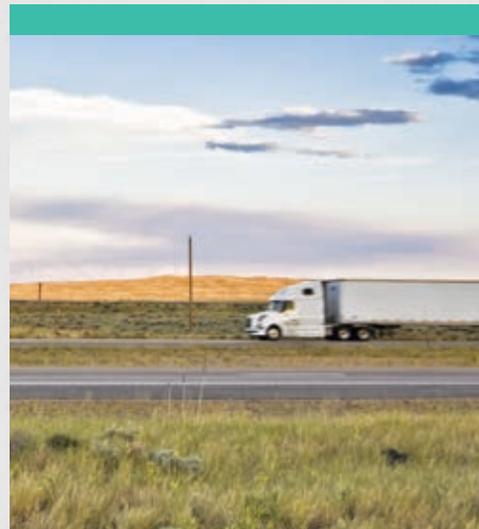
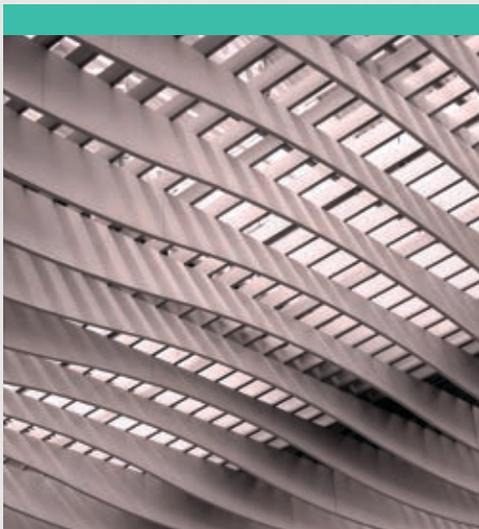
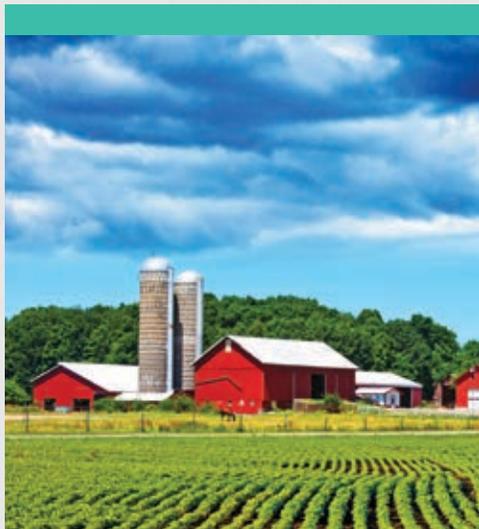




SUSTAINABLE DEVELOPMENT  
TECHNOLOGY CANADA™

2013 ANNUAL REPORT

# REAL RESULTS, REAL IMPACTS



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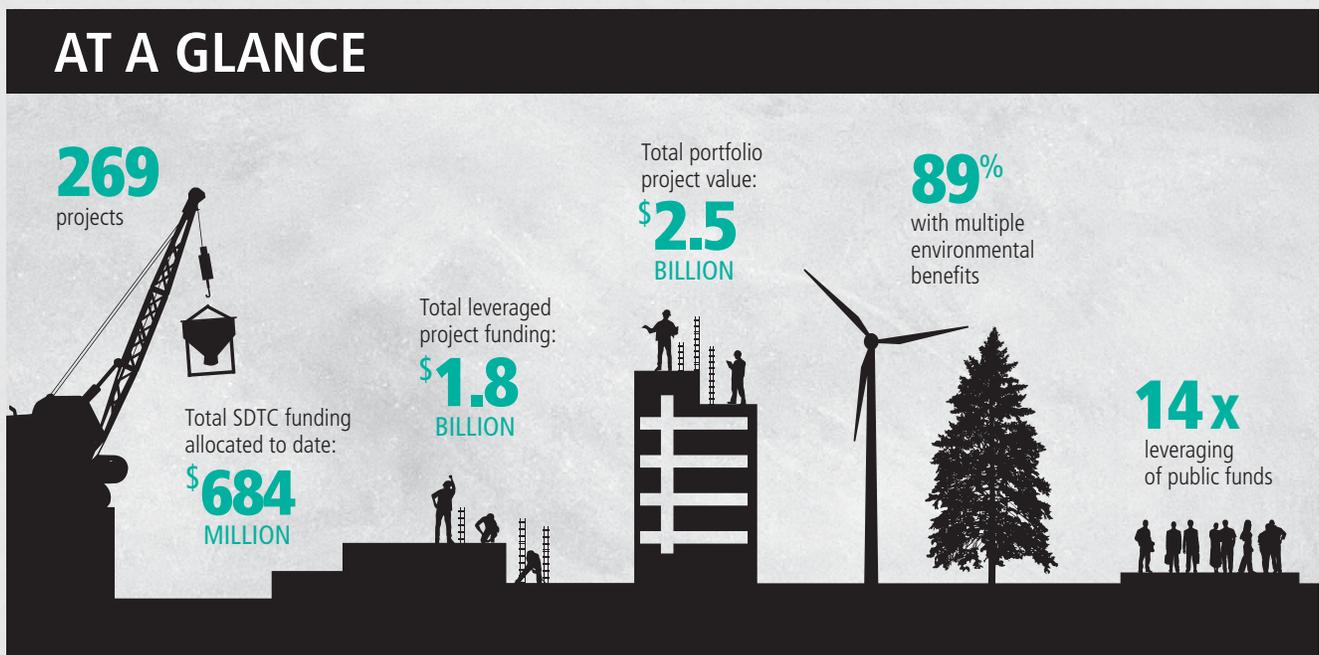
SDTC reports on specific aspects of its performance and future plans in this annual report and two complementary documents: the Annual Report Supplement and the Corporate Plan—Executive Summary.

All are available online at [www.sdtc.ca](http://www.sdtc.ca)

Funded by the  
Government of Canada



In 2013, SDTC-funded clean technologies continued to have a real, material impact on industries and economic sectors across Canada: reducing energy consumption in commercial buildings, cutting fuel costs for transportation companies and boosting crop yields in agriculture—just some of the stories of cleantech’s impact last year.



The growth of the global cleantech sector has proved that environmental sustainability contributes directly to economic sustainability. Deploying clean technologies throughout industries and across sectors brings process efficiencies, cost savings and competitive advantages while at the same time reducing environmental impacts and enabling compliance with regulatory standards.

Canadian innovations funded by SDTC continued to deliver the full range of cleantech benefits in 2013—as part of their development and demonstration, and out in the marketplace deployed in real customer operations.

## MESSAGE FROM THE CHAIR

It was an honour to be appointed to the role of Chair at Sustainable Development Technology Canada (SDTC) by the Government of Canada in 2013. Having spent my career championing Canadian innovation and commercialization, I know Canadians have the depth of ideas and capacity to bring leading solutions to the global marketplace. I am equally convinced that sustainability is fundamental to doing business in the 21<sup>st</sup> century.

Being competitive demands agility and efficiency, being adaptable and staying lean. It also requires businesses to strive for achieving the double bottom line: Profitability and social responsibility. These are principles that SDTC embodies every day.

The entrepreneurs SDTC works with are commercializing clean technologies that deliver innovative solutions others in the marketplace need to gain efficiencies. They are helping cut costs and seize new opportunities while improving their environmental impact. They are minimizing the environmental degradation of the extraction and use of natural resources, making transportation more efficient, buildings more eco-friendly, and communities healthier places to live and work.

