



# SUSTAINABILITY ENGAGEMENT AT UBC

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CAMPUS + COMMUNITY PLANNING, UNIVERSITY OF BRITISH COLUMBIA



# UBC SUSTAINABILITY & ENGINEERING

- Sustainability Policy & Plans (Climate, Zero Waste, Green Buildings etc. )
- Transportation and Wayfinding
- Municipal Engineering
- Sustainability Monitoring, Reporting & Engagement







# UBC CONTEXT



## Vancouver Campus

- 402 hectare campus
- 44,000+ students (FTE)
- 13,000+ staff and faculty (FTE)
- 20,000 residents
- 300+ buildings
- 15 million square feet building floor space
- 60,000+ daytime population



# UBC'S CLIMATE ACTION HISTORY

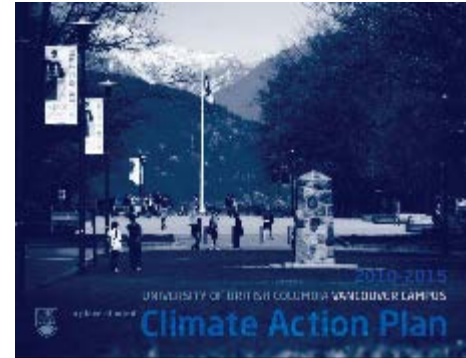
**2006:** First GHG Inventory

**2008:**

- President's Climate Change Statement of Action for Canada
- BC Carbon Tax
- Carbon Neutral Local Government Act

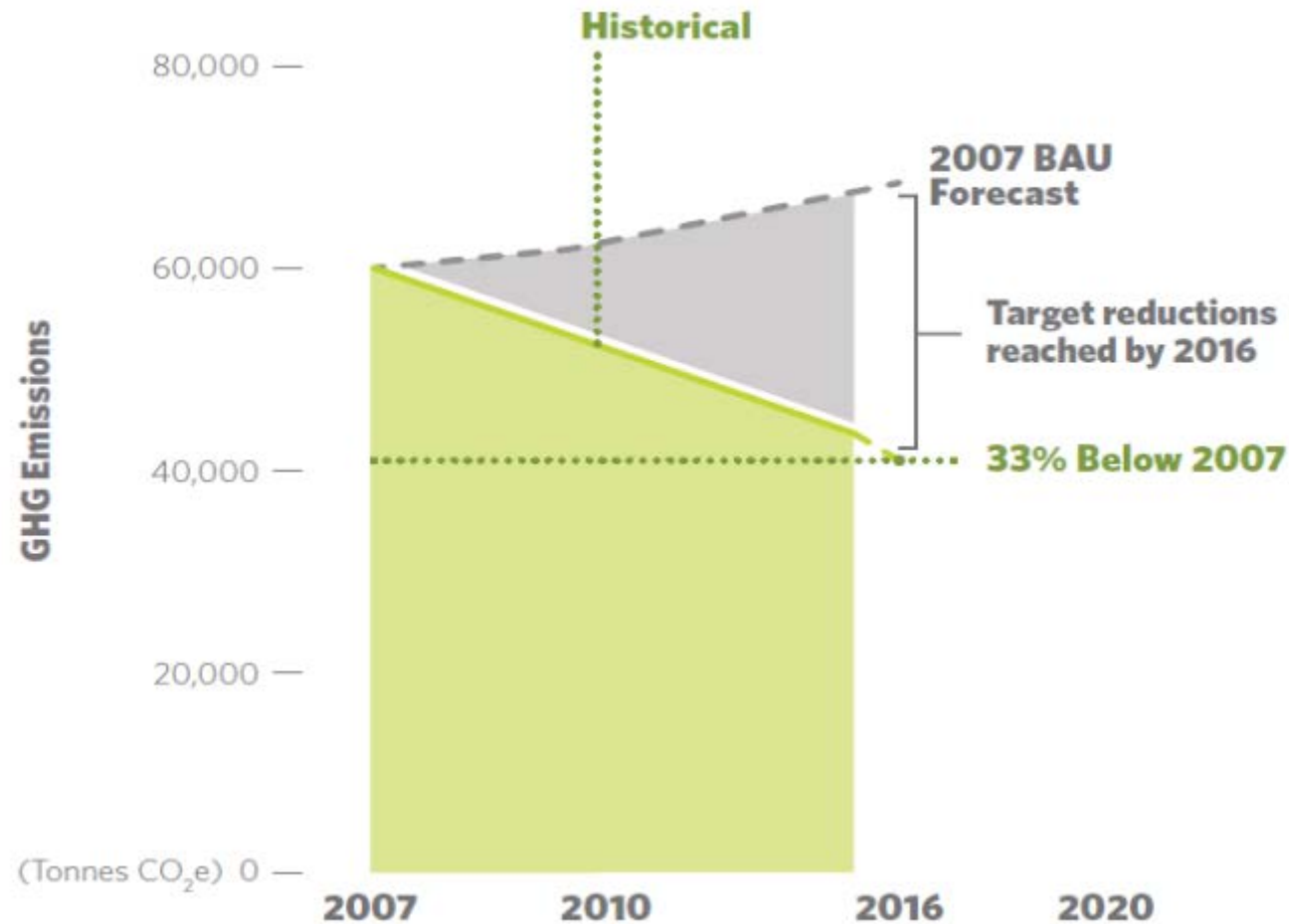
**2010:** Climate Action Plan and targets adopted by Board of Governors

