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Tax Expenditures to Limit the Growth of Carbon Emissions in Canada: Identification and Evaluation

David G. Duff* and E. Ian Wiebe*

2009

I. Introduction

First used by then Assistant Secretary of the Treasury for Tax Policy Stanley Surrey in 1967,¹ the concept of tax expenditures refers to aspects of tax legislation that are designed not to implement the specific tax itself, but instead to encourage various social and economic activities by reducing the amount of tax otherwise payable by taxpayers who engage in these activities. Observing that these tax incentives are functionally equivalent to government spending programs, Surrey argued that the U.S. federal income tax actually consists of two parts:

one part comprises the structural provisions necessary to implement the income tax on individual and corporate net income; the second part comprises a system of tax expenditures under which Governmental financial assistance programs are carried out through special tax provisions rather than through direct Government expenditures.²

While most tax expenditure literature has tended to focus on the income tax, not consumption taxes,³ the same distinction could also be drawn for broad-based consumption taxes, such as retail sales taxes or value-added taxes.⁴ For more narrowly

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¹ Stanley S. Surrey, Excerpts from remarks before The Money Marketeers on *The U.S. Income Tax System – The Need for a Full Accounting*, (November 15, 1967), in United States Department of Treasury, *Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1968*, (Washington, D.C.: Government Printing Office, 1969) at 322.

² Stanley S. Surrey, *Pathways to Tax Reform*, (Cambridge, MA: Harvard University Press, 1973) at 6.

³ Since the tax expenditure concept and most of the tax expenditure literature is American in origin, this focus is not surprising, since the U.S. federal government does not collect a broad-based consumption tax.

⁴ Stanley S. Surrey and Paul R. McDaniel, *Tax Expenditures*, (Cambridge, MA: Harvard University Press, 1973) at 238.

based excise taxes, on the other hand, Surrey suggested that tax expenditures could not exist.⁵

Although the mere identification of a particular tax provision as a tax expenditure need not necessarily imply a normative judgment regarding its merits, in practice tax expenditure analysis has typically been critical of tax expenditures for two general reasons. First, on the grounds that they are generally unlimited in duration, without any budgetary ceiling, subject to limited legislative oversight, administered by the revenue authority rather than the government department that would otherwise be responsible for a direct spending program,⁶ and poorly targeted to the kinds of marginal decisions that they are intended to affect,⁷ tax expenditures are often criticized as a wasteful form of government spending.⁸ Second, on the basis that they increase the complexity of the tax system,⁹ distort economic decisions and necessitate higher tax rates to compensate for foregone revenues,¹⁰ and provide “upside-down” subsidies when delivered in the form of deductions or exemptions within a progressive income tax,¹¹ tax expenditures are also criticized as a questionable approach to tax policy – violating traditional tax policy principles of simplicity, efficiency and equity.¹²

⁵ *Ibid.* at 233, stating that “[s]pecial excise taxes, being inherently limited in scope, involve no normative provisions and thus are not candidates for such analysis.”

⁶ Stanley S. Surrey, “Tax Incentives as a Device for Implementing Government Policy: A Comparison with Direct Government Expenditures” (1970), 83 *Harvard Law Review* 705 at 728-31.

⁷ *Ibid.* at 719-20, suggesting that “tax incentives are wasteful because some of the tax benefits go to taxpayers for activities which they would have performed without the benefits.” While the same criticism may also be levied against government subsidies as a whole, it is often argued that direct expenditures can be more easily targeted to the kinds of marginal activities that the subsidy is intended to stimulate.

⁸ Surrey and McDaniel, *supra* note 4 at 32-37.

⁹ *Ibid.* at 26, emphasizing that “[t]ax simplification will be impossible if these tax expenditures persist.”

¹⁰ Surrey, “Tax Incentives as a Device for Implementing Government Policy” *supra* note 6 at 725-26.

¹¹ *Ibid.* at 720-25, acknowledging (at 723), however, that a tax incentive delivered through a refundable flat rate credit would not be subject to this criticism.

¹² Surrey and McDaniel, *supra* note 4 at 25-27 and 69-98.

Consequently, as the U.S. Joint Committee on Taxation explains in a recent review of tax expenditure analysis, Surrey intended that the concept would serve two normative purposes.¹³ First, by subjecting tax expenditures to the same kind of legislative scrutiny that is traditionally accorded to direct spending programs, Surrey hoped that the concept would lead to greater control over government spending.¹⁴ Second, by identifying various so-called “tax provisions” as spending programs, Surrey also hoped that the concept would promote effective tax reform, as policymakers would recognize that these provisions violated basic tax policy principles of equity, efficiency, and administrative simplicity.¹⁵

In the years since Surrey formulated the notion of a tax expenditure, the concept has had mixed success as a stimulus to legislative reform. While U.S. and Canadian governments have produced regular tax expenditure reports in order to enhance the visibility and potential legislative scrutiny of these measures,¹⁶ the number of tax expenditures in the U.S. income tax has actually increased over the last 35 years,¹⁷ though it is impossible to confirm a similar trend from Canadian reports.¹⁸ As an impetus

¹³ U.S. Joint Committee on Taxation, *A Reconsideration of Tax Expenditure Analysis*, (May 12, 2008) at 2-3.

¹⁴ As the Joint Committee explains, “once tax expenditures were identified and clearly displayed as government spending substitutes, subsequent dissection would reveal them to be poorly targeted or inefficient, when compared either to an actual government spending program, or (in most cases) when compared to not expending government resources at all.” *Ibid.* at 2-3.

¹⁵ *Ibid.* at 3.

¹⁶ In the U.S., Congress has published annual tax expenditure budgets since 1968. The federal Government in Canada produced its first tax expenditure report in 1979. Department of Finance Canada, *Government of Canada Tax Expenditure Account: A Conceptual Analysis of Tax Preferences in the Federal Income and Commodity Tax Systems*, (December 1979). For Canadian tax expenditure reports from 1995 to 2008, see <http://www.fin.gc.ca/purl/taxexp-eng.asp> (last accessed 23 October 2009).

¹⁷ U.S. Joint Committee on Taxation, *supra* note 13 at 4, reporting that the number of federal income tax expenditures identified by the Joint Committee has increased from 60 in 1972 to 170 in 2007.

¹⁸ Although the 1979 report stated that tax expenditures “have been growing more rapidly in recent years than direct spending in a number of areas,” similar statements do not appear in more recent reports, and it is difficult to distinguish differences in the reporting of tax expenditures from increases in their number or estimated amounts.

to legislative reform, therefore, one might be tempted to conclude that tax expenditure analysis has been an abject failure. At the same time, however, tax expenditure analysis has had a considerable effect on the design of tax expenditures, as these are increasingly delivered in the form of credits rather than deductions or exemptions,¹⁹ are often temporary in nature,²⁰ and are occasionally subject to budgetary ceilings.²¹ As a result, while tax expenditure analysis may not have reduced the number of tax expenditures, it appears to have had considerable influence on tax policy and tax reform,²² and may yet have some influence on public spending as a result of legislative sunsets and budgetary ceilings.

This paper examines a particular category of tax expenditures in Canada, namely tax expenditures that are designed to limit the growth of carbon emissions that contribute to global warming. Unlike the U.S., which relies heavily on tax expenditures as instruments of energy and climate change policy,²³ Canada has introduced very few such tax expenditures, relying instead on voluntary initiatives, direct subsidies, and limited regulatory measures to limit carbon emissions.²⁴ As background to this inquiry, Part II reviews Canadian experience with carbon emissions over the last two decades and the limited government response to this growing problem. Part III identifies the most

¹⁹ In Canada, for example, the deduction for charitable contributions was converted into a credit in 1988. See David G. Duff, “Charitable Contributions and the Personal Income Tax: Evaluating the Canadian Credit,” in Jim Phillips, Bruce Chapman, and David Stevens, eds., *Between State and Market: Essays on Charities Law and Policy in Canada*, (Montreal & Kingston: McGill-Queen’s University Press, 2001) 407.

²⁰ See, e.g., Victor Thuronyi, “Tax Expenditures: A Reassessment,” [1988] *Duke L.J.* 1155 at 1171, observing that the “sunsetting” of several tax expenditure provisions “suggests that Congress has partially accepted the argument in favor of treating tax expenditures like spending programs for the purposes of budgetary review.”

²¹ See the discussion of U.S. climate change tax expenditures in Janet E. Milne, “Climate Change Tax Expenditures in the US Tax Code: A Tax Expenditure Microcosm With Environmental Dimensions” (2009).

²² Joint Committee on Taxation, *supra* note 13 at 6.

²³ Milne, *supra* note 21.

²⁴ For a critical review of Canadian climate change policy, see Jeffrey Simpson, Marc Jaccard and Nic Rivers, *Hot Air: Meeting Canada’s Climate Change Challenge*, (Toronto: McClelland and Stewart, 2007).

prominent tax expenditures that Canadian governments have introduced in order limit the growth of carbon emissions. Part IV evaluates these tax expenditures as spending programs and tax measures. Part V concludes.

II. Background

Canada ratified the Kyoto Protocol on December 17, 2002, legislatively affirming the commitment that the federal Government made at the negotiating table five years earlier to reduce Canada's greenhouse gas (GHG) emissions by 6% from the 1990 level of 592 million tonnes of CO₂ equivalent (CO₂e) emissions.²⁵ Notwithstanding this commitment, however, GHG emissions in Canada increased substantially in the 1990s and 2000s – reaching 747 million tonnes in 2007, which was 26.2% higher than the 1990 level and 33.8% higher than Canada's commitment under the Kyoto Protocol.²⁶

Although economic and population and economic growth contributed significantly to GHG emissions during this period,²⁷ other countries have managed impressive growth rates without corresponding increases in GHG emissions,²⁸ suggesting

²⁵ On the unrealistic and highly political nature of this commitment, which was designed to ensure that promised emissions reductions in Canada would be slightly better than those promised by the United States, see *ibid.* at 33-41.

