

## MC<sup>3</sup>: Meeting the Climate Change Challenge

### Submission to the BC Government

September 11, 2015

We applaud the provincial government's next phase of climate adaptation and mitigation and hope it will continue its climate leadership, both in Canada and internationally (please refer to Alternatives article included in this submission). Below is our response to the province's *Climate Leadership Plan Discussion Paper*.

We have decided to respond to the proposal with a written report rather than use the on-line survey for several reasons. You raise two critical questions about which of the four goals needs the most immediate action in order for BC to meet its objectives. It is our contention, based on our previous four years of research in BC communities, that each of the goals warrants immediate and simultaneous action. Without integrated action across all four goals, meaningful (i.e. at a structural level) mitigation and adaptation cannot be achieved, nor will the sustainable development imperative be addressed ((Bizikova, Burch, Cohen, & Robinson, 2010). Also, the province will miss opportunities for realizing important co-benefits of climate change, such as reduced air pollution and improved health outcomes. BC's continued leadership on the climate file, the expansion of the green jobs market, and the province's climate innovation and international competitiveness, we argue, are all dependent upon simultaneously acting on all four goals and objectives within each goal.

We are basing our submission on the evidence-based research from [MC<sup>3</sup>: Meeting the Climate Change Challenge](#), a seven year tri-university, practitioner/researcher partnership (20 partners from across the country) that initially explored climate innovations in 11 BC [community case studies](#) and is now researching the mechanisms underlying existing development paths. This report is also based on [e-Dialogues](#) and [peer-to-peer learning exchanges](#) with over 100 BC policy experts, practitioners, local government staff, elected officials and civil society leaders, that culminated in [Climate Change Adaptation and Mitigation: An Action Agenda for BC Decision-Makers](#). Our response is also based on the research from the Sustainable Dialogues project and its recent report, [Acting on Climate Change: Solutions from Canadian Scholars](#).

Two key unanimous recommendations emerged from the January 2013 peer-to-peer learning exchange of over 50 BC researchers, policy experts, and diverse local government staff.

1. The province should develop a Climate Charter 2.0 with even more aggressive GHG emission targets for two reasons—to continue levelling the playing field

across the province and for local government staff to use to influence their elected officials to adopt even more climate innovations.

2. A central focus in the Charter 2.0 should be to improve the energy efficiency of BC's infrastructure (as stated in your report).

Our current research is exploring the ways in which current development paths change, the differences between incremental, transitional and transformative social change, and indicators for tracking transformative change. A preliminary key recommendation is for the province to play a key role in the transition to more sustainable community development. That is, development that simultaneously restrains energy demand (despite population growth), drives the production of low carbon energy sources, and fosters complete and compact neighbourhood communities that support alternative forms of transport, low-carbon lifestyles, and encourages multi-use development.

With respect to the principles contained in the proposed Plan, we recommend that principle 4 include an emphasis on both integrated decision-making and long-term integrated planning processes and, that additional principles of policy persistence, policy coherence and policy congruence be added. Avoiding stop-start policy programmes and ensuring policy harmonization are necessary to achieve multi-level governance, identified as essential to meaningfully address climate change (Bulkeley, 2010; Dale et al., 2013; Guy et al., 2011; Hodson and Marvin, 2010).

We have structured the discussion below along the same lines as the Discussion Paper. We recommend, again based on our research, more specificity and targeted actions to ensure continuous improvement in BC's local climate innovations.

## The Way We Live

### Communities are thriving and resilient in the face of climate change.

1.1 Our research demonstrates, as does the work of many others, the importance of compact and more dense communities, but this will only be achieved through integrated decision-making and integrated long-term land-use planning. Equally important is the re-purposing of existing buildings for [multi-functionality](#), for example, churches and closing post offices. Other research findings include the following.

