



**Citizens' Climate Lobby Canada**  
**Lobby Climatique des Citoyens**

**Political will for a livable world**

[www.citizensclimatelobby.ca](http://www.citizensclimatelobby.ca)

# Practice our laser talks

Learn to speak about climate change like an expert.

## **SUGGESTIONS ON HOW TO PRACTICE LASER TALKS:**

- **PAIR AND SHARE:** Practice the laser talks with a partner over coffee.
- **MIRROR WORK:** Rehearse them in front of a mirror.
- **PICK AND CHOOSE:** Practice the laser talks that interest you the most – you don't have to learn all of them. If you are new to Citizens' Climate Lobby – keep it simple. The first three laser talks are the most important.
- Note that the laser talks are not meant for people to present as monologues. The real purpose of the laser talks is to facilitate a discussion on climate change with our political representatives, the media and the general public.
- Fully referenced laser talks are found on our website:  
<http://canada.citizensclimatelobby.org/laser-talks/>

# CARBON PRICING

## LASER TALK: Carbon Fee and Dividend

Carbon Fee and Dividend is a revenue-neutral price on carbon that functions as follows:

- A fee is placed on carbon-based fuels at the source (well, mine or port of entry)
- This fee increases steadily each year so that clean energy is cheaper than fossil fuels within a decade
- All of the money collected is returned to Canadians on an equitable basis
- Under this plan most Canadian households would break even or receive more in their dividend check than they would pay for the increased cost of energy, thereby protecting the poor and middle class.
- A predictably increasing carbon price will send a clear market signal which will unleash entrepreneurs and investors in the new clean-energy economy.
- Includes border tax adjustments on imports from jurisdictions without equivalent carbon pricing to prevent leakage and spur our trading partners to price carbon.

## LASER TALK: The Five Chief Ways to Price Carbon

There are five ways to price carbon. They are listed here from least transparent to most transparent:

**i) The Status Quo:** external costs of climate change are not internalized and the taxpayer is forced to pay for climate and health-related damages.

**ii) Regulation:** sector by sector regulation of all the sectors in the economy that produce carbon pollution.

**iii) Cap and Trade:** put a mandatory limit (or “cap”) on some portion of national emissions, and allow firms to buy and sell rights to emit within the cap as well. This can be with or without offsets.

A **carbon offset** is a reduction in emissions of carbon dioxide or other greenhouse gases made in order to compensate for an emission made elsewhere.

**iv) Carbon Tax:** a tax based on greenhouse gas emissions generated from burning fuels. The tax may or may not be revenue neutral. A revenue neutral tax is one that does not have a net increase in overall federal tax revenues.

**v) Carbon Fee and Dividend:** An incrementally increasing fee is placed on carbon pollution and 100% of the money is returned to households. The term fee is used deliberately to indicate clearly that it is a revenue neutral pricing system. Carbon Fee and Dividend, as proposed by Citizens Climate Lobby, is an upstream fee and is levied at point of production of fossil fuels (at the well head, mine or point of entry). A downstream tax, on the other hand, would be levied at the point of consumption of fossil fuels and/or products dependent on fossil fuels.

(1) The Canadian and US government are currently both using regulatory mechanisms to mitigate greenhouse gas emissions. Examples are emission standards for cars and for coal-fired power plants. The Liberal government is promising a carbon price by early 2017.

(2) Ontario, Quebec, California and the European Union are jurisdictions that have implemented cap and trade with offsets to mitigate their greenhouse gas emissions.

(3) British Columbia, Norway and Sweden have carbon taxes.

## **LASER TALK: Carbon Pricing is the Way Forward**

Canada's Ecofiscal Commission released a report in April 2015 titled "The way forward". The Ecofiscal study used an economic model that analyzed where Canada would be in 2020 if regulation or carbon pricing were used to manage carbon pollution. The carbon pricing model they used was revenue-neutral.

In this model, Canada's gross domestic product (GDP) in 2020 is 3.7% better under carbon pricing than it is under a regulatory approach. The "gain" breaks down as follows: 0.4% from provinces linking their carbon pricing systems; 0.9% from recycling revenue into income tax deductions; and 2.4% from carbon pricing alone. The study was agnostic towards which carbon pricing mechanism was used. However it did stipulate that the carbon tax or cap and trade had to be "well-designed".

## **LASER TALK: The REMI Study (USA)**

A 2014 US study by Regional Economic Models, Inc. (REMI) examined the impact of a steadily-rising fee on carbon with revenue returned to households. Among other findings, the study shows that, after 20 years, a fee on carbon dioxide rising \$10 per ton each year would reduce greenhouse gas emissions 52 percent while adding 2.8 million jobs to the economy.

<http://citizensclimatelobby.org/wp-content/uploads/2014/09/REMI-National-SUMMARY.pdf>

## **LASER TALK: Why we want 100% revenue neutrality**

1. A 100 percent rebate ensures that most Canadian households will come out equal or ahead regarding the increase in energy costs. This calculation takes into account not just direct energy costs, but the pass-through businesses will add to the cost of their products.
2. Members of Parliament who feel pressured to not increase taxes can still vote the right way.
3. If while steadily raising the price of carbon-based fuels we eliminate all energy subsidies, we allow the market to go to work without the government picking winners and losers. Venture capitalists, banks, and entrepreneurs seeing a predictable price signal will create breakthroughs in innovation that in some cases are unimaginable at this point. A carbon fee is the most efficient and direct way to send a meaningful price signal to the markets, better than subsidies but also better than alternatives such as government regulations or cap and trade.
4. Asking citizens to voluntarily curtail their use of fossil fuels when others may not choose to do so can be demoralizing and ineffective. To maintain public support of the price we will ultimately need to stabilize CO2 emissions, and citizens will need to receive a significant dividend.

## **LASER TALK: Carbon fee & dividend rewards carbon conscious consumers**

In 2011 the Centre for Policy Alternatives, using income tax data from British Columbia, determined that two thirds of Canadians directly emit average or less than average greenhouse gas emissions; the richest 20% of Canadians emit 1.8 times as much carbon than the average Canadian.; and the top 1% of households emitted three times more greenhouse gases than average and almost 6 times more than households in the bottom 10%.

