

# **CASE STUDY/** PLANNING FOR CLIMATE ACTION

UBC Campus Sustainability Office



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

2009/2010

# CASE STUDY/ PLANNING FOR CLIMATE ACTION

**Content By:** UBC Campus Sustainability Office

UBC Campus Sustainability Office  
Campus & Community Planning  
2210 West Mall  
Vancouver BC Canada  
V6T 1Z4  
[sustain.ubc.ca/campus](http://sustain.ubc.ca/campus)



As the receiver of these Materials you are granted a limited license to use (display or print) the Materials, provided the Materials are not modified. None of the Materials may be otherwise reproduced, re-published, re-disseminated or otherwise provided in any manner or form without the prior written consent of the UBC Sustainability Office.

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works 2.5 Canada License

# Contents/

PHOTO BY JAVIER LANDAETA

Abstract	7
Introduction	9
Context	13
Story	19
Replicability	21
Impact	23
Summary	25
Future	
Conclusion	

# Abstract/

CLIMATE ACTION / Abstract  
/ Introduction  
/ Context  
/ Story  
/ Replicability  
/ Impact  
/ Summary

UBC COMMITTED TO DEVELOPING A CLIMATE ACTION PLAN FOLLOWING A DECADE OF LEADERSHIP IN REDUCING ITS OPERATIONAL GREENHOUSE GAS EMISSIONS.

BY PUTTING IN PLACE A ROBUST SYSTEM OF GOVERNANCE, MEASUREMENT AND ENGAGEMENT MECHANISMS UBC WAS ABLE TO DEVELOP A COMPREHENSIVE AND VISIONARY PLAN TO REDUCE ITS DIRECT AND INDIRECT CARBON EMISSIONS.

UBC'S APPROACH TO CAMPUS AND COMMUNITY ENGAGEMENT LEVERAGED OPERATIONAL INSIGHT, ACADEMIC EXPERTISE AND GRASSROOTS PASSION FOSTERING INSTITUTIONAL COMMITMENT AND BROAD SUPPORT.

# Introduction/

CLIMATE ACTION / Abstract  
/ Introduction  
/ Context  
/ Story  
/ Impact  
/ Replicability  
/ Summary

ON MARCH 24, 2010, UBC BECAME THE FIRST CANADIAN UNIVERSITY TO ANNOUNCE BOLD GREENHOUSE GAS REDUCTION TARGETS PUTTING IT ON COURSE TO BE “NET ZERO EMISSIONS” BY 2050; THE TARGETS FRAMED UBC’S CLIMATE ACTION PLAN.

UBC adopted a Climate Action Plan (CAP) in 2010 to advance its Vancouver Campus towards a low-carbon future, committing the university to aggressive greenhouse gas (GHG) reduction targets of:

- 33% below 2007 levels by 2015;
- 67% below 2007 levels by 2020; and
- 100% below 2007 levels by 2050.

The Plan sets out actions for the six areas that are the key sources of UBC’s greenhouse gas emissions:

- 1) Campus Development and Infrastructure
- 2) Energy Supply and Management
- 3) Fleets and Fuel Use
- 4) Travel and Procurement
- 5) Food
- 6) Transportation.

It was realized through a comprehensive engagement model that mobilized the UBC community on climate action.

## THE UBC PRESIDENT'S COMMITMENT TO VISIONARY CLIMATE ACTION ENGAGES THE UBC COMMUNITY.

UBC's climate change story begins in the late 1990s, when it identified climate change as a priority concern requiring innovative solutions. Beginning in 1997, the university pioneered in launching energy efficiency initiatives to curb emissions and save costs. One such program, ECOTrek, was initiated in 2001 and was the largest energy (and water) retrofit on a Canadian campus at the time. As a result of ECOTrek, by 2007 UBC had reduced greenhouse gas emissions in its 277 core buildings by 6%, compared to 1990 levels, despite a floor space increase of 35%.

That year the university stepped up its climate action efforts through the establishment of a Technical Advisory Committee to begin to monitor and report on UBC GHG emissions.