It has been a pleasure to work with the Board and executive of SDTC over the past year. This arm's-length, government-created Foundation embodies the entrepreneurial spirit it seeks to foster among Canadian cleantech companies. It is an organization focused on delivering measureable impact to the benefit of all Canadians.

I want to thank my fellow Board members for their efforts over the course of the year. I also thank and congratulate my predecessor, Juergen Puetter, for his leadership and direction during his time as Chair. I look forward to reporting on our achievements as an organization over the year to come.

**Jim Balsillie**  
Chair

## MESSAGE FROM THE PRESIDENT AND CEO

On behalf of the Government, SDTC works to prove that environmental and economic benefits are completely integrated and that innovative Canadian technologies can deliver solutions to all aspects of our economy. As our portfolio of companies mature, our results continue to grow. By de-risking technology performance and building strong businesses, SDTC is reducing pollution and costs while creating jobs, new revenues streams and exports, all of which improves quality of life for Canadians at work and at home.

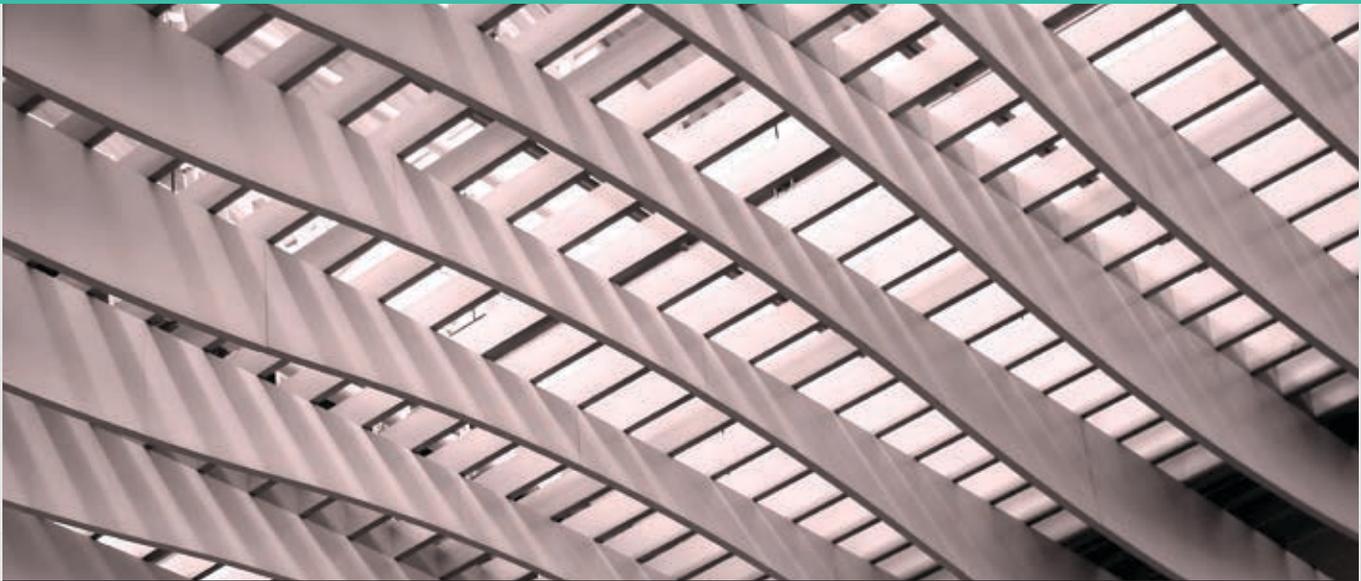
In 2013, SDTC supported 27 new projects in key sectors including energy and power generation, mining, forestry and waste management. We provided early stage support to 11 companies through our Virtual Incubator™, helping cleantech entrepreneurs build stronger business plans and connecting them with potential industry partners. We worked with partners such as Export Development Canada (EDC) and Department of Foreign Affairs, Trade and Development (DFATD) and overseas governments, including that of the United Arab Emirates, to create paths to export markets for Canadian clean technologies.

During 2013, SDTC in collaboration with the Canadian Gas Association (CGA) laid the foundation for a new SD Natural Gas Fund™, which will make \$30 million available for innovative natural gas technologies. This represents a new approach to supporting cleantech development in Canada as a public-private partnership between SDTC and the member utilities of the CGA.

None of this would have been possible without the strong, on-going support of the Government of Canada. Economic Action Plan 2013 allocated \$325 million to SDTC over the next 8 years. This commitment will allow SDTC to continue opening up new channels of opportunity for Canadian cleantech entrepreneurs.

SDTC's catalytic role in spurring results is only effective because of the experience, enthusiasm and dedication of the entire team for which I am most grateful.

**Vicky J. Sharpe**  
President and CEO



## SHINING A LIGHT ON ENERGY SAVINGS

From power-conserving technologies to intelligent energy-management systems, SDTC-funded clean technologies proved their potential last year to cut costs and energy consumption associated with operating commercial buildings like office towers and warehouses.

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Sixty percent of the energy used to light Canada's nearly 480,000 commercial buildings every year is wasted, targeting unoccupied spaces or areas that already have enough natural light. With commercial buildings responsible for more than 12 percent of the country's secondary energy end use and associated greenhouse gas (GHG) emissions, and green buildings realizing 13.6% lower operating costs on average, the sector has a clear opportunity to use new technologies to improve energy efficiency, protect owners' margins, and meet the needs of users.

SDTC's investments in the commercial building sector are delivering real and growing benefits to Canadian commercial building management companies and their tenants.

## A SECTOR'S ADVANTAGE: LESS ENERGY, LOWER COSTS

### A COMPETITIVE DIFFERENTIATOR

For companies that own and operate commercial buildings, deploying clean technologies reduces costs and emissions and provides competitive differentiation. Buildings outfitted with cleantech can gain credit toward certifications such as LEED and EnergyStar and boost their class ratings—all of which can help reduce tenant turnover, increase occupancy and make office space more comfortable overall.

Cooledge Lighting Ltd.'s cost-competitive **MicroLED luminaires** are energy efficient, mercury free and provide better-quality lighting than conventional fluorescent fixtures, enabling new design possibilities. With SDTC support, Cooledge is producing a standard luminaire that will match the cost and performance of fluorescent equivalents and incorporate simple automatic controls.

The **Enterprise Energy Management** system developed by Power Measurement Ltd.—now a wholly owned subsidiary of Schneider Electric—continually collects and analyzes energy and materials consumed by specific processes and equipment, giving building operators better information for developing strategies that reduce energy and water use as well as GHG and Criteria Air Contaminants (CAC) emissions.

Pulse Energy is developing an intelligent energy management platform called **Pulse™** that can provide building owners and occupants with accurate and user friendly building energy and resource consumption information. This data can highlight inefficiencies in real time and enable operators to identify and correct the source of the problem, resulting in annual energy savings of up to 25%.

# BENEFITS

If applied to commercial buildings in Canada, a selection of SDTC-supported clean technologies could deliver:

Annual cost savings



Annual energy savings



Annual GHG reductions





## FUELLING SAVINGS IN FREIGHT TRANSPORTATION

With fuel a huge portion of most transport companies' budgets—and the transport sector contributing significantly to Canada's total emissions—SDTC-supported technologies answer a combined business and environmental imperative for freight transporters across the country.

