



*Photo: University of Calgary,
Calgary, Alberta*

Action for net zero at Canadian universities: **CLIMATE SURVEY REPORT**



**Universities
Canada.**



Canada's Universities
Action for net zero





Photo: Mount Saint Vincent University, Halifax, Nova Scotia

Introduction

Canada's universities have long been leaders in sustainability and are committed to helping the country achieve its climate targets. Researchers within these institutions are actively monitoring the impacts of climate change on various systems and infrastructure, while also developing new clean technologies and generating projections to assist communities in preparing for the anticipated rise in temperatures and an increase in extreme weather events.

In addition to innovative climate research and preparing students with the skills they need to succeed in a greener economy, they are also engaged in actively mitigating the impacts of climate change within their own operations. To better understand their climate mitigation commitments and progress, Universities Canada and CAUBO partnered to conduct a member survey on their greenhouse gas (GHG) emissions measurement and reporting practices, institutional reduction targets and infrastructure needs. The survey was circulated between May

and July 2023 and generated a response rate of **74%** which reflects 72 of Universities Canada's 97 members (see survey respondent institutions in [Appendix A](#)).

The survey found that Canadian universities are actively working to reduce their climate footprint by measuring their greenhouse gas emissions, setting reduction targets and publicly reporting on their progress. However, they face significant challenges due to resource constraints, data collection complexities and a lack of a standard reporting frameworks for the sector.

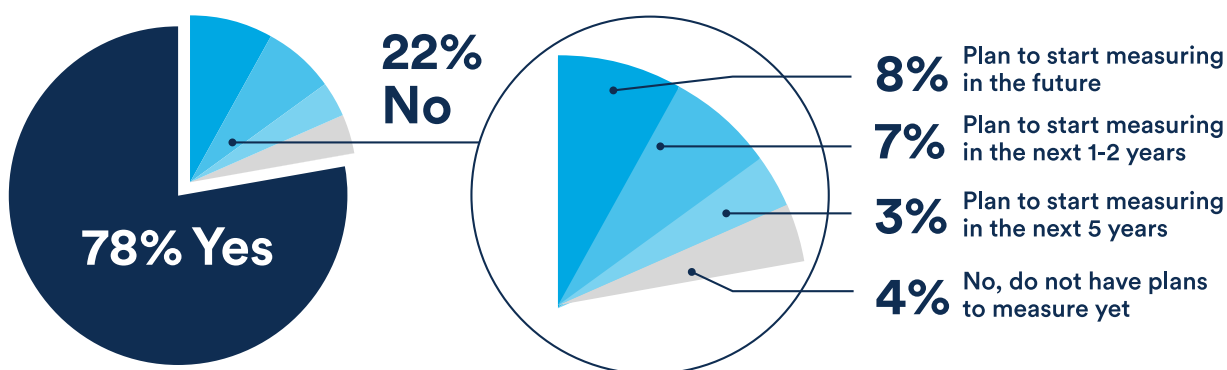
1 – Measurement of greenhouse gas emissions

Over three-quarters of Canada's universities are currently measuring their greenhouse gas emissions, with many having over a decade of experience measuring all three scopes¹ of emissions. Similar to other sectors, measuring scope 3 emissions – the most indirect form of emissions – poses a major challenge for Canada's universities.

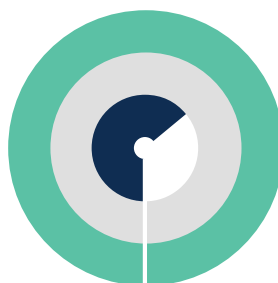


78% of survey respondents are currently measuring their greenhouse gas emissions with an additional **7%** of respondents indicating their intent to initiate GHG measurements within the next 2 years.

GHG emissions measurement, % of institutions currently measuring and those that plan to start



100% of universities in Quebec indicated that they are actively measuring their GHG emissions, followed by **78%** of institutions in the West, **70%** in the East and **66%** in Ontario.



100% of large and medium-sized² universities indicated that they are currently measuring GHG emissions while **64%** of small-sized members are engaged in the practice.

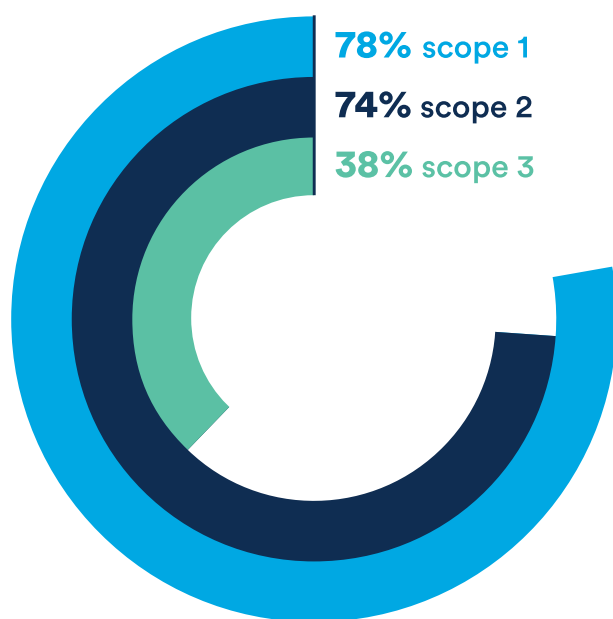
1 Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions. (GHG Protocol: https://ghgprotocol.org/sites/default/files/standards_supporting/FAQ.pdf)

2 Size categories for member institutions are based on FTE (five-year average of full-time equivalent of students): Small-sized: <12,000 FTEs, Medium-sized: 12,000 to 27,000 FTEs, Large: >27,000 FTEs

Primary reasons for not measuring GHG emissions include:

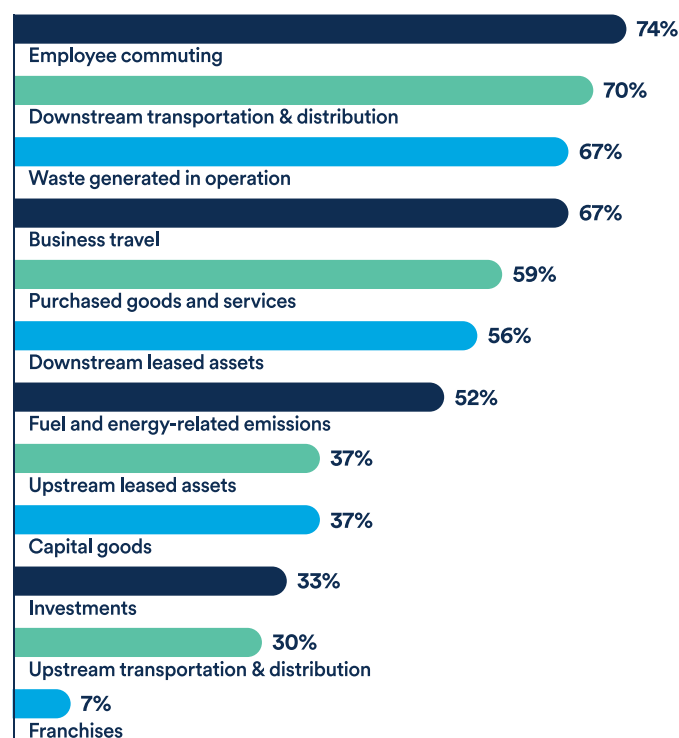
Lack of resources		No internal expertise	
Uncertainty about which emissions should be included		Time constraints	

Scope of GHG emissions measured, % of members measuring



78% of respondents measure scope 1 emissions while **74%** measure scope 2 emissions. At the same time, **38%** of respondents indicated they are measuring some aspect of scope 3 emissions, reflecting the challenges that universities face in measuring indirect emissions as organizations with complex operations, diverse systems, multiple buildings and in some cases multiple campuses with different levels of control.

Scope 3 categories* measured by universities, % currently measuring or partially measuring



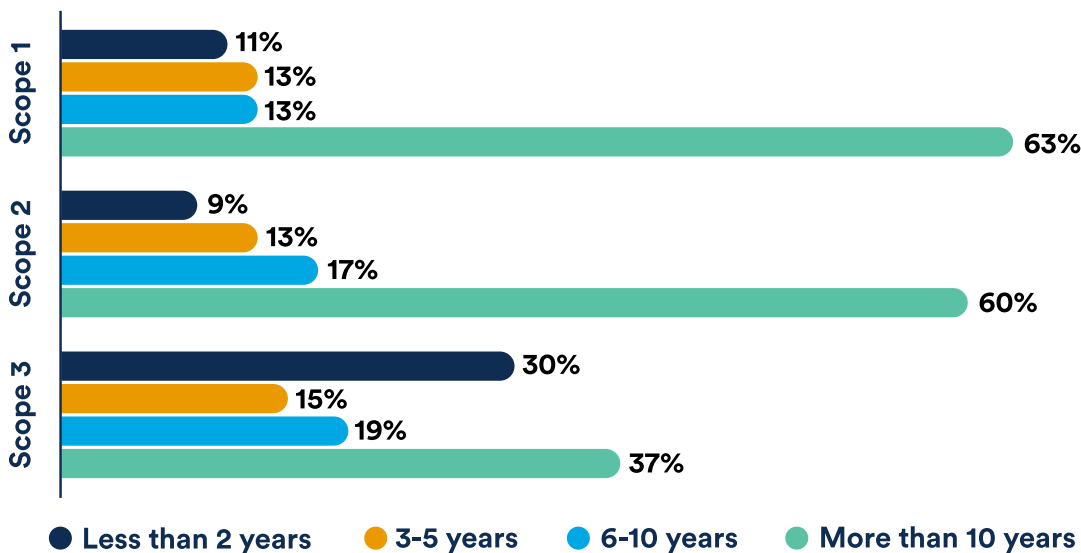
74% of the members who currently measure (or partially measure) scope 3 emissions are monitoring employee commuting and **70%** monitor downstream transportation and distribution (e.g., students commuting to and from campus/university site). Universities appear to be focusing on the categories that are the most relevant and significant to their operations, while planning to expand measurement to include those that are more complex and challenging.

**Note: Certain categories are less relevant to university operations and were measured by 2 universities or fewer: franchises, processing of sold products, use of sold products and end-of-life treatment of sold products.*



Many universities have more years of experience measuring their greenhouse gas emissions in scope 1 compared to scope 2 and 3. **63%** of universities indicated that they have been measuring their scope 1 emissions for over a decade while **11%** of participants have recently embarked on this journey, initiating GHG measurements within the past two years.

Experience measuring GHG emissions, % of universities measuring each scope



Most university respondents indicated that they experienced challenges measuring their emissions in at least one of the three scopes and more than **60%** reported challenges associated with measuring scope 3 emissions. The majority of the respondents cited challenges due to lack of resources, capacity constraints, lack of internal expertise, standardized tools and approaches for the sector, as well as data collection complexities. A number of university respondents also cited technical difficulties related to measuring their emissions, such as lack of individual sub-meters and varied emissions factors.

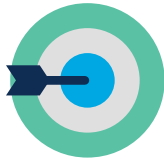
The University of British Columbia, Vancouver, British Columbia

2 – Reduction targets and strategies

Approximately three-quarters of the surveyed Canadian universities have GHG emission reduction strategies or included their GHG reduction targets in their strategic plan, and around two-thirds have committed to GHG reduction targets. More than half of the surveyed institutions have set net zero or carbon neutral³ targets, with a significant portion aligning their goals with the Government of Canada’s GHG reduction targets.



74% of universities have a dedicated strategy to reduce GHG emissions or have included their GHG reduction targets in their strategic plans.

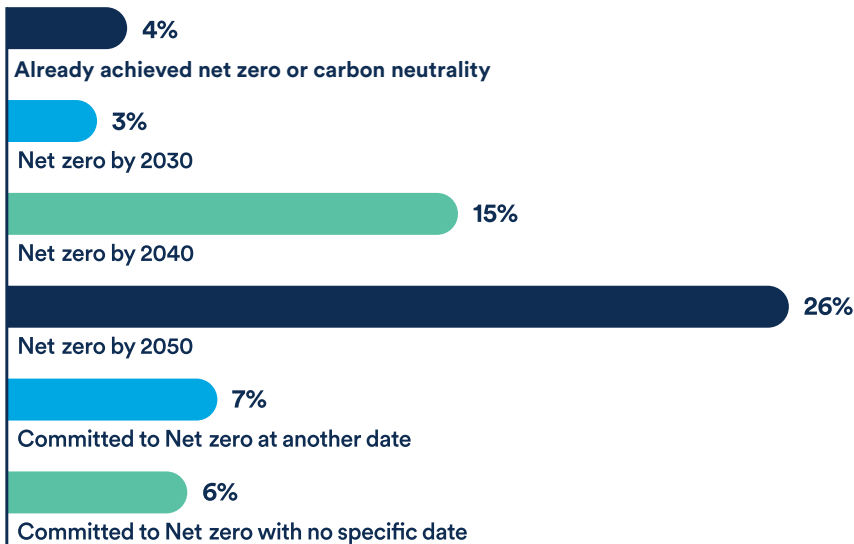


65% of universities have established specific targets for reducing GHG emissions.



61% of the surveyed universities have committed to achieving a net zero or carbon neutral goal. **56%** have committed to become net zero at various dates before 2050, aligning with federal government initiatives while 3 of the surveyed institutions with GHG reduction targets have already achieved net zero or carbon neutrality.

Universities who are comitted to net zero



³ Carbon neutral implies balancing carbon dioxide emissions (using offsets), often excluding other greenhouse gases. Net zero extends beyond carbon neutrality by aiming to eliminate all greenhouse gas emissions, prioritizing reduction before offsetting only unavoidable emissions. <https://www.wri.org/insights/net-zero-ghg-emissions-questions-answered>



Photo: Victoria University, Toronto, Ontario



Among surveyed institutions with GHG reduction targets, **37%** have set goals that are generally aligned with science-based targets requirements that are considered necessary to limit temperature increases to well below 2°C.



19% of surveyed universities have purchased carbon offsets as part of their efforts. Of the 14 institutions that have purchased offsets, the majority (11) chose forest conservation or tree planting for offsetting. These institutions are also actively purchasing or planning to purchase renewable energy credits. Most of these universities are in British Columbia and participate in the provincial government's programs.



11% of universities have implemented climate resiliency strategies or adaptation plans, highlighting the importance of not only mitigating climate change impacts but also adapting to the challenges posed by a changing climate.

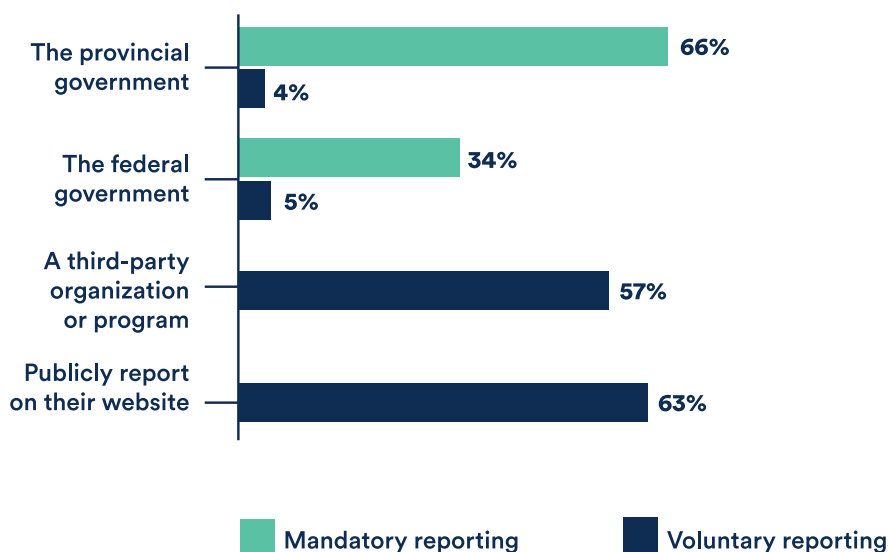


Photo: Western University, London, Ontario

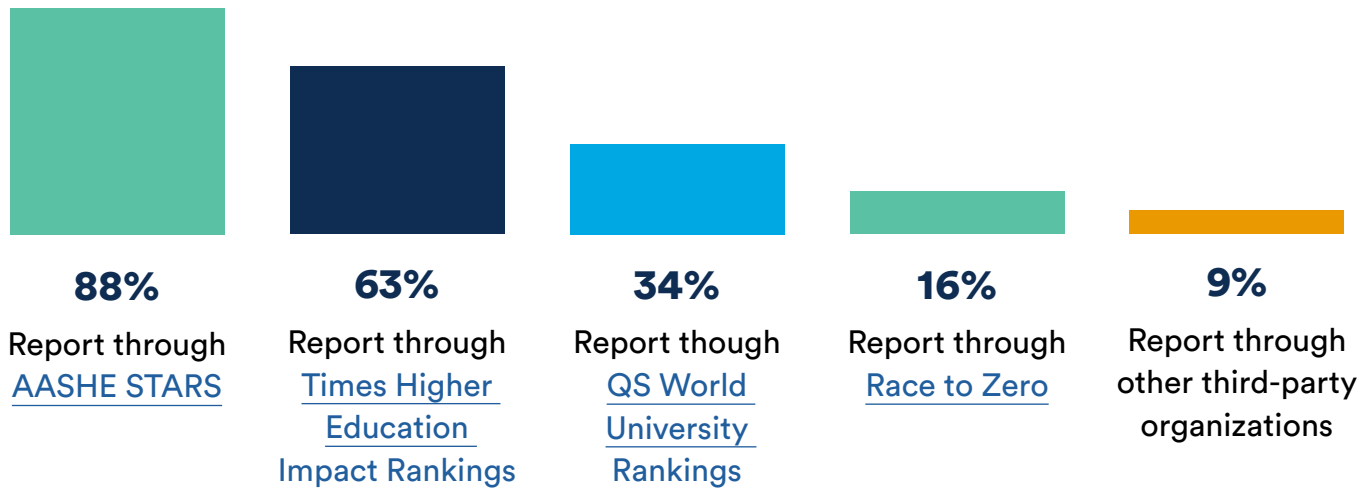
3 – Reporting

With some exceptions, due to volume of emissions or energy production on campus, the university sector in Canada is excluded from the Government of Canada and provincial GHG emissions reporting requirements. British Columbia and Ontario are the only provinces that require all universities to report. Despite the absence of widely established legal requirements for the sector, most institutions that measure their GHG emissions (**86%**) report them through a variety of mechanisms. Over two-thirds of institutions measuring their emissions are reporting to more than one entity.

Public reporting of university GHG emissions

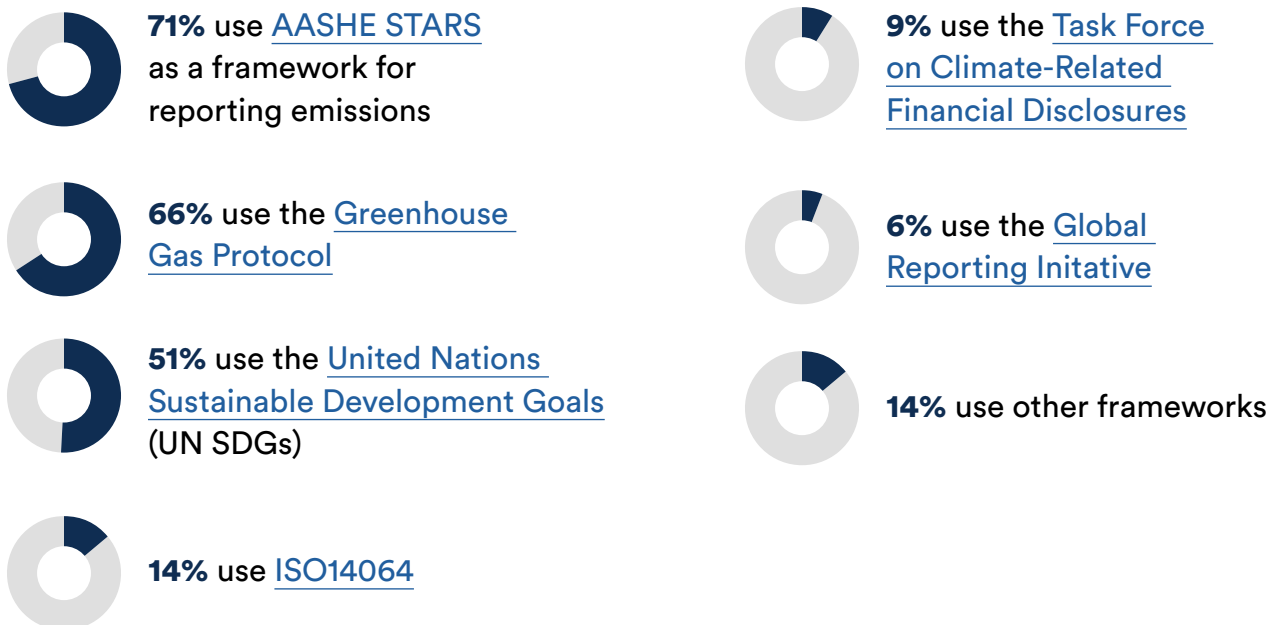


Third party reporting



Among those reporting to third-party organizations, **88%** participate in AASHE STARS and **63%** in the Times Higher Education Impact Rankings. **34%** of universities use QS World University Rankings and Race to Zero has been adopted by **16%**.

Institutions that publicly report on their websites use a variety of different sustainability reporting frameworks and many of these universities use multiple frameworks simultaneously. **The most popular are:**



The path to net zero

UNIVERSITY INFRASTRUCTURE

Canada's universities are on the path to net zero, undertaking significant efforts to reduce greenhouse gas emissions. Greening university infrastructure is a critical component of the work universities are doing to reduce greenhouse gas emissions and build more sustainable campuses. Our survey confirmed that over the next five years, universities across the country will continue to undertake infrastructure projects to improve energy efficiency, implement clean energy solutions, scale up innovation and technology-enabled projects and green construction.

Canadian universities have identified a lack of resources as a critical barrier to reducing greenhouse gas emissions. Universities reported that for their top five priority infrastructure projects aimed at reducing greenhouse gas emissions over the next five years, there is minimal incentive funding and support from provincial and federal grant funding.

To accelerate efforts, Canadian universities are calling on governments to invest in university infrastructure projects to reduce emissions. Canadian universities have a proven track record of leveraging federal funds for campus infrastructure – as seen through the success of the Post-Secondary Institutions Strategic Investment Fund. This fund worked to improve the environmental sustainability of research and innovation-related infrastructure at post-secondary institutions.

As the federal government works towards introducing the next generation of infrastructure funding through the Investing in Canada Infrastructure Program, universities must be a part of the plan. Re-investing in funding available through the program's green infrastructure stream and enabling universities to directly access these funds will be critical to bolstering the work universities are doing to reduce campus infrastructure emissions.

UNIVERSITIES CANADA AND CAUBO SUPPORT

Responding universities also identified key areas in which Universities Canada and CAUBO can support their members in their emission reduction efforts. These include:

- Providing comprehensive tools and standards for reporting and benchmarking GHG emissions at universities.
- Facilitating collaborative initiatives focusing on scope 3 emissions to foster the sharing of tools, data and best practices among institutions.
- Continuing to engage in advocacy to increase universities' capacity to address climate change.

CAUBO and Universities Canada will continue to support their respective members' climate work on the path to net zero.



