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Climate Innovation and Implementation in BC Communities

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*This e-Dialogue is the second of the Meeting the Climate Change Challenge (MC³)
conversation series*

www.mc-3.ca

Dialogue

Ann Dale

Welcome to our Part 2 of the Meeting the Climate Change Challenge e-Dialogues.

Today, we will be drilling down into what we have learned so far, it has been a rather interesting journey. Before we begin with our first question, could I ask everyone to first introduce themselves and identify the case study communities they are working on.

We also have some of our research partners joining us, who don't work specifically on case studies, but provide invaluable input into our selection and bring a wealth of knowledge about how BC communities are responding to climate change adaptation and mitigation.

Sarah Burch

My name is Sarah Burch. I'm a postdoctoral fellow in 'sustainability governance' at the University of British Columbia. I work out of the Centre for Interactive Research on Sustainability, and I focus on climate change/sustainability policy in communities. I'm especially interested in strategies for engaging with civil society, the private sector, and other groups to develop effective, innovative sustainability tools and actions.

I'm a member of the MC3 research team, and I'm leading the community case studies in Revelstoke and Surrey.

Alison Shaw

Hello everyone. My name is Alison Shaw. I am a researcher in sustainability science working on ways of leveraging institutional change that emphasizes engagement, capacity-building and social learning. I have been managing the MC³ research project, while also performing research in two of our eleven case studies. The community I have had the pleasure of working with is Victoria. Another case study I have been fortunate to be working on, the Carbon Neutral Kootenays, represents climate action that extends across 27 municipalities, 5 First Nations and 3 regional districts. In this way it is not a community, but a project with great geographic scale and scope from which to draw lessons.

Meg Holden

Hello colleagues, I'm Meg Holden, piping in from Simon Fraser University Vancouver, Urban Studies Program. I have been working on the city of Vancouver case, along with my student Hedieh Rashidimalekshah, and on the Campbell River case, along with my student Eric Brown. Two very different communities where climate change action and innovation are concerned.

I'm an urban researcher, and my research typically focuses on sustainable cities in policy and experience, sustainability assessment, as well as urban theory more generally.

Freya Kristensen

This is Freya Kristensen. I'm a PhD candidate in the Department of Geography at Simon Fraser University. My PhD work is focused on city learning processes around

sustainability and specifically how formal municipal sustainability networks facilitate policy learning between cities on sustainability-related issues. I am also a researcher with the MC³ project and my case studies are Dawson Creek, Eagle Island, and the City of North Vancouver.

Ben Finkelstein

Ben Finkelstein here. I am the Manager of Green Communities in The Carbon Neutral Government and Climate Outreach section of the BC Climate Action Secretariat in the Ministry of Environment. The Secretariat leads change to achieve the Province of British Columbia's greenhouse gas emission reduction targets.

I support the work of the Ministry of Community and Rural Development, Union of BC Municipalities, The Green Communities Committee and local governments as they work towards achieving their Climate Action Charter commitments.

Prior to joining the Secretariat I worked in the Environmental Stewardship Division of the Ministry where I worked on strategic initiatives such as youth and environment projects, stakeholder engagement and partnership development.

Yuill Herbert

I'm a consultant working with many municipalities on climate change policies and have worked with more than 20 municipalities in BC on their plans.

Robert Newell

My name is Rob Newell, and I am a researcher in Ann's Canadian Research Chairs in Sustainable Community Development program. I do a lot of research on social media and innovative ways to connect with broad, diverse audiences with sustainability ideas and concepts, but I'm also involved in the MC³ project helping Dr. Leslie King with her cases. We are looking at Prince George and T'Souke First Nations.

Ann Dale

What a diverse group of experience and expertise, I look forward to our dialogue. Ben and Yuill, if you have any information to add about the communities you have worked with, please jump in, especially with respect to leadership and innovation.

We claim that BC is a living laboratory of climate change mitigation and adaptation responses due to its innovative policies. So, what's happening on the ground around climate innovation in your case study communities?

Sarah Burch

For those new to this project, and as a reminder to the rest of us, the MC³ project is currently studying innovative climate change/sustainability action in the following communities:

Vancouver, Surrey, City of North Vancouver, Eagle Island (West Vancouver), T'Sou-ke First Nation, Campbell River, Victoria, Dawson Creek, Revelstoke, Prince George, and the Carbon Neutral Kootenays project.

Ben Finkelstein

From UBCM last week, some leaders, click [here](#) to see the Community Energy Association press release.

