

# Turn B.C. into a green technology living laboratory

**BY MARC ANDREW, SPECIAL TO THE VANCOUVER SUN** DECEMBER 22, 2010

British Columbia is home to a strong clean energy foundation, but must develop a more robust economic agenda that tests new ideas and commercializes clean energy technologies.

That's the message from last week's Vancouver Energy Roundtable, which gathered over a hundred of the energy sector's leading representatives from the public and private sectors.

The race to develop technologies that can power a low-carbon economy continues. China plans to spend \$7 trillion over the next decade to reduce greenhouse gas emissions.

Globally, investment in clean energy technology is rapidly increasing, and is one of the few sectors to have grown during the recent recession. Developing technologies that will power a global transition to a low-carbon future represents a huge opportunity for any jurisdiction willing to rise to the challenge. If British Columbia fails to develop a clearer and more committed clean technology agenda, we risk being lapped by those who are committed to the race.

B.C. has become a policy leader in the green economy. Premier Gordon Campbell introduced a tax on carbon, regulated fuel emissions, and was a leader in the effort to establish the Western Climate Initiative's cap-and-trade system. B.C. is home to a growing clean energy cluster, and is conducting excellent research at its universities. Mayor Gregor Robertson has challenged Vancouver to

become the greenest city in the world by 2020.

Yet our province must do more to develop the conditions that can foster technological innovations required to dramatically reduce our economy's reliance on fossil fuels. We must do more to create an environment that excels in commercializing promising ideas, including improving access for our companies to testing and financing.

We will not know which technologies are viable until B.C.'s companies are capable of demonstrating concepts in practical settings. The University of British Columbia's recent initiative to establish its campus as a "living laboratory" to test new practices and techniques is a leading idea that can potentially be applied across the province.

UBC will use its existing physical infrastructure to develop a campus-wide smart grid and apply Nexterra/ GE fuel-switching technology to the campus heating and generating system, which will result in a reduction of 4,500 tonnes of GHG emissions per year. UBC's model is an example of a new type of collaboration between the public and private sectors that allows organizations to use their physical assets to develop innovative applications.

The City of Vancouver has recently entered into an agreement with Cisco and Pulse Energy to use city-owned buildings as platforms for the implementation of advanced technologies in building energy management, carbon footprint reduction and data centre efficiency. This type of partnership between the public sector, a Vancouver-based startup, and a global information technology leader is an example of Vancouver as a "living lab."

The provincial government should work with BC Hydro to apply the living lab concept across the province, strengthening the utility's role as an early adopter of new technologies. In time, all municipalities and private utilities should better align their energy planning strategies, including procurement policies that encourage the adoption of the best of new technologies.

These initiatives would help establish British Columbia as a laboratory for the application of promising ideas from around the world. Companies like GE, Mitsubishi and Google should be testing their new energy efficiency ideas here, creating a culture of innovation and developing startups.

Finally, a concerted effort should market the province as the leading incubator of new technologies to attract the financing necessary to grow promising clean tech companies.

British Columbians are looking for their next great challenge. Developing our province into the world's leading incubator of clean energy technologies is it.

Marc Andrew is executive director of The Energy Roundtable.