Opinion: Can the Swiss show B.C. how to use carbon tax revenue?

Swiss technology fund has mission to deal with climate change by stimulating innovation

BY SILVIA TZENKOVA, SPECIAL TO THE VANCOUVER SUN SEPTEMBER 1, 2015

B.C. has all the prerequisites to take on its leadership role again and make a guaranteed technology fund based on the Swiss model a reality, Silvia Tzenkova writes

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British Columbia introduced in 2008 a carbon tax covering 75 per cent of all greenhouse gas emissions in the province, with an escalating price level of $30 a tonne for CO_2 reached by 2012.

According to a paper written by Brian Murray and Nicholas Rivers of the University of Ottawa, the tax has achieved emission reductions in the range of 5-15 per cent, has had negligible net economic effect and has created additional lower-wage jobs. Exemptions for greenhouse operations and fuel used in agriculture and, in particular, the promotion of certain sectors such as the interactive digital media and the film-production industry through targeted tax credits, may reduce the over-all cost-effectiveness of the carbon tax.

According to Ottawa-based Analytica Advisors, despite the $12 billion in clean-tech exports goods in 2013, Canada's global clean tech market share of 2.2 per cent has declined by 41 per cent since 2005. Meanwhile, the value of the clean-tech industry worldwide has climbed from $550 billion in 2005 to $1 trillion in 2013.

Canada's poor performance cannot be attributed to lack of research and development. The

Canadian clean-tech industry has invested $6.4 billion in R&D from 2008-13, with $4.5 billion coming from small- and medium-size enterprises. An R&D bubble might be happening due to a lack of co-ordination between federal and provincial innovation policies. R&D needs to be commercialized to create jobs and export-led growth. To do that, the Analytica Advisors 2015 study says, debt financing will increasingly be needed in addition to private equity.

A market wary of the capital intensiveness and long development cycles of the often subsidy-reliant clean tech companies faces difficulties in raising funds due to current financial turmoil. As a result, more companies with relatively lighter capital requirements, focusing on energy efficiency rather than generation, downstream services or leveraging IT to deliver greater efficiency in various industries, are of more immediate interest to the financial industry.

Could B.C.'s carbon tax revenue be used to generate economic growth, create high-wage jobs, further increase emission reductions and improve the carbon tax's cost effectiveness? Is there an instrument that will address the Canada's lost global clean tech market share in a co-ordinated way, that will reward the political commitment to clean tech and climate change, shown by the R&D focused sustainable development technology fund, with export-led growth? Is there an instrument that offers capital intensive innovative companies, not just those innovating with technology or service models requiring less capital, an opportunity to thrive?

What is the international model to consider when designing policy instruments to resolve these issues?

Emerald Technology Ventures and the South Pole Group in 2014 established the technology fund (www.technologyfund.ch) on behalf of the Swiss Federal Office for the Environment. The fund offers loan guarantees of up to 500 million Swiss francs until 2020 to Swiss companies that develop and commercialize innovative products that reduce greenhouse gas emissions, facilitate the use of renewable energies or encourage the economical use of natural resources, basically clean tech companies. The fund guarantees up to 60 per cent of a project's total financing needs. To cover for potential losses, 25 million francs are directed annually from the federal CO2 levy on process and heating fuels to the fund. About 300 million francs per year of the CO2 levy revenue is earmarked for a buildings program and the reminder (about two-thirds of the revenue) is redistributed to the general public and the business community in proportion to their original payments.

The fund enables direct collaboration between government and private industry on assisting clean-tech companies through the commercialization stage. Collaborative decision-making on granting loan guarantees is ensured through a guarantee committee structure, comprised of five private industry and two government representatives. The fund supports the development of a strong domestic market for innovative clean-tech companies, favouring those that create value within the country. This provides the foundation for export driven growth afterwards. The fund supports the clean-tech sector by guaranteeing debt financing at favourable conditions. Moreover, the fund demonstrates the commitment of the government to the clean-tech sector and addressing climate change, as the fund is just one of a multitude of instruments that support the value creation process of a company, and hence, of an industry. The fund leverages public money with private investments and provides for a structure allowing relatively small funding (50,000 to three million francs), while most investors and funds need to invest larger amounts.

Will Canada lose the momentum in clean tech as has happened over the last 20 years in biotechnology, cable and satellite technology? By embracing the urgency for action from policy and private industry leaders, the challenges facing Canada's clean tech industry can be overcome so another loss in a global race is avoided. B.C. has all the prerequisites to take on its leadership role again and make a guaranteed technology fund based on the Swiss model a reality.

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