



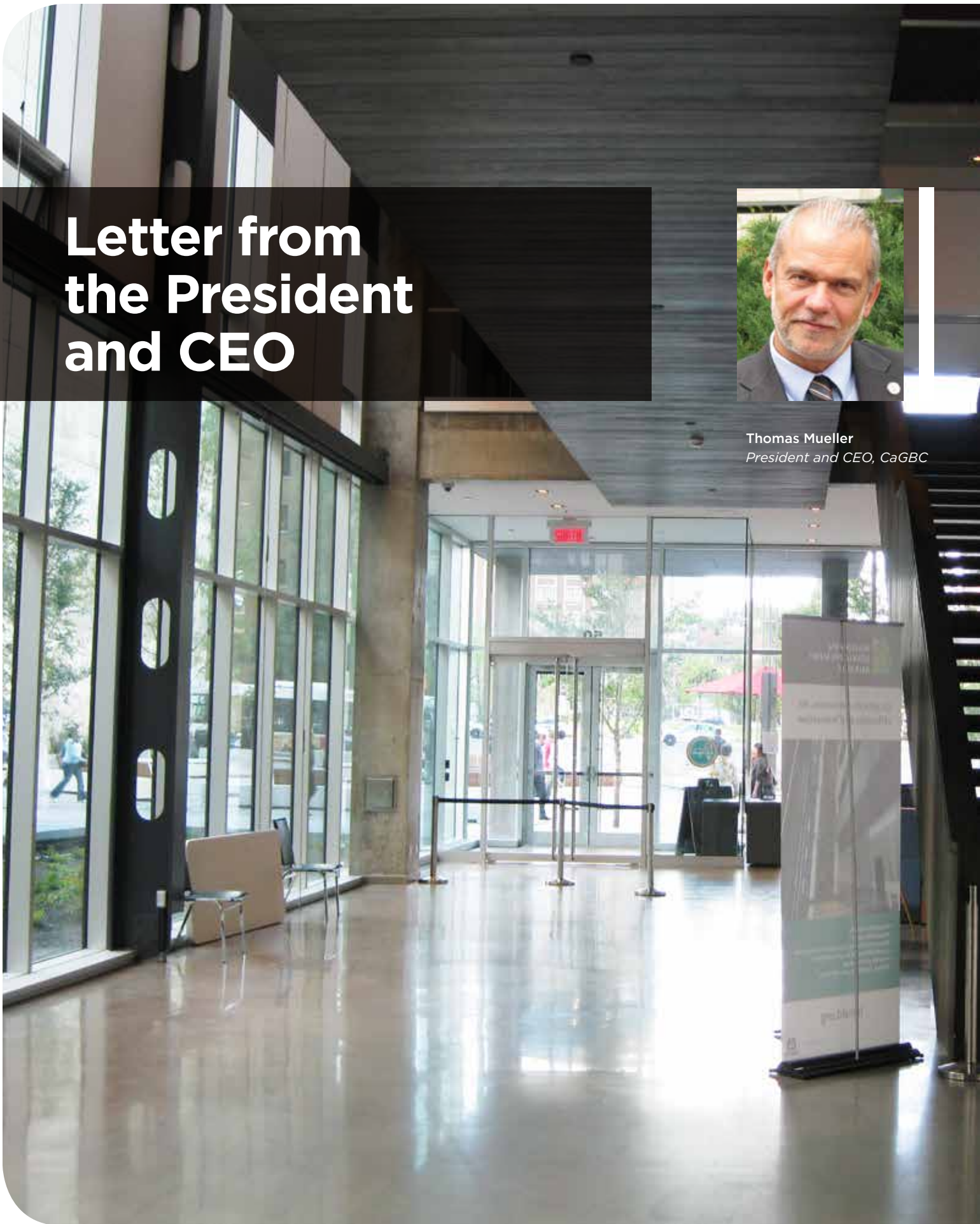
Canada Green Building Council  
*Every Building Greener*

# 2013 ANNUAL REPORT

# Letter from the President and CEO



Thomas Mueller  
*President and CEO, CaGBC*





In 2013, the CaGBC saw the demand for green buildings remain strong as the costs and benefits became better understood by owners, investors and governments. Benefits such as lower operating costs, higher occupancy rates, and healthier work spaces which increase employee well-being are now part of the vocabulary. This greater understanding has led to sustainable building being implemented not only as part of a social responsibility strategy, but as a core business practice whether in commercial real estate, government policy or institutional infrastructure planning.

The Canada Green Building Council and its membership have driven this market shift by successfully advocating for green building policies with all levels of governments and the private sector across Canada. As a result of this advocacy and the hard work of our members, thousands of commercial, institutional and government buildings, homes and industrial structures have been constructed and retrofitted to green building standards.

Green buildings are clearly changing the landscape of our cities, where the majority of Canadians are now living.

LEED® has been a powerful tool in making this evolution possible. Yet, LEED has always been a voluntary, market-driven rating system. Commercial owners now consider LEED to be a competitive advantage, with a proven return on investment and a clear path to lower operating costs and higher tenant attraction. This becomes evident when you visit the downtown core of many major cities in Canada which are now dominated by LEED Gold and Platinum office towers.

Governments at all levels, utilities, universities and hospitals now view green buildings as an investment in the future. Many cities including Vancouver, Saskatoon, Calgary, Winnipeg, Ottawa, Montreal and Moncton (to name a few) have adopted green building policies which mandate LEED.

2013 was a strong year for LEED in Canada. There were more Canadian projects certified to LEED than in any prior year, with a steady increase in both small and large projects certifying, which speaks to the continued value the rating system and certification brings to the industry. 2013 also saw the highest number of LEED Gold certifications to date at 173, and it was another strong year for LEED Platinum certifications, the most rigorous level of LEED certification, with a total of 32 projects certified.

