

# STRATEGIES FOR SUSTAINABILITY

THE GLOBE AND MAIL

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SECTION SFS

## Build it green and they will come

As the world's population is approaching nine billion people, with more than half living in cities, measures for increasing environmental sustainability gain critical importance for our quality of life, says Toby A. A. Heaps, CEO of Corporate Knights. And green buildings are part of the solution.

While a range of innovative technology and expertise is readily available in Canada, up-front costs are often high. Yet, as illustrated by the new TELUS Garden project in downtown Vancouver, making sustainability a common denominator can send a strong signal to tenants, stakeholders, employees and the community at large – it also makes good business sense.

TELUS Garden is more than a green building – it's a statement attesting to the brand's commitment to "create a healthier, more sustainable future," says Andrea Goertz, chief sustainability officer at TELUS. "We feel we have a responsibility to current and future generations to build sustainability into our decision-making and embed it into our business practices," she says, adding that new buildings present opportunities for "using innovation to push sustainability goals."

"TELUS Garden is certainly pushing boundaries in regard to technological and environmental advances," says Gregory Henriquez of Henriquez Partners Architects, whose firm was responsible for designing the million-square-foot project that includes a 22-storey office tower and a 47-storey residential tower.

Mr. Henriquez says it's been an extremely rewarding project where all partners shared the vision of achieving exemplary levels of sustainability – the office building targets the 2009 Leadership in Energy and Environmental Design (LEED) Platinum standard.

"In Vancouver, there is a mandatory LEED Gold requirement for conventional [office buildings] zoning, which is already very high. Taking it to the next level required much more rigour and care," he says, adding that the residential tower meets the LEED Gold standard.

Vancouver-based developer and TELUS Garden project partner Ian Gillespie of Westbank says the combination of office and residential uses already lent itself to energy savings. He explains that a district energy system was installed. It captures heat from an existing adjacent TELUS network facility and redistributes it to the new development. Given the higher heat



Every aspect of the TELUS Garden project has been designed with sustainability in mind. SUPPLIED

"Not only is it beautiful from an aesthetic point of view, but with its air quality and the amount of green space, it's going to be an incredible place to work."

**Andrea Goertz**  
is chief sustainability officer at TELUS

demand for the residential tower, additional heat is harnessed from the new office tower and even the elevators. This allows TELUS Garden to reduce carbon dioxide emissions by one million kilograms annually. Other features include triple-paned windows, solar panels, 100 per cent fresh air and operable windows.

"Add all that together and you have a building that is not just one of the first LEED Platinum office buildings in North America, but also uses 80 per cent less grid energy than buildings of comparable size in Vancouver," says Mr. Gillespie.

The focus on sustainability makes the project more expensive – the price

tag is \$750-million – and requires "a lot more effort," says Mr. Gillespie. Most buildings offering space to tenants in Vancouver were built 20 or 30 years ago, he says. "Think about how far technology has come since then. Think about how your cell phone has changed, for example, but buildings haven't. Yet the technology is out there. Putting this effort into every aspect of the project, that's what TELUS Garden is about."

While the project partners believed this market was under-served, the question was how tenants would respond, says Mr. Gillespie. "Would tenants share those values? We found that yes, that's exactly what happened." He

explains that the building offers half a million square feet of new office space, the majority of which was leased well ahead of its competitors.

The building's performance on environmental aspects was a key topic for engaging tenants, Ms. Goertz confirms. "It's been an important attractor for like-minded companies."

This commitment to sustainable development is not limited to TELUS Garden tenants but extends to stakeholders and customers, says Ms. Goertz. It's also a subject employees, especially millennials, are passionate about. In TELUS offices across the country, employees have suggested measures like installing solar panels, retrofitting lighting, diverting waste and shifting to a hybrid fleet, she explains. The organization's Work Styles program, where team members have the flexibility of working from home, also contributes environmental benefits.

"Increasingly, we see that people are making their decisions based on whether they want to participate with companies on a variety of aspects, including sustainability," says Ms. Goertz. Mr. Henriquez agrees, "It's part of the zeitgeist that everyone is focused on global warming and sustainability."

Mr. Heaps has seen a trend where a growing number of Canadian businesses, as well as shareholders and investors, take sustainability performance seriously. "It's amazing to see TELUS leading the way on green real estate, which is a huge – and profitable – part of the solution," he says, explaining that the higher up-front cost of green buildings can be recovered through lower energy cost in the following years.

For Ms. Goertz, TELUS Garden's appeal goes beyond energy savings. "Not only is it beautiful from an aesthetic point of view, but with its air quality and the amount of green space, it's going to be an incredible place to work."

