Goodmans LLP Update

# Cleantech

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## The New Ontario Climate Change Action Plan Paves the Way for the Future of Cleantech in the Province

Yesterday's launch of the new *Ontario climate change action plan* (the "**Plan**") promises to accelerate the growth of the Province's clean technology ("**cleantech**") sector. According to the U.S. State Department, the global cleantech sector is forecast to expand at six times the rate of the technology boom of the 1990s. By investing the proceeds of its new carbon cap and trade system in low carbon technologies, Ontario is bidding for a larger slice of this rapidly growing, trillion-dollar global market.

### What is "cleantech" and why does it matter?

Cleantech is a general term used to describe products, processes or services that reduce waste and require as few non-renewable resources as possible. Clean technologies include renewable energy (wind power, solar power, biomass, hydropower, biofuels, etc.), information technology, green transportation, electric motors, green chemistry, lighting, recycling and other sources of increased efficiency.

As detailed by authors such as Jeremy Rifkin[i] and Tony Seba[ii], our energy and transportation systems are now at an inflection point. Fossil resource-intensive systems are in the process of being supplanted by more efficient and productive information technology-based ones. This transition is already well under way in electrical power generation. In 2015, despite the plummeting prices of coal and oil, new renewable energy generation capacity attracted twice the investment of new fossil fuel-powered capacity.

The Plan is intended to help Ontario researchers, entrepreneurs and start-ups to more effectively participate and compete in the development and delivery of future generations of cleantech solutions.

### The Plan: Ontario to spend up to $8.3 billion over five years

Spanning from 2016-2020, and consisting of eight "action areas," the Plan focuses on enabling investments in research and development, changes to transportation, buildings and homes, better land-use planning, collaboration with or assistance to indigenous, rural and low-income communities, and incentives for industry.

### The "Green Bank"

The government expects the recently announced cap and trade system will generate between $1.8-$1.9 billion per year in revenues, which will be deposited into a new Greenhouse Gas Reduction Account - the "Green Bank." The proceeds are to be invested in projects and programs that help reduce greenhouse gas pollution. Ontario will publicly report on the status of the actions set out in the Plan and the use of funds on an annual basis.

The Green Bank is intended to play a number of roles, key among them being the support of large commercial and industrial projects, or projects that require scale to be financed privately. The Green Bank will work with commercial banks to help aggregate projects to reduce risk.

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[i] Third Industrial Revolution, Zero Marginal Cost Society

[ii] Clean Disruption

*Transportation*

The Province has taken a comprehensive approach to all forms of transportation. It is reported that more than a third of Ontario's greenhouse gas pollution is caused by the transportation sector, with cars and trucks accounting for 70% of the total. Among the Plan's key objectives are increasing the availability and use of lower-carbon fuel, increasing the use of electric vehicles, supporting cycling and walking, increasing the use of low-carbon trucks and buses, and supporting the accelerated construction of the GO Regional Express Rail.

The initiatives include electric vehicle incentives, including a rebate of up to $14,000 per electric vehicle purchased, and independent subsidy programs for lower income households to help replace older vehicles with new or used electric vehicles or plug-in hybrids. The Province will also encourage all new drivers to choose a zero emission vehicle when buying or leasing their first car, as well as provide an incentive of up to $1,000 per home for the installation of a Level 2 charging station.

Ontario intends to invest an additional $80 million in workplace and multi-residential charging stations, more public highway and multi-residential charging stations and public highway and downtown DC fast chargers. Government facilities such as Service Ontario locations and LCBOs will also install charging stations. Furthermore, new homes and workplaces built in 2018 or later may be required to be equipped to enable EV charging.

The Province also intends to improve the commuter cycling network by implementing more cycling facilities such as grade-separated routes and cycling signals, increased bike parking on provincially owned and publicly accessible premises, and a revision of the provincial road and highway standards to require commuter cycling infrastructure to be considered for all road and highway construction projects provided this is safe and feasible.

After passenger vehicles, the second largest source of transportation emissions is the transportation of goods. Through a new Green Commercial Vehicle Program the Province will incentivize businesses to buy low-carbon commercial vehicles and technologies to reduce emissions.