This is important because with carbon fee and dividend, every household receives the same amount of money in their dividend cheque, regardless of their emissions or income.

In conclusion, carbon fee and dividend is a progressive carbon levy that will reward carbon-conscious consumers and protect people living on lower incomes as we transition away from a high carbon economy.

## **LASER TALK: Rural Voters Benefit from Carbon Fee & Dividend**

Rural residents have a larger carbon footprint than urban dwellers, but suburban dwellers use more than both. That's because your carbon footprint is strongly related to how much money you make. Wealthy suburbanites tend to have the largest homes, fly further on vacation flights, and buy more stuff. Data from B.C. shows they even drive more than rural residents.

The difference becomes more apparent when you realize that only about 35% of Canadian household emissions come directly from burning fossil fuels (i.e. home heating and transportation). Another 13% of our greenhouse gas emissions arise indirectly from the electricity we use, and the remainder is due to the goods and services we buy. In other words, half of the time we're making a climate-relevant decision, we don't even know it! This helps explain why wealth is so closely tied to your carbon footprint: wealthier Canadians can afford to buy more stuff.

Approximately 50% of Canadians produce average or less than average CO<sup>2</sup> emissions. However, when returning 100% of the revenue raised from an upstream fee as a monthly dividend to all Canadians, almost all Canadians would end up ahead. This is because Canada extracts much more carbon from the ground than we need to satisfy our own consumption. And that extraction process itself emits greenhouse gases. Alberta's carbon emissions are higher than Ontario's even though it only has a third of its population, and much of the difference is in the extraction of oil and gas for export. CCL proposes carbon fees to be applied at the wellhead, when fossil fuels first come out of the ground. Since we are such a large exporter of carbon, this would collect more than enough money to cover our increased cost of living, in Alberta and Ontario alike.

Specifically in British Columbia, a March 2016 research paper reported that it is a myth that rural people are specifically disadvantaged by carbon pricing and there was no need to compensate them above the redistributive measures taken by the province of British Columbia in their revenue neutral carbon tax.

Putting a fee on carbon will raise the cost of living for everyone, but mostly for the suburban rich. This is because the poor are inherently more "carbon-virtuous" than the rich, since they have smaller homes, drive less, fly less, and buy fewer carbon-intensive products and services. The increase in prices encourages everyone, but especially wealthy individuals, to adjust their decision-making to reduce their carbon costs. Their dividend doesn't change when they make those personal consumption choices, so although most will come out ahead no matter what, those who change their habits come out even further ahead.

## **LASER TALK: The BC Carbon Tax**

The province of British Columbia (BC) enacted a revenue-neutral carbon tax in 2008. It has been touted as "the most significant carbon tax in the Western hemisphere".

Between 2008 and 2013, BC sales of fuels subject to the tax dropped by 15.1% while the rest of Canada's per capita sales have increased by 1.3%.<sup>[2]</sup> Per capita, British Columbians emitted 12.9% fewer greenhouse gases between 2008-2013 compared to 2001-2008. For the economy, BC's GDP growth actually outpaced (by a little bit) the rest of Canada's after the tax was imposed, which is in line with evidence from seven other countries with similar policies that have had neutral or slightly positive effects on GDP.

So how does the BC tax shift work? The tax applies to almost all fossil combustion in the province, or 77% of emissions, with the rate initially set at \$10 per carbon ton. It rose by \$5 per ton per year until it

reached \$30 as of July 1st in 2012. This tax is revenue neutral with income applied to personal income tax cuts, corporate tax cuts, low-income tax credits and the Northern and Rural Homeowner Benefit.

A 2013 poll showed that 64% of British Columbians are in support of the policy. The same poll found that the percentage of British Columbians strongly opposing the taxes is at an all-time low of 17%. The Liberal government in BC was re-elected under Premier Christy Clark in 2013, on a campaign promise that they would freeze the carbon tax for at least 5 years.

Although the province of British Columbia has made progress in addressing climate change their GHG emissions are now on the rise. Without big changes in climate policy, they will fail to meet our 2020 emission reduction targets.

BC's five year experience (2008-2013) with their revenue neutral carbon tax demonstrated that there is no bogeyman when it comes to revenue-neutral carbon taxing. It is a credible mechanism to reduce emissions and can help stimulate and diversify the economy.

## **LASER TALK: BC Carbon Tax vs Carbon Fee and Dividend**

The BC Carbon Tax vs CCL's Carbon Fee and Dividend

The province of British Columbia (BC) enacted a revenue-neutral carbon tax in 2008. It has been touted as "the most significant carbon tax in the Western hemisphere".

Consequently, much ado about the BC Carbon Tax has been made by CCLers over the years. BC's Carbon Tax and Carbon Fee and Dividend are similar in that they are both revenue neutral carbon taxes. Here are four key differences that should be noted:

**(I) Where carbon is priced:** Carbon Fee and Dividend: carbon is priced upstream at the well head, mine or port of entry. BC Carbon Tax: carbon is priced downstream when a fossil fuel is purchased such as at a gasoline pump.

**(II) Carbon price increases over time:** Carbon Fee and Dividend: will increase incrementally from \$15 tonne/ CO<sub>2</sub> going up \$10 tonne/ CO<sub>2</sub> / year until Canada's total CO<sub>2</sub> emissions have declined to 10% of the level of Canada's CO<sub>2</sub> emissions for calendar year 1990. BC Carbon Tax: increased incrementally over 5 years (2008-2012), from \$10/tonne CO<sub>2</sub> in 2008 to \$30/tonne in 2012. The Liberal government in BC was re-elected under Premier Christy Clark in 2013, on a campaign promise that they would freeze the carbon tax for at least 5 years.

**(III) Exemptions, incentives and border tax adjustments:**

Carbon Fee and Dividend: there are no exemptions. Governments, businesses, corporations and individuals all pay the carbon fee when they consume fossil fuels directly or indirectly. There is no need for exemptions because carbon fee and dividend will be integrated nationally, setting a base national carbon price and thus, businesses will be protected from competition with border tax adjustments on imports from jurisdictions without equivalent carbon pricing.