"It is a demonstration of how seriously we take not only financial prosperity but also social well-being and environmental leadership," says Ms. Goertz, who believes that government and businesses should join ranks when it comes to tackling climate change. "We all have a responsibility to do what we can to drive environmental accountability."

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### OPPORTUNITIES

## Getting set to thrive in a low-carbon economy



TD Bank Group's sustainable energy efficient design (SEED) branch in Mississauga is 38 per cent more energy efficient than a traditional branch. SUPPLIED

Change often creates anxiety, and the global journey toward a low-carbon economy is no exception. "People often assume that you can either be 'green' or have a robust economy, but not both," says Karen Clarke-Whistler, chief environment officer at TD Bank Group. "But that's not true. Our research indicates that a strong economy and a healthy environment go hand in hand. In fact, the environment is creating tremendous opportunities in every segment of the economy."

The bank has become so confident in those opportunities that last year it released a \$500-million, three-year

institutional bond whose proceeds are being used to support the green economy in three specific areas: renewable energy, green buildings, and green infrastructure and sustainable land use. A first for a Canadian commercial bank, the green bond was an instant success, selling out almost immediately and attracting 12 new institutional investors to the bank. "This was a clear sign to us that there is a real appetite for these kinds of offerings," says Ms. Clarke-Whistler, who adds that the bank developed the understanding and expertise to put the bond together through its **Green, Page SFS 3**

### INSIDE

**WILD WEATHER.** Presenting tangible measures for reducing extreme weather risks. **SFS 2**

**ENERGY SYSTEMS.** Shift to lower carbon future requires innovation, solutions. **SFS 4**

**'WHAT IF' SCENARIOS.** Where to get advice on adapting to climate change. **SFS 5**

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## STRATEGIES FOR SUSTAINABILITY

## OPINION

## Adapting to wild weather



By Dr. Blair Feltmate  
Intact Chair, Climate Adaptation  
University of Waterloo

As a result of being on the front lines of the costly impacts of climate change, the property and casualty (P&C) insurance sector in Canada is leading efforts to help de-risk the country from the growing impacts of wild weather. Before describing some of those efforts, it is important to recap the burden that the industry has faced to date, and to characterize the worsening challenges yet to come.

Up until 2008, the Canadian P&C sector could count on about \$200- to 500-million per year in total catastrophic loss claims. However, starting in 2009, things began to change, with total claims exceeding \$1-billion per year, every year, up to and including 2014. Topping these escalating costs, most Canadians will recall that 2013 was particularly problematic, with total claims exceeding \$3.4-billion, due primarily to floods in Calgary and Toronto. These claims have taken their toll on insurers, as evidenced by the fact that for nine of the past 11 years in Canada, total annual claims payments have exceeded income derived through premiums. Obviously, this situation is not sustainable.

Given this reality, the question becomes, how do we de-risk Canada relative to extreme weather – and not only the wild weather that we have experienced to date, but also the worsening weather to be experienced



In the face of the acceleration of climate change and extreme weather events, the Climate Change Adaptation Project aims to identify actionable and scalable adaptation efforts that can help to reduce risks in Canada. ISTOCKPHOTO.COM

Climate science has established, without doubt, that the primary factor driving climate change is the burning of fossil fuels on the planet.

going forward. And to be clear, the assuredness of more extreme weather in the future is categorical. Climate science has established, without doubt, that the primary factor driving climate change is the burning of fossil fuels on the planet. According to the International Energy Agency, coal, oil and natural gas currently contribute one-third each to 80 per cent of the world's energy supply – by 2030, this generation mix will not alter;

however, the footprint of greenhouse gas emissions will increase by about 20 per cent, due to a global population expanding at a rate of about 90 million people per year.

Recognizing that climate change and extreme weather events are not about to go away, what is Canada to do? The answer can be found, at least in part, through adaptation – that is, deploying means by which risk due to extreme weather can be taken out of the system. This leads us back to the leadership of the property and casualty insurance sector.

Beginning in 2014, and running until 2016, the University of Waterloo, with support from Intact Financial Corporation, launched 20 research studies across Canada, housed under the Climate Change Adaptation Project. The primary purpose of this initiative is to identify actionable and scalable adaptation efforts that can be deployed in Canada with a positive return on investment (ROI). Many of the studies – which include the naturalization of coastal shorelines, replacing impermeable parking lots with permeable surfacing and building naturalized water retention ponds in downtown cores – remain ongoing. However, one study that has been completed, the Home Adaptation Audit Program, has shown tremendous potential to de-risk Canada relative to the growing burden of basement

flooding, which has become familiar to too many Canadians.

