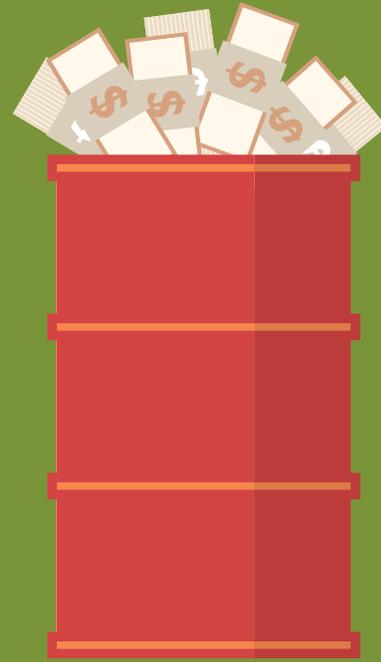


# 7

## Fossil Fuel Subsidies



### Contents

<b>7.0 Fossil Fuel Subsidies</b>	<b>138</b>	<b>7.5 Fossil Fuel Subsidies in Ontario</b>	<b>141</b>
<b>7.1 What is a Fossil Fuel Subsidy?</b>	<b>138</b>	7.5.1 Aviation Fuel	<b>141</b>
<b>7.2 Fossil Fuel Subsidies Around the World</b>	<b>138</b>	7.5.2 Coloured Fuel	<b>142</b>
<b>7.3 Why do Subsidies Matter?</b>	<b>139</b>	7.5.3 Natural Gas and Propane for Vehicle Use	<b>143</b>
<b>7.4 Global Efforts to Reduce Fossil Fuel Subsidies</b>	<b>140</b>	<b>7.6 Options for Ontario</b>	<b>143</b>
		<b>7.7 Recommendation</b>	<b>144</b>
		<b>Endnotes</b>	<b>145</b>

## 7.0 Fossil Fuel Subsidies

While Ontario has committed to improve the conservation of fossil fuels, we also have policies that conflict with that objective. One of the barriers to reduced fossil fuel consumption is that Ontario still provides substantial financial support – or subsidies – for the use of some fossil fuels. It is time to examine these subsidies and ask whether an alternative approach is warranted.

### 7.1 What is a Fossil Fuel Subsidy?

According to the World Trade Organization's Agreement on Subsidies and Countervailing Measures,<sup>1</sup> a subsidy consists of three basic elements: a financial contribution, by a government or public body, which confers a benefit. Tax concessions – or foregone government revenues – are specifically included in the definition along with other forms of financial contribution (e.g., grants, loans, equity infusions, loan guarantees, or

the provision of goods). A fossil fuel subsidy, therefore is a financial contribution, including a tax concession, by a government that supports the extraction, refining, or use of fossil fuels.

### 7.2 Fossil Fuel Subsidies Around the World

The Organisation for Economic Co-operation and Development (OECD), in its *Inventory of Support Measures for Fossil Fuels 2015*,<sup>2</sup> found that tax concessions for fuel used by particular industries, groups and regions constitute the most common form of support provided. Of the 800 fossil fuel support measures identified by the OECD within 40 countries, almost two-thirds are tax concessions<sup>3</sup> (see text box for examples).

Using combined data from the OECD and the International Energy Agency, global financial subsidies and other support payments for fossil fuel production and consumption have been estimated at about \$600 to \$650 billion (U.S.) every year (about \$770 – \$830 billion Canadian at the date of writing).<sup>4</sup>

#### Global Examples of Tax Concessions for Fossil Fuel Consumption

- Belgium: Fuel-Tax Rebate for Taxi Drivers and Road Freight
- Denmark: Energy-Duty Exemption for Ferries
- Finland: Reduced Energy-Tax Rate on Peat Used in Heating
- France: VAT Reduction for Petroleum Products Sold in Corsica
- Germany: Energy-Tax Refund for Diesel Used in Agriculture and Forestry
- Greece: Excise-Tax Refund for Fuels Used in Tourist Boats

The combustion of fossil fuel has many negative impacts on society – in terms of poor air quality, human health impacts, and climate change. These result in costs to society that are not included within the price paid by consumers. The International Monetary Fund (IMF) argues that the failure to include these external costs also represents a subsidy.<sup>5</sup> Under this expanded definition, the IMF has estimated the total worldwide support for fossil fuel use in 2015 was \$5.3 trillion (U.S.).<sup>6</sup> For Canada, the IMF estimates energy production and consumption subsidies at more than \$28 billion (U.S.)<sup>7</sup> each year, most of it in unpaid climate and air pollution damage (see Table 7.1).

