

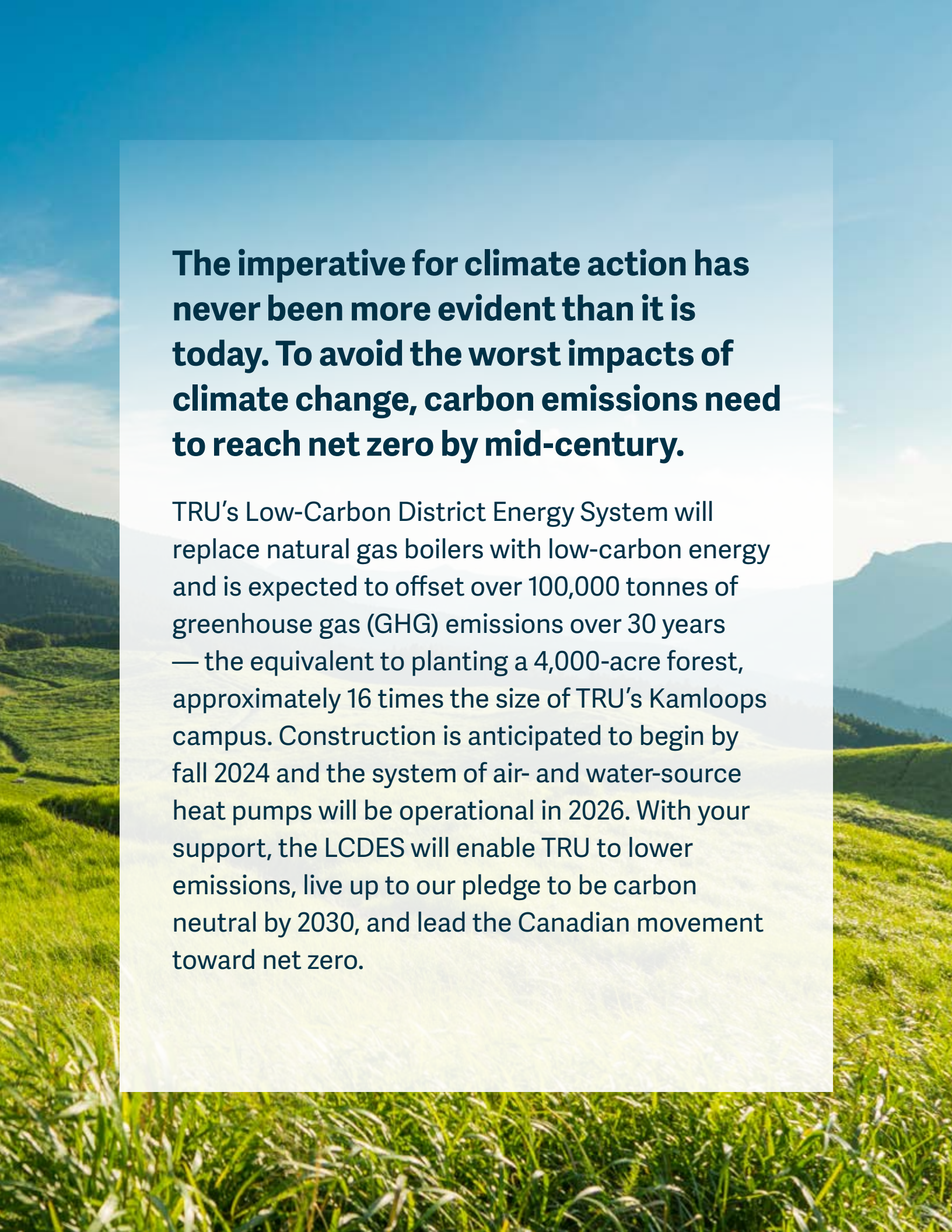


# HERO FOR ZERO



THOMPSON RIVERS UNIVERSITY

**Making TRU the first net-zero  
university in Canada —  
without purchasing offsets.**



**The imperative for climate action has never been more evident than it is today. To avoid the worst impacts of climate change, carbon emissions need to reach net zero by mid-century.**

