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### Expanding the scope of British Columbia's carbon neutral government mandate

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#### Issue

British Columbia's (BC's) "carbon neutral government" mandate currently covers mainly scope 1 (direct) and scope 2 (indirect, from purchased energy) emissions that arise from the operations of all core provincial government departments and public sector organizations (PSOs). The only scope 3 (other indirect) emissions covered by the mandate are those from business travel (for the core government only) and use of paper.<sup>1</sup>

Scope 3 emissions include everything from employee commuting to outsourced activities such as billing and insurance and embodied energy/emissions in new buildings and appliances. Although all non-energy services and materials used in PSO operations are reportable under the scope 3 heading and make up a significant proportion of the total emissions of some PSOs, only a small fraction of them are covered by the current carbon neutral mandate. In such cases, the PSOs may be able to exert considerable influence over these emissions through policies and decisions regarding, for example, transportation subsidies, parking provisions, contracting and procurement, etc. Within the context of reducing greenhouse gases (GHGs), it may be more cost effective for PSOs to reduce some of these scope 3 emissions than to reduce scope 1 or scope 2 emissions or purchase offsets through the Pacific Carbon Trust (PCT).

#### Background

BC passed the Greenhouse Gas Reduction Targets Act (GGRTA) in 2007 and became the first jurisdiction in North America to commit to make government operations "carbon neutral", beginning in 2010. Although it contributes a small proportion of total provincial emissions, the BC Government is demonstrating leadership through mandating "carbon neutrality" of its own operations. The hope is that this leadership will engage citizens beyond public sector employees, and motivate other organizations and businesses to take action on climate change.<sup>1</sup> In addition, the government considers this mandate "as an economic opportunity as

well as an environmental imperative”,<sup>ii</sup> that will in the process help to “commercialize many energy and fuel efficient opportunities making carbon neutrality the norm”.<sup>i</sup>

### **Comparison of initiatives in BC and other jurisdictions**

The Greenhouse Gas Protocol, the most common and internationally accepted approach to categorize and manage emissions, recommends that an organization, at a minimum, should report scope 1 (direct) and scope 2 (electricity indirect) GHG emissions. However, where possible, inclusion of scope 3 (other indirect) emissions is recommended.<sup>iii</sup> Similarly, in the United States it is recommended that public sector organizations consider reporting relevant scope 3 emissions that are large (or believed to be large) relative to their scope 1 and scope 2 emissions and where potential emissions reductions could be undertaken or influenced by the organizations.<sup>iv</sup>

It is also useful to compare BC<sup>v</sup> to New Zealand (NZ)<sup>vi</sup> and New South Wales, Australia (NSW)<sup>vii</sup> - jurisdictions with broadly similar populations, land areas, climate and stage of development, that have declared carbon neutrality targets. The organizational coverage of BC’s carbon neutrality mandate is similar to NSW and wider than that in NZ<sup>2</sup>. However, BC’s mandate emphasizes mainly scope 1 and scope 2 emissions. NSW’s coverage of scope 3 emissions is broader; emissions from business travel (for all agencies), waste and outsourced activities are included.

The current coverage of BC’s mandate is a positive first step. Scope 1 and 2 emissions are easier to measure and less controversial since they can be directly linked to energy consumption. However, extending the mandate’s coverage to include more scope 3 emissions would enable it to achieve a wider reach, thereby opening up more opportunities for emission reduction and greater scope for innovation both within and beyond the public sector. Conversely, the omission of scope 3 emissions from PSOs’ GHG inventories may leave a large gap in their overall GHG reduction potential. Arguably, while the public sector contributes less than 2% of the direct GHG emissions in BC, involving the PSO supply chain in GHG reductions may be a more effective and sustainable means of greening the BC economy.<sup>3</sup>

### **The case of the University of British Columbia (UBC)**

The GHG inventory of the University of British Columbia Vancouver Campus (UBC-V) provides an interesting case that demonstrates the significance of assessing scope 3 emissions relative to total emissions. In Table 1 below, we note that BC’s carbon neutrality mandate covers about 53% of UBC-V’s total estimated emissions in 2008. The only scope 3 emissions covered under the mandate (i.e., from paper usage) account for 0.7%. A significant proportion of the remaining 47% of emissions come from commuting, staff and faculty travel and embodied impacts of buildings and infrastructure, which are not included in mandatory reporting or offsets.<sup>viii</sup>

