

Green Building in Squamish



Squamish Vision statement

“a description of the desired future for Squamish in the year 2020”

“We are a spectacular seaside mountain community where people come to live, learn, work and play in harmony. We are caring, vibrant and diverse. We are leaders in fostering social integrity, economic development, and environmental sustainability.”

District of Squamish Strategic Plan 2004-2008

The challenge



“while being green is an idea that has clearly entered the mainstream, seeing real results on a large scale is still an ambitious goal. Only 3% of new commercial buildings in 2007 are estimated to have met minimum [LEED] certification levels, and only 0.2% of new residential construction is built green.”

US Green Building Council

Provincial support

- Through the Community Action on Energy and Emissions (CAEE) program, the Province of BC is funding Municipalities to take a more active role on energy efficiency with
 - Buildings
 - Transportation
 - Policy

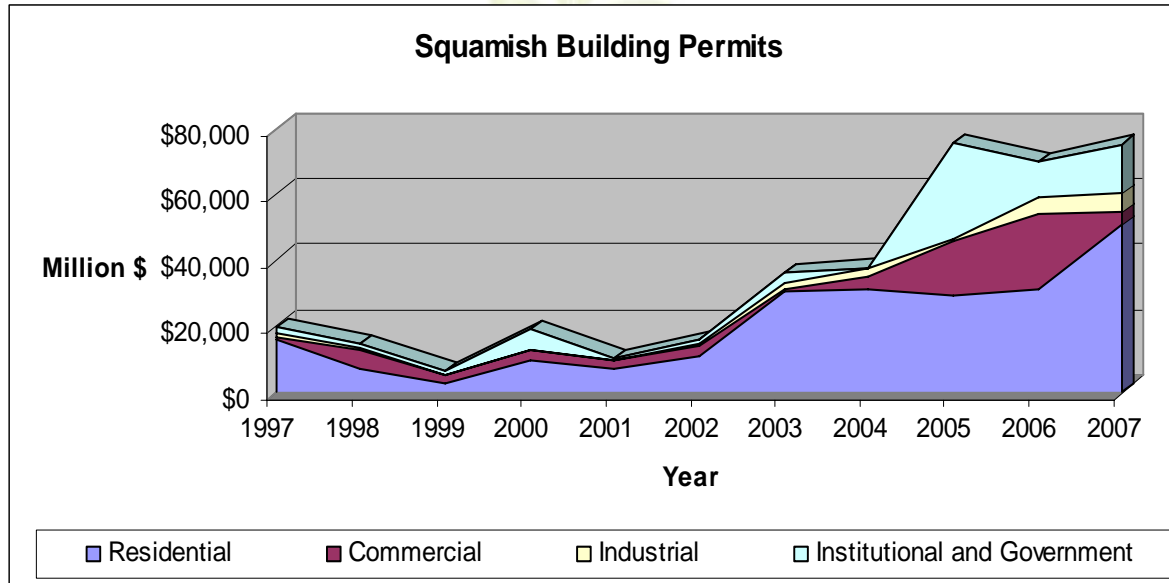
The District of Squamish received funding from the CAEE program

Context



- Buildings have a profound impact on people and the natural environment.
- There is an increasingly urgent need to reduce the impact of existing buildings on the environment.
- Making the 'business case' for green buildings is critically important.
- Building owners, operators, and occupants need more information about how to manage, operate, and inhabit green buildings.
- Interest in, and need for, green building expertise is growing.
- Governments, at all levels and in most jurisdictions, are responding to the calls of their constituents for lower-impact buildings.
- Capacity is lacking among building trades, designers, developers, and code officials to meet the demand for sustainable buildings.

Community Snapshot



- Almost 12% of Squamish's working population is engaged in architecture, engineering & related technologies.
- Residential Building Stock - is expected to increase by at least 8,800 units by 2031.
- Squamish consumed 2,500,000 GJ of energy in 2005, costing about \$52 million.
Per capita, this is 159 GJ/year, or more than \$3,300 per person per year.

