

THE GROWTH OF GREEN BUILDING

WHITE PAPER: UNDERSTANDING THE VALUE THAT GREEN
BUILDING PROVIDES



ClimateWise
Business Network

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Over the last several years there has been an increase in the interest around green building and operations. It is not uncommon to find out that many new construction projects and existing buildings have some aspect of green construction or technology implemented into their operations.

Full Speed Ahead

The Canadian Green Building Council (CaGBC), a not-for-profit national organization which holds the license for the LEED green building rating system has seen a steady rise in LEED certifications, with a record 527 LEED projects certified in 2015¹. BOMA Canada's national green building certification program – BOMA BEST, has 4,124 certified buildings across Canada since its inception in 2005². In 2014 BOMA Canada reported 562 certified buildings. A staggering **70% of those buildings achieved above the base certification, Level 2 or higher** – a number that is up 12% from the previous year. Similarly, the number of base LEED Certified buildings in Canada represents only 18% of the total certifications in 2015. **430 LEED certified buildings achieved Silver or higher**, including 36 impressive buildings that achieved LEED Platinum.

¹On-Site Magazine, 2016. Web. <http://www.on-sitemag.com/construction/final-2015-leed-certification-numbers-show-steady-growth-in-canadian-green-building/1003953121/>

² BOMA Canada National Green Building Report, 2015. Web. file:///C:/Users/Iris%20Tufa/Downloads/2015-NGBR-Full-Report.pdf

Undertaking a green building certification is an energy and financially intensive process. The CaGBC's [project fees](#) are available online and vary due to square footage, CaGBC membership and certification type. It can cost up to \$5,000 to register a LEED New Construction project for a building under 25,000 m²³. That price does not include the certification costs (\$/m²), consultant costs, recommissioning costs etc.

Despite the expenses associated with green buildings, studies consistently show that green buildings produce happier, more engaged and more productive employees⁴.

Green building is a holistic concept that starts with the understanding that the built environment can have profound effects, both positive and negative, on the natural environment, as well as the people who inhabit buildings every day. Green building is an effort to amplify the positive and mitigate the negative of these effects throughout the entire life cycle of a building.

It is generally accepted as the planning, design, construction, and operations of buildings with several central, foremost considerations: energy use, water use, indoor environmental quality, material selection and the building's effects on its site.

US Green Building Council, 2016

In fact, this movement has been so strong that last year GBCI (Green Business Certification Inc.) introduced the [WELL Building Standard](#). WELL

³ Canadian Green Building Council Project Fees, 2016. Web.

<http://www.cagbc.org/CAGBC/LEED/CommercGreenBuild/ProjectFees/CAGBC/Programs/LEED/CommercialInstitutional/ProjectFees.aspx?hkey=85ee4b22-5ee4-4558-a59c-d7d304f58e00>

⁴ World Green Building Council, n.d. Web.

http://www.worldgbc.org/files/6314/1152/0821/WorldGBC__Health_Wellbeing__productivity_Full_Report.pdf

was pioneered by Delos, and is managed by the International WELL Building Institute and administered by the GBCI. It takes a holistic approach to health in the built environment addressing behavior, operations and design. WELL represents a shift in the way we view buildings and their purpose – with a focus on people and environment first. As of June 2016, WELL had enrolled 154 building projects in 17 countries⁵.

Top Triggers of Green Building

Green building practices are widely adopted globally and can present a competitive advantage. **Client demand** is among the top triggers for green building and continues to grow⁶. **Tenant satisfaction** is a key driver for building owners, especially for securing long term leases with anchor tenants like large companies. According to a report on sustainability and real estate by Deloitte, **large publicly traded**

Some leading businesses are now shifting their thinking from “how much will green building cost my business?” to “how much will not investing in green building cost my business?”

⁵ REMI Network, 2016. Web. <https://www.reminetwork.com/articles/td-bank-is-canadas-first-well-certified-project/>

⁶ Smart Market Report, 2016. Web.