Freya Kristensen

The City of North Vancouver has been very focused on reducing both corporate and community GHG emissions since it was made a central feature of its 2002 OCP. However city staff have been frustrated with the restrictions contained in the BC Building Code, that limit the city's ability to mandate energy efficiency standards in buildings and require developers to hook up to the district energy system. The city's response has been innovative, coming up with a series of incentives such as exchanging building density for energy efficiency. This has been very successful.

Meg Holden

The City of Vancouver sees itself as an "early adopter" of responses to climate change. This dates specifically to the 1990 Clouds of Change report that said the City and citizens were taking note of impending climate change even at that time when it was very unusual for a city to take such a stance. But some look even further back to the decision to stop the freeway project through downtown, which created a trajectory of different options and a different "choice architecture" for travel to and from, and within downtown.

Ann Dale

Meg, what are some of the early adoptions and would you be able to prioritize its actions in terms of the most effective, or all they all needed and simultaneously?

Meg Holden

Starting the contemporary round of political and public conversation on what and who the city is for back in the 1960s, Vancouver can trace the results of this conversation directly to understanding how much land use matters, and directly again to climate change. And the big legacy, long term, is that addressing climate change is not a political hot potato in Vancouver. It's what the city is about, whether the leaders are left or right wing, almost regardless of the provincial framework as well. Of course, there are lots of enabling factors out there now, and have been since the province passed climate action legislation in 2008, but really, Vancouver would be working on this anyway, and will continue to do so, because the logic is there, embedded, and irresistible in terms of how the city and its success are understood.

Sarah Burch

Revelstoke is an interesting example, I think, because it's a smaller community. It's created a district energy plant using waste from its local sawmill (which would've gone into a beehive burner, before these were closed down throughout the province), which it's considering expanding. Revelstoke is also thinking about how to densify a small community while maintaining and enhancing community character.

Ann Dale

Sarah, would you say, based on your experience in your case study communities, that if you get energy right, you get sustainability?

Sarah Burch

No, I don't think that this is necessarily true. Energy is a crucial part of the sustainability equation - but in theory you could have zero carbon renewable energy and have heaps of challenges related to affordability, ecological impacts, equity (i.e., access to the energy), etc. It's certainly core on the emissions front, but sustainability is a bigger proposition, in my view.

Freya Kristensen

I agree with Sarah, here. The social side of sustainability is becoming more prominent in the case of North Vancouver, where the city is trying to maintain its stock of below-market rental housing, while at the same time improving energy efficiency in these buildings. They have done this again through incentives - giving a developer land in exchange for redeveloping an existing sub-standard below-market rental housing to meet the city's energy efficiency and GHG reduction goals.

Robert Newell

I see some interesting parallels with Revelstoke to Prince George. Prince George has also created a district energy system, among employing other innovative energy initiatives. However, the parallel I find particularly interesting is that the city is hoping to densify their city, as well. For Prince George, this requires a revitalization of the downtown core to make it safe, appealing, and walkable, and, ultimately, this would result in less vehicular traffic and emissions. This is a very interesting linkage between the social aspects of a community and reduction in emissions.

Sarah Burch

Ah, yes, and density is a tough proposition in many communities. I heard again and again that many people moved to Revelstoke to escape density, so it's important to recognize that sustainability is very place-based. It will look different in every community, I think.

Meg Holden

Or, maybe Sarah, communities need to 'think' it looks different to their 'unique' place? Couldn't you say that Surrey is now following a path that Vancouver took 30 years ago with its downtown redevelopment, more or less, not to take away from the boldness and exciting nature of that development, right now? But, we aren't REALLY reinventing the wheel with each policy shot, are we?

Sarah Burch

Great point, Meg. Perhaps it's just that there is a backlash to skipping 'steps' along the path to becoming a larger, and perhaps more sustainable community. Residents reject the notion of density when they feel it means jumping from single-family detached homes to 30-storey towers (which of course is pretty unlikely). A conversation needs to be had about human-scale, compact mixed-use development on the order of 2-3 storeys. I think this is the conversation that's going on in Revelstoke and elsewhere.

Yuill Herbert

It is remarkable what is happening in BC. We also work in other parts of Canada, and BC is way ahead of the pack. At the heart of this effort are the Community Energy and Emissions Inventories:

Click [here](#) to see the Community Energy and Emissions Inventories.

These provide a standardized and periodic GHG baseline for all the communities, a remarkable initiative.

The other key aspect in my mind is Bill 27. It drives understanding of the relationship between land-use and GHG emissions, which is emerging as one of the most important levers that the public sector has. Land-use drives the types of buildings that are built (energy consumption), the way people move (bicycling or cycling rather than driving) and the opportunities for district energy.

Ann Dale

Yuill, so it is critically important to be able to measure what is actually happening on the ground?