²⁶ Environment Canada, *Information on Greenhouse Gas Sources and Sinks: Canada's 2007 Greenhouse Gas Inventory – A Summary of Trends*, online at http://www.ec.gc.ca/pdb/ghg/inventory_report/2007/som-sum_eng.cfm (last accessed 23 October 2009). While GHG emissions actually decreased in some sectors such as pulp and paper manufacturing, construction, coal mining, chemicals and metal production, increases were significant for electricity and heat generation (24.2%), fossil fuel industries (32%), commercial and institutional buildings (36.8%), transportation (37.5%), and fugitive emissions from oil (39.1%), natural gas (64.8%) and venting (64.8%), and particularly high for mining and oil and gas extraction (276.4%) – reflecting development of the Alberta tar sands. *Ibid.* at 6.

²⁷ See *ibid.* at 2- 3 (reporting that Canada's gross domestic product and population grew by roughly 60 percent and 20 percent respectively between 1990 and 2007). See also Simpson, et. al., *supra* note 1 at 80-83 (explaining that Canada's GHG emissions would have increased only 6 percent from 1990 to 2005 if the country had experienced the same rates of population and economic growth as European countries experienced during this period).

²⁸ In Sweden, for example, carbon emissions decreased by almost 9% between 1990 and 2006, despite economic growth of 44% over this period. Gwladys Fouché, "Sweden's carbon-tax solution to climate change puts it top of the green list," *guardian.co.uk* (29 April 2008), online at <http://www.guardian.co.uk/environment/2008/apr/29/climatechange.carbonemissions> Likewise, Denmark

that public policies have also played a role. Indeed, despite numerous Green Plans and Climate Change Action Plans in the late 1990s and early 2000, the federal government has consistently failed to introduce measures that would impose a market price on carbon emissions, relying instead on “pious hopes and good intentions”²⁹ backed up by exhortations to voluntary action, government commitments to satisfy energy requirements from renewable sources, and the introduction of selected tax incentives and direct spending measures.³⁰

Unlike the U.S. Government, however, the federal Government in Canada has tended to rely more on direct expenditures than tax expenditures to encourage investments and activities to limit carbon emissions.³¹ For example, while the U.S. Internal Revenue Code provides a production tax credit for each kilowatt hour of electricity sold during the first ten years that a windfarm is in service,³² the Canadian government provides a similar fiscal subsidy directly in the form of a Wind Power Production Incentive (WPPI) and a successor program called ecoENERGY for Renewable Power.³³ Likewise, while the Internal Revenue Code provides tax credits for

managed to reduce carbon emissions by 8.3% between 1990 and 2008, despite sustained economic growth during this period. Danish Energy Agency, “Large drop in energy consumption and CO2 emissions in 2008” (18 March 2009), online at <http://www.sparenergi.dk/sw80769.asp>.

²⁹ Simpson, et. al., *supra* note 21 at 87.

³⁰ Although the current federal Government introduced a “regulatory framework” in 2007 promising to limit emissions at large industrial facilities, the cap and trade regime contemplated under this framework has yet to be put into place and involves intensity-based targets that would limit emissions per unit of output but permit overall emissions to increase. See Government of Canada, *Regulatory Framework for Air Emissions*, (2007), available at http://www.ec.gc.ca/doc/media/m_124/report_eng.pdf; and Government of Canada, *Ecoaction: Action on Climate Change and Air Pollution*, (2007) at 4, available at http://www.ec.gc.ca/doc/media/m_124/brochure/brochure_eng.pdf (“[A] company will have to cut its greenhouse gas emissions per unit of production by 18% by 2010 [and] a further 2% in each and every year after 2010”).

³¹ For a useful summary of these fiscal measures, see Anuschka Bakker, ed., *Tax and the Environment: A World of Possibilities*, Amsterdam: IBFD, 2009) at 138-62.

³² IRC, § 45.

³³ The Wind Power Production Incentive was introduced in 2001 and continues to apply to projects installed up to the end of March 2007. The ecoEnergy for Renewable Power program applies for projects

residential energy efficiency,³⁴ the Canadian Government provides direct grants to encourage energy efficiency in residential, commercial and industrial buildings through its ecoEnergy Retrofit program.³⁵ Other direct grant programs to support clean and renewable energy include: the federal Government's ecoENERGY Technology Initiative, which funds research, development and demonstration to support the development of the next-generation clean-energy technologies such as carbon sequestration³⁶; ecoEnergy for Renewable Heat, which offers financial incentives to the industrial, commercial and institutional sectors to install active energy-efficient solar air and/or water heating systems³⁷; and ecoEnergy for Biofuels, which provides operating incentives to producers of renewable alternatives to gasoline and diesel.³⁸

Provincial governments in Canada have been similarly reluctant to adopt aggressive measures to limit carbon emissions, and have also relied on tax incentives and spending measures for this purpose. Like the federal Government, provincial Governments in Canada have also tended to rely more on direct spending programs than tax expenditures when introducing fiscal subsidies to encourage reductions in carbon

installed between April 2007 through March 2011. Government of Canada, "ecoEnergy for Renewable Power" online at <http://ecoaction.gc.ca/ecoenergy-ecoenergie/power-electricite/index-eng.cfm> (last accessed 24 October 2009). For a detailed discussion of the WPPI, see David G. Duff and Andrew Green, "Wind Power in Canada" in Kurt Deketelaere, Hope Ashiabor, Larry Kreiser, and Janet Milne, eds., *Critical Issues in Environmental Taxation*, Vol. IV, (Oxford: Oxford University Press, 2007) 3.

³⁴ IRC, §§ 45L, 25C and 45M. For a detailed discussion, see Janet E. Milne, "From Simple Concept to Complex Reality: U.S. tax Incentives to Reduce Household Use of Fossil Fuels" in Jacqueline Cottrell, Hope Ashiabor, Larry Kreiser, and Janet Milne, eds., *Critical Issues in Environmental Taxation*, Vol. VI, (Oxford: Oxford University Press, 2007).

³⁵ Government of Canada, "ecoEnergy Retrofit" online at <http://ecoaction.gc.ca/ecoenergy-ecoenergie/retrofitsmo-renovationpmo-eng.cfm> (last accessed 24 October 2009).

³⁶ Government of Canada, "ecoEnergy Technology Initiative" online at <http://www.ecoaction.gc.ca/ecoenergy-ecoenergie/technology-technologie-eng.cfm> (last accessed 24 October 2009).

³⁷ Government of Canada, "ecoEnergy for Renewable Heat" online at <http://ecoaction.gc.ca/ecoenergy-ecoenergie/heat-chauffage/index-eng.cfm> (last accessed 24 October 2009).

³⁸ Government of Canada, "ecoEnergy for Biofuels" online at <http://ecoaction.gc.ca/ecoenergy-ecoenergie/biofuelsincentive-icitatifsbio carburants-eng.cfm> (last accessed 24 October 2009).

emissions.³⁹ In recent years, however, some provinces have introduced renewable portfolio standards (RPSs) and feed-in tariffs (FITs) to encourage the production of electricity from renewable sources,⁴⁰ joined regional cap and trade regimes like the Western Climate Initiative,⁴¹ and enacted carbon taxes to discourage the emission of carbon dioxide.⁴² While it is too early to assess the impact of these measures in Canada, there is considerable evidence that RPSs and FITs have stimulated the development of

³⁹ In addition to the federal Government, therefore, several provinces offer direct subsidies for energy efficiency in the form of rebates or grants to encourage household purchases of energy-efficient appliances and home insulation. See, e.g., Government of Alberta, News Release, “Cash rebates will help Albertans be more energy efficient” (April 9, 2009), online at <http://alberta.ca/acn/200904/256878B7BE08A-F45B-8F41-B19FDA5DB0C37E21.html> (accessed November 1, 2009) (rebate for homeowners purchasing high efficiency furnaces, Energy Star® clothes washers, and insulation and hot water heaters if purchased based on an ecoENERGY evaluation); LiveSmart BC, Government of British Columbia, “Rebates and Incentives for Your Home” online at <http://www.livesmartbc.ca/homes/incentives.html> (accessed November 1, 2009) (provincial incentives for improving efficiency of space heating, water heating, home insulation, windows and doors, and for purchasing renewable energy generating equipment for homeowners participating in federal ecoENERGY program); Manitoba Hydro, “Furnace and Boiler Replacement Program” online at http://www.hydro.mb.ca/your_home/furnace_replacement_program.shtml (accessed November 1, 2009) (\$245 rebate for homeowners replacing furnaces or boilers with high-efficiency natural gas models); Manitoba Hydro, “Power Smart Home Insulation Program” online at http://www.hydro.mb.ca/your_home/home_insulation.shtml (accessed November 1, 2009) (rebate for portion of cost of home insulation); Government of Nova Scotia, *Nova Scotia EnerGuide for Houses: Rebate Guide*, (2009) at 1, online at <http://www.conservens.ca/resources/energuide/EnerGuide-Rebate-Guide.pdf> (accessed November 1 2009) at 1 (up to \$1,500 in rebates for energy improvements to existing homes in conjunction with the federal government's retrofit program); Ontario Ministry of Energy and Infrastructure, *Ontario's Energy Efficiency Resource & Funding Guide*, (2009) at 7, online at http://www.mei.gov.on.ca/english/pdf/conservation/energy_efficiency_funding.pdf (accessed November 1, 2009) (matching grants up to \$5,000 for payments qualifying for support under the federal ecoEnergy Retrofit Program); Agence de l'efficacité énergétique Québec, “Rénoclimat: Financial Assistance” (2009), online at <http://www.aee.gouv.qc.ca/en/my-home/renoclimat/financial-assistance/#c99> (accessed November 1, 2009) (financial assistance for homeowners to improve energy efficiency of their homes); and SaskEnergy, *Saskatchewan EcoGuide for Homes*, (2009), online at http://www.saskenergy.com/saving_energy/Grant%20publication.pdf (accessed November 1, 2009) (additional provincial grants for improvements receiving grants under the federal ecoENERGY for Homes Retrofit program). As well, British Columbia's Scrap-It Program provides rebate incentives of up to \$1,250 for owners of inefficient older vehicles to replace their cars with new vehicles, transit passes, or bicycles. B.C. Incentive Program, online at <http://www.scrapit.ca/PIPindex.htm> (accessed November 1, 2009).

⁴⁰ See David G. Duff and Andrew J. Green, “Wind Power in Canada” in K. Deketelaere et. al., eds., *Critical Issues in Environmental Taxation – International and Comparative Perspectives: Volume IV*, (Oxford: Oxford University Press, 2007) 3.

⁴¹ See Western Climate Initiative (WCI), <http://www.westernclimateinitiative.org> (last accessed 23 October 2009).

⁴² The Province of Quebec introduced a low-rate duty on bulk sales of fossil fuels in 2007, and British Columbia enacted a broad consumption-based carbon tax effective July 1, 2008. See David G. Duff, “Carbon Taxation in British Columbia” (2008), 10 *Vt. J. Envtl.L.* 87.

renewable source electricity in jurisdictions where they have been introduced,⁴³ and that emissions trading and carbon taxation have limited the growth of carbon emissions in European countries where they have been adopted.⁴⁴

III. Identification

The first task of any tax expenditure analysis necessarily involves the identification of a particular tax provision as a tax expenditure, rather than an inherent element of the relevant tax. Although this initial task might seem relatively straightforward, it has provoked fierce debate about the appropriate standard or benchmark against which a tax expenditure is defined and caused some commentators to question the relevance of tax expenditure analysis altogether.

In Stanley Surrey's view, the concept of a tax expenditure was necessarily premised on a normative tax base, which he equated with the Haig-Simons-Schantz comprehensive income concept in the case of income tax expenditures,⁴⁵ and a broad-based concept of consumption in the case of retail sales taxes and value-added taxes.⁴⁶ For this reason, he also concluded that it was impossible to identify tax expenditures within narrowly-based excise taxes.⁴⁷

⁴³ David G. Duff and Andrew J. Green, "Market-Based Policies for Renewable Energy Source Electricity: A Comparative Evaluation" in N. Chalifour et. al., eds., *Critical Issues in Environmental Taxation – International and Comparative Perspectives: Volume V*, (Oxford: Oxford University Press, 2008) 825.

⁴⁴ See, e.g., Mikael Skou Anderson, "Environmental and Economic Implications of Taxing and Trading Carbon: Some European Experiences" (2008), 10 *Vt. J. Envtl.L* 61.

⁴⁵ Surrey and McDaniel, *supra* note 4 at 186. Although often associated with U.S. economists Robert Murray Haig and Henry Simons, the concept has a German antecedent in the work of Georg van Schanz. See Georg van Schanz, "Der Einkommensbegriff und die Einkommensteuergesetz," 13 *Finanz-Archiv* no. 1, 1-87 (1896); Robert Murray Haig, "The Concept of Income – Economic and Legal Aspects," in R.M. Haig, *The Federal Income Tax*, (New York: Columbia University Press, 1921) 1; and Henry C. Simons, *Personal Income Taxation: The Definition of Income as a Problem of Fiscal Policy*, (Chicago: University of Chicago Press, 1938). For a useful survey of this "comprehensive" concept of income, see R.A. Musgrave, "In Defense of an Income Concept" (1967) 81 *Harv. L. Rev.* 44.

⁴⁶ Surrey and McDaniel, *supra* note 4 at 238.

⁴⁷ *Ibid.* at 233.

Although there has been very little analysis of the tax expenditure concept in the context of broad-based sales and value-added taxes or more narrow excise taxes, the assumed relationship between tax expenditures and the comprehensive income tax base has been subject to considerable criticism, beginning with Boris Bittker in the 1960s,⁴⁸ and continuing with more recent objections by Douglas Kahn and Jeffrey Lehman,⁴⁹ Bruce Bartlett,⁵⁰ and Dan Shaviro.⁵¹ Moreover, to the extent that the current “income” tax constitutes a hybrid system comprising features of a comprehensive income tax base and a personal consumption or expenditure tax base,⁵² it is impossible to characterize consumption tax elements as departures from the “normative” tax base without making an implicit policy choice in favour of one tax base over another.⁵³ More boldly, David Weisbach and Jacob Nussim argue that the substitutability between tax expenditures and direct spending programs implies that “[t]here is no such thing as a normative tax base.”⁵⁴

As the U.S. Joint Committee on Taxation explains in its recent analysis of the tax expenditure concept, the presumed relationship between tax expenditure analysis and the comprehensive income tax base has undermined the effectiveness of tax expenditure analysis as an impetus to reform by linking this analytical approach to a concept of

⁴⁸ Boris Bittker, “Accounting for Federal ‘Tax Subsidies’ in the National Budget” (1969), 22 *National Tax Journal* 22. See also Bittker’s critique of the comprehensive income concept in Boris I. Bittker, “A ‘Comprehensive Tax Base’ as a Goal of Tax Reform,” 80 *Harv. L. Rev.* 925 (1967).

⁴⁹ Douglas A. Kahn and Jeffrey S. Lehman, “Tax Expenditure Budgets: A Critical View” (1992), 54 *Tax Notes* 1661.

⁵⁰ Bruce Bartlett, “The End of Tax Expenditures as We Know Them?” (2001), 92 *Tax Notes* 413.

⁵¹ Daniel Shaviro, “Rethinking Tax Expenditures and Fiscal Language” (2004), 57 *Tax L. Rev.* 187 at 199, criticizing traditional tax expenditure analysis on the basis that it is premised on “a supposedly canonical, yet in practice under-theorized and rightly controversial, official definition of the ‘normative income tax base.’”

⁵² See, e.g., Henry J. Aaron, Harvey Galper, and Joseph A. Pechman, *Uneasy Compromise: Problems of a Hybrid Income-Consumption Tax*, (Washington, D.C.: Brookings Institution, 1988).

⁵³ See, e.g., Leonard E. Burman, “Is the Tax Expenditure Concept Still Relevant?” (2003), 56 *National Tax Journal* 613 at 618, observing that “[t]here is clearly an ideological element to the [tax expenditure analysis] about tax bases” and concluding that “there is no objective way to resolve this dispute”.

⁵⁴ David A. Weisbach and Jacob Nussim, “The Integration of Tax and Spending Programs” (2004), 113 *Yale L.J.* 955.

income that is increasingly contested.⁵⁵ In contrast, it emphasizes, “[i]f tax expenditure analysis is to enjoy broad support, it must be seen as *neutral* and *principled*.”⁵⁶ For this reason, drawing on earlier work by Seymour Fiekowsky and other tax scholars,⁵⁷ the Committee suggests that tax expenditure analysis should be limited to a more narrowly targeted category of “tax subsidies”,⁵⁸ which it defines as specific tax provisions that are “deliberately inconsistent with an identifiable general rule of the present tax law (not a hypothetical ‘normal’ tax)” and that collect less revenue than the general rule.⁵⁹ In addition to its virtue as a more neutral benchmark for tax expenditure analysis, this definition is more easily applied not only to broad-based consumption taxes like retail sales taxes and value-added taxes, but also to more narrowly targeted excise taxes which might also include embedded tax subsidies.

With this conceptual introduction, it is now possible to identify the key tax expenditures that federal and provincial governments in Canada have introduced in order to limit the growth of carbon emissions. For this purpose, we employ the more neutral concept of tax subsidies suggested by the U.S. Joint Committee on Taxation, reviewing tax measures that deliberately depart from an identifiable general rule within the particular and collect less revenue than the general rule.

⁵⁵ Joint Committee on Taxation, *supra* note 13 at 35-38.

⁵⁶ *Ibid.* at 36.

⁵⁷ Seymour Fiekowsky, “The Relation of Tax Expenditures to the Distribution of the ‘Fiscal Burden’” (1980), 2 *Canadian Taxation* 211, suggesting that a concept of “tax subsidy programs” be defined by reference to general tax rules from which they depart, as well as their ability to be replaced by direct expenditure programs. For similar approaches, suggesting that the concept of a tax expenditure be defined in terms of its potential replacement by a direct spending program, see Michael J. McIntyre, “A Solution to the Problem of Defining a Tax Expenditure” (1980), 14 *U.C. Davis Law Review* 78; and Thuronyi, *supra* note 20.

⁵⁸ Joint Committee on Taxation, *supra* note 13 at 9-11 and 39-42.

⁵⁹ *Ibid.* at 39.

1. Federal Income Tax Expenditures

In addition to these direct spending programs, the Canadian Government has also relied on tax measures to encourage energy conservation and the development of clean and renewable energy as well as the use of public transit. This section examines each of these tax measures.

(1) Accelerated Depreciation

Like many tax systems, the Canadian income tax does not permit the immediate deduction of capital expenses,⁶⁰ but allows for the deduction of these capital costs through a statutory capital cost allowance (CCA) regime.⁶¹ While the rates at which various capital assets can be depreciated for tax purposes are generally designed to reflect the useful life of these assets, higher rates are sometimes established in order to create a special tax incentive to encourage investments in specific classes of property since their costs can be deducted over a shorter period of time. As these accelerated depreciation rates are deliberately more generous than general rules for computing CCA and are deliberately designed to encourage specific kinds of investments, they are readily characterized as tax expenditures under the approach adopted here. Indeed, the 2008 Federal Budget affirms that accelerated CCA is “an explicit exception to the general practice of setting CCA rates based on the useful life of assets” and “provides a financial benefit by deferring taxation.”⁶²

⁶⁰ *Income Tax Act*, R.S.C. 1985, c. 1 (as amended), s. 18(1)(b) [hereafter “ITA”].

⁶¹ *Ibid.*, s. 20(1)(a), and *Income Tax Regulations*, C.R.C. 1978, c. 945 (as amended), Part XI and Schedule II [hereafter “ITR”].

⁶² Department of Finance Canada, *The Budget Plan 2008*, “Tax Measures: Supplementary Information and Notice of Ways and Means Motions” (February 26, 2008) at 297 [hereafter 2008 Federal Budget], online at <http://www.budget.gc.ca/2008/pdf/plan-eng.pdf>.

In Canada, accelerated depreciation for investments in energy efficiency and renewable energy has existed in one form or another since 1976, when the federal Government introduced CCA Class 34 for equipment designed to recover heat from industrial processes or produce heat or electricity from the consumption of wood or municipal wastes.⁶³ Deductible at a rate of 50 percent on a straight-line basis rather than the usual declining basis used for most capital property,⁶⁴ the cost of these capital assets could be fully deducted over two years – much faster than the expected useful life of the property and much faster than the 4 percent declining balance rate that would otherwise have applied to these assets under Class 1.⁶⁵ Extended in 1979 to active solar heating and solar energy conversion equipment, generating equipment for small hydro-electric stations, and heat recovery equipment,⁶⁶ and in 1986 to equipment for wind energy conversion systems,⁶⁷ these rules represented a deliberate tax preference intended to encourage investments in energy efficiency and renewable energy.⁶⁸

While the amount that could be deducted in respect of this class of property was limited after 1988 to income from this class determined in order to prevent the use of this accelerated depreciation to shelter other income,⁶⁹ these “specified energy property” rules specifically excluded corporations whose principal business was “the sale, distribution or production of electricity, natural gas, oil, steam, heat or any other form of energy or

⁶³ ITR, Sch. II, Cl. 34(d).

⁶⁴ *Ibid.*, s. 1100(1)(y) (for taxation years commencing before 12 November 1981) and s. 1100(1)(t) (for taxation years ending after 12 November 1981).

⁶⁵ *Ibid.*, Sch. II, Cl. 1(m) (electrical energy generating and distributing equipment) and (p) (heat production and distributing equipment).

⁶⁶ *Ibid.*, Sch. II, Cl. 34(e)((i)-(iv)).

⁶⁷ *Ibid.*, Sch. II, Cl. 34(e)(v).

⁶⁸ See, e.g., 2008 Federal Budget, *supra* note 62 at 297, explaining that the incentive for this investment “is premised on the environmental benefits of low-emission or no-emission energy generation equipment.”

⁶⁹ *Ibid.*, ss. 1100(24)-(29).

potential energy.”⁷⁰ As a result, these “principal business corporations” can use accelerated depreciation resulting from investments in renewable energy and energy conservation equipment to shelter other kinds of income – another tax expenditure for these kinds of investments, given the general rules limiting the deduction of CCA for this purpose.

Although the federal government reduced the CCA rate for energy conservation and renewable energy equipment in 1994 by eliminating additions to Class 34 and including this type of property in new Class 43.1 with a declining balance rate of 30 percent,⁷¹ this reduced rate continued to be much more generous than the standard 4 percent rate under Class 1,⁷² and was generally more generous than depreciation rates used for accounting purposes.⁷³ At the same time, moreover, the federal Government expanded the kinds of property that could qualify for CCA under this accelerated rate,⁷⁴ adding the following categories to Class 43.1: fixed location photovoltaic equipment used for generating electricity from solar energy,⁷⁵ above-ground geothermal energy equipment used primarily to generate electricity,⁷⁶ above-ground equipment used

⁷⁰ *Ibid.*, s. 1100(26).

⁷¹ Canada Tax Service, *Canadian Federal Budget (February 22, 1994): Budgetary Proposals of the Minister of Finance, the Hon. Paul Martin, with Commentary by Stikeman, Elliot*, (Scarborough, Ont.: Carswell Thompson Professional Publishing, 1994) at 3-24 [hereafter 1994 Federal Budget]. See ITR, s. 1100(1)(a)(xxix.1) and Sch. II, Cl. 43.1(a)(i) and (ii) and (c)(i) (equipment for generating electricity and heat from waste fuel), (d)(i)(I) (active solar heating equipment), (d)(ii) and (iii.1) (small hydro-electric stations), (d)(iv) (heat recovery equipment), and (d)(v) (wind energy generating equipment). As well, unlike Class 34, Class 43.1 is not exempt from the so-called “half-year rule” in ITR, s. 1100(2), which limits the amount that may be deducted in respect of net additions to the capital cost of any class in a taxation year to half of this net addition.

⁷² *Supra* note 65.

⁷³ Department of Finance Canada, *Budget 1997: Budget Plan Including Supplementary Information and Notices of Ways and Means Motions*, (February 18, 1997) at 208 [hereafter 1997 Federal Budget], online at <http://www.fin.gc.ca/budget97/binb/bp/bp97e.pdf>.

⁷⁴ 1994 Federal Budget, *supra* note 71.

⁷⁵ ITR, Sch. II, Cl. 43.1(d)(vi).

⁷⁶ *Ibid.*, Cl. 43.1(d)(vii).

primarily to collect landfill gas or digester gas,⁷⁷ and equipment used primarily to generate heat from the consumption of wood waste, municipal waste, landfill gas or digester gas, if the heat energy is used directly in an industrial process.⁷⁸

Since 1994, the federal Government has continued to expand the scope of Class 43.1 property in the following ways: reducing the peak capacity requirements for eligible photovoltaic equipment in 1997⁷⁹; allowing electrical generating equipment using gas that would otherwise be flared during production of crude oil to qualify in 1999⁸⁰; increasing the maximum annual rated capacity for small hydro-electric stations to accommodate run-of-the-river projects in 2001⁸¹; adding qualifying fuel cells, equipment to produce bio-oil from wood waste or other plant residues, and specified equipment to generate heat from solar energy, wood and municipal waste, landfill gas or digester gas for use in a greenhouse operation in 2003⁸²; extending eligibility for active solar heating equipment, photovoltaic and fuel cell systems, and adding equipment to generate electricity using wave or tidal energy in 2007⁸³; and extending eligibility for waste-to-energy applications and adding ground source heat pump systems and biogas

⁷⁷ *Ibid.*, Cl. 43.1(d)(viii).

⁷⁸ *Ibid.*, Cl. 43.1(d)(ix).

⁷⁹ 1997 Federal Budget, *supra* note 73 at 211.

⁸⁰ Department of Finance Canada, *The Budget Plan 1999 Including Supplementary Information and Notices of Ways and Means Motions*, (February 16, 1999) at 215-216, online at <http://www.fin.gc.ca/budget99/bp/bp-eng.asp>.

⁸¹ Department of Finance Canada, *The Budget Plan 2001, Supplementary Information and Notices of Ways and Means Motions Included*, (December 10, 2001) at 223, online at <http://www.fin.gc.ca/budget01/pdf/bpe.pdf>.

⁸² Department of Finance Canada, *The Budget Plan 2003, Supplementary Information and Notices of Ways and Means Motions Included*, (February 18, 2003) at 338-339, online at <http://www.fin.gc.ca/budget03/pdf/bp2003e.pdf>. For the inclusion of fuel cells and equipment to produce bio-fuel, see ITR, Sch. II, Cl. 43.1(d)(xi) and (xii).

⁸³ Department of Finance Canada, *The Budget Plan 2007*, (March 19, 2007) at 413-14 [hereafter 2007 Federal Budget], online at <http://www.budget.gc.ca/2007/pdf/bp2007e.pdf>. For the inclusion of equipment to generate electricity from wave or tidal power, see ITR, Sch. II, Cl. 43.1(d)(xiv)

production equipment in 2008.⁸⁴ In 2005, the federal Government also increased the tax incentive for investments in renewable energy and energy efficiency by increasing the CCA rate for most property qualifying under Class 43.1 to 50 percent on a declining balance basis, provided that the property was acquired after February 22, 2005 and before 2012.⁸⁵ In 2007, the federal Government extended the qualification period for this higher CCA rate to property acquired before 2020.⁸⁶ According to the 2005 Federal Budget, the tax expenditure resulting from increased accelerated depreciation for efficient and renewable energy generation equipment was estimated at \$20 million in 2005-06, \$45 million in 2006-07, \$65 million in 2007-08, \$80 million in 2008-09, and \$85 million in 2009-10.⁸⁷

(2) Expensing and Flow-Through of Start-up Costs

In addition to accelerated depreciation, the federal Government introduced an additional tax expenditure for investments in renewable energy and energy efficiency in 1996 in the form of special tax treatment for Canadian renewable and conservation expenses (CRCs).⁸⁸ Defined as various start-up expenses incurred in the development of a project for which it is reasonable to expect that at least 50 percent of the capital cost of

⁸⁴ 2008 Federal Budget, *supra* note 62 at 298-301. The estimated cost of these changes to the accelerated depreciation rules for efficient and renewable energy were estimated as \$5 million in 2009-10. *Ibid.* at 272. For the inclusion of ground source heat pumps and biogas production equipment, see ITR, Sch. II, Cl. 43.1(d)(i) and (xiii).

⁸⁵ Canada, Department of Finance, *The Budget Plan 2005*, (February 23, 2005) at pp. 400-02, online at <http://www.fin.gc.ca/budget05/pdf/bp2005e.pdf> [hereafter 2005 Federal Budget]. See ITR, s. 1100(1)(xxix.2) and Sch. II, Cl. 43.2.

⁸⁶ 2007 Federal Budget, *supra* note 83 at 412.

⁸⁷ 2005 Federal Budget, *supra* note 85 at 366 (Table A8.1).

⁸⁸ Although the Regulations implementing this measure were not formally adopted until August 23, 2000, the special tax treatment available to Canadian renewable and conservation expenses applies to eligible expenses incurred after December 5, 1996. P.C. 2000-1331, s. 4, *Canada Gazette*, Part II (September 13, 2000).

depreciable property will be property described in Class 43.1 or 43.2,⁸⁹ these expenses need not be capitalized (as would otherwise be the case) but may be deducted in the year in which they are incurred or carried forward to future taxation years,⁹⁰ or renounced in favour of shareholders who have entered into a flow-through share agreement with a qualifying “principal business corporation” that incurs the expense.⁹¹ According to the 1996 Federal Budget in which this category of expenses was announced, the special tax treatment was intended to “provide the renewable energy and energy conservation sector with improved access to financing in the early stages of their operations when they have little or no income to utilize the income tax deductions related to these expenses.”⁹² The estimated cost of this tax expenditure at the time was \$5 million in 1997-98 and \$10 million for 1998-99.⁹³

Of particular significance for the development of wind power in Canada is the subsequent inclusion of “test wind turbines” in the definition of CRCEs. First announced in the 1997 Federal Budget,⁹⁴ the inclusion of this category of expense was also made

⁸⁹ See ITR, s. 1219(1) which specifies various kinds of start-up costs (e.g., service connection costs, costs to construct temporary access roads, costs of clearing land, and costs of engineering studies) that qualify as Canadian renewable and conservation expenses, and *ibid.*, s. 1219(2) which specifically excludes other costs such as the cost of land, the cost of inventory, and deductible costs incurred in respect of the administration or management of the taxpayer’s business.

⁹⁰ See subsection 66.1(3) of the federal *Income Tax Act*, R.S.C. 1985 (5th Supp.), c. 1 (as amended) [hereafter ITA], which generally allows a deduction up to the amount of the taxpayer’s “cumulative Canadian exploration expense”. See also the definition of “cumulative Canadian exploration expense” in ITA subsection 66.1(6) which includes “the total of all Canadian exploration expenses made or incurred by the taxpayer before that time” and the definition of “Canadian exploration expense” in ITA subsection 66.6(6) which includes Canadian renewable and conservation expenses incurred by the taxpayer.

⁹¹ ITA, subsections 66(12.6) to (12.75). See also the definition of a “principal business corporation” in ITA subsection 66(15) which includes corporations the principal business of which is the generation of energy using Class 43.1 property, or the development of projects for which it is reasonable to expect that at least 50 percent of the capital cost of depreciable property used in each project would be Class 43.1 property.

⁹² Canada, Department of Finance, *Budget 1996: Budget Plan Including Supplementary Information and Notices of Ways and Means Motions*, (March 6, 1996) at p. 171, online at <http://www.fin.gc.ca/budget96/bp/bp96e.pdf> (last accessed October 27, 2009).

⁹³ *Ibid.* at 19.

⁹⁴ 1997 Federal Budget, *supra* note 73 at 209.

retroactive to expenses incurred after December 5, 1996.⁹⁵ For the purpose of these rules, a test wind turbine was initially defined as “the first such device installed at the taxpayer’s site for a proposed wind energy conversion system” provided that “the primary purpose of the device is to test the level of energy production at the site.”⁹⁶ After representations by the wind energy industry,⁹⁷ the federal government announced on July 26, 2002 that it would amend the definition of a test wind turbine to allow more than one turbine at each site to qualify as a test wind turbine provided that other criteria were satisfied.⁹⁸ As ultimately adopted, the amended Regulations generally allow for more than one test wind turbine for each wind farm project provided that: (1) the wind energy produced by these test wind turbines does not exceed 20 percent of the nameplate capacity of the wind farm; (2) the project does not share with any other project a point of interconnection to an electrical energy transmission or distribution system; (3) the primary purpose of the turbine is to test the level of wind energy produced by the turbine at the place of installation; (4) no other turbine is installed within 1,500 metres of the turbine; and (5) no other wind energy conversion system is installed within 1,500 metres of the turbine until the level of electrical energy produced by the turbine has been tested for at least 120 calendar days.⁹⁹ According to a regulatory impact statement accompanying the amended Regulation, “these amendments are expected to encourage the development of a domestic wind energy sector.”¹⁰⁰ According to the 1997 Budget, the

⁹⁵ ITR, s. 1219((1)(g).

⁹⁶ *Ibid.*, s. 1219(3), as it applied before July 26, 2002.

⁹⁷ See Department of Finance, *Technical Notes*, Regulation 1219 (July 26, 2002).

⁹⁸ Canada, Department of Finance, “News Release: Federal Government Enhances Renewable Energy Tax Incentives” (July 26, 2002).

⁹⁹ See ITR, s. 1219(3), added on April 9, 2005. Although generally applicable to expenditures incurred after July 25, 2002, the amended rules can also apply to expenses incurred between December 6, 1996 and July 25, 2002, if the taxpayer files an election to this effect with the revenue authorities.

¹⁰⁰ Canada, Department of Finance, *Technical Notes*, Regulation 1219 (August 31, 2005).

cost of this and other environmental tax expenditures announced in the Budget were estimated at \$25 million for each of the 1998-99 and 1999-2000 fiscal years.¹⁰¹

(3) Tax Credit for Transit Passes

A third federal tax expenditure to limit carbon emissions was introduced in 2006 in the form of a tax credit for the cost of public transit passes.¹⁰² According to this provision, individuals may in computing their federal tax payable deduct a specified percentage of the cost of “eligible transit passes” and “eligible electronic payment cards” which are attributable to the use of a public commuter transit service purchased during the taxation year.¹⁰³ For the purpose of this provision, the term “eligible transit pass” is defined to require an unlimited right of travel for 28 consecutive days or 5 consecutive days and 20 out of 28 days, while an “eligible electronic payment card” requires at least 32 one-way trips during an uninterrupted period of 31 days.¹⁰⁴ The specified percentage is defined as the lowest marginal tax rate for individuals,¹⁰⁵ which is currently 15 percent, meaning that individuals may obtain a 15 percent reduction in the net cost of eligible transit passes and electronic payment cards. Since the credit is non-refundable, however, taxpayers whose incomes are too low to pay any tax after taking into account other credits, obtain no benefit from the credit.¹⁰⁶

¹⁰¹ 1997 Federal Budget, *supra* note 73 at 178 (Table A6.1).

¹⁰² ITA, s. 118.02.

¹⁰³ *Ibid.*, s. 118.02(2).

¹⁰⁴ *Ibid.*, s. 118.02(1).

¹⁰⁵ *Ibid.*, s. 248(1) “appropriate percentage”.

¹⁰⁶ Since the credit can be claimed by an individual’s spouse or parent (in the case of children under age 19), however, it may have value even if the individual’s income is too low to pay tax. See *ibid.*, s. 118.02(2) and the definition of “qualifying relation” in s. 118.02(1).

Since commuting expenses are generally not recognized for income tax purposes in Canada,¹⁰⁷ this provision represents a deliberate departure from the general income tax rules and qualifies as a tax expenditure under the approach adopted here. According to the federal Government, the goals of the tax credit are “to make transit more affordable, reduce traffic congestion and lower greenhouse gas emissions.”¹⁰⁸ Initially estimated to cost \$98 million for 2006, \$212 million for 2007, and \$228 million for 2008,¹⁰⁹ the estimated cost of this tax expenditure was subsequently reduced substantially to \$40 million in 2006, \$110 million in 2007, \$120 million in 2008, \$125 million in 2009, and \$130 million in 2010.¹¹⁰

2. Provincial Income Tax Expenditures

Under various tax collection agreements between the federal and provincial governments, the federal government has agreed to collect provincial income tax for participating provinces that agree to levy their income taxes on the same tax base as the federal definition of taxable income. As all provinces but Quebec have entered into a tax collection agreement for the collection of personal income tax and all but Quebec and Alberta have entered into a tax collection agreement for the collection of corporate income tax,¹¹¹ it follows that all provincial income taxes except those in Quebec and the

¹⁰⁷ See, e.g., *Luks v. M.N.R.*, [1958] C.T.C.345, 58 D.T.C. 1194 (Ex. Ct.); and *Henry v. M.N.R.*, [1972] C.T.C. 33, 72 D.T.C. 6005 (S.C.C.).

¹⁰⁸ Department of Finance Canada, *Tax Expenditures and Evaluations 2006*, (Ottawa, 2006) at 14, online at http://www.fin.gc.ca/taxexp-depfisc/2006/taxexp2006_e.pdf

¹⁰⁹ *Ibid.* at 21.

¹¹⁰ Department of Finance Canada, 2008, *Tax Expenditures and Evaluations 2008*, (Ottawa, 2008) [hereafter 2008 Tax Expenditure Report] at 20, available at http://www.fin.gc.ca/taxexp-depfisc/2008/Taxexp-depfisc08_eng.pdf.

¹¹¹ Until 2009, Ontario also levied its own corporate income tax. In 2006, however, the Ontario and federal governments entered into an agreement whereby corporations carrying on business in Ontario would file a single return using the federal income tax base beginning in 2009 for taxation years ending after December 31, 2008. See Department of Finance Canada, “Ontario Business Will Benefit from New Tax Collection Agreement” (6 October 2006), online at <http://www.fin.gc.ca/n06/06-056-eng.asp>.

corporate income tax in Alberta provide the same tax expenditures for renewable energy and energy conservation as the federal income tax – in the form of accelerated depreciation as well as the expensing and flow-through of start-up costs under the definition of Canadian renewable and conservation expenses. The additional revenue cost of these provincial tax expenditures is not included in federal revenue estimates.

In contrast to federal tax expenditures that affect the definition of taxable income, federal tax expenditures that are delivered in the form of tax credits are not automatically adopted at the provincial level since the tax collection agreements allow provincial governments to determine their own tax credits. As a result, it is up to provincial governments to decide whether to adopt a tax credit for transit passes like federal tax credit. To date, only the Yukon Territory has introduced a similar tax credit,¹¹² though Nova Scotia announced that it would also introduce a tax credit for transit passes but deferred the introduction of this credit in its 2009 Budget.¹¹³ In Quebec, on the other hand, the 2006 Budget announced a separate tax incentive for employer-provided transit passes, whereby employees would be exempt from tax on reimbursements of transit passes and employer-provided transit passes, and employers would receive an additional deduction equal to 100 percent of otherwise deductible amounts paid to reimburse employees for transit passes or for employer-provided transit passes.¹¹⁴ Explicitly introduced “[w]ith a view to promoting sustainable development and fighting climate

¹¹² *Income Tax Act, Act to Amend (2006) No. 2*, S.Y. 2006, c. 11, s. 2(21).

¹¹³ Nova Scotia, *Budget Bulletin for the Fiscal Year 2009-2010: Tax Changes and Incentives for Nova Scotians*, online at http://www.gov.ns.ca/finance/en/home/budget/budgetdocuments/2008_2010.aspx (accessed November 1, 2009).

