

## WHAT DO THESE ICONS REPRESENT?



### Ecologically Restored

Restore and preserve the variety and number of species and habitats in off-campus bio-geoclimatic zones affected by campus-related activities.



### Green House Gas Neutral

Eliminate or absorb all carbon-based emissions on campus from fossil fuel combustion and decomposing vegetable and waste.



### Net Energy Producer

Produce carbon-free, onsite power that meets or exceeds campus demands. Manage energy and materials demand efficiently.



### Water Balanced

Harvest rainwater to eliminate storm sewer discharge and reduce or eliminate potable water purchases. Maximize groundwater recharge through integrated stormwater management.



### Zero Waste

Eliminate or reduce waste associated with campus activities and affiliated facilities and operations. End the use of toxics and pollutants not readily assimilated into the environment.



### Equity and Social Responsibility

Promote ethical consumer and lifestyle choices. Offer learning opportunities about full cost accounting and lifecycle assessment in purchasing, construction, maintenance, and operations (including academic/extracurricular activities and healthy work environments).



### Accessibility and Safety for all Students and Faculty

Provide students and personnel with opportunities to engage in learning activities and campus greening initiatives that accommodate their diverse needs and beliefs.

## BCIT School of Construction and the Environment

*Concerned with the natural environment, the built environment and the relationship between them.*

### BCIT Programs Participating in Factor Four

- > Architectural Science
- > Building Science
- > Carpentry
- > Ecological Restoration
- > Electrical
- > Environmental Engineering Technology
- > Forest and Natural Areas Management
- > Interior Design
- > Joinery
- > Piping
- > Steel Trades
- > Sustainable Energy Management
- > Welding

### School of Construction and the Environment Centres

- > Building Science Centre of Excellence
- > Centre for Energy Systems Applications
- > Centre for Architectural Ecology
- > BCIT Rivers Institute
- > Zero Energy Buildings Learning Centre

Learn more at [bcit.ca/factorfour](http://bcit.ca/factorfour)

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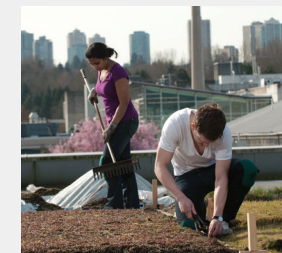


## Factor Four

REDUCING ENERGY AND  
MATERIALS USE FOUR-FOLD

## Self-Guided Tour

The Factor Four project aims for a four-fold (75%) reduction in energy and materials consumption in order to achieve ecological sustainability.



## FACTOR FOUR AT BCIT

### Why Factor Four?

The World Business Council for Sustainable Development has identified that a factor of four to a factor of ten reduction in energy and materials throughput in the global economy is needed in order to stay within Earth's ecological carrying capacity. This represents a 75% to 90% reduction from business as usual. The built environment accounts for 30% of global energy consumption and 40% of materials. How we design, build, maintain, and restore our cities will have a profound effect on global sustainability.

Factor Four is an initiative of the School of Construction and the Environment. Our goal is to achieve 75% reduction in energy and materials consumption without compromising service levels. We aim to restructure and adapt the built environment to create an ecocity area and a living lab for students.

Real-time energy data from all Factor Four meters can be viewed online at:

[bcit.ca/factorfour](http://bcit.ca/factorfour)—search 'live data'



**WOOD DUST EXTRACTION: DEMAND-BASED VENTILATION**  
—SAWDUST IS EXTRACTED DIRECTLY FROM WHERE IT IS GENERATED, AND ONLY WHEN IT IS CREATED.

## Factor Four Points of Interest

At these locations you will find signs that detail projects, buildings' activities, and how our teams are contributing to the Factor Four energy and materials reduction.