Commitments



The District of Squamish has committed to the following provincially endorsed targets:

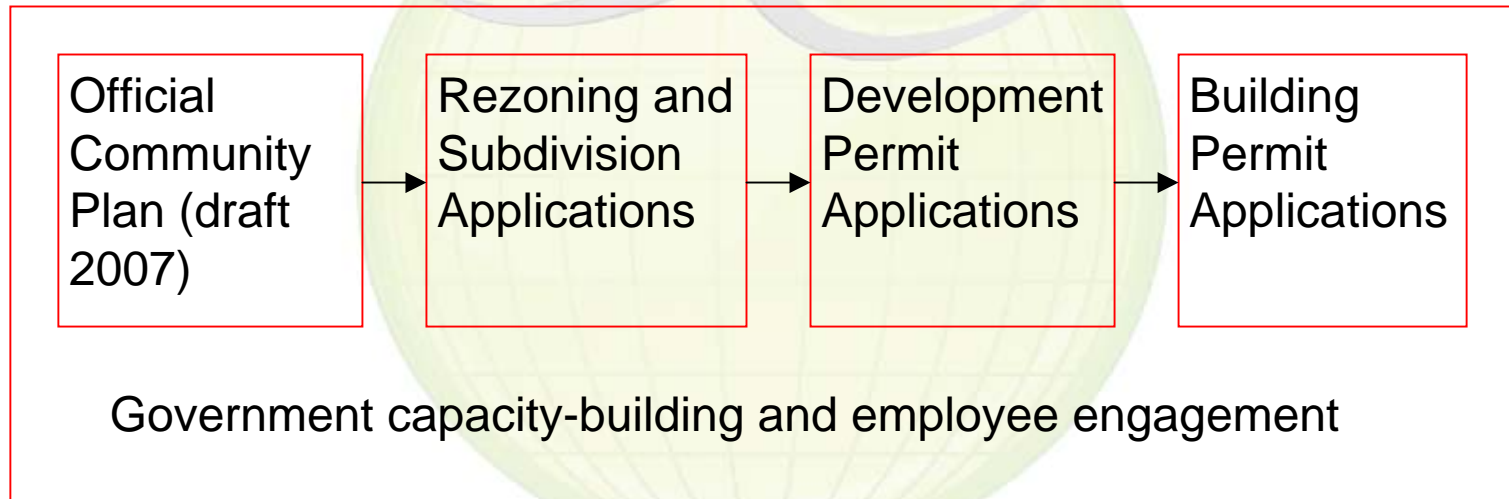
- Achieve an EnerGuide for New Houses rating of 80 for 100% of new detached single-family and row houses by 2010. Typical new construction is EGH 70-72.
- Achieve energy performance 25% better than the Model National Energy Code for 100% of new multi-unit residential, commercial, institutional, and industrial buildings by 2010.

The new BC Building Code amendment (released September 5, 2008) does not quite reach these levels.