**2015:** Launched the CAP2020 update





***UBC has reached its 33% reduction target then emissions will begin to rise.***





# KEY PROJECTS

Steam to Hot Water Conversion 11,000 tonnes GHG reduction/year




# KEY PROJECTS

Bioenergy Research & Demonstration Facility (8,000 tonnes)



# KEY PROJECTS

Continuous Optimization (4,000 tonnes); plus new green buildings (3,000 tonnes)




## building tune-up



Your building is enrolled in a "tune-up" program to make it run more smoothly and efficiently. Changes will occur behind the scenes over the course of 12 to 15 months.

This tune-up initiative will lead to a 10% reduction in campus energy consumption and GHG emissions by 2015.

If your workspace feels uncomfortable, please contact Trouble Calls at 604-822-2173 or submit a request online at [sustain.ubc.ca/tuneup](http://sustain.ubc.ca/tuneup)

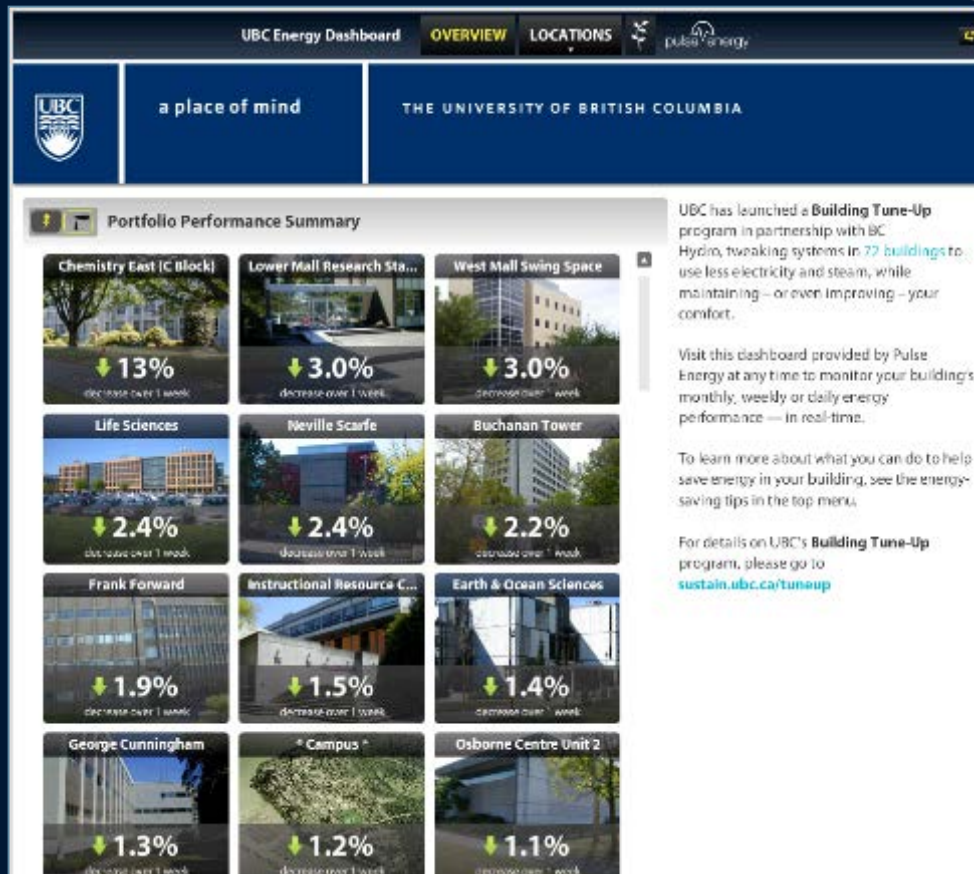


Scan the barcode to monitor your building's energy use in real-time or visit <http://my.pulseenergy.com/ubc/dashboard>