It is encouraging to see so many projects attaining the highest levels of LEED certification as it proves that the industry has the skills, knowledge and technology to produce high performance buildings at a reasonable cost and effort.

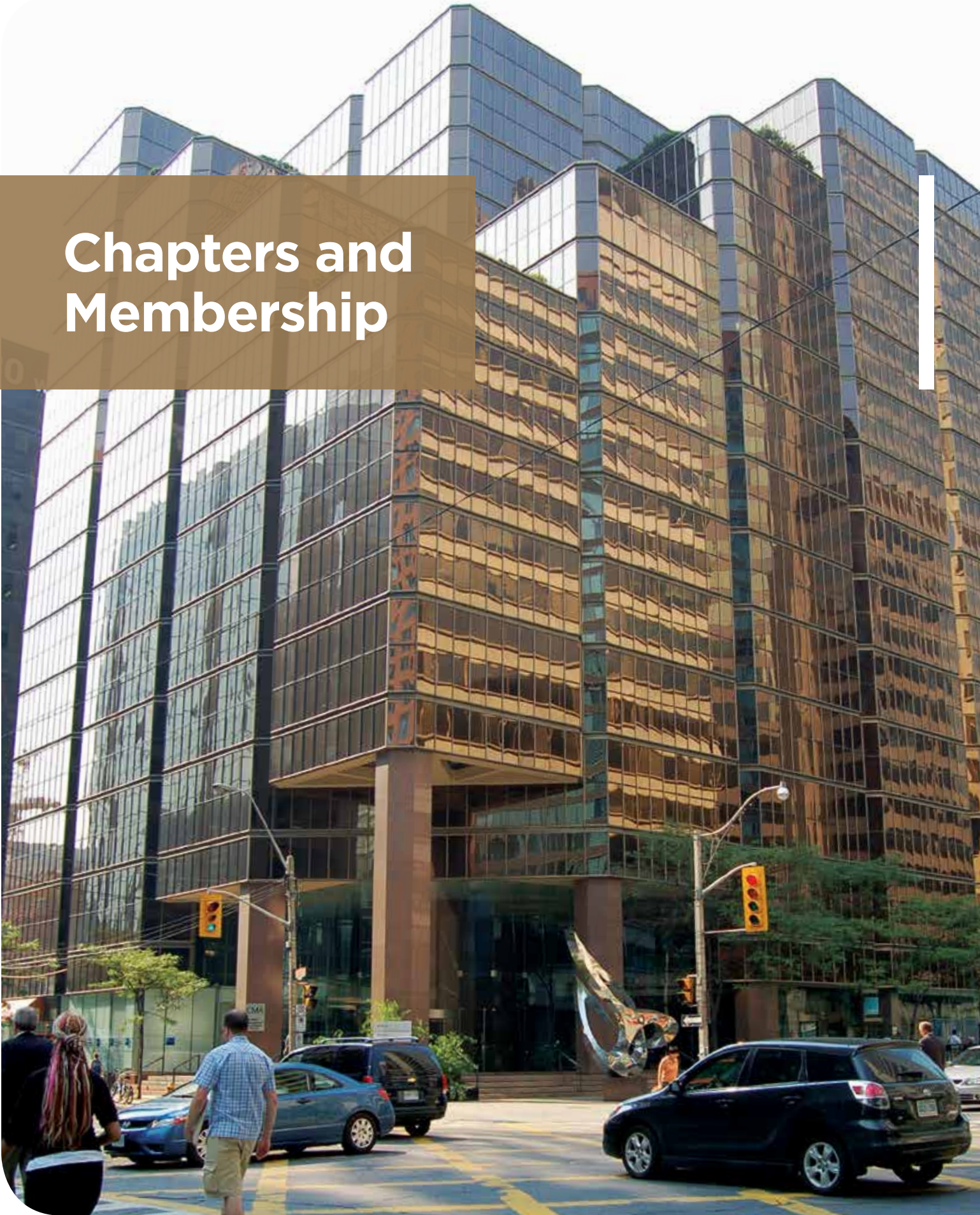
In November 2013, the U.S. Green Building Council launched LEED v4 which represents the next iteration of what has become the most widely recognized building rating system globally. LEED v4 is setting higher thresholds for a number of building performance parameters including energy and water, building metering and commissioning. The biggest changes are in the way LEED recognizes materials, in an effort to move the industry toward transparency and better understanding when specifying materials.

As the green building market evolves both in volume and quality, practitioners must continue to maintain and upgrade their knowledge and skills to keep in step with market demand and interests. To help our industry as it matures, in 2013 the CaGBC added more web-based education and worked closely with our Chapters to deliver the most pertinent and advanced green building education to the industry including the Sustainable Building Advisor, EcoDistricts and Passive House programs. Our annual conference continues to be the hallmark of Canadian green building education. With an intensive, intermediate level program delivered by experienced industry professionals, the delegates benefit from the most diverse and current content available.

The CaGBC's governance transition was also completed in 2013. This process resulted in the adoption of a governance structure that is better suited to executing our strategic direction with the active participation of a Board comprised of senior leaders in the building industry. With this new structure in place, the CaGBC has increased its reach and effectiveness which will aid us in our mission of transforming buildings and communities in Canada.



# Chapters and Membership







The Canada Green Building Council is a national, not-for-profit organization that has been working since 2002 to advance green building and sustainable community development practices in Canada. Working together with our membership of over 1,600 industry organizations involved in the design, construction and operation of buildings, homes and communities, the Council has made excellent inroads toward achieving our mission of reducing the environmental impact from the built environment.