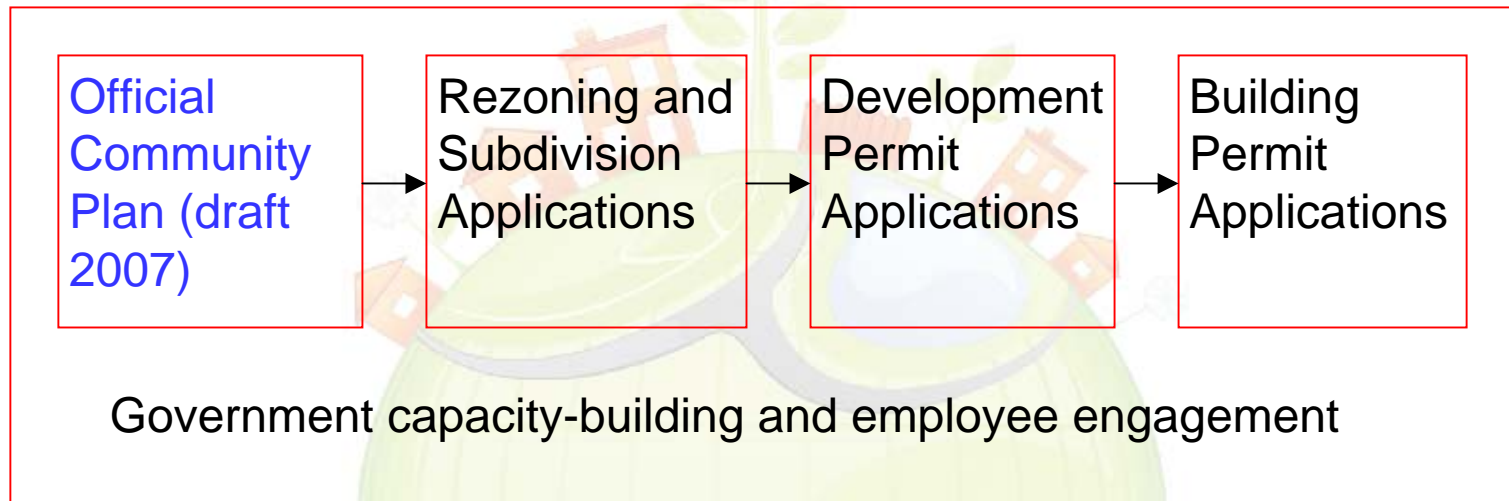
New approaches

1. Enhance the development process

At each stage, green-building goals, objectives, and incentives could play a role:

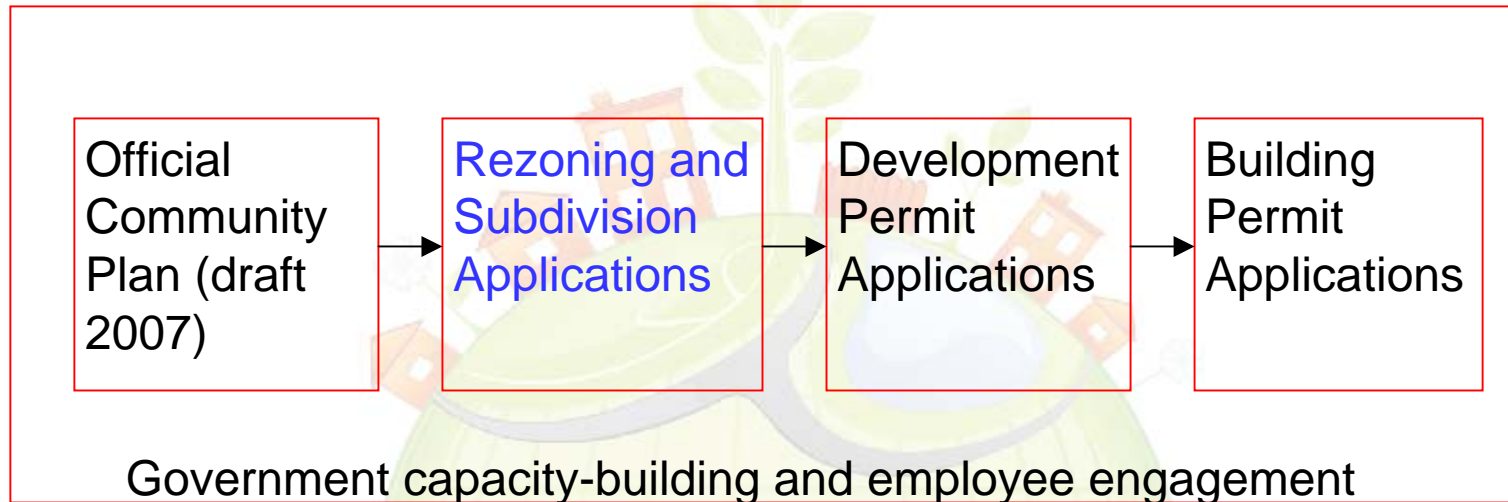


1. Enhance the development process



The District of Squamish's draft OCP (2007) Energy and Air Emissions section contains a wide-ranging list of objectives and potential policy actions.