a place of mind

campus + community planning  
campus sustainability



UBC Energy Dashboard

OVERVIEW LOCATIONS

UBC a place of mind THE UNIVERSITY OF BRITISH COLUMBIA

### Portfolio Performance Summary

Building	Energy Reduction	Period
Chemistry East (C Block)	13%	decrease over 1 week
Lower Mall Research Sta...	3.0%	decrease over 1 week
West Mall Swing Space	3.0%	decrease over 1 week
Life Sciences	2.4%	decrease over 1 week
Neville Scarfe	2.4%	decrease over 1 week
Buchanan Tower	2.2%	decrease over 1 week
Frank Forward	1.9%	decrease over 1 week
Instructional Resource C...	1.5%	decrease over 1 week
Earth & Ocean Sciences	1.4%	decrease over 1 week
George Cunningham	1.3%	decrease over 1 week
* Campus *	1.2%	decrease over 1 week
Osborne Centre Unit 2	1.1%	decrease over 1 week

UBC has launched a **Building Tune-Up** program in partnership with BC Hydro, tweaking systems in 72 buildings to use less electricity and steam, while maintaining – or even improving – your comfort.

Visit this dashboard provided by Pulse Energy at any time to monitor your building's monthly, weekly or daily energy performance — in real-time.

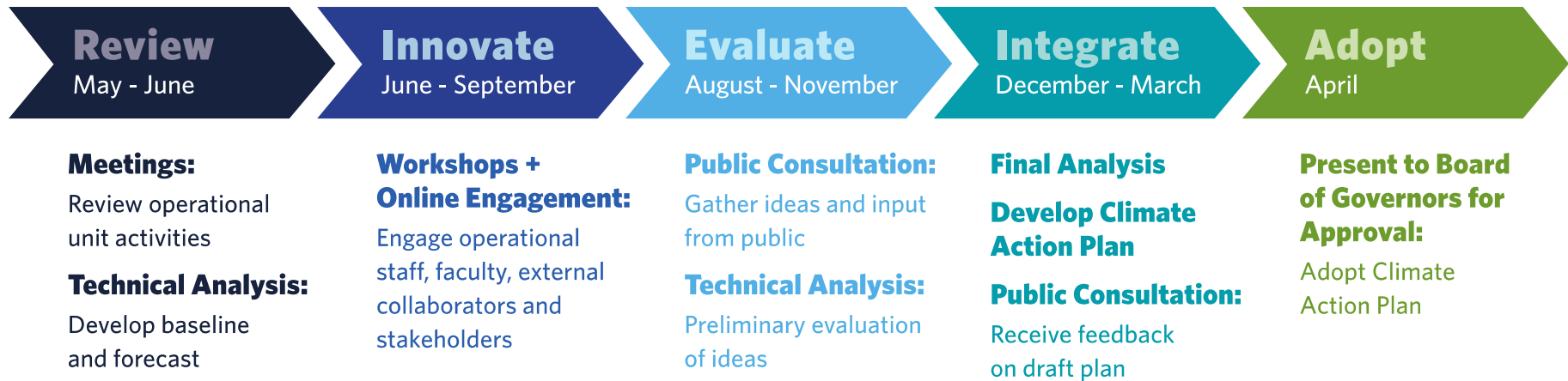
To learn more about what you can do to help save energy in your building, see the energy-saving tips in the top menu.

For details on UBC's **Building Tune-Up** program, please go to [sustain.ubc.ca/tuneup](http://sustain.ubc.ca/tuneup)





# CAP2020 PROCESS





# ENGAGEMENT STAGE 1 - INNOVATE STAGE

## Staff & Key Stakeholder Consultation



- Ideas Workshops (internal stakeholders and external experts)

- Buildings
- Energy Supply
- Fleet
- Behaviour Change

- Unit meetings



- Units included Building Operations, Facilities Planning, Student Housing, Energy & Water Services, Athletics, Human Resources and others



# PUBLIC CONSULTATION



## Phase I consultation

- Ideas generation – potential actions UBC can take to reduce GHG emissions in the 4 key areas
- Online input using surveys

## Phase II consultation

- Seek feedback on proposed options
- Online input
- Five open house/info booth sessions






# CALL FOR IDEAS

Call for proposals sent from VP  
Research office to approx. 100 UBC  
research experts, and faculty  
Deans.