Two major thrusts that UBC has undertaken and continues to pursue illustrate the importance of exploring all options that can reduce not just scope 1 and 2 emissions, but also scope 3 emissions. From 2003 to 2006, UBC undertook *ecotrek*, the largest energy retrofit project in Canada at that time, involving nearly 300 of UBC’s core buildings. At a cost of \$35 million, this project resulted in energy and water savings of \$2.6 million annually and reduction of (scope 1 and scope 2) GHG emissions by 15,000 tonnes CO<sub>2</sub>eq per year.<sup>ix</sup> UBC is also continuing to develop additional on-campus housing for students and employees, and a

broad range of services and shops in and around the campus, reducing the average number of trips off campus per person by 14% from 1997 to 2009. On-campus housing, fewer parking spaces and greater use of the internet are all contributing factors to this change.<sup>x</sup> More on-campus housing increases the “local” scope 1 and scope 2 emissions under UBC’s control; however, reduction in scope 3 commuting emissions is significant and permanent, and reduces overall GHG emissions. Yet under the current scheme, any increase in scope 1 and 2 emissions from on-campus development creates a liability for offset payments to the PCT, even if they constitute a reduction in overall emissions.

**Table 1: UBC Vancouver Campus GHG Emissions Inventory (2008)**

Scope	Component	GHG Emissions (tCO <sub>2</sub> e/yr)	Covered in mandate?
1&2	Core Buildings	46,400	Yes
	Other Buildings	14,030	Yes
	Fleet	1,500	Yes
3	Paper	850	Yes
	Staff and Faculty Travel	13,600	No
	Solid Waste	1,800	No
	Commuting	29,100	No
	Building Lifecycle	10,200	No
Total estimated emissions		<b>117,480</b>	
Total emissions covered by the mandate		<b>62,780 (53%)</b>	
Total emissions not covered by the mandate		<b>54,700 (47%)</b>	

Source: UBC Vancouver Campus Climate Action Plan 2010-2015<sup>viii</sup>

This policy adjustment to expand the reported scope 3 GHG emissions also guards against PSOs choosing to reduce their Scope 1 & 2 emissions through contracting out services. By having to report Scope 3 emissions, the PSO will be revealing the emission intensity of the service provider thereby forcing them to not only report their emissions but also to reduce them in order to keep the PSO under its mandated ceiling of emissions.

## Recommendations

In preparation for the next phase of implementation, we recommend that BC make it mandatory for PSOs to assess and report the following categories of scope 3 emissions in their GHG inventory. Reporting needs to include activities that generate the most GHG and with reasonable scope for reduction such as:

- a) Employee business travel (minimum inclusion of air travel);
- b) Employee commuting (minimum inclusion of private transportation);
- c) Building lifecycle (minimum inclusion of new buildings);
- d) Outsourced activities/contracts previously performed by the PSO; and
- e) Other sources that, together with (a) to (d) above, comprise at least 80% of total anticipated scope 3 emissions.<sup>xi</sup>

Comprehensive reporting of scope 3 emissions provides a more accurate picture of provincial GHG impacts and may reveal opportunities for cost-effective reductions in overall emissions across scopes 1, 2 and 3. Additional information on all relevant and significant emissions will enable PSOs to:

- a) Learn more about the GHG impacts of all their major activities;
- b) Devise much more effective capital projects and operational campaigns to reduce total GHG emissions, whether through changing their own operations or influencing the actions of employees, customers, suppliers or contractors; and
- c) Adopt measures with the maximum positive spillover effects, in furtherance of the broader provincial targets of the GGRTA.

However, to avoid imposing further financial burdens, which may affect the capacity to deliver core services, PSOs should maintain mandated reduction targets but report total emissions including all reportable scope 3 emissions. This approach also guards against emission leakage from shifting activities and emissions within the PSO to external contractors.

### **Conclusion**

An expanded coverage of the “carbon neutral government” mandate can enhance the substance and credibility of BC’s commitment to GHG emission reduction by addressing emissions directly associated with its operations, but also emissions generated indirectly by these operations. This will in turn contribute towards overall reduction of provincial GHG emissions and spur efforts toward a greener economy, reinforcing BC’s leadership in climate action.

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### **Endnotes**

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<sup>1</sup> Scope 1, 2 and 3 are categories used in a leading greenhouse gas accounting framework, the Greenhouse Gas Protocol.

<sup>2</sup> The New Zealand government announced a plan for a carbon neutral public service in February 2007, but the new government formed after the 2008 general election terminated the program.

<sup>3</sup> For instance, while the carbon tax helps with greening the economy, the public opposition will likely make it a target for repeal by any political party hoping to woo voters away from the Provincial Liberals. Already, Kevin Falcon has mused that he will push back on the carbon tax if he becomes Premier.

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