6

Raw materials and finished goods are constantly being shipped by land, sea and air. Roughly a fifth of Canada's energy-related greenhouse gas (GHG) emissions come from industrial freight transportation, and sector emissions are increasing by about 13% per year.

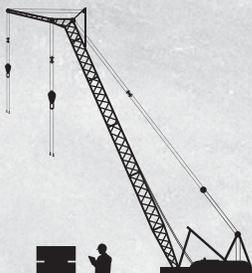
By cutting fuel consumption and enabling a switch to alternative fuel sources, clean technologies have the potential to produce enormous cost savings, giving companies the option of making strategic reinvestments or passing those savings on to customers.

## REDUCING COSTS AND CONSUMPTION FROM END TO END

### ON THE ROAD TO COMPLIANCE

Beyond cost savings for operators, and potentially their end customers through lower-priced goods, the environmental improvements delivered by clean technologies also help companies achieve compliance with existing and emerging emissions regulations, domestically and internationally.

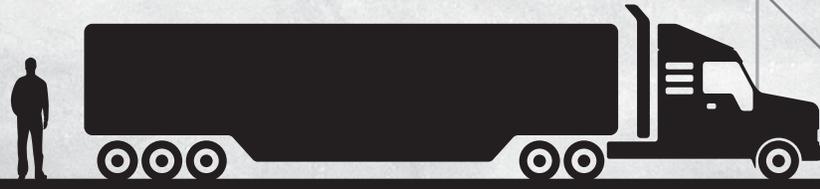
Marine Exhaust Solutions' **EcoSilencer®** cleaning technology uses seawater to reduce sulphur and particulate matter emissions from large freighters' distilled fuel by more than 98 percent and 50 percent respectively and helps ship owners comply with new International Marine Organization standards.



Fuel makes up 20 percent of railway operating costs. By outfitting freight trains with **natural gas high-pressure direct injection or dual natural gas/diesel engines**, Westport Power Inc. aims to streamline railway expenses, enable compliance with criteria air contaminant (CAC) regulations and reduce GHG emissions by up to 25 percent—up to 500 tonnes a year per locomotive.



Heavy freight trucks typically idle their engines for six hours a day—consuming fuel and generating significant GHG and CAC emissions. With a payback period of less than one year, the **Hybrid Auxiliary Power Unit (HAPU™)** from EnerMotion Inc. captures waste exhaust heat, solar energy and braking energy and converts it into energy for cooling, heating and electrical power.



# BENEFITS

If applied to the trucking industry in Canada, a selection of SDTC-supported clean technologies could deliver:

Annual cost savings

Annual fuel savings



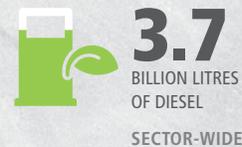
Annual GHG reductions



If applied to the inter modal freight transportation industry in Canada, a selection of SDTC-supported clean technologies could deliver:

Annual cost savings

Annual fuel savings



Annual GHG reductions





## BETTER YIELDS FROM CLEANER LAND

More effective fertilizers and pesticides along with new emissions-reducing technologies are helping farmers make their land cleaner and more productive, growing crops more cost-effectively.

To boost crop growth and combat blights and pests, Canadian farmers spent about \$3.4 billion on fertilizers and \$2.1 billion on pesticides in 2010, representing 15.6% of total farm annual operating expenses. However, the inefficient application of those products can contaminate water and soil, stressing local ecosystems and having a negative impact on soil health and biodiversity. Human health implications can also be significant both in terms of the health of local populations and associated economic impacts.

SDTC-funded clean technologies are helping reduce agriculture-related emissions and contaminants while saving farmers money by delivering improved crop yields at lower operational costs.

## FROM SEED TO SKY

### HIGHER REVENUES, POTENTIAL SAVINGS FOR CONSUMERS

By improving the economics of agriculture through better yields, lower operating costs and less need to manage contaminants, clean technologies are benefitting Canadian farmers and consumers alike, enabling a better, more reliable supply of higher-quality produce and the potential for lower costs at the grocery store.

Vive Crop Protection is demonstrating a **disruptive nanotechnology** solution to reduce the amount of spray water used and soil contaminants associated with agricultural chemicals, while at the same time decreasing the energy required to produce those chemicals.

Greenhouses typically use fossil fuels for heat and natural or bottled gas to speed up photosynthesis. SunSelect has created a **biomass-based combustion system** that captures, cleans and stores carbon dioxide (CO<sub>2</sub>) from heating systems on cold nights and uses it to promote plant growth by day. The system aims to: eliminate natural gas combustion, increase heat recovery by 20 percent, reduce particulate matter, improve plant growth, lower costs and generate GHG credits.



Farmers today use copper-based pesticides and chemicals to control crop- and revenue-threatening bacteria. With such treatments diminishing yields and contaminating soil and water, and with bacteria developing resistance over time to these chemicals, Agri-Neo has developed an alternative: a unique, convenient **bacteria-control powder** that's safe for the environment and human health. In trials, it has increased crop yields by 10 to 40 percent over copper-based pesticides.

semiosBIO's **pest management system** uses mating-disrupting pheromones to keep moth species from breeding larvae that damage Canadian orchards' fruit crops. With real-time monitoring, the automated system is more cost effective and less labour intensive than the current pheromone technology, without the soil and water contamination that come from chemical spray applications.



## BENEFITS

If applied to greenhouse operations in Canada, a selection of SDTC-supported clean technologies could deliver:

Annual cost savings

**\$ 45**  
MILLION

Annual water savings

**24**  
MILLION m<sup>3</sup>

Annual GHG reductions

**30**  
KILOTONNES  
CO<sub>2</sub>e

If applied to apple orchards across Canada, a selection of SDTC-supported clean technologies could deliver:

REDUCE  
PESTICIDE  
USE BY

**54**  
TONNES  
PER YEAR

REDUCE WATER  
CONTAMINATION  
BY

**817**  
KILOGRAMS

OF PESTICIDE  
ACTIVE INGREDIENTS  
PER YEAR

If applied across the entire agricultural sector in Canada, a selection of SDTC-supported clean technologies could deliver:

Annual cost savings

**\$ 350**  
MILLION

Annual GHG reductions

**114**  
KILOTONNES  
CO<sub>2</sub>e



## CONVERSATIONS IN CLEANTECH

The benefits of Canadian clean technologies have value here at home as well as to customers overseas. This year's Conversations in Cleantech looks at those opportunities and how Canadian companies can best seize them—according to three industry players with direct experience in exporting cleantech:

- **Brent Perry**, CEO, Corvus Energy Ltd.
- **John Sheridan**, President and CEO, Ballard Power Systems
- **Clive Witter**, Senior Vice President, Insurance, Export Development Canada (EDC)

### **Q:** How would you describe the export opportunity for Canadian cleantech companies?

**BRENT PERRY:** The opportunities are excellent. Globally, Canadian companies are very well respected for the quality of their products and for the ethics and standards they represent. Customers and partners trust Canadian companies. That's a good thing, because we have to go global: the domestic customer base simply isn't large enough, and doesn't tend to be on the early adopter cycle.

**CLIVE WITTER:** I don't think anyone would be surprised that the markets for Canadian clean technologies are mostly outside Canada. There is also a diversification advantage to developing multiple markets: many clean technologies have regulatory drivers such as feed-in tariffs, so it makes sense for companies to reduce their exposure to the political risk of regulatory change by being in different markets.

