



# Environmental Law Centre Clinic

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## Challenging the Shutdown of School Buses

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February 8, 2011

Community Alliance for Public Education  
6134 Lakeview Drive  
Duncan BC  
V9L 2G4

Dear: Ms. Haythornthwaite

**Re: 2010-03-12 Challenging the Shutdown of School Buses**

You have asked me to prepare a legal opinion on the potential shutdown of school buses by school boards in districts across the province as it relates to environmental concerns specifically using School District #79 Cowichan as a case study.

I will discuss your legal position and state the options that are available to you to address the issue.

## **ISSUES**

I have identified the issues requiring my opinion as follows:

1. What is the jurisdiction of school districts to provide the service of transportation of students by school bus?
  - a. What is their legal jurisdiction
  - b. How do they exercise that jurisdiction through policy and budget decisions?
2. What does the greenhouse gas (GHG) reduction regime in B.C. require school districts to do?
  - a. How does it affect school districts?
  - b. How do school districts calculate their GHG emissions and offset requirements?
3. Does the GHG reduction legislation have an impact on school bus transportation?
  - a. Does it take into account the overall benefit of student transportation by school bus or the higher GHG emissions of students traveling to and from school by car?
  - b. If not, how could the GHG legislation be structured to take into account the benefit that school bus transportation has on the reduction of GHG emissions?

## FACTS

I base my opinion on the following facts:

1. School buses are more energy efficient and produce fewer GHGs per student than if each of those students were driven in private vehicles. A nearly full school bus consumes less than half the amount of energy per passenger kilometre (Pkm) than a compact car with a driver and two passengers.<sup>1</sup> A school bus emits less than half the amount of CO<sub>2</sub> per Pkm than a compact car with a driver and two passengers.<sup>2</sup>
2. It is estimated that school buses were responsible for 0.1 Mt CO<sub>2</sub>e (Mega tonnes of carbon dioxide equivalent) each year in B.C. between 2003 and 2007.<sup>3</sup>
3. The Ministry of Education funds school districts using an annual Funding Allocations System.<sup>4</sup> This allocation system uses a funding formula for school districts based on student enrolment, which is meant to ensure equity across B.C.<sup>5</sup> These General Operating Grants are divided into eight sections: basic enrolment-based funding, supplement for enrolment decline, supplement for unique student needs (which includes funding for Aboriginal education, the only targeted grant, meaning that boards may not shift the funding to other areas), supplement for salary differential, supplement for unique geographic factors, supplement for transportation and housing, funding protection, and summer learning.<sup>6</sup>
4. School boards<sup>7</sup> create their own policies for their own school districts, including for the provision of transportation services. In School District # 79 (SD #79), Policy 2600 “School

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<sup>1</sup> School Bus consumption = 432 kJ of energy per passenger kilometre (Pkm); compact car (with a fuel consumption of 9L/100kms) with a driver and two passengers = 1100 KJ of energy per Pkm. Luc Gagnon, “Greenhouse Gas Emissions from Transportation Options”, (2006), at 2, Figure B, online: Hydro Quebec, Sustainable Development, <[www.hydroquebec.com/developpementdurable](http://www.hydroquebec.com/developpementdurable)>.

<sup>2</sup> School bus CO<sub>2</sub> emissions = 29g per Pkm; compact car (driver plus two passengers) CO<sub>2</sub> emissions = 75g per Pkm. Luc Gagnon, “Greenhouse Gas Emissions from Transportation Options”, (2006), at 2, Figure B, online: Hydro Quebec, Sustainable Development, <[www.hydroquebec.com/developpementdurable](http://www.hydroquebec.com/developpementdurable)>. Note that school bus emissions were calculated here based on average school bus ridership from data collected in Quebec.

<sup>3</sup> Natural Resources Canada, *British Columbia Transportation Sector Table 12*, “Road Transportation Secondary Energy Use and GHG Emissions by Transportation Mode”, online: <[http://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/tablestrends2/tran\\_bct\\_12\\_e\\_4.cfm?attr=0](http://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/tablestrends2/tran_bct_12_e_4.cfm?attr=0)>.

<sup>4</sup> “K-12 Funding – General Policy”, online: Ministry of Education, <[http://www.bced.gov.bc.ca/policy/policies/funding\\_general.htm](http://www.bced.gov.bc.ca/policy/policies/funding_general.htm)>.

<sup>5</sup> Ministry of Education, *K-12 Funding Allocation System*, online: <<http://www.bced.gov.bc.ca/k12funding/welcome.htm>>.