- Reformulate the tax code to encourage land-use planning that results in low carbon, energy efficient communities; implement a differentiated 'sprawl-tax' to encourage brownfield rather than greenfield development

- Amend the Local Government Act to allow land banking for diverse end uses, including managed retreat from vulnerable shorelines
- Introduce a Bill that requires targets, goals and strategies on climate change adaptation in official municipal plans
- Recognize the role that universities can play in identifying adaptation, mitigation and broader sustainable development opportunities priorities in planning processes (e.g., Prince George (Newell and King, 2012)), and more generally in turning their campuses into living labs of sustainability, acting as a societal test-bed, and working with private, public and NGO sector partners in the community to design, implement, test, study and teach sustainable solutions; and provide support for graduate students conducting applied research in these areas
- Recognize and provide support to quasi-institutional intermediaries (i.e., Fraser Basin Trust, Columbia Basin Trust) involved in helping communities adapt to climate change, mitigate emissions and create sustainable communities
- Develop a provincial food security strategic system that supports local food production and distribution, while accounting for changes in growing seasons and land conditions
- Support community and regional efforts to establish forest and bog conservation areas as part of their offset strategies (e.g., Darkwoods Conservation Project (Shaw, 2013))
- Increase the energy performance requirements in the building code to international best practice levels
- Develop optional stretch codes to be adopted by interested local governments that include energy efficiency measures that go beyond the building code
- Mandate that all buildings, including privately owned stock, list energy efficiency data and GHG emissions in all advertisements, as is required in the European Union
- Work with the Provincial Assessment Authority and municipalities to creative incentives for home energy retrofits by shifting municipal property tax burdens from those who choose to invest in energy efficient homes to those who choose not to, despite having the reasonable means
- Bring electricity prices more in line with the prices seen in progressive European countries to discourage British Columbians seeing it is a cheap and endless resource, and to encourage a collective conservation ethic

- Enable municipalities to finance renewable energy investments and work with municipalities to build institutional capacity to facilitate the development of district energy systems
- Adopt a pathway to net zero as outlined by the Pembina Institute's report titled, *The Path to “Net-Zero Energy” Buildings in BC* (Frappé-Sénéclauze, 2015)
- Explore and incentivize opportunities for regenerative sustainability solutions that move beyond net zero to net positive incomes, and in so doing simultaneously improve both environmental and community well-being
- Require that any new provincially funded infrastructure development undergo a climate vulnerability assessment and that all infrastructure funds be directed to sustainable infrastructure
- Systematically reduce the current infrastructure deficit in current building stock, looking at differential incentives for rental buildings
- Recognize and support citizens that engage with their local community on mass housing energy retrofit efforts. This can include provincially administered awards for community leaders and organizers, discounts and rebates for bulk retrofit orders, funds for scaling up efforts, and dedicated staff to serve as public liaisons and information sources for motivated citizens (e.g., Eagle Island (Kristensen, 2012)).

## The Way We Travel

People and goods move efficiently and reliably, using clean transportation.

It is clear that we need to enhance access to low- and no-carbon transportation systems, but it is also crucial to facilitate modal choice and to interrupt the collective understanding that necessitates automobility. Premier Wynne’s recent announcement to invest over 130 billion in Toronto’s infrastructure demonstrates the kind of Provincial government commitment necessary to address one of our most pressing climate mitigation challenges. Further interventions include the following if we are to retain the current provincial leadership on this file.

- Adopt California’s automobile emissions standards
- Require climate vulnerability assessment as part of any provincially-funded infrastructure project (as stated above) to apply to transportation infrastructure. (The Public Infrastructure Engineering Vulnerability Committee (PIEVC) protocol provides a useful assessment model)

- Support innovations that enhance use of alternative fuel sources in rural and urban areas, such as cooperative systems that produce and distribute low-emissions fuels (e.g., Cowichan Bio-diesel Cooperative)
- Provide support for increased uptake of ride share systems and infrastructure in rural areas [e.g., Kootenay Car Share Cooperative (Matte, 2015)]
- Develop integrated policies that recognize that a community's walkability is related to elements such as safety (e.g., crime, traffic accidents) and aesthetics (e.g., parks, urban design, public art)

### The Way We Work

B.C.'s economy remains strong, and jobs continue to be created, while greenhouse gas emissions fall.

