

Mike Doyle is the President of the CAGC – the Canadian Association of Geophysical Contractors - representing the business interests of the seismic industry within Canada. The CAGC website may be found at www.cagc.ca.

The topic of the day these days seems to be climate change. There is no doubt this debate and subsequent changes in the marketplace will fundamentally change Canada and Canadians as a whole. The call for change is becoming stronger and the media loves a story that has an element of conflict and controversy.

Canada signed up for a 6 % reduction below 1990 levels by 2012 however we currently are at 23 % above 1990 levels. Given our northern climes and relatively rich lifestyle, Canada ranks amongst the top GHG (GreenHouse-Gas) polluters per capita in the world.

The numbers are all over the map however it generally is agreed that consumers contribute about 25 % of the GHG's and Industry the other three quarters. The tie between Industry and the consumer is direct so both groups point to the other group for solutions.

As far as Industries go, electricity and heat as an industry generally comprises up to 25 % of the total; Transportation another 25 % and Oil and Gas with its intensive Oil Sands development comes in at another 25 %. Once again these numbers are all over the map from as low as 15 % into the mid 20's depending upon exactly how the statisticians divide things up.

Nonetheless solutions are slow to come. The EU (European Union) has given its large emitters emission-reduction targets. They can meet the targets by cutting their own emissions or by buying allowances from other companies or by purchasing credits from developing countries. The trade in allowances do not actually reduce emissions but the trade in developing countries does. Such projects must be UN certified. Most do not involve cutting CO₂ emissions but rather more potent greenhouse gases such as HFC. HFC, an industrial gas, has 11,000 times the greenhouse effect of CO₂. Capturing it is cheap – less than \$1 per tonne of CO₂ equivalent. Developing countries have been able to sell these credits for as much as \$24 per tonne due to the insatiable demand curve.

In general European Governments have subsidized these allowances by providing them to Industry for free rather than auctioning them. This has allowed Industry to buy into the scheme but has in some cases Industry has simply passed on the costs to consumers even though they really have no costs associated with the scheme. As well from a public perception standpoint is the fact that billions of tax payer dollars are being siphoned away to developing countries such as China at many times the actual cost of reduction. Finally this system has encouraged no domestic long term solutions such as investing in cleaner power generation.

The concept of a carbon tax is one suggested methodology to encourage local solutions by Industry. Similar to the emissions trading system above, a set of emission-reduction targets could be given to Industry and the failure to meet such targets would cause the imposition of a carbon tax on amounts above the threshold.

Finally Industry prefers to have Governments use methodologies of positive incentives to invoke change. In this case Industry would look to Government to provide incentives to be put towards technological change. Clearly Industry reacts to market signals and it is argued that positive signals are better than negative signals. At the very least they likely afford more protection to the price being passed on to the consumer. For example a tax credit for carbon sequestration seems to be a popular idea these days. Carbon sequestration entails storing carbon underground or underwater. Recent scientific papers suggest that the capacity for this may be virtually limitless however certainly thousands of years of use.

Another positive incentive might be subsidizing the R&D bubble. Generally new technologies are more expensive when brought on however reduce in time as efficiencies are gained. In a perfect system a Government would provide the subsidy in order to keep the cost of the new technology flat-lined with the current cost structure. It would then be removed as the cost comes down. Nonetheless this is a difficult thing to do politically. Often Governments attempt this but in the end leave the subsidies in place forever due to political pressures and in essence change the perplexity of the marketplace itself.

Renewable energy sources comprise a bit less than 15 % of the world's energy use. It is unlikely there will be any great or immediate shift in this percentage however continuous measures to encourage the use of such energy sources will no doubt in time have some effect.

As I write this, the current Federal Government is signaling the release of a new Clean Air Act. Following the recent Auditor General Office's Commissioner of the Environment's report the Federal Government has been pressured moreso by the public and the media to deal with the issue.

CAPP responded publicly to the report with five principles as follows:

1. The oil and gas industry can not be treated any less fairly or any more onerously than any other sector;
2. Programs need to reflect the importance of cost certainty;
3. That technology needs to be factored in as a critical component to any plan;
4. Any targets have to be intensity based; and
5. Legislation has to recognize that natural resources are primarily provincially owned and managed in Canada, so there is a need for a harmonized national/provincial system.

The jockeying by all sides in this debate will be intense over the next year. The Government is in an unenviable position as to finding a balance between reduction and economics that may fall at the feet of the consumer. Given the fact that Governments are reluctant to make themselves unpopular by taxing consumers or constraining companies, there is probably a need for a bit of both..

From the Thursday Files:

If knowledge can create problems, it is not through ignorance that we can solve them.

- Isaac Asimov