



Pacific Institute for Climate Solutions



University
of Victoria



THE UNIVERSITY OF BRITISH COLUMBIA



UNIVERSITY OF
NORTHERN BRITISH COLUMBIA



SIMON FRASER UNIVERSITY
THINKING OF THE WORLD

Sara Muir Owen, PICS UBC Program Manager

sara.muir-owen@ubc.ca

www.pics.uvic.ca

Nations Unies

Conférence sur les Changements Climatiques 2015

COP21/CMP11

Paris France



Long before Paris, something interesting brewing in BC in 2006

Environment surpassed health,
economy “most important problem”
in public’s opinion



THE
WEATHER
MAKERS



THE HISTORY & FUTURE IMPACT OF CLIMATE CHANGE

TIM
FLANNERY

'It would be hard to imagine a better or more important book.'

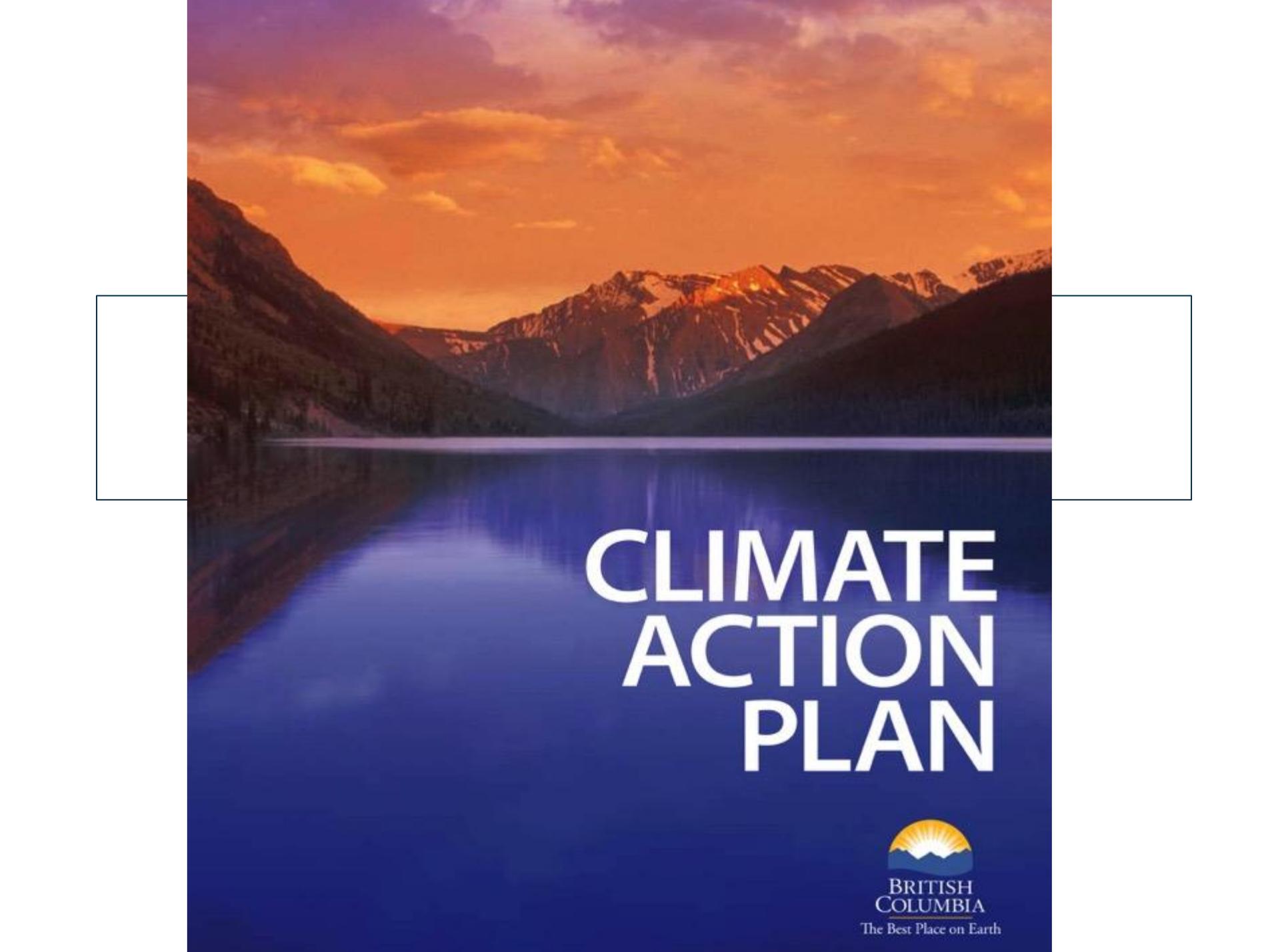
BILL BRYSON



Source: Canadian Press / Deddeda Stemler

2007 Throne Speech

33% GHG emission reduction of 2007
levels by 2020



CLIMATE ACTION PLAN



Pacific Institute for Climate Solutions



THE UNIVERSITY OF BRITISH COLUMBIA



PICS Mandate

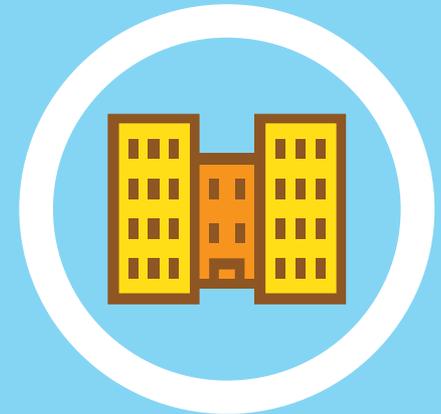
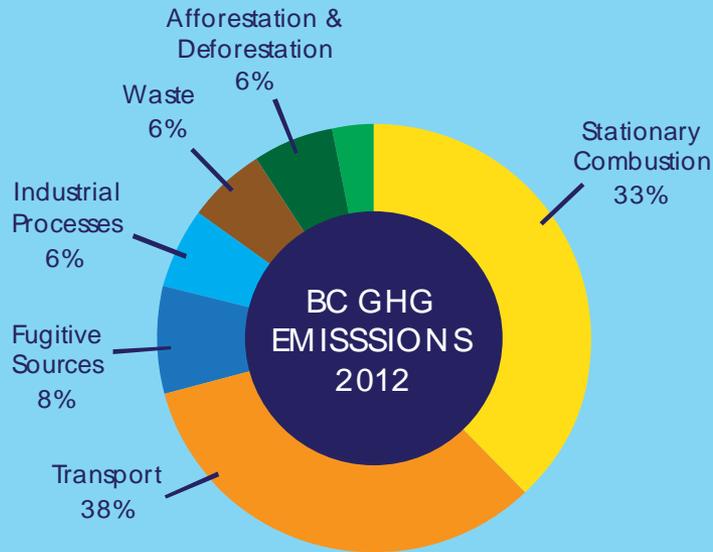
To produce leading **climate solutions research** that is **actively used by decision-makers** to develop effective mitigation and adaptation policies and actions.

PICS has global remit, with a focus on BC.





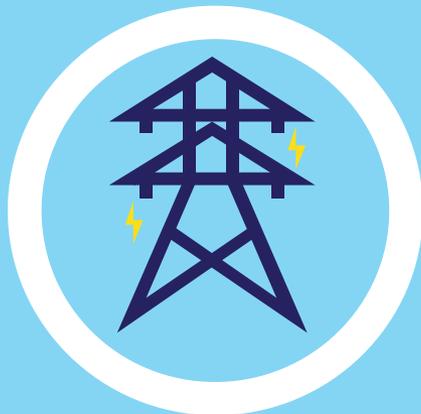
FOREST CARBON MANAGEMENT



ENERGY EFFICIENCY IN THE BUILT ENVIRONMENT



BC NATURAL GAS DEVELOPMENT



LOW-CARBON PATHWAYS TO 2060



TRANSPORTATION FUTURES

PICS BIG FIVE PROJECTS



PICS Big Five

- Nearly 40 faculty and 75 students
