

*Advice to Environment and Climate Change Canada
from Elizabeth May, O.C., M.P.*

Canada must replace and ratchet up our INDC

It is clear that the Paris Agreement goal of holding global temperature to no more than 1.5 degrees C will be unachievable on current commitments. The aggregate of all “intended nationally determined contributions” INDCs, as of December 2015, assuming all countries deliver on commitments, is more than twice too dangerous. The estimates of global average temperature increase on current INDCs range from 2.7 degrees C to 3.5 degrees C. These levels are not merely dangerous; they are catastrophic.

The probabilities of massive sea level rise due to non-linear perturbations, such as losing the Western Antarctic and/or Greenland ice sheets, became perilous. The loss of Arctic ice, melting of permafrost and unleashing of other positive feedback loops foreclose not only 1.5, but 2 degrees and even 3 degrees. The survival of human civilization will be put at risk.

Canada’s INDC was announced under the Harper Administration in May 2015. It represented the third time over ten years that the Conservatives weakened our targets. The Harper INDC of 30% below 2005 levels by 2030 is the weakest in the G7. It has been repeatedly described by Environment and Climate Change minister, the Hon Catherine McKenna, as “the floor, not the ceiling.” The notion, as expressed in the Vancouver Declaration, that “over time” Canada can set more ambitious targets is valid, but only if the time frame is tomorrow. Science-based decision-making, consistent with our Paris commitments, make the Harper INDC a non-starter.

A delay of months or years in advancing all INDCs will be fatal. The window is rapidly closing on avoiding 1.5 degrees C. Canada must show leadership to prompt other countries to withdraw and ratchet up their own INDCs in advance of the 2018 facilitative dialogue (essentially an informal “global stocktaking.”)

Any claim of Canadian leadership may be seen as presumptuous. We lag far behind most industrialised countries. Most of the industrialized world is miles ahead of us in reducing GHGs. The EU is committed to 40% below 1990 levels by 2030 – and on track to meet that target. Adjusted to 1990 levels, Canada’s INDC is a pathetic 14.7% below 1990.

If we are to have a North American coordinated climate strategy, then Canada must align our end year, if not our target, to be synchronized to that of the United States. A modest acceleration of ambition would take us to 30% below 2005 levels by 2025. We need to start the global momentum to ratchet up in time for the 2018 facilitative dialogue. Failing to do so will place 1.5 degrees C beyond our reach.

The specific actions we recommend are organized within the current FMM working groups:

a. The Working Group on Clean Technology, Innovation and Jobs

Most of what government can do in this area is to create a level playing field. Clean tech is competitive and already has created more jobs than the oil sands. The next basket of measures in the FMM working group - carbon pricing - should create the necessary conditions to allow clean tech to take off.

Still, it must be recognized that Sustainable Technology Development Canada (SDTC) has punched above its weight in assisting new clean tech innovations to move to commercialization. STDC funding must be enhanced, while addressing the gap between proof of concept and commercialisation. We need more green venture capital funds to take great and proven idea and move them to commercialization.

b. The Working Group on Carbon Pricing Mechanisms

It is clear that carbon pricing is essential. There are a wide spectrum of carbon pricing systems - from cap and trade to carbon tax. The Green Party strongly recommends a system of Carbon Fee and Dividend.

The current patch-work quilt of carbon pricing across Canada is not good for business certainty. It also perpetuates the dangerous signal that dumping carbon pollution in the atmosphere is a “free” service – offered by future generations to avoid responsible action now.

We have cap and trade within a Western US States trading block for Ontario and Quebec, an internal, too-low carbon tax in British Columbia and an internal rebate to the industry as a carbon price in Alberta. For consistency of planning and to ensure a predictable transition away from carbon-based fuels, a national carbon price is needed.

Carbon Fee and Dividend is an ideal back-filler and gap-filler. A revenue neutral carbon price can be returned to the taxpayers. Greens strongly favour Carbon Fee and Dividend as best fitted to this purpose. As a revenue neutral fee it will deliver a market pricing signal across the economy. To increase the acceptance of this move by provinces, we propose that every dollar collected under a federally managed Carbon Fee and Dividend be returned to the taxpayers of the province from which the fee was collected. This would result in a real boon to consumer spending in Alberta where the carbon pollution is the highest, as it would also be popular with residents of Saskatchewan. Where carbon pricing is already in effect, it would have a smaller impact. Its main benefit would be to ensure a uniform, national carbon price. We propose a starting price of at least \$30/tonne, moving quickly upward in a steady and predictable fashion across Canada.

