

DLSL CLIMATE ACTION PLAN 2030

Anchored to the school's Strategic Direction of Creating Sustainable Futures (SD-C) and intensifying its commitment to reduction in carbon footprint, SEID crafted the DLSL Climate Action Plan (DLSL CAP) 2030, targeting the 80% reduction on greenhouse gas (GHG) emissions from its operations.

The DLSL Climate Action Plan 2030 reflected the following considerations:

- Alignment with existing DLSL Strategic Direction goals & sub-goals;
 - Potential impact on GHG emissions and energy reductions on school operations (economic, social & environmental – Sustainability Framework)
- Extent to which the idea is within DLSL jurisdiction and control;
- Ease of implementation including lack of institutional barriers; and
- Potential for research and innovation opportunities.

In order to structure the DLSL CAP 2030, climate actions to reduce emissions toward the 80% target are organized into the following ACTION AREAS:

- A. Existing buildings (inventory/accounting current emissions)
- B. New buildings (future sources of emissions)
- C. Energy supply (100% renewable on campus)
- D. Fleet (operations and institutional vehicles and motorized equipment)
- E. Leadership, Learning & Research (collaborative engagements to school stakeholders)
- F. Behaviors change (influencing energy use and emissions from buildings)

A. EXISTING BUILDINGS

- Implement and optimize the Building Intelligence Management (BIM) by utilizing existing spaces more efficiently.
 - Work with SSO to explore opportunities to track and reduce energy consumption & emissions based on BIM portfolio.
- Identify and implement energy conservation measures as part of building renovations and 21st century learning spaces.
- √ Continue energy retrofits to improve building energy and emissions performance through operations and maintenance processes (Power & Energy Roadmap)

B. NEW BUILDING CONSTRUCTION

- √ Implement Green Building/BERDE qualified buildings that identifies measures to reduce energy use, GHG emissions and total cost of building ownership through the operational life of buildings.
- Develop buildings walkways that support interconnection of old & new buildings to better align energy, GHG emissions reductions, sustainability and cost objectives and achieve performance targets.
 - Explore the school's development plan that requires new buildings to connect to the old buildings, or where connection is not feasible, require building design to result in lower emissions.

C. ENERGY SUPPLY

√ Implement the consolidation of school's three main electrical meters to achieve the almost 100% renewable/clean energy supply. (Power & Energy Roadmap)

- √ Incorporate additional alternative, low-carbon/off grid energy supply sources including solar and/or renewable natural gas, based on analysis of supply cost and risk, explore and evaluate other energy supply research and partnership opportunities.
 - Explore a research project or partnership to develop or demonstrate carbon capture and utilization technology on campus. (Digital Roadmap)

D. FLEET

- √ Continue to increase the efficiency of DLSL fleet through procurement of right sized, high efficiency, and alternate fuel (such as electric and compressed natural gas) vehicles and motorized equipment, wherever possible.
- √ Implement an enhanced bicycle or e-bike share program for on campus travel.

E. LEADERSHIP, LEARNING & RESEARCH

- Explore research opportunities to reduce business travel emissions, including data collection and evaluation of potential solutions such as virtual meeting infrastructure and incentives.
- √ Continue implementation of the Zero Waste Advocacy and the associated engagement program in order to further reduce emissions from waste management.
- Develop and implement more rigorous Scope 1,2,3 emissions accounting methods, where feasible.

F. BEHAVIOR CHANGE

- Strengthen and ensure adequate training programs to stakeholders, which is the essential value of stewardship and behavior change program, with the greatest potential impact on energy and GHG emissions.
 - Develop a plan for a progressive, coordinated behavior change program focused on achieving the target.

How Implement the DLSL CAP 2030

Resources required to implement the majority of actions outlined in the DLSL CAP 2030 will be prioritized through existing budgets and personnel. Actions requiring additional resources are proposed based on the opportunity to achieve a life cycle positive return on investment. Monitoring, review, evaluation and recalibration of action area/targets will be done every 2 years upon plan approval.

The SD-C team, to be assisted by SIED and major units such Shared Services Office (SSO) and others, will lead in integrating DLSL CAP 2030 and other sustainability goals, actions, and reporting metrics within the school's operational plans and activities.

TIMELINE:

Focus Area	Milestone	Target Schedule
Overall	DLSL CAP 2030 approval	Mar 2021
Existing Buildings	Implement/optimize BIM initiatives & Power & Energy Roadmap	Ongoing
		c/o SSO in phases
Existing Buildings	Implement energy conservation measures as part of building repoyations and 21st century learning spaces	Ongoing
		c/o SSO in phases
New Buildings	Develop buildings walkways that support interconnection of old & new buildings to better align energy	Strategic

Energy Supply	Implement the consolidation of school's three main electrical meters to achieve the almost 100% renewable/clean energy supply	August 2022 (for budget considerations)
Energy Supply	Incorporate additional alternative, low-carbon/off grid energy supply sources including solar and/or renewable natural gas	SY 2022-2023 (for feasibility and collaboration w/ DLSP)
Fleet	Implement an enhanced bicycle or e-bike share program for on campus travel.	SY 2021-2022 (for budget considerations)
Leadership	Continue implementation of the Zero Waste Advocacy and the associated engagement program in order to further reduce emissions from waste management	c/o SSO SY 2021-2022 (for budget considerations)
Learning & Research	Develop and implement more rigorous Scope 1,2,3 emissions accounting methods, where feasible.	Strategic
Behavior Change	Strengthen and ensure adequate training programs to stakeholders, which is the essential value of stewardship	Progressive 1 every school year

Actions for Future Consideration

- Adapt the Sustainability Revolving Fund to incent higher performance.
 - Explore the possibility of a future energy incentive program that provides financial incentives for achieving savings in targeted buildings and departments, with a focus on laboratory buildings.
- Organize students/partners' design competitions (in form of thesis, CAPSTONE) for energy efficient buildings contributing to CAPSTONE and research.

Reference:

https://planning.ubc.ca/sites/default/files/2019-11/PLAN_UBC_ClimateActionPlan.pdf