<http://fidic.org/sites/default/files/World%20Green%20Building%20Trends%202016%20SmartMarket%20Report%20FINAL.pdf>

retail tenants are forcing more sustainable features in buildings and more efficient management⁷.

Also, according to a 2013 United Nations Global Compact's Corporate Sustainability report, approximately 63% of respondents are aligning their core business strategy to advance their sustainability goals⁸.

According to the 2013 World Green Building Council's report on "The Business Case for Green Building", some leading businesses are now shifting their thinking from "how much will green building cost my business?" to "how much will not investing in green building cost my business?"⁹. The impact of green building on business is clearly being noticed across the industry.

It is timely and prudent for building owners to incorporate sustainability into building design and management in order to better align with their key clients' values.

Tenants are shifting their operations to account for sustainability, employee health and wellness and transparency. As more companies adopt the practice of **public reporting**, whether through annual sustainability reports, government reporting or initiatives such as Carbon

⁷ Deloitte Center for Financial Services, 2014. Web.

<https://www2.deloitte.com/content/dam/Deloitte/us/Documents/financial-services/us-fsi-breakthrough-for-sustainability-in-real-estate-051414.pdf>

⁸ UN Global Compact, 2013. Web.

https://www.unglobalcompact.org/docs/about_the_gc/Global_Corporate_Sustainability_Report2013.pdf

⁹ World Green Building Council, 2013. Web.

http://www.worldgbc.org/files/1513/6608/0674/Business_Case_For_Green_Building_Report_WEB_2013-04-11.pdf

Disclosure Project (CDP), their office space is bound to be a topic of conversation. As such, it is timely and prudent for building owners to incorporate sustainability into building design and management in order to better align with their key clients' values.

What About Asset Value?

The movement towards buildings that are designed with occupants and the environment in mind is at full force, but how tangible are the benefits from an asset management perspective?

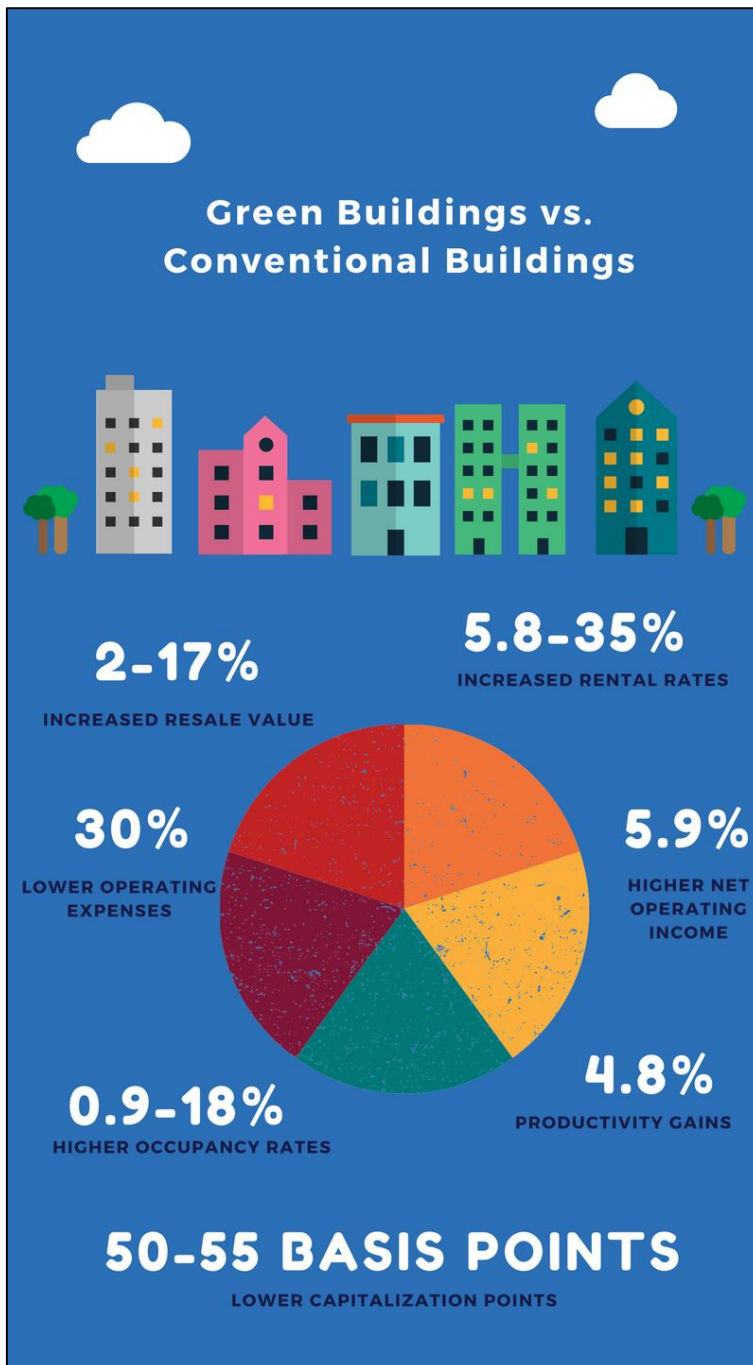
In 2012, the Institute for Building Efficiency, an initiative of Johnson Controls, found that the benefits of green building extend beyond lower energy bills. Green buildings also have the following attributes:

