



CANADIAN GLOBAL AFFAIRS INSTITUTE
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Energy Order: Superpower, Climate Leader or
Land of Myth?**

by Michael Cleland

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POLICY UPDATE

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CGAI Fellow
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In the international energy order of the 21st century, energy and climate change are inextricably connected both internationally and domestically. How we deal with both has big impacts on the economy and domestic political relations as well as on our international reputation (and the word order matters). Energy is a service that everyone values; greenhouse gas emissions and climate change are consequences. The challenge is how to deliver the service while managing the consequences and when we turn this on its head, we get it wrong.

Canada, as almost everyone knows, stands out for one simple reason: our enormous and diverse reserves of energy resources from oil to gas to uranium to renewables, notably hydro power. Due to these resources, we are known for our reliance on energy production and exports as a key driver of our national economy. But in a world which is at present well supplied with energy and tied as we are to one oversupplied external market, we are no superpower nor will we ever be one. We are an energy-intensive country for a variety of reasons. But we are neither a particularly notable contributor of greenhouse gas emissions nor a particularly threatening source of future emissions growth, however much some of our domestic activists and a few external commentators choose to ignore the facts.

Canada's energy system faces what may be unprecedented pressures. Several of the conditions in present and future markets add up to tough circumstances for Canadian energy producers and deliverers of all sorts. Canada is increasingly challenged to compete in our existing markets and faces uncertainty regarding comparative advantage in new energy products and services. Rapid technological change, including the convergence of energy and information technologies, presages potentially disruptive change at the consumer end. Climate policy and the Paris agreement call for decarbonization at a pace of change unprecedented in the history of the modern energy economy. Canada has never had a greater need for a widely shared story about who we are and where we think we might be going on energy – a narrative rooted in facts, common sense and political and economic reality.

Instead, the discourse is dominated and has been for years by myth which has grown into two contending and irreconcilable narratives. One can take some comfort perhaps, but not much, from the fact that this propensity for arm-waving and wishful thinking is multi-partisan and multi-regional.

The energy superