



UNIVERSITY OF
CALGARY

2019 CLIMATE ACTION PLAN

UCalgary's roadmap to a carbon neutral campus by 2050, sparking innovation and accelerating the transition to a clean growth economy.



OUR RENEWED TARGETS

Our 2019 CAP confirms renewed targets for Scope 1 and 2 greenhouse gas (GHG) emission reductions.

The CAP is an operational roadmap for our transition to a carbon neutral campus and an important tool to drive our contribution to meeting the Canadian GHG emissions reduction targets. It confirms the high-level strategies that we will act upon to reduce GHG emissions from our campus operations.

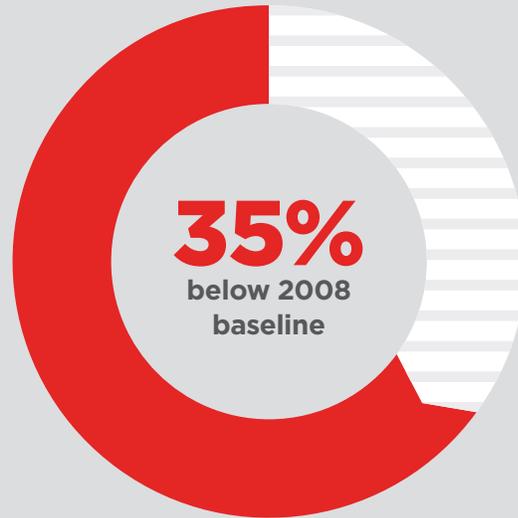
The CAP sits under our broader Institutional Sustainability Strategy (ISS), which confirms our approach to advancing sustainability across academic, engagement and operational endeavours.

Context for change — the world around us.

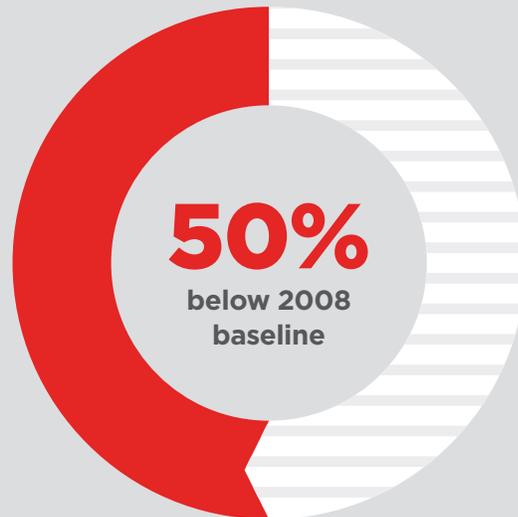
UCalgary's renewed CAP was developed taking into consideration a rapidly changing external environment including regulatory and policy drivers at different levels of government, our changing provincial energy context, emerging information and building technology opportunities, and the consideration of resiliency and risk mitigation related to climate change over time.

UCalgary is uniquely positioned to spark innovation as we work to accelerate the transition to a clean growth economy, and strengthen the resiliency of our campuses and surrounding communities to prepare for the increasing risks of our changing climate.

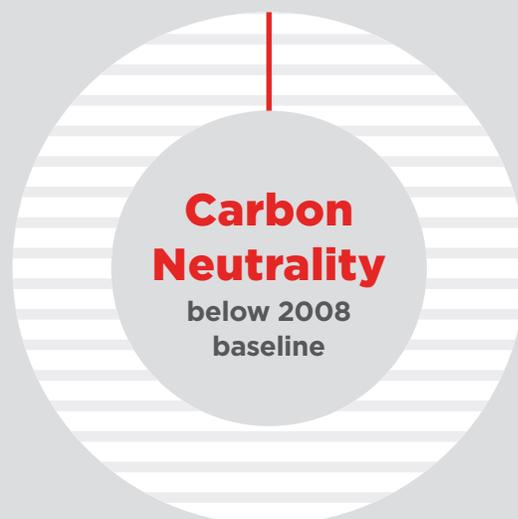
2025



2030



2050



OUR EMISSIONS REDUCTIONS: 2008-2030

\$4.8M+
Annual utility cost avoidance realized from the 2010 CAP emission reduction measures. (2018)

Buildings operations comprise 99% of our Scope 1 and 2 GHG emissions.