Yuill Herbert

It allows us to actually know what works and what doesn't. I was recently reading Cornelia Sussmann's fascinating thesis on South East False Creek.

Click [here](#) to see Sussmann's thesis.

It demonstrates how one of North America's most sustainable neighbourhoods actually doesn't reduce GHG emissions very substantially. There is a huge disconnect between perceived reductions and what is actually required to live within ecological limits.

The challenge of deep GHG cuts is particularly profound for rural communities. Private vehicles are the only option for private transportation and people tend to have larger vehicles. So this is the greatest opportunity for innovation. Car sharing, village nodes, taxi-transit are all interesting options with which people are experimenting.

Ann Dale

Any examples of rural communities where this is happening?

Yuill Herbert

The Municipality of the District of North Cowichan is grappling with these issues. They are in the unique situation of having three sub-communities, Crofton, Duncan and Chemainus, triangulated. The result is that if density increases in Crofton and Chemainus, GHG emissions will increase as people travel to the larger community of Duncan for particular services. It turns out their GHG reduction could consist of supporting new services in Crofton and Chemainus.

Alison Shaw

These are topics that the City of Victoria is tackling right now as they consider ways to implement a state-of-the-art official community plan that includes climate and energy targets as well as other strategies such as transportation and land-use planning that influence emissions. Of interest in this case is the 30-year vision for Victoria envisions 'village-centred planning' so that, by 2041, 90% of residents will live within 400m of a village centre and 100% within 400m of public transit. This is a significant shift that will bring considerable density as well.

Robert Newell

This is not my case study community, but Nelson has a car-sharing program that I understand to be quite successful. Another interesting example would be a community that our CRC program has studied, Salt Spring, they have areas that are marked as pick up zones. Essentially, they act as a community-organized hitchhiking system. But, of course, the big challenge here is trust. Perhaps, Salt Spring can pull this off more easily because it is an island and geographically separated from elsewhere by water. This reduces the fear of 'drifter', as most on the island would be tourists visiting the island, locals, or friends/family of locals. Once again, linkage between reducing emissions and safety.

Meg Holden

I know from the Campbell River case that the municipality feels a little bit held back in terms of converting its vehicle fleet to electric in the lack of availability of electric light duty trucks. The commercial availability of electric vehicles needs to increase for perceptions of their value to increase (speaking as someone who loves driving the space-age Nissan Leaf from modo car coop).

Yuill Herbert

Salt Spring is a fascinating example. About six years ago, our cooperative SSG, working with Holland Barrs, modelled the GHG emissions for different growth scenarios of Salt Spring. We found that by focusing development on villages, we could reduce GHG emissions by 22%. However the plan was never accepted because of stranded costs. Basically, many people had bought land on Salt Spring with the idea of developing it in the future and the idea of restricting their right to develop based on GHG emissions went over like a lead balloon. History made it politically unfeasible to implement a land use plan that would generate health benefits, reduce energy costs for dwellings and reduce GHG emissions. A major challenge echoed to a lesser degree in other communities.

Ann Dale

How many of the cases have integrated their Official Community Plan and their Integrated Community Sustainability Plan?

How many cases demonstrate evidence of leaders/champions?

How many have active community engagement and education plans in place?

With respect to density, maybe there is an optimal scale?

Ben Finkelstein

How many...good question! Collecting all that local governments are doing is challenging. BC GOV collects much of this through the Climate Action Revenue Incentive Program (CARIP). Digging through this information is very valuable and provides best practices and real examples large and small of true GHG reductions activities.

Sarah Burch

Revelstoke has some great stories here. It has a long tradition of deep and prolonged community engagement, leading to the development of their Community Energy and Emissions Plan, and now their (just-launched) Integrated Community Sustainability Plan process. It is their ultimate goal to weave this through their OCP.

Freya Kristensen

North Vancouver integrated its ICP and OCP back in 2002. This is a case where leadership from the mayor and from staff have been crucial in pushing forward sustainability. The mayor inspired staff to take on climate change and so responsibility for sustainability exists throughout city hall.

Alison Shaw

The City of Victoria just approved both a Sustainability Action Plan and the OCP within one month of one another, this summer. The timing represents a good case of happenstance. As a staff member of Victoria's Sustainability Department said, the land-use and transportation planning, food systems and emergency management dovetailed with climate change and sustainability efforts quite nicely.

Yuill Herbert

In Nova Scotia, many communities undertook ICSPs with significant community engagement. However, these plans were not integrated with normal planning processes.

Ann Dale

How important is the structure and mandate of sustainability offices in the case study communities? I think the integration of ICSPs and OCPs demonstrates a clear commitment to action?