BC Carbon Tax: of note fossil fuels purchased for agriculture (starting in 2013) is exempt from the BC carbon tax. The cement industry was given \$3 million dollar incentive in 2015. These exemptions and incentives are meant to protect the industries from competition outside of BC because subnational governments cannot enact border tax adjustments to protect carbon intensive industries.

**(IV) Revenue recycling:**

Carbon Fee and Dividend: 100% of the fees collected (minus administrative costs) shall be distributed as equal monthly per-person dividend payments via cheques to be made to all Canadians (1/2 per child under 18 years old, with a limit of 2 children per family).

BC Carbon Tax: In the 2012-2013 fiscal year 73% of BC's carbon tax went towards reducing corporate and small business taxes. Another 21% went toward reducing personal income taxes, and

17% went toward low income tax credits. Yes, the numbers don't add up because more money was returned in tax deductions than was collected in carbon tax revenue. Revenue from the BC carbon tax has also been used to give subsidies to the film industry, amongst other things, putting into question its claim of revenue neutrality.

Please note that to help with public education during the BC Climate Leadership Consultations in early 2016, CCL BC and the CCL National Office in Canada collaborated to make this cartoon panel describing why BC should hike their tax.

## **LASER TALK: CCL Canada's Carbon Pricing Criteria**

Canada will most likely have a national carbon pricing policy by September 2016. CCL Canada is committed to holding the flag for carbon fee and dividend. As we seek common ground, these following criteria will guide us. The federal carbon pricing policy must reduce carbon emissions in a timely and just manner, and:

- Include a steady, resolute and rising carbon price for predictability and effectiveness,
- Price pollution at the source and use border tax adjustments to discourage industry relocation,
- Be as simple and transparent as possible,
- Protect low to middle income Canadians, while stimulating the economy and creating jobs,
- Can work with provincial carbon pricing systems and harmonize across national borders.

## **LASER TALK: Canada and the FASTER Principles**

At the 2015 climate talks in Paris, Canada, Alberta, Ontario, Quebec, British Columbia and the Northwest Territories became founding partners of the Carbon Pricing Leadership Coalition. Citizens' Climate Lobby joined the Carbon Pricing Leadership Coalition in September 2015. Carbon Pricing Leadership partners all agree the world needs to price carbon fairly, effectively and efficiently, as soon as possible.

As part of the Carbon Pricing Leadership Coalition, the World Bank and the Organisation for Economic Development (OECD) released a report outlining proposed carbon pricing principles that are crucial for success to decarbonize the world economy by 2100 (3) and how the world can get there "FASTER".

**FASTER** Principles include the following elements:

A steadily intensifying price signal ... Upstream pricing ... Administrative simplicity ... Fiscal dividend.

The **FASTER** Principles are an acronym for:

**F**airness ... **A**lignment of policies and objectives ... **S**tability and predictability ... **T**ransparency ... **E**fficiency and cost-effectiveness ....

- **R**eliability and environmental integrity

**TAKE HOME MESSAGES:** Canada, Ontario, Alberta, Quebec, BC and the Northwest Territories are signatories to the Carbon Pricing Leadership Coalition (CPLC). When we are critiquing provincial, territorial and federal carbon pricing policies, we can remind them that under the CPLC they have signed onto FASTER principles [if they are not abiding by the principles]. As well, Canada and the subnational governments that have signed onto the Carbon Pricing Leadership Coalition comprise a significant proportion of the CPLC and Minister McKenna took a huge leadership role at COP21. Thus our work at CCL Canada is going to have global implications.

**FYI:** The USA is not part of CPLC and California is the only US state in the CPLC.

# LASER TALK: Our Guidelines for Canada's Carbon Pricing Policy

By early 2017, Canada will have a pan-Canadian climate policy. While details are being worked out, CCL will be lobbying for fair and effective carbon pricing. Below are guidelines for what we consider acceptable:

- (1) Science-based targets must be **enshrined into national law**.
- (2) Any policy must include a **national carbon price** that is integrated across the country. It must be significant enough to drive changes in behaviour. We recommend this price be \$30/tonne of CO<sub>2</sub> equivalent by 2018, the price that is currently in place for BC and will be introduced in Alberta in 2018. For provinces with a lower carbon price or no carbon price, a federal carbon tax must be implemented.
- (3) To be effective at reducing emissions the carbon price needs to **rise substantially** every year. A steadily rising price provides a predictable market signal to drive innovation so that we meet or exceed our emissions target. We recommend a rate of increase of at least \$10/tonne per year.
- (4) The price should **cover the entire economy** and **all GHG emissions**, including upstream methane from oil and gas production. There should be no tax-exempt sectors. The best way to ensure this is to have the carbon price applied as far upstream as possible and at our borders where goods enter the Canadian economy.
- (5) A carbon pricing system needs to be **fair** for current and future generations. A fair carbon pricing system must ensure that costs and benefits are distributed equitably. A direct dividend to households would protect low and middle income households from higher costs, and would help build the support needed for a rising carbon price.
- (6) The carbon pricing system should be fully **transparent** and as **simple** as possible so that it cannot be "gamed" by special interests. The plan needs to be based on sound science and backed by quantitative analysis. It should include independent monitoring, evaluation and adjustment mechanisms.
- (7) Concerns about carbon pricing impacting international competitiveness can be addressed by the use of **border adjustments** for jurisdictions without a similar carbon price.
- (8) **Subsidies to the fossil fuel industry** should be eliminated in order to focus on transitioning to a low-carbon economy. Examples of direct subsidies are capital cost allowances, tax relief, and government agencies that promote fossil fuel use and development. Federal and provincial direct subsidies are estimated to be \$2.9 billion CAD for 2014.
- (9) Any carbon pricing policy needs to be **woven into a larger climate policy** that includes broader regulations (e.g., building codes, fuel efficiency standards, land use policies), green infrastructure, incentives, financial mechanisms (e.g., green bank and green bonds), job re-training for workers in the fossil fuel sector, and education programs (e.g., how personal choices, including the food we eat, impact the climate).
- (10) Canada must provide **global leadership** on fighting climate change, including supporting the transition from fossil fuels in developing countries and helping those most vulnerable to adapt to changing conditions.

