

Cutting Carbon: The Heart of a Canadian Energy Strategy

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Shifting social and economic conditions in key export markets are introducing significant new risks to Canada's oil and gas sector, leaving our nation's resource economy exposed. A Canadian energy and climate strategy, led by the Council of the Federation, offers a promising venue and process for mitigating these risks and leveraging new opportunities for the nation in the growing global market for low carbon goods and services. To succeed, the premiers must grab hold of two issues that, taken together, have become the third rail of Canadian energy politics.

When it comes to energy and the environment, Canadians might be forgiven for feeling they're grappling with an acute identity crisis. Are we purveyors of "ethical oil" or "dirty oil?" Are we on track to fulfill our commitments to reduce carbon pollution and tackle climate disruption, or destined to fall short? Are we an emerging energy superpower or a laggard in the accelerating transition to a global low carbon economy?

The debate about how we produce and consume energy, and the implications of these choices on our economy, environment, and the global climate has grown increasingly polarized. Environmentalists have battled oil companies, landowners have scrapped with wind power producers, and government leaders have rattled sabres with their peers, both within and between levels of government.

All this conflict has only served to obscure important signals that should be guiding decisions about how best to address Canada's energy and climate challenges: First, the uncertain eco-

nomics prospects for our carbon-based energy resources, notably, high-carbon oil sands; and second, the significant opportunity to contribute clean energy products, technologies and services to a rapidly growing global marketplace. These signals should inform the ongoing development of an integrated, national climate and energy strategy.

As Canadian political and business leaders have hemmed, hawed, and

juggled a variety of carbon targets and policies, the world around us has been changing. This change stalled during the recession, but is now picking up speed.

In its 2012 *World Energy Outlook*, the International Energy Agency leveled a stark reality check: if the world is to have a 50 percent chance of fulfilling the Copenhagen Accord goal of limiting global warming to 2 degrees Celsius, more than two-thirds of current fossil fuel reserves will need to stay in the ground between now and 2050.

In this scenario, Carbon Tracker and the London School of Economics' Grantham Research Institute on Climate Change have concluded that much of the future value of currently booked reserves could never actually be realized, meaning the companies that own the rights to them are overvalued today, and investors are staring at a "carbon bubble" that, if burst, could have significant market implications.

What might this mean for Canada?

The impacts of the "carbon bubble" bursting wouldn't just hit the TSX (Table 1), it would also impact public

Table 1

Toronto Stock Exchange (TSX)

Key stats

CO2 in listed fossil fuel reserves
33Gt (current) 69 Gt (potential)

Market capitalisation of fossil fuel companies
\$295.8 billion

Capital expenditure of fossil fuel companies
\$52,120.5 million

Debt held by fossil fuel companies
\$86,686.6 million

Top fossil fuel companies

CNQ	Canadian Natural Resources
SU	Suncor Energy Inc.
TCK.B	Teck Resources Ltd.
CVE	Cenovus Energy Inc.
TLM	Talisman Energy Inc.
ECA	EnCana Corporation
NXY	Nexen Inc.
HSE	Husky Energy Inc.
PWT	Penn West Petroleum
S	Sherritt International Corp

Source: Carbon Tracker

revenues from lower-than-expected provincial royalties, and provincial and federal taxes. The oil sands are particularly vulnerable. Despite being the second-largest proven oil reserve in the world, the resource is also among the most costly and most carbon intensive to produce. In a January 2013 brief, HSBC Global Research contemplated the impacts that an “unburnable carbon” scenario would have on oil and gas development. The company concluded that declining demand could depress oil prices, and that capital intensive, high risk projects such as heavy oil and oil sands would be at greatest risk.

But what are the prospects that global action to reduce carbon pollution will actually materialize?

In a March 2013 brief, HSBC Global Research identified five key trends that the company believes will accelerate global efforts to address climate disruption:

- The impacts of climate disruption are both real and costly, and can act as a “threat multiplier” for underlying resource stress (e.g. drought leading to crop failures, leading to social disruption);
- Opinion is changing, with concern about climate change increasing in both developing countries, like China and India, and critical developed countries, notably the United States;
- Economics are aligning in the developing world, as rising fossil fuel imports during a period of high oil prices trigger reductions in consumption subsidies, sending a strong market signal for energy conservation;
- The costs of key clean energy technologies (both on the supply and demand sides) are falling, enabling more climate benefit at less cost;
- A bundle of policy drivers – including changing economic structures, energy substitution via efficiency and lower carbon supply, local air pollution, water stress, and carbon regulation and pricing – will increase the focus on low-carbon growth.

Looking at two of the most influential of Canada’s trading partners, the United States and China, suggests that HSBC may well be onto some-

thing. President Obama used both his 2013 inaugural address and State of the Union speech to highlight climate action as a priority for his second term, challenging Congress to deliver a market-based climate change plan – namely, policy that puts a price on carbon pollution, backstopping his challenge with a promise of regulations should it fail to deliver. Meanwhile, China has made clean energy and climate change a central component of its 12th five-year plan, and this year launched a pilot cap-and-trade system covering seven regions of the country, a system it plans to expand nationally by 2020.

Perhaps even more significantly, China and the United States aren’t just taking these actions unilaterally, they are collaborating. In April, the two nations signed an agreement stating that they “consider that the overwhelming scientific consensus regarding climate change constitutes a compelling call to action crucial to having a global impact on climate change,” and committed to accelerate action to reduce carbon pollution by advancing cooperation on technology research and development, energy conservation, and alternative and renewable energy.

Assemble all these puzzle pieces, and a picture begins to emerge – one of change and transformation. To put it simply, it would be fiscally imprudent to plan our economic future around an assumption that, when it comes to climate policy, leading economies and customers will continue to sit on their hands.