<sup>6</sup> Ministry of Education, *2009/2010 Operating Grants Manual*, March 2009, at 2, online: <<http://www.bced.gov.bc.ca/k12funding/funding/09-10/estimates/operating-grants-manual.pdf>>.

<sup>7</sup> The *School Act*, RSBC 1996 c. 412 s. 2 defines “board” to mean “a board of school trustees constituted under this Act or a former Act” and defines “school district” to mean “an area created or constituted as a school district

District Transportation Services” lays out policies related to walk limits and administration of bus systems.<sup>8</sup>

5. Between the academic years of 2002/03 and 2009/10 transportation funding from the Ministry of Education to boards across BC remained at the same total amount of \$85,705,613.<sup>9</sup>
6. Province wide transportation funding for the 2010/11 year has increased to \$87,920,018, which amounts to a 2.58% increase over 2009/10.<sup>10</sup>
7. SD #79 received \$2,208,103 for transportation each year from 2002/03 until 2009/10.<sup>11</sup> That amount has increased to \$2,265,155 for the 2010/11 academic year.<sup>12</sup>
8. Budgeted operating expenditures relating to transportation and housing for the 2009/10 academic year was \$99,873,634 for the province.<sup>13</sup> In the 2002/03 year, that figure was \$92,747,867.<sup>14</sup>
9. Budgeted expenditures for transportation and housing for SD # 79 in 2002/03 was \$2,239,807.<sup>15</sup> For the 2009/10 year the budgeted expenditure was \$2,378,177.<sup>16</sup> For the 2010/11 year, the budgeted expenditure decreased to \$2,054,355.<sup>17</sup>

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under this Act or a former Act.” In this paper I use “board” to describe the body that is responsible for making decisions for the “district” it oversees. In some cases the two terms are used interchangeably.

<sup>8</sup> Cowichan Valley School District #79 Policy 2600, at 1, online:

<<http://bcisd79.civicweb.net/Documents/DocumentList.aspx?ID=1059>>.

<sup>9</sup> Ministry of Education, *2009/2010 Operating Grants Manual*, March 2009, at 29-30.

<sup>10</sup> Ministry of Education, *2010/2011 Operating Grants Manual*, March 2010, at 29, online:

<<http://www.bced.gov.bc.ca/k12funding/funding/10-11/estimates/operating-grants-manual.pdf>>.

<sup>11</sup> Ministry of Education, *2009/2010 Operating Grants Manual*, March 2009, at 30.

<sup>12</sup> Ministry of Education, *2010/2011 Operating Grants Manual*, March 2010, at 29.

<sup>13</sup> Ministry of Education, 2009/10 Revenue and Expenditure Table 17, “Provincial Summary of Budgeted Operating Expenditures by Object”, online:

<<http://www.bced.gov.bc.ca/accountability/district/revenue/0910/pdf/table17.pdf>>.

<sup>14</sup> Ministry of Education, 2003/04 Revenue and Expenditure Table 5, “Provincial Summary of Funding Requirements and Sources of Funding”, online:

<<http://www.bced.gov.bc.ca/accountability/district/revenue/0203/pdf/table05.pdf>>.

<sup>15</sup> Ministry of Education, 2002/03 Revenue and Expenditure Table 8, “2002/03 Preliminary Budgeted Operating Expenditures by function”, online:

<<http://www.bced.gov.bc.ca/accountability/district/revenue/0203/pdf/table08.pdf>>.

<sup>16</sup> Ministry of Education, 2009/10 Revenue and Expenditure Table 4, “2009/10 Annual Budgeted Operating Expenditures by Function” online:

<<http://www.bced.gov.bc.ca/accountability/district/revenue/0910/pdf/table04.pdf>>.

<sup>17</sup> Ministry of Education, 2010/11 Revenue and Expenditure Table 4, “2010/11 Annual Budgeted Operating Expenditures by Function”, online:

<<http://www.bced.gov.bc.ca/accountability/district/revenue/1011/pdf/table04.pdf>>.

10. SD #79 is spending \$210,800 less on transportation and housing than it receives from the provincial government operating grant. Boards may shift monies received from the government to other operating and program areas as they see fit.<sup>18</sup>
11. As an example of this shifting in SD #79, the percent of the total district funding budgeted for Operations and Maintenance and Transportation and Housing dropped by 0.6% and 0.5% respectively between the 2009/10 and 2010/11 years. Correspondingly, the percent of the district funding budgeted for Instruction increased by 1.1% in that same time.
12. In SD #79 there are approximately 5000 students who qualify for school bus transportation (i.e. those who live further than 3.5 km from their school).<sup>19</sup>
13. On average, students in SD #79 who are eligible to take the school bus live 9.22 km from their school.<sup>20</sup>
14. The 2010/2011 school year is required to be in session for 192 days, and to have a minimum of 185 instructional days.<sup>21</sup>
15. The CO<sub>2</sub> emission factor for gasoline is 8.86 kg CO<sub>2</sub> per gallon of fuel consumed. The emission factor for diesel fuel (No. 1 and No. 2) is 10.15 kg CO<sub>2</sub> per gallon consumed.<sup>22</sup>
16. The average fuel economy of a passenger car (gasoline) is 22.1 miles per gallon (mpg).<sup>23</sup> The average fuel economy of a school bus (diesel) is 7 mpg.<sup>24</sup>
17. Using the 2010/2011 year as an example, the emissions from a single passenger vehicle driving the 18.4 km average roundtrip once each instructional day in SD #79 would emit approximately 0.85 tonnes CO<sub>2</sub> per school year.<sup>25</sup> If all 5000 students in SD #79 were

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<sup>18</sup> With the exception of the Aboriginal education funds that must be spent for the purposes for which they were granted. See note 6. The transfer ability of Boards was confirmed with Reg Bawa, Director, Funding and Compliance Branch, Ministry of Education, by personal communication, November 29, 2010.

<sup>19</sup> Eden Haythornthwaite, personal communication, September 22, 2010.

<sup>20</sup> Eden Haythornthwaite, personal communication, November 5, 2010.

<sup>21</sup> As required by the *School Calendar Regulation*, B.C. Reg. 114/2002, s. 2.

<sup>22</sup> US Energy Information Administration: Independent Statistics and Analysis. Voluntary Reporting of Greenhouse Gases Program. Fuel Emission Coefficients: Table 2. Online: <<http://www.eia.doe.gov/oiaf/1605/coefficients.html>>.

<sup>23</sup> Environmental Protection Agency, Office of Transportation and Air Quality, online: <<http://www.epa.gov/otaq/climate/420f05003.pdf>>.

<sup>24</sup> American School Bus Council, National School Bus Fuel Data. Online: <<http://www.americanschoolbuscouncil.org/index.php?page=fuel-calculator>>.

<sup>25</sup> 18.44 kms/day x 0.62miles/km = 11.43 miles/day; 11.43 miles/22.1 mpg = 0.517 gallons; 0.517 gallons x 8.86 kg CO<sub>2</sub>/gallon = 4.58 kg CO<sub>2</sub>/day; 4.58 kg CO<sub>2</sub>/day x 185 instructional days/school year = 847 kg CO<sub>2</sub>/school year.

driven to school in private vehicles instead of taking the bus, the total emissions would equal approximately 4,250 tonnes CO<sub>2</sub>e per school year.<sup>26</sup> Allowing for some carpooling (assuming 2 students per vehicle) this translates to approximately 2,175 tonnes CO<sub>2</sub> per school year.<sup>27</sup>

18. There are currently 30 buses operating daily in SD #79.<sup>28</sup>
19. Buses for elementary students have a capacity of 84 while buses for high school students have a capacity of 56 students.<sup>29</sup> Actual ridership in SD #79 shows an average of 40 students per bus.<sup>30</sup> Thus, a single bus currently transports the same number of students as 20 private vehicles engaged in carpooling.<sup>31</sup>
20. Using the same average distance travelled as personal vehicles, total emissions from school buses in SD #79 would be approximately 92t CO<sub>2</sub> per school year.<sup>32</sup> This amounts to over 23 times less GHG released from school buses than from individual vehicles.
21. If half of the qualified students in SD #79 (2500) took the school bus, then emissions from private vehicles, taking account for carpooling, would equal 1,062 tonnes CO<sub>2</sub> per school year.<sup>33</sup> This amount would be in addition to the emissions from the school buses for a total emissions level of approximately 1,154 tonnes CO<sub>2</sub> per year for SD #79.<sup>34</sup>
22. SD #79 is a signatory to the Climate Action Charter, as are all the districts in British Columbia.<sup>35</sup> School districts must be carbon neutral by 2010. Where they are not carbon neutral they must purchase offsets using funding from their budgets.

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<sup>26</sup> 0.85 tonnes CO<sub>2</sub> per vehicle multiplied by 5000 vehicles = 4,250 tonnes CO<sub>2</sub>e per school year if all students were driven to and from school individually.

<sup>27</sup> 0.87 tonnes CO<sub>2</sub>e per vehicle multiplied by 2500 vehicles = 2,175 tonnes CO<sub>2</sub>e

<sup>28</sup> Eden Haythornthwaite, personal communication, January 20, 2011.

<sup>29</sup> Eden Haythornthwaite, personal communication, January 21, 2011.

<sup>30</sup> Eden Haythornthwaite, personal communication, January 21, 2011.

<sup>31</sup> Given a carpooling rate of 2 students per vehicle.

<sup>32</sup> Per School Bus: 18.44 kms/day x 0.62miles/km = 11.43 miles/day; 11.43 miles/7 mpg = 1.63 gallons; 1.63 gallons x 10.15 kg CO<sub>2</sub>/gallon = 16.57 kg CO<sub>2</sub>/day; 16.57 kg CO<sub>2</sub>/day x 185 days/school year = 3066.1 kg CO<sub>2</sub>/school year;

District Wide (30 school buses): 3.1 tonnes CO<sub>2</sub>/school year/bus x 30 buses = 92 tonnes CO<sub>2</sub>/school year

<sup>33</sup> 2500 students, at 2 students per vehicle =1250 vehicles, multiplied by 0.85 tonnes CO<sub>2</sub> per vehicle = 1062.5 tonnes CO<sub>2</sub>.

<sup>34</sup> Total emissions for buses (92 tonnes CO<sub>2</sub>) + total emissions for cars (1250 cars producing 1,062.5 tonnes CO<sub>2</sub>) = 1,154.5 tonnes CO<sub>2</sub> each school year.

<sup>35</sup> Ministry of Education, "Climate Action Charter", online:

<[http://www.bced.gov.bc.ca/greenschools/pdfs/boe\\_climate\\_action\\_ch.pdf](http://www.bced.gov.bc.ca/greenschools/pdfs/boe_climate_action_ch.pdf)>. P. Lukaszek, Manager, Green Schools Education Program, Personal communication, October 28, 2010.

## ASSUMPTIONS

1. The \$210,800 difference between SD #79's funding for Transportation and Housing for 2010/11 and its budgeted expenditure is directly connected to the decrease in bus services to students in the district.
2. Because school districts are now required to meet carbon neutral standards, they will likely attempt to reduce their GHG emissions in an effort to save money on carbon offset purchases.
3. The ability to move funding into different operational and program areas can mean that when school districts need increased funding for classroom activities they often make financial cuts to other areas of operations such as school bus provision.

## ANALYSIS OF FACT AND LAW

### 1. What is the jurisdiction of school districts to provide the service of transportation of students by school bus?

#### a. Legal Jurisdiction

Under the *School Act*, the minister is required to "establish and announce the amount of Provincial funding to be paid to boards in the next fiscal year for the delivery and support of educational programs."<sup>36</sup> The *School Act* also stipulates how the amount will be calculated, and is based on the number of students in each district.<sup>37</sup>

The Ministry of Education funds school districts annually through General Operating Grants, which are determined by a Funding Allocation System.<sup>38</sup> Within these Operating Grants, the Ministry breaks the funding down into specified areas. For example, funding for transportation is included together with funding for special housing arrangements.<sup>39</sup> While these amounts are calculated and allocated for certain services, districts are not obliged to spend the monies as allocated. The *School Act* explicitly provides the authority for the province to target grants for specific purposes.<sup>40</sup>

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<sup>36</sup> *School Act*, RSBC 1996 c. 412 s. 106.2.

<sup>37</sup> *School Act*, s. 106.3.

<sup>38</sup> Ministry of Education, Policy website, online:  
<[http://www.bced.gov.bc.ca/policy/policies/funding\\_general.htm](http://www.bced.gov.bc.ca/policy/policies/funding_general.htm)>.

<sup>39</sup> Ministry of Education, *2009/2010 Operating Grants Manual*, March 2009 at 3.

<sup>40</sup> *School Act*, ss. 106.4 and 117(1)(f).

## **b. Exercise of Jurisdiction**

Under the *School Act*, boards are required to prepare annual budgets including estimated expenditures and estimated revenues for the fiscal year.<sup>41</sup> This section also requires that estimated expenditures must not exceed estimated revenues.<sup>42</sup> Once these budgets are adopted by the board,<sup>43</sup> the Ministry publishes them on the Ministry of Education website.

While the *School Act* does not require districts to provide school bus services, it does grant boards the ability to make rules “respecting the establishment, operation, administration and management of . . . transportation equipment used for the purposes of the board.”<sup>44</sup> Boards do so through the creation of policies. Policy 2600 in SD #79 states that its objective is “[t]o ensure that the privilege of school bus service to and from school is equitably applied,” and that the board has a responsibility to provide “safe transportation to and from the ‘home’ school which provides a program leading to graduation.”<sup>45</sup>

In summary, based on student enrollment, the Ministry of Education grants money to boards who then prepare annual budgets allocating funds to the provision of various services, including transportation. Following this system, SD #79 has chosen to budget for the provision of school buses at a cost of \$210,800 less than the provincial grant for Transportation and Housing. This translates to a \$324,452 decrease since the 2009/10 school year in the district’s Transportation and Housing budgeted expenditures. In other words, this year’s spending on Transportation and Housing is 0.5% less than the previous year in terms of percent of total funding. The budget for Maintenance and Operations also decreased by 0.6% in the same time frame. The monies from these areas were instead funnelled into Instruction as demonstrated by a corresponding 1.1% increase in its share of the total funding.<sup>46</sup>

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<sup>41</sup> *School Act*, s. 111.

<sup>42</sup> *School Act*, s. 111(3).

<sup>43</sup> *School Act*, s. 113(1).

<sup>44</sup> *School Act*, s. 85(2)(c)(iv)(B).

<sup>45</sup> Cowichan School District #79 Policy 2600 at 1, online:

<<http://bc79.civicweb.net/Documents/DocumentList.aspx?ID=1059>>.

<sup>46</sup> In general, decisions by boards to shift monies around in the annual budget do not affect future funding decisions by the Ministry. Personal communication, Reg Bawa, Director, Funding and Compliance Branch, Ministry of Education, November 29, 2010.

## 2. What does the greenhouse gas (GHG) reduction regime in B.C. require school districts to do?

### a. How does it affect school districts?

The relevant GHG reduction legislation in B.C. that affects school districts is the *Greenhouse Gas Reduction Target Act* (“the Act”).<sup>47</sup> The Act sets target reduction levels for the province through 2050, as well as requires the public sector to be carbon neutral by 2010. The public sector includes both the Provincial government as well as public sector organizations (PSOs).<sup>48</sup> PSOs are defined to include any “organization or corporation that . . . is included within the government reporting entity under the *Budget Transparency and Accountability Act*”.<sup>49</sup> This includes education organizations.<sup>50</sup>

Specifically, s. 2(1) of the Act sets a target of at least 33% reduction from 2007 baseline GHG levels for the province by 2020 and an 80% reduction from those levels by 2050.<sup>51</sup> These reduction targets do not apply to school boards however, and are only for the province as a whole.<sup>52</sup> School districts are only required to become carbon neutral, and are not required to meet specific targets.

According to s. 6(1) of the Act, in order for PSOs to be carbon neutral, they are required to

- (a) pursue actions to minimize its PSO greenhouse gas emissions for the calendar year,
- (b) determine its PSO greenhouse gas emissions for that calendar year in accordance with the regulations, and
- (c) no later than the end of June in the following calendar year, apply emission offsets in accordance with the regulations to net those emissions to zero.<sup>53</sup>

In addition to purchasing Carbon Offsets, PSOs have been required to prepare, and make public, carbon neutral action reports for the 2008 and 2009 calendar years that describe actions taken to reduce GHG emissions and plans for future reductions.<sup>54</sup> Beginning this year for the 2010

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<sup>47</sup> *Greenhouse Gas Reductions Target Act*, S.B.C. 2007, c. 42.

<sup>48</sup> *Greenhouse Gas Reductions Target Act*, s. 5.

<sup>49</sup> *Greenhouse Gas Reductions Target Act*, s. 1.

<sup>50</sup> *Budget Transparency and Accountability Act*, S.B.C. 2000 c. 23, s. 1(1).

<sup>51</sup> *Greenhouse Gas Reductions Target Act*, s. 2(1). According to the Ministry of Environment GHG Inventory Report for 2007, the B.C. total GHG emissions in 2007 were 67.3 Mega tonnes CO<sub>2</sub>e, of which 15,574 kilotonnes CO<sub>2</sub>e came from the Road Transportation sector; Ministry of Environment, “British Columbia Greenhouse Gas Inventory Report 2007 – SUMMARY” at 1 and 3, online: <[http://www.env.gov.bc.ca/cas/mitigation/ghg\\_inventory/pdf/pir-2007-summary.pdf](http://www.env.gov.bc.ca/cas/mitigation/ghg_inventory/pdf/pir-2007-summary.pdf)>.

<sup>52</sup> Ministry of Education, “Climate Action Q&As”, at 3, online: <[http://www.bced.gov.bc.ca/greenschools/pdfs/climate\\_action\\_qa.pdf](http://www.bced.gov.bc.ca/greenschools/pdfs/climate_action_qa.pdf)>.

<sup>53</sup> *Greenhouse Gas Reductions Target Act*, ss. 6(1)(a-c).

<sup>54</sup> *Greenhouse Gas Reductions Target Act*, ss. 8(1-2).

calendar year and subsequent years, school boards and other PSOs will be required to also include a determination of GHG emissions and the offsets applied in relation to those emissions.<sup>55</sup>

The Act provides broad powers for the creation of regulations respecting a number of issues including the form of measurement for GHG levels, creation of systems of emissions offsets, and making exceptions to the requirement for emission offsets.<sup>56</sup> There are currently two regulations in force under the Act, and the *Carbon Neutral Government Regulation* defines the type of GHG emissions that are deemed to be included under the meaning of the Act. The general operations of a board and school district are included in the emissions calculations, however s. 4(2)(c) specifically exempts emissions from public transit buses and school buses owned or leased by the PSO.<sup>57</sup> Nevertheless, PSOs must still determine and report the emissions from those public transit buses and school buses.<sup>58</sup>

Under this same regulation, PSOs that require offsets must acquire them from the Crown agency called the Pacific Carbon Trust (PCT).<sup>59</sup> The PCT “offers quality carbon offsets, measured as one metric tonne of carbon dioxide or equivalent (CO<sub>2</sub>e) that is reduced or removed from the atmosphere as a result of emission-reducing (offset) activities.”<sup>60</sup> The agency buys and sells offsets that are in accordance with the *Emissions Offsets Regulation*, which lays out the requirements for offset projects.<sup>61</sup> The cost for purchasing these offsets in 2010 was \$25/tonne CO<sub>2</sub>e.<sup>62</sup>

Alongside the mandatory legislation, the government also developed the non-legally binding B.C. Climate Action Charter (“Charter”) between the Province and signatory boards of education for each school district.<sup>63</sup> The Charter lays out the common understandings between the boards and the Provincial government about the contribution of GHGs to climate change, as well as common goals, methods of GHG emission reduction, purpose of the Charter and the importance of involving youth in the solutions to climate change. The Charter also suggests that boards include “any additional actions or plans to reduce GHG emissions resulting from this Charter” in their action reports already required under the Act.<sup>64</sup> In return for signing the

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<sup>55</sup> *Greenhouse Gas Reductions Target Act*, s. 8(3).

<sup>56</sup> *Greenhouse Gas Reductions Target Act*, ss. 12(c), (g), (i) and (h).

<sup>57</sup> *Carbon Neutral Government Regulation*, B.C. Reg. 392/2008, s. 4(2)(c).

<sup>58</sup> *Carbon Neutral Government Regulation*, s. 5.

<sup>59</sup> *Carbon Neutral Government Regulation*, s. 7.

<sup>60</sup> Pacific Carbon Trust Website, “About”, online:  
<<http://www.pacificcarbontrust.com/About/tabid/57/Default.aspx>>.

<sup>61</sup> *Emissions Offsets Regulation* B.C. Reg. 393/2008.

<sup>62</sup> Pacific Carbon Trust Website, “Buy Offsets from PCT”, online:  
<<http://www.pacificcarbontrust.com/BuyOffsetsfromPCT/tabid/64/Default.aspx>>.

<sup>63</sup> Ministry of Education, *Climate Action Charter*, online:  
<[http://www.bced.gov.bc.ca/greenschools/pdfs/boe\\_climate\\_action\\_ch.pdf](http://www.bced.gov.bc.ca/greenschools/pdfs/boe_climate_action_ch.pdf)>.

<sup>64</sup> *Climate Action Charter*, s, (5)(c).

Charter, the Province promises to reimburse boards for the “actual costs of the carbon tax, derived from the Board’s fuel purchases as measured and reported by the Board.”<sup>65</sup> However, boards that contract services such as bussing out do not qualify for reimbursement for carbon tax costs that may be passed on to them from those contractors.<sup>66</sup>

**b. How do school districts calculate their GHG emissions and offset requirements?**

The *Carbon Neutral Government Regulation* states that the manner and form of emission reporting is to be determined by the Minister.<sup>67</sup> The tool chosen for PSOs’ use is the web-based SMARTTool that “aggregates and estimates GHG emissions from buildings, equipment, fleets and paper for the entire provincial public sector.”<sup>68</sup> The first emissions reports prepared using this tool are scheduled to be released in June 2011 for the 2010 calendar year.

**3. Does the GHG reduction legislation have an impact on school bus transportation?**

**a. Does it take into account the overall benefit of student transportation by school bus or the higher GHG emissions of students traveling to and from school by car?**

Because the districts are only required to report emissions related to school bus provided transport, the emissions from private vehicle transport are not taken into account. Neither the legislation nor the Charter requires these types of emissions to be offset.

Thus, if a district reduces bus service, it will have the effect of reducing the *reported* GHG emission level, but not the *actual* GHG emissions. In fact, the GHG emissions would likely increase, especially in rural school districts where walking or riding bicycles to school is not a feasible option for students. This is based on the fact that school buses emit fewer GHGs than compact cars with two passengers and a driver on a per passenger kilometre (Pkm) basis.<sup>69</sup>

However, it makes little sense to suggest that school districts take on the financial burden of offsetting school bus GHG emissions, given that bus use decreases overall GHG emissions when compared with transporting students by private car. Districts are not in a position to pay offsets for providing school bus services. If required to pay offsets for this aspect of operations, absent provincial funding for the offsets it is likely that districts would continue to cut back on bus service if not remove it entirely. As demonstrated, this would likely result in increased private vehicle use which requires neither mandatory emission calculation nor offset purchase.

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<sup>65</sup> *Climate Action Charter*, s. (3)(c).

<sup>66</sup> Ministry of Education, “Climate Action Q&As”, at 5, online: <[http://www.bced.gov.bc.ca/greenschools/pdfs/climate\\_action\\_qa.pdf](http://www.bced.gov.bc.ca/greenschools/pdfs/climate_action_qa.pdf)>.

<sup>67</sup> *Carbon Neutral Government Regulation* at s. 6

<sup>68</sup> Climate Action Secretariat, Ministry of Environment, June 2010 “Carbon Neutral Update 2009” at p. 5

<sup>69</sup> See notes 1 and 2.

**b. If not, how could the GHG legislation be structured to take into account the benefit that school bus transportation has on the reduction of GHG emissions?**

By exempting school buses from the offset requirement, the current legislative regime leaves a gap for a significant amount of unaccounted for GHG emissions and does not provide an incentive for school districts to continue to provide school bus service given the significant GHG reduction benefits it provides to the province. This section provides several recommendations on how the Provincial Government can restructure its funding to school boards and the calculation and payment of carbon offsets to meet the overall goal of promoting GHG reduction.

*1. Bussing as a Local Offset Project*

Instead of merely exempting school bus GHG emissions, the legislation could encourage school bus transportation by allowing it to be a qualified local GHG offset project. As a result, the province and the school districts would be honouring the *spirit* of the GHG reduction legislation by fully recognizing all emissions related to pupil transportation. By providing climate friendly transportation to students, districts are helping to decrease the number of cars that would otherwise be driving individual students to schools on a daily basis.

Allowing school buses to act as local GHG offset projects would have the added benefit of acting as a type of incentive to school districts at no additional cost to the government. School districts that provide transportation for students would then require less of their operating budget to purchase the remaining necessary offsets from PCT, resulting in less of a financial strain on this portion of the public sector for meeting the carbon neutrality goal. Alternatively, monies saved in this manner could be put towards further improving bus fleets for more efficient models or other GHG reducing actions.

Offset credits could be awarded based on the number of students who use the bus. This would provide an incentive to districts to increase bus ridership and efficiency. This type of program would potentially be most beneficial in districts where large numbers of students are choosing to use private transportation over school buses. Credits could also be awarded in higher numbers to those districts who replace their fleets with more efficient vehicles. Both of these measures would likely lead to decreased emissions by replacing private vehicles with increasingly efficient buses.

***Recommendation 1:*** *Make the provision of bus services by school districts a local GHG offset program.*

## 2. *Full Cost Accounting*

The legislation does not use a full cost accounting approach for public sector activities, and thus does not recognize all school related transportation as a significant cause of emissions in the GHG calculation regime.

By requiring districts to estimate the GHG emissions from private vehicles used to transport students, the overall footprint of each school would be more accurately daylighted. Districts could calculate the difference between the number of students actually taking the bus and the number of students who qualify for bus service, and then estimate the average extra GHG ‘cost’ per student who is using private vehicle transportation rather than the provided bus service. By calculating and recording these extra GHG emissions, districts would be providing a more accurate picture of their full carbon footprint.

***Recommendation 2:*** *Employ full cost accounting for the transportation of all students, including those in private vehicles.*

## 3. *Targeted Funding for Transportation*

The *School Act* allows for the Ministry to target funds for particular areas of school district operations that must be spent in that area. If funds were targeted specifically for transportation, school boards would not be able to take money from this essential service for use elsewhere. While funding for classroom activities and programming is incredibly important for quality educational experiences for students, so too is funding for the provision of transportation for students. Budget cuts to transportation services result in fewer students being transported by bus and thus in increased GHG emissions due to the private transportation of students.

***Recommendation 3:*** *Make transportation a dedicated funding envelope for school districts.*

## 4. *Youth Involvement*

By signing the Climate Action Charter, school boards have agreed to a number of common goals with the province, including the idea that “climate change is a long-term problem that will be solved over multiple generations, so it is key to involve youth in the solution.”<sup>70</sup> The Charter also states that the signatory parties and the government share the common goal of “encouraging students and their families to be environmentally responsive through engagement and education.”<sup>71</sup> Additionally, by signing the Charter, boards agreed to develop

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<sup>70</sup> Ministry of Education, *Climate Action Charter*, s. 1(i) online:  
<[http://www.bced.gov.bc.ca/greenschools/pdfs/boe\\_climate\\_action\\_ch.pdf](http://www.bced.gov.bc.ca/greenschools/pdfs/boe_climate_action_ch.pdf)>.

<sup>71</sup> Ministry of Education, *Climate Action Charter*, s. 4(e) online:  
<[http://www.bced.gov.bc.ca/greenschools/pdfs/boe\\_climate\\_action\\_ch.pdf](http://www.bced.gov.bc.ca/greenschools/pdfs/boe_climate_action_ch.pdf)>.

strategies to combat global warming including “encouraging students and their families to be environmentally responsive through engagement and education.”<sup>72</sup>

By educating students on the benefits of school bus ridership and encouraging them to use the service, the district could decrease its GHG footprint by decreasing the number of private vehicles driven to schools. Districts could use incentives for the project or set up competitions between the schools to increase the use of environmentally friendly transportation, whether that be taking the bus, walking or biking to school.

***Recommendation 4:*** Encourage active student participation in the use of environmentally friendly transportation options, including school buses.

#### 5. Anti-Idling

Parents who drop off and pick up students at school are responsible for increased idling time and the related increased emissions. This type of air pollution has a direct adverse impact on student health. Encouraging bus use is one way to avoid this problem, as it would reduce the number of parents waiting to pick up and drop off their children. Anti-idling rules can also help to reduce these unwanted emissions.

***Recommendation 5:*** Implement anti-idling campaigns in pick up/drop off zones at all schools in the district.

Measures such as the above would encourage school districts to actively engage in the fight against global warming. By signing the Climate Action Charter, school districts across the province have voluntarily agreed to continue to make efforts to combat global warming, and providing school bus transportation to increased numbers of students is just one way that districts can fulfill this goal.

### Summary

In addition to the legislated requirements for carbon neutrality, school districts across the province have committed to reducing their carbon footprint. However, removing or reducing school bus service is an act contrary to this goal. Reduced bus service leads to an increase in the number of private vehicles making separate trips to schools, and thus an increase in GHG emissions related to student transportation.

Recording and reporting emissions and the purchase of offsets by school districts can only cause meaningful change if government allows for an accurate account of all emissions related

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<sup>72</sup> Ministry of Education, *Climate Action Charter*, s. 5(a)(iii) online:  
<[http://www.bced.gov.bc.ca/greenschools/pdfs/boe\\_climate\\_action\\_ch.pdf](http://www.bced.gov.bc.ca/greenschools/pdfs/boe_climate_action_ch.pdf)>.

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to district operations. Excluding school bus emissions from the carbon offset scheme leaves unaccounted for CO<sub>2</sub>e being released into the atmosphere each year by both B.C. school buses and by private vehicles being used in place of those buses. By allowing the provision of school buses to be used as a local offset program for individual districts, the GHG reduction regime in B.C. would provide a more meaningful tool in the fight against global warming.

We look forward to speaking with you further about this matter.

Sincerely,

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Natasha Gooch  
Law Student  
Environmental Law Centre  
University of Victoria

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