Requesting proposals on:

- Buildings
- Energy Supply
- Fleet
- Behaviour Change
- Other
- Small cash prizes offered



 a place of mind THE UNIVERSITY OF BRITISH COLUMBIA

UBC Climate Action Plan 2020: UBC Researcher Call for Proposals

0%

**Call open until September 27, 2015.**

UBC Vancouver is on track to make a 38% reduction in the University's greenhouse gas (GHG) emissions. This reduction is largely attributed to the UBC Climate Action Plan (CAP), adopted in 2010. Building on this success, we are now developing a Climate Action Plan for 2020, which will outline what climate actions the University needs to take over the next 5 years to achieve a 67% reduction in GHG emissions. We are in the early stages of identifying possible actions and are looking to the UBC research community for proposals on how we can meet UBC's 2020 target and beyond. Additional information is available in the Call for Proposals Background document included in the email sent to you.

Please submit your proposal by completing this form. Submissions are due on September 27, 2015. There is no financial award attached to these submissions however we encourage you to lend your expertise to this important process. Help us think deeply about how we can continue to be a leading institution when it comes to reducing our GHG emissions in the short term (2020) and to zero emissions by 2050.

Your proposals will be reviewed and evaluated along with the other ideas that emerge from the planning process. Later this fall you will have a chance to provide feedback on the preferred options that emerged out of the analysis. Broader public consultation on the plan development will begin in September 2015.

All proposals will be evaluated using the following set of criteria to determine their feasibility:

- Impact on GHG reductions
- Financial performance
- Ease of implementation – affordability, financing, public acceptance, lack of barriers
- Acceptable risks – technical risks, fuel supply
- Other opportunities – research, innovation, partnerships, social, other co-benefits

This submission form is structured around the evaluation criteria. Please provide as much information as you can fill. Multiple proposals are welcome, please submit one form per proposal.

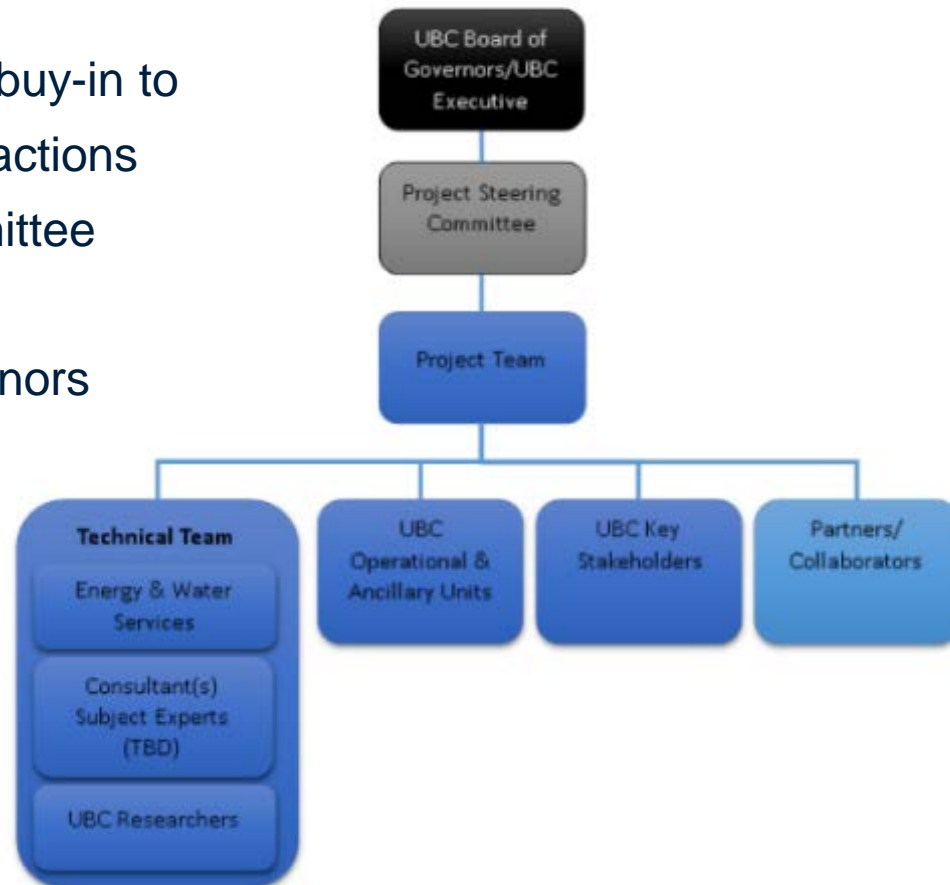
**Privacy Notification:**  
The contents of this Call for Proposal Form may be made available for public viewing. Any personal information you provide in this Feedback Form is collected under the authority of section 26(c) of the Freedom of Information and Protection of Privacy Act. UBC Campus and Community Planning is collecting this information for the purposes of this consultation process. For more information about the collection of your personal information, contact Aisha Sawickson at (604) 822-0273 or by email at [aisha.sawickson@ubc.ca](mailto:aisha.sawickson@ubc.ca).