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In its final report, the National Roundtable on Environment and the Econo-

my (NRTEE) stated: “The future is low carbon. Economies the world over are making the transition. Canada’s actions today on climate, energy, trade, innovation, and skills will shape its economic prosperity for decades to come.” The world has already begun thinking about energy in new ways, focusing on energy technologies and services rather than just energy commodities. The International Energy Agency suggests that the low carbon goods and services market is rapidly growing: valued at \$339 billion in 2010, in an emissions-constrained scenario the market could reach \$8.3 trillion by 2050 – an annual growth rate of eight percent. Clearly, carbon reduction can’t simply be considered a burden – there is also immense opportunity.

As the NRTEE report found, Canada is well-positioned to compete in the global low carbon goods and services marketplace in a carbon-constrained scenario, increasing employment from 42,000 in 2012 to 159,000 in 2050, and increasing expenditures from \$7.9 billion in 2010 to \$60 billion by 2050 (a growth rate of 5.6 percent). Further, and of note given the tension around the geographically concentrated nature of Canada’s fossil fuel reserves, our clean energy opportunities are well-distributed across the country (Figure 1).

But Canada is lagging behind other nations in re-orienting our economy to capture a greater share of this opportunity. In its 2012 edition of *Who’s Winning the Clean Energy Race?*, produced by Pew Charitable Trusts and Bloomberg New Energy Finance, Canada’s year-over-year ranking slipped from 11th to 12th in the G20 (down from 8th in 2009). A 2013 study by the Pembina Institute interviewed more than 20 leading clean energy entrepreneurs, executives and academics to hear firsthand the challenges they face, and solutions to overcome them. Their challenges fell into two broad themes: a lack of stable, long-term government policy, and difficulty accessing capital. The study concluded that there was a clear role for government policy to unleash Canada’s clean energy sector, and made numerous recommendations, including the need for a national energy strategy and putting a price on carbon pollution.

Efforts to develop meaningful solutions to both our energy and climate challenges are falling short precisely when we need to be making eyes-wide-open choices. One of the key snags is the fact that we are trying to address questions about our energy system and climate disruption as separate portfolios when they are inextricably linked.

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der the Kyoto Protocol and now under the Copenhagen Accord – have spanned decades but delivered little. Stymied by both intergovernmental and ideological disputes, we are presently left with a slowly emerging federal “sector-by-sector” regulatory

approach, overlaid on a patchwork of provincial policies of varying form and ambition.

This inefficient approach has not yet put our country on a track to achieve our 2020 carbon pollution reduction

Figure 1: Low-Carbon Strengths and Opportunities Identified by Stakeholders



Source: National Roundtable on the Environment and the Economy, Framing the Future: Embracing the low-carbon economy (2012).

target, and appears unlikely to do so. Contrast this with the United States, which shares the same target but is actually poised to meet it. Again, at the federal level and in many provinces, energy ambitions and climate obligations appear to each be considered in isolation.

However, the Council of the Federation – an institution comprised of the country’s premiers – is leading an effort to develop a Canadian energy strategy that, among other things, aims to deliver “a more integrated approach to climate change, reducing greenhouse gas emissions and managing the transition to a lower carbon economy.” In essence, the premiers have articulated a clear mandate to deliver a climate and energy strategy. Might the premiers succeed where numerous political leaders – both federal and provincial – have failed?

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To succeed, the premiers must grab hold of two issues that, taken together, have become the third rail of Canadian energy politics:

- 1) Using carbon pollution pricing as the most transparent, economically efficient policy option, and
- 2) Determining how the costs and benefits of implementing such a policy will be distributed.

In developing a Canadian energy strategy, the Council of the Federation has a unique opportunity to both mitigate carbon risk and unlock low carbon opportunities. Ultimately, any such strategy should enable provinces and Canada as a whole to strengthen and diversify our energy system, not to legitimize business-as-usual.

While the use of carbon pollution pricing – whether through a carbon tax or a cap-and-trade system – has become a political football in the House of Commons, the premiers would be unwise to dismiss it out of hand. Not only are such market-based policies preferred by economists, they have also been supported by a broad spectrum of individuals and organizations, from Preston Manning to David Suzuki, from the Canadian Council of Chief Executives to Greenpeace. Further, the vast majority of provinces have, individually, expressed an interest in carbon pricing, and a number of them have already implemented various policies that do just that.

The distribution of costs and benefits is perhaps a more challenging question as it often triggers suspicions about ulterior motives to redistribute wealth from one province to another (harkening back to the much-reviled National Energy Program). As the Canada West Foundation noted in 2007 in *Getting it Right: A Canadian Energy Strategy for a Carbon-Constrained Future*, the load must be shared by “...being balanced across sectors, not focusing on a single industry or source of emissions, and taking into account both production and consumption as sources of GHGs.” If Canada is going to make an effective, economically efficient and truly national effort to reduce carbon pollution, then we must overcome regional distributive conflicts. The Council of the Federation offers our premiers a venue to do precisely that.

Fortunately, there are several examples from elsewhere that they can draw from to develop their approach:

- The United Kingdom has developed a Low Carbon Transition Plan premised upon a national climate and energy strategy, and established a federal ministry of energy and climate change;

- The Council of the Australian Federation, comprised of all states and territories, not only supported coordinated national action on climate change, but in the absence of federal leadership designed its own emissions trading system and committed to implementing it if the federal government would not; and
- In designing and implementing its emission trading system, the European Union developed an underlying Effort Sharing Agreement to address the issue of distributing costs and benefits among member countries.

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In the final accounting, the success of a Canadian energy strategy will hinge on the extent to which it both reduces carbon pollution and positions Canada to compete in the low carbon, clean energy future, an economic reality and global opportunity that looms larger every day. **P**

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