

**EUCO2 80/50
Discussion Note**

Carbon Tax



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Carbon tax options

Below are two alternative views on the outcome of COP15, from Sir David King and James Hansen.

David King argues that the “cap and trade” route to an international mitigation policy should continue to be followed in the hope of reaching an agreement and adopting an international Protocol at the next COP meeting. David King acknowledges that the price of carbon is too low and has to increase.

James Hansen also believes the price of carbon is too low but argues that “cap and trade” simply allows indulgent emitters of GHG to buy emission allowances from poorer countries and carry on emitting. Whereas GHG emissions have to be reduced in indulgent countries.

James Hansen suggests a Tax and Dividend approach. This has now been adopted, in a modified form, in British Columbia (BC). The BC approach is to return the tax in the form of reduced Provincial taxes, rather than the personal Dividend suggested by James Hansen.

It appears that the BC approach is proving effective in reducing GHG emissions substantially.

The issue for EUCO2 80/50 is, is it possible to introduce a Carbon Tax unilaterally, at state level, without disadvantaging that state in economic terms? BC seems to have taken the view that becoming carbon light as soon as possible is an economic advantage.

We may wish to consider the Tax and Dividend and Tax and Tax Reduction approaches at some stage during the EUCO2 80/50 project.

Note – James Hansen’s new book “Storms of My Grandchildren” is a recommended read for EUCO2 8050 partners.

Cap and trade approach – Sir David King

Let's talk numbers. By 2050, global average emissions of CO2 must fall to two tons of CO2 per person per year. What if we set this value as a trading limit? Each nation in the industrialised world would be assigned a straightforward downward trajectory to two tons per person per year. Rapidly developing countries such as China and India, which have relatively low levels of emissions per capita, could temporarily increase their emissions before these too would start to fall towards the magic figure of two tons.

The world's poorest countries, which are also the ones that will be hardest hit by climate change, would benefit significantly. For example, Rwanda with current per capita emissions of 0.35 tons, could receive carbon credits for remaining below two tons, and trade these with any country that has exceeded its cap. This naturally produces cash for poorer countries to adapt to climate change; it also provides an incentive for them to develop low carbon technology, solving the problem of leakage.

Such a scheme could set conditions that any country would have to meet to join the trade. For example, there could be standards of governance to ensure the money was not simply siphoned off into corrupt coffers. Each country would also need to demonstrate how they would use the money to achieve low-carbon growth. And to avoid encouraging population growth, the allowance could depend on the population size at a country's point of entry in the trading scheme.

But to work this idea up to a fully functioning protocol will take time.

For these reasons, I think that all eyes should now turn to the meeting in Mexico in December 2010, the last-chance saloon. There can be no more excuses. By then we must, and I hope we will have developed a legally binding international protocol that provides the developing world with the tools to help themselves, and enables us to tackle the problem of climate change once and for all.

Sir David King - Director of the Smith School of Enterprise and the Environment, Oxford University, and former chief scientific adviser to the PM

Observer newspaper Sunday 20 December 2009.

Fee and dividend approach – James Hansen

Last weekend's minimalist Copenhagen global climate accord provides a great opportunity. The old deceitful, ineffectual approach is severely wounded and must die. Now there is a chance for the world to get on to an honest, effective path to an agreement.

The centrepiece of the old approach was a "cap-and-trade" scheme, festooned with offsets and bribes – bribes that purportedly, but hardly, reduced carbon emissions. It was analogous to the indulgences scheme of the Middle Ages, whereby sinners paid the Church for forgiveness.

In today's indulgences the sinners, developed countries, buy off developing countries by paying for "offsets" to their own emissions and providing reparation money for adaptation to climate change. But such hush money won't work. Yes, some developing country leaders salivated over the proffered \$100 billion per year. But by buying in, they would cheat their children and ours. Besides, even the \$100 billion hush money is fugacious. The US, based on its proportion of the fossil fuel carbon in the air today, would owe \$27 billion per year. Chance of Congress providing that: dead zero. Maybe the UK will cough up its \$6 billion per year and Germany its \$7 billion per year. But who will collect Russia's \$7 billion per year?

Most purchased "offsets" to fossil fuel carbon dioxide emissions are hokey. But there is no need to flagellate the details of this modern indulgences scheme. Science provides an unambiguous fact that our leaders continue to ignore: carbon dioxide from fossil fuel burning remains in the climate system for millennia. The only solution is to move promptly to a clean energy future.