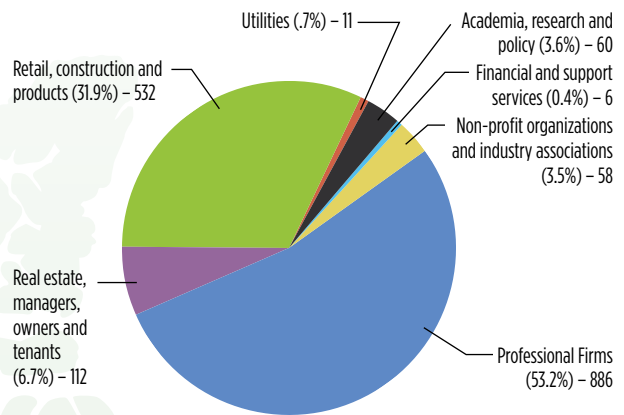
The CaGBC includes eight Chapters that play a critical role in furthering the transformation of Canada's built environment by providing green building education, hosting industry networking events, and performing local advocacy to promote greener buildings and neighbourhoods. The CaGBC also includes a vast volunteer network comprised of individuals who contribute their time, expertise and resources to our mission every day.



## Membership

The CaGBC membership represents the breadth of the Canadian green building industry. With over 1,600 member companies, about half of our national members are professional firms (including engineering, architectural and design), 32 per cent are construction companies and suppliers, and representation from the real estate and manufacturing sectors is growing every year.

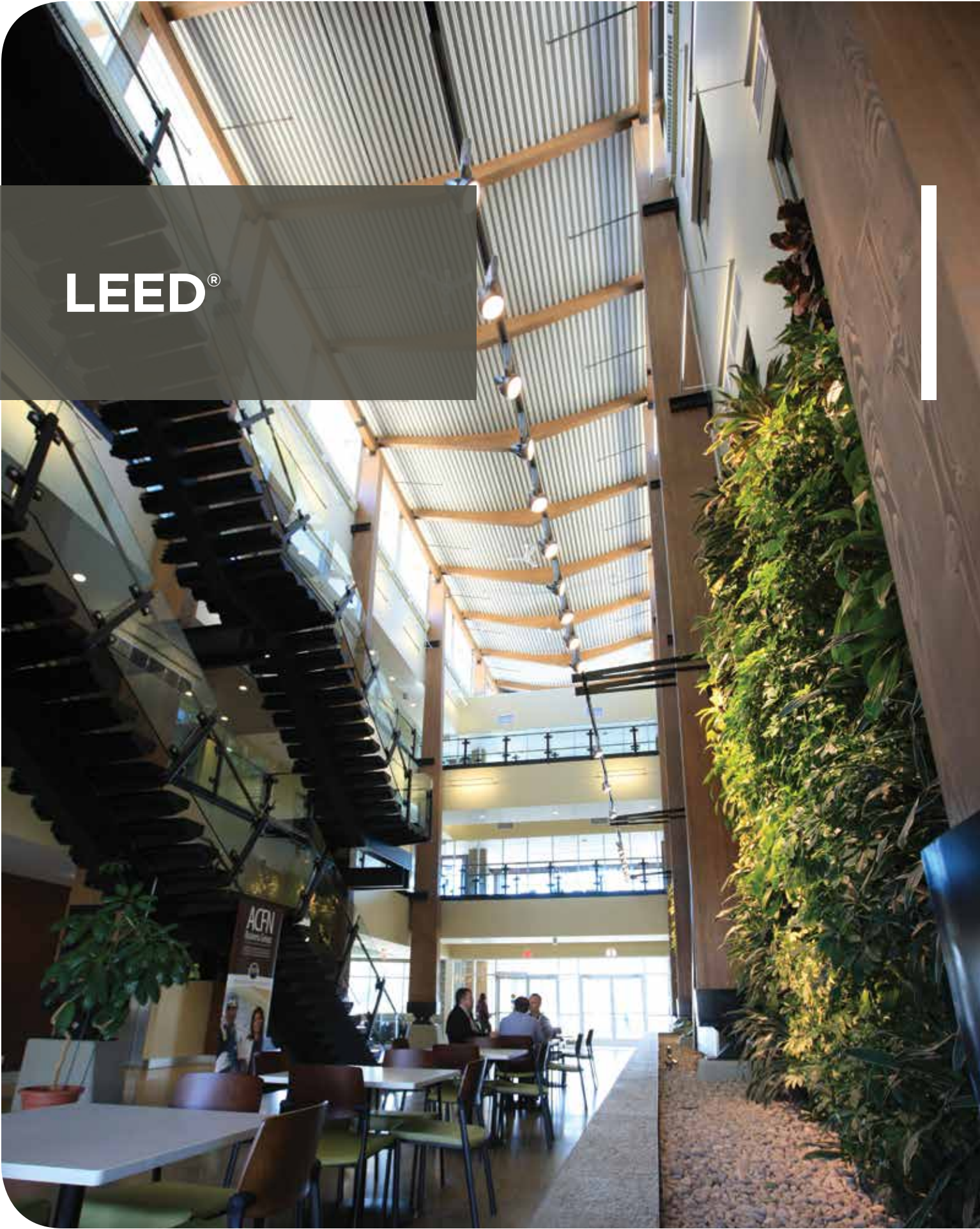
### CaGBC Membership (2013)



## Chapter Network

The Chapter network consists of over 3,000 individual green building professionals and supporters throughout Canada. Education and events delivered by eight Chapters reached over 18,000 participants, growing from 10,000 in 2012. This Chapter membership includes over 800 Emerging Green Builders (EGB) who have joined through events targeted at students and new professionals across the country.

LEED®







The CaGBC holds the license for the Leadership in Energy and Environmental Design (LEED) rating system in Canada. LEED is recognized as the international mark of excellence for green building in over 147 countries. Since 2002, the Canada Green Building Council and LEED Canada have been redefining the buildings and communities where Canadians live, work and learn.