Photo: Concordia University, Montreal, Quebec

Conclusion

Canadian universities play a pivotal role in addressing climate change through their research and teaching and learning activities and by actively engaging in mitigation efforts across their operations. Approximately three-quarters of universities have adopted dedicated strategies to reduce their GHG emissions, set specific reduction targets and publicly report on their progress. Though the survey found that universities face significant challenges in their mitigation efforts due to resource and technical constraints, they have demonstrated they are committed to climate action and to making progress in reducing their climate footprints. Looking forward, government investment in sustainable university infrastructure will be critical to enabling universities' to further mitigate the impacts of their operations and to ensure that they can continue to serve as producers of innovative research, quality education and central hubs within their communities.

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ABOUT UNIVERSITIES CANADA



Universities Canada is the voice of Canada's universities, representing public and private not-for-profit institutions at home and abroad. Our member universities are located in communities across Canada, serving over 1.4 million students and employing upwards of 400,000 people. Our universities — through teaching, research and local engagement — transform lives, strengthen communities and find solutions to the most pressing challenges facing our country and the world. In April 2023, Universities Canada launched Canada's universities: Action for net zero, to support and strengthen its member institutions' longstanding commitment to fight climate change. The initiative focuses on six key action areas: measuring and reporting, pursuing increased investments, collaboration, increasing awareness, sharing resources and best practices and addressing Universities Canada's own climate impact.

ABOUT CAUBO



CAUBO is a non-profit professional organization representing the chief administrative and financial officers at over 100 universities and affiliated colleges in Canada. CAUBO provides a national perspective on matters related to higher education administration. It strengthens the capacity of leaders in the sector by connecting them with peers and information, enabling them to pursue opportunities and create solutions for shared issues. In 2020, CAUBO initiated a Climate Change Mitigation Strategies project to support members' efforts to mitigate and adapt to the impacts of climate change. The project now includes five resources, which are available for members on CAUBO's website.

Appendix A – Responding member institutions

Institution	Province / Territory	Institution	Province / Territory
Acadia University	NS	The University of British Columbia	BC
Algoma University	ON	Thompson Rivers University	BC
Brandon University	MB	Toronto Metropolitan University	ON
Brescia University College	ON	Trent University	ON
Brock University	ON	Université de Moncton	NB
Canadian Mennonite University	MB	Université de Montréal	QC
Carleton University	ON	Université de Sherbrooke	QC
Concordia University	QC	Université du Québec à Chicoutimi	QC
Concordia University of Edmonton	AB	Université du Québec à Rimouski	QC
Dalhousie University	NS	Université du Québec à Trois-Rivières	QC
École de technologie supérieure	QC	Université du Québec en Abitibi-Témiscamingue	QC
Polytechnique Montréal	QC	Université du Québec en Outaouais	QC
Emily Carr University of Art + Design	BC	Université Laval	QC
HEC Montréal	QC	Université TÉLUQ	QC
Huron University College	ON	University of Alberta	AB
Institut national de la recherche scientifique	QC	University of Calgary	AB
King's University College	ON	University of Guelph	ON
Kwantlen Polytechnic University	BC	University of King's College	NS
Lakehead University	ON	University of Lethbridge	AB
Laurentian University	ON	University of Manitoba	MB
MacEwan University	AB	University of New Brunswick	NB
McGill University	QC	University of Northern British Columbia	BC
McMaster University	ON	University of Ottawa	ON
Mount Allison University	NB	University of Regina	SK
Mount Royal University	AB	University of Saskatchewan	SK
Mount Saint Vincent University	NS	University of St. Michael's College	ON
Nipissing University	ON	University of The Fraser Valley	BC
NSCAD University	NS	University of Toronto	ON
Ontario Tech University	ON	University of Victoria	BC
Queen's University	ON	University of Waterloo	ON
Royal Roads University	BC	University of Windsor	ON
Saint Mary's University	NS	Vancouver Island University	BC
Simon Fraser University	BC	Victoria University	ON
St. Francis Xavier University	NS	Western University	ON
St Mary's University	AB	Wilfrid Laurier University	ON
St. Thomas More College	SK	York University	ON