Thank you for taking the time to prepare this proposal.

[Next](#)

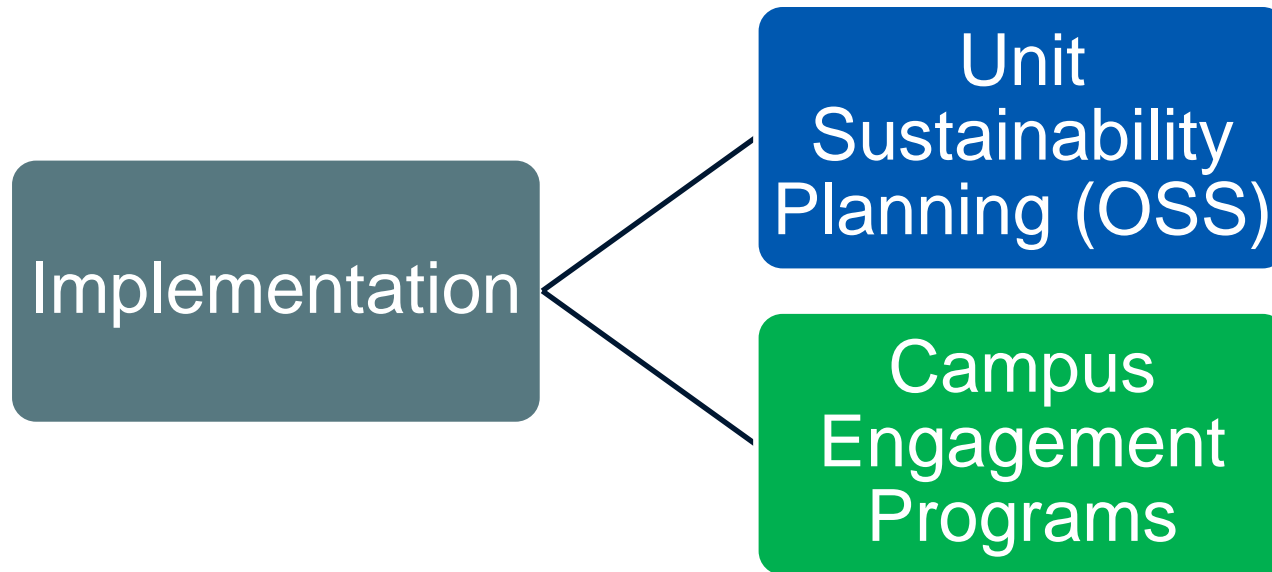
# EVALUATE, INTEGRATE AND ADOPT

- Refine the targets and actions using the evaluation criteria
- Meet with key units to get buy-in to the proposed targets and actions
- Present to Steering Committee
- Present to Executive
- Present to Board of Governors