**JOHN SHERIDAN:** We are also largely focused on markets outside of Canada—places with urgent demand for reliable, clean energy solutions, and where there is regulatory and sometimes even financial support for cleantech. We see tremendous opportunities around the globe including Asia, Europe, Africa, along with North and South America.

**Q: What are the main challenges Canadian cleantech companies face in taking their solutions to foreign markets?**

**BRENT PERRY:** I would say there are some systemic things that really need to be addressed: lack of capital, poor access to capital markets, the costs of setting up and marketing abroad. A lot of that has to do with early stage support. Angel and VC investors aren't oriented to develop companies and there are relatively few government support programs available here in Canada. It is challenging.

**CLIVE WITTER:** Most Canadian cleantech companies tend to be SMEs, which usually have limited capacity to navigate foreign markets. Patience is key. A long-term perspective is needed to properly set up for success in a foreign market. Cultural awareness is key and it is critical to understand how business is done in other countries before committing resources to develop a market.

**JOHN SHERIDAN:** We've recognized the need to provide exemplary customer service. We have invested significant effort in developing an international service team and channel partners that can get back to customers in a timely way and ensure their satisfaction over the entire lifecycle of our products.

**Q: How can a Canadian cleantech company determine the best markets to enter?**

**JOHN SHERIDAN:** We focus on markets where our clean energy fuel cell products offer a strong economic value proposition, supported by environmental benefits. For instance, our backup power solutions for telecom network operators are particularly attractive in countries like India, where government regulations target reducing the use of diesel generators, which currently power 60 percent of the wireless base stations in the country.

**CLIVE WITTER:** Every business has different drivers. If you produce a green commodity, for example, you should know how the price of that commodity could be threatened or undermined in the target market. In general, you need to understand the macro-political and -economic environment, the phase-out timelines for incentive regimes, and whether there are partnerships with local institutions that could help you operate in the market.

**BRENT PERRY:** That partnership piece is key. We were approached by BAE in the United Arab Emirates to explore industrial and regional benefit opportunities. That led to researching the market the Middle East and North Africa represents. Our business plan has always incorporated the development of local joint venture partnerships: this was a great way to work in the region, with BAE leading the way in developing partnerships with key entities in the UAE specifically.

**Q: What tools can companies leverage to facilitate their commercial success in other markets?**

**CLIVE WITTER:** Networking with other companies that have experience in the market is invaluable. Leverage EDC's network of foreign representatives and the Trade Commissioner Service at the Department of Foreign Affairs, Trade and Development.

**BRENT PERRY:** I'd echo that point about the Trade Commissioner Service; it really is an excellent resource. While not 'tools' *per se*, I would say as best practices it's also important to get commercially ready as fast as you can, and to validate the readiness of your product with third parties to know it works the way the market needs it to.

**JOHN SHERIDAN:** Ballard has seen great value in working with channel partners to distribute our fuel cell backup power systems to telecom network operators around the globe. Their regional presence, expertise and resources have proven invaluable. And certainly, the Trade Commissioner Service has been a valuable resource for us.



# REPORT ON RESULTS

## SDTC OVERVIEW

In building Canada's cleantech economy, SDTC measures its efforts against specific progress indicators, some mandated by its Funding Agreements and others chosen by SDTC itself. Results affirm the potential of clean technologies to deliver environmental benefits, stimulate economic activity and realize competitive advantages for Canadian industries in the global economy.

In 2013, SDTC allocated \$102 million in funding (\$87 million conditionally) to projects with a total eligible cost of \$307 million, including \$219 million of leveraged capital. This allocation includes some modifications to existing projects. Last year, SDTC administered two funds:

- The SD Tech Fund™ supports the development and pre-commercial demonstration of clean technology products and processes that contribute to clean air, clean water, clean land and address climate change, while improving the productivity and the global competitiveness of Canadian industry.
- The NextGen Biofuels Fund™ supports the establishment of first-of-kind commercial-scale demonstration facilities for the production of next-generation renewable fuels and co-products from non-food feedstocks.

## JOBS AND REVENUES

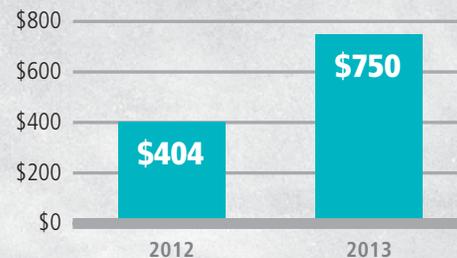
By the end of 2013, SDTC-supported companies have generated \$750 million in revenues and created 7,700 direct and indirect jobs. This is an increase from \$404 million in revenues and 7,000 direct and indirect jobs in 2012.

### JOBS



### REVENUES

ALL DOLLARS IN MILLIONS



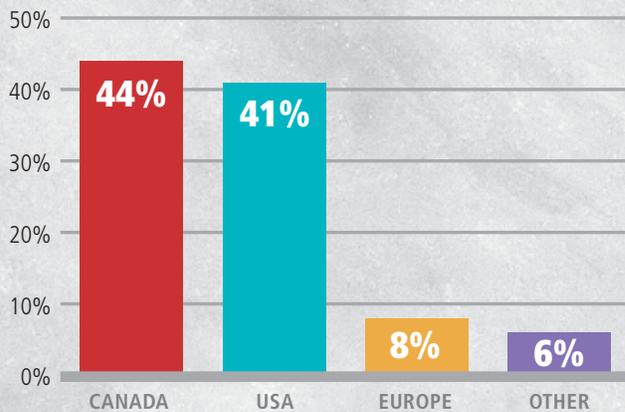
## FOLLOW-ON FINANCING

SDTC continued throughout 2013 to seek a high ratio of foreign investment and mitigate the risk of depending only on Canada's limited domestic pool of capital for cleantech commercialization. This increasingly diverse and robust capacity to raise financing sustains jobs in Canada and contributes to economic growth.

In 2013, 55 percent of follow-on financing raised by SDTC-supported companies came from foreign investors. Despite a challenging market, SDTC saw significant follow-on financing, with \$232 million from the private sector in the form of venture capital, public markets and asset/debt financing. This brings the total to \$2.5 billion since tracking began in 2007.

## Building Critical Mass for Commercialization

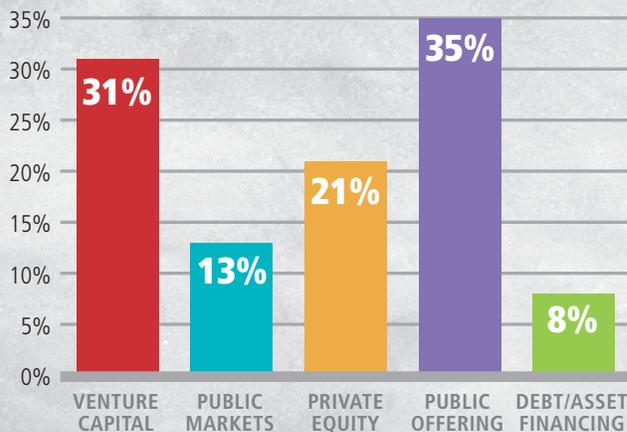
### BY COUNTRY



Canada:	\$1,122
USA:	\$1,047
Europe:	\$199
Other:	\$161

**TOTAL: \$2,529**  
ALL DOLLARS IN MILLIONS

### BY INVESTMENT



Venture capital:	\$733
Public markets:	\$304
Private equity:	\$484
Public offerings:	\$817
Debt/asset financing:	\$191

**TOTAL: \$2,529**  
ALL DOLLARS IN MILLIONS

## ENVIRONMENTAL BENEFITS

Clean technologies provide environmental benefits while supporting productivity and economic growth. SDTC-funded projects generate positive impacts related to clean air, clean water, clean land and climate change, with 89 percent those in our portfolio generating multiple benefits.