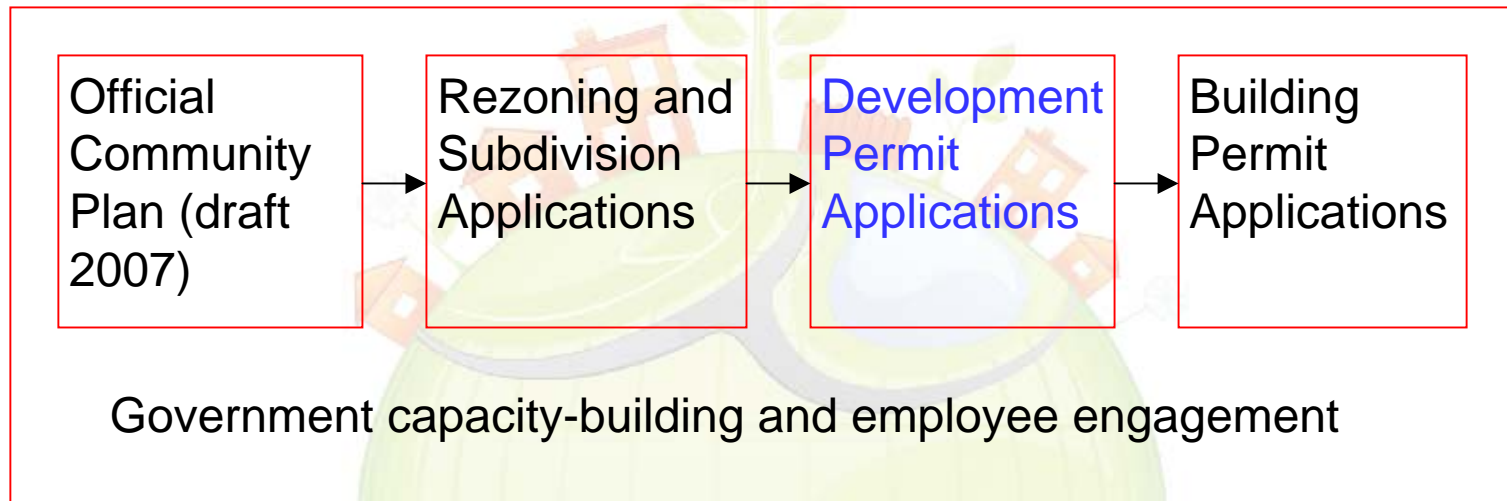
1. Enhance the development process



Potential Actions:

- Energy Efficiency Rezoning Policy: matching incentives such as density bonusing to implementation of energy-efficient commitments and achievements
- Phased Development Agreements: Matching multi-phase developments with increasing energy efficient objectives and standards.