Sarah Burch

There are really interesting questions here.

Is it best to have a dedicated team, whose job it is to develop and implement sustainability initiatives? Is it best to disseminate sustainability throughout the planning, engineering, and operations departments? Or is it best to find some blended model, where a small number of dedicated sustainability staff facilitate, catalyze, and enable action by staff within the core municipal departments but don't themselves initiate?

Alison Shaw

This exact issue is what Victoria is struggling with right now. This question has been raised by community taxpayers in rather austere times questioning why an entire Department is needed. Shouldn't the City itself be sustainable? In the case of Victoria the Department has played a great facilitative role with operations, building on innovations such as district energy systems, that would otherwise be on the side of people's desks. But, there are concerns that efforts may duplicate those with technical skills in operational management. Suggestions have been made about having sustainability professionals in each of the operating Departments instead. Depending on its position, mandate, and relationship with operating departments, a Sustainability Department can build priorities and move, with relevant partners, to implement projects and plans, or it can prevent overall ownership for sustainability decision-making within Operations.

Meg Holden

This is one that Vancouver certainly struggles with, as it also is undergoing a transition toward a much more structured, corporate entity, much more driven by performance measures, both internal and external, related to climate action and to every other task under its belt. Currently, the Sustainability Group, which reports to the city manager,

sees itself as a sort of secretariat for liaising with leaders for specific sustainability tasks and initiatives throughout the city corporation, as well as a sort of incubator for specific new initiatives (like completing the province's first climate adaptation plan for a municipality). There are at least growing pains in relation to this model, and it may simply not be effective under current fiscal and staffing constraints. A lot of departments say that all they are asked to do from the Sustainability Group is report, report, report, taking precious time away from action, action, action.

Yuill Herbert

I heard this as well, Meg (the frustration with reporting). I would add that perhaps the feeling that sustainability folks are bogged down in reporting is in part a reflection of the learning curve that is somewhat inevitable as we muddle through corporate/community climate change and sustainability action. Hopefully these practices will become embedded in typical municipal accounting and will become less laborious.

Ben Finkelstein

Local government Energy/Climate/Sustainability staff are very new to their roles. I think they are fundamental to moving climate action and sustainability forward. My concern is that they are not 'networked' enough to learn from each other or share best approaches. My other concern, because they or their, sections are new is that councils will look at them as possible 'savings' as they can't clearly show how their work saves money.

Meg Holden

Is a BC version of the US Sustainability Directors Network (click [here](#) to see the US Sustainability Directors Network site) what is needed here, to support and value the work of sustainability staff? I know some BC staff take part in this large network, but perhaps a provincial chapter would allow more local issues to be hashed out and profile raised?

Ben Finkelstein

North Vancouver and Vancouver have always been at the forefront on this file regarding enlightened staff. Lower mainland in general as well. What about smaller communities where staff are not that familiar with climate/sustainability action?

Alison Shaw

Great point, Ben. This is one of the hallmarks of the Carbon Neutral Kootenays. Rural communities, with very limited capacity, are able to get training and awareness about some of these issues through this collaborative project. The upside is that the CNK has been successful at bringing those communities with least capacity on board - though the final analysis has yet to be made about the longitudinal effects of this. It may be that with staff and political turnover, this capacity may get lost.

Sarah Burch

This is a great point, Ben. My thoughts would be,

- a) smaller communities are actually gaining expertise on this stuff, which they may not have had five or ten years ago,
- b) and this is the power of networks - they should be able to easily find best practices and experts (whether practitioners, scholars, or their municipal counterparts in more experienced communities) to help them figure out what will work best in their community.

I've also heard again and again how crucial the BC Hydro Community Energy Manager program is for building capacity, as well as groups like the Columbia Basin Trust.

Alison Shaw

The Columbia Basin Trust has been a central player in Revelstoke and in the communities. The role that this intermediary body has played has helped to overcome some of the common barriers reported in other communities - lack of funding.

Yuill Herbert

I have been privy to many remarkable discussions that would never have had happened five years ago. As municipal financial officers struggle to incorporate the social cost of carbon into project budgets, CAOs look at municipal energy utilities and engineers consider electric car charging stations. Things are evolving so fast as is people's expertise.

Alison Shaw

This is so true, Yuill. It is quite an amazing time right now. We cannot forget the role that civil society organizations and citizens play in pushing on some these topics as well. In a number of cases, the culture and citizens of the area were seminal in leading and/or

pushing local governments to action. On that note, Transition Town Victoria is an innovation that does not directly relate to climate change but has all kinds of sustainability outcomes, namely reductions in production and consumption, increasing local capacity and social well-being.