TRU's Low-Carbon District Energy System will replace natural gas boilers with low-carbon energy and is expected to offset over 100,000 tonnes of greenhouse gas (GHG) emissions over 30 years — the equivalent to planting a 4,000-acre forest, approximately 16 times the size of TRU's Kamloops campus. Construction is anticipated to begin by fall 2024 and the system of air- and water-source heat pumps will be operational in 2026. With your support, the LCDES will enable TRU to lower emissions, live up to our pledge to be carbon neutral by 2030, and lead the Canadian movement toward net zero.

TRU's net-zero pledge isn't just a promise — it's a call to action, and we want you to be at the forefront of this transformation. **Be the difference. Be the solution. Be a Hero for Zero.**



Artist rendering of TRU's Low-Carbon District Energy System building.

*"This project is integral to TRU's commitment to achieve carbon neutrality. Partnering with Creative Energy, an experienced operator of district energy systems in British Columbia, is an excellent step to reaching this ambitious goal.*

*– Brett Fairbairn, TRU president and vice-chancellor*

## THE RACE TO NET-ZERO

**We are a clean energy champion.** At TRU, sustainability is a core value. We are regarded among our peers as a leader in sustainability and we proactively identify opportunities for continuous improvement towards sustainability — both on and off campus. TRU has worked for years to expand its leadership in this area. TRU President Brett Fairbairn has signed the Global Climate Letter for Universities and Colleges that commits universities to move toward climate change action. The letter also asks universities to pledge to reach net-zero by 2030 or 2050 at the latest. In Canada, 17 institutions have committed to carbon neutrality. TRU aims to be the first to get there.

**The Government of Canada has committed to achieving net-zero emissions by 2050 alongside more than 120 countries, including all other G7 nations.**

*“Sustainability is not something we do off the sides of our desks – it’s something we do with intent. We’ve been strategic about this. All the low hanging fruit, like changing light bulbs, is gone. All the easy stuff, we’ve done. Now we have to get serious about reducing our GHGs.”*

*– Matt Milovick, TRU vice-president administration and finance*

## How is TRU leading in sustainability?

- TRU is the first Canadian college or university to earn the platinum STARS (Sustainability Tracking, Assessment and Rating System) rating twice — once in 2018 and again in 2022. We are one of two Canadian post-secondary institutions and 14 in the world to earn the highest possible rating in recognition of our sustainability initiatives and achievements. STARS is administered by the Association for the Advancement of Sustainability in Higher Education.

<b>INSTITUTION</b>	<b>Net-Zero Target</b>
<b>TRU</b>	<b>2030</b>
Carleton University	2050
Kwantlen Polytechnic University	2050
McGill University	2040
Queen's University	2050
Royal Roads Universtiy	2050
Selkirk College	2030
Simon Fraser University	2050
University of British Columbia	2035
University of Victoria	2040
Western University	2050

- TRU was the 2023 bronze recipient of the World Federation of Colleges and Polytechnics Sustainable Development Goals Award (tying with the UK's Weston College) and the 2023 bronze recipient of the Colleges and Institutes Canada's Excellence in Sustainable Development Award.
- All of TRU's main buildings have received BOMA BEST Certification, and additional energy targets are integrated into TRU's design guidelines. The Chappell Family Building for Nursing and Population Health, opened in July 2020, was the first TRU building with no natural gas connection — 100 per cent reliant on electric-based heating. The second building with 100 per cent electric-based heating is TRU's 148-bed student housing complex, opened in 2023.
- TRU was named one of the "coolest" schools in North America by the Sierra Club for three years in a row: No. 1 in 2019 and No. 3 in 2020 and 2021.



## GAS TO ELECTRICITY: CAMPUS-WIDE LOW-CARBON HEATING

Gas heating from buildings currently accounts for nearly all GHG emissions on TRU's main campus in Kamloops. TRU has partnered with Creative Energy, a leader in innovative district energy solutions, to design, build, own and operate an on-campus district energy system that will be instrumental in decreasing our carbon footprint.

