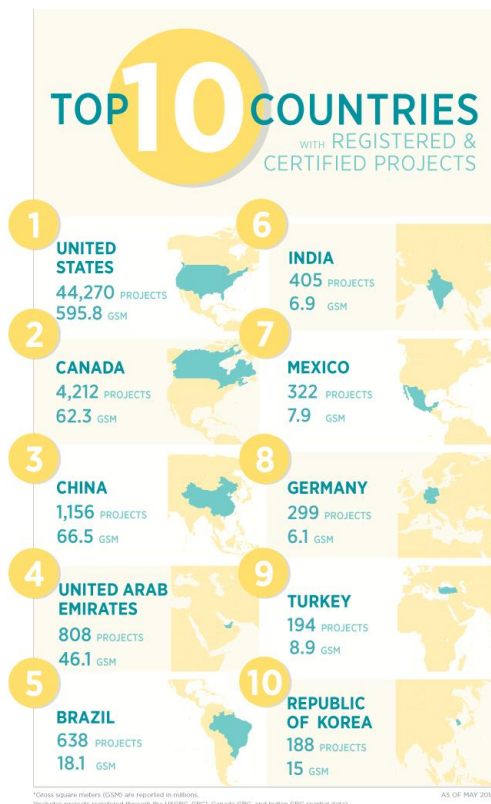


## Green Building in Canada

The Canada Green Building Council (CaGBC) has recently announced the certification of 1.000 LEED projects, Canada is ranked second in the world after USA based on the number of certified building projects.



Fonte: USGBC

The following is a selection of the most predominant certification systems in Canada:

- **Leadership in Energy and Environmental Design (LEED)** is the rating system primarily used by the construction industry in Canada and the United States to assess public/commercial buildings, the retrofitting of existing buildings, and to a lesser degree new residential structures. Certification is assessed through an independent review and audit of the selected credits, with four levels of certification (Certified, Silver, Gold and Platinum) available.
- **ENERGY STAR** is an international program initiated by the U.S. Environmental Protection Agency, consisting of product and building energy efficiency rating systems and North America-wide awareness campaigns. In Canada, it is delivered by Natural Resources Canada (NRCan), along with the EnerGuide rating system. It is the most commonly used system in some provinces (e.g., Ontario) for residential green home certification, and is often used as a benchmark for provincial and municipal building codes related to energy use.
- **Built Green** is a voluntary rating system open to members of participating Home Builders' associations. Builder training is a mandatory component, and only Built Green certified builders can construct Built Green certified homes. This certification and training system is most often used in British Columbia and Alberta.
- **BOMA BEST** is a national program launched in 2005 by the Building Owners and Managers Association (BOMA) of Canada to address an industry need for realistic standards for energy and environmental performance of existing buildings.
- **GreenHouse** is an Ontario-based residential building-specific certification system offered by EnerQuality, an organization founded through a partnership between the Canadian Energy Efficiency Alliance and the Ontario Home Builders' Association.
- **Novoclimat** is an energy-efficiency focused home certification and voluntary builder training program offered in Quebec by the Agence de l'efficacité énergétique.
- **R-2000** is a voluntary technical standard program that emphasizes energy efficiency, indoor air tightness and environmental responsibility in home construction. Like ENERGY STAR, it is delivered by NRCan, and has been used as a benchmark for some regional building codes.

The main approaches to greenbuilding are:

- Energy efficiency – structural
- Building emission reduction/efficiency
- Water use reduction
- Interior green/sustainable building materials

- Exterior green/sustainable building materials
- Energy production/consumption, e.g., solar

The following are the results of the impact of greenbuilding LEED projects in Canada:

- Energy savings of 1,600,321 eMWh which is enough to power 54,307 homes in Canada for a full year.
- A 312,006 CO<sub>2</sub>e tonne reduction in greenhouse gas emissions which equates to taking 58,980 cars off the roads for a year.
- Water savings totalling over 3.3 billion litres, the equivalent of 1,336 Olympic sized swimming pools.
- Recycling over 2 million tonnes of construction/demolition waste which represents 639,642 garbage truck loads.
- Installing 100,239 sq metres of green roofs, or an area the size of 66 NHL hockey rinks, to reduce the urban heat island effect and mitigate storm water flows in urban areas.

Industry representatives believe that the market for green building will continue to grow. Over 25% of companies are specialized in green building and 37% have plans to enter the green building market in the future. (2011, Construction Sector Council)

#### Companies by province with more than 50% green projects: 2011

British Columbia	39.5%
Alberta	38.9%
Newfoundland, Nova Scotia, New Brunswick, Prince Edward Island	35%
Ontario	17,5%
Manitoba	17,6%
Quebec	10%

Fonte: Construction Sector Council

Associations	Link
USGBC	<a href="http://www.usgbc.org/?gclid=CPeWqIjAr7cCFcNQ3godXh8A-w">http://www.usgbc.org/?gclid=CPeWqIjAr7cCFcNQ3godXh8A-w</a>
Canada Green Building Council	<a href="http://www.cagbc.org/">http://www.cagbc.org/</a>
Save On Energy	<a href="https://www.saveonenergy.ca/Business/Programs-By-Sector.aspx">https://www.saveonenergy.ca/Business/Programs-By-Sector.aspx</a>
Built Green	<a href="http://www.builtgreencanada.ca/">http://www.builtgreencanada.ca/</a>
Sustainable Building Canada	<a href="http://sbcanada.org/about-2/">http://sbcanada.org/about-2/</a>

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Trade Shows	Link
Green Building Expo 5-6 June 2013, Vancouver	<a href="http://www.cagbc.org/Content/NavigationMenu/NationalEvents/CaGBCEXpo2013June462013VancouverConventionCentre/default.htm">http://www.cagbc.org/Content/NavigationMenu/NationalEvents/CaGBCEXpo2013June462013VancouverConventionCentre/default.htm</a>
Buildex, 19 e 20 February, 2014, Vancouver	<a href="http://www.buildexvancouver.com/">http://www.buildexvancouver.com/</a>
Construct Canada 4-6 December, 2013, Toronto	<a href="http://www.constructcanada.com/pre_show/index.php">http://www.constructcanada.com/pre_show/index.php</a>