Click [here](#) to see the Transition Victoria site.

Ben Finkelstein

I presented this year to the Government Financial Officers Association Annual General Meeting. Best received presentation to date to a packed room on carbon neutral!

Meg Holden

Yuill, I have a question on the point of this rapid evolution in expertise and understanding the trade-offs and costs involved in action/inaction. I was surprised in my cases that no one seemed particularly concerned about questions around choice of technology (for district energy, transportation, green buildings), which I would have thought should be front of mind given that so many of these things are untested, and we could be making million-dollar mistakes with the wrong technology choice? What do you think the state of the technology and understanding of choice is?

Yuill Herbert

People are making mistakes all over the place. I know a municipality that installed a solar thermal system in Nova Scotia that wasn't engineered properly and they had to take it all down. Halifax has had major issues with its district energy systems. Financing retrofits in Vancouver has been very challenging for legal reasons. The list goes on and on. But, I think most people are recognizing that they are learning and are adapting. Because many of the technologies are new (even if they are old like solar thermal), there are lots of people selling services without any standardised qualifications. So, lots of challenges there!

Ted Sheldon

Yes, there are lots of mistakes to be sure. Some of those mistakes include trying to jump ahead of the experience of others. Case in point, having come back from seeing a number of district energy systems in Europe earlier this year. The eight 'mini-plants' that comprise Lonsdale Energy Corporation and the Fink Machine in the City of Enderby are wonderful examples of starting small and building to meet demand.

Sarah Burch

Returning to the question of what model works for operating sustainability initiatives, separate department, integrated into all departments, or blended, we've found examples of all three models in our cases, and the blended model (in my view) seems to work best. Of course having dedicated sustainability staff is only possible if the resources are available, which happens when sustainability is very high on the community's list of priorities.

Robert Newell

This is a big question! Leslie and I discussed this one a fair bit on our trip back from Prince George, and the blended model really seems the most effective format.

Essentially, with only a separate department, a situation of isolating sustainability from the main purpose or operations might happen. You can 'compartmentalize' sustainability, which creates it as an 'other' rather than part of the primary development pathways.

If it's integrated into everyone's task, sustainability (in our current culture and climate) could be treated as almost a 'luxury' priority. In an ideal world, this wouldn't be the case, but, in our current world and society, it might not always show up in the primary mandate.

With the blended model, sustainability becomes part of the day-to-day operations and the momentum keeps on because there is a group championing it. At least at this stage, this seems to be the best course of action.

Freya Kristensen

North Vancouver staff reported over and over again that not having a centralized sustainability office is the reason for their success. Because all staff are charged with implementing sustainability, interesting innovations have come about. There is a sense in the city that 'everyone is in this together' and working towards the goals set out in the OCP.

Meg Holden

Right, but there are diseconomies of scale in this, right Freya? Like a game of telephone, where the more people pass the message, the more mangled it may get? What I mean is that we can happily share a large task in a small or medium sized environment, but in a large environment, some structure needs to be introduced. Do you agree?

Freya Kristensen

Meg, yes, I think I do agree, although I personally have not studied this in larger communities. There seemed to be an acknowledgement by staff that because they are small and resource-constrained, this is pretty much the way it has to be (i.e. they can't afford a sustainability department). So, my impression is that this has been their way to overcome this barrier, by making sustainability a requirement by all of staff. As for the message getting diluted, I'm not so sure, as staff are required to justify budget requests by linking their projects directly to OCP goals. They are also required to consider the city's GHG reduction targets and how their project relates to those goals.

Robert Newell

I would like to note that there is a very strong public perception aspect here, as well. We found in Prince George, when you go from having a sustainability department to trying to make it part of everyone's responsibility, there needs to be a lot of thought in how the transition is done in terms of discussing with public and stakeholders. Disassembling a sustainability department, even with delegating the task to others, can almost look like an 'attack' on sustainability goals. This can be very discouraging to a community that holds these values, and the community might become distrustful of the leadership. It's a very strong point for the importance of engaging and involving communities when governing them.

Ben Finkelstein

True, but of even great concern is the perceived or actual downloading of work to other staff, whom already are full on in their tasks. Again, the climate file becomes a side of desk thing. Still agree with the integration approach, but in the meantime, I fear losing the momentum.

Ann Dale

This is a crucial point, and I think we have learned that policies are place-specific. Without a central point, accountability can become too diffused, and I think we all agree how critically important leadership is. For example, one of our research team members, John Robinson, has just been named Associate Provost for Sustainability for UBC, so clearly, they believe a central focus and point of contact is important. But as John argues, maybe it is the mandate that is crucial - a facilitative role or an operational role?

