**Canada’s climate change cacophony**

Politicians are wrapping themselves in green for 2016. The Paris Conference concluded with self-congratulation and widespread resolve to reverse the failures of the Kyoto and Copenhagen agreements to achieve meaningful results.

Debate on climate change appears to have concluded and wide acceptance exists on the need to stabilize and then reduce greenhouse gases (GHGs) the key drivers to climate change. Most agree that the time for action has arrived. However, recent pronouncements from provincial and federal leaders offer faint hope that the brave words of the Paris talks will result in concrete actions. For Canada, three challenges confront the mitigation of climate change.

First, Canadians are high users of fossil fuels due to climate and distance. This limits easy options to step off the GHG emissions treadmill without triggering major economic and lifestyle consequences. Second, OPEC (read Saudi Arabia and now Iran) and US shale oil producers are in a global game of chicken as the price of oil plumbs new depths. It would appear that the Saudis are trying to put the largely debt financed shale oil extractors out of business and undermine the economics of renewable energy. Iran just wants revenue to make up for the interruption caused by the sanctions. The competition between Iran and the Saudis will only increase the downward pressure on oil prices and prospects for an early turnaround in prices are dim. This means that the current low price of oil offers no reason for individuals and businesses to do anything but remain wired to fossil fuel. Third, and something we must manage better, is the diverse array of provincial and federal policy responses to GHG emissions mitigation.

Government has four general approaches to reduce GHG emissions – regulation/guidance, infrastructure spending to encourage lower emission lifestyles, technology investment that mitigates GHG emissions, and carbon pricing.

Conceptually, the easiest policy is regulation and guidance. For example, the Environmental Protection Agency in the US has mandated a mileage of 54.5 miles per gallon for light duty vehicles by 2025. In Canada, labels on appliances such as EnerGuide offer information to consumers and while these are mandatory, government does not set a standard… yet.

Regulation requires testing, standard setting, and enforcement. Given the array of energy using products in the market, this is a massive task both to initiate and to maintain. It may be tempting to impose the testing burden on industry, but the recent malfeasance of Volkswagen, shows the weakness of that approach. Regulation also takes time as the 2025 targets of the EPA show; and relying on this approach alone is not an effective way to move consumers and industry quickly toward energy efficiency and reduced emissions.

An example of the second approach is the proactive infrastructure investment in rapid transit, popular with most mayors. Planners and green advocates promote bicycle lanes and rapid transit for their potential in reducing car use and resultant environmental benefits. The weakness of these schemes is that most cities have completely disconnected transportation and land use (zoning) policies. Without aggressive limits on sprawl and programs to increase urban densities close to transit nodes, limited potential exists in the short-term for such investments and advocacy to make worthwhile contributions to GHG reductions. Draconian land use policies, which would support transit investments, are death at the polls. Therefore, most mayors mortgage our future by investing in transit infrastructure that takes nobody to nowhere.

Chemical/biological/physical solutions are the third class of policy to control GHG emissions. These range from carbon capture and storage (sequestration) for so-called large emitters to elaborate plans involving massive reforestation or ocean storage. Saskatchewan reportedly favours this approach. However, targeted technical solutions offer limited impact on GHG mitigation nationally. This approach requires massive investment often in emerging (that is unproved) technologies, many of which remain in the realm of science fiction and would be very costly.

Carbon pricing, the fourth policy option for mitigating GHG emissions, comes in two variants. On the one hand, emissions trading or “cap and trade,” proposed by Manitoba, Ontario and Quebec, involves the creation of an artificial market that deals in GHG emission “rights.” This approach worked very well in the nineties in dealing with the sulphur-dioxide emissions of the coal fired power plants of the Eastern US. The EU emissions trading scheme also appears to be working better after a decade of miscues.

Cap and trade schemes require government to set a standard for allowable GHG emissions for each industry. Firms whose operations lie above that standard must purchase the right to operate (pollute) from businesses that are below the standard. This raises costs for high polluters and creates the incentive for them to invest in cleaner technologies.

Cap and trade schemes are technically complex to design and manage. A key requirement, and one that none of the three provinces proposing this approach can meet, is that sufficient numbers businesses must exist within each sector to support a market for emissions trading. Success of the SO2 cap and trade plan in the nineties worked because the coal-fired plants being in the same sector used different vintages of the same technology. Defining a standard of performance was straightforward and the polluting firms had technical options for adopting technologies with lower emissions.

In Manitoba, the top ten emitters include a fertilizer plant, two municipally owned landfills, a paper mill, and a smelting operation. There is no common denominator and it will be impossible to develop an emissions market within the province. Manitoba, Ontario, and Quebec have stated they will coordinate their plans and that is an improvement. However, that still will not produce enough representation within the major polluting sectors. In addition, these provinces, especially Ontario, have hardly distinguished themselves in their fiscal management. Prospects are dim that any provincial jurisdiction can manage such a sophisticated system. Only a national emissions trading program has any hope of succeeding. Indeed, a case exists for the creation of a North American emissions trading program.

The second type of carbon pricing is a direct tax on gasoline and other fossil fuels. Such a gas tax adds the social cost of fossil fuel with in the retail price of fuel, creating an incentive for users to move to more efficient, less polluting transportation and manufacturing technologies. BC implemented such a policy in 2008 and this approach appears to have reduced emissions. Alberta indicates it will follow suit. This policy is administratively simple, since gas taxes have long served as an important public revenue source. The defect with a gas tax is its regressivity (low income users pay proportionately more) and industry argues that it is a jobs killer.

With oil touching $30(US) per barrel, the time is right to implement such a tax with minimal financial disruption to businesses and households. Starting with a small increase, and then following a schedule of steady increases that varies with sector will allow government to manage these defects. Predictability is the key to success to such a tax. This approach fails when governments reverse direction and fossil fuel users believe that they can “wait out” any tax regime.

No one likes a new tax. To make such a levy more palatable, government can earmark the revenues from the gas tax to support renewable low emissions energy technologies. A danger is that governments may reduce existing public support for new energy technologies leaving the net contribution the same.

Most provinces have run out of political runway to introduce any new taxes. Therefore, the lead of BC and perhaps Alberta will likely not induce other jurisdictions to introduce a new gas tax. This must be a federal initiative.

2015 was the hottest year on record. Car sales in North America are very strong, led by the increasingly ubiquitous pick-up truck as consumers respond to the lower costs of fuel. The “disconnect” between the evidence of global warming and market signals requires urgent action, if the Paris agreement is not to evaporate like its predecessors.

The patchwork of provincial policy condemns Canada to failure in addressing climate change and each provinces pursues its own “vision.” The argument that each province needs a unique climate change program to support its unique circumstances is bunk. Federal leadership must overcome the diversity of fragmented and partial provincial approaches. Only with coordinated regulations, support for technical solutions, a national gas tax, and a national emissions trading program has Canada any chance of meeting its Paris commitments.