# CANADA

## **LASER TALK: About Citizens' Climate Lobby Canada**

Citizens' Climate Lobby (CCL) is an international, non-partisan organization that empowers citizens to lobby their representatives for a revenue neutral price on carbon pollution. Currently we have nearly 300 chapters in North America and over 14,000 CCL members worldwide. In Canada we cover over 60 ridings. CCL was founded in the USA in 2007 by Marshall Saunders and is modeled after the international poverty reduction organization RESULTS, which is also our sister organization. Since September 2010, Canadian Citizens' Climate Lobbyists have, through teleconference calls, monthly actions, and conferences, educated ourselves about the various aspects of climate change: from the economics and science to the sociology, communication and its myriad connections to almost everything. Every June since 2011, CCL Canada has sent a delegation to Washington to lobby Congress, the World Bank, the International Monetary Fund and the Canadian Embassy. Since November 2011, Citizens' Climate Lobby Canada has lobbied every November and June on Parliament Hill except November 2015 because Parliament was not sitting. In total, in addition to having over 1000 letters to the editor, opinion editorials and articles published by or about us since 2010, we have also lobbied at least 100 federal parliamentarians and 43 provincial parliamentarians, many repeatedly, for carbon fee and dividend.

## **LASER TALK: Canada's Current Climate Targets are Woefully Inadequate**

The good news is that 129 out of 156 countries, accounting for 90 percent of global greenhouse gas emissions, have submitted their intended nationally determined contributions (INDCs) to the Paris agreement.

The bad news is that even if all these countries meet their pledges, the world will still fall woefully short of the emissions reductions needed to stay with the 2 degrees Celsius threshold of warming that scientists say is manageable.

Moreover, Canada's INDC's have fallen behind the USA's targets, so much so that Carbon Tracker gave Canada the lowest ranking: Inadequate. Emissions targets in this area are less ambitious than the 2°C global increase limit deemed safe by the world community. If all governments adopted an inadequate position, warming would likely exceed 3-4 °C.

Within 90 days of returning from Paris the Prime Minister Trudeau will meet with the Premiers and he also plans to meet with President Obama. A new national plan for reducing carbon emissions is anticipated by April 22, 2016.

## **LASER TALK: Less than five percent of the Canadian economy is trade exposed**

A November 2015 study by the Ecofiscal Commission released found that less than five percent of the overall Canadian economy would be exposed to competitive pressures if carbon was priced at \$30 a tonne – that's because like most western democracies, Canada has a huge service sector that is neither emissions-intensive nor trade exposed. The good news is, governments can address the challenges of the trade exposed industries with targeted, transparent, and temporary support measures for genuinely vulnerable industries. Ultimately though, Canada will need a national carbon price with border tax adjustments to protect domestic industries.

# LASER TALK: Canadian Opinions on Climate Change

## Update December 2015:

The Globe and Mail and CTV news commissioned The Nanos Research Group to do a telephone poll of 1,000 Canadians between Nov. 21 and 24. The poll found that **73%** agree or somewhat agree that *“climate change presents a significant threat to our economic future,”* while only **16%** disagree or somewhat disagree. The telephone survey, conducted between, carries a margin of error of 3.1 percentage points, 19 times out of 20.

The poll finds a clear view among Canadians: **72%** think the science of climate change is irrefutable, **79%** believe Canada’s international reputation has been hurt by its previous efforts, and **63 %** indicate they would pay more for certain products so Canada could meet its climate commitments.

## Previous Polls

A December 2012 Environics Poll on climate change indicated that support for action amongst Canadians is almost back up to 2009 levels at 60%. And this poll also indicated Canadians are willing “to pay the piper”: 57% of Canadians said it was reasonable for consumers to pay \$100/year for climate change action.

An April 2013 Angus Reid Poll found that 58% of Canadians know that climate change is a fact and is caused by emissions from vehicles and industrial facilities. As well, 60% of Canadians support protecting the environment, even at the risk of hampering economic growth.

A July 2013 poll conducted by Harris-Decima found that Canadians clearly understand the imperative and opportunity of a low-carbon transition, and the role an integrated climate and energy strategy can play. When asked whether *“We need a Canadian climate and energy strategy to plan our nation’s energy future,”* a remarkable 87 per cent of Canadians agree. Furthermore, 62 per cent agree that, *“A Canadian energy strategy will only be successful if it transitions Canada to a low-carbon economy.”*

Observations from an August 2013 Nanos poll were that North America’s energy market is “de-facto integrated”, but public policy is often fragmented and disjointed. The Nanos’s study was comprised of original public opinion research and in-depth interviews over several months with key stakeholders and advocacy groups in the United States. It alluded to the potential causes of strained relationships between Canada and the USA particularly around the Keystone XL pipeline.

*“We are desperately in need of a forthright dialogue between Canada and the United States in terms of carbon policy and the environment,”* said pollster Nick Nanos in an interview from Washington, D.C.

In alignment with Nanos, we at Canada’s Citizens Climate Lobby feel it is important to collaborate with our US CCL colleagues on creating a fair and effective cross-border climate policy. We currently have 135 chapters of Citizens Climate Lobby in North America. There are CCL chapters in almost half of US congressional districts and about 40 Canadian ridings. We have been collaborating across borders since September 2010.

A November 2013 poll conducted by the University of Montreal and Canada 2020 found that 84% of Canadians believe the Canadian government should talk the lead on combating climate change AND a majority of Canadians support putting a price on carbon, with support actually increasing when told it could increase fuel or home energy prices by a specific amount.

# LASER TALK: Canada can have 100% Renewable Energy by 2050

The world, including Canada, can convert to 100 per cent renewable energy – from wind, water and solar resources by 2050 without nuclear energy, according to Dr. Mark Jacobson of Stanford University. This includes energy for transport, heating fuel and electricity.

He presented his recent data at the Paris Climate talks in December 2015. Here is the energy mix for Canada's 100 per cent renewable scenario for 2050: Solar, 21.2%; onshore wind, 37.5%; offshore wind, 21%; wave energy, 2%; geothermal, 1.9%; hydroelectric, 16.2%; tidal turbine, 0.2%.

The economic impact includes the creation of 293,000 construction and 463,000 full-time operation jobs.

In addition, the result will include avoided annual health costs of \$107.6 billion and avoided annual pollution deaths of 9,598.

In an interview January 3, 2016, Jacobson was asked if 2050 is still a practical date to achieve that goal? He replied that it is technically and economically practical, but politically is another question. It is up to the grassroots and our newspapers to make sure that politicians know that a 100 per cent renewable future by 2050 is possible and we are going to hold them accountable for it.

One thing needed is a predictable and increasing price on carbon pollution so investors will know when renewable energy will become more competitive with fossil fuels. By returning the money collected back to the citizens, this will shield ordinary families from price shocks as we transition away from fossil fuels and will also allow the carbon price to go high enough to help spark the necessary changes the next generation expects from us by 2050.

## How 100% Renewable Energy by 2050 will cost Canadians less money

According to Stanford civil and environmental engineering Professor Mark Jacobson's, fossil fuel energy costs 8.5 cents a kilowatt-hour and renewable energy costs 9.9 cents. We will, however, save money in two ways:

- 1) Efficiencies will decrease our overall need for energy. For example, electric vehicles convert 59 to 62 per cent of the electrical energy from the grid to power at the wheels, while gas vehicles convert 17 to 21 per cent.
- 2) Canadians will avoid \$107.6 billion a year in health costs out of our taxes.

Overall, Canadians on average can expect a savings of \$164 a year in energy costs and \$8,888 a year in climate and health costs.

## LASER TALK: Interaction with Provincial Carbon Pricing Programs

There are multiple options for reconciling a national carbon fee and dividend policy with existing provincial carbon pricing programs such as the BC Carbon Tax, the Cap and Trade system in Quebec and Ontario or the Specified Gas Emitters policy in Alberta:

**Preemption.** In preemption, the provincial carbon pricing programs would cease to function once the federal carbon fee and dividend law took effect.

**Stacking.** In stacking, provincial programs would continue to function as is on top of the federal carbon fee and dividend program.

**Integration.** In integration the two programs would work together. For instance, if the provincial price for carbon was lower than the federal fee, emitters would pay the federal level. If the price rose above the federal level, emitters would have to pay the higher price.

The point here is that there are multiple options for reconciling the provincial programs with the federal carbon pricing program, and should not be a reason to hold up federal action.

### **Skeptic Claims and One-Liners**

**Carbon Fee Skeptic Claim:** A federal carbon fee and dividend policy will be impossible to reconcile with existing provincial legislation

**One-Liner:** There are multiple strategies for reconciling these programs including preemption, stacking, and integration; we just have to choose one.

“What Would a Federal Carbon Tax Mean for California Cap-and-Trade?” March 14, 2013. Four Twenty Seven Climate Consulting.

## **LASER TALK: Carbon pricing, national unity and revenue neutrality**

On Friday April 1, 2016, Canada’s Environment and Climate Change Minister, Catherine McKenna, indicated that moving too fast on climate could damage national unity.

We need to price carbon now because the climate crisis is truly urgent and also on the positive side, so that Canada can tap into the global multitrillion dollar clean tech economy. We need a nationally integrated carbon price because carbon pricing enacted by provinces cannot protect carbon intensive industries via border tax adjustments under the World Trade Organization, whereas a national carbon price can.

The national carbon price should be revenue-neutral so that the free market and not the federal government will pick the energy winners and losers. If the federal government picks the energy winners, it tends to pit provinces against each other.

Thus for the sake of national unity, Canada’s nationally integrated carbon price must be revenue neutral.

## **LASER TALK: A Clear Market Signal Needed to Create Clean Tech Jobs**

Numerous studies have shown that a shift to an economy based on renewable energy will result in a significant net gain in employment. An increasing number of clean energy jobs are created each year as investment in this sector have ramped up quickly in the last decade – at a time when well paid, full time jobs are hard to find,

- Canada currently has more direct jobs in clean energy than in the oil sands – 50,000 people were employed directly in more than 800 clean technology firms – on par with the aerospace industry.
- According to Dr. Mark Jacobson of Stanford University, transitioning to 100% renewable energy would create 293,000 construction and 463,000 full-time operation jobs over 40 year.
- In 2015 Canadian clean tech industry revenues grew at four times the rate of the overall Canadian economy, and consistently providing employment that is high skill and high wage. Alberta is poised to create a substantial number of clean tech jobs as the province transitions electricity off coal – and could create 70,000 new jobs by 2024, easily offsetting the 65,000 jobs recently lost with the drop in the price of oil.

- If the current pace of postings hold, solar would become the largest market for energy jobs by the fourth quarter of 2016.  
The bad news is that Canada's global share of international clean tech has been steadily declining by since 2008, and our global ranking fell from 14<sup>th</sup> to 19<sup>th</sup>.

We can turn this around through steadily rising carbon fees and eliminating fossil fuel subsidies. After BC introduced its carbon tax, there was a 48% increase in clean tech sales. During this transition to a greener economy, jobs will be lost in the fossil fuel industry. Plans to support employment transition are essential, but the scope of that work is manageable. In Canada 96% of the workforce is outside of fossil fuel industries. Within the fossil fuel sector, efforts are already underway to transition, for example, training oil sands electricians to install solar panels.

# **GLOBAL ECONOMICS**

## **LASER TALK: Border Tax Adjustments**

CCL's policy includes a border adjustment on goods imported from or exported to countries without an equivalent price on carbon. This adjustment would both discourage businesses from relocating to where they can emit more CO<sub>2</sub> and encourage other nations to adopt an equivalent price on carbon. Together, the tax on imports and refund on exports are called the "border adjustment" (green boxes in the Figure 1 below).

The border adjustment would be as fair and accurate as possible for similar goods based on their carbon emissions. The refund to exports would come from the tax imposed on imports (Figure 2). The fee (blue boxes in Figure 1 below) on fossil fuels is a separate pot than the border adjustment pot. Fossil fuel imports to the Canadian are assessed the fee (not part of the border adjustment), and fossil fuels exported from the Canada get no refund.

An illustration of how CCL's border adjustment works. Boxes in blue are subject to the fee, boxes in green are subject to the border adjustment. Carbon intensive goods produced domestically that stay in Canada are not touched; it is assumed they will bear the burden of higher fossil fuel costs because of the upstream assessment point for our fee.