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In 2013, the number of LEED certified buildings exceed previous years with a strong showing of Platinum and Gold projects.

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In 2013, there were more Canadian projects certified to LEED than in any prior year, bringing the total projects certified in Canada to 1,478 with a total of 23,931,679 m<sup>2</sup> of LEED certified space across the country. In addition, 598 projects registered to pursue certification, bringing the total registered and certified projects to 4687.

## LEED v4

The Canadian green building industry and LEED have driven continual improvements in building construction and operation and maintenance, making real impacts on energy and water consumption, waste reduction and occupant well-being. However, the intention has always been for LEED to evolve with the market, and with that intent the USGBC launched LEED v4 in November 2013.

The green building community demonstrated its commitment to taking LEED to the next level by actively engaging in development, submitting over 22,000 comments over the course of six public comment periods. This is a groundbreaking level of engagement for any rating system in the global marketplace today.

The result is the next iteration of the LEED rating system, which is poised to dramatically improve the performance outcomes of buildings. LEED v4 has higher thresholds in energy, water, waste and indoor environmental air quality to ensure that projects continue to drive change. The new rating system has also added Environmental Product Declarations, life cycle assessment, material ingredient and sourcing reporting as next steps in starting to understand the environmental impacts from materials.

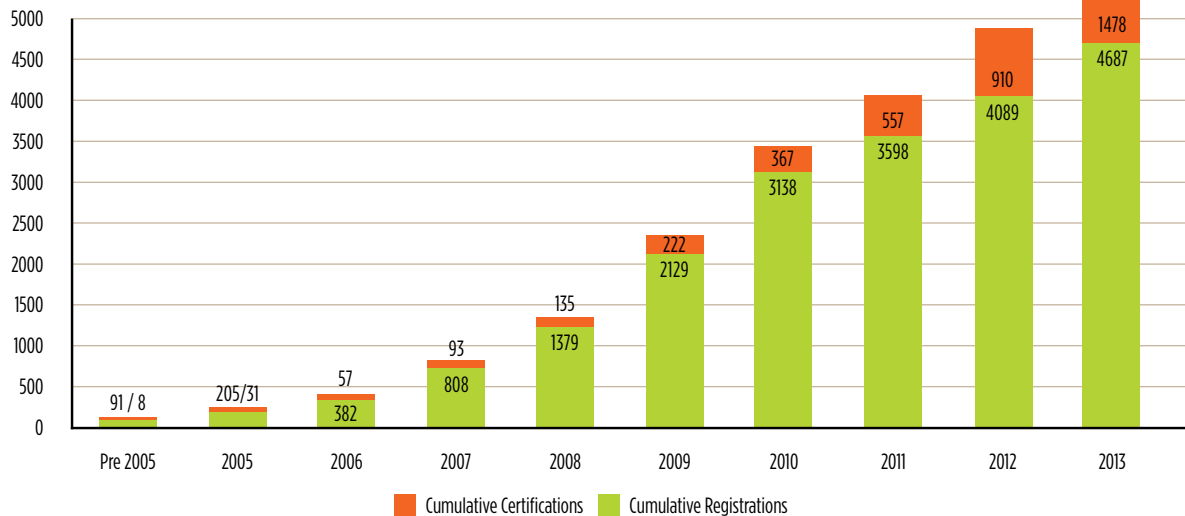
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CaGBC signed an expanded business agreement and LEED license with USGBC to deliver LEED v4 and certify LEED projects in Canada.

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LEED v4 was developed to be globally consistent and locally relevant, thus no longer requiring extensive adaptations to the Canadian marketplace. Instead, CaGBC has developed Regional Priority Credits which were available at the launch of v4 for Canadian practitioners. In the fall of 2013, CaGBC started the development of Alternative Compliance Paths, which will permit users to demonstrate compliance following Canadian standards, regulations, guidelines and practices. These will be launched at Building Lasting Change 2014.

## LEED® Project Registrations/Certifications



The movement toward LEED v4 will make all 21 LEED rating systems available to Canadian practitioners and owners. New rating systems for data centres, hotels, and warehouses will be accessible along with other specific project types such as retail, schools and health care.

CaGBC will continue to provide certification reviews under LEED v4 using LEED Online to manage the submission process as well as certification review. LEED Online provides a platform for the whole project team to coordinate their work, view their areas of responsibility and upload the supporting documentation that is needed.

## LEED Canada EB: O&M

Ongoing operations and maintenance are critical elements in the life cycle performance and impact of buildings as well as the experience of occupants. For this reason a great deal of attention was given to the LEED Canada for Existing Buildings: Operations and Maintenance (EB: O&M) rating system in 2013.

**EB: OM projects represented 31 per cent of the total building space registered in 2013, and 28 per cent of certified space.**

Following the publication of the Application Guide for Multiple Building Projects, several LEED Canada EB: O&M projects took immediate advantage of the opportunity to have the performance of two or more buildings evaluated simultaneously. Also in 2013, the requirements for LEED Canada EB: O&M recertification were published. With the guidelines available to ensure the recertification process is both expedient and rigorous, property owners and managers are now able to demonstrate the continued high performance of their buildings.






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### First double certification of projects under LEED NC followed by LEED EB: O&M.

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Fresh updates to the reference guide were published, and the long awaited launch of Portfolio Manager by Natural Resources Canada provided practitioners with a national program to benchmark energy performance using Canadian building data. Following consultation with NRCAN and the industry, the CaGBC developed grandfathering provisions to provide time for LEED EB: O&M projects to adapt to the new benchmarking program.

## LEED Canada for Homes

In 2013, 520 Canadian LEED Homes projects were certified, bringing the total to 1,421 homes certified in Canada. Additionally, in April 2013 the Council launched an Affordable Green Housing Program which provides incentives such as free registration and certification, to charitable housing projects across Canada. To date the program has supported the sustainable construction of 22 affordable housing projects, with another 42 registered for certification.

