



2019

# Carbon Neutral Action Report

Okanagan College





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## Okanagan College

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### Declaration Statement:

*This Carbon Neutral Action Report for the period of January 1<sup>st</sup> 2019 to December 31<sup>st</sup> 2019 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2019 to reduce our greenhouse gas emissions, and our plans to continue reducing emissions in 2019 and beyond.*

### Overview

Okanagan College continues to develop and enhance its focus on sustainability from the perspective of an organization with a responsibility for education, training and community development, and from the perspective of an organization that is focused on achieving carbon neutrality.

The *Okanagan College Strategic Plan* identifies the need to address the human and financial resources, infrastructure, and environmental challenges that will accompany anticipated demographic, economic and social changes.



- Complete and implement a sustainability plan that addresses environmental, financial and social sustainability.
- Seek additional sources of funding to sustain and further develop the College.
- Ensure there are sustainable operations in each of the four regions.
- Augment the College's human resource plan through improved strategies in key areas such as succession planning, employee development and the recruitment and retention of a diverse employee base.

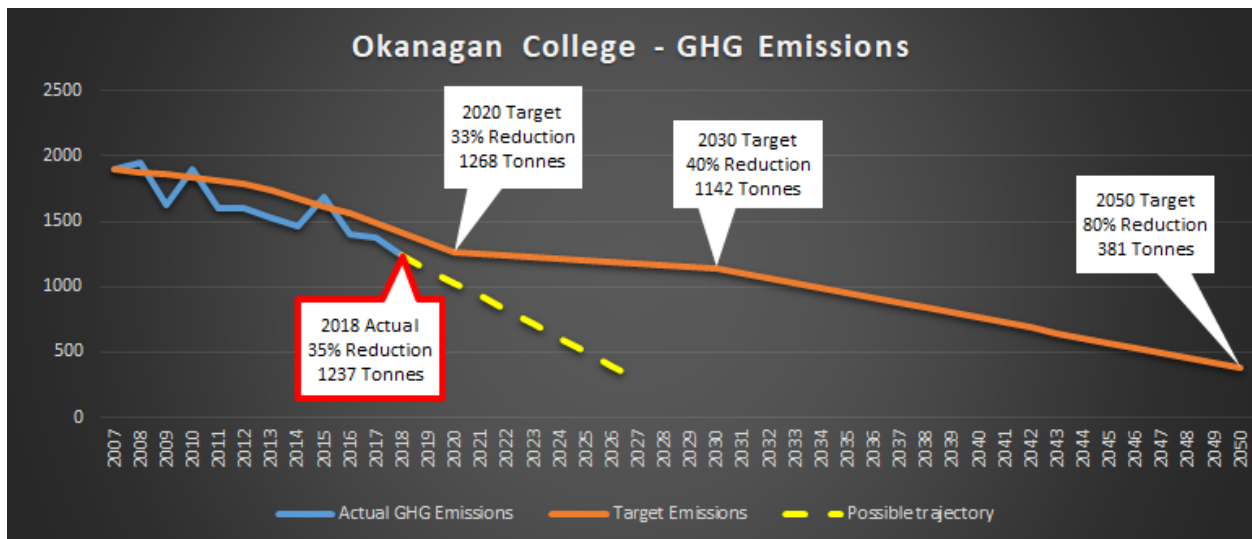
The College continues to participate in the **STARS** program – (**Sustainability Tracking and Assessment Rating System** administered by the Association for the Advancement of Sustainability in Higher Education). The process involves a rigorous examination of practices, policies, and achievements that contribute to sustainability. Okanagan College currently holds a Silver rating and is planning to resubmit in 2020 to help establish new benchmarks and targets going forward –





particularly with regards to our greenhouse gas emissions. Conveniently, many of the activities which improve our STARS scoring are also directly aligned with our carbon reduction initiatives.

The quest for improvement is ongoing. The institution has established goals for itself to exceed the provincially mandated Bill 44 targets for carbon emissions with an annual carbon emission reduction of 80 tons per year. We are still managing to stay ahead of that pace and managed to reach the 2020 target by 2018, a full 2 years ahead of schedule. While this progress is comforting, the Paris Accord and follow-up 2018 report from the IPCC (Intergovernmental Panel on Climate Change) have illustrated that there is a global need for more ambitious targets which inspired Okanagan College to begin development of a more aggressive carbon reduction plan. While this plan is still under development, the understanding that stronger targets are necessary is still helping guide decision making.



Part of Okanagan College's commitment to sustainability has involved giving greater voice and visibility to the topic. It starts with new staff orientation – sustainability is a featured topic in those sessions that introduce employees to the values and vision, policies and practices of the institution. The College continues this commitment by providing guided tours of our various low carbon buildings where we share our strategies for low carbon construction and operation.