The Home Adaptation Audit Program consists of a trained assessor reviewing a home, primarily for flood potential, based on about 100 points of evaluation. This audit generally identifies half a dozen recommendations that can be deployed in an afternoon by a homeowner for little to no cost, which can substantially reduce the future risk of basement flooding. Research has shown that upon completion of a home audit, the average homeowner will act upon 70 per cent of the audit recommendations within six to eight weeks of the audit. Typical examples of audit recommendations that can de-risk a property include disconnecting downspouts from weeping tiles, covering window wells with transparent plastic covers and contouring around a house to direct water away from the foundation – this is not advanced physics. For every \$1 spent on the Home Adaptation Audit Program, the return on investment relative to avoided flood losses, over a 10-year period, is in the range of \$6 to 12. This ROI mirrors the findings of similar research conducted in Australia.

A nationally deployed Home Adaptation Audit Program, along with other adaptation initiatives, can offer practical and cost-effective steps to de-risk Canada from the otherwise growing burden of extreme weather.

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With guidance from instructor Sarah Van Borek, students at Emily Carr University of Art and Design developed content that illustrates the natural capital for specific wetlands and beaches in Vancouver. SUPPLIED

## TECHNOLOGY

## Natural capital – what's it worth?

There is universal recognition of nature's benefits: trees clean our air, wetlands filter our water, green urban spaces absorb carbon and cool our cities. Still, it can be hard to assign a numeric value to these benefits to describe exactly what the natural capital of a particular place is worth.

An app developed by the David Suzuki Foundation (DSF), in partnership with Emily Carr University of Art and Design and OCAD University, formerly the Ontario College of Art and Design, goes the extra distance of assigning dollar values to natural spaces.

Students participating in the Social Practice and Community Engagement (SPACE) minor program at Emily Carr created digital narratives to support the app, says professor Susan Stewart, dean of integrated studies. "With this app, you could be standing somewhere in Vancouver, in Camosun Bog for example, and receive information about

the site, including its estimated worth as natural capital."

Ms. Stewart explains that students developed content for specific wetlands and beaches in Vancouver (the land types that rank the highest in natural capital value for B.C.'s Lower Mainland according to DSF's recent study) by producing videos that contain site information and interviews with experts, such as conservationists or First Nations elders.

"This has incredible cultural, social and economic worth," says Ms. Stewart, adding that the initiative is not only in line with Emily Carr University's stated interest in sustainability, it also provides a space for students' contribution to positive change.

"Students are coming into the school with great motivation. They are well aware that climate change is happening and about the many issues around sustainability. We want to help activate this motivation," she says.

For more information, visit [www.youtube.com/watch?v=cEUsnP8BzuM](http://www.youtube.com/watch?v=cEUsnP8BzuM).

Visit [globeandmail.com/adv/strategiesforsustainability](http://globeandmail.com/adv/strategiesforsustainability)

REPORTS

# Demonstrating environmental accountability

They can be complex, time-consuming and costly to produce, but sustainability reports that highlight an organization's social, environmental, governance and economic priorities, programs and performance pay off in myriad ways.

"You're trying to build trust and you're trying to build your reputation," says Julie Desjardins, director of reporting and capital markets, research guidance and support for Chartered Professional Accountants of Canada (CPA Canada). "Environmental and social issues tend to be keeping CEOs awake at night. They can have significant consequences for an organization."

CPA Canada has produced a series of free materials that assist in sustainability reporting and act as a primer for first-timers who want to get up and running. "Sustainability reporting has become an extension of accountability for responsible companies," Ms. Desjardins explains. "It allows the entity to demonstrate that it understands and responds to its broad range of risks and opportunities."

Employees, customers and investors are increasingly interested in a company's sustainability initiatives, she notes, making the report a "valuable management tool" that can help recruit and retain staff as well as attract business and investment. "A sustainable business appeals to employees and customers,

strengthens relationships with suppliers and positions the organization's brand with good corporate citizenship."

Ms. Desjardins suggests that organizations large and small – including not-for-profit agencies, private companies and governments – should do sustainability reporting, perhaps starting with a

framework such as the Global Reporting Initiative. "Organizations that only use a checklist approach are missing the point," she says, adding that you have to communicate how your organization creates value and how environmental, social and governance issues align with strategic priorities.

"This is leading-edge stuff. It can be confusing, because there's so much happening in this area; it's easy to be overwhelmed," Ms. Desjardins adds. CPA Canada has organized a free webinar on June 25 to provide information about the evolving sustainability reporting landscape.