### 7.3 Why do Subsidies Matter?

Governments use subsidies for various public policy reasons. Ideally they should be used to encourage beneficial activities and behaviours and to discourage harmful activities and behaviours. With the clear role that fossil fuels play in contributing to climate change<sup>8</sup> and other environmental and human health problems,<sup>9</sup> it is worthwhile to re-examine the use of subsidies for fossil fuels.

There are various problems caused by fossil fuel subsidies. First, the fossil fuel subsidies provided to both producers and consumers discourage energy conservation by keeping prices artificially low.

Second, subsidizing fossil fuel production may serve to disadvantage other more sustainable energy sources. Such subsidies can create an uneven playing field that is tipped toward carbon-intensive sources. Fossil fuel subsidies dwarf the support provided to renewable energy; in 2013, Group of Twenty (G20) member countries provided fossil fuel subsidies that were almost four times the amount of subsidies that were provided globally for renewable alternatives.<sup>10</sup> As well, because energy investment is often long term, such subsidies help to lock societies into carbon-intensive pathways for decades to come at the expense of cleaner alternatives.

Third, fossil fuel subsidies funnel scarce public resources towards carbon-intensive activities, funds that could be better applied to support more desirable programs or activities. The International Institute for Sustainable Development's Global Subsidies Initiative suggests that shifting fossil fuel subsidies to support other activities could make a significant contribution to climate change mitigation; worldwide, a phase-out of these subsidies could reduce emissions between 6 and 13 per cent by 2050.<sup>11</sup> If part of the fiscal savings were invested in energy efficiency, renewable energy or other low carbon measures, the savings could be significantly higher.<sup>12</sup>

In sum, fossil fuel subsidies exacerbate climate change, local air pollution, and damage to human health and ecosystems by supporting fossil fuel

**Table 7.1: Canadian Energy Production and Consumption Subsidies, in Billions (2015)**

Nominal GDP	Population, millions	Pre-tax subsidies	Global warming	Local air pollution	Foregone consumption tax revenue	Total post-tax subsidies
\$1,873	35.88	\$1.4	\$17.20	\$6.05	\$3.53	\$28.18

Source: International Monetary Fund Fiscal Affairs Department, *How Large are Global Energy Subsidies, Country-level Subsidy Estimates* (June 2015).

Note: All dollar values are U.S. \$ billions.

extraction, processing, transportation and use. Governments around the world are beginning to take notice.

## Fossil fuel subsidies exacerbate climate change, local air pollution, and damage to human health and ecosystems by supporting fossil fuel extraction, processing, transportation and use.

### 7.4 Global Efforts to Reduce Fossil Fuel Subsidies

As awareness is growing of the harm done by fossil fuel subsidies, many countries have committed to reduce them. In September 2009, the leaders of the G20, including Canada, committed:

“To phase out and rationalize over the medium term inefficient fossil fuel subsidies while providing targeted support for the poorest. Inefficient fossil fuel subsidies encourage wasteful consumption, reduce our energy security, impede investment in clean energy sources and undermine efforts to deal with the threat of climate change.”<sup>13</sup>

Two months later, the Asia-Pacific Economic Cooperation forum made a similar pledge.<sup>14</sup>

In 2010, Costa Rica, Denmark, Ethiopia, Finland, New Zealand, Norway, Sweden and Switzerland established an informal group of countries to support fossil fuel subsidy reform.<sup>15</sup> In 2015, the group released a *Fossil Fuel Subsidy Reform Communiqué* that calls for accelerated action. Forty countries, including Canada,<sup>16</sup> have endorsed the Communiqué. It states in part:

“The International Energy Agency highlights fossil fuel subsidy reform as a key component of a set of energy measures to combat climate change and estimates that even a partial phase-out of fossil fuel subsidies would generate 12% of the total abatement needed by 2020 to keep the door open to the 2°C target. Accelerating the reform of fossil fuel subsidies is therefore an urgent priority.

Fossil fuel subsidy reform has both economic and environmental benefits, thereby supporting our shared global commitment to sustainable development. The International Monetary Fund views that fossil fuel prices should reflect not only supply costs but also environmental impacts like climate change and the health costs of local air pollution....”<sup>17</sup>

Some progress is being made to implement these commitments.<sup>18</sup> The OECD reports recent subsidy reforms in a number of countries, including Mexico, India, Germany, Indonesia and France.<sup>19</sup> Austria and the Netherlands phased out their excise-tax reduction for use of diesel in farming and heating, citing its environmental harm and cost to monitor.<sup>20</sup> Sweden is phasing out its diesel tax breaks for all land-based industries.<sup>21</sup> Indonesia and Iran have reduced their fossil fuel consumer subsidies and have used some of the proceeds to finance health coverage and other social priorities, such as infrastructure.<sup>22</sup>

In 2015, more than a dozen countries included commitments to cut or redirect fossil fuel subsidies in their Intended Nationally Determined Contributions to the Paris Climate Agreement.<sup>23</sup> Some countries are examining payments for ecosystem services as an alternative to fossil fuel supports for agriculture and forestry.

## 7.5 Fossil Fuel Subsidies in Ontario

Ontario currently provides more than half a billion dollars in tax concessions each year to support fossil fuel use (see Table 7.2).

### 7.5.1 Aviation Fuel

The largest commodity tax concession (in terms of the total amount of foregone revenue) is the reduced rate for aviation fuel.<sup>24</sup> Although aviation around the world has a significant and growing energy and carbon footprint,<sup>25</sup> it typically benefits from very low levels of tax. Since 1944, most government members of the International Civil Aviation Organisation (ICAO) have exempted

aviation fuel used for international flights from tax.<sup>26</sup> Ontario is one of the few jurisdictions that imposes a tax on aviation fuel used for international flights; although, the rate of taxation is lower than comparable fuels, as discussed below.<sup>27</sup>

It is reasonable to assume that this major tax concession has contributed to the strong growth of aviation around the world since 1951. In light of climate change, some jurisdictions (including the European Commission) have recently moved to phase out these exemptions. However, it has proven difficult for any single jurisdiction to reduce these exemptions, because airlines and air travel compete across national boundaries. For this reason, a report prepared for the National Airlines Council of Canada argues that removal of Ontario's aviation fuel tax could help to stimulate the overall provincial economy.<sup>28</sup>

It may be possible for countries to revisit this issue later this year. The ICAO has committed to develop a global market-based measure to address carbon pollution from international aviation, for adoption at the 38th ICAO

**Table 7.2: Ontario Commodity Tax Concessions for Fossil Fuels**

Measure	2015 (\$ millions)
Reduced Tax Rate for Aviation Fuel	320
Fuel Tax Exemption for Coloured Fuel	215
Fuel Tax Reduction for Railway Diesel	65
Gasoline Tax Exemption for Methanol and Natural Gas	15
Gasoline Tax Reduction for Propane	7
Diesel Tax Refund for Auxiliary Equipment	3
Gasoline Tax Refund for Unlicensed Equipment	3
<b>Total</b>	<b>628</b>

Source: Ontario Ministry of Finance, *Transparency in Taxation* (2015).

Assembly in Montreal in September 2016.<sup>29</sup> Work to develop this mechanism is underway through the ICAO's Global Aviation Dialogues.