## **Success Stories and Emissions Reductions Activities/ Initiatives in 2019**

### **Infrastructure**

#### **Penticton Welding**

This 4500 ft<sup>2</sup> facility, has been now been officially certified as LEED Gold. It comes complete with an exhaust air heat recovery system which allows exhaust control from each individual workstation to optimize heating requirements and minimize related carbon emissions.

#### **Vernon Trades**

This facility boasts over 14,000 ft<sup>2</sup> of energy efficient design, heated by ultra-high efficiency condensing boilers with a roof top covered with approximately 90KW of solar photovoltaic panels providing electricity to this building as well as to the rest of the campus, when opportunity allows. LEED Gold certification has been submitted and is awaiting final certification.

#### **Health Sciences Centre – Under Construction**

Construction work on this project began in 2018 and will be completed in 2020. The 30,000 ft<sup>2</sup> project is pursuing multiple green construction certifications including LEED Gold and the WELL building standard. Most significant from a Carbon perspective is that the building is one of the Pilot Projects for the new Carbon-Zero building standard developed by the Canadian Green Building Council. This requires us to consider embodied carbon from all construction materials, carbon free operation, renewable energy and optimized design to minimize heating requirements.







All these projects allow Okanagan College the infrastructure and opportunities to share construction best practices with our students and the communities we serve.

The College will continue to leverage the technology, passion and creativity inherent in these buildings to be an agent of change for the larger community, drawing on the interests and expertise of staff and students to advance our intentions regarding sustainability and carbon reduction.

### **Purchasing / Consumption**

Our *Pay for Print* program continues to help staff better understand their own printing habits and usage patterns.

### **Transportation**

Two electric car charging stations were added to the Automotive shop for training purposes, which bring the total to 15 level-two stations. Two more will be added in 2020 as part of the Health Science Center project.



From an active transportation perspective, continued participation in the “Ride to Work Week” programs allowed us to educate and engage staff and students while upgraded, secure bike storage facilities help attract more riders.

Discussions with various car-share, bike-share and even scooter-share companies have intensified and an updated sustainable transportation plan is in the works. As our enrollment increased again in 2019, promotion and expansion of our car-pooling program continues to be one of the most effective capacity management strategies.

### **Policy & Planning**

Our *Strategic Plan 2016-2020*, which includes *Sustainability* as one of our *Core Values*, continues to help guide our long term planning. The STARS sustainability tracking system is the tool we use to measure our progress and we are currently preparing for an anticipated 2020 submission.



## **Education and Engagement**

As noted earlier, sustainability continues to be a key element in our orientation processes for new staff and students.

## **Plans to Continue Reducing Greenhouse Gas Emissions 2019 and beyond**

The pursuit of the Carbon Zero designation for the new Health Sciences Centre requires us to develop a strategic “Zero Carbon Transition Plan” for the entire Kelowna campus which includes energy reduction strategies, deep energy retrofits to some of our older buildings as well as an expansion of the central heat pump plant which uses treated effluent from the neighboring waste water treatment plant as the heat source. The design work started in 2018 and the full plan (including all campuses) will be proposed to begin in 2020 and phased over several years. When fully implemented, this would account for a **GHG reduction of approximately 65%** of our baseline emissions, which would be a big step towards our mandated 80% reduction by 2050.

Using Lean methodology, we are constantly reviewing administration processes in different departments to encourage reducing, where practical, unnecessary paper-based filing systems.

Continued monitoring of our fleet vehicles and usage patterns as well as technology developments in video conferencing will help us optimize travel related emissions.

## **Emissions and Offset Summary Table:**

<i>Okanagan College GHG Emissions and Offsets for 2019</i>	
<b>As per the <a href="#">Directive</a> issued March 31, 2020, each PSO will use their 2018 GHG Emissions as a placeholder for the purposes of their 2019 CNAR.</b>	
Total Emissions (tCO <sub>2</sub> e)	1,237.84
Total BioCO <sub>2</sub>	1.84
Total Offsets (tCO <sub>2</sub> e)	1236.0
Offset Investment (\$25 per tCO <sub>2</sub> e)	\$30,900






## Retirement of Offsets:

In accordance with the requirements of the Climate Change Accountability Act and Carbon Neutral Government Regulation, **Okanagan College** (the Organization) is responsible for arranging for the retirement of the offsets obligation reported above for the 2019 calendar year, together with any adjustments reported for past calendar years (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (the Ministry) ensuring that these offsets are retired on the Organization's behalf, the Organization will pay within 30 days, the associated invoice to be issued by the Ministry in an amount equal to \$25 per tonne of offsets retired on its behalf plus GST.

## Executive sign-off:

	June 23, 2020
Signature	Date
Jim Hamilton	President
Name (please print)	Title