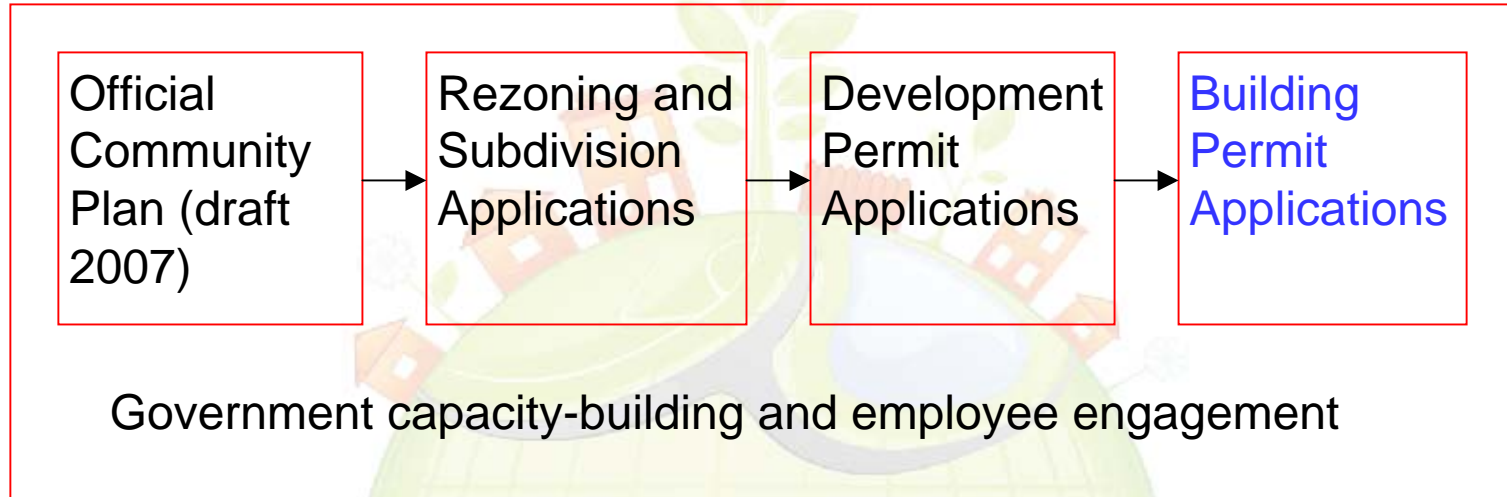
1. Enhance the development process



Potential Actions:

- Development permit area guidelines
- Energy-efficiency checklists— a tool to identify real steps and benefits.

1. Enhance the development process



Potential tools:

- Updated Permit Documentation
- Building Permit Rebate
- Development Cost Charge Reduction/Exemption
- Green Roofs Bylaw
- Service Area Bylaw

New approaches

2. Market Transformation

Market-based incentives

- Publicize active incentive programs (Web-based)
 - ✓ Facilitate access to available programs through DoS web links

Recognition Programs

- Develop a tiered recognition program
 - ✓ A local program recognizing local achievements