## **LASER TALK: WTO and the Border Adjustment**

In order for a fee on carbon to work domestically and on an international scale, an effective border tax adjustment will be necessary. There is a concern expressed by many legislators that such a border adjustment would violate World Trade Organization (WTO) law, and specifically the General Agreement on Tariffs and Trade (GATT). However, this concern is unfounded.

For our biggest trading partner, the USA, border adjustment has been codified in US law (26 CFR 52.4682-3) since the Montreal Protocol went into effect on Jan 1, 1990. This border adjustments covers ozone-depleting substances, which also happen to be greenhouse gases.

Second, there are in fact two provisions in the GATT that make it clear Carbon Fee and Dividend would be WTO-legal:

- The border adjustment, as proposed by Citizens' Climate Lobby, doesn't discriminate against goods from other countries relative to goods produced domestically, nor against one country relative to another. Second,

- Even if the border adjustment were discriminatory, article twenty, paragraphs b and g (i.e. “Article XX, paragraphs (b) and (g)” in legalese) allows for discriminatory border adjustments for environmental purposes.

So, Carbon Fee and Dividend is double-covered! Getting the border adjustment right is important because it ensures domestic manufactures have no incentive to move operations to a country that doesn't have an equivalent price on carbon, and that if other countries want to keep using dirty manufacturing processes, they'll have to pay the American people for the privilege.

1. Pauwelyn, Joost. “Carbon Leakage Measures and Border Tax Adjustments Under WTO Law”. March 21, 2012. Excerpted chapter from “Research Handbook On The WTO Agriculture Agreement”.
2. Jennifer Hillman. Changing Climate for Carbon Taxes: Who's Afraid of the WTO? July 25, 2013. The German Marshall Fund of the United States.
3. 26 C.F.R § 52.4682–3 “IMPORTED TAXABLE PRODUCTS.”

## **LASER TALK: NAFTA and Carbon Fee and Dividend**

On January 1, 1994, the North America Free Trade Agreement (NAFTA) went into effect. Under NAFTA, Canada, USA and Mexico have an obligation to protect the environment.

The North American Agreement on Environmental Cooperation was negotiated and implemented in parallel to NAFTA. It requires that each Party ensures its laws provide for high levels of environmental protection without lowering standards to attract investment. Each Party agreed to effectively enforce its environmental laws through the use of inspectors, monitoring compliance and pursuing the necessary legal means to seek appropriate remedies for violations. Each Party must also provide a report on the state of its environment, develop environmental emergency preparedness measures, promote environmental education, research and development, assess environmental impacts and promote the use of economic instruments.

As well, under NAFTA Article 604: Export Taxes, parties are allowed to maintain duties, taxes or other charge on the export of any energy or basic petrochemical good to the territory of another Party if the duty, tax or other charge applies to the exports of any such good to the territory of all other Parties and any such good when destined for domestic consumption.

Thus, we are confident that Carbon Fee and Dividend would be acceptable under NAFTA rules.

## **LASER TALK: Citigroup's study calls for a low-carbon economy**

Citigroup is the third largest bank in the U.S. They wrote a report entitled, “Energy Darwinism II” about meeting world energy needs over the next 25 years. They considered two scenarios to meet energy needs, which are expected to grow significantly by 2040. One scenario is the “action scenario”, where energy needs are met, while mitigating greenhouse gas emissions at the same time. The “inaction scenario” is where energy needs are met with ‘business-as-usual’ methods, without trying to mitigate greenhouse gas emissions. Costs for each scenario were based on the capital expenditures and any fuel costs incurred to produce energy. Renewable energy projects tended to cost more initially, but they provided savings later on. They added up the costs and savings for producing energy with each scenario and found that the “action scenario” was less expensive – \$190.2 Trillion vs. \$192.0 Trillion! Then they looked at the costs of climate change impacts with each scenario, and while the “action scenario” had costs of \$20 Trillion over the next 25 years, the “inaction scenario” had costs in the range of \$42 to \$72 Trillion over the next 25 years. The “action scenario” also has less air pollution, primarily as a result of burning less coal.

In summary, the Citigroup report argues that the “action scenario” costs less to produce energy than the “inaction scenario”, it avoids large liabilities implicit in the “inaction scenario”, and that cleaner air has to be better than pollution, leading one to ask, “Why would you not take action?”

Citigroup’s action scenario is very appealing. It makes less use of coal, and more use of energy efficiency in heating, cooling and lighting. It also makes more use of electric vehicles and greater fuel economy for combustion engines. Citigroup suggests that a price on carbon will ensure that we take the “action scenario” to meet energy needs. They calculated that a price of \$50 per tonne by 2020 would make coal uncompetitive with other energy, and put us well on our way to pursuing the “action scenario”.

## **LASER TALK: Cutting carbon is cheaper than we realized**

The conventional wisdom has always been that taking the necessary steps to reduce the threat of climate change will play havoc with the economy. In other words, we can cut carbon and stabilize our climate, or we can grow the global economy and thereby lift more people out of poverty and continue to enjoy our comfortable lifestyles. But we cannot do both at the same time.

That myth was exploded in 2014.

According to the fifth report from the Intergovernmental Panel on Climate Change, drastic action must be taken to reduce greenhouse gas emissions, but the cost of that action is much smaller than anyone thinks.

While economic growth is between 1.6 percent and 3 percent a year, the report states that mitigation would slow that rate of growth only 0.06 percent a year.

The report does not factor in the positive impacts of mitigation, such as improved health from the reduction of air pollution. Nor does it factor in minimizing economic losses from the damage climate change causes. If these factors are taken into account, the cost of mitigating climate change is far cheaper than doing nothing.

The 2014 IPCC report showed that economic impact can no longer be used as an excuse to delay action that will cut greenhouse gases.

Source: [http://report.mitigation2014.org/spm/ipcc\\_wg3\\_ar5\\_summary-for-policymakers\\_approved.pdf](http://report.mitigation2014.org/spm/ipcc_wg3_ar5_summary-for-policymakers_approved.pdf)

# **SCIENCE AND TECHNOLOGY**

## **LASER TALK: Why Natural Gas is not a good “Transition” Fuel**

Cornell University professor Robert Howarth, concluded in his May 15, 2014 paper in Energy Science and Engineering: *“Using these new, best available data and a 20-year time period for comparing the warming potential of methane to carbon dioxide, the conclusion stands that both shale gas and conventional natural gas have a larger GHG than do coal or oil, for any possible use of natural gas.”*

Burning natural gas produces less CO<sub>2</sub> than coal or oil for the same amount of energy produced.