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### CaGBC launches green affordable housing program with free registration and certification for Habitat for Humanity projects.

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## Energy and Environmental Performance Benchmarking

In 2007, the CaGBC embarked on a multi-year project to dramatically improve the energy and environmental performance of existing buildings in Canada, called GREEN UP®. The goal was to develop a program that helped building owners and managers track the energy and water use in their existing buildings and establish performance metrics and baselines.

GREEN UP put a spotlight on the need for building owners and managers to better understand and manage the performance of their buildings. It contributed to and increased the level of benchmarking services and performance reporting nationally. In doing so, it helped engage the existing buildings sector and grow benchmarking activity to the point where it is becoming a mainstream practice for property owners and managers of large and small portfolios in Canada.

Having created momentum for benchmarking services, the CaGBC shifted its efforts in 2013 to advocating for performance measurement and reporting through LEED EB: O&M, and supporting programs like Natural Resources Canada's Canadian version of the U.S. Environmental Protection Agency (EPA) ENERGY STAR® Portfolio Manager tool.

The CaGBC continues to actively encourage and support building performance measurement as an industry practice, and the knowledge and data gained through GREEN UP and LEED EB: O&M will be shared wherever possible to help raise standards and move towards better industry practices.

## Education



As one of Canada's largest and most comprehensive resources for LEED and green building education, the CaGBC meets the needs of thousands of Canadian professionals interested in sustainable building. These professionals range from emerging practitioners who need a solid foundation of green building knowledge to seasoned industry experts who wish to maintain their credentials.

The Council provides training through a number of learning and delivery formats and collaborates with Canadian and international industry authorities to source and deliver green building education on a broad range of topics.

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### CaGBC became a founding member of the Global Coalition for Green Schools, first school recognized in Alberta

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In 2013, the CaGBC began the execution of a three-year strategy focused on improving the alignment of educational programs with industry needs, and expanding the initiatives that offer the most benefit to the Canadian market. To this end, the CaGBC leveraged its regional networks to transition public workshop delivery to the CaGBC Chapters and increase the number of national faculty to 68 individuals.

The CaGBC also increased delivery of web-based content, adding new courses related to life cycle cost analysis and valuation, and courses related to sustainable communities and solar PV analysis. Additionally, the CaGBC further expanded the Higher Education program to include 22 post-secondary institutions across Canada, delivered private on-site workshops to 180 participants, and collaborated with provincial government to provide training to public sector employees.

The CaGBC is always exploring new content and partnership opportunities to ensure we are bringing the best green building education to the industry. In 2013, the Council delivered two new programs, the Sustainable Building Advisor program in Toronto and Vancouver and hosted EcoDistricts workshops in five major Canadian cities including Vancouver, Calgary, Toronto, Ottawa and Montreal.

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### First series of EcoDistricts workshops delivered to cities across Canada under agreement with the EcoDistricts Institute in Portland.

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The Council also worked closely with Canadian Passive House Institute to provide courses in Toronto, Vancouver and Saskatoon, and partnered with the International Living Future Institute to offer the *Understanding the Living Building Challenge* course in Halifax.



## National Conference and Expo



The 2013 CaGBC National Conference and Expo was attended by over 900 attendees including architects, engineers, designers, real estate owners, property managers, and government policy experts and manufacturers. Held in Vancouver from June 4-6, 2013, the conference theme was 'Building Lasting Change' which addressed the need for the buildings and infrastructure being built today to achieve the highest performance and provide environmental, financial and health benefits for generations.

Highlights included keynotes from urbanist Jeff Bruggmann, and environmental activist Robert Kennedy Jr. as well as a Sustainable Cities plenary panel with participants from Shanghai, Vancouver, Hamburg and Washington.

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CaGBC partnered with *SAB Magazine* for the annual green building awards to recognize the best greenest buildings in Canada.

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For the first time, the CaGBC partnered with the University of British Columbia's School of Architecture to include a peer-reviewed technical stream on net-positive design. This stream was also recognized as a part of the international SB2013 Sustainable Building Conference series.

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CaGBC hosts first Legacy project with the Vancouver Native Housing Society delivered as part of the National Conference in Vancouver.

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Sponsored by InterfaceFLOR Canada, the Legacy event was introduced as another new conference activity in 2013. With the goal of leaving an enduring sustainable project in the conference host city, 30 delegate volunteers and staff from the CaGBC and InterfaceFLOR worked together to renovate the common areas of the Vancouver Native Housing Society's senior's residence.

## Governance

The CaGBC governance transition was completed in 2013 and resulted in the adoption of a governance structure that contributed to organizational efficiencies and is better suited to achieving strategic goals. Governance of the Council was strengthened by the adoption of a Policy Board governance model and the introduction of Board committees that better reflect the responsibilities and focus of the new Board.

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### New CaGBC National Board established after extensive governance review.

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National working committees were also restructured to increase collaboration with Chapters and support program planning and decision-making. Changes in governance were supported by modifications in the management structure of the Council to streamline the organization and increase focus to our mission. Lastly, the by-laws of the Council were revised to reflect changes to the Council's governance structure and to comply with the new Canada Not-for-profit Corporations Act (NFP Act).

## Advocacy

Advocacy is a key function of achieving the CaGBC's mission to transform Canada's built environment. In 2013, the CaGBC advised the provincial and territorial public works departments on the implementation of LEED projects under their respective policies through the Building

Technology Transfer Forum organized by the National Research Council (NRC). The CaGBC also successfully worked with the provincial owners of large LEED building portfolios on project implementation. These owners included Alberta Infrastructure and the Manitoba Ministry of Infrastructure and Transportation. On a municipal level, the CaGBC engaged with the cities of Calgary and Ottawa to hone their LEED policies, and participated in the City of Vancouver Green Building Advisory Committee to provide input into the implementation of the Greenest City Action Plan including energy benchmarking and disclosure.