The difficulty is that fossil fuels are the cheapest energy, if the price does not include the damage they do to human health, the planet, and the future of our children. "Goals" for future emission reductions, whether "legally binding" or not, are utter nonsense as long as fossil fuels are the cheapest energy. The Kyoto Protocol illustrates the deceit of our governments, which have not screwed up their courage to face down the fossil fuel industry. As the graph here shows, global fossil fuel emissions were increasing 1.5% per year prior to the 1997 Kyoto accord. After "Kyoto" emission growth accelerated to 3% per year. A few developed countries reduced their fossil fuel use. The only important effect of that was to slightly reduce demand for fuel, helping to keep its price down. The fuel was burned in other places, and products made were shipped back to developed countries.

As far as the planet is concerned, agreements to "cap" emissions, such as the Kyoto Protocol and the imagined Copenhagen Protocol, are worthless scraps of paper. As long as fossil fuels are the cheapest energy, they will be burned somewhere. This fact helps define a solution to the climate problem. Yes, people must make changes in the way they live. Countries must cooperate. Matters as intractable as population must be included. Technology improvements are required. Changes must be economically efficient. The climate solution necessarily will increase the price of fossil fuel energy. We must admit that. But in the end, energy efficiency and carbon-free energy can be made less expensive than fossil fuels, if fossil fuels' cost to society is included.

The solution must have honesty, backbone and a fair international framework. We need a rising price on carbon applied at the source (the mine, wellhead, or port of entry). The fee will affect all activities that use fossil fuels, directly or indirectly. The entire fee collected from fossil fuel companies should be distributed to the public. In this fee-and-dividend approach people maintaining a carbon footprint smaller than average will receive more in the dividend than they pay via increased energy costs. The monthly dividend, deposited electronically in their bank account or on their debit card, will stimulate the economy and provide people with the means to increase their carbon efficiency. All that governments need do is divide the collected revenue by the number of shares, with half-shares for children, up to two children per family.

Some economists prefer a payroll tax deduction over a dividend, because taxes depress the economy. The problem is that about half of the public are not on payrolls, because of retirement or involuntary unemployment. I suggest that at most 50% of the collected carbon fee should be used for payroll tax deduction.

Cap-and-trade is the antithesis of this simple system. Cap-and-trade is a hidden tax, increasing energy costs, but with no public dividend. Its infrastructure costs the public, who also fund the profits of the resulting big banks and speculators. Cap-and-trade is advantageous only to energy companies with strong lobbyists and government officials who dole out proceeds from pollution certificates to favoured industries.

Fee-and-dividend, in contrast, is a non-tax – on average it is revenue-neutral. The public will probably accept a rise in the carbon fee rate, because their monthly dividend will increase correspondingly. As fee-and-dividend causes fossil fuel energy prices to rise, a series of points will be reached at which various carbon-free energies and carbon-saving technologies are cheaper than fossil fuels plus the fee. The market place will choose the best technology. As time goes on, fossil fuel use will collapse, coal will be left in the ground, and we will have arrived at a clean energy future. A rising carbon fee is essential for a climate solution. But how to achieve a fair international framework?

The critical requirement is that the United States and China agree to apply across-the-board carbon fees, at a relative rate to be negotiated. Why would China agree to a carbon fee? China does not want to be saddled with the problems that attend fossil fuel addiction such as those that plague the United States. Besides, China would be hit extraordinarily hard by climate change. A uniform rising carbon fee is the most economically efficient way for China to limit its fossil fuel dependence.

Copenhagen discussions showed that China and the United States can work together. Europe, Japan, and most developed countries would very probably agree to a similar status to that of the United States. Countries refusing to levy an across-the-board carbon fee can be dealt with via an import duty collected on products from that nation in accord with the amount of fossil fuel that goes into producing the product. The World Trade Organisation already has rules permitting such duties.

The international framework must define how proceeds from import duties are used to assure fairness. Duties on products from developing countries will probably dwarf present foreign aid to those countries. These funds should be returned to developing countries, but distributed so as to encourage best practices, for example, improved women's rights and education that helps control population growth. Fairness also requires that distribution of the funds takes account of the ongoing impacts of climate change. Successful efforts in limiting deforestation and other best practices could also be rewarded.