Emissions reductions from the 2010 CAP

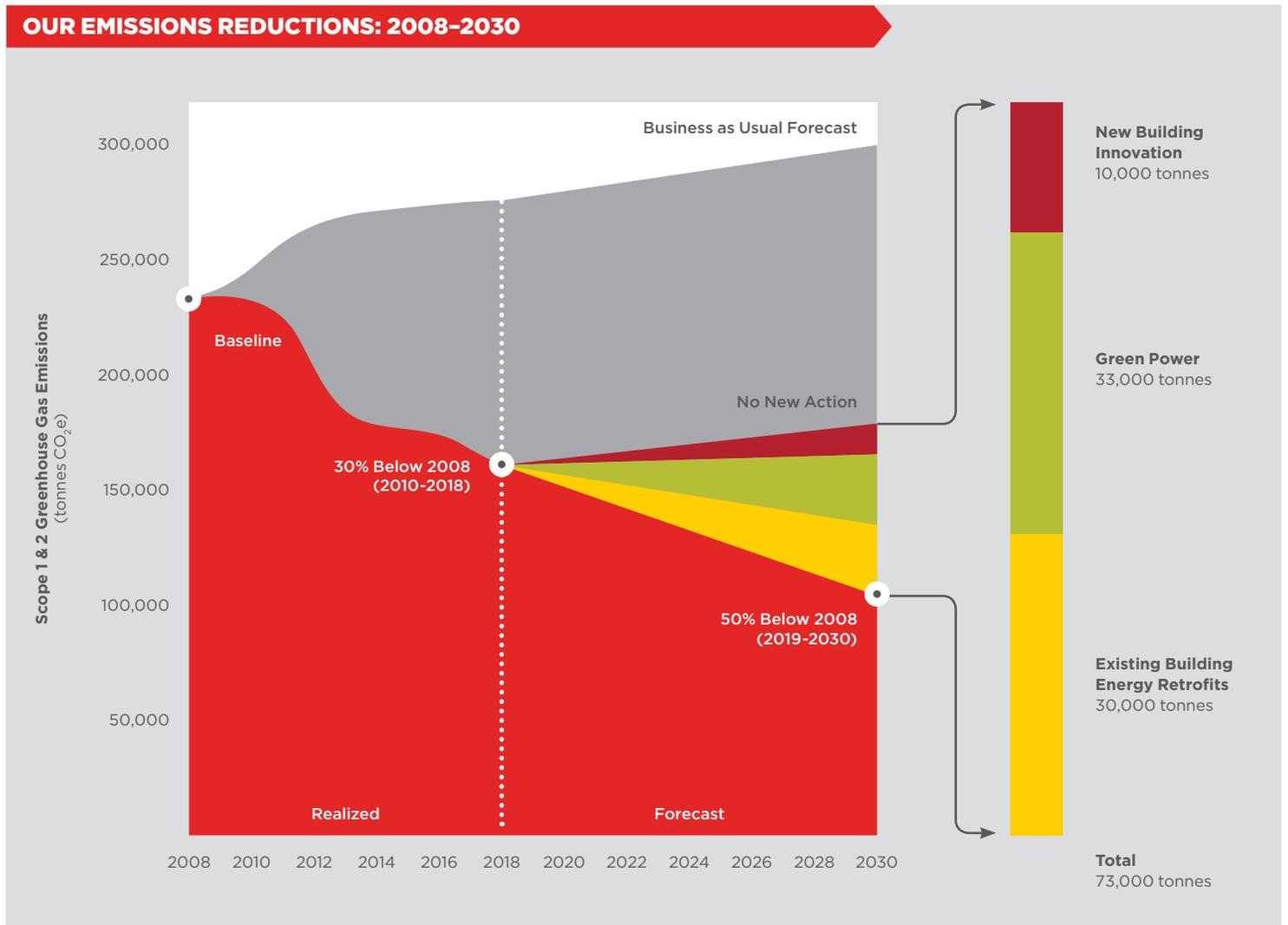
UCalgary's 2010 CAP included ambitious goals to reduce Scope 1 and 2 GHG emissions. In 2018 outcomes include an approximate 30% reduction in emissions despite substantial growth in both buildings and campus population. On a gross square meter basis, GHG emissions are down approximately 40%.

