

Encouraging Climate Action

BY KAREN TAM WU



As part of the many recent commitments the federal government has made to support emissions reductions, this year's budget placed considerable emphasis on buildings and energy efficiency. New funding will benefit leaders: from those jurisdictions which lay out ambitious climate plans to those in the building sector involved with super energy efficient projects. The result should be a clear sense of direction for collective climate action.

Budget 2016 earmarked nearly \$750 million for actions specific to the buildings sector. Key items include:

- \$128.8 million over five years to raise the bar for energy efficiency standards and codes for buildings, products, industry and vehicles;
- \$40 million over five years to integrate climate resilience into building design guides and codes for homes, institutional, commercial and industrial facilities; and
- \$573.9 million over two years for improving the energy and water efficiency of social housing.

Over and above these commitments, the big-ticket item is the \$2 billion Low Carbon Economy Fund, which will be up and running next year. Funding will flow to provinces and territories that demonstrate significant action to reduce emissions, above and beyond business as usual. Projects that have the greatest carbon reduction bang per buck will be favoured.

Boosting green buildings

Meanwhile, new provincial climate plans have the potential to set a high bar for climate action in the buildings sector.

Under Alberta's new Climate Leadership Plan, the province has committed \$645 million over five years towards the creation of Energy Efficiency Alberta. The new agency will design and administer programs — including education

and outreach, energy audits and incentives — to encourage energy efficiency and community energy systems.

Early reports about Ontario's climate plan hinted at possibly the most aggressive provincial action aimed at the building sector: \$3.8 billion for retrofitting buildings and transitioning buildings off of natural gas, requiring zero-carbon homes and small buildings by 2030 (and all other buildings by 2050), requiring energy efficiency upgrades at time of renovation and energy audits at time of sale for homes, and retrofitting government buildings. The province is likely to become the first in Canada to require energy and water use reporting and benchmarking for buildings larger than 50,000 square feet.

One key focus of Quebec's Energy Policy 2030 is to improve energy efficiency by 15 per cent over 15 years. The Quebec government also plans to establish a new government body as a one-stop shop to deliver and provide financing for energy efficiency initiatives and support clean tech companies.

An updated climate plan is expected to land soon in British Columbia. The report of the government-appointed Climate Leadership Team suggests strategies the province could adopt to reduce B.C.'s emissions from various sectors. The team recommends a target to halve emissions from buildings by 2030. Meeting this goal would require a rapid transition to constructing nearly zero-energy buildings and retrofitting existing buildings, employing more carbon sequestering and low carbon materials, and installing higher efficiency appliances. The B.C. government has yet to adopt these recommendations.

Energy efficiency key

Focusing on energy efficiency in Canada's homes and buildings can significantly curb emissions, while transforming markets and boosting the economy.

The Acadia Center conducted a study for Natural Resources Canada in 2014 that found that for every dollar invested in energy efficiency, the GDP grows by \$5 to \$8. The study estimated that \$1.9 billion to \$8.5 billion spent on energy efficiency programs across Canada could result in annual GDP and job growth potential at between \$19 billion and \$48 billion, and between 100,000 and 300,000 jobs, respectively.

According to the Canada Green Building Council, more than \$23 billion in GDP and nearly 300,000 jobs were generated by the country's green building sector in 2014. At the Pembina Institute, we mapped (see www.pembina.org/bcgreenbuildings) more than 10,000 green homes and buildings — associated with over 23,000 jobs — in B.C.

It's worth noting that Canadians already have the skills needed for energy efficiency initiatives. Some builders are already pushing the envelope on nearly zero-energy buildings. In Vancouver, four passive house multi-unit residential buildings are under construction. These will be among the largest buildings of this level of energy efficiency built in Canada, and they need to become the norm.

With the right policies and financial mechanisms in place, it is possible to transform the way buildings are constructed and retrofit for super energy efficiency within a short time frame. For example, in less than 10 years, Belgium's Brussels-Capital Region implemented a large-scale passive house building initiative and incentivized deep retrofits of existing buildings. An annual budget of 60 million euros provided incentives, subsidies and support programs. As a result, more than 5,000 buildings have been built or renovated to passive house standards in Brussels since 2007.

When it comes to climate action, all players need to be leaders. We need to harness the innovation and problem-solving skills of the development industry: incentives and frameworks are brought to life by innovation. The provinces must execute the best game plans possible to reduce emissions in order to access federal funding. This in turn will move energy efficient new buildings and deep retrofits from niche to norm. The federal government must put forth a vision and provide the right tools to curb emissions from buildings. It's a can't-miss opportunity to show Canada that action on climate is good for the economy. **CB**

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