James Hansen - the first scientist to warn the US Congress of the dangers of climate change. The ideas discussed in this article are expanded on in his new book "Storms of My Grandchildren".

Observer newspaper Sunday 27 December 2009.

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Local tax reduction – British Columbia Carbon Tax

Ministry of Finance

Tax Notice



ISSUED: January 2010

Notice 2008-023

www.fin.gov.bc.ca/rev.htm

British Columbia Carbon Tax Update

Carbon Tax Act

Overview

Carbon tax applies to fuels, such as gasoline, diesel, natural gas, heating fuel, propane and coal, and to peat and tires when used to produce energy or heat. For a complete list of the fuels and combustibles subject to carbon tax and their tax rates, please see the [carbon tax rate schedules](#).

The carbon tax is revenue neutral. Revenue neutral means the revenues from the carbon tax are returned to taxpayers through reductions in other provincial taxes. For more information on revenue neutral initiatives outlined in Budget 2008, please see the Income Taxation Branch Budget Bulletin at www.sbr.gov.bc.ca/documents_library/bulletins/ITBBudgetBulletin.pdf

This notice provides an overview of how the carbon tax applies to the purchase or use of fuels in British Columbia. Additional notices, which provide specific information on different aspects of the carbon tax, are available on our website at www.sbr.gov.bc.ca/business/Consumer_Taxes/Carbon_Tax/carbon_tax.htm

Who Pays the Carbon Tax

The carbon tax is a consumer tax like the motor fuel tax and provincial sales tax (PST). All businesses, individuals and visitors to British Columbia, who purchase or use fuel in the province, or burn combustibles (tires and peat) for heat or energy, pay the carbon tax, except under the circumstances described in the section below, What is Not Taxable. Carbon tax is payable at the time of purchase or at the time of use. Carbon tax is payable on combustibles, such as tires or peat, at the time of use.

The revision bar (|) identifies changes to the previous version of this notice dated July 2008.

PO Box 9442 Stn Prov Gov Victoria BC V8W 9V4

How the Carbon Tax is Collected

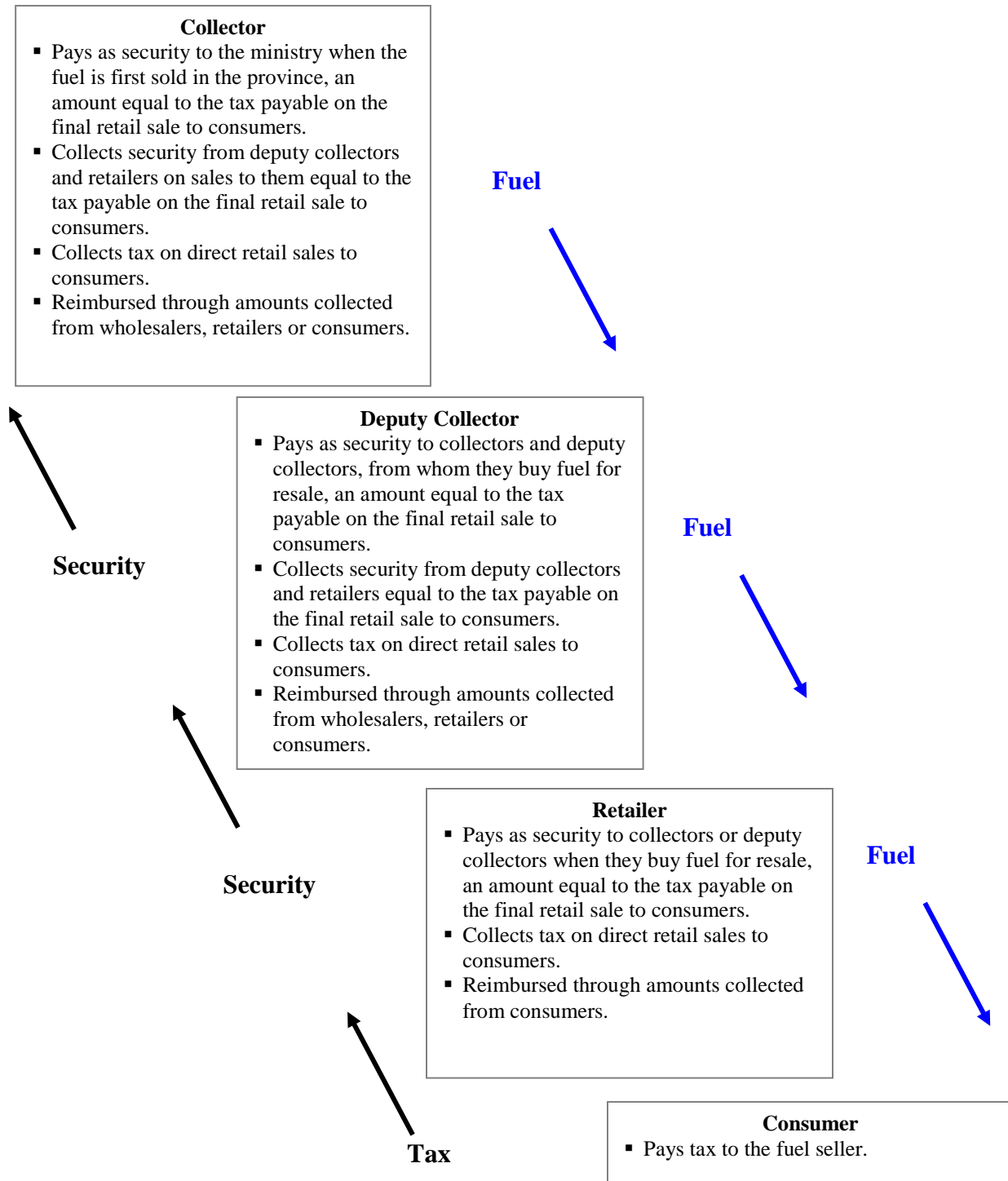
For fuels other than natural gas and propane, the tax collection and remittance procedures for the carbon tax are modelled after the *Motor Fuel Tax Act* collection and remittance procedures. Fuel sellers are required to pay a security equal to the tax payable on the final retail sale to end purchasers (i.e. consumers), and end purchasers are required to pay the tax. Fuel sellers collect carbon tax at the time the fuel is sold at retail to the end purchaser.