Our climate action research demonstrates that acting on climate change, specifically implementing carbon pricing has not been at the cost of the economy (Dale, 2015). Future development, specifically LNG development, should be evaluated on the basis of evidence-based research and sustainable community development, for example, see the Pembina Institute report by Horne and MacNab (2014). Ultimately, meeting our climate targets will require much more aggressive emission reduction policies (a unanimous recommendation from our provincial outreach) and a shift away from fossil fuel dependency. The latest research from over 60 Canadian scientists shows that it is indeed desirable and feasible for Canada to achieve a carbon neutral economy by 2050, given our access to abundant renewable resources (Acting on Climate Change: Solutions from Canadian Scholars, 2015). We suggest the following additional steps be taken.

- Apply the carbon tax equally across all industry sectors to stimulate greater innovation and investment in renewables
- Re-launch the Climate Change Charter as version 2.0 and include within it more aggressive targets, goals and monitoring for the reduction of community GHG emissions and timelines, so that it is consistent with our research evidence that shows that innovation and change are not random (Charter 1.0 was crucial to previous BC community innovation)
- Expand the Charter to include the industrial sector
- Incrementally increase the carbon tax according to a well-publicized schedule, as was done between 2008 and 2012, and maintain the tax as revenue neutral
- Establish a feed-in-tariff system that creates opportunities for investment in renewables by cooperatives as per the Ontario system (Dale & Foon, 2012)

## What We Value

The cost of climate change for society is considered whenever British Columbians make important decisions.

As previously mentioned, integrated decision-making and integrated long-term planning are fundamental to climate change adaptation and mitigation. Key to what is valued is how an issue is framed (e.g., the issue of landfills being reframed as stranded assets), while the key to change at the micro, meso and macro levels is concretely measuring our impacts in ways that are transferable to diverse publics. Other essential actions should include the steps below.

- Continue provincial support for communities to undertake ongoing GHG emission inventories and the release of these data in a timely manner and at regular intervals. Partner with academic institutions to develop processes for analyzing emissions data in a manner that produces insights on the main drivers of climate change and areas of opportunities for climate action
- Illuminate the co-benefits of climate action and frame this in terms of the overall sustainable development and vitality of communities
- Provincial leadership is necessary to continue building the business case for local government climate action through provincial leadership (January 2013 BC peer-to-peer learning exchange)
- Re-organize government departments to enable integrated decision-making and integrated land-use planning
- Ensure policy alignment within departments and policy congruence between levels of government.

## Conclusion

The Province of British Columbia is recognized as a global leader on climate change mitigation, largely as a result of the Climate Action Plan of 2008 and the legislation that followed. Local governments have played a key role in this success, adopting greenhouse gas reduction targets in their official community plans and taking action to achieve them. British Columbia has proven that climate change policy does not require choosing between ecological health, economic prosperity, or social well-being (Pembina, 2015). Our research proves conclusively that accelerated innovation and policy harmonization can be achieved through continued strong provincial leadership and active partnerships between the Province and key stakeholders, especially local governments.

There is strong evidence that a critical mass of climate action is accumulating (e.g., US President Obama's leadership on this file, China's adoption of more aggressive targets, Sweden's commitment to be carbon neutral by 2050, the G7's commitment to reduce emissions as much as 70 percent by 2050, and technological breakthroughs such as Musk's battery technology, etc.). Moreover, recent research by a group of 100 leading Canadian scholars confirms that, as a result of Canada's abundant renewable energy, 100 percent reliance on low-carbon electricity by as soon as 2035 is well within reach. Now more than ever, it is clear that bold leadership and decisive action are required to address the causes of climate change, adapt to its impacts, and ensure that BC and Canada are not left behind in the coming era of accelerated implementation of on the ground solutions internationally.

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