We must end federal subsidies to fossil fuels. This must apply to all fossil fuels, including the recent new subsidies to LNG and support for fossil fuels through Export Development Canada.

c. The Working Group on Specific Mitigation Opportunities

This is the key focus for meeting our commitments and re-aligning our economy.

The low hanging fruit remains, as it has been for decades, reducing the waste of energy. We still waste more than half the energy we use. The best “bang for buck” reduction of emissions-tonne for tonne – dollar for dollar – is in energy efficiency. We need a massive, federally funded, job creating, GHG cutting strategy in retrofitting our built infrastructure - commercial, residential and institutional.

The Martin government’s Eco-Energy programme for homes should be resurrected and expanded. We need to create tax incentives to reduce energy waste in institutional and commercial buildings as well as residential properties. The focus should be on resilience. (A similar programme should be available to make residence more seismically secure.) We cut GHG, create reduced lifetime costs for heating and cooling our homes and create tens of thousands of jobs.

The incentives were extremely targeted to energy savings measures and only distributed after an energy auditor verified the installations to ensure real savings would result. It was a smart 'performance-based' incentive program, and should be reinstated. It was also very popular.

From the website of Natural Resources Canada Report to Parliament on the Eco-Energy Programme:

<http://oee.nrcan.gc.ca/publications/statistics/parliament11-12/parliament11-12.pdf>

See page 41 in that one for a clear summary of the programmes success.

<http://oee.nrcan.gc.ca/publications/statistics/parliament10-11/chapter3.cfm?attr=0>

Here's a similar summary from a year earlier.

<http://oee.nrcan.gc.ca/publications/statistics/parliament10-11/chapter3.cfm?attr=0>

A close second to energy efficiency is in getting all fossil fuels out of electricity production. We can move to 100% renewable energy without a single new large hydro dam. The missing ingredient is an enhanced east-west electricity grid.

BC Hydro must not be allowed to complete Site C. In addition to the clear violation of Treaty 8 First Nations’ treaty rights, the \$8 billion white elephant of a project is entirely linked to

providing electricity for fracking natural gas. Fracked natural gas has the same carbon footprint as coal.

Meanwhile, we should boost renewables. Canada is one of the only nations on earth not a member of the International Renewable Energy Agency. Canada should join and start catching up.

There is huge potential for wind energy in BC's Peace region. Rather than build Site C, we should promote wind power and use the existing reservoirs for storage. Just as Denmark sells its excess wind power to Norway where it is then used to pump water up into reservoirs, to be released when the power is needed, BC should marry its wind and hydro facilities to sell power to Alberta to speed the closing of coal plants.

Key renewable energy technologies must be encouraged – from home use to communities to large industries. With solar becoming more affordable by the day, we should provide homeowner incentives to install photovoltaic roofing panels. Solar should be promoted in remote communities to replace trucked in diesel. Canada has a huge natural advantage in wind, solar, geothermal, tidal and run of the river, low impact hydroelectric. We should also plan ahead to capitalize on co-generation (district energy). Canada should consider replicating what Denmark did in mapping its "thermal grid." It maximized the use of waste energy by mapping its potential. While making use of this information is provincial jurisdiction, mapping its potential could easily be federal research.

d. The Working Group on Adaptation and Climate Resilience

The responsibility within federal Cabinet to develop a robust adaptation strategy for Canada is a missing issue in the mandate letters. Logically it should be housed in a central agency. I suggest, based on advice from former Cabinet member and former Minister for Infrastructure in the Martin Cabinet, the Hon John Godfrey, that the adaptation responsibilities be mandated to the President of the Treasury Board.

We must invest in climate adaptation and resilience to save lives. In 2011, the adaptation group within the Environment Canada meteorological service in Downsview was disbanded. Critical work on questions such as engineering for heavier snow loads on gymnasium and shopping mall roofs was terminated.

We need to get back to work on adaptation. We must re-establish federal-provincial cooperation in flood control, but it needs to be expanded to an unprecedented level of municipal-provincial-federal-First Nations adaptation resilience.

We need to take advice from the Centre for Catastrophic Loss Reduction. Areas with greater tornado risk urgently need tornado shelters and warning systems. Floodplains must no longer be developed for greenfield housing sites. Bridges and roads washed out by flooding must not

be built to pre-flood conditions. Adaptation to extreme weather events requires that new locations and improved engineering be mandatory. The resilience of our electricity grid in the face of increasing ice storms must be assessed. Re-location of power lines to be buried must be considered as an aspect of the investments in an enhanced east-west electricity grid.

