

Green Pages 2 High Performance Buildings

"High performance" or "green" buildings satisfy occupant needs, reduce environmental footprints, use less land, consume less energy and help achieve previously unattainable levels of productivity. They also attract and retain talent because people like to work in – and work more effectively in – green surroundings. Implementations range from sophisticated high-tech building operating systems to easy low-tech solutions like energy-use education, more efficient lighting and recycling programs.

Total leased commercial floor space in Canada is about 4.8 billion square feet or 450 million square meters with aggregate energy operating costs in Canada for leased commercial property about \$7 billion annually. That number could be lowered by 10% almost immediately by implementing more efficient building management strategies.

These are some of the minimum measures that should be implemented:

No capital cost:

- Review preventative and reactive maintenance procedures and confirm that HVAC equipment is clean and running as designed. (Most large commercial buildings are *heating* areas during the hottest months and *cooling* areas during the coldest months because of inefficient HVAC). Tenants pay for this waste. Ultimately we all do.
- Test electrical and mechanical systems to ensure operational settings are correct
- Perform a walk-around inspection insuring that there are no hotspots or cold spots
- Perform random tests of water temp settings to ensure hot water is not beyond proper temperature
- Inspect all areas of building where equipment use – and therefore energy use - is higher than normal and ensure that equipment not in use is not turned on
- Promote intelligent building-wide practices: turn off computers, coffee makers, fax machines, photocopiers and lights when not in use,
- Recycle everything possible

Minimal capital cost:

- Evaluate re-lamping strategies with consideration given to timers and motion sensors
- Consider electrical demand limiting hardware and software
- Provide ample bike racks and ensure that they are well maintained and convenient to use
- Ensure parking areas are sufficiently staffed and equipped to prevent energy wasting and unhealthy end-of-day-lineup engine idling

Green building standards:

BOMA (Building Owners and Managers) **Go Green and Go Green Plus** are national environmental recognition and certification programs for existing commercial buildings. Buildings of any size can participate; application materials are available on the BOMA website or through local BOMA associations. The program is about much more than just certification: the application process will help assess how well your building is performing and includes suggestions for tangible ways to improve environmental practices. <http://www.bomagogreen.com/>

The **LEED** (Leadership in Energy and Environmental Design) **Rating System** is a voluntary, consensus-based international standard for developing high-performance, sustainable buildings. The rating system was designed by leading experts in the construction industry to promote buildings that are economically profitable, environmentally friendly and healthy, productive places to work. It was launched by the U.S. Green Building Council, a non-profit group that consists of architects, government planners and suppliers of green products and services. LEED is becoming an industry standard for new construction (LEED-NC) and existing buildings (LEED-EB).

It is embraced by many real estate organizations including the World Green Building and Canada Green Building Councils and is considered to be the international standard for measuring building efficiency. It is also the standard recognized by the **Clinton Foundation C40 Cities Climate Leadership Energy Efficiency Building Retrofit Program** <http://www.c40cities.org/> which is making \$5 billion US available to 40 cities – including Toronto – at a preferred rate for the purpose of retrofitting existing commercial buildings to increase their energy efficiency.

http://www.cagbc.org/building_rating_systems/leed_rating_system.php?id=25&press=1&draw_column=3:3:2 , <http://www.usgbc.org/DisplayPage.aspx?CategoryID=19>

A number of Toronto CREW members are working on receiving LEED accreditation in their areas of expertise.

Useful tools:

Energy performance indicators chart from The Consortium of Energy Efficiency
<http://www.cee1.org/com/bldgs/cb-ga.pdf>

Athena Institute Ecocalculator - this tool was commissioned by the Green Building Initiative™ (GBI) for use with the Green Globes™ environmental assessment and rating system.

<http://www.athenasmi.ca/tools/ecoCalculator/index.html>

Alliance for a Sustainable Built Environment <http://www.greenerfacilities.org/>

Great new blog from Andrew Savitz – author of The Triple Bottom Line:
<http://www.getsustainable.net/blogfiles/blog.html>

Karen Sisco - member BOMA, Canada Green Building Council, CORENET, Canadian Urban Institute and Toronto C.R.E.W - through her company KSE creative INC www.ksebiz.com, specializes in project management, sustainability marketing/communications initiatives and “green” corporate, tenant and leasing gifts for the commercial real estate community. Contact her at karensisco@ksebiz.com 416-473-4711 with news on your company’s green programs.