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### The City of Vancouver won a World Green Building Council (WGBC) Government Leadership Award for Best Overall Policy. Vancouver was chosen for its Greenest City 2020 Action Plan for Green Buildings.

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CaGBC has been actively working with the federal Department of International Trade and Development on promoting Canadian green building capabilities in Europe, Latin America and Asia. This work has led to a green building mission to Austria and Italy, culminating in active business to business meetings at the 4th Canada/Europe Green Building forum in Rome. For the first time, an international delegate program was delivered at the 2013 National Conference in Vancouver to explore and solidify export and investment opportunities.

## National Sponsorship

The CaGBC would like to thank our National Sponsors for their support in 2013. National sponsors contribute their support to the National Conference and other CaGBC initiatives at the National and Chapter level.





## Recognizing Excellence



Since 2008, the CaGBC has recognized the outstanding contributions of individuals and organization who have contributed to the advancement of the nation's green building industry. At the 2013 National Conference, awards were presented in the following categories: Academic Leadership, Volunteer Leadership, Chapter Leadership, Emerging Green Builder Leadership, Green Building Champion, Government Leadership, Industry Leadership, and Lifetime Achievement.

### 2013 Leadership Award Recipients:

#### Academic Leadership

The Southern Alberta Institute of Technology (SAIT),  
*Alberta*

#### Chapter Leadership

Simon Knight, *Alberta*

#### Emerging Green Builder Leadership

Laura Paul, *Ontario*

#### Green Building Champion

Keith Robertson, *Nova Scotia*

#### Government Leadership

The Government of Alberta, *Alberta*

#### Industry Leadership

Group Montoni, *Québec*

#### Lifetime Achievement

Cornelia Hahn Oberlander, *British Columbia*

#### Volunteer Leadership

Brenda Martens, *British Columbia*

#### Andy Kesteloo Memorial Student Project Award

Albert Lam, *British Columbia*

## Board of Directors

The Canada Green Building Council is governed by a Board of Directors comprised of a cross-representation of key building industry sectors from across Canada.

### Directors serving in 2013 on the CaGBC National Board

Marie Bourdeau  
*Fasken Martineau Du Moulin LLP*

Nick Caccavella (Vice-Chair)  
*Holcim (Canada) Inc.*

Brian Denney (Secretary)  
*Toronto & Region Conservation Authority*

Richard Iredale  
*Iredale Group Architecture*

Andrew McAllan (Chair)  
*Oxford Properties*

Gail McBride  
*BC Hydro*

Joanne McCallum (Vice-Chair)  
*MSA, McCallum Sather Architects Inc.*

Blair McCarry  
*Perkins+Will*

Thomas Mueller (Ex-officio)  
*President and CEO, Canada Green Building Council*

Rob Otway  
*PCL Constructors Canada Inc.*

Peter Papagiannis (Treasurer)  
*Colliers International*

Conrad Schartau  
*Integral Group*

Ryan Tompkins  
*Business Development Bank of Canada*

Joanne Weir  
*MTS Allstream/University of Manitoba*

#### January–June 2013

Lisa Bate [Chair (Past)]  
*B+H Architects*

Troy Braithwaite [Treasurer (Past)]  
*GovanBrown Construction*

Aaron Caldwell  
*Enermodal Engineering*

Mark Gorgolewski  
*Ryerson University*

Mark Lucuik  
*Morrison Hershfield*

## National Committees and Technical Advisory Groups (2013)

The Canada Green Building Council relies on the time, commitment and passion of its many volunteers participating in National Committees, Technical Advisory Groups (TAGs) and Chapters across the country to advance and achieve its objectives.

### Executive Committee

#### 2013–2014 (as of June 2013)

Nick Caccavella (Vice-chair)  
*Holcim (Canada) Inc.*

Brian Denney (Secretary)  
*Toronto & Region Conservation Authority*

Andrew McAllan (Chair)  
*Oxford Properties*

Joanne McCallum (Vice-chair)  
*MSA, McCallum Sather Architects Inc.*

Peter Papagiannis (Treasurer)  
*Colliers International*

#### 2012–2013 (to June 2013)

Lisa Bate (Chair)  
*B+H Architects*

Troy Braithwaite (Treasurer)  
*GovanBrown Construction Managers*

Brian Denney (Secretary)  
*Toronto & Region Conservation Authority*

Andrew McAllan (Vice-chair)  
*Oxford Properties*

Gail McBride (Vice-chair)  
*BC Hydro*

Joanne Weir (Vice-chair)  
*MTS Allstream/University of Manitoba*

Thomas Mueller and Gayle Maltais  
*Staff Liaisons*



## Audit and Finance Committee

|   |  |   |
|---|--|---|
| Marie Bourdeau<br><i>Fasken Martineau Du Moulin LLP</i> | Peter Papagiannis (Committee Chair)<br><i>Colliers International</i> | Troy Braithwaite (to June 2013)<br><i>Govan Brown Construction Managers</i> |
| Rob Otway<br><i>PCL Constructors Canada Inc.</i>        | Joanne Weir<br><i>MTS Allstream/University of Manitoba</i>           | Gayle Maltais<br><i>Staff Liaison</i>                                       |

## Governance Committee

|  |  |   |
|--|--|---|
| Lisa Bate<br><i>B+H Architects</i>                           | Brian Denney (Committee Chair)<br><i>Toronto &amp; Region Conservation Authority</i> | Richard Iredale<br><i>Iredale Group Architecture</i>    |
| Michael Brooks<br><i>Real Property Association of Canada</i> | Gail McBride<br><i>BC Hydro</i>  | Thomas Mueller and Carla Giles<br><i>Staff Liaisons</i> |
| Aaron Caldwell<br><i>Enermodal Engineering</i>               | Joanne Weir<br><i>MTS Allstream/University of Manitoba</i>                           |   |