Ontario is gradually increasing the tax rate on aviation fuel, despite protests by airports near the international border. The *2014 Ontario Budget* introduced an increase to the tax rate on aviation fuel by one cent per litre each year for four years. The first and second increases occurred in September 2014 and April 2015, taking the tax rate on aviation fuel to 4.7 cents per litre. The tax rate will increase by a further one cent per litre in April 2016 and 2017. Upon full implementation in April 2017, aviation fuel will be taxed at the rate of 6.7 cents per litre, in comparison to the 14.7 cents per litre charged on unleaded gasoline.<sup>30</sup> This tax increase will serve to reduce the annual subsidy by approximately \$125 million per year starting in 2018.<sup>31</sup>

### 7.5.2 Coloured Fuel

The most well-known fuel-tax concession in Ontario is the coloured fuel exemption, which

has been in place since at least 1981.<sup>32</sup> Coloured fuel, typically diesel, is exempt from the 14.3 cents per litre tax under the provincial *Fuel Tax Act*<sup>33</sup> and can be used for any purpose, other than to power a licenced motor vehicle, or to operate a recreational vehicle, watercraft, boat or any other recreational machine.<sup>34</sup> As such, coloured fuel may be used to operate unlicensed construction, forestry, mining, farm and other business equipment; to generate electricity; for heating, lighting or cooking; and to operate commercial marine vessels. First Nations individuals who are registered under the federal *Indian Act* and First Nations bands may use coloured fuel in licensed vehicles where the fuel is acquired on a reserve.<sup>35</sup>

According to the Ministry of Finance's 2015 *Transparency in Taxation*<sup>36</sup> report, the coloured fuel tax break cost the provincial treasury \$215 million<sup>37</sup> in 2015 in foregone tax revenue. The breakdown is shown in Table 7.3.

**Table 7.3: Fuel Tax, Exemption for Coloured Fuel, Impacts by Sector (2015)**

Sector	Breakdown	Impact (\$ millions)	% of Total Impact
Residential		88	41
Farming		28 <sup>38</sup>	13
Business		92	43
	Transportation	47	
	Construction	15	
	Mining	9	
	Manufacturing	7	
	Other	14	
Public Service Bodies		7	3
<b>Total</b>		<b>215</b>	<b>100%</b>

Source: Ministry of Finance (2016).

### 7.5.3 Natural Gas and Propane for Vehicle Use

There is also a tax exemption for natural gas and methanol used in motor vehicles and a reduced tax rate for propane used in motor vehicles. Some life-cycle analysis studies suggest that compressed natural gas/liquefied natural gas and liquefied petroleum gas (i.e., propane) vehicles offer around 10 per cent less greenhouse gas emissions across the fuel supply/distribution/use lifecycle, as compared to gasoline powered vehicles.<sup>39</sup> These greenhouse gas emissions benefits are, however, strongly sensitive to the rate of leaks and other escapes of methane from the natural gas system, because of the high potency of methane as a greenhouse gas (see text box in

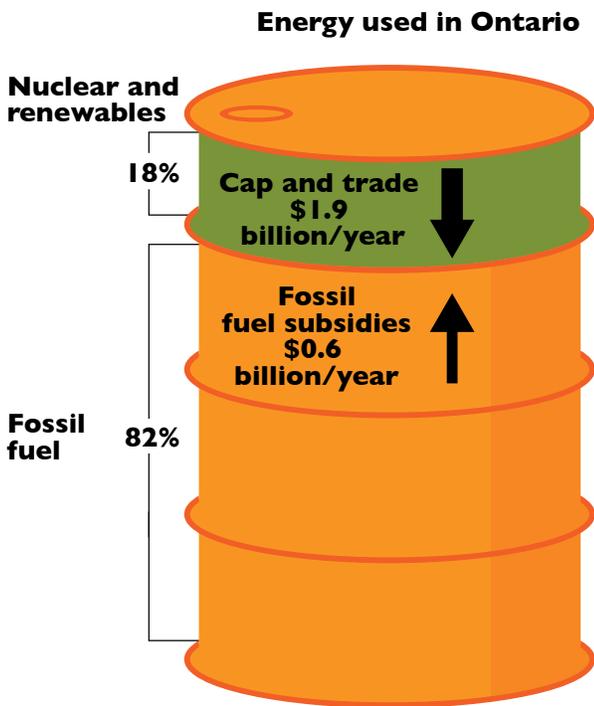
Chapter 2 *How Clean is Natural Gas?*). It is worth noting, however, that the use of these fuels can contribute to material improvements in local air quality where the fuel is used.

