INVESTING IN ONTARIO

Editor's Note:

The Investing in Ontario report brings together a well-balanced group of industry expert perspectives to highlight some current projects that are transforming our province, as well as some thoughts on future investments that would help to improve our infrastructure, environment and economy.

PEPPERMEDIA

LOOKING AHEAD AT THE NEXT DECADE OF AFP

Look around anywhere in the GTA and you are likely to see a project done by Infrastructure Ontario. We have quietly gone about our business over the last 10 years partnering with the public and private sectors to deliver projects successfully.

IO was born out the growing burden of aging infrastructure, much of which was constructed in the 1950s and '60s. By 2005, the estimated cost of modernizing Ontario's hospitals alone was $8 billion. At the time, new hospital projects were going over budget and being completed late, if at all. Traditional ways of building our public health care infrastructure were not addressing the infrastructure deficit.

Today, families in the GTA are benefitting from over a dozen new hospitals built over the last decade using IO's Alternative Financing and Procurement model. State-of-the-art facilities at Lakeridge Health in Oshawa and Mississauga's Credit Valley Hospital are providing easier access to the health care system, and better treatment and care, through expanded emergency rooms, cancer treatment centres, paediatric units, and rehabilitation services. Expansion of the Centre for Addiction and Mental Health in downtown Toronto is allowing for the delivery of high quality, integrated mental health and addiction care in a revitalized urban village setting. And the completion of the new Women's College Hospital last month will further establish that facility as a leader in women's health care, research, and education.

These advances have not been confined to the health care field. In Etobicoke, Humber College students began their school year in a new Learning Resource Commons that will enable the college to increase its enrollment by over 2,000 students. The Durham Region Courthouse and a new Forensic Services and Coroner's Complex in north Toronto are examples of justice facilities that are helping to meet the increasingly complex demands of the justice sector and improving the public's access to services.

IO also managed the completion of several world-class sporting venues for the past summer's Pan Am / Parapan Am Games, which will serve local amateur and professional athletes for years to come. The Games were also a catalyst for completion of the Union Pearson Express. IO is proud to have played a role in the construction of a project that moves people between Canada's two largest transportation hubs.

Every one of IO's completed projects are now in the hands of the public and 44 of our first 45 infrastructure projects were delivered on budget. All told, that represents $12 billion in publicly owned capital.

At the heart of this success is the Alternative Financing and Procurement (AFP) model. AFP is a form of public private partnership that engages the private sector where best suited while maintaining public ownership. It transfers risk to the party in the best position to manage it. It maximizes innovation and quality for the full life span of the asset. And we do not pay until projects are complete. This gives us tremendous leverage when disputes arise. And they invariably do.

IO uses the right model for each project. We tailor the appropriate amount of private finance to transfer risks to the private sector. We bring the public and private sectors together to build better public infrastructure. And we are transparent about the results we achieve.

Now, we have the most active and successful infrastructure market in North America, if not the world. We have better public assets. And we have an industry that is creating jobs and economic benefits. This is a home-grown made-in-Ontario success.

Now, Ontario faces a new public infrastructure challenge. Today's transit and transportation infrastructure needs urgent attention. Governments, businesses and local leaders all agree the time to invest and build is now. Working with Metrolinx, IO has begun to oversee delivery of the Eglinton Crosstown and Finch West LRT projects and is responsible for the eastward extension of Highway 407.

Strong partners, the right people, and a modern procurement model: this is a P3 recipe for success. IO has a strong track record to date, we are recognized around the world, and we look forward to helping deliver on Ontario's historic investment in infrastructure over the coming decade.

Ehren Cory,
Divisional President of Project Delivery, Infrastructure Ontario

ENGINEERING A CLEANER ECONOMY: THE PROVINCE'S CARBON PRICING PROGRAM AND THE ROLE OF INNOVATION

Back in April, Ontario announced its intention to move forward with a cap-and-trade program that puts a price on carbon and sets a limit on emissions in an effort to reduce the amount of greenhouse gas (GHG) pollution emitted in the province.

Ontario will eventually link its cap-and-trade auctions with Québec and California in the Western Climate Initiative – a non-profit organization formed to support the implementation of state and provincial GHG emissions trading programs.

The Ontario Society of Professional Engineers (OSPE) believes that a market-based system, if well-designed and transparent, can not only drive meaningful climate action by ensuring emissions are reduced, but also accelerate low-carbon investment and innovation that can help transform Ontario's economy.

OSPE recently released Engineering a Cleaner Economy: Examining Ontario's Carbon Pricing Program and the Role of Innovation, a report that describes how carbon pricing works and examines some specific aspects of comparative systems. Below are four important takeaways from the report, which is available on OSPE's website at www.ospe.on.ca.

CAP-AND-TRADE VS. CARBON TAX

There are two predominant approaches to pricing carbon – cap-and-trade and carbon tax. Under a cap-and-trade program, sometimes referred to as an emissions trading system (ETS), the government sets a limit – the "cap" – on GHG pollution that industry can cumulatively produce and over time the cap is lowered. The cap is divided into units, or allowances, which are equal to one tonne of carbon emissions. Government distributes the allowances through a mix of free units and auctions, thus creating the marketplace that enables the "trade".

Polluters that exceed their allotted allowances must buy extra emissions credits from firms that have reduced their pollution and have remaining allowances to sell. With an ETS, it does not matter which emitters reduce their pollution levels as reduced emissions are realized at the target level by the de-escalating cap.