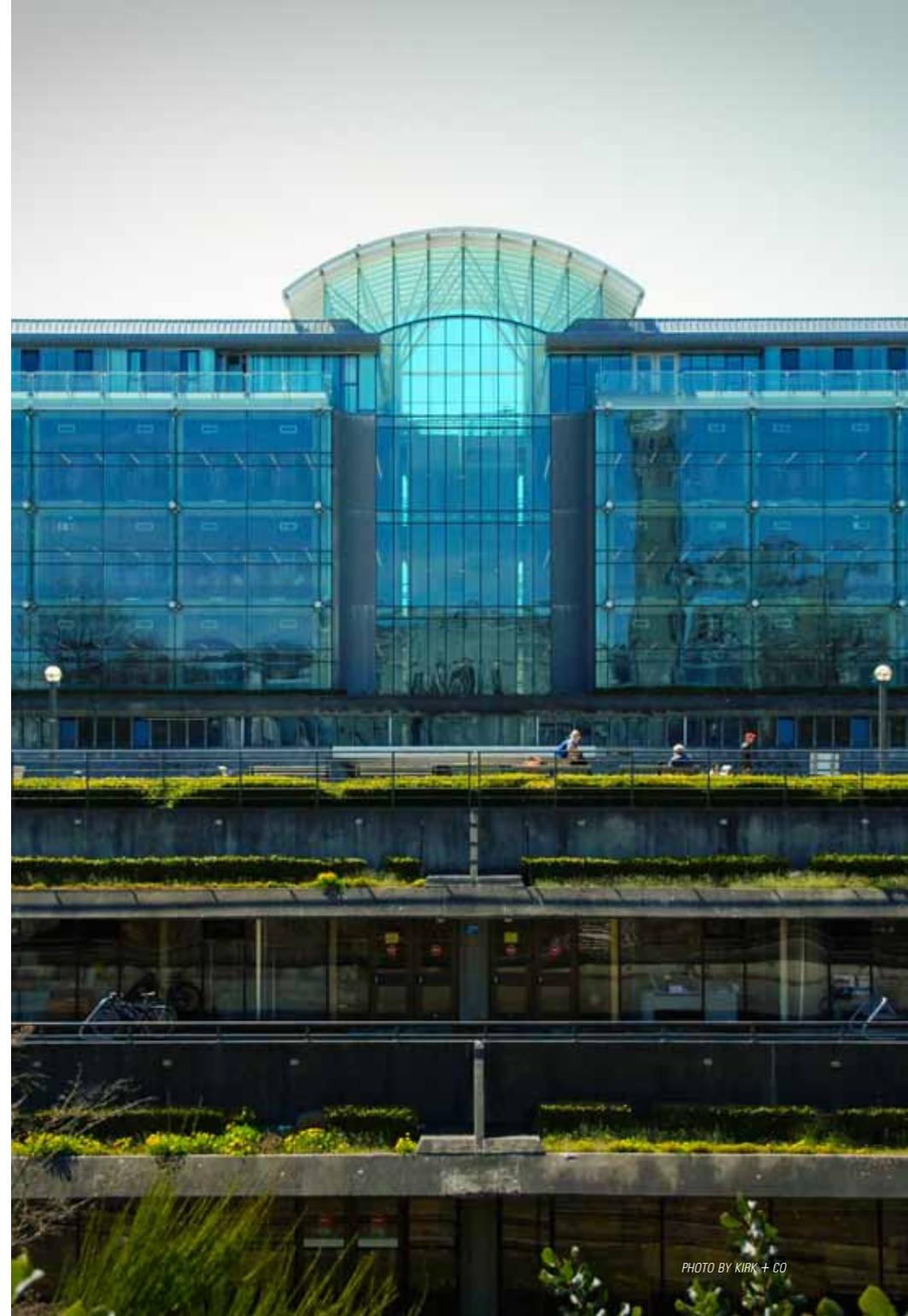
Also that year, the Province of BC introduced the Greenhouse Gas Reduction Targets Act, requiring all public sector organizations – including universities – to become carbon neutral in their operations by 2010.

A few months later in March 2008 UBC became one of six founding signatories to the "University and College Presidents' Climate Statement of Action for Canada". The Statement committed UBC to develop a "comprehensive plan to reduce greenhouse gases by creating a planning body that includes students, staff, faculty, researchers, administrators and other partners to set emissions reduction targets".