However, if only 3.2% of natural gas escapes into the atmosphere anywhere from the ground where it is extracted to the power plant, stove, or home where it is burned, then natural gas is just as bad for the climate as coal. Previous studies suggest that more than 3.2% leaks, partly due to the fact that long distance pipeline infrastructure used to transport is an average of 50 years old. However, if the leakage problem can be solved natural gas could serve as a transition fuel while we convert to renewable energy.

Society needs to wean itself from the addiction to fossil fuels as quickly as possible. But to replace some fossil fuels (coal, oil) with another (natural gas) will not suffice as an approach to take on global warming. Rather, we should embrace the technologies of the 21st Century, and convert our energy systems to ones that rely on wind, solar, and water power

Germany has shifted from getting 6% of its electricity from renewables in 2000 to 25% today. On one day in April, 16, 2014 7 GWh of its electricity came from solar, equivalent to 8 Japanese nuclear reactors running full tilt for 24 hours. Interestingly, Germany shares a few degrees of latitude with Alaska, and is further north than any other US state except the northernmost tip of Maine. Portugal also increased the percentage of its electricity sourced from renewables from 17% in 2005 to 70% in the first quarter of 2013.

# **CLIMATE CONNECTIONS**

## **LASER TALK: Climate Change and Global Security**

In April 2008, Britain's Royal United Service Institute warned that a failure to acknowledge climate change security threats is as dangerous as neglecting the risks of terrorism or nuclear weapons proliferation. In fact CCL Canada's national manager sent this Royal United Service Institute report to all federal party leaders in September 2009.

In 2011, in the United States, A New Strategic Narrative for the 21st Century was presented to the Joint Chiefs of Staff. It identified climate change as a key threat to economic and political stability. In 2014, in the 5th report from the UN Intergovernmental Panel on Climate Change contained an extensive chapter on the implications of climate change for human security. It detailed threats to global security and possibilities of violent conflict.

In March, Scientific American published a paper that outlined how climate change hastened Syria's Civil War. Global security is of concern to many Canadians, yet Canada is a certainly not doing our fair share internationally to cut carbon emissions.

In March 2016 the US Pentagon made climate change a long-term global security goal.

The facts are global warming is real, human caused, poses a threat to global security and the solution is to cut emissions. Canada's climate commitments are the still the Harper Government's commitments are inadequate. When a country as prosperous as Canada fails to reduce its greenhouse gas emissions, we lose moral authority.

In 2011, the International Energy Agency warned that the point of no return for the climate would be crossed in 2016. If this government is truly serious about terrorist threats and national security, doing our fair share internationally to reduce greenhouse gas emissions should be an integral part of long term plans. A robust price on carbon pollution is critical piece of reducing gas emissions. Canada will lead the world on carbon pricing with a nationally integrated carbon fee and dividend with border tax adjustments.

## **LASER TALK: The Effect of Pricing Carbon on Farmers**

Agriculture in Canada is heavily dependent on fossil fuels for running machinery and producing fertilizers, and a price on carbon would, by design, increase the price of fossil fuels.

For farmers, however, the impact associated with a price on carbon is not nearly as great – or as volatile – as other factors, especially if the fee starts low and increases predictably over time. For example, in Canada the price of farm machinery fuel increased by 25% in 2011 from 2010. As well, during that same time period fertilizer prices rose 29%. Commodity prices, which determine the income farmers receive at any given time, are also extremely volatile.

In addition, the impact of a price on carbon will be minuscule compared to the impact climate change will have on future farm productivity over the long-term if CO2 emissions are left unmitigated. A March 2013 report by Canada 2020 concluded that *“climate uncertainty and climate extremes are givens for the future of Canadian agriculture and while there may be some initial benefits from rising temperatures and elevated carbon dioxide levels such benefits are unlikely to last. There is a growing body of evidence pointing to temperature and CO2 thresholds, beyond which yields will level off or decline. These risks need to be addressed and policies put in place to reduce them.”*

Also, bear in mind that a price on carbon will be an economic opportunity for many farmers and ranchers as demand for carbon-free energy increases. Wind developers are leasing land from farmers to erect turbines. Solar farms can also replace cropland that doesn't generate enough income from traditional farming.

Of note, British Columbia's carbon tax does not appear to have had a measurable impact on international agricultural trade, despite concerns it would greatly reduce the BC industry's competitiveness, according to new analysis commissioned by the Pacific Institute for Climate Solutions (PICS).

**Bottom line:** The additional cost of a price on carbon is negligible compared to the increased volatility that comes with a changing climate. In fact, a gradually and predictably increasing price on carbon creates an opportunity for farmers to balance that volatility with steady cash flow from renewables that share land with their crops.

## **LASER TALK: Climate Change is a Medical Emergency**

The threat to human health from climate change is so great that it could undermine the last 50 years of gains in development and global health, experts warned in the Lancet in June 2015.

The report said direct health impacts of climate change come from more frequent and intense extreme weather events, while indirect impacts come from changes in infectious disease patterns, air pollution, food insecurity and malnutrition, displacement and conflicts.

The good news is the panel also said burning fewer fossil fuels reduces respiratory diseases, for example, and getting people walking and cycling more cuts pollution, road accidents and rates of obesity, diabetes, heart disease and stroke.

In August, 2015, the Canadian Medical Association approved a motion to promote the positive health impacts of pricing carbon emissions. They cited British Columbia's carbon tax as a good example. BC's fossil-fuel tax has reduced consumption of fossil fuels by 16% and their provincial GDP has grown above the national average.

Previously, Canadian Health associations sounded the alarm about the health impacts of climate change. In June 2014 Dr. Eilish Cleary, Chief Medical Officer of Health for New Brunswick, expressed the necessity of considering human health when making decisions about emissions. She said, “There hasn't been adequate recognition by all levels of policy-makers and decision-makers that it is really a problem that we have to do something about.” Nova Scotia's Chief Public Health Officer Dr. Robert Strang concurred, adding that the discourse has been too focused on adaptation to the exclusion of mitigation planning.