¹¹⁴ Finance Québec, 2006-2007 Budget, Additional Information on the Budgetary Measures, (March 23, 2006) at 12-15, online at <http://www.budget.finances.gouv.qc.ca/budget/2006-2007/en/pdf/AdditionnalInfoMeasures.pdf>.

change,”¹¹⁵ these measures were subsequently enacted as sections 38.1 and 156.8 of Quebec's *Taxation Act*.¹¹⁶

In addition to these measures, provinces that have not agreed to a tax collection agreement with the federal government have occasionally adopted other tax expenditures designed to encourage renewable energy and energy conservation. In November 2002, for example the Ontario Government announced that it would introduce a 10-year corporate income tax holiday for income from new projects generating electricity from clean, alternative and renewable energy sources, and a further incentive for electricity generation from alternative and renewable sources in the form of an immediate deduction for qualifying assets used to generate this electricity.¹¹⁷ In 2003, the Ontario Government announced a further incentive in the form of an additional 100 percent deduction for investments in qualifying assets used to generate electricity for a taxpayer's own use from alternative and renewable sources.¹¹⁸ Before these measures were fully implemented, however, they were repealed in 2004 after the election of a new Liberal Government.¹¹⁹ Under the new tax collection agreement for the collection of corporate income tax, moreover, the Ontario Government can no longer offer separate exemptions or deductions for alternative and renewable energy.

3. Sales Tax Expenditures

¹¹⁵ *Ibid.* at 12.

¹¹⁶ *Taxation Act*, R.S.Q. c. I-3, Part 2. See also section 156.9, which defines the terms “eligible transit pass” and “eligible paratransit pass.”

¹¹⁷ *Electricity Pricing, Conservation and Supply Act*, 2002, S.O. 2002, c. 23, s. 2.

¹¹⁸ Hon. Janet Ecker, Minister of Finance, *2003 Ontario Budget*, Budget Papers at 92, online at http://www.fin.gov.on.ca/en/budget/ontariobudgets/2003/pdf/papers_all.pdf.

¹¹⁹ Hon Greg Sorbara, Minister of Finance, *2004 Ontario Budget*, Budget Papers at 135, online at <https://ozone.scholarsportal.info/bitstream/1873/3383/1/243786.pdf>.

As with income taxes, broad-based sales taxes are levied both by the federal Government and provincial Governments in Canada – with the exception of Alberta, which does not levy a provincial sales tax. At the federal level, this sales tax takes the form of a 5 percent value-added tax called the Goods and Services Tax. While the provinces of New Brunswick, Newfoundland, Nova Scotia and Quebec have harmonized their sales taxes with the federal GST, other provinces that collect a broad-based sales tax continue to collect separate retail sales taxes, though British Columbia and Ontario have announced that they will harmonize their broad-based sales taxes with the federal GST effective July 1, 2010.¹²⁰ Although the federal GST and harmonized provincial sales taxes do not contain any tax expenditures to reduce carbon emissions, climate-related sales tax expenditures have been introduced in British Columbia, Ontario and Saskatchewan.

In British Columbia, where PST is levied at a rate of 7 percent, the province reduces this tax by 50 percent up to a maximum of \$10,000 on purchases of hydrogen fuel cell buses and alternative fuel buses, and up to a maximum of \$5,000 on alternative fuel shuttle buses.¹²¹ The Province also reduces PST on fuel efficient vehicles by \$1,000, \$1,500 or \$2,000, depending on the vehicle type and fuel efficiency,¹²² and by 100 percent of PST payable on hybrid electric vehicles up to a maximum reduction of

¹²⁰ Hon. Dwight Duncan, *2009 Ontario Budget*, (March 26, 2009) at 108-113, online at http://www.fin.gov.on.ca/en/budget/ontariobudgets/2009/papers_all.pdf#page=105; Government of British Columbia, “Harmonized Sales Tax” online at <http://www.gov.bc.ca/hst/> (accessed November 1, 2009).

¹²¹ LiveSmart BC, Government of British Columbia, “Transportation Rebates and Incentives” online at http://www.livesmartbc.ca/transportation/t_rebates.html (accessed November 1, 2009).

¹²² *Ibid.* For a list of vehicles eligible for the PST reduction, see B.C. Ministry of Small Business and Revenue, *2009 Fuel Efficient Vehicles Qualifying for a PST Reduction*, (updated November 12, 2008), online at http://www.livesmartbc.ca/attachments/2009_fuel_efficient_vehicles.pdf (accessed November 1, 2009).

\$2,000.¹²³ In addition, the *Social Service Tax Act* exempts from the provincial sales tax “prescribed tangible personal property used for the conservation of energy....”¹²⁴

Prescribed items include various types of insulating material¹²⁵; EnergyStar® qualified windows, doors and skylights¹²⁶; weather stripping and caulking to prevent heat loss¹²⁷; equipment to generate energy from renewable sources (wind, solar, micro-hydro, and tidal)¹²⁸; EnergyStar® qualified heating systems¹²⁹; EnergyStar® rated residential refrigerators, freezers, and clothes washers¹³⁰; energy-efficient commercial boilers¹³¹; conversion kits for internal combustion engines to operate exclusively on electricity¹³²; and aerodynamic and anti-idling devices.¹³³ Given British Columbia’s decision to harmonize its provincial sales tax with the federal GST, it appears as though these sales tax expenditures will terminate at that time.¹³⁴

In contrast to British Columbia, Ontario has opted for a rebate system for provincial sales tax, offering rebates of its 8 percent PST for purchases of: residential solar energy systems; residential systems to generate electricity or heat from wind, micro-hydro electricity or geothermal energy; alternative fuel vehicles, powered by propane, electricity or alternative fuels, and hybrid-electric vehicles; and various Energy Star®® qualified household appliances that are purchased, rented, or leased between July 20,

¹²³ *Ibid.*

¹²⁴ *Social Service Tax Act*, R.S.B.C. 1996, c. 431, s. 74(e).

¹²⁵ *Social Service Tax Act Regulations*, B.C. Reg. 84/58, ss. 3.20(1)(a), (a.1), (r), (s), and (w).

¹²⁶ *Ibid.*, s. 3.20(1)(d).

¹²⁷ *Ibid.*, s. 3.20(1)(m).

¹²⁸ *Ibid.*, ss. 3.20(1)(n), (o), (p), (q), and (q.1).

¹²⁹ *Ibid.*, s. 3.20(2).

¹³⁰ *Ibid.*, s. 3.20(2.2).

¹³¹ *Ibid.*, s. 3.20(2.3).

¹³² *Ibid.*, s. 3.20(1)(t).

¹³³ *Ibid.*, ss. 3.20(1)(v) and (v.1).

¹³⁴ Although several goods will be either exempt or zero-rated under the harmonized sales tax, none of the energy-related items exempt from the current PST are included in this list. See Government of B.C., “Harmonized Sales Tax: Rebates and Exemptions” available online at http://www.gov.bc.ca/hst/rebates_exemptions.html (accessed November 1, 2009).

2007 and August 31, 2009.¹³⁵ Although Ontario has also decided to harmonize its sales tax with the federal GST, there does not appear to be any reason why it cannot continue to rebate its share of Harmonized Sales Tax (HST) on goods and services that help to reduce carbon emissions.

Like Ontario, Saskatchewan introduced a rebate system for energy efficient household appliances subject to its 5 percent provincial sales tax in October 2003. In April 2005, however, the provincial Government converted this rebate system into a point-of-sale exemption.¹³⁶ As Saskatchewan has no immediate plans to harmonize its provincial sales tax with the federal GST, this tax expenditure (unlike those in the B.C. sales tax) is not facing immanent termination.

4. Excise Tax Expenditures

In addition to income and sales tax expenditures, federal and provincial governments in Canada have also introduced specific excise tax expenditures in order to encourage the consumption and production of renewable transport fuels. In 1992, for example, the federal Government exempted the ethanol portion of blended gasoline from the federal excise tax, which applies at a rate of \$0.10 per litre on unleaded gasoline and \$0.04 per litre on diesel.¹³⁷ In 2003, the biodiesel portion of blended diesel was similarly exempted.¹³⁸ Similarly, in British Columbia, which levies a separate motor fuel tax at

¹³⁵ Ontario Ministry of Revenue. *Common Retail Sales Tax Rebates and Exemptions for Energy Efficient Goods*, (November 2008), online at <http://www.rev.gov.on.ca/english/taxtips/rst/pdf/04.pdf> (accessed November 1, 2009).

¹³⁶ Sask. Ministry of Finance, "PST Exemption on New Energy-Efficient Household Appliances" Information Bulletin, PST-69 (issued December 2003, revised March, 2005), online at <http://finance.gov.sk.ca/revenue/pst/bulletins/PST-69%20PST%20Exemption%20on%20New%20Energy%20Efficient%20Household%20Appliances.pdf> (accessed November 1, 2009).

¹³⁷ *Excise Tax Act*, R.S.C. 1985, c. E-15, s. 23 and Schedule I, ss. 9 and 9.1.

¹³⁸ Tara Laan, Todd A. Litman, and Ronald Steenblik. *Biofuels – At What Cost? Government Support for Ethanol and Biodiesel in Canada*, (Geneva: Global Subsidies Initiative (GSI) of the International Institute

rates ranging from \$0.145 per litre on gasoline and \$0.15 per litre on diesel in rural areas to \$0.205 per litre on gasoline and \$0.21 per litre on diesel in the greater Vancouver area,¹³⁹ the ethanol portion of a blend with gasoline or diesel fuel is exempt from the tax so long if the ethanol portion is between 5 and 25 percent of the total,¹⁴⁰ the biodiesel portion of a blended with diesel is exempt regardless of its proportion to the total,¹⁴¹ and fuel with at least 85 percent ethanol or methanol is exempt from tax entirely.¹⁴² Similar excise tax exemptions exist in Manitoba and Ontario,¹⁴³ while the Province of Quebec refunds fuel tax paid on biodiesel so long as it was not mixed with another fuel at the time acquired.¹⁴⁴

Although Stanley Surrey argued that tax expenditure analysis was inappropriate for excise taxes on the grounds that they are “inherently limited in scope” and “involve no normative tax provisions”,¹⁴⁵ these exemptions from the normal tax rate applicable to transport fuels are easily characterized as tax expenditures under the alternative approach recommended by the U.S. Joint Committee on Taxation and adopted here.¹⁴⁶ Indeed, their basic purpose as tax subsidies is confirmed by recent developments in Canada, as the federal Government and several provinces have recently repealed these tax exemptions

for Sustainable Development (IISD), April 2009) at 52, online at http://www.iisd.org/pdf/2009/biofuels_subsidies_canada.pdf (accessed november 1, 2009).