FROM SFS 1



TD Bank Group has solar panels at 116 branches and other facilities and has reduced its GHG emissions by 11 per cent since 2008. SUPPLIED

## Green: Sound, transparent conversation, and action

own internal transformational journey: since 2008, TD has reduced its GHG emissions by 11 per cent despite occupying 24 per cent more space. In addition to other initiatives, TD has 116 facilities with energy-generating solar panels.

At the same time as the bank embarked on its own journey, it was "peeling away the layers of the onion," working to build understanding not just of the risks but of the opportunities inherent in the move toward a low-carbon economy, says Ms. Clarke-Whistler, adding that the opportunities are found in abundance. "As reported by TD Economics in its 'Greening of the Canadian Economy' paper issued in 2014, it's not just renewable energy; every segment of the economy is undertaking some form of green initiative, including the mining and auto industries." She lists the commercial building space as one of the unsung heroes of the green-economy revolution. "There are more LEED-certified buildings in Toronto than in any other city in Canada. Developers now realize that it's an important factor in attracting prime tenants, and tenants such as TD are demanding 'green leases.' The net impact of all this is that we are creating facilities that are dramatically more energy efficient and fostering innovation in new building materials."

The issuance of a green bond and the reduction in the size of its own carbon footprint are only part of TD's strategy for embracing and championing the new economy. Recognizing that the opportunities for economic transformation have been under-represented in public discourse, which tends to focus on climate science and pricing mechanisms, the bank is also using its research to help inform public debate as governments sketch out a future economic vision.

"The more Canadians understand the economic benefits and opportunities inherent in the greening of our economy, the more they'll support and embrace the transition to one," says Ms. Clarke-Whistler. "We need sound, transparent conversation about what a green economy can mean, and those of us who are proponents of a green economy need to put our money where our mouth is – which is what TD did when we issued a green bond."

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## STRATEGIES FOR SUSTAINABILITY

## INTERVIEW

# Sustainable business and its impact on North America's energy landscape



Q&A with Linda Coady, Chief Sustainability Officer, Enbridge Inc.

## The energy landscape is changing. What role are sustainability issues and strategies playing in that change?

At the local level, people are more aware of the impacts, risks and benefits associated with energy development and infrastructure. This is driving demand for more involvement in decision-making and for higher performance by energy companies on safety and environmental protection. It means companies are working more

proactively with stakeholders to develop new approaches to engagement, transparency and accountability.

At a broader level, the world is grappling with how to meet the increasing demand for energy from a growing global population while limiting carbon emissions to address climate change. This is accelerating investment in technologies that will shape future demand and supply.

At all levels, energy systems are in the early stages of a major transformation. From the shale gas revolution to the reduced costs of renewables, the signs of change are all around us. Whether you are a company, a community, an industry or a government, the transition to a lower carbon future requires innovation and solutions-oriented approaches.

**How is Enbridge preparing itself for the transition to a lower carbon future?**  
As an energy infrastructure and transportation company, Enbridge is focused



North America's energy requirements are going to be met by an increasingly diverse mix of energy sources with increasingly complex interdependencies. SUPPLIED

on meeting the energy needs of our customers now and in the future. For us, business success in a low carbon economy starts with understanding that North American energy requirements are going to be met by an increasingly diverse mix of energy sources with increasingly complex interdependencies.

Hence, diversity is an important strategy, as is working collaboratively

across the energy value chain to reduce carbon emissions. We operate the largest crude oil pipeline system in North America and are an industry leader in investing in technologies that improve the safety and integrity of our pipelines. We also have a significant and growing position in the generation, transmission and distribution of both natural gas and renewables.

With less than half of the carbon

emissions of burning coal, natural gas is an important transition fuel. Our investments in natural gas distribution in places like Ontario have contributed to reductions in coal-fired electricity.

With nearly \$4-billion invested in wind, solar and geothermal projects and technologies in Canada and the United States, we are a major investor in renewables. This includes investments in high-tech companies like Toronto's Morgan Solar, which is working to reduce the costs and increase the efficiency of solar energy; and Canadian-owned Hydrogenics, a company that is working to solve renewable energy storage challenges by converting power to gas that can be stored in pipelines.

So business strategies for sustainability are core to how Enbridge is responding to the changes underway in North America's energy landscape. They are helping to shape how we are delivering integrated energy solutions for today and tomorrow.