The Province will also work to accelerate the deployment of the Regional Express Rail system. This expansion of GO infrastructure is aimed at creating a stronger network across the region with the hope of encouraging more people to choose public transit, which will result in more options for users and less transit congestion for drivers.

*Buildings and Homes*

"Buildings and homes" is another key action area. It is reported that "buildings and the energy they consume" account for almost one quarter of Ontario's total greenhouse gas pollution. The Province, through various initiatives, will focus on improving energy efficiency in multi-tenant residential buildings and schools and hospitals, reducing emissions from heritage buildings, helping homeowners reduce their carbon footprints by supporting additional choice, setting lower-carbon standards for new buildings, promoting low-carbon energy supply and products, helping individuals and businesses manage their energy use and save money. Grants will be made available to reduce the costs of installing low-carbon technology like solar water heating systems or geothermal heating in homes. Home buyers will also get help with the additional up-front costs associated with high-efficiency and renewable energy technologies.

The Province will also implement policies to reduce the impact on residential tenants of increased energy costs, and to ensure that building owners have access to energy-efficient retrofit programs, such as boiler replacements and geothermal technology.

Ontario's land use planning regime will be changed to require that strengthened climate change policies be included in local planning documents such as official plans.

*Research and Development*

The focus of the research and development component of the Plan is on climate science and zero-carbon breakthroughs. The Plan notes that "fighting climate change presents an extraordinary opportunity for innovation."

The Province intends to add to its prior commitment of $55 million to support the cleantech sector by dedicating additional funds specifically to research and development and proof-of-concept low-carbon technologies.

Further, the Province intends to explore opportunities to create research and development tax credits to encourage investment in Ontario companies focused on low-carbon technologies and has pledged to work with the federal government to explore possible opportunities for accelerated capital cost allowances.

A "Global Centre for Low-Carbon Mobility" will be created and will be based at a post-secondary institution in Ontario. The centre will advise the government on low-carbon transportation and direct funding for research, development and low-carbon manufacturing. Priority will be given to technology that has both high emissions reduction and consumer-demand potential.

*Industry and Business*

The Province is taking a number of steps to assist business and industry to reduce their emissions. The cap and trade program provides a variety of incentives, including transitional allowances, to help business and industry cut emissions. Specific programs and funding will facilitate the transition of heavy emitters to less carbon intensive fuels.

The Plan seeks to foster innovation and the development of clean-tech products for sale at home and abroad. As an early adopter market, Ontario will assist cleantech businesses from R&D, through commercialization.

*Low-Income, Rural, and Indigenous Communities*

The Plan includes measures to reduce the impact of the cap-and-trade program on low-income households and vulnerable communities. New incentive programs will assist low-income households to gain access to the resources they need to reduce their carbon footprint and participate in the low-carbon economy.

Rural residents will be able to access programs such as energy retrofits to upgrade homes with current energy technologies.

The Province will collaborate with Indigenous communities to connect remote locations to low-carbon electricity. This should reduce their dependence on diesel for electricity generation and expand the market for renewable energy and related power technologies. Furthermore, the Province will pilot the use of small local electricity grids that use renewable energy, as well as set up a fund for community-level emission reduction projects and community energy and climate action planning.

**The Ontario Plan in context**

As discussed in our March 11, 2016 Cleantech Update, *Paris to Vancouver and Washington DC: Sunny Days Ahead for Cleantech in Canada!* the federal - provincial working groups (including the cleantech working group) constituted in Vancouver are to report back in September of this year with options for a pan-Canadian framework on clean growth and climate change.

While many of the details remain to be determined, the Ontario Plan reflects the commitment of political and financial capital that will be required for Canada to successfully reduce our GHG emissions, while at the same time regaining a leadership position in the increasingly strategic cleantech sector. As the federal and other provincial plans, for the most part, are being elaborated, the Ontario plan may serve as an important model and point of reference, and have implications for the cleantech sector which extend beyond the Province.

Please contact any member of our Cleantech Group for further information on the Plan.