Businesses that make the first sale of fuel in British Columbia, after manufacture or import into the province, need to apply and be appointed as collectors. Collectors remit a security to the ministry equal to the tax payable on the final retail sale. Collectors are reimbursed for the amount they pay as security when they collect the security from the deputy collector or retail dealer to whom they sell the fuel. The deputy collector or retail dealer is likewise reimbursed for the amount they pay as security when they collect security from the retail dealer or tax from the end purchaser to whom they sell the fuel. In this way, the government reduces the number of businesses that need to file and remit a tax return to the ministry.

Collectors who both own and operate a crude oil refinery in Canada are not required to pay security on fuel that is sold to another collector who owns and operates a crude oil refinery in Canada.

If a collector wishes to sell fuel exempt of security to another collector in British Columbia, both must be appointed refiner collectors by the director for the same type, or subcategory of a type, of fuel.

The following diagram shows the collection of security and tax on fuel sales through to the end consumer.



Natural Gas and Propane Sellers

The point of taxation for sales of natural gas and propane is at the time the natural gas or propane is sold at retail, as is currently the case for PST. Retail dealers purchase natural gas and propane exempt from security for resale purposes and collect the tax on sales to end purchasers.

Natural gas and propane sellers are required to collect carbon tax on retail sales.

Carbon Tax Rates

The current tax rates are based on \$15 per tonne of carbon dioxide equivalent (CO_{2e}) emissions from the combustion of each fuel. CO_{2e} is the amount of carbon dioxide, methane and nitrous oxide released into the atmosphere, with the non-carbon dioxide emission levels adjusted to a carbon dioxide equivalent basis.

The tax rates will increase in each of the next three years, based on the dollars per tonne of CO_{2e} emissions, as set out below:

- July 1, 2010 - \$20 per tonne of CO_{2e} emissions
- July 1, 2011 - \$25 per tonne of CO_{2e} emissions
- July 1, 2012 - \$30 per tonne of CO_{2e} emissions

The specific tax rates vary for each type of fuel or combustible, depending on the amount of CO_{2e} released as a result of its combustion. For a complete list of the fuels and combustibles subject to carbon tax, and the carbon tax rate for each type of fuel, please see the [carbon tax rate schedules](#).