Ted Sheldon

All policies and approaches are not place-specific (e.g. solar-ready bylaws, renewable energy requirements, etc, and speaks to the potential importance and opportunity to

'transfer' these lessons learned and related local government policies to other local government, let alone set up 'policy templates' to make it easier to do so.

Yuill Herbert

I think we are witnessing a general broadening of understanding and knowledge of these issues beyond the sustainability department. But, sustainability departments are critical to keeping the pressure on and ensuring that someone has the file at the front of their desk.

Meg Holden

Isn't the question about integration of OCPs and ICSPs the same as the question about single united sustainability unit/distributed responsibilities for achieving sustainability throughout the organization? Is the question whether 'sustainability' needs to be mainstreamed within each and every practice of local government or whether it needs to be a special, attention-getting, new and shiny initiative? New and shiny initiatives are important too, for politicians, investors, public attention. Integrated mainline initiatives can lack these features.

Robert Newell

Meg, I have spent a lot of time wondering about this. I can definitely see the importance of the public relations aspect of having a pretty, sparkly new environmental initiative, but it can be rather polarizing, can't it? I'm probably speaking more from the perspective of one who's worked for half a decade with ENGOs involved in public outreach, and I can't help but think that simply the 'green' in our name turned people away from our causes and ideas.

So, what I wonder, and asking everyone here, is there an example of a government publicizing how well they've integrated sustainability into there operations, rather than simply brandishing a 'green' initiative?

Sarah Burch

I think, at least in the past, demonstrating how well sustainability is embedded just hasn't been sexy. This may change as we start to ask for quantifiable results on all of our various plans. We won't get at transformative reductions in emissions plus everything else we want on sustainability without this integration.

Alison Shaw

This tension reminds me of an anecdote. Fleets were being managed in a large Vancouver-based organization aiming meet emissions reduction requirements. One sustainability professional suggested investing in a number of hybrid cars, spending the associated money and getting the 'bling' for the buck. Another sustainability professional suggested having staff invest in and share in the car co-op as a sustainability decision that also considered the economic and social aspects of the decision. They went with the non-sexy, more effective and cheaper approach.

Ben Finkelstein

Carbon Neutral government! We have reports and 'brand' ready to go but it has been a challenge as our elected officials have been reluctant to celebrate. Is CN not sexy, it's controversial we know. Why have other PSO - Universities not celebrated, or have they but the general public has not noticed?

Sarah Burch

Interesting, Ben! What are the main reasons why elected officials might be hesitant?

Ben Finkelstein

Main reason was concern over offsets, which is just one part of CN. A bit of bad press and the file is affected. Key to CN is measurement and resulting reductions. Offsets comes later. But the overall concern is the positive buzz around Climate has faded a bit. This was evident at UBCM this year. We can work towards the file becoming "normal" but elected leadership is fundamental.

Alison Shaw

Ben. Could it be that this is considered to be the role of government, making decisions on behalf of the public good? Certainly in municipalities in this research, with businesses and with people and students I interact with, people want (and have come to expect) clear guidelines and rules to follow, also supported by strong incentives and/or rewards as well. Maybe not having the fanfare is actually a good thing?

Meg Holden

Well, maybe it is the brand. Some jurisdictions abroad have used the moniker climate positive',

Click [here](#) to see to see the Barangaroo site.

It's basic psychology, maybe, but we don't want to just be neutral? And, 'carbon' remains a bit ethereal of an idea?

Robert Newell

Very interesting! And, perhaps, 'climate positive' has a more active connotation to it? The concept of 'neutral' can be thought of as get there and just hold at that level, where sustainable development pathways are ongoing and dynamic processes.

In a manner of speaking, it seems that we are tipping into an 'integration' phase in public awareness and the way that our systems work. Sustainability is definitely becoming much more an important concept as people's eyes open to the issues of not living sustainability. It's now become a matter of champions bringing in the practicalities, and ensuring they become commonplace practices within our societies operations. This could be a fairly long transition phase, but I can see the ultimate goal would be to be able to say that we no longer needed a blended model, where 'green' is no longer a sparkly item to add to initiatives, and integrating sustainability into all operations is just common sense and intuitive.

Meg Holden

'Integration' sounds so Whiggish to me, sometimes, but it is true that there are basic elements of communication and coordination that need to be done better, and climate change and sustainability agendas seem to be the first real motivating forces to achieve them. I was surprised, for e.g., at BC Hydro's excitement around their Integrated Infrastructure initiative with the Conservation Collaborative agreement they have with the City of Vancouver. Integrated Infrastructure means coordinating digging up the streets and sidewalks so you redo the pipes for district energy at the same time as you do your basic infrastructure servicing! It blows me away that these basic facets of integration are not already standard practice.