## Strategy Committee

|  |  |   |
|--|--|---|
| Nick Caccavella<br><i>Holcim (Canada) Inc.</i>               | Joanne McCallum<br><i>MSA, McCallum Sather Architects Inc.</i> | Ryan Tompkins<br><i>Business Development Bank of Canada</i> |
| Andrew McAllan (Committee Chair)<br><i>Oxford Properties</i> | Conrad Schartau<br><i>Integral Group</i>                       | Thomas Mueller and Carla Giles<br><i>Staff Liaisons</i>     |
| Gail McBride<br><i>BC Hydro</i>                              |  |   |

## National Education Committee

|  |  |   |
|--|--|---|
| Adam Stoker and Tanya Doran<br><i>Alberta Chapter</i>    | Hazel Farley and Dana Sperling<br><i>Greater Toronto Chapter</i> | Bruno Demers and Marie Vallée<br><i>Québec Chapter</i>  |
| Lara Ryan<br><i>Atlantic Chapter</i>                     | Dan McInnis and Alara Matsyk<br><i>Manitoba Chapter</i>          | Tom Myers and Pam Jansen<br><i>Saskatchewan Chapter</i> |
| Annah Henige and Mona Lemoine<br><i>Cascadia Chapter</i> | Diane Beaulieu and Grant Stewart<br><i>Ottawa Chapter</i>        | Bryan O'Connor<br><i>Staff Liaison</i>                  |

## Emerging Green Builders National Committee

|   |   |   |
|---|---|---|
| Jessie Roy<br><i>RWDI Air Inc.</i>                            | Aman Hehar<br><i>Morrison Hershfield</i>  | Laura Paul<br><i>Morrison Hershfield (Committee Chair) Ottawa Chapter</i> |
| Trish Bolen<br><i>ACI Architects Inc. Alberta Chapter</i>     | Nazia Tirmazi<br><i>Century Group Constructors Inc. Greater Toronto Chapter</i> | Marie-Claude Hamelin<br><i>Econoler Québec Chapter</i>                    |
| Adam Hayter<br><i>Efficiency Nova Scotia Atlantic Chapter</i> | Harmon Livingston<br><i>Stantec</i>   | Troy Tilbury<br><i>Tilbury Design Ltd. Saskatchewan Chapter</i>           |
| Scott Gomeshi<br><i>Integral Group Cascadia Chapter</i>       | Donal O'Connor<br><i>SMS Engineering Ltd. Manitoba Chapter</i>                  | Carla Giles<br><i>Staff Liaison</i>                                       |
| Tristen Truyens<br><i>DIALOG</i>                              | Fin MacDonald<br><i>Morrison Hershfield</i>                                     |   |

## LEED Canada Steering Committee

Cindy Choy  
*Ministry of Infrastructure and  
Transportation, Government of  
Manitoba*