Political Leadership

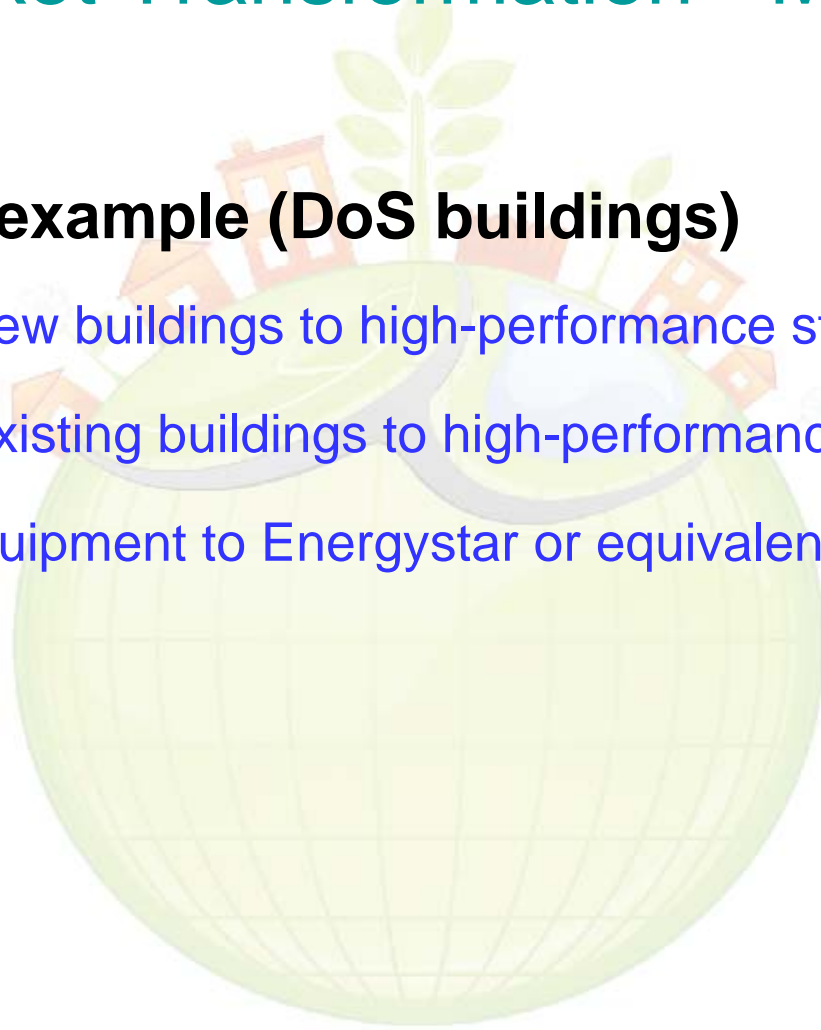
- Actively promote the need for action



2. Market Transformation - Municipal

Leadership by example (DoS buildings)

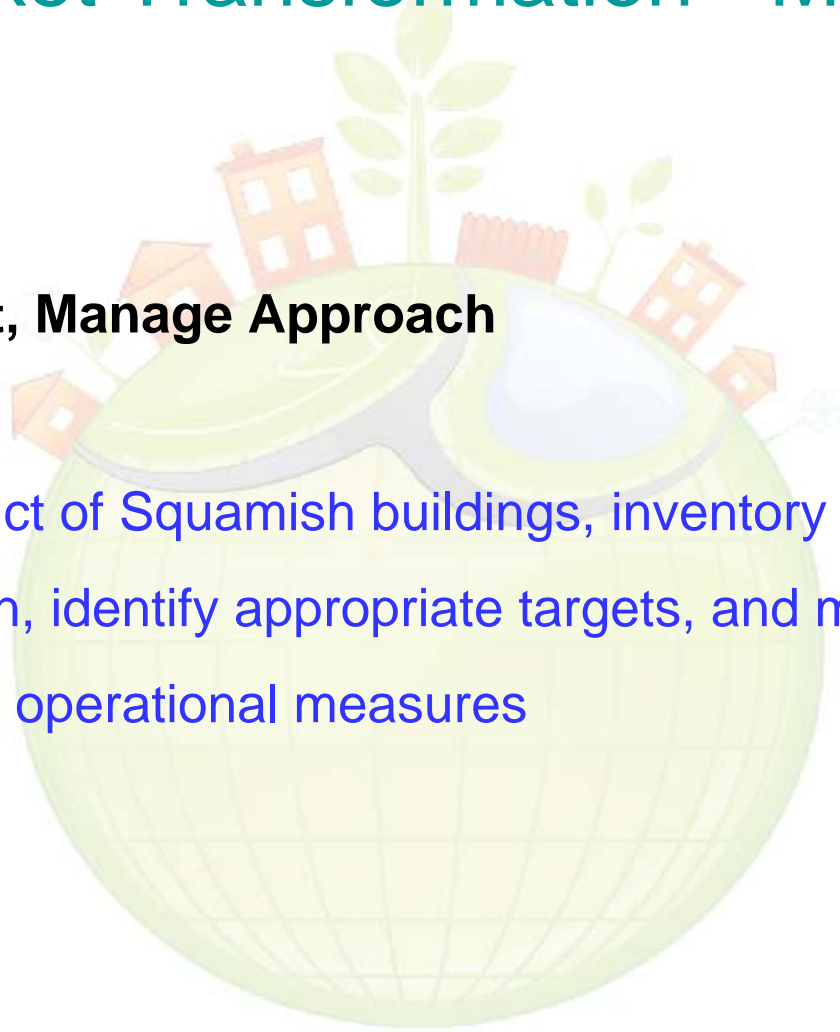
- Construct new buildings to high-performance standards
- Renovate existing buildings to high-performance standards
- Upgrade equipment to Energystar or equivalent standards