By signing the Statement, UBC committed to six deliverables, as follows:

- 1) Initiate the development of a comprehensive plan to reduce greenhouse gases by creating a planning body that includes students, staff, faculty, researchers, administrators and other partners to set emission reduction targets in accordance with each institution's jurisdiction.**
- 2) Within one year of signing this document, complete a comprehensive inventory of all greenhouse gas emissions on each campus.**
- 3) Within two years of signing this document, set targets and develop an institutional climate action plan that engages each institution's research, education and operations into a comprehensive strategy that catalyzes solutions for climate change.**
- 4) While the comprehensive plan is being created, immediately implement selected tangible actions to reduce greenhouse gas emissions.**
- 5) Make action plans, inventories and periodic progress reports publicly available for review and comment.**
- 6) Work co-operatively with governments, civil society, the business community and other institutions of higher learning to contribute to global climate change actions in recognition of our responsibility for equitable solutions.**

The co-authoring and signing of the President's Statement of Action on Climate Change for Canada committed UBC to the participatory development of a comprehensive climate action plan. This is the story of how the plan was developed.





CLIMATE ACTION / Abstract  
/ Introduction  
/ Context  
/ Story  
/ Impact  
/ Replicability  
/ Summary

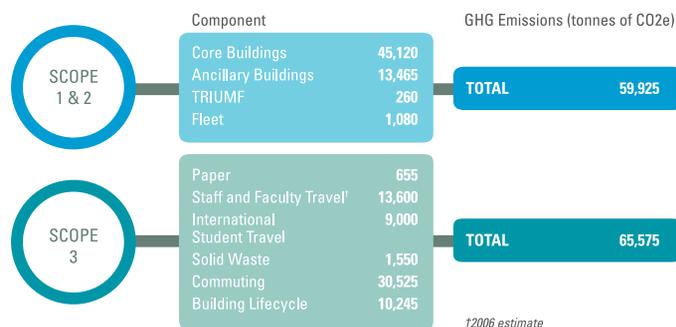
Stories

## UBC'S CLIMATE ACTION PLAN ENGAGEMENT PROCESS GENERATES A VISIONARY AND BOLD CLIMATE AGENDA, SUPPORTED BY THE UNIVERSITY COMMUNITY

Building on a decade of success in reducing energy consumption and GHG emissions, the development of UBC's Climate Action Plan had its roots in the university's 2007 efforts to engage its community in planning a leadership position on climate change. Early tasks included working with other BC universities to develop the President's Climate Statement, which established a mandate and laid out a roadmap for developing a Climate Action Plan, and setting up a process to measure the university's carbon footprint.

Underpinning UBC's approach to assessing its GHG emissions and all subsequent stages of CAP planning was a core commitment to the principles of participation and collaboration. Thus, each step of the CAP process ensured involvement of its key constituencies – students, staff, faculty and community members – to leverage expertise, solicit diverse views, and foster engagement, motivation and buy-in.

The climate action planning process began with measuring UBC's carbon footprint. To measure its GHG emissions, the university's Campus Sustainability Office (CSO) established a Technical Advisory Committee in 2007 made up of academic, operations, staff and student members. The initial GHG inventory used the World Resources Institute Greenhouse Gas Protocol to quantify 2006 emissions, which include direct and indirect emissions (referred to as Scope 1 and Scope 2), and optional emissions (Scope 3). The committee elected to adopt the broadest approach to scoping the institution's GHGs including faculty, staff and student daily commuting, and paper procurement, among other items. This was an important step for the university, and was based on the recognition that UBC has a sphere of influence to reduce emissions much broader than its operational boundary. The decision was taken to address as many emissions as feasible.



UBC's 2009 GHG EMISSIONS INVENTORY

Following the carbon footprint calculations, UBC's Climate Action Plan development process began in earnest in October 2008, when UBC hosted a Climate Action Symposium. This event brought together over 185 members of the UBC community to present on current progress, engage members of UBC's communities and develop a vision for climate action at UBC. The multi-year climate action planning process was officially launched at this event.

The university's next priority in the development of the Climate Action Plan was to establish a planning process that would allow for broad input from diverse members of UBC's communities. A committee structure was established that enabled students, staff and faculty members to provide oversight and support plan development through committees at each level of governance at UBC.

Critical committees in this structure included the President's Advisory Council on Sustainability (PAC-S), its Operations Working Group (OWG), the Technical Advisory Committee (TAC), and six Working Groups for specific emissions sources. The PAC-S, an interdepartmental group made up of deans, directors, and vice presidents, recommended sustainability priorities to the President's Office. The multi-stakeholder OWG provided oversight to the climate action planning process, and was mandated to advise UBC on measures to realize a sustainable campus. The Technical Advisory Committee was comprised mainly of faculty members and provided technical oversight to the development of the GHG inventory. The six Working Groups provided a broad point of engagement, ensuring that operations staff were given an opportunity to share their ideas and knowledge on how to reduce emissions.



