

Background: Building a Sustainable, Prosperous Future for Canada

The Need for Action: An Economic Opportunity and Environmental Challenge We Can Meet

The world's economy is changing: moving towards one that will reward countries that are energy efficient, low polluting, innovative, and manage their natural capital wisely. This rapidly-emerging global marketplace offers tremendous opportunities for all sectors of Canada's economy.

For clean technology firms there will be unprecedented market opportunities. Trade in low carbon, energy efficient technologies is projected to reach over \$2 trillion per year by 2020. Two-fifths of this growing market will be in emerging and developing countries.

For natural resource and manufacturing sectors, there is growing pressure to reduce environmental footprints and use energy and resources more efficiently – and those that succeed will gain market advantage. McKinsey estimates that \$2.9 trillion will be invested in boosting resource efficiency and innovation worldwide by 2030. This new market dynamic is likely to intensify as global environmental stresses mount, and the current generation of youth become the new leaders.

At the same time, climate change poses serious risks to our environment, economy, and quality of life. We are already seeing early effects, such as rapidly-melting Arctic ice, changing weather, and beetle-decimated B.C forests, costing thousands of jobs. If unchecked, these effects will grow, and will cost us as much as \$50 billion per year by 2050. Canada has a responsibility to the world, and future generations, to do its part in the global effort to avoid dangerous climate change. It is a challenge that Canadians want to meet.

In fact, we are already moving in this direction. Canada's greenhouse gas (GHG) emissions fell by 5% from 2005 to 2012, while our GDP grew by over 10%. Many different players have led the way. Ontario has closed its coal power plants, and federal rules prevent new coal plants across Canada. B.C., Quebec and Alberta have priced carbon emissions. Nova Scotia (and others) have implemented aggressive programs to reduce energy use. The City of Toronto far exceeded its goal to reduce GHG emissions by 6% below 1990 levels by 2012 – and other cities are also making great strides. Canada's forest sector has greatly reduced its energy use, and increased reliance on biofuels, helping to build its global green brand. Energy companies, supported by provincial and federal governments, are investing in carbon capture and other technologies to reduce GHG intensity. More and more Canadians are getting their energy from solar, wind, geothermal and other clean sources.

These successes, and others, are tangible examples that it is possible to build a stronger economy and cleaner environment, if we put our minds to it. Now we need to build on these successes and expand our efforts – by driving the clean innovation and investment that will enable us to meet our global climate commitments, and position Canada to prosper in a lower carbon economic future.

What will Propel us to the Next Level: Policy Mix to Drive Low Carbon Economic Success

Private actions – by individuals, communities and companies – will be the key to building a cleaner, stronger Canadian economy. But government also has a critical role to play in enabling this change: by providing incentives and services, and removing barriers, to boost sustainability efforts underway across the country. A low carbon policy framework to do this should include the following.

First of all, we need a meaningful **price on carbon** across Canada. This is the most cost-effective way to reduce GHG emissions. It rewards people and businesses for lowering their carbon footprint, and stimulates investment in clean technology and energy efficiency. Several provinces are leading the way, using different approaches: B.C. has a carbon tax, Quebec has cap and trade, Alberta has intensity-based limits, and others are actively considering their own systems. Any of these approaches can be effective, if well designed. For example, BC's fuel use has dropped by 16% since its carbon tax shift in 2008, while its GDP has kept pace with the rest of Canada's.

A carbon price should apply across the whole economy, so all firms and households have incentives to adopt low carbon alternatives. While there should be a charge for all emissions or allowances, some initial exceptions may be needed to help vulnerable industries adjust. The initial price can be modest, but should rise to a level stringent enough to meet jurisdictions' stated climate goals, when combined with other policies. The system should provide price predictability, to encourage long term investments, balanced with some flexibility to respond to changing circumstances.

Carbon pricing will generate substantial, growing **revenues, which can be reinvested** to spur further economic and environmental benefits, for example by: lowering other taxes (on income or labour), supporting investment in low carbon infrastructure and technologies, providing incentives for home energy efficiency, or buffering impacts on vulnerable households and firms.

While price incentives are important, complementary regulations may also be needed in certain areas, such as **energy efficiency standards** for appliances, vehicles or buildings.

In addition, we also need a major investment in **low carbon infrastructure**, such as public transit, energy transmission, electric vehicle charging, energy efficient buildings, etc. The infrastructure we build today will drive our environmental footprint for decades, making this an urgent priority.

Moreover, a big boost in **investment** is essential to drive cleaner economic growth. While, most of this must come from private investors, strategic public investment is also needed, to fill gaps and leverage private investment in key areas. Sustainable Development Technology Canada and Alberta Innovates are good examples of arm's length bodies that promote public-private clean investment partnerships. We will need more such bodies, on a larger scale, for Canada to take full advantage of the \$90 trillion global investment in energy, urban and resource development expected by 2030.

Other key areas for public investment include: **training and education** to build a skilled workforce for a changing economy; **research and development** to incubate breakthrough ideas and inventions; and clean **government procurement** to promote sustainable Canadian technologies and products.

This mix of policies (incentives, infrastructure and investment) will help drive the **clean innovation** needed to generate climate solutions in all sectors and secure Canadian competitiveness and jobs in a lower carbon world. These policies should all adopt an **inclusive** approach to benefit all Canadians: for example, by providing just transition for affected workers, reducing inequalities, targeting regions facing greatest risk, and ensuring Aboriginal opportunities.

Canada has a history of taking far-sighted policy actions to prepare for global economic changes, like free trade, deficit fighting or the financial crisis. We need that same kind of leadership here, to build a high performance, low carbon economy that will provide a better future for all Canadians.