¹³⁹ *Motor Fuel Tax Act*, R.S.B.C. 1996, c.317, ss. 4, 10, and 12.1. See also B.C. Ministry of Finance, “Motor Fuel Tax: Tax Rates” online at http://www.sbr.gov.bc.ca/business/Consumer_Taxes/Motor_Fuel_Tax/tax_rates.htm (accessed August 11, 2009).

¹⁴⁰ *Motor Fuel Tax Regulation*, B.C. Reg 414/85, s. 52.2(1).

¹⁴¹ *Ibid.*

¹⁴² *Ibid.*

¹⁴³ *Motive Fuel Tax Act*, C.C.S.M. c. M220, s. 2.1(8); *Fuel Tax Act*, R.S.O. 1990, c. F.35, s. 2(3.1).

¹⁴⁴ *Fuel Tax Act*, R.S.Q., c. T-1, s. 10(b)(v).

¹⁴⁵ Surrey and McDaniel, *supra* note 4 at 233.

¹⁴⁶ See *supra* notes 55-59 and accompanying text. While it might be inappropriate to characterize the non-taxation of biofuels under a carbon tax as a tax expenditure to the extent that the tax is intended to apply only to fossil fuels, the same cannot be said of exemptions under federal and provincial excise taxes for transport fuels, which are not limited in this manner.

and replaced them with direct subsidies to producers of renewable gasoline and diesel alternatives in order to prevent so-called “subsidy leakage” to non-resident producers.¹⁴⁷

Although British Columbia continues to exempt ethanol and biodiesel from the provincial motor fuel tax, similar tax exemptions in Manitoba, Ontario, and at the federal level have been replaced with direct subsidies to producers.¹⁴⁸

IV. Evaluation

Having identified a particular tax provision as a tax expenditure, the next step in tax expenditure analysis involves an evaluation of the provision as a government policy instrument. As explained in the introduction, tax expenditures are frequently criticized as bad spending policy and bad tax policy – bad spending policy to the extent that they are unlimited in duration, lack a budgetary ceiling, subject to little legislative oversight, administered by a revenue authority that has little expertise in the specific area addressed by the tax expenditure, and poorly targeted; and bad tax policy on the ground that they increase the complexity of the tax system, distort economic decisions, necessitate higher tax rates to compensate for foregone revenues, and provide upside-down subsidies when delivered in the form of deductions or exemptions.¹⁴⁹

Notwithstanding these criticisms, however, several commentators have defended tax expenditures as potentially attractive policy alternatives, so long as they are

¹⁴⁷ Laan, et. al., *supra* note 138 at 11.

¹⁴⁸ In Ontario, these direct payments are made under the Ontario Ethanol Growth Fund. Ontario Ministry of Agriculture, Food, and Rural Affairs, New Release, “Province Investing in Ontario's Ethanol Producers” (July 6, 2007), online at <http://www.omafra.gov.on.ca/english/infores/releases/2007/070607.htm> (accessed August 12, 2009). In Manitoba, volumetric support is paid pursuant to the *Ethanol Fund Grant Regulation*, Man. Reg. 166/2007, s.5. See also, *Biofuels Act*, C.C.S.M., c.B40, s. 6.4(1). At the federal level, payments are made under the ecoEnergy for Biofuels initiative. See Natural Resources Canada. “ecoENERGY for Biofuels: Program Overview” online at <http://oee.nrcan.gc.ca/transportation/ecoenergy-biofuels/about.cfm?attr=16> (accessed August 12, 2009).

¹⁴⁹ *Supra*, notes 6-12 and accompanying text.

effectively monitored as *de facto* spending programs and designed in a manner that is consistent with this function and minimizes inequities, inefficiencies, and administrative complexity.¹⁵⁰ Indeed, to the extent that they incorporate more traditional features of direct spending programs and equitably distributed, a tax expenditure may be a better way to provide a government subsidy than direct spending since it takes advantage of an established mechanism both for obtaining information and economic resources from and conveying information and economic resources to economic actors.¹⁵¹ As a result, as recent defenders of tax expenditures have emphasized, where criticisms of tax expenditures have led to the redesign of these policy instruments, the critics of tax expenditures are in, a very real sense, victims of their own success.¹⁵²

From this less critical perspective, the evaluation of a particular tax expenditure necessarily involves three questions. First, as with any government subsidy, is there a good social or economic reason for the existence of the subsidy? Second, once it is decided that there is good reason for a subsidy, is there a good reason to deliver the subsidy through the tax system rather than in the form of a direct spending program? And third, is the tax expenditure designed in a manner that is effective in achieving its purpose, efficient with respect to the cost incurred in terms of foregone revenue, equitably distributed, and effectively monitored and controlled? This part of the paper addresses each of these questions in the context of Canadian tax expenditures to reduce carbon emissions.

¹⁵⁰ See, e.g., Edward A. Zelinsky, “Efficiency and Income Taxes: The Rehabilitation of Tax Incentives” (1986), 64 *Texas L. Rev.* 973; and Weisbach and Nussim, *supra* note 54 at 978 (arguing that it is possible to overcome the deficiencies of tax expenditures by designing these measures “to be implemented in the same manner as direct expenditures”).

¹⁵¹ Zelinsky, *supra* note 150 at 110-12.

¹⁵² *Ibid.* at 1030. For an excellent account of how U.S. climate change tax expenditures have been designed to take account of many of the traditional criticisms of tax expenditures, see Milne, *supra* note 21.

1. Subsidies to Limit Carbon Emissions

Beginning with the justification for government subsidies to limit carbon emissions, an initial objection to any such subsidy is that it contradicts the “polluter pays principle” which requires those who cause environmental damage to bear the costs of this damage.¹⁵³ To the extent that carbon emissions constitute a negative externality that imposes social costs on current and future generations, one might reasonably expect that the most appropriate policy response to this market failure would involve government regulation to limit carbon emissions or taxation requiring those generating carbon emissions to face the full costs of the environmental damage that these emissions cause.¹⁵⁴ From this perspective, it follows, government subsidies to limit carbon emissions are a step in the wrong direction, allowing those who are directly responsible for carbon emissions to shift the cost of reducing these emissions to society as a whole.¹⁵⁵

Although these arguments have considerable merit, there are several reasons why governments might justifiably subsidize at least some activities that help limit and reduce carbon emissions. First, to the extent that specific activities generate public benefits in addition to those enjoyed by the persons engaging in the activities, economic analysis suggests that a subsidy may be appropriate to encourage an efficient quantity of these activities with positive externalities.¹⁵⁶ For this reason, governments often subsidize research and development of new products and processes, the benefits from which are

¹⁵³ See, e.g., Organisation for Economic Co-operation and Development, *Economic Instruments for Environmental Protection*, (Paris: OECD, 1989) at 27 (“the polluter should bear the cost of measures to reduce pollution decided upon by public authorities to ensure that the environment is in an acceptable state”).

¹⁵⁴ See, e.g., Nicholas Stern, *The Economics of Climate Change*, (Cambridge: Cambridge University Press, 2007) at 335-57 (discussing the respective merits of regulatory cap-and-trade regimes and carbon taxes as policy instruments to establish a market price for carbon emissions).

¹⁵⁵ See, e.g., Milne, *supra* note 21.

¹⁵⁶ See, e.g., Zelinsky, *supra* note 150 at 105-08.

often enjoyed by third parties as well as whose engaging in the research and development. For the same reason, governments might also reasonably subsidize both research and development aimed at reducing carbon emissions as well as forms of production and consumption leading to a reduced carbon footprint.¹⁵⁷ Similarly, to the extent that subsidies increase both the supply of and the demand for new products and technologies, they can foster dynamic efficiencies that lessen the costs of these products and technologies as markets expand and mature.¹⁵⁸

Second, government subsidies to limit carbon emissions can serve an informational and educational function, heightening awareness about low-carbon activities and products and encouraging behavioural changes that contribute to reductions in carbon emissions.¹⁵⁹ Although governments and non-governmental organizations may also encourage emissions reductions through information campaigns and product ratings, subsidies can function as tangible signals that reinforce these environmental messages. As a result, it is not surprising that governments routinely subsidize the purchases of appliances and automobiles that satisfy standards of energy efficiency.

Third, to the extent that governments have subsidized or currently subsidize activities that contribute to the emission of carbon dioxide, such as road transportation or the production of oil and gas,¹⁶⁰ subsidies for low-carbon alternatives such as public transportation and renewable energy may be necessary to counteract other market distortions so that low carbon alternatives can compete fairly. Although elimination of

¹⁵⁷ See, e.g., J. Andrew Hoerner, *Harnessing the Tax Code for Environmental Protection: A Survey of State Initiatives*, (Washington, D.C.: Center for a Sustainable Economy, 1998) at 18.

¹⁵⁸ *Ibid.*

¹⁵⁹ David G. Duff, "Tax Policy and Global Warming" (2003), 51 *Can. Tax J.* 2063 at 2079-80.

¹⁶⁰ For a discussion of current subsidies for the production of oil and gas in Canada, see Mark S. Winfield and Amy Taylor, "Tax expenditures and environmental sustainability in Canada: Two case studies in perverse subsidization" (2009).

subsidies for high-carbon activities would contribute greatly to this policy goal, the continuing legacy of earlier subsidies might well require compensatory measures to create a genuinely level playing field.

A fourth rationale for government subsidies to limit carbon emissions questions the extent to which the traditional polluter pays principle should apply in the context of climate change policy. On the contrary, to the extent that the environmental consequences of increasing carbon emissions over the last 200 years is a regrettable and unintended consequence of economic development during this period,¹⁶¹ it follows that the costs of minimizing carbon emissions at this point in time should be shared widely among those who will benefit from reduced emissions, rather than imposed solely on those whose actions contribute most to current emission levels. For this reason, while taxes and regulatory measures may be essential policy measures to encourage reductions in carbon emissions, government subsidies to ease the transition to a low-carbon economy may be essential to the overall fairness of government policy in this area.

Finally, as a practical matter, it may be politically difficult for a government to successfully introduce the kinds of regulatory and tax measures that are apt to encourage significant reductions in carbon emissions.¹⁶² For this reason as well, therefore, subsidies may be one of the few politically feasible methods to encourage emissions reductions.