As the portfolio matures, SDTC has been exploring ways to quantify and report impacts in a way that will more clearly illustrate the benefits derived from SDTC funding. Further details can be found in the 2013 Annual Report Supplement.

### How SDTC evaluates environmental impact:

#### GHG reductions



The total annual GHG reduction in 2015 attributable to the 269 projects funded by SDTC since inception is projected to be between 6 and 12 megatonnes. These figures include adjustments for the uncertainty of projections by applying a discounting factor to individual projects<sup>1</sup>. 65 projects that completed prior to 2014 have reported actual emissions reductions of approximately 2.8 megatonnes annually, the equivalent of taking 350,000 homes off the grid.

#### Clean air projects



SDTC-funded projects report clean air impacts in tonnes of criteria air contaminants (CAC) reduced per year. Determining the environmental and human health benefits of these CAC reductions depends on factors such as population density and specific air shed concentrations. To show the benefits of these projects at the national level, SDTC has followed industry best practices to calculate avoided health-related impact costs. Applying this approach to 87 projects focused on transportation and power generation, SDTC estimates an avoided health-related cost of over \$1.5 billion<sup>2</sup> by 2025<sup>3</sup>.

#### Soil and water projects



As with clean air, determining the actual environmental and human health benefits and value to society of soil and water projects depends on numerous factors such as watershed, type of contaminant, location and existing use of land. The above methodology applied to 30 SDTC-funded projects with a primary or co-benefit focus on water produces an estimated avoided cost of at least \$128 million<sup>2</sup> by 2025<sup>3</sup>.

<sup>1</sup> GHG emission reduction projections are inherently forward-looking statements. They involve risks and uncertainties that could cause actual results to differ materially from those contemplated. SDTC believes it has a reasonable basis for making such forward-looking statements by: Requiring every applicant to estimate future GHG emission reductions using a prescribed methodology based on accepted ISO and IPCC practices; Reviewing the reasonableness of projected GHG emissions reductions reported by applicants and, as new information is reported, adjusting projections and excluding projects on hold; and Applying a discount rate of between 80% and 93.5% to account for the technology GHG intensity performance and the likelihood to meet sales projections.

<sup>2</sup> Similar to GHG, these results have been discounted by a maximum 93.5% to account for market entry and uptake risk.

<sup>3</sup> The expected in-service period for technologies that address clean air, soil and water is between 10-40 years, leading to a reporting period of 2025.

## NEXTGEN BIOFUELS FUND

Global development and deployment of next-generation biofuel technologies continued to be slower than originally expected in 2013, with Canadian opportunities showing the same trend. Since the financial crisis, there has been almost no risk capital for these types of project finance plays. Consequently, while SDTC has a number of strong technology opportunities in process, the pace of development has constrained disbursements. The global deployment trend tends to focus on initial commercial biofuel plants at small scale. Some short-term opportunities for production of advanced biofuels and co-products exist in Canada and are being strongly pursued. The general outlook for competitiveness of the next generation biofuels industry at full scale is predicted for the longer term.



## FUTURE PLANS

As its portfolio matures, SDTC will continue to focus on securing private-sector follow-on financing and becoming the partner of choice for large corporations looking to adopt clean technologies. This will include continuing to host events that showcase innovative technologies to the financial and corporate community. SDTC will also increase its engagement with large corporations seeking technology options to increase the efficiency of their operations.

In 2014, SDTC will continue to work with industry associations and major corporations as part of our Technology Commercialization Program. These collaborations will provide greater alignment on sector technology needs and facilitate increased investment in priority areas. They will also provide greater leverage of public dollars through targeted industry funds.

SDTC will continue working with the Government to identify technology commercialization opportunities that, based on the results and performance track record of the SD Tech Fund™, could be effectively addressed by SDTC's model to deliver benefits to Canadians, including increased economic activity and jobs.

Specific targets for the coming year include:

- **SD Tech Fund™**  
Issuing two calls for statements of interest in February and September with an emphasis on technologies that will increase the productivity of existing sectors of the Canadian economy.
- **NextGen Biofuels Fund™**  
Issuing a formal call for applications that remains open throughout the year.

# FINANCIAL STATEMENTS

Year ended December 31, 2013

## INDEPENDENT AUDITORS' REPORT

### To the Members of Canada Foundation for Sustainable Development Technology

We have audited the accompanying financial statements of Canada Foundation for Sustainable Development Technology, which comprise the statement of financial position as at December 31, 2013, the statements of operations and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

#### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Canada Foundation for Sustainable Development Technology as at December 31, 2013 and its results of operations and its cash flows for the year then ended and its remeasurement gains and losses for the year ended December 31, 2013, in accordance with Canadian public sector accounting standards.



Chartered Professional Accountants, Licensed Public Accountants  
April 23, 2014  
Ottawa, Canada

## STATEMENT OF FINANCIAL POSITION

December 31, 2013, with comparative information for 2012  
(in Thousands of Dollars)

	2013			2012
	SD Tech Fund	NextGen Biofuels Fund	Total	Total
<b>Assets</b>				
Current assets:				
Cash	\$ 9,066	\$ 1,705	\$ 10,771	\$ 12,119
Harmonized sales tax refund receivable	409	70	479	476
Inter-fund receivable (note 2)	839	–	839	565
Prepaid expenses	115	–	115	134
	10,429	1,775	12,204	13,294
Investments (note 3)	145,630	59,207	204,837	271,234
Capital assets (note 4)	527	32	559	505
	\$ 156,586	\$ 61,014	\$ 217,600	\$ 285,033
<b>Liabilities and Deferred Contributions</b>				
Current liabilities:				
Accounts payable and accrued liabilities	\$ 1,179	\$ 105	\$ 1,284	\$ 927
Inter-fund payable (note 2)	–	839	839	565
	1,179	944	2,123	1,492
Deferred contributions:				
Expenses of future periods (note 5)	155,407	60,070	215,477	283,541
Commitments (note 8)				
	\$ 156,586	\$ 61,014	\$ 217,600	\$ 285,033

See accompanying notes to financial statements.

## STATEMENT OF OPERATIONS

Year ended December 31, 2013, with comparative information for 2012  
(in Thousands of Dollars)

	2013			2012
	SD Tech Fund	NextGen Biofuels Fund	Total	Total
Revenue:				
Recognition of deferred contributions (note 5)	\$ 68,775	\$ 2,020	\$ 70,795	\$ 80,277
Expenses:				
Governance	815	188	1,003	870
Mandatory reporting	821	398	1,219	1,032
Project screening and evaluation	2,363	864	3,227	3,592
Project contracting and monitoring	1,050	55	1,105	1,178
Infrastructure development and outreach	1,556	87	1,643	1,785
Financial audit	29	17	46	47
General administration	1,766	191	1,957	1,991
Amortization of capital assets	314	26	340	312
Outsourced services	977	–	977	725
Technical and financial audit costs	242	–	242	325
	9,933	1,826	11,759	11,857
Project disbursements	58,842	194	59,036	68,420
Total expenditures	68,775	2,020	70,795	80,277
Excess of revenue over expenses	\$ –	\$ –	\$ –	\$ –

See accompanying notes to financial statements.

## STATEMENT OF CASH FLOWS

Year ended December 31, 2013, with comparative information for 2012  
(in Thousands of Dollars)

	2013			2012
	SD Tech Fund	NextGen Biofuels Fund	Total	Total
Cash provided by (used in):				
Operating activities:				
Excess of revenue over expenses	\$ -	\$ -	\$ -	\$ -
Items not involving cash:				
Amortization of capital assets	314	26	340	312
Recognition of deferred contributions	(68,775)	(2,020)	(70,795)	(80,277)
Investment income	2,041	918	2,959	4,562
Investment fund management fees paid	(182)	(46)	(228)	(320)
Changes in non-cash operating working capital items	163	210	373	(601)
	(66,439)	(912)	(67,351)	(76,324)
Capital activities:				
Purchase of capital assets	(394)	-	(394)	(59)
Financing activities:				
Sales (purchases) of investments – net	67,253	(856)	66,397	80,642
Increase (decrease) in cash	420	(1,768)	(1,348)	4,259
Cash, beginning of year	8,646	3,473	12,119	7,860
Cash, end of year	\$ 9,066	\$ 1,705	\$ 10,771	\$ 12,119

See accompanying notes to financial statements.

## NOTES TO FINANCIAL STATEMENTS

Year ended December 31, 2013

*(Amounts in Thousands of Dollars unless otherwise noted)*

Canada Foundation for Sustainable Development Technology – Fondation du Canada pour l'appui technologique au développement durable (the "Foundation") is a corporation continued under the Canada Foundation for Sustainable Development Technology Act, (S.C.2001) effective on March 22, 2002.

The Foundation is not an agent of Her Majesty, but is accountable to Parliament through the Ministry of Natural Resources Canada. Environment Canada and Industry Canada are the other key departments involved in the work of the Foundation.

The Foundation's mandate, governance, operations, performance requirements, accountability and relationship to the Government of Canada are defined in its governing statute and in funding agreements that have been executed by the Foundation and the Ministers of both Natural Resources Canada and Environment Canada. In this way, the Foundation operates as a fully accountable instrument of the Government of Canada to help provide timely development and demonstration of innovative technology solutions to the nationally important issues of climate change, clean air and water and soil quality.

The Foundation manages two funds: the SD Tech Fund and the NextGen Biofuels Fund, which are further described below.

### **SD Tech Fund**

To date the Foundation has received \$550 million, as well as a \$365 million conditional grant from the Government of Canada to provide financial support to projects that develop and demonstrate new technologies that have the potential to advance sustainable development, including technologies to address climate change, clean air and water and soil quality issues. This support is provided to eligible recipients that have established partnerships which are comprised of a private sector commercial corporation and one or more of: a private sector commercial corporation, a university or college, a private sector research institute, a not-for-profit corporation, or a federal or provincial Crown corporation (or subsidiary) whose role is the provision of resources and/or facilities to the consortium as a subcontractor.

The Foundation will endeavour to ensure that there are funds available to allocate to new eligible projects at least up to June 30, 2016. With the exception of a reasonable amount reserved for related project monitoring and evaluation, and for wind-up costs, the Foundation will also endeavour to manage and disburse the funds in total by June 30, 2021.

### **NextGen Biofuels Fund**

During the year ended December 31, 2007, the Foundation entered into a funding agreement with the Government of Canada which provided for a conditional grant of \$500 million to be paid over the period to March 31, 2015, to create the NextGen Biofuels Fund ("NGBF"). During the year ended December 31, 2013 in its' commitment to returning to a Balance Budget, the Government of Canada returned to the Consolidated Revenue Fund (CRF) \$125 million of unused appropriated funds from the NextGen Biofuels Fund. As a result the NextGen Biofuels Funding Agreement will be amended to reflect the revised total funding amount of \$375 million.

## NOTES TO FINANCIAL STATEMENTS (continued)

Year ended December 31, 2013

(Amounts in Thousands of Dollars unless otherwise noted)

The NGBF will provide financial support towards the establishment of first-of-kind facilities that demonstrate production pathways for next-generation renewable fuels at large demonstration scale. This support is provided to eligible recipients that are to include for-profit corporations, partnerships, limited partnerships or business trusts with legal capacity in Canada and that have access to expertise in next-generation renewable fuels production pathways. Agreements for financial support to eligible recipients include provisions for repayability from free cash flow of the funded project.

The Foundation will disburse up to March 31, 2017 (the "disbursement period") its share of eligible project costs incurred or to be incurred by eligible recipients. With the exception of a reasonable amount reserved for related project monitoring and evaluation, collection of repayments and for wind-up costs, the Foundation shall return any portion of the NGBF at the earlier of the end of the funding agreement on September 30, 2027, and such earlier time or times subsequent to the end of the disbursement period as the Government of Canada may determine.

### 1. Significant accounting policies:

The financial statements have been prepared by management in accordance with Canadian public sector accounting standards including the 4200 standards for government not-for-profit organizations:

#### (a) Revenue recognition:

The Foundation follows the deferral method of accounting for contributions whereby contributions, including grants received and interest earned on the invested amounts are deferred and recognized as revenue as expenses and project disbursements are incurred.

#### (b) Project disbursements:

Project disbursements are recognized as the awarded grants are disbursed.

#### (c) Capital assets:

Capital assets are recorded at cost. Amortization is provided on a straight-line basis over the assets' estimated useful lives using the following annual rates:

Asset	Rate
Computer hardware	30%
Computer software	50%
Office furniture and equipment	20%

Leasehold improvements are amortized on a straight-line basis over the shorter of the lease term or their estimated useful lives.

When a capital asset no longer contributes to the Foundation's ability to provide services, its carrying amount is written down to its residual value.

## NOTES TO FINANCIAL STATEMENTS (continued)

Year ended December 31, 2013

*(Amounts in Thousands of Dollars unless otherwise noted)*

### **(d) Financial instruments:**

Financial instruments are recorded at fair value on initial recognition.

Derivative instruments and equity instruments that are quoted in an active market are subsequently reported at fair value. All other financial instruments are subsequently recorded at cost or amortized cost unless management has elected to carry the instruments at fair value. Management has not elected to record any such investments at fair value.

Unrealized changes in fair value are recognized in deferred contributions until they are realized, when they are transferred to the statement of operations.

Transaction costs incurred on the acquisition of financial instruments measured subsequently at fair value are expensed as incurred. All other financial instruments are adjusted by transaction costs incurred on acquisition and financing costs, which are amortized using the effective interest rate method.

All financial assets are assessed for impairment on an annual basis. When a decline is determined to be other than temporary, the amount of the loss is reported in the statement of operations and any unrealized gain is adjusted through deferred contributions.

When the asset is sold, the unrealized gains and losses previously recognized in deferred contributions are reversed and recognized in the statement of operations.

The Standards require an organization to classify fair value measurements using a fair value hierarchy, which includes three levels of information that may be used to measure fair value:

- Level 1 – Unadjusted quoted market prices in active markets for identical assets or liabilities;
- Level 2 – Observable or corroborated inputs, other than level 1, such as quoted prices for similar assets or liabilities in inactive markets or market data for substantially the full term of the assets or liabilities; and
- Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets and liabilities.

### **(e) Expenses:**

The Foundation classifies expenses on the statement of operations by function. The Foundation allocates salaries, benefits, travel and administration expenses by identifying the appropriate basis of allocating and applying that basis consistently each year. Allocated expenses and the basis of allocating are as follows:

- Salary and benefits expense include salaries, benefits, travel and training, and are allocated proportionately on the same percentage as the budgeted expenditures of the functions.
- Administrative expenses are allocated proportionately on the same percentage as the budgeted expenditures of the functions.

