Demonstration Impact Story (Sample)

Learning by Building:
How Okanagan College Is Training Canada's Next Generation of Green Builders

Exterior of the Health Sciences Centre at the Kelowna campus. Photo credit: GEC Architecture

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This article is a demonstration sample inspired by real cleantech collaboration models. It does not represent commissioned client work.

When you step onto Okanagan College's Kelowna or Penticton campus, sustainability isn't a talking point — it's built into the walls. Photovoltaic panels harvest sunlight above classrooms. Students track real-time energy data from the buildings they helped design. Even the landscaping tells the story: native and drought-tolerant species thrive where traditional lawns once drank thousands of litres of water a day.

Across British Columbia, few institutions have woven sustainability so completely into how people learn, build, and live. Okanagan College describes its campuses as *living laboratories* — places where every pipe, pane, and panel serves both a practical and educational purpose. For students enrolled in the **Sustainable Building Technology Diploma** program, this means learning about net-zero energy and water systems, regenerative design, and sustainable materials not from a textbook but from their own environment.

Building Knowledge through Construction

The College's **Health Sciences Centre** and **Trades Complex** in Kelowna stand as proof of concept. Both have earned provincial and national recognition, including **LEED Gold** and **LEED Platinum** certifications and the **Zero Carbon Building Standard**. Their solar arrays, smartwindow systems, and efficient heating networks make them among the most energy-efficient educational buildings in Canada — and they double as classrooms for monitoring performance in real time.

Through its **Green Construction Research and Training Centre** — a partnership with **UBC Okanagan** and local industry — the College advances practical innovation in sustainable design, materials testing, and energy modelling. Students work side-by-side with researchers, learning to translate design principles into measurable outcomes.

Expanding Pathways Through Microcredentials

Okanagan College is widening access to climate-related careers through targeted microcredential programs. Short, applied courses in Solar Photovoltaic Systems, Sustainable Construction Management, and Building Technology give learners — from trades professionals

to career changers — fast, industry-aligned skills that meet the region's demand for clean-economy talent.

> Innovative pathways – from high-school dual-credit to programs that help seasoned professionals update and expand their skills – are strengthening the clean-economy workforce through transformational, forward-thinking educational leadership.

The College also partners with local school districts to offer dual-credit opportunities, enabling students in Grades 11 and 12 to begin coursework in Water Engineering Technology years before graduation. This early exposure builds confidence, strengthens technical foundations, and helps students envision a future in essential environmental careers.

Measuring What Matters

Sustainability at Okanagan College extends beyond architecture. The institution participates in **STARS**, the global Sustainability Tracking and Assessment Rating System administered by the Association for the Advancement of Sustainability in Higher Education. Its current Silver rating reflects progress across energy, waste, water, and transportation metrics — and a public commitment to continuous improvement.

Under British Columbia's **Carbon Neutral Government Program**, the College has pledged to exceed provincial emissions-reduction targets, cutting an average of 80 tons of greenhouse gases each year. A formal **Zero Carbon Transition Plan** now guides campus-wide energy decisions, including a long-term move away from fossil-fuel heating. Lean process reviews have reduced paper use, and increased video-conferencing has lowered travel emissions. These small operational choices add up to cultural change.

Grounded in Place

Environmental integrity here is tied to place. The College acknowledges that its campuses operate within the **unceded and unsurrendered territory of the Syilx (Okanagan) Nation**, and its landscaping reflects that respect. Native plantings, from creeping thyme to sedge grass, support local biodiversity and reduce irrigation needs. Sustainability is thus not imported — it's rooted.

The Ripple Effect

Okanagan College's efforts have a reach well beyond its four campuses. Graduates move into construction, design, and energy-efficiency roles across Western Canada, carrying the same expectation of accountability and measurable impact that shaped their education. In that sense, every green roof or solar canopy installed by an alum becomes an echo of this learning-by-building philosophy.

Okanagan College illustrates what "real results" look like: progress that can be seen, measured, and lived in. It's proof that integrity in sustainability doesn't just inspire — it instructs.

Attribution

Source: www.okanagan.bc.ca