# IMPLEMENTATION







# UNIT SUSTAINABILITY PLANNING



## OPERATIONAL SUSTAINABILITY STRATEGY

### Sustainability Unit Plans

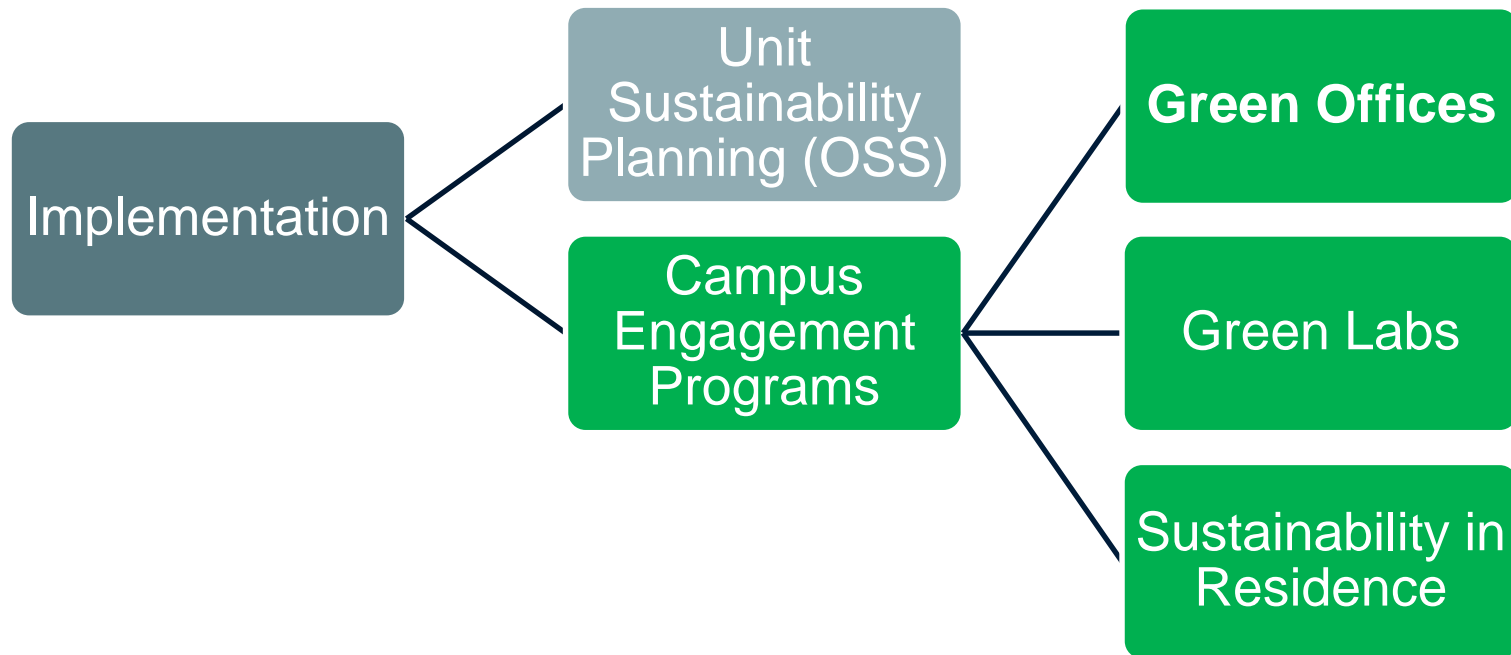
- ✚ Building Operations
- ✚ Campus & Community Planning
- ✚ Energy & Water Services
- ✚ UBC Finance
- ✚ Student Housing & Hospitality Services
- ✚ Infrastructure Development
- ✚ Risk Management Services
- ✚ UBC IT

### Priority Themes

Housing & Amenities	Food & Nutrition	Engagement Programs
Energy & Emissions	Water	Commuting & Getting
Materials & Waste	Green Buildings	Social Sustainability



# CAMPUS ENGAGEMENT PROGRAMS



# SUSTAINABILITY ENGAGEMENT STRATEGY

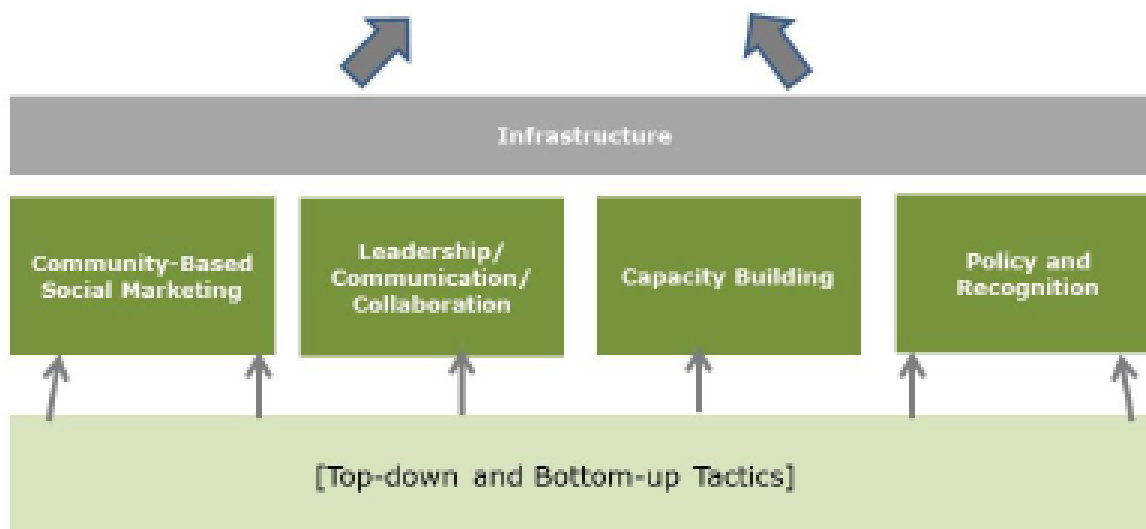
## Goals

- 1) Grow a Culture of Sustainability on Campus
- 2) Encourage High Impact Resource Conservation Behaviours