The LCDES will tailor the design and delivery of clean energy to seamlessly integrate with existing campus buildings. **Low-carbon energy will be provided by a two-stage air source and water source heat pump system, powered by renewable electricity from BC Hydro.**

**Carbon neutrality is about taking responsibility for the carbon pollution or GHG emissions generated through campus operations and actively working to eliminate these emissions.**



Once connected to the low-carbon energy heat source, each building will have its existing natural-gas boilers decommissioned. Gas boilers will be used for back-up heating only. Cooling is provided by electric chillers in each building.

The LCDES will be completed in two phases, with both phases expected to be energized by 2026. As a regulated public utility, Creative Energy has received Phase 1 approval for the project from the BC Utilities Commission and is currently awaiting Phase 2 approval.

**TWO-STAGE HEAT PUMPING:  
By using air-source and  
water-source heat pumps,  
low-grade heat becomes  
high-grade thermal energy  
without the use of fossil fuels.**



Artist rendering of TRU's Low-Carbon District Energy System building.



*“Higher education institutions across North America have an opportunity to meaningfully respond to the realities of climate change. We’re delighted to partner with TRU to renew their energy infrastructure, introduce district energy to the next generation of leaders and significantly reduce greenhouse gas emissions. Using innovative systems designed to match the existing campus buildings and surrounding environment, TRU’s Kamloops campus will continue to be a comfortable learning environment for both faculty and students for many years to come.”*

*– Krishnan Iyer, Creative Energy president and CEO*



Artist rendering of TRU’s Low-Carbon District Energy System building.

## TEACHING AND LEARNING

Beyond its operational significance, the LCDES will be a place for teaching and learning, housing TRU’s sustainability office and staff in the heart of the Kamloops campus. Taking inspiration from TRU’s academic operations, the building design will include a viewable mechanical room where the system’s heat pumps will be visible to the public, providing a glimpse into state-of-the-art energy technology in action.

# TIMELINE

**2022**

Customer and community engagement.



**2023**

Phase 1 regulatory approval.



**2024**

Phase 2 regulatory approval. Construction underway on Phase 1.

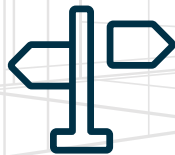
Phase 1: Old Main, International Building, Clock Tower, OLARA, Culinary Arts, Ken Lepin Science Building, Gymnasium, Open Learning.



**2026**

Construction underway on Phase 2.

Phase 2: Indigenous Education Centre, The Brown Family House of Learning, Campus Activity Centre, Arts and Education, North Tower Residence.





## BEYOND TRU

*“Thompson Rivers isn’t just decarbonising their own campus. As they expand [use of the district energy system] to local residential and other uses, rates will get better for everybody.”*

*– Diego Mandelbaum, Creative Energy senior vice-president of development*

Plans are already underway to extend the benefits of low-carbon district energy to the City of Kamloops buildings and beyond. In 2022, the City of Kamloops signed a memorandum of understanding with TRU and Creative Energy to explore the possibility of connecting the city to the system. Phase 2 of TRU’s project will provide the City of Kamloops with a network of renewable infrastructure that can be scaled to serve

additional community buildings, such as the Canada Games Aquatic Centre and Tournament Capital Centre. Emitting around 900 tonnes of combined greenhouse gas emissions in 2019, the inclusion of these centres to the Creative Energy system would remove the largest single source of annual emissions from Kamloops' municipal operations.



# GET INVOLVED

The LCDES is a pivotal step in TRU's race to net zero and continued leadership in sustainability. **By supporting this project, you contribute to TRU's goal of achieving carbon neutrality by 2030 and help reduce emissions on campus by 95 per cent.** Your participation will make a lasting impact on the environment, setting an example for sustainable practices in post-secondary education and beyond.



ADV25016

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