- All but two projects completed
- Preliminary reports and results available pics.uvic.ca

Evolving Scope for Climate Solutions

- Strategic Plan 2017 - 2023
- Mitigation + Adaptation
- Solutions generated and **used**
- Diverse portfolio - topics & locations
- International external review
- Partnership engagement

PICS Supported Activities

- Internships & Student Engagement
- Collaboration / Networking / Events
- Climate Solutions Research Engagement



Student Internship Program

Maximum: \$10,000 per year for each project

Frequency: Number of projects flexible within maximum annual \$100,000 budget

Year 2019: Ten projects awarded



Opportunity Projects Program

Maximum: \$60,000 per year for each project for up to three years duration

Frequency: Number of projects flexible within maximum annual \$600,000 budget

Year 2019: 34 proposals received; 4 projects awarded
Current call for proposals due August 2

Theme Partnership Program

Maximum: \$250,000 per year for each project,
up to four year duration

Frequency: One award to be issued approximately
every 12 to 18 months

Process: Two phase application, with proposal
strengthening workshops offered

Year 2019: Proposals Due May 15

PICS as Partner: Engaging Change Makers

Executive - high level international, national and provincial, dialogue with policy makers

Program Managers - Outreach, faculty & student engagement, regional dialogue with solution seekers and implementers

Researchers in Residence - Engagement with user community associated with specific research themes.