### 7.6 Options for Ontario

Ontario has committed to make major reductions in our greenhouse gas emissions. This necessarily requires steep decreases in fossil fuel consumption. To this end, Ontario has introduced a cap-and-trade program to put a price on carbon, and particularly on fossil fuel combustion; approximately \$1.9 billion will be generated annually through this program starting in 2017-2018.<sup>40</sup> Ontario's fossil fuel use tax concessions<sup>41</sup> undermine the intended purposes and operation of cap and trade. One arm of government is putting a price on carbon, to decrease fossil fuel consumption and its climate damage. At the same time, tax concessions from the same government reduce the cost of those same fossil fuels and likely increase their use.

## Ontario's fossil fuel use tax concessions undermine the intended purposes and operation of cap and trade.

Ontario is aware of this contradiction. Ontario's 2015 *Climate Change Strategy* pledges to "review and make recommendations regarding existing policies and programs that support fossil fuel use" and to "look at removing existing initiatives that support fossil fuel use...".<sup>42</sup> The ECO agrees that this review is overdue, and should include a review of tax concessions.



**Figure 7.1. The perversity of fossil fuel subsidies within a cap-and-trade system**

This is not to say that all fossil fuel subsidies should be simply eliminated. While fossil fuel subsidy reform is urgent for environmental and climate reasons, the impacts of reform on vulnerable segments of society must be carefully managed. While subsidies often benefit richer households disproportionately, higher energy prices have a serious effect on poorer households, for whom energy often represents a large share of total spending.<sup>43</sup> The impact on businesses can also be significant, depending on timing, on offsetting supports, and on their opportunities to moderate fossil fuel consumption by shifting to cleaner options. Cutting subsidies could well cause disproportionate economic damage if the cuts affect trade-exposed businesses, such as airports, unless neighbouring jurisdictions do the same.

One of the largest categories of coloured fuel use is to heat residential buildings, which accounts for \$88 million in foregone revenue each year. An obvious alternative for the coloured fuel tax exemption would be to spend the same funds on an energy audit and retrofit program for oil-heated homes. This would allow homeowners to permanently reduce their energy bills and greenhouse gas emissions, thus reducing the need for an ongoing subsidy and often increasing indoor comfort. In fact, oil-heated homes will qualify for the \$100 million in energy audits and retrofits announced as part of the Green Investment Fund.<sup>44</sup> More funds could be added to this program. Another alternative is to transfer funds from supporting coloured fuel use to supporting low-income families, perhaps through the Northern Energy Tax Credit and/or the Ontario Energy and Property Tax Credit.<sup>45</sup> Both of these tax credits focus available funds on families most in need, while allowing them to spend the money as they see fit.

For agriculture, forestry and construction, there may be better alternatives, including some that support the ecosystem services provided by farmers and by environmentally responsible

forestry and construction practices.<sup>46</sup> For marine and other off-road transportation businesses, there could be opportunities to use the additional revenues gained through the removal of the tax exemption to support the acquisition of high-efficiency, low emission engines and other equipment. Knowledgeable stakeholders could likely suggest other and better alternatives that would not only support each industry, but also result in better air quality and reduced fossil fuel consumption.

## 7.7 Recommendation

It is time for policy makers to reassess the relevance of fossil fuel subsidies in today's context and to tilt the playing field toward a lower carbon future. It is perverse to put a price on carbon through cap and trade while still financially supporting the consumption of carbon-intensive fossil fuels. It is possible for Ontario to adopt better tax policies than the out dated tradition of fossil fuel subsidies.