What is Not Taxable

Some fuels, or the use of some fuels in certain circumstances, are not subject to carbon tax. In these cases, either carbon tax will not be charged at the time of purchase, or, if charged, the carbon tax paid will be refundable.

There is no requirement to collect carbon tax on the following types of sales in British Columbia:

- some non-petroleum based fuels, such as pulping liquor and wood,
- fuel that is sold and exported by the seller from British Columbia for an end purchaser's own use outside the province,
- fuel that is sold to an end purchaser for their own use outside British Columbia if the end purchaser, at the time of sale, has entered into a contract with a common carrier to export the fuel from the province,

- specific types of fuel sold to businesses that are registered consumers for the type of fuel that they purchase (see the notice [Registered Consumer – Carbon Tax](#)), such as
 - inter-jurisdictional rail services,
 - inter-jurisdictional air services, and
 - businesses that use fuel for an exempt purpose.
- fuel sold to inter-jurisdictional cruise ships,
- fuel sold to ships not engaged in the coasting trade,
- specific types of fuel sold to registered air services or registered marine services (see the notice [Registered Air Service and Registered Marine Service - Carbon Tax](#)),
- fuel sales, including exchanges and barter, by one refiner collector to another refiner collector, if both are appointed refiner collectors for the same type or subcategory of fuel,
- fuel sold in sealed, pre-packaged containers of four litres or less,
- fuel sold on reserve to First Nations end purchasers who qualify as Indians or bands under the *Indian Act* (Canada),
- fuel sold to visiting forces and members of the diplomatic and consular corps,
- fuel brought into British Columbia in the supply tank, or supplemental supply tank, of a non-commercial aircraft or ship that is used in the operation of the aircraft or ship, and
- up to, and including, 182 litres of fuel brought into British Columbia in the supply tank, or supplemental supply tank, of non-commercial motor vehicles.

For more information on refunds of carbon tax, please see the following notices:

- [Carbon Tax Refunds – Purchasers](#)
- [Carbon Tax Refunds – Deputy Collectors and Retail Dealers](#)
- [Non-Registered Air or Marine – Carbon Tax](#)

Appointment of Collectors

Persons who make the first sale of fuel in the province need to be appointed as collectors under the *Carbon Tax Act*.

Collectors are required to report their sales and pay the security due using the *Carbon Tax Return - Collectors* form ([FIN 175](#)).

For more information, please see the [Notice to Fuel Sellers – Carbon Tax](#).

Registration of Natural Gas or Propane Retail Dealers

Retail sellers of natural gas and propane need to be registered as natural gas or propane retail dealers. This requirement also applies to retailers who sell prefilled propane cylinders or who operate a propane cylinder exchange program.

Natural gas or propane retail dealers are required to remit the carbon tax that they collect on their sales using the *Carbon Tax Return - Natural Gas or Propane Retail Dealer* form ([FIN 106](#)).

For more information, please see the [Notice to Natural Gas and Propane Sellers - Carbon Tax](#).

Payment of Security

Collectors are required to pay security to the ministry by the **15th day** of the month following the reporting period in which the fuel is first sold in the province.

For example, for collectors who report monthly, the tax return and payment will be due February 15, 2010, for fuel sold in January 2010.

Remitting Tax

Natural gas and propane sellers are required to remit the carbon tax they collect from the end purchaser by the **15th day** of the month following the reporting period in which the fuel is sold in the province.

For example, for natural gas or propane retail dealers who report monthly, the tax return and payment will be due February 15, 2010, for fuel sold in January 2010.

Reporting Periods

Reporting periods are monthly, quarterly or annually, and are established when you are appointed or registered. Your reporting period will be based on the annual amount of carbon tax or security you are required to pay or remit:

- less than \$12,000 of carbon tax – annual reporting (July 1 – June 30),
- \$12,000 to less than \$120,000 of carbon tax– quarterly reporting (January 1 - March 31, April 1 – June 30, July 1 – September 30, October 1 - December 31), or
- \$120,000 or more of carbon tax – monthly reporting.

Annual Fuel Inventory

The carbon tax rates will increase on July 1st of each year up to, and including, the year 2012. Each year, fuel sellers are required to report and remit any additional security due to the ministry on fuel inventory they own, or are deemed to own, on which they have paid, or will be paying, security to their supplier.