This committee structure enabled a process by which operations staff, students, and faculty members could contribute to the development of a plan which ultimately received the broadest support and buy-in from all levels of governance at UBC.

Over the spring of 2009, the following participatory planning process was launched.

Key to the consultation process design was the identification of UBC's stakeholders who would be invited to participate. They included students, faculty, staff and residents who lived within the university's boundaries. The major engagement points consisted of "visioning" consultations in March 2009 – workshops in which stakeholders were invited to share their vision for climate action at UBC; technical working groups to provide input on action steps to achieve the vision; and ongoing community engagement opportunities through presentations and online feedback and input via electronic polls and surveys.

A communications plan was developed which included an outreach strategy to invite participation via ads in the university newspaper, broadcast e-vites to over 1,500 people, direct email invitations to approximately 500 faculty, staff and student "climate champions", and an interactive website ([www.climateaction.ubc.ca](http://www.climateaction.ubc.ca)). General outreach focused on raising awareness of the events and providing avenues for participation across the UBC community.

To maximize participation in the development of the climate action "vision" the Campus Sustainability Office held two workshops, one in the afternoon and another in the evening



Six Working Groups composed of staff and faculty who had jurisdiction over emission sources and / or had knowledge and expertise in the subject matter were established to develop measurable and achievable climate action strategies to achieve the vision in each of UBC's key emission source areas:

- Campus development and infrastructure
- Energy supply and management
- Fleets and fuel use
- Travel and procurement
- Food
- Transportation

In total, over 40 faculty, staff and students participated in 17 Working Group meetings between March and June 2009. They were supported in their deliberations by the consulting firm and the Campus Sustainability Office. The result of this process was the development of a series of actions to help UBC to move forward on its targets.

Throughout the CAP process, the Climate Action Plan website provided a vehicle for gathering and sharing information, including:

- a calendar of climate action events
- progress of the CAP report
- reports and resources
- feedback mechanisms.

The first draft of the Climate Action Plan was completed in the summer of 2009, and circulated amongst UBC executive and managing directors over the Fall for buy-in and sign off. During this period, an Alternative Energy Sources Project Study was commissioned, to assess low-carbon alternatives to the existing natural gas-based steam district heating system, the largest source of GHGs at UBC Vancouver. Limited revisions were made to the draft plan and in early 2010 the CAP reduction targets were adopted by the Board of Governors. These targets apply to Scope 1 and 2 emissions.

The Climate Action Plan commits the university to:

- reduce GHGs to 33% below 2007 levels by 2015
- reduce GHGs to 67% below 2007 levels by 2020
- reduce GHGs to 100% below 2007 levels by 2050.

The Plan delivers on the President's 2008 Commitment by:

- establishing UBC's 2008 energy and emissions baseline
- articulating a vision for climate action
- setting out emission reduction targets for 2015, 2020 and 2050
- putting forward a series of actions to reduce emissions across campus, and
- contributing to an understanding of climate change impacts and adaptation issues through its research activities.

The success of the Climate Action Plan process can be attributable to the planning framework the university put in place, as follows:

### **1) Establish a mandate for a community developed climate action plan**

By signing onto the 2008 President's Statement of Action on Climate Change for Canada, UBC committed to broad community engagement in the development of its Climate Action Plan.

### **2) Measure GHG emissions**

The Technical Advisory Committee of faculty members, operations staff and students provided important information on the magnitude of UBC's GHG emissions, and enabled the community to begin envisioning where GHG emissions reductions could be achieved.

### **3) Develop a governance structure that encourages all levels of participation**

The climate action committee structure ensured clear lines of accountability and responsibility, and reinforced the priority placed on the CAP throughout the university.

### **4) Engage the university community**

Engaging the university community was central to the development of the CAP. The participatory nature of the climate action planning process ensured the broadest possible support of, and engagement in, the development of the Climate Action Plan. This approach enabled a far reaching vision, and a set of strategies and priorities to meet this vision over the coming years.