---

**The Minister of Finance should redirect tax breaks from supporting fossil fuel consumption to activities that contribute to the public good.**

Fuel price changes are driven primarily by fluctuations in the price of oil. It is less disruptive to phase out or repurpose fuel subsidies when oil prices are low. This means that the record 2015 drop in the price of oil — and its continued projected low until 2017<sup>47</sup> — gives governments an important opportunity to reform fossil fuel subsidies at the least economic and social cost.

## Endnotes

1. World Trade Organization, *Agreement on Subsidies and Countervailing Measures*, Part I: General Provisions, Article I: Definition of a Subsidy, Section I.1.
2. Organization for Economic Cooperation and Development, website, *OECD analysis of budgetary support and tax expenditures*. [www.oecd.org/site/tadffss/data/](http://www.oecd.org/site/tadffss/data/) (These fossil-fuel support findings are based on a detailed, line-by-line analysis of the budgets of each of the 34 OECD countries, as well as six partner countries. Policies of subnational governments were also included in the analysis.)
3. OECD, *OECD Companion to the Inventory of Support Measures for Fossil Fuels*, p.45, September 21, 2015.
4. *Ibid.* (The value of all support measures was between \$160-200 billion (U.S.) annually over the period 2010-2014.) In 2014 the International Energy Agency estimated that consumer subsidies for fossil fuels were \$490 billion (U.S.). (International Energy Association, report, *World Energy Outlook 2015*, p.7, November 12, 2014). The OECD has indicated by email to the ECO (February 2, 2016), that while each agency shares a similar understanding of what constitutes a subsidy, they use different estimations methods. As the two sets of estimates are often complementary the combined estimate of \$600 - \$650 billion is reasonable. [U.S. conversion rate as of April 12, 2016].
5. International Monetary Fund, report, *Energy Subsidy Reform: Lessons and Implications*, January 28, 2013.
6. International Monetary Fund, working paper WP/15/105, *How Large Are Global Energy Subsidies?*, p.5, May 2015. (This methodology has been generally rejected by fossil-fuel industries.)
7. International Monetary Fund Fiscal Affairs Department, database, *Country-level Subsidy Estimates Database*, June 2015. (link to "country level estimates" excel spreadsheet available here: [www.imf.org/external/pubs/ft/survey/so/2015/NEW070215A.htm](http://www.imf.org/external/pubs/ft/survey/so/2015/NEW070215A.htm)) Our selection of these estimates excludes external costs related to congestion, accidents and road damage, which are consequences of the use of vehicles, not of fossil fuels *per se*.
8. See generally the Assessment Reports of the Intergovernmental Panel on Climate Change, at: [www.ipcc.ch](http://www.ipcc.ch).
9. Fossil fuel use contributes to poor air quality due to the release of sulfur dioxide, nitrogen dioxide, ozone and fine particulate matter. Air pollution is a major environmental risk to health and can increase the risk of stroke, heart disease, lung cancer, and both chronic and acute respiratory diseases, including asthma. (World Health Organization, Fact sheet No. 313, *Ambient (outdoor) air quality and health*, March 2014.).
10. Oil Change International, report, *Empty Promises: G20 subsidies to oil, gas and coal production*, p.11, November 2015.
11. Nordic Council of Ministers, working paper, *Fossil-Fuel Subsidies and Climate Change: Options for policy-makers within their Intended Nationally Determined Contributions*, Executive Summary, 2015.
12. Nordic Council of Ministers, report, *Tackling Fossil Fuel Subsidies and Climate Change: Levelling the energy playing field*, p.11, 2015. (Modelling by the Global Subsidies Initiative of the IISD found that emissions reductions could be increased to 18.15% when 30% of the savings from subsidy reform are redirected towards renewables and energy efficiency.)
13. The Pittsburgh Summit, *Leaders' Statement*, September 24-25, 2009.
14. Asia-Pacific Economic Cooperation, 2009 Leaders' Declaration, *A New Growth Paradigm for a Connected Asia-Pacific in the 21st Century*, Singapore, November 14, 2009.
15. Friends of Fossil Fuel Subsidy Reform: [ffsr.org/](http://ffsr.org/)
16. Canada did so on November 27, 2015, as per email to the ECO from Jane McDonald, Director, Climate Change – Office of the Minister of Environment and Climate Change.
17. Fossil-Fuel Subsidy Reform Communiqué: [ffsr.org/communique/](http://ffsr.org/communique/)
18. While there has been some international momentum towards reforming consumer subsidies, limited progress has been made with respect to production subsidies. (Oil Change International, report, *Empty Promises: G20 subsidies to oil, gas and coal production*, p.82, November 2015.)
19. OECD, *OECD Companion to the Inventory of Support Measures for Fossil Fuels*, p. 42-43, September 21, 2015.
20. *Ibid.*, p.43.