## NOTES TO FINANCIAL STATEMENTS (continued)

Year ended December 31, 2013

(Amounts in Thousands of Dollars unless otherwise noted)

### (f) Use of estimates:

The preparation of the financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the year. Actual results could differ from those estimates. These estimates are reviewed annually and as adjustments become necessary, they are recognized in the financial statements in the period they become known.

### 2. Inter-fund balance and transactions:

The inter-fund balance receivable/payable bears no interest and is not governed by terms of repayment. During the year, \$839 (2012 – \$843) of NextGen Biofuels Fund operating expenses and allocated staff costs were incurred by the SD Tech Fund.

### 3. Investments:

SD Tech Fund	Level	2013		2012	
		Fair Value	Amortized Cost	Fair Value	Amortized Cost
Money market funds	2	\$ 49,873	\$ 49,873	\$ 19,129	\$ 19,129
High Interest Investment Savings Accounts	2	30,681	30,681	–	–
Fixed income securities	1	65,065	65,076	193,411	193,754
		\$ 145,619	\$ 145,630	\$ 212,540	\$ 212,883

NextGen Biofuels Fund	Level	2013		2012	
		Fair Value	Amortized Cost	Fair Value	Amortized Cost
Money market funds	2	\$ 32,873	\$ 32,873	\$ 13,416	\$ 13,416
High Interest Investment Savings Accounts	2	25,740	25,740	25,383	25,383
Fixed income securities	1	593	594	19,695	19,552
		\$ 59,206	\$ 59,207	\$ 58,494	\$ 58,351

There were no transfers between Level 1 and Level 2 for the years ended December 31, 2013. There were also no transfers in or out of Level 3.

Fixed income securities have coupon rates from 0.75% to 5.65% (2012 – 0.95% to 8.50%) and mature between January 2014 and June 2017.

## NOTES TO FINANCIAL STATEMENTS (continued)

Year ended December 31, 2013

(Amounts in Thousands of Dollars unless otherwise noted)

### (a) Investment risk:

Investment in financial instruments renders the Foundation subject to investment risk. This risk arises from changes in interest rates if investment instruments are withdrawn prior to maturity or should market interest rates increase significantly over those of the investments of the Foundation. The Foundation invests in money market funds and fixed income securities, which management considers being low risk.

### (b) Concentration risk:

Concentration risk exists when a significant portion of the portfolio is invested in securities with similar characteristics or subject to similar economic, political or other conditions. Management believes that the diversification of the investments in money market funds and fixed income securities described above does not represent excessive risk.

### (c) Credit risk:

The risk relates to the potential that one party to a financial instrument will fail to discharge an obligation and cause the other party to incur a financial loss. The maximum credit exposure at the Foundation is represented by the fair value of the investments as presented in the statement of financial position.

## 4. Capital assets:

SD Tech Fund			2013	2012
	Cost	Accumulated amortization	Net book value	Net book value
Computer hardware	\$ 308	\$ 256	\$ 52	\$ 60
Computer software	903	585	318	105
Office furniture and equipment	553	532	21	32
Office furniture and equipment under capital leases	64	57	7	33
Leasehold improvements	627	498	129	217
	<u>\$ 2,455</u>	<u>\$ 1,928</u>	<u>\$ 527</u>	<u>\$ 447</u>

During the year, capital assets were acquired at an aggregate cost of \$393 (2012 – \$59).

Cost and accumulated amortization at December 31, 2012 amounted to \$2,061 and \$1,614 respectively.

## NOTES TO FINANCIAL STATEMENTS (continued)

Year ended December 31, 2013

(Amounts in Thousands of Dollars unless otherwise noted)

NextGen Biofuels Fund	2013			2012
	Cost	Accumulated amortization	Net book value	Net book value
Computer hardware	\$ 6	\$ 5	\$ 1	\$ 2
Office furniture and equipment	33	31	2	8
Leasehold improvements	120	91	29	48
	\$ 159	\$ 127	\$ 32	\$ 58

Cost and accumulated amortization at December 31, 2012 amounted to \$159 and \$101 respectively.

### 5. Deferred contributions – expenses of future periods:

Deferred contributions related to expenses of future periods represent the unspent balance in the Fund that is restricted for disbursement to eligible sustainable development technology projects and operations of the Foundation, as defined in the Funding Agreements. The change in the deferred contributions balance is as follows:

	2013			2012
	SD Tech Fund	NextGen Biofuels Fund	Total	Total
Balance, beginning of year	\$ 222,323	\$ 61,218	\$ 283,541	\$ 359,576
Interest income and amortization of discounts (premiums) on bonds	2,041	918	2,959	4,562
Less amount recognized as revenue	(68,775)	(2,020)	(70,795)	(80,277)
Less investment fund management fees	(182)	(46)	(228)	(320)
	(68,957)	(2,066)	(71,023)	(80,597)
Balance, end of year	\$ 155,407	\$ 60,070	\$ 215,477	\$ 283,541

During the year, no other funding or donations were provided to the Foundation.

## NOTES TO FINANCIAL STATEMENTS (continued)

Year ended December 31, 2013

(Amounts in Thousands of Dollars unless otherwise noted)

### 6. Allocation of expenses:

Salaries, benefits, travel and administration expenses have been allocated as follows:

	2013			2012	
	SD Tech Fund	NextGen Biofuels Fund	Total	Total	
Governance	\$ 527	\$ –	\$ 527	\$ 545	
Mandatory reporting	784	–	784	810	
Project screening and evaluation	1,807	478	2,285	2,330	
Project contracting and monitoring	1,015	54	1,069	1,101	
Infrastructure development and outreach	1,243	–	1,243	1,286	
General and administration	617	–	617	638	
	\$ 5,993	\$ 532	\$ 6,525	\$ 6,710	

### 7. Capital management:

The Foundation defines capital as its deferred contributions related to expenses of future periods.

The Foundation's objectives in managing capital are to safeguard its ability to continue as a going concern and pursue its strategy of promoting sustainable development technology and next-generation renewable biofuels to eligible projects that meet the mandate and criteria of its funder, the Government of Canada, and benefits to other stakeholders. Management continually monitors the impact of changes in economic conditions on its investment portfolio and its funding commitments.

The Foundation is not subject to any externally imposed capital requirements and its overall strategy with respect to capital remains unchanged from the year ended December 31, 2012.

### 8. Commitments:

#### SD Tech Fund

During the year, the Foundation awarded grants for a maximum amount of \$102 million (\$87 million conditional) (2012 – \$78 million, \$Nil conditional). Total disbursements to eligible recipients during the fiscal year were \$59 million (2012 – \$68 million). As of December 31, 2013, since inception the Foundation awarded grants for a maximum of \$684 million (\$87 million conditional) of which \$440 million has been disbursed. The balance of the awarded grants will be recorded as expense in subsequent years as funds are disbursed.

## NOTES TO FINANCIAL STATEMENTS (continued)

Year ended December 31, 2013

*(Amounts in Thousands of Dollars unless otherwise noted)*

The Foundation has executed contracts for eligible projects through 2013 in the amount of \$554 million (of which \$230 million of projects have been completed), which are anticipated for disbursement as recipients meet their pre-funding performance requirements.