2. Tax-Delivered Subsidies

Even if it is possible to justify government subsidies to limit carbon emissions, it does not follow that these should be delivered through the tax system in the form of tax

¹⁶¹ Duff, *supra* note 159 at 2070.

¹⁶² See the discussion of President Clinton's failed energy tax in Janet Milne, "Carbon Taxes in the United States: The Context for the Future" (2009), 10 *V.J. Envtl. L.* 1; and the discussion of the Liberal Party's "Green Shift" program in the 2008 federal election campaign in Canada in Duff, *supra* note 42.

expenditures rather than as direct grants. On the contrary, given the traditional criticisms of tax expenditures as bad spending policy and bad tax policy,¹⁶³ one might reasonably presume that government subsidies should generally be delivered through direct spending programs rather than tax expenditures.

Notwithstanding this general presumption, however, tax expenditures may be a less costly way to deliver government subsidies than direct spending programs to the extent that they employ an established mechanism for allocating economic resources and for communicating information about government policy.¹⁶⁴ Rules for accelerated depreciation and expensing of capital costs, for example, are based on well-established tax rules for recognizing the cost of capital assets in computing income, and can be delivered with little additional administrative cost except that associated with the classification of qualifying assets for the purposes of these tax expenditures. Similarly, sales and excise tax expenditures to encourage emissions reductions utilize well-established government policy instrument that can be employed with little additional administrative cost to modify relative prices and communicate information about low-carbon products and fuels. Although administration of the federal government's transit pass tax credit likely involves greater administrative costs on the part of the government and certainly involves increased compliance costs on the part of individual taxpayers, even it takes advantage of an established system of allocating government costs and benefits. As a result, it is impossible to reject any of these tax expenditures without considering their actual design.

3. Tax Expenditure Design

¹⁶³ See *supra* notes 6-12 and accompanying text.

¹⁶⁴ See, e.g., Zelinsky, *supra* note 150 at 1010-12.

Turning to the design of Canadian tax expenditures to limit carbon emissions, however, there are several reasons to question these measures. Beginning with accelerated capital cost allowance and special tax treatment for CRCEs, the first objection is that these measures take the form of deductions in computing net income rather than refundable tax credits, thereby favouring large and profitable taxpayers that can make immediate use of these measures.¹⁶⁵ While the ability to flow-through CRCEs to investors is designed to alleviate limitations on the deductibility of these expenses, these rules merely permit an upside-down subsidy to be shifted to the investor level and contain a further bias to the extent that the ability to flow-through expenses is limited to corporations whose principal business is either the generation of energy using qualifying depreciable property or the development of projects for which it is reasonable to expect that at least 50 percent of the capital cost of depreciable property is for qualifying depreciable property.¹⁶⁶

In addition to this objection, it is also worth noting that these tax expenditures do not attempt distinguish between investments that might have been undertaken without these incentives and investments that are stimulated by these incentives, thereby increasing the likelihood that they provide windfall benefits to taxpayers who would have undertaken these investments regardless of the incentive. Although it may be practically difficult to design a tax expenditure to incorporate such a distinction, one possibility

¹⁶⁵ This bias is accentuated by exempting “principal business corporations” from the specified energy property rules – thereby encouraging taxpayers to invest in renewable energy and energy conservation through these enterprises.

¹⁶⁶ *Supra* note 91 and accompanying text.

might be limit these tax expenditures to additional investments above a base amount established by the taxpayer's investments in previous taxation years.¹⁶⁷

As well, it is particularly objectionable that Canadian tax expenditure reports consistently fail to clearly account for these tax expenditures, reporting the cost of all accelerated depreciation (not only for investments in renewable energy and energy conservation equipment) as “not available” despite some estimates of projected foregone revenue in Federal Budgets, and failing to distinguish flow-through share treatment for CRCEs from other flow through arrangements.¹⁶⁸

Finally, there is very little evidence that accelerated depreciation and other tax measures to allow for the immediate expensing or flow-through of qualifying expenditures has had much effect on the rate of investment in renewable energy or energy conservation, which appears to have been driven more by measures such as renewable portfolio standards and feed-in-tariffs that increase the demand for these investments than it has by measures reducing the cost of these investments.¹⁶⁹ Indeed, the federal Government itself recognizes the uncertain effectiveness of these measures to encourage renewable energy and energy conservation, acknowledging in a Regulatory Impact Analysis Statement accompanying amendments to the scope of Class 43.1 property in 2000 that:

The benefits of the Canadian renewable and conservation expense and Class 43.1 Regulations are difficult to quantify. To the extent that the measures encourage development of a successful domestic renewable energy and energy conservation sector, significant environmental benefits will accrue in the form of reduced

¹⁶⁷ See, e.g., Zelinsky, *supra* note 150 at 1010.

¹⁶⁸ See, e.g., 2008 Tax Expenditure Report, *supra* note 110.

¹⁶⁹ See, e.g., Janet L. Sawin, “National Policy Instruments: Policy Lessons for the Advancement & Diffusion of Renewable Energy Technologies Around the World,” International Conference for Renewable Energies, (Bonn, January 2004) at 2, available at <http://www.renewables2004.de/pdf/tbp/TBP03-policies.pdf> (concluding that demand-pull measures like RPSs and FITs have been more effective than supply-push measures like subsidies in encouraging the diffusion of renewable energy).

greenhouse gas emissions and reduced reliance on fossil fuels. Tangible economic benefits of renewable energy are many years away, given that this industry is still in the development stage.¹⁷⁰

As a result, one might reasonably question the merits of accelerated depreciation and flow-through rules as ways to encourage renewable energy and energy conservation.

Turning to tax expenditures for transit passes, the traditional criticism about upside-down subsidies may also be levied against the non-taxation of employer-provided or reimbursed transit passes in Quebec as well as the additional deduction for employer-provided or reimbursed transit passes.¹⁷¹ As well, although it might be argued that employer control over access to these tax expenditures might help target the incentive to employees who would not otherwise use public transit, it is also likely that employers and employees will obtain a windfall simply by shifting from taxable to non-taxable compensation in the form of tax-free and double-deductible transit passes without significantly shifting employee behaviour. Like accelerated depreciation, therefore, this tax expenditure is poorly targeted to influence behaviour at the margin. The same criticism may also be directed at the federal transit tax credit, which does not depend on any measure of increased ridership, and is therefore apt to provide a windfall to transit riders who would have purchased passes without the tax expenditure. Moreover, although this tax expenditure is delivered in the form of a tax credit, the credit is not refundable, as a result of which effective access to the credit depends on claimants having enough tax

¹⁷⁰ Regulations Amending the Income Tax Regulations (Capital Cost Allowance — Energy Conservation Equipment and Alternative Energy Sources), P.C. 2005-2287 (December 6, 2005), Regulatory Impact Analysis Statement, online at <http://www.gazette.gc.ca/archives/p2/2005/2005-12-28/html/sor-dors415-eng.html>.

¹⁷¹ *Supra* notes 114-116 and accompanying text.

payable after deducting other credits against which the transit tax credit may be offset.¹⁷²

A final deficiency involves the compliance burden on taxpayers, who must maintain receipts for qualifying transit passes purchased during the year and claim the credit well after these passes have been purchased in filing their tax returns for the relevant taxation year. For this reason as well, therefore, one might reasonably question the merits of the federal transit tax credit.

Finally, Canadian sales and excise tax expenditures to limit the growth of carbon emissions may also be criticized on the grounds that they have been subject to little legislative scrutiny, are not well targeted to affect marginal behaviour, and are of uncertain effectiveness. As provincial governments in Canada do not produce regular tax expenditure reports, there is no ongoing accounting of these tax expenditures in order to assess their costs in terms of foregone revenue against their expected benefits. Nor is it apparent that reduced sales or excise taxes on energy efficient appliances or renewable fuels actually encourage enough additional consumption to justify the revenue losses attributable to these tax expenditures, as consumers may simply obtain a windfall for purchases that they would have made in any event. Nor is it clear that increased purchases of energy-efficient appliances and biofuels necessarily reduce emissions of carbon dioxide, as consumers may use energy-efficient appliances (like dishwashers) more frequently, and there is increasing evidence that subsidies to the consumption of biofuels is a costly and environmentally questionable way to reduce carbon emissions.¹⁷³

¹⁷² Indeed, the main reason why revenue estimates for this tax expenditure have decreased so significantly since the transit tax credit was introduced in 2006 is because personal tax credits were increased, causing a larger number of taxpayers to have too little tax payable against which the credit could be offset. See *supra* notes 108-09 and accompanying text and 2008 Tax Expenditure Report, *supra* note 110 at 25, note 48.

¹⁷³ Laan, et. al., *supra* note 138 at 4 (questioning the alleged environmental benefits of biofuel production) and 78 (questioning the cost-effectiveness of biofuel production).

As a result, although Canadian sales and excise tax expenditures may be relatively simple to administer and comply with and cannot be criticized on the grounds that they provide upside-down subsidies, they are vulnerable to the criticism that they represent bad spending policy.

V. Conclusion

This paper has endeavoured to identify and evaluate the most significant tax expenditures aimed at limiting the growth of carbon emissions in Canada. Reviewing the concept of tax expenditures, it began by questioning Stanley Surrey's original formulation linking the concept income tax expenditures to the Schantz-Haig-Simons tax concept of income and rejecting the notion of excise tax expenditures,¹⁷⁴ favouring instead the approach favoured by the U.S. Joint Committee on Taxation which limits tax expenditure analysis to a more narrowly defined category of tax subsidies which are deliberately inconsistent with an identifiable general rule of the tax legislation and collect less revenue than the general rule.¹⁷⁵ On this basis, it identified several federal and provincial tax expenditures aimed at reducing the growth of carbon emissions, and evaluated these measures as spending programs and tax provisions.

While this paper does not reject the use of tax expenditures as a policy instrument to limit the growth of carbon emissions out of hand, it has serious reservations about the merits of current federal and provincial tax expenditures for this purpose. If Canadian governments are to continue to utilize tax expenditures to help fight climate change, they should pay closer attention to the insights of tax expenditure analysis and design these policy instruments accordingly.

¹⁷⁴ *Supra* notes 45-46 and accompanying text.

¹⁷⁵ *Supra* notes 55-59 and accompanying text.