2. Market Transformation - Municipal

A Measure, Target, Manage Approach

- For all District of Squamish buildings, inventory energy consumption, identify appropriate targets, and manage energy use through operational measures



2. Market Transformation - General

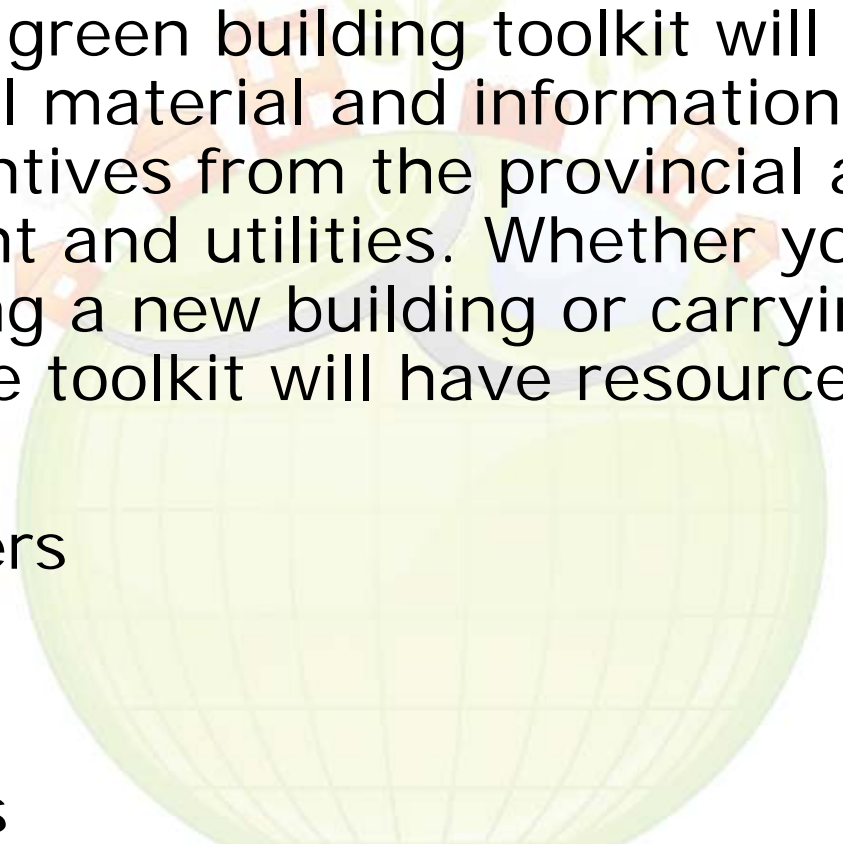
Market education

- Provide a New Housing Construction Guidebook (Web-based)
 - ✓ How to meet the requirements of the new BC building code
- Provide Access to Best Practices Information for New Housing (Web-based)
 - ✓ How to go beyond the building code

Energy Efficiency Learning and Communications Materials

- Where to get the best training and software, books and magazines

2. Market Transformation- General

- The online green building toolkit will include educational material and information about the latest incentives from the provincial and federal government and utilities. Whether you are constructing a new building or carrying out a retrofit, the toolkit will have resources for you.
 - Homeowners
 - Businesses
 - Builders
 - Developers
- 

We'd like to hear from you

- What are your green building challenges?
- What are your experiences with energy efficiency?
- What kind of green-building questions do you have?

Send us an email at: greenbuildings@squamish.ca