- Increased resale value (2-17%)
- Increased rental rates (5.8-35%)
- Higher occupancy rates (0.9-18%)
- Lower operating expenses (30%)
- Higher net operating income (5.9%)
- Lower capitalization points (50-55 basis points)
- Productivity gains (4.8%)¹⁰

LEED office buildings had a 13% lower average EUI...11% lower average electricity usage... and 16% lower average water usage.

¹⁰ Institute for Building Efficiency, 2012. Web.

<http://www.buildingefficiencyinitiative.org/sites/default/files/legacy/InstituteBE/media/Library/Resources/Green-Buildings/Green-Building-Valuation-Fact-Sheet.pdf>



In addition to these benefits, studies show that green buildings such as those that are LEED certified actually perform better as well. An analysis by the US Green Building Council (USGBC) of the District of Columbia's 2012 Private Building Benchmarking Disclosure data further encouraged the notion that LEED buildings outperform conventional buildings¹¹.

The findings showed that LEED office buildings had a 13% lower average site energy use intensity

(64.0 kBtu/SF vs. 73.3 kBtu/SF), 11% lower average electricity usage (18.0 kWh/SF vs. 20.2 kWh/SF) and 16% lower average water usage (17.9 Gal/SF vs. 21.4 Gal/SF) when compared to non-LEED certified office buildings.

¹¹ Green Building Insight Gateway, 2012. Web. <http://insight.gbig.org/do-leed-buildings-perform-indeed-they-do/>

When comparing a green building to a conventional one, the competitive advantage is very apparent and tangible. Asset managers can benefit from decreased operating costs and from the increase in the building's value.

Meeting Carbon Reduction Targets

By establishing tangible benefits to green building, we can expect adaptation to increase throughout the commercial real estate sector. Buildings can play an important role in managing carbon emissions. This is especially true in Ontario where buildings accounted for 19% of the province's total GHG emissions in 2013¹².

The green building movement is well underway and business case for investing into green building and operations is apparent. As Ontario makes a push towards curbing its emissions, along with the larger movement towards a low-carbon economy, the adaptation of green building practices will continue to be in demand.

To request a copy of this white paper or for questions or comments, please contact ClimateWise@WindfallCentre.ca or [visit the ClimateWise website today](#).

¹² Environmental Registry, 2016. Web. <https://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTI3ODY0&statusId=MTkzMTc3>

About ClimateWise Business Network

ClimateWise Business Network is a sustainability program focused on helping businesses create and meet emissions targets. ClimateWise offers premium tools, access to industry experts and learning and networking opportunities, along with credible green branding and a chance to reap the financial benefits of sustainability.



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