Please note: Fuel tax changes on January 1, 2010, resulted in fuel inventory requirements that are due January 15, 2010. For more information, please see the [Notice to Collectors, Deputy Collectors and Retail Dealers – Fuel Tax Changes and Inventory Requirements](#).

Self-Assessing Carbon Tax

Businesses

Fuel producers, fuel manufacturers and fuel importers in British Columbia that use their own fuel and combustibles in the course of their operations, on which carbon tax has not been paid at the time of purchase, are required to self-assess and pay tax on that fuel or combustible. In addition, an end purchaser (other than a registered consumer or registered air/marine service) who purchases fuel for a taxable purpose in British Columbia and does not pay carbon tax on the purchase, must self-assess and pay the carbon tax.

Please see the sections below, Registered Consumers, and Registered Air Services and Registered Marine Services for additional information on how these businesses self-assess and pay carbon tax on their use of fuel.

Self-assessed carbon tax is due by the **28th day** of the month following the reporting period in which the fuel was used in the province. For example, for self-assessors who report monthly, the tax return and payment will be due February 28, 2010, for fuel used in January 2010.

For more information, please see the notice, [Self-Assessing Carbon Tax](#).

Licensed carriers subject to the International Fuel Tax Agreement (IFTA) report and remit carbon tax on the use of fuels subject to the carbon tax, on the same return, and in the same reporting period, as they report and remit tax under the *Motor Fuel Tax Act*.

Registered Consumers

Certain eligible businesses that operate in multiple jurisdictions, such as airlines, railways or other end purchasers, who purchase large volumes of fuel for non-taxable uses, can apply to be registered consumers. Registered consumers are able to purchase a specified type of fuel without paying the carbon tax at the time of purchase.

Registered consumers include:

- inter-jurisdictional rail services,
- inter-jurisdictional air services, and
- businesses that use at least 50% of a type of fuel for an exempt purpose.

Registered consumers are required to self-assess and pay the carbon tax on the type of fuel indicated on their *Registered Consumer Certificate* that is used for a taxable purpose in British Columbia. Registered consumers are required to remit the carbon tax to the ministry by the **15th day** of the month following the reporting period in which the fuel was used in the province.

For example, for registered consumers who report monthly, the tax return and payment will be due February 15, 2010, for fuel used in January 2010.

For more information, please see the notice [Registered Consumer – Carbon Tax](#).

Registered Air Services and Registered Marine Services

Commercial airlines that use at least 50% of their fuel outside of British Columbia, but have scheduled or chartered trips between two locations in British Columbia, can apply to become a registered air service.

Commercial marine services that have more than 50% of their trips to ports outside of British Columbia, can apply to become a registered marine service.

Registered air services and registered marine services are able to purchase a specified type of fuel without paying the carbon tax at the time of purchase.

Registered air services and registered marine services are required to self-assess and pay the carbon tax on the type of fuel indicated on their *Registered Air Service Certificate* or *Registered Marine Service Certificate* that is used for a taxable purpose in British Columbia. Registered air and marine services are required to remit the carbon tax to the ministry by the **15th day** of the month following the reporting period in which the fuel was used in the province.

For example, for registered air services or registered marine services who report monthly, the tax return and payment will be due February 15, 2010, for fuel used in January 2010.

For more information, please see the notice [Registered Air Service and Registered Marine Service – Carbon Tax](#).

Administration

The *Carbon Tax Act* has similar provisions to the *Motor Fuel Tax Act*, and other provincial consumer tax statutes, with respect to refunds, audit and inspections, assessments, penalties for failure to remit tax or security, appeals, recovery of amounts owing and offences.

Further Information

You can find more information on our website at www.sbr.gov.bc.ca/business/Consumer_Taxes/Carbon_Tax/carbon_tax.htm

If you have any questions regarding the administration of the carbon tax or your obligations under the *Carbon Tax Act*, please call us at 604 660-4524 in Vancouver or toll-free at 1 877 388-4440 or e-mail your questions to CTBTaxQuestions@gov.bc.ca

For a broad overview of the government's climate action initiatives, please see the Ministry of Finance's Budget website at www.bcbudget.gov.bc.ca/2008

The information in this notice is for your convenience and guidance and is not a replacement for the legislation. The *Carbon Tax Act* and regulation is on our website at www.sbr.gov.bc.ca/business/Consumer_Taxes/Carbon_Tax/carbon_tax.htm