Robert Newell

Great point here, Meg. And, it is rather bizarre how departmentalized / compartmentalized we have become. We can make the same point for interdisciplinary approaches to researching and planning. How can one examine the structure and plan of a community without understanding the ecology of the environment supporting it? It is strange that 'integrated' and 'interdisciplinary' is sometimes treated as an innovative novelty rather than a necessity.

Ann Dale

Meg, I totally agree, we lost a major opportunity with the economic stimulus response to the economic downturn. I almost wept when I saw the same impermeable surfaces simply being repaved, what an opportunity to develop sustainable infrastructure and also inject some more beauty back into our communities. We are so resistant to change, same old, same old patterns, we need to emphasize the qualitative difference between 'development' versus 'growth' and 'being' versus 'becoming'.

Sarah Burch

I agree with you both, Meg and Ann - integration (communication, collaboration, exploring synergies and cost-effective ways to do many things at once) sounds boring but is super yummy.

Ann Dale

Reminds me of the neglected first R of the recycling continuum - reduce which is so often forgotten.

We still have one more question to discuss. Lots of learning - institutional arrangements, leadership, district energy systems, land-use planning, integration of OCPs and ICSPs, evidence of quasi-institutional intermediaries, political and official coherence, and so forth.

On to our next question. What types of barriers have your interviewees experienced and how have they overcome them?

Meg Holden

One interesting result from Vancouver was that there was a split between interviewees responding that the greatest barriers were 'public attitudes and awareness' and those responding that something more along the lines of institutional, or even technological inertia, were holding progress back. Different ideologies at work about how change happens and where the leverage points are.

Ann Dale

Are there any other 'nuggets of gold' you have learned, Ben and Yuill, jump in here as well from your experience.

Yuill Herbert

Not sure if this is following the thread but one fascinating observation is that many people are hoping that electric vehicles will fundamentally shift the transportation equation as an easy solution (me included). But, I worry that the only reason that electric vehicles appear as a GHG reduction is that we are using geographic based GHG inventories instead of consumption-based inventories. In other words, electric vehicles appear clean because we are only accounting for the emissions at the tail pipe.

As a follow-up question, what are the biggest and yummiest opportunities going forward?

Ted Sheldon

On point #2, relative to BC local governments, could I take this opportunity to direct our local government colleagues to 'Community Energy and Emissions Modeling'?

Click [here](#) to see the BC Action Toolkit.

This is something Yuill and the Sustainability Solutions Group and approximately 10-15 other 'modeling practitioners' have growing experience in assisting BC local governments with developing or rationalizing a number of their 'GHG targets, policies and actions'.

Ann Dale

Green revolving funds.

Alison Shaw

Ha. BIG question Yuill. I think one really interesting innovation emerging out of the Carbon Neutral Kootenays project is the prospect of a regional offset strategy. In other words, this strategy would use carbon tax refunds (and ideally offsetting monies), to invest in locally visible and effective emissions reducing projects. This seems like an interesting way to get communities excited and engaged in the transition that is occurring under their feet.

Ann Dale

We also have this question from our audience,

"My two points which I wanted to inject into the talk were:

1) the efforts of local communities to reduce carbon emissions are useless unless we convince governments and corporations to phase out the export of fossil fuels.

2) objectives for carbon reductions (like 80% by 2050) are not based on science; rather by politicians. Science objectives are 6% reductions per year starting now.

Any thoughts or comments?"

Sarah Burch

We definitely need to start thinking with that under-used lobe of our brain that views the globe as an integrated system. Tweaking our own emissions by a few person here and there is nothing if we're just feeding the fossil fuel addition elsewhere.

Meg Holden

On the first point, this is of course a key piece of the puzzle that our accounting and policy initiatives have not dared tread upon - the whole domain of economic production and the really ridiculous nature of BC's claims about having low carbon energy, when we export fossil fuels for 'other places' emissions'. However, cities might be key to the awareness and change here, too. I was really heartened by the resolution passed recently at the UBCM in which municipalities stood united in their opposition to increased tankers. Click [here](#) to see an article on the No Tankers motion.

It's a start to the hard conversation connecting the dots about how we maintain our quality of life and how we reduce our reliance on fossil fuels at both ends of the pipe.

Sarah Burch

Ah, yes, but this motion passed with only 51% in favour. Pretty skinny margin - obviously a contentious issue!