Water and waste water systems are already unable to cope with existing levels of deluge rain events. These will only get worse. We need to massively increase the scale of investment in sewage treatment to avoid bypassing treatment to dump raw sewage downstream of treatment plants.

Agriculture Canada, the Canadian Forest Service and the Department of Fisheries and Oceans must accelerate their currently limited work on adaptation of the climate-dependent industries they regulate. Health Canada must expand work on vector-borne diseases. Lyme Disease is spreading due to climate change and still, we have doctors in Canada who refuse to diagnose and treat patients with Lyme Disease. How ready are we for malaria and Dengue fever?

e. Working together on Energy Efficiency and Clean Energy Technology and Innovation:

Core proposals to enhance energy efficiency programmes for buildings appear above.

For clean growth we need to explore the most environmentally protective oil refinery technology with the goal of creating jobs from the oilsands. The pipeline mania must end with the question “why?” “Why are we told incessantly that we need pipelines to get bitumen to tidewater?” Would the mania be as amplified if we were being told “We must export Canadian jobs out of Canada as fast as possible and ship bitumen to other countries to refine in far more polluting refineries?”

The current economic strategy dependent on raw bitumen exports is not logical. It is premised on expanding the oil sands to produce a substance for which we have no refineries in order to create jobs in other countries while also off-loading those GHG emissions to occur off-shore.

The current economic strategy must be examined. The question must be asked “why not build upgraders and a refinery in Alberta or Saskatchewan to the highest environmental standards to create more jobs while stabilizing oilsands production to current levels? Why not use the finished product in Canada? How much of our foreign oil imports would that displace?”

f. The federal government must use levers within federal jurisdiction to the maximum extent possible

While the template in the FMM discussion focuses on areas of shared or provincial jurisdiction, where federal leadership and funding can make a huge difference, the federal government has its own exclusive powers to engage. One is referenced inferentially above- the power to set in motion carbon taxes, end fossil fuel subsidies at the federal level and deploy Carbon Fee and Dividend.

Other federal opportunities to be maximized include the following.

i. Expanding our international partnerships for both mitigation and adaptation

The cost of a tonne of GHG reduced in developing countries is far lower than the cost of a tonne of GHG reduced in Canada. But the impact for the atmosphere is the same. The Cabinet document supporting the previous government's decision to set 30% below 2005 by 2030 included recommending purchasing emissions credits from developing countries. To do that immediately, Canada must re-enter the Kyoto Protocol. We need to find iron-clad, gold plated carbon reduction opportunities in the developing world. The previous government pressured South Africa to open a new coal-fired power plant. Can the Trudeau administration provide the financial support to shut down coal and invest in low-cost solar in South Africa? Can the Trudeau administration help take Costa Rica to its goal of carbon neutrality by working in partnership to move their automobile fleet to electric vehicles? Can we find the real carbon reductions through smart and fast investments?

We also need to ensure our contributions to mitigation in developing countries is matched by investments in adaptation. We need to double the current \$2.65 billion for mitigation with \$2.65 in adaptation. These funds must be new and additional to our core commitments to poverty alleviation.

ii. Across the board improvements in energy efficiency of large appliances as regulated by NRCAN

The State of California so enhanced the energy efficiency of its appliances that refrigerator electricity savings *alone* displaced the need for an entire new nuclear reactor. Demand side management of energy is part of our long ignored low-hanging fruit. NRCAN must make energy efficiency standards far more aggressive. It is estimated that as much as 10% of residential electricity use is for appliances that remain "on" even after the consumer has turned them "off." These instant on features can be regulated to save energy. California has.

iii. Border tax adjustments

Only the federal government has the jurisdiction to enact border tax adjustments to ensure imports from countries without effective carbon pricing regimes do not unfairly compete with Canadian products.

iv. Revising the Canada Building Code

As we retrofit our existing built infrastructure we must ensure all new buildings as are built to standards that maximize energy efficiency. The Building Code is on an excruciatingly long five year cycle. In the interests of meeting the immediate needs of the climate crisis (as well as seismic upgrades and protecting the life of firefighters) the government should ensure a revamped code within the next 18 months. It must include far more effective insulation, siting, windows, as well as adopting new construction methods consistent with local conditions where appropriate. This is particularly critical in building livable, sustainable First Nations housing.