This resulted in highly engaged students, faculty, staff, executive and the broader community who felt a key part of – and supported – UBC's Climate Action Plan.

# Impact /

CLIMATE ACTION / Abstract  
/ Introduction  
/ Context  
/ Story  
/ Impact  
/ Replicability  
/ Summary

CLOSED-LOOP  
RESOURCE  
SYSTEMS

## THE CLIMATE ACTION PLAN PROCESS CONTRIBUTED TO MAKING UBC A LIVING LABORATORY FOR BC, CANADA AND THE WORLD.

### IMPACTS

The impact of the Climate Action Plan process is threefold:

- 1) Engagement
- 2) Shared ownership
- 3) Leadership

#### Engagement

Hundreds of UBC's stakeholders contributed to the development of its climate plan, including students, faculty, staff, residents and others in the broader university community. Twenty student volunteers were given the opportunity to develop their climate leadership and organizing skills. UBC provided its community the opportunity to "make a difference", a key plank in its overall mission to promote the values of a civil and sustainable society.

#### Shared Ownership

Academic environments can breed skepticism and cynicism, especially on topics that are central to the public debate. UBC's comprehensive outreach approach which openly engaged students, faculty, staff and the broader university community in shaping its vision, setting its targets and defining its action plan allowed for diverse views and voices to influence its climate agenda. This broad net harnessed grassroots passion and academic and operational insight to form a strong game plan for aggressive action on climate change. By taking a participatory, consultative approach, UBC fostered strong buy-in and commitment from its broad stakeholder community.

#### Leadership

The most significant impact of the planning process was successfully positioning UBC as a climate action leader amongst its academic peers. The Climate Action Plan delivered on the President's climate action commitment within two years of signing the statement with a bold vision and aggressive targets that set the bar for others in Canada: net zero emissions by 2050. The Plan's scope exceeded the regulatory requirements laid out by the Province and went further than other post secondary institutions to date. By leveraging core competencies within its expert faculty and staff, UBC was able to define a roadmap to implement a cost-neutral plan that significantly reduces its climate change impacts within a generation. By engaging its diverse constituents, it was able to scope a broad vision that leverages its sphere of influence for greater impact.

# Replicability/

CLIMATE ACTION / Abstract  
/ Introduction  
/ Context  
/ Story  
/ Impact  
/ **Replicability**  
/ Summary

The consultation process for the development of UBC's Climate Action Plan is highly replicable by other institutions of higher education. The foundational elements, which include a philosophical commitment to stakeholder engagement, a mandate, designation of a coordinating body, budget and staff person, and a motivated constituency, readily exist in other operating environments. That the BC government had established carbon neutral goals and that the President had made a public commitment to climate action, however, helped to galvanize UBC towards the timely development of its action plan. The urgency of climate change and the clear opportunities for cost savings from energy efficiency initiatives are still two important drivers for any post secondary institution.

To replicate UBC's approach it would be important to establish a secretariat function, a service provided by UBC's Campus Sustainability Office, to provide the following resources and support:

- Coordinator to manage the GHG inventory and consultation process
- Funding for a consultant to support the working groups
- Management time to provide project oversight

# Summary/

CLIMATE ACTION / Abstract  
/ Introduction  
/ Context  
/ Story  
/ Impact  
/ Replicability  
/ Summary

## THE WORLD IS CALLING FOR CLIMATE LEADERSHIP. UBC'S CLIMATE ACTION PLAN, AND THE ENGAGEMENT PROCESS THAT PULLED IT TOGETHER, PROVIDES A ROADMAP ANY INSTITUTION COULD FOLLOW.

### FUTURE

From here, the Campus Sustainability Office will monitor and report on implementation of the Climate Action Plan, which will be driven by units across the university. The UBC Sustainability website will continue to be a space for sharing progress on CAP implementation and for contributing ideas for climate action.

Since the completion of the Climate Action Plan, the University has established the University Sustainability Initiative (USI), a new way to promote and integrate sustainability in teaching and learning, research and campus operations.

The USI will support UBC's Vision for Climate Action by exploring opportunities to use the "Campus as a Living Laboratory" and by positioning "The University as an Agent of Change" through partnerships with civil society, business and government, both locally and globally.

### CONCLUSION

Well planned and executed collaboration on climate action can result in initiatives which engage the hearts and minds of people everywhere. University leadership can show the way for other organizations seeking to similarly foster climate action and impact.