Sébastien Garon  
*SÉBASTIEN GARON | Architecture  
+ Design*

Jamie James  
*Tridel and Towerlabs*

Steve Kemp  
*MMM Group Ltd.*

Edwin Lim  
*Pinchin (until April 2013) /  
ECOLibrium (as of May 2013)*

Mark Lucuik (Co-chair)  
*Morrison Hershfield*

Brenda Martens  
*Aedify*

Jennifer Sanguinetti (Co-chair)  
*BC Housing*

Robert Smith  
*Minto Group/GreenSoil Building  
Innovation Services*

Alex Zimmerman (Co-chair)  
*Applied Green Consulting Ltd*

Colleen Loader and Mark Hutchinson  
*Staff Liaisons*

## LEED Canada for Homes Technical Advisory Steering Committee

Kyle Anders  
*Mindscape Innovation Group*

Tom Awaram  
*Adera Group*

Angela Bustamante  
*Building Knowledge*

Noel Cheeseman  
*Equanim Systems*

Emmanuel B. Cosgrove  
*Ecohabitation*

Allan Dobie  
*Dark Green Consulting*

Troy Glasner  
*E3 Eco Group*

John Godden  
*Clearsphere*

Derek Hickson (Chair)  
*Minto Group*

Andrew Oding  
*Building Knowledge Canada*

Juliette Patterson  
*Catalyse Urbaine*

Chris Williams  
*Avalon Master Builder*

Chris Higgins  
*Staff Liaison*

## Technical Advisory Group (TAG): Sites and Water

Crystal Bornais  
*Prairie Architects Inc.*

Jim Breadon  
*Phillips Farevaag Smallemberg*

Stephen Carpenter (Co-chair)  
*Enermodal Engineering*

Russ Golightly  
*City of Calgary Corporate  
Properties*

Susan Kapetanovic-Marr  
*Morrison Hershfield*

Braden Kurczak  
*MMM Group Ltd.*

Brenda Martens (Chair)  
*Aedify*

Jennifer Payne  
*AMEC Earth and Environmental*

Grant Peters (Vice-chair)  
*Fluent Group*

Lisa Prime  
*Waterfront Toronto*

Selena Schroeder  
*Recollective Consulting*

Lyle Scott  
*Footprint*

Joe Stano  
*Kane Consulting*

Lauren Spudowski  
*Morrison Hershfield*

Mitch Strocen  
*aodbt architecture + interior design*

Graham Twyford-Miles  
*Stantec Consulting Ltd.*

Mike Williams  
*CDML (Ontario) Inc.*

Colleen Loader and Ghislaine Miliu  
(née Johnson)  
*Staff Liaisons*

## Technical Advisory Group (TAG): Energy and Engineering

Christian Cianfrone  
*Morrison Hershfield*

Jim Clark  
*Natural Resources Canada*

Clément Guénard  
*Arborus Consulting*

Kevin Henry  
*HDR Architecture Associates, Inc.*

Curt Hepting  
*Energys Analytics Ltd.*

Steve Kemp (Chair)  
*MMM Group Ltd.*

Wendy MacDonald  
*Advicas Group Consultants Inc.*

Jason Manikel  
*Halsall Associates Ltd.*

Craig McIntyre  
*Provident Energy Management Inc.*

Andrew Morrison  
*Caneta Research Inc.*

Martin Roy  
*Martin Roy et Associés Groupe  
Conseil Inc.*

Jennifer Sanguinetti  
*BC Housing*

Gordon Shymko  
*G. F. Shymko & Associates Inc.*

Kevin Stelzer  
*B+H Architects*

Eric Van Benschoten  
*Van-Fort Inc.*

Cloelle Vernon and Charling Li  
*Staff Liaisons*

## Technical Advisory Group (TAG): Materials

Pam Barteaux  
*Province of New Brunswick Supply  
& Services*

Sheila Brown (Vice-Chair)  
*Stantec Consulting Ltd.*

Stan Bury  
*Perkins+Will*

Sarah Chernis  
*Smith Carter*

Joël Courchesne  
*Courchesne et associés inc.*

Sébastien Garon (Chair)  
*SÉBASTIEN GARON |  
ARCHITECTURE + DESIGN*

Jamie MacKay  
*Morrison Hershfield*

Guillaume Martel  
*BLOUINTARDIF*

Alan Murphy  
*Green Reason*

David Rekker  
*MMM Group Ltd.*

Kim Rishel  
*EllisDon Construction Services Inc.*

Keith Robertson  
*Solterre Design*

Shawn Vanderheyden  
*PCL Constructors Canada Inc.*

Randy Van Straaten  
*Building Science Consulting Inc.*

Jenie Yao  
*Staff Liaison*

## GREEN UP® Committee

Michael Dennison  
*Natural Resources Canada*

Roger Johnson  
*TD Bank Group*

Tom Kovendi  
*Avalon Facilities Management*

Ed Lim (Chair)  
*Pinchin (until April 2013)/  
ECOLibrium (as of May 2013)*

Bruce Muise

Nancy Searchfield  
*Colliers International*

Doug Webber  
*Halsall Associates Ltd.*

Kirk Johnson and Monique Goguen  
*Staff Liaisons*



# Thank you



We sincerely acknowledge the support and work of our members, volunteers and staff for their dedication to green building, neighbourhoods and communities in Canada.

## CaGBC Chapters:

### Alberta Chapter

Tanya Doran  
*Executive Director*

Cam Munroe, Clark Builders  
*Chair*

William Thompson, WT  
Green Building Consulting  
*Chair (as of March)*

### Atlantic Chapter

Lara Ryan  
*Executive Director*

Aaron Caldwell,  
MMM Group Ltd.  
*Co-Chair*

Tim McLeod, CBCL Limited  
*Co-Chair*

### Cascadia Chapter (B.C. Region)

Mona Lemoine  
*Executive Director*

Mary Louise Vidas,  
Vidas Architecture  
*Chair*

Richard Iredale, Iredale  
Group Architecture  
*Chair (as of Q2)*

### Greater Toronto Chapter

Hazel Farley  
*Executive Director*

Shawn Vanderheyden, PCL  
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### Ottawa Chapter

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Facility Solutions Inc.  
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### Québec Chapter

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Charles-Henri Brunet,  
Espace Construction Inc.  
*Chair*

Josée Lupien, Vertima  
*Chair (as of Q3)*

### Saskatchewan Chapter

Tom Meyers  
*Executive Director*

Gary Tollefson  
*Chair*

## Environmental impact metrics

1. Energy savings account for modelled building energy savings, industrial process energy savings (where reported), and renewable energy, compared to the ASHRAE 90.1 or MNECB baseline referenced in the applicable LEED rating system. Home energy use equivalency based on average energy use of 106 GJ, as reported by Statistics Canada in Households and the Environment Survey: Energy Use, 2007, Catalogue no. 11-526-S. <http://www.statcan.gc.ca/pub/11-526-s/2010001/t004-eng.htm>
2. Greenhouse gas emissions based on Canada's National Inventory Report. Car emission equivalency from U.S. EPA's Greenhouse Gas Equivalency Calculator, available at <http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results>.
3. Water savings calculated using the baselines established in the LEED Canada-NC and LEED Canada-CI Reference Guides. Olympic swimming pool equivalency assumes 2,500,000 L per pool, as reported here: [http://en.wikipedia.org/wiki/Olympic-size\\_swimming\\_pool](http://en.wikipedia.org/wiki/Olympic-size_swimming_pool).
4. Garbage truck load equivalency assumes a truck load capacity of 20 cubic yards, a common size for garbage trucks, and a waste density of 210 kg/m<sup>3</sup>, per the LEED Canada-NC 1.0 Reference Guide for Mixed Constructions Waste.

## Since 2005 LEED Canada has led to:



Energy savings of **2,630,652** eMWh which is enough to power **89,271** homes in Canada for a full year.



A **512,672** CO<sub>2</sub>e tonne reduction in greenhouse gas emissions which equates to taking **96,913** cars off the road for a year.



Water savings totalling over **5.6 billion** litres, the equivalent of **2,252** Olympic-sized swimming pools.



Recycling over **2.7 million** tonnes of construction/demolition waste which represents **841,126** garbage trucks.



Installing **121,309** sq metres of green roofs, or an area the size of **80** NHL hockey rinks, to reduce the urban heat island effect and mitigate storm water flows in urban areas.



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