- 
- 21.** As per information provided to the ECO by the OECD.
- 22.** Vinay Gupta, Ranu Dhillon, and Robert Yates, periodical (The Lancet, vol: 3), *Financing universal health coverage by cutting fossil fuel subsidies*, p.1. June 2015.
- 23.** IISD, paper, *Fiscal Instruments in INDCs: How countries are looking to fiscal policies to support INDC implementation*, Table 1, December 2015.
- 24.** Government of Ontario, Ministry of Finance, report, *Transparency in Taxation*, Table 5 at footnote 5, 2015. (According to Table 5, the amount of the foregone revenue is estimated by comparing the tax rate on aviation fuel, which is typically jet fuel (kerosene) or aviation gasoline, to the general gasoline tax rate.)
- 25.** European Commission, website, *Reducing emissions from aviation*, accessed April 2016. [ec.europa.eu/clima/policies/transport/aviation/index\\_en.htm](http://ec.europa.eu/clima/policies/transport/aviation/index_en.htm) ("by 2020, global international aviation emissions are projected to be around 70% higher than in 2005 even if fuel efficiency improves by 2% per year. ICAO forecasts that by 2050 they could grow by a further 300-700%."); See also, ICAO, report, *2013 Environmental Report, Aviation and Climate Change, Destination Green*.
- 26.** While the *Chicago Convention on International Civil Aviation* of 1944 did not deal comprehensively with tax matters, Article 24 of the Convention stated that "fuel...on board an aircraft of a Contracting State on arrival in the territory of another Contracting State and retained on board...shall be exempt from customs duty". In 1951, the ICAO Council adopted a Resolution and Recommendation on the taxation of fuel that was "designed to recognize the unique nature of civil aviation and the need to accord tax exempt status to certain aspects of the operations of international air transport. They were adopted because multiple taxation on the aircraft, fuel, technical supplies and the income of international air transport, as well as taxes on its sale and use, were considered as major obstacles to further development of international air transport". (ICAO, council resolution and commentary, *ICAO's Policies on Taxation in the Field of International Air Transport*, Third Edition – 2000, Introduction, approved by Council February 24, 1999.)
- 27.** Vijay Gill, *Increasing Aviation Fuel Tax Might Not Increase Government Revenues at All*, Conference Board of Canada commentary, July 14, 2014.
- 28.** See for example: Fred Lazar, *The Case for Eliminating the Government of Ontario Tax on Aviation Fuel on Transborder and International Flights*, (prepared for the National Airlines Council of Canada) March 2013.
- 29.** International Civil Aviation Organization, website, *Meetings & Events: 2016 Global Aviation Dialogues (GLADs)*, accessed April 2016. [www.icao.int/Meetings/GLADs-2016/Pages/default.aspx](http://www.icao.int/Meetings/GLADs-2016/Pages/default.aspx)
- 30.** Ontario Ministry of Finance, website, *Gasoline Tax*, accessed April 2016. [www.fin.gov.on.ca/en/tax/gt/](http://www.fin.gov.on.ca/en/tax/gt/)
- 31.** As per information provided to the ECO by the Ministry of Finance.
- 32.** From 1925 to 1981, some off-road uses of fuel were also exempt from fuel taxes. The coloured fuel program was introduced in 1981 as an enforcement mechanism, to simplify administration and reduce abuse of the exemptions. The scope of the exemptions has been amended from time to time. Amendments have been proposed to the definition of road-building machines, and vehicles that do not fit the new definition would be required to use clear fuel. The fuel tax exemption for biodiesel was repealed effective April 1, 2014, making biodiesel taxable in the same way as clear diesel fuel. (Ministry of Finance, website, *Fuel Tax*, accessed April 2016. [www.fin.gov.on.ca/en/tax/ft/index.html](http://www.fin.gov.on.ca/en/tax/ft/index.html))
- 33.** Fuel tax rates were last changed on January 1, 1992.
- 34.** Ontario Ministry of Finance, website, *Fuel Tax*, accessed April 2016. [www.fin.gov.on.ca/en/tax/ft/index.html](http://www.fin.gov.on.ca/en/tax/ft/index.html)
- 35.** *Ibid.*
- 36.** Ontario Ministry of Finance, website, *Transparency in Taxation, 2015*, accessed April 2016. [www.fin.gov.on.ca/en/budget/fallstatement/2015/transparency.html](http://www.fin.gov.on.ca/en/budget/fallstatement/2015/transparency.html)
- 37.** Plus enforcement costs.
- 38.** As per information provided to the ECO by the Ministry of Agriculture, Food and Rural Affairs, the 2011 Census of Agriculture indicates a total of 51,950 farms in Ontario. Approximately 44,000 farm businesses are registered in Ontario under the *Farm Registration and Farm Organizations Funding Act, 1993*.