## STRATEGY

## Finding more efficient ways to grow prosperity

That Canada's businesses are getting serious about environmental sustainability becomes evident when you look at the companies that make up the TSX 60, says Toby A. A. Heaps, CEO of Corporate Knights. He explains that for about half of the TSX 60's chief executive officers, part of their bonus is tied to meeting social or, in many cases, environmental targets. "When the CEOs of the biggest companies in the land have their bonus linked to achieving leadership on these issues, you're not talking about small numbers," he adds.

Mr. Heaps sees two elements driving this change. "There is a certain moral charge that comes from the appreciation and awareness that we are brushing up against some potentially serious climate limits and need

to get a handle on our greenhouse gas emissions," he says. "It's important that we move forward, even if it isn't fast enough."

The second issue is closely linked to global population growth, says Mr. Heaps. "We are approaching nine billion people and over half of them are living in cities," he explains. "If we don't want to be stuck in traffic or choke on dirty air or, in some places, have limited access to water, we have to find more efficient ways to grow our prosperity."

While the population is growing in number as well as consumption habits, the planet has a finite amount of certain resources, says Mr. Heaps. "The ratio of people over resources is the driving force for increasing resource productivity, which is an important issue for businesses that



Toby A. A. Heaps says that due to increase in population and consumption habits, sustainability measures are gaining more importance for our quality of life. SUPPLIED

want to thrive in the 21st century. If we want to have the same or a higher standard of life, we have to become more productive in the use of our resources, including energy."

Mr. Heaps believes the shift will also be apparent at this year's United Nations Climate Change Conference in Paris. "Generally, these summits are looked at with some pessimism, but this one is going to be different because the two biggest economies in the world, China and the U.S., have already committed to cap their emissions," he explains.

The two countries' commitments will lead to dramatic changes in the energy landscape over the next 15 years, believes Mr. Heaps. "The train on the low carbon economy has already left the station; it's only a matter of getting on or being left behind."



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SOLUTIONS

# Accounting profession offers guidance for adapting to climate change

Canada's chartered professional accountants are well positioned to help Canadian businesses and other organizations better understand and adapt to the implications of climate change.

"Companies that choose not to take action are at risk," says Todd Scaletta, director, research, guidance and support at Chartered Professional Accountants of Canada (CPA Canada). According to the National Round Table on the Environment and Economy, the long-term financial impacts of natural catastrophes are projected to cost Canadians \$5-billion per year by 2020.

The knowledge and skills professional accountants have can assist organizations looking to adapt to climate change. "Many hold leadership roles within their organization and bring solid financial expertise," says Mr. Scaletta. Specific knowledge areas include audit and assurance, and risk and performance management. "There is no one-size-fits-all solution, so developing effective strategic planning requires specific expertise."

CPAs can help companies identify "what if" scenarios that could disrupt their operations, allowing them to



**"There is no one-size-fits-all solution, so developing effective strategic planning requires specific expertise."**

**Todd Scaletta** is director, research, guidance and support at Chartered Professional Accountants of Canada



**CPAs can help companies identify scenarios that could disrupt their operations, allowing them to strategize and effectively prepare for challenges.**

SUPPLIED

strategize and effectively prepare for challenges. The list of "what ifs" is long and varied, including office closures and employee absences due to storms or flooding; disruptions affecting construction, transportation and supplies; and higher insurance premiums.

These are not future-world scenarios, they are happening now, says Mr. Scaletta. He points to the example of Frontiers North Adventures, a company that offers tours in Northern Canada. After disruptions in rail service due to warming permafrost impacted the company's supply chain, professional

accountants ran cost-benefit analyses and identified a solution: partnering with other area businesses to bring in supplies by barge. In another example, accountants are assisting TransLink, metro Vancouver's regional transit authority, to plan service through areas that may experience future flooding as a result of rising sea levels.

Climate change affects some companies and industries more than others. CPA Canada has embarked on a multi-year initiative supported by Natural Resources Canada (NRCan) under the Enhancing Competitiveness in a

Changing Climate program. Canada's professional accountants have long been dealing with matters relating to climate change, and this latest effort is an extension of the previous work.

This new initiative provides professional accountants with valuable resources to help support organizations in adapting to emerging issues.

"Climate change issues present both opportunities and risks, and this new initiative offers an additional lens through which value-protecting strategies can be developed with the organizations and clients CPAs serve," says Monica Sood, CPA Canada principal, sustainability, research guidance and support.

She adds that CPA Canada will be building a portfolio of real-world examples, presenting them on its website as case studies for professional accountants and others to better understand and respond to climate change. The goal is both to raise awareness among CPA members and engage non-members in how they might look to Canada's accounting profession for guidance in adapting to climate change and the various challenges it can present.



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