Alison Shaw

In reference to these comments, I would ponder whether this flurry of activity around climate change energy and emissions reductions is leading to the type of transformative change you are alluding to. There is hope in the fact that technological and social change usually move at glacial speeds, but in BC it appears that there is a real shift occurring and with that shift leadership is emerging in places that we could not have anticipated even 5 years ago. As an addendum to that note - leadership is fundamental!

Sarah Burch

Interesting, Alison! I would suggest that technological change is the opposite of glacial - it's tough to keep up. Similarly, social change can be triggered by having the right messenger, with the right tools, at the right time. It's certainly a trick, though, to weave these changes throughout our cities, building policy that is resilient and adaptable.

Ted Sheldon

Absolutely. But, 'integrated' (excuse my play on this term from another 'angle') leadership between the community (key spokespersons), local government, province and nationally are all required, along with complementary legislation, policies, bylaws and actions to 'synergistic' make the kind of transformational change required to be realized/seen at the local level.

Ann Dale

We have called it policy congruence (between levels of government) and policy alignment (within government). Exactly the key tipping point, fixing the rules of the game.

Sarah Burch

I would echo this, Ted. Many municipalities have told me that it's frustrating to try to tackle their emissions when policies at other levels of government are wildly inconsistent. Synergies are crucial.

Ann Dale

One of the things I love about research, is it always throws up more questions?

What are the critical tipping points for transforming development pathways?

Alison Shaw

Fuel type and energy provisioning is key, but not in isolation.

In the Victoria OCP process 4700 citizens were engaged in visioning a future over 30 years. That walkability, transit, emergency and food planning were all considered is remarkable. This marks a significant shift from the way we have been building, moving and living in the past. Victoria has a culture that supports this type of strategic vision. It

is also located in a geographically vulnerable location. Is it a bubble or are there lessons that can be mobilized for integration in other communities?

Yuill Herbert

It would be interesting to look at this in terms of social movement theory or some other social science methodology. It is shifting the way local governments think but not sure about the general population.

Ann Dale

A comment from the e-Audience from our co-researcher, Mark Roseland.

An underlying concern throughout this discussion is community capacity for climate action, particularly in the smaller communities. In these budgetary times, increased capacity (i.e., staffing and funding) is not likely anytime soon. Therefore, as Sarah put it in one of her publications, communities need to utilize existing capacity more effectively. That's the motivation behind Pando, a new online network of sustainable communities researchers and practitioners. If you are not on it, I would encourage you to sign up (free), and also to encourage other researchers and practitioners with an interest in these issues to join.

Sarah Burch

By way of new resources, a new TED Talk on climate change in cities (by Vicki Arroyo) was posted on the weekend:

Click [here](#) to see the TED Talk.

We also have an ongoing conversation about sustainable cities [here](#).

Ann Dale

Here is our last question, and thanks so much for your participation and generous sharing of your learning.

"I've noted a lot of discussion on the public perception aspect of climate change plans. I have often noticed that sustainability plans are often publicized under different hats, i.e., use less energy to save money.

Do you think this is an okay strategy or should we spend more time presenting the long-term sustainability objectives of a plan rather than packaging it as something else?"

Meg Holden

I'd say that thinking about the long term is a little bit like interpreting the results of multiple regression models - it is not natural for most of us, it takes training. So, there is nothing un-genuine about communicating sustainability plans to different people based on the things that they care about. This is the fact of life in a diverse democracy.

Sarah Burch

Great question. My view is that it's important to recognize that different communities (and different individuals) are motivated by different values. If we only use one standard set of justifications for sustainability or climate change action, we're going to lose big chunks of the population. In my view, it's strategic and valuable to be able to translate the benefits of sustainability - so package it whatever way works (as long as everything you're saying is true!).

Robert Newell

This is a tricky issue, and I can put in a few words on it before the conversation ends. When working in public outreach in the ENGO sector, I found that posing an issue in terms of people's interest is a great way to find common ground. i.e., 'don't leave garbage out for bears because they might come back and damage your property' is a good way of presenting the 'fed bear is a dead bear' issue to someone who isn't that attached to the local wildlife. I think once you find that different interests have common paths and common goals, it's much easier to open up the sustainability discussion. So, I see it as okay to start from angles outside specifically the 'green' angle, and then hopefully, people will start realizing that sustainability is indeed a common goal.

Alison Shaw

This is a great question of framing. It came up a lot in rural communities where the support for the sustainability agenda may not be great. In many cases, return on investment arguments are being used to retrofit buildings and shift to cleaner sources of energy. Framing actions differently while getting at the same outcomes and using alternative arguments like increasing fuel prices and building long-term resilience is a great way to go!

Meg Holden

Thanks Ann, Rob, Sarah, Alison, Yuill, Ben, Ted and all, for a good conversation. More answers and questions needed!