- 39.** The actual impact depends heavily on the source of the gas. (U.S. Department of Energy, Energy Efficiency and Renewable Energy, website, *Alternative Fuels Data Center*, accessed April 2016. [www.afdc.energy.gov](http://www.afdc.energy.gov))
- 40.** 2016 Ontario Budget, Jobs for Today and Tomorrow. Chapter I, Building Prosperity and Creating Jobs, page 23.
- 41.** It is worth noting that, contrary to popular belief, fuel taxes in Ontario are not dedicated for road construction and maintenance. They go into the consolidated revenue fund and are used to support all provincial programs. Since 2004, two cents of the 14.7 cent per litre gasoline tax has been given to municipalities for public transit. The 2014 Ontario Budget announced that 7.5 cents per litre of the existing gasoline tax would be dedicated to public transit and infrastructure through the Moving Ontario Forward plan.
- 42.** *Ontario's Climate Change Strategy 2015*.
- 43.** The Fossil Fuel Subsidy Reform Communiqué recognized that the “majority of fossil-fuel subsidies are also socially regressive, with benefits disproportionately skewed toward middle- and upper-middle income households” and therefore urged that “accelerated subsidy reform needs to be undertaken alongside measures that protect the poor and vulnerable groups from the impact of higher energy prices.” ([ffsr.org/communique/](http://ffsr.org/communique/))
- 44.** Government of Ontario, news release, *Ontario Investing \$100 Million to Create Jobs and Help Homeowners Save Energy*, February 4, 2016. As per information provided to the ECO by the Ministry of Energy, oil-heated homes will qualify for this funding.
- 45.** British Columbia's equivalent is the Low Income Climate Action Tax Credit. (Government of British Columbia, website, *Low Income Climate Action Tax Credit*, accessed April 2016. [www2.gov.bc.ca/gov/content/taxes/income-taxes/personal/credits/climate-action](http://www2.gov.bc.ca/gov/content/taxes/income-taxes/personal/credits/climate-action))
- 46.** See for example: Forest Trends, The Katoomba Group, and UNEP, report, *Payments for Ecosystem Services. Getting Started: A Primer*, May 2008; see also, Ecological and Economic Foundations, report, *The Economics of Ecosystems and Biodiversity*, 2010.
- 47.** International Energy Association, report, *Medium-Term Oil Market Report 2016*, p.9, 2016.

