. It is valuable to keep in mind, however, that only 1.5 tonnes of emission are the result of travel accounting for less than 1% of Parkside's carbon footprint.

0.4

Cars / Year

<sup>tCO</sup>2<sup>e</sup> / 0.015

## Carbon Reduction Strategy

The Parkside Hotel & Spa was designed and built to operate with a low impact on the environment. At 474  $tCO_2e$ , 2019's carbon footprint report showed a 3.5% decrease in emissions over the 2017 baseline year.

The Parkside has also committed to offsetting their emissions and becoming carbon neutral starting with this 2019 inventory.

While the hotel has shown improvements in many areas including water use reduction, minimizing company vehicle use, and limiting travel emissions by supporting a carbon neutral company, there are many opportunities for continued improvements. Parkside should focus on actions that will reduce natural gas consumption. If Parkside does not currently have a pool cover, one should be installed to minimize heat loss.

### Achievements

> Building designed to LEED Platinum building standard.

> Numerous awards in sustainability, including 5 Green Keys, 2010 Energy and Environmental Award from Hotel Association of Canada, and CHBA Outdoor Environmental Achievement Awards.

> Upgraded laundry facilities and installed lowflow water fixtures, saving 11,765 m<sup>3</sup> over two years.

> Over 65% of staff commute by low-emission methods.

> Reduced emissions by 3.3% since 2017.

## Moving Forward

> Increase staff and guest education on the waste management system to improve waste diversion. Start tracking bin fullness to observe results.

> Switch all copy paper to 100% post-consumer recycled paper, and purchase all other paper products with a minimum of 30% PCR.

> Optimize the energy management system to minimize natural gas and energy usage.

> Install pool cover

> Offset all emission starting with the 2019 inventory!

# Information on Inventory Uncertainty

\* Separate metering is not available for natural gas, electricity, water and waste. A responsibility rate of 92.15% has been applied based on an estimate of square foot.

### **Emissions References**

1. 2016/17 B.C. Best Practices Methodology for Quantifying Greenhouse Gas Emissions http://www2.gov.bc.ca/gov/content/environment/climate-change/policy-legislation-programs/carbonneutral-government/measure

#### 2. Environment Canada's National Inventory Report (1990-2015); Part 2 & 3.

http://unfccc.int/files/national\_reports/annex\_i\_ghg\_inventories/national\_inventories\_submissions/applicati on/zip/can-2017-nir-13apr17.zip

3. Department for Environment, Food & Rural Affairs (UK) Carbon Factors <a href="https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2017">https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2017</a>

#### 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 Offsetters (www.offsetters.ca) 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				
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 ( $N_2O$ ), etc.				
GJ	<b>Gigajoule:</b> Unit of natural gas equal to 26.137 m <sup>3</sup> 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 <sup>3</sup>	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 <sub>2</sub> e	<b>Tonnes of Carbon Dioxide Equivalent</b> : GHGs have different warming potentials, measured collectively as CO <sub>2</sub> equivalent (hence "e")				
t-km	Tonne-kilometer: A unit of measurement used in shipping				

Verified By	Kayli Anderson
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