## Guiding Principles

- Address Infrastructure barriers
- Promote and deliver programs that incent and enhance competencies in sustainability
- Communicate and encourage discourse on why sustainability is important

## Levers



## Tactics

[Top-down and Bottom-up Tactics]

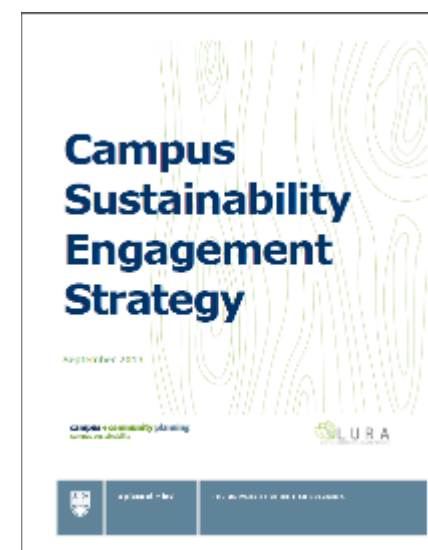


Figure 2.1 – Campus Sustainability Engagement Framework





# GREEN OFFICE PROGRAM



**70**  
**SUSTAINABILITY**  
**COORDINATORS IN**  
**OFFICES**



UBC

campus + community planning  
sustainability

**DID YOU KNOW?**  
UBC is a leader in campus sustainability. Here's why:

- We're the only university in North America to have achieved LEED Platinum certification for our main building.
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- We've diverted 75,000 non-recyclable items from landfill since 2008 – thanks to the introduction of compostable food containers.
- UBC was the first university in Canada to launch a Green Office Program.

**new employee sustainability guide**

At UBC, sustainability isn't just a word to define—it's a word that defines us.

Every day and in hundreds of ways, UBC staff, faculty, students and residential community members are working together to advance sustainable concepts and practices on the campus and in the community.

As new employees at UBC, there's a lot to learn about sustainability and at UBC, a culture of sustainability. In this document, you'll find actions you can take in your department and on campus that foster sustainability. So, welcome, let's all work together to make a sustainable difference.



**ICON LEGEND**

- Website Reference Link
- Download Reference Link
- Email Contact Link

**DID YOU KNOW?**  
Sustainability Coordinator at UBC is a role that is not just a job title, but a commitment to making the planet a more sustainable place. In fact, there are 70 sustainability coordinators working to create positive change in their departments.

Consider becoming a Sustainability Coordinator if your department does more than one a day. For more information visit: [Sustainability Coordinator](#)

**YOUR SC**

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for more information, visit [www.sustain.ubc.ca](http://www.sustain.ubc.ca)

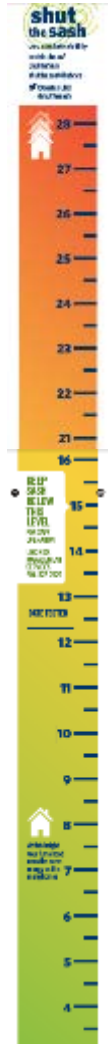
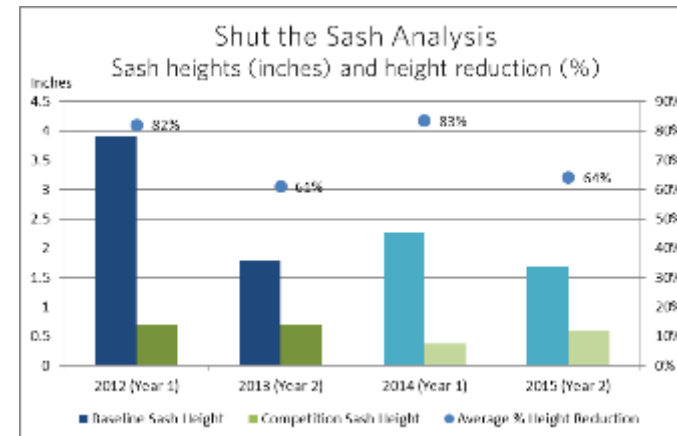
# GREEN LABS PROGRAM