Three key initiatives enabled this success:

- 01.** Installing a cogeneration unit on main campus to produce electricity with lower emissions than the Alberta grid and recovering waste heat for reuse on campus;
- 02.** Reducing GHG emissions growth by investing in highly energy efficient new buildings; and

- 03.** Implementing utility reduction programs to enable ongoing investment in existing building energy retrofits.

Based on emissions reductions to date, UCalgary is one of Canada's post-secondary education leaders in GHG emissions reductions.



OUR RENEWED APPROACH

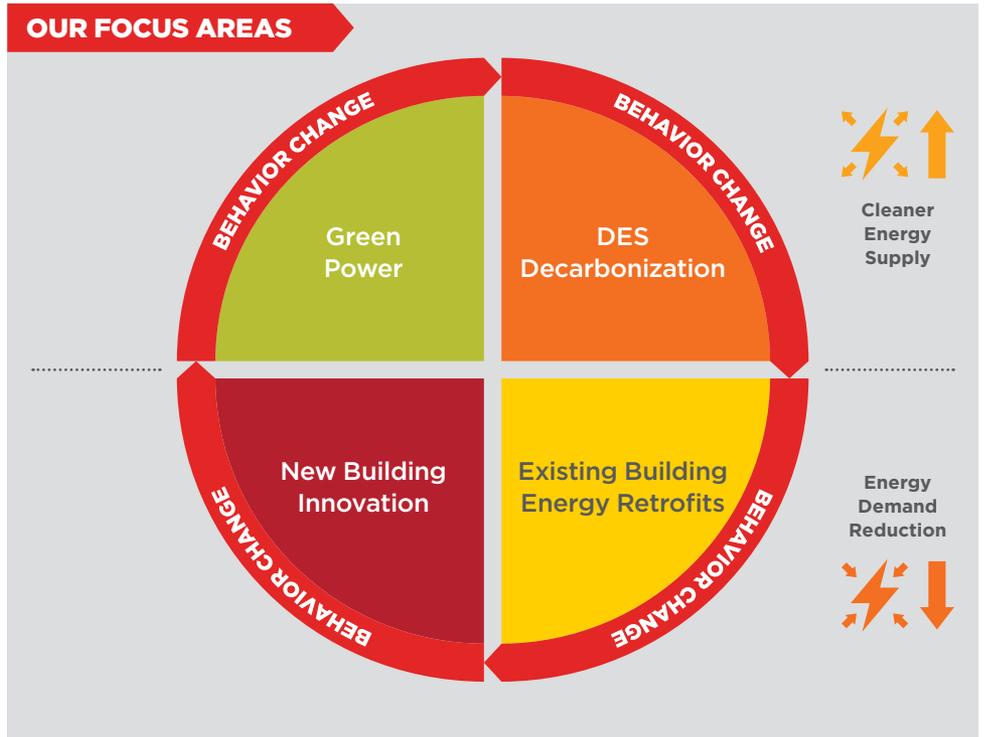
UCalgary's 2019 CAP outlines actions to realize emissions reductions through four key focus areas to drive Cleaner Energy Supply and Energy Demand Reduction. Together, these four focus areas address over 99% of institutional GHG emissions. The 2019 CAP also highlights the importance of behavioral change across close to 40,000 campus community members in reaching the CAP targets. Last, the 2019 CAP highlights other opportunities to reduce GHG emissions.

Energy Demand Reduction

- **New Building Innovation:** Mitigate the impact of campus growth through the development of ultra-energy efficient and net-zero carbon new construction
- **Existing Building Energy Retrofits:** Substantially reduce energy demand through wide-scale basic energy retrofits and targeted deep energy retrofits in parallel with building renewal priorities

Cleaner Energy Supply

- **Green Power:** Progressively procure higher amounts of clean power and incorporate on-campus renewable and low-carbon energy supply sources



- **District Energy System (DES) Decarbonization:** Progressively transform the main campus DES into a next generation low-temperature, low carbon DES while integrating energy storage and smart grid capacities

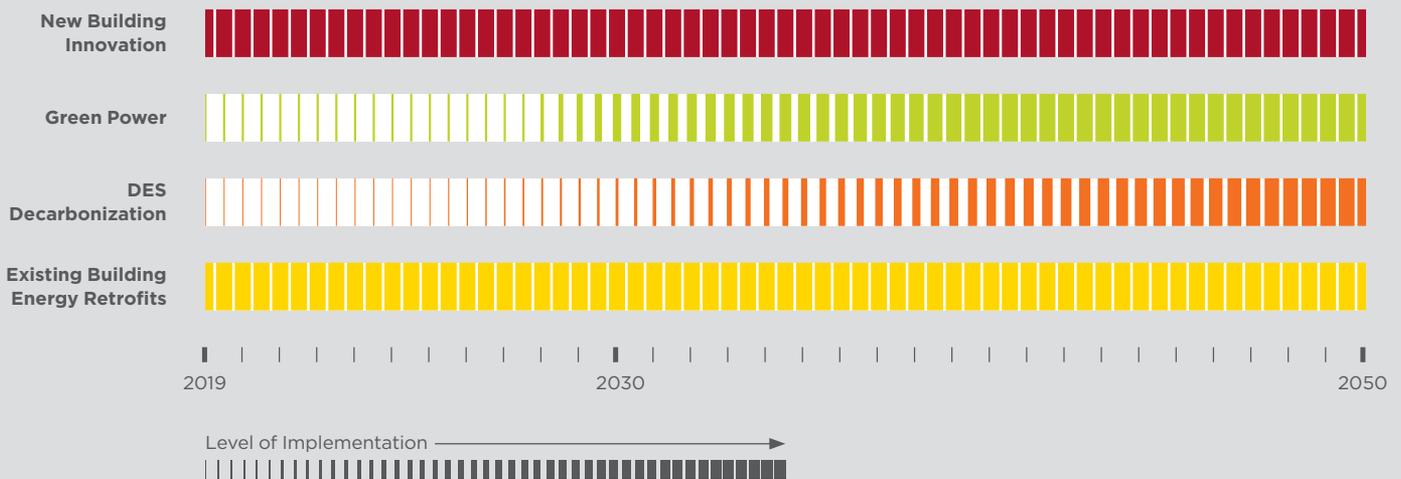
Behavioral Change

- Create programs to incent behavioral change and utilize data analytics to develop communication tools to engage building occupants and building operators in day-to-day actions to reduce energy use and GHG emissions

Other Opportunities

- **Fleet:** Progressively electrify the UCalgary fleet and deploy electric vehicle charging infrastructure
- **Solid Waste:** Renew the multi-year zero-waste strategy, expand recycling and composting infrastructure, and enhance engagement programs
- **Scope 3 Other:** Continue to take action on Scope 3 emissions associated with commuting and purchasing as outlined in the implementation plans for the Institutional Sustainability Strategy

IMPLEMENTATION TIMELINE



THE GLOBAL CLIMATE CHALLENGE

The Global Climate Challenge

Climate change is one of the most pressing and complex challenges facing contemporary society. Globally, we are already seeing the significant consequences of an approximate 1° Celsius global warming, and the Intergovernmental Panel on Climate Change has identified the significant impacts to natural and human systems associated with a 1.5° and 2° Celsius warming. These small temperature increases present large scale global risks. Between 2019 and 2030 is a critical time for transformation action. As a research-intensive university in a province with deep roots in the energy industry, UCalgary is uniquely positioned to leverage innovative partnerships, our academic endeavours, and our operational practices to address the climate change challenge.



Rising to the Challenge

In 2008, the University of Calgary became a signatory to the University and College Presidents' Climate Change Statement of Action for Canada. As part of this commitment, the university launched its first Climate Action Plan (CAP) in 2010, which identified progressive targets and strategies for reducing GHG emissions. We've also responded to this commitment through our Research and Academic Plans. Within our Research Plan the Energy Innovations for Today and Tomorrow strategy focuses on transformational research on climate science, and supporting communities, organizations and governments on climate action.

Our Academic Plan confirms our institutional commitment to preparing graduates for leadership in sustainability across all disciplines and addressing the complex challenges of our times.

UCalgary's 2019 Climate Action Plan contains renewed targets and strategies to continue deep cuts in our institutional GHG emissions with an emphasis on enabling a 50% reduction in emissions by 2030 from our 2008 baseline and the achievement of an aspirational target of carbon neutrality by 2050.



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**Learn more about UCalgary's
Climate Action Plan**

Read the full plan at ucalgary.ca/sustainability/climate-action-plan

**Learn more about UCalgary's
Sustainability Strategy**

Discover the Institutional Sustainability Strategy ucalgary.ca/sustainability/discover

Read about our progress at ucalgary.ca/sustainability/sustainability-report