Opportunity Projects Program

Maximum: \$60,000 per year for each project for up to three years duration

Frequency: Number of projects flexible within maximum annual \$600,000 budget

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Mobile Thermal Storage in City of Surrey's District Energy

Project Lead: Majid Bahrami, SFU

Partners/Solutions Seekers: City of Surrey and Canmet ENERGY

- Modular/scalable, thermochemical mobile energy storage device that captures waste heat from distributed, non-connected sources to district energy systems
- Reduced reliance on non-renewable fuels for peak loads, reduced carbon emissions and lower operating costs
- Sustainable energy initiative relevant to other municipalities in BC and beyond

Climate Adaptive Planning for British Columbia

Project Lead: Oscar Venter, UNBC

Partners/Solutions Seekers: The Nature Trust, Canadian Parks and Wildlife Society, BC Parks Foundation

- Adapt conservation plans in BC to minimize the climate change impacts and help inform protective area planning through the future
- Online, open-access, fully operable and user-friendly tool
- Accessible and flexible for diverse user groups, and updatable with future enhancements in understanding climate change in BC

Designing solutions to the hidden impacts of climate change on Canada's undersea forests

Project lead: Anne Salomon, SFU

Partners/Solutions Seekers: Central Coast Indigenous Resource Alliance (Heiltsuk Nation, Kitasoo/ Xai' xais Nation, Nuxalk Nation and the Wuikinuxv Nation)

- Adaptive management of traditional community-based kelp harvest and herring spawn-on-kelp fisheries
- Minimize the negative impact of temperature-induced bryozoan outbreaks (caused by the Pacific Ocean “warm blob”)
- Enhance the resilience of both kelp forest ecosystems and coastal communities to climate change

Adaptive Mitigation: A framework for assessing synergies, conflicts, opportunities and trade-offs between climate change mitigation and adaptation in urban neighbourhoods

Project lead: Stephanie Chang, UBC

Partners/Solutions Seekers: BC Housing

- Explore intersection of adaptation and mitigation strategies in urban neighbourhoods, specifically multi-family residential buildings
- Maximize the opportunity for “shelter-in-place” — or safety within the building
- Develop an integrated building adaptation and mitigation assessment (IBAMA) framework and tool for decision-makers to influence future building codes, standards, and construction best practices in British Columbia and abroad

Theme Partnership Program

Sixteen LOIs received; three shortlisted for proposals:

- **Agricultural Adaptation**
- **Energy Storage**
- **Negative Emissions Technology**



Building the PICS Portfolio

2019

2020

2021

2022

2023

...

Opportunity Projects: Annual call, up to 10 concurrent opportunity projects, 1-3 years each

Theme Partnership: call every 12-18 months, up to 3 concurrent partnership projects, 3-4 years each

Internships and Special Projects, responding to urgent needs for research



PICS Research Engagement

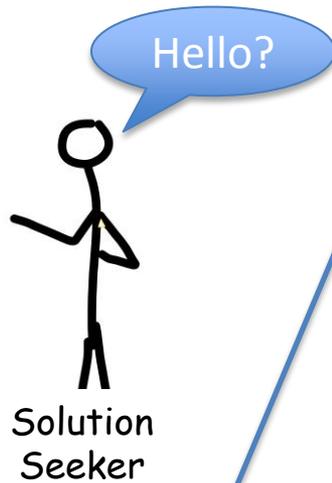
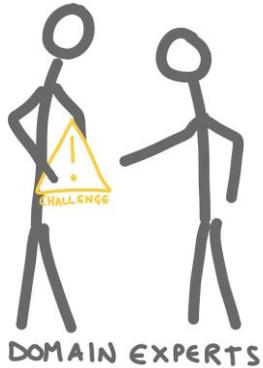
Partnerships

- Solution seeking partners
- Research partners
- PICS as partner



PICS Research Engagement

From this....



To this....



Adapted from Design by Willow Brugh



Research Partnerships

Support the development of climate solutions that address complex problems and that build long term research partnerships and program legacies.



Research Partnership Objectives

Co-Develop
climate solutions
in areas of high
complexity

Build Capacity
through
partnerships

Establish
International
Leadership in
critical areas



PICS Support of Research Partnerships

- Direct funding support over the project's term
- “Researcher in Residence” in the theme area
- Facilitate effective collaboration among participants
- Engagement with key decision makers
- Student support and networking

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