**39**  
**SUSTAINABILITY**  
**COORDINATORS IN LABS**

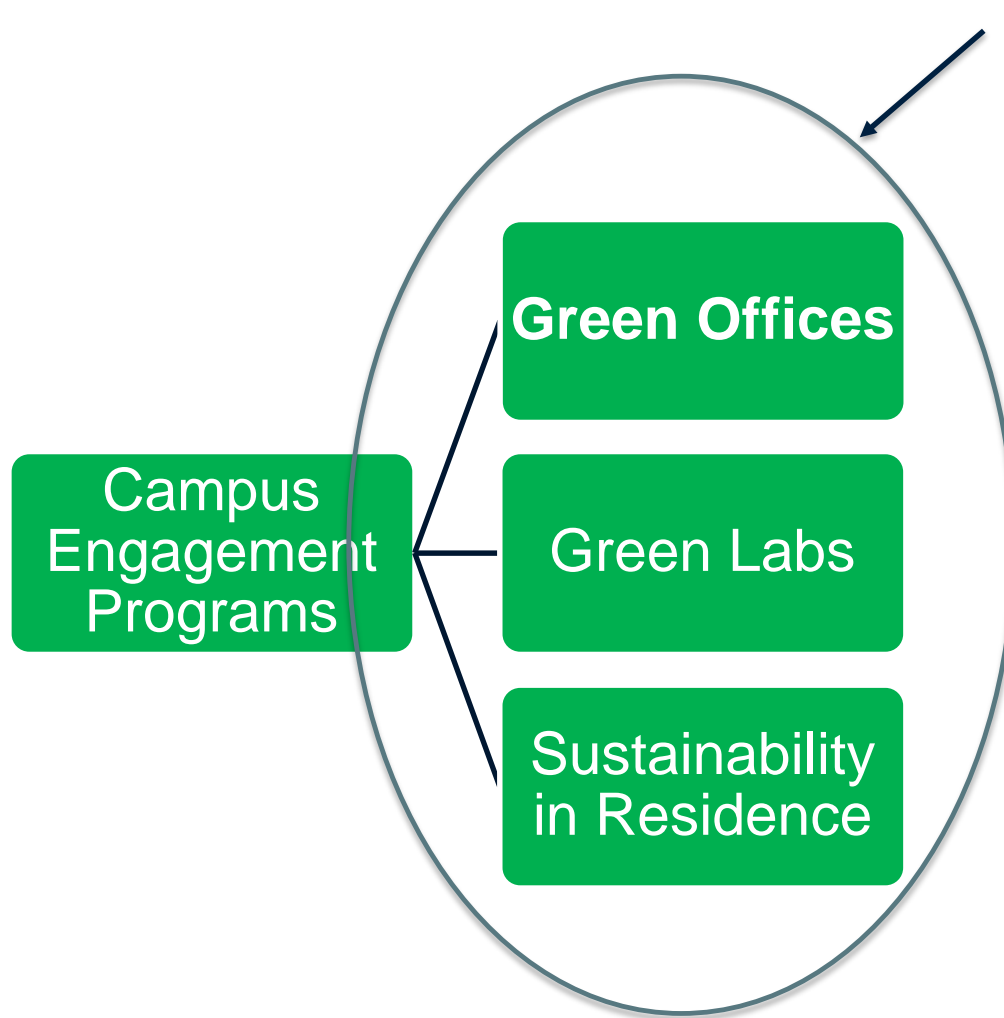


# GREEN LABS PROGRAM





# FUTURE PRIORITIES – CAMPUS ENGAGEMENT



- Develop integrated **Green Campus** brand and strategy
- Strengthen **measurement & verification** for behaviour change programs and update the **business case**
- New pilot projects, such as “**Chill Up**” ultra-low temperature freezer initiative
- Scaling up successful pilot projects and increasing **Sustainability Coordinators** to reach a wider number of buildings





# CONCLUSIONS AND LESSONS LEARNED

- Engagement with staff and senior management can enable large scale sustainability initiatives
  - Responsive to management priorities – aligning multiple objectives
  - Backed with analysis
  - Ongoing
- Departments must have buy-in/commitment, and have some internal capacity
- In all cases, sufficient program resources are required to keep a strong focus and maintain persistence.





THE UNIVERSITY OF BRITISH COLUMBIA

Thank you

**Bud Fraser**

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Sustainability and Engineering | Campus + Community  
Planning

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