Public health officials know: if you are concerned about public health you should also be concerned about climate change. If we want to prevent the health consequences of climate change, we need to work to decrease our fossil fuel emissions. That's why Citizens' Climate Lobby supports a revenue-neutral carbon tax. The return of 100% of the proceeds from the tax is the spoonful of sugar that helps the medicine of a carbon tax go down smoothly. It's time to take action.

## LASER TALK: Does the private sector support a carbon price?

Yes, an increasing number of companies and investors around the world are promoting the idea of a carbon price. *Corporate leaders explain that a carbon price enables companies to factor the costs of GHG emissions into their decisions. A transparent carbon price creates an incentive for companies to reduce GHG emissions, invest in low-carbon options and plan long term. Both traditional companies (e.g. energy) and new industries (e.g. the internet) are among the supporters of a carbon price.* Here are just a few of the many examples of corporate leadership in promoting a carbon price:

- The **2012 Carbon Price Communique** that proclaims that “putting a clear, transparent and unambiguous price on carbon emissions must be a core policy objective” has been signed by 164 companies including global industry leaders such as BP, Shell, Statoil, and Unilever.
- In the US, industry leaders such as Exxon Mobil, Walmart, Microsoft, ConocoPhillips, Chevron and Google are already factoring a carbon price into their financial planning.
- **The 2014 Global Investor Statement on Climate Change**, signed by over 360 investors with more than \$24 trillion in assets, calls upon governments to “provide stable, reliable and economically meaningful carbon pricing that helps redirect investment commensurate with the scale of the climate change challenge”.
- In Canada, **the Clean50**, a group of corporate leaders, addressed the country’s leadership and all Canadians with a 2014 open letter calling for a “framework that includes setting a price on carbon at some specific date in the future, that would reduce other taxes, and provide an incentive for businesses and individuals to take steps to reduce their use of carbon”.
- In October 2015, three new climate change indices were introduced on **Dow Jones S&P Indices** and the **Toronto Stock Exchange**
- On November 24, 2015 an alliance of 78 major firms including HSBC, Siemens, SOHO China, PepsiCo, Engie, Mahindra Group, Tata, Nestlé, BT Group, Unilever and PwC, urged governments to include the pricing of carbon emissions as part of policies to curb global warming.

## LASER TALK: Building Bridges with the Private Sector

STATS CANADA: What percentage of the population works for small, medium and large businesses. In 2012, Stats Canada reported that over 7.7 million employees, or **69.7 percent of the total private labour force**, worked for small businesses and 2.2 million employees, or 20.2 percent of the labour force, worked for medium-sized businesses. In total, SMEs employed about **10 million individuals**, or 89.9 percent of employees.

Small businesses are a cornerstone of our economy and communities. Small business owners are motivated to vote because their cash flow depends on good policies enacted by governments. They tend to be networked throughout our community and they often donate to political campaigns. Thus, having business owners in your corner will help you generate political will locally and perhaps capture the attention of your MP.

**Here are some ways to engage the private sector locally:**

- Contact your local Chamber of Commerce. Ask to meet with the leaders to discuss carbon fee and dividend using the same strategies we use with politicians and editorial boards
- Collaborate with your local Chamber of Commerce and/or other business and business groups to bring experts to community to give presentations on climate change
- Give a presentation at your local Rotary Club at their meetings.

- If a small business organization holds a debate during election time, endeavor to get a carbon pricing question on the agenda at their debate.
  - Recruit small business owners to your CCL group so they can: **1)** provide feedback on the work you are doing locally; **2)** be the face of small business for your local group and; **3)** provide networking opportunities with your CCL group to other local business owners
- Carbon fee and dividend could be especially helpful to small businesses. All other ways of pricing carbon are essentially a type of tax, since the government either keeps the money (non-revenue neutral tax) and/or has to fork out money to run the program (regulation and cap and trade). With carbon fee and dividend, local residents will have more money to spend and thus stimulate the local economy. As well, there will probably be less red tape with carbon fee and dividend compared to cap and trade for some businesses.

## LASER TALK: Women and Climate Change

Women are and will continue to be disproportionately impacted by climate change. Yet, women are only 12% of those that lead the global climate policy negotiations (Harris, R. 2012). Here are just some of the impacts of climate change on women:

- Water stress and shortages will lead to an increase in women's labour in many contexts as they have the primary responsibility of collecting water in many parts of the world (Mearns & Norton, 2010).
- About 2/3 of the female labour force in developing countries and 90% in many African countries are engaged in agricultural work. In the context of climate change, traditional food sources become more unpredictable and scarce. As well, women face loss of income as well as harvests. Related increases in food prices make food more inaccessible to poor people, in particular to women and girls whose health has been found to decline more than male health in times of food shortages. Furthermore, women are often excluded from decision-making on access to and the use of land and resources critical to their livelihoods (United Nations Women Watch).
- Women are less mobile due to their roles as primary care givers (Araujo et al. 2007, p. 2) making it difficult for them to move as an adaptive response to a rapidly changing climate.
- Climate change disproportionately affects women due to a lack of power and increased social exclusion in some parts of the world (Mearns & Norton, 2010).
- Gender differences in death rates attributable to natural disasters have been linked directly to women's economic and social rights (Neumayer and Plümper 2007). Women are more vulnerable to death in extreme weather events; women typically outnumber men by 14 to 1 among those dying from natural disasters (Araujo et al. 2007, p. 1). For example, social prejudices keeps women and girls from learning to swim, and as a result, they are more vulnerable to flooding disasters (Oxfam, 2005).
- Climate change is and will lead to more competition over resources which in turn leads to conflict and violence. Conflict amplifies existing gender inequalities. Women suffer the consequences of conflict such as rape, violence, anxiety, and depression (Osei-Agyemang, 2007).

In an April 2015 poll of Canadian women, 74% of women believe that protecting the climate is more important than building the Energy East pipeline and further developing the oil sands (Climate Action Network Canada, 2015). This is good news for our sisters in the global south, because Canada could help women around the world by pricing carbon pollution at the national level, spurring other nations to do the same and thus helping to mitigate the impacts of climate change on women.