The Foundation also has commitments to lease office space as follows: 2014 – \$884; and 2015 – \$397.

### **NextGen Biofuels Fund:**

As of December 31, 2013, since inception, the Foundation awarded grants for a maximum of \$1.6 million (2012 – \$1.2 million). Total disbursements to eligible recipients during the fiscal year were \$0.2 million (2012 – \$0.1 million).

### **9. Statement of remeasurement gains and losses:**

A statement of remeasurement gains and losses has not been included as it would not provide additional meaningful information.

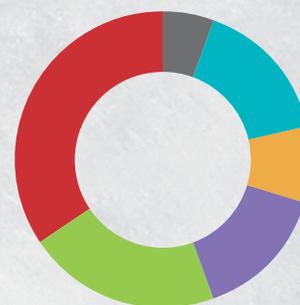
### **10. Comparative information:**

Certain comparative information has been reclassified to conform with the financial statement presentation adopted in the current year.

## SD TECH FUND™ GRANT INVESTMENT PORTFOLIO

as at December 31, 2013

Rating	Current % Invested	Maximum Available	Available %
● Other A	5.7%	20.0%	14.3%
● Other AA	15.9%	70.0%	54.1%
● Other AAA	0.0%	80.0%	80.0%
● Government A	0.0%	No Limit	No Limit
● Government AA	8.1%	No Limit	No Limit
● Government AAA	14.9%	No Limit	No Limit
● High Interest Investment Savings Accounts	21.1%	No Limit	No Limit
● Money market securities	34.2%	No Limit	No Limit



## NEXTGEN BIOFUELS™ FUND GRANT INVESTMENT PORTFOLIO

as at December 31, 2013

Rating	Current % Invested	Maximum Available	Available %
● Other A	0.0%	20.0%	20.0%
● Other AA	1.0%	70.0%	69.0%
● Other AAA	0.0%	80.0%	80.0%
● Government AA	0.0%	No Limit	No Limit
● Government AAA	0.0%	No Limit	No Limit
● High Interest Investment Savings Accounts	43.5%	No Limit	No Limit
● Money market securities	55.5%	No Limit	No Limit



## SENIOR MANAGEMENT AND DIRECTORS' COMPENSATION\*

In accordance with the Funding Agreement, SDTC Senior Management and Directors' compensation for the fiscal year ending December 31, 2013, including salary, bonus, allowances and other benefits was within the annual compensation ranges listed below.

Positions	Total annual compensation	Additional performance based compensation
President & CEO	\$265,000–\$355,000	\$ 0–\$65,000
Executive Vice President & COO	\$205,000–\$255,000	\$0–\$40,000
Vice Presidents	\$155,000–\$195,000	\$0–\$16,000
Directors & Senior Professionals	\$100,000–\$150,000	\$0–\$12,500
Chair of the Board	\$12,000 stipend**	
Vice Chair of the Board	\$9,000 stipend**	
Directors of the Board	\$5,000 stipend**	

\* Note: This information is not part of the audited statements.

\*\* All Directors of the Board received a meeting fee of \$550 per meeting day. The Directors of the Board who sit on the Investment and Project Review Committees received a meeting fee of \$1,500 per meeting day.

## BOARD OF DIRECTORS

SDTC is governed by a Board of Directors reflecting the broad interests of the public, private and academic sectors in Canada. It is composed of 15 Directors, seven of whom are appointed by the Government of Canada and eight of whom are appointed by Members of the Foundation. The Board has five committees: the Audit and Grant Investment Committee, the Corporate Governance Committee, the Human Resources Committee, the Project Review Committee—NextGen Biofuels Fund, and the Project Review Committee—SD Tech Fund.

Directors of the Board are subject to conflict of interest guidelines requiring them to declare potential conflicts of interest and refrain from participating in any discussions regarding matters that could give rise to a conflict of interest.

Name	Title	Board Committee
Jim Balsillie	Co-founder, Blackberry; Chair, CIGI	Chairman
Ken Ogilvie	Environmental Policy Consultant	Vice-Chair, CGC
John Bradlow	Partner, Penfund	A&GIC, HRC
Michael J. Brown	Chairman of the Board, Chrysalix Energy Management Inc.	PRC-S
Charles S. Coffey, O.C	Community Volunteer	A&GIC, HRC*
K. Ross Creelman	Managing Director, Marwood Ltd.	CRH, CGC
Daniel Gagnier	Chairman, International Institute for Sustainable Development	PRC-N
Sarah Kavanagh	Corporate Director and Commissioner, Ontario Securities Commission	A&GIC
Ronald Koudys	President, Ron Koudys Landscape Architects	PRC-N
Jason Lee	COO, Ooka Island Inc.	PRC-S, PRC-N
Gary Lunn	Former Minister of Natural Resources	CGC
Jane E. Pagel	President and CEO, Ontario Clean Water Agency	PRC-S*
David Pollock	President of Pollock Management and Advisory Services and former Executive Director of the Pembina Institute	Vice-Chair, CGC*, PRC-S
Juergen Puetter	President, Aeolis Wind Power Corporation; President, Blue Fuel Energy Corp.	HRC
Jacques Simoneau	President & CEO, Univalor	A&GIC*, PRC-N

\* Committee Chair

**A&GIC:** Audit and Grant Investment Committee

**CGC:** Corporate Governance Committee

**HRC:** Human Resources Committee

**PRC-S:** Project Review Committee –SD Tech Fund

**PRC-N:** Project Review Committee – NextGen Biofuels Fund

## MEMBER COUNCIL

The Members of the Foundation include 15 leaders who together provide an informed and representative perspective on, and contribution toward, the achievement of SDTC's mission and goals.

Name	Title
Carl Brothers, P.Eng	President, Frontier Power Systems Inc.
James R. Burpee	President and CEO, Canadian Electricity Association
Elizabeth Dowdeswell	President and CEO, Canadian Council of Academies
Johanne Gélinas	Partner, Raymond Chabot Grant Thornton's Strategy and Performance Consulting Group
Peter Hackett, FCIC FRSC	Executive Professor, School of Business, University of Alberta
D. Christine Hollstedt, RPF	Principle, Inspiring Leadership
James Knight	President and CEO, Association of Canadian Community Colleges
Louis LaPierre	Professor Emeritus, Université de Moncton
David Runnalls	President and CEO, International Institute for Sustainable Development
Andrew T.B. Stuart	Chairman, Sustainability Shift Inc.
Katherine Trumper	Management and Communications Consultant, Katherine Trumper Consulting
Joseph D. Wright	Independent Consultant

## INVESTMENT COMMITTEE

Name	Title
Vicky J. Sharpe	Chair, Investment Committee, President & CEO, Sustainable Development Technology Canada
Michel De Broux	Lawyer, past Vice-President Investments and Management of Affiliates, Hydro-Quebec CapiTech Inc.
Michael J. Brown	Chairman of the Board, Chrysalix Energy Management Inc.
John A. Coburn	Managing Director, XPV Capital Corporation
Peter S. Crombie, MBA, CA, CF	Corporate Director
Jason Lee	COO, Ooka Island Inc.
Jane E. Pagel	President and CEO, Ontario Clean Water Agency
David Pollock	President of Pollock Management and Advisory Services and former Executive Director of the Pembina Institute
Tom Sweeney	Chairman, Canada-California VC & Intellectual Property Working Group
Henry Vehovec	President, Mindfirst Inc.
Rosemary Zigrossi	Director, Promontory Financial Group Canada ULC