Cap-and-trade is sometimes errantly referred to as a carbon tax, because commercial entities that are faced with rising costs are likely to pass those increases on to consumers. A proper carbon tax is a different system, where the government sets the costs of pollution – the "tax" – that is applied to fossil fuels, encouraging businesses and consumers to reduce their carbon footprint.

Both plans have the potential to deliver a long-term decrease in cumulative emissions – an ETS gives predictable, steady reductions in pollution with variable rising costs, while a carbon fee gives predictably rising costs with variable pollution reduction. Both programs reward industries that innovate because the less they pollute, the less they pay.

WILL A CAP-AND-TRADE SYSTEM HINDER ONTARIO'S ECONOMY?

One of the biggest concerns is that an ETS will add to the escalating cost of doing business in Ontario and will put a greater burden on households and families. While these are legitimate concerns, many believe that pricing carbon will ultimately benefit Ontario's competitive standing by driving industries up the innovation curve and creating opportunities for those specializing in and exporting low-carbon technologies.

Competitiveness considerations are particularly important when determining how Ontario deals with industries that are energy-intensive and unable to raise product prices or recoup compliance due to trans-border competition (i.e. heavy emitters like iron and steel, cement, lime, glass, basic chemicals, and pulp and paper). If an Ontario firm loses market share due to a cost implication of cap-and-trade, there is an economic cost to the policy. There are also concerns related to carbon leakage – costs stemming from climate policies that have a measurable impact on competitiveness, resulting in production and investments moving outside of Ontario together with the associated GHG emissions.

In line with California and Québec, Ontario is likely to give free allowances to heavy emitters on a de-escalating basis to allow for retrofitting facilities and adapting to the new system. With respect to helping households, Ontario is likely to introduce initiatives such as electricity bill discounts, and/or legislation that earmarks a certain percentage of auction revenues to programs that help low-income families adjust.

Certain firms will likely find themselves initially disadvantaged, but some businesses will also face competitive advantages. Industries involved in home insulation, heat pumps, geo-exchange drillers and solar panel installation, for example, should see immediate increases in demand for their products and services. Many opportunities will be created for early-adopters of low-carbon technologies to export knowledge and expertise as an increasing number of sub-national markets introduce carbon constraints.

The government must strike a balance between addressing legitimate concerns associated with changing regulatory conditions, without bending to firms that may use competitiveness to advocate for a "business as usual" approach that is not part of Ontario's climate action plan.

CAP-AND-TRADE AS A DRIVER OF INNOVATION

Cap-and-trade systems will drive low-carbon innovation, and the firms that are the most inventive are likely to be the biggest winners in an ETS.

Auction revenues will be a major source of income for Ontario. One estimate suggests the province could generate between $1.5 billion and $2 billion annually by 2020. Revenues will be deposited into the Greenhouse Gas Reduction Account, established in 2009 with the passage of the Environmental Protection Amendment Act (Greenhouse Gas Emissions Trading). The legislation provides that revenues will be allocated towards "the costs of research into or the development of or deployment of lower greenhouse gas emitting technologies" as well as "the costs of infrastructure or equipment to reduce greenhouse gas emissions." Engineers will play a central role in contributing to these advancements, and in turn the future of Ontario's low carbon economy.

WHERE DOES OSPE STAND?

OSPE will advocate for Ontario to strike a balanced portfolio of research and development, adoption, learning and diffusion to bring low-carbon technologies to marketplace. Society has granted engineers a regulatory and ethical duty to safeguard the environment. A strong engineering voice should actively participate in the cap-and-trade discussion, helping economists and policy makers come up with accurate designs as to what the costs of mitigation will be.

Provided by The OSPE

Athletes village being constructed in the West Don Lands area, downtown Toronto, prior to the Pan American Games

West Don Lands

For many decades, an 80-acre diamond in the rough sat derelict and unusable in the southeast corner of Toronto's core, in an area known as the West Don Lands (WDL).

It was a brownfield site in need of intensive soil remediation. It also needed flood protection in order to realize its true value for future investment.

The province saw that potential and made the investments needed to make it a reality. Infrastructure Ontario, together with partners like Waterfront Toronto, worked to unlock that potential and achieve the province's vision.

Work began in the early 2000s to install permanent flood protection. This would unlock the development potential of hundreds of acres which extended to the financial district and also protect existing development in the flood plain.

Flood mitigation and environmental management work was ongoing in 2009 when the site was named the future home of the Pan Am and Parapan Am Games Athletes' Village.

Ensuring the Athletes' Village would be ready for the Games required partnership between public-sector agencies, provincial ministries and the private sector. It was a collaborative effort that resulted in the design and construction of a multi-award-winning neighbourhood, taking what would have otherwise occurred over the span of a decade or more and achieving it on budget in less than half that time.

IO's made-in-Ontario model of P3, called Alternative Financing and Procurement (AFP), was instrumental in delivering that neighbourhood in time to host the thousands of Pan Am and Parapan Am athletes and coaches this summer.

Next spring this new community will come alive once again with a YMCA, college residence, affordable housing and market condos joining the already popular Corktown Common Park. IO continues to revitalize and prepare the remainder of the lands in the WDL for a return to productive use, stitching together the future neighbourhood's fabric.

Did You Know?

The Flood Protection Landform that protects from flooding of the Don River is 19.8 acres, 13 feet high at its highest point, and was constructed using 400,000 cubic metres of specially engineered fill.

In managing the environmental impacts to the soil in the West Don Lands, a Risk Assessment approach was used, meaning some soil was remediated and the rest was managed on-site, which saved approximately 950,000 tonnes from landfill, and avoided $38 million in disposal costs.

Toni Rossi, Divisional President of Real Estate and Lending, Infrastructure Ontario