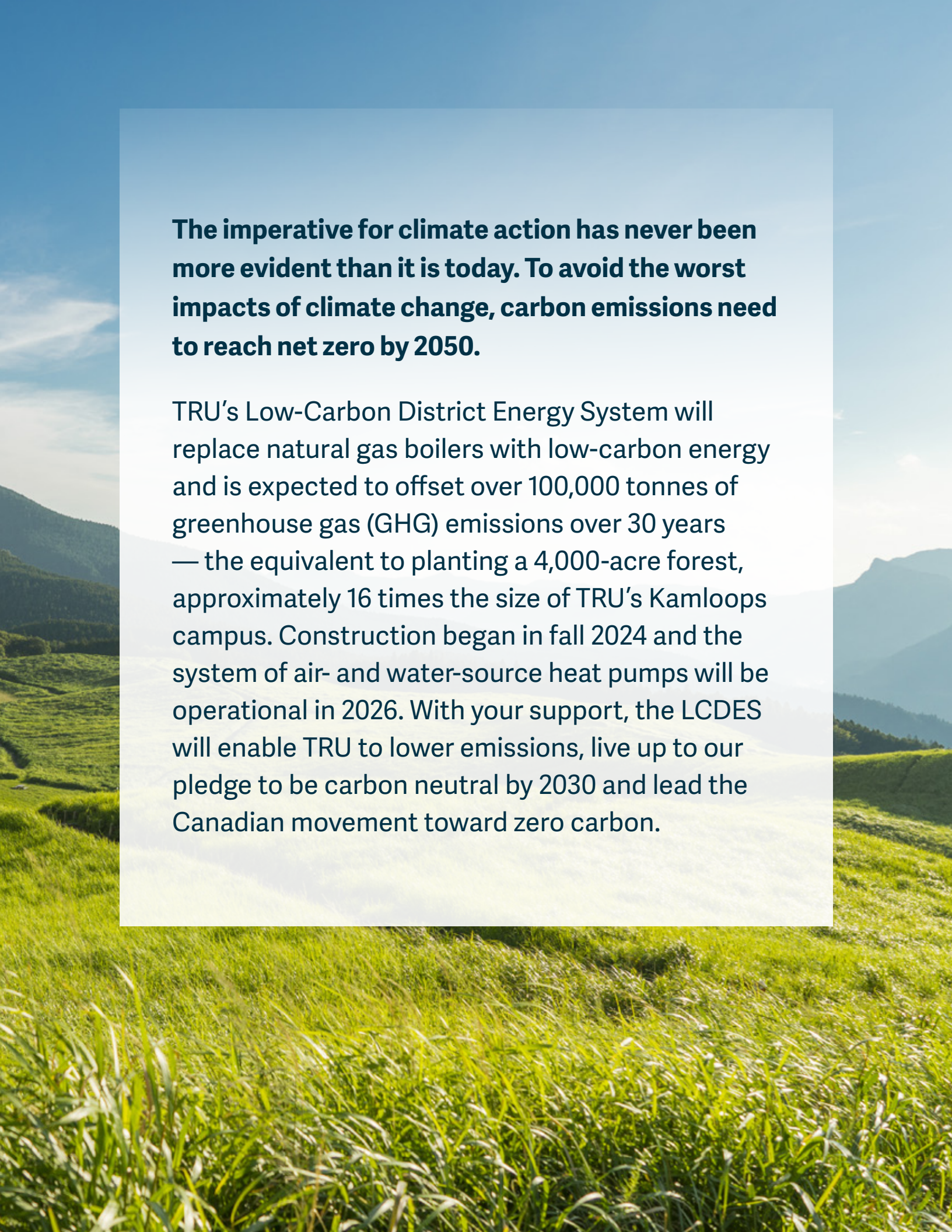


HERO FOR ZERO



THOMPSON RIVERS UNIVERSITY

Making TRU one of the first
universities in North America
to hit zero carbon



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 2050.

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 began in 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 zero carbon.

TRU's zero-carbon 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.



Rendering of the Sustainability Powerhouse that will house the energy plant for the Low-Carbon District Energy System. The Sustainability Powerhouse will be a marvel of modern engineering in the heart of the Kamloops campus.

"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 ZERO CARBON

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 zero carbon 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.
- 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 to be 100 per cent reliant on electric-based heating, with no natural gas connection. The second building with 100 per cent electric-based heating is the Coyote Den/Skelepéllcw—TRU’s 148-bed student housing complex that 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.

INSTITUTION	Net-Zero Target
TRU	2030
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

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

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.**

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.

“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

TEACHING AND LEARNING

Beyond its operational significance, the LCDES energy plant will operate from the Sustainability Powerhouse, serving as a place for teaching and learning. The building will be home to 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.



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

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 zero carbon 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.



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



ADV25016

For more information, please contact:

Bradley Bostock

Director of Development

Thompson Rivers University

T 250-371-5833 | **C** 250-319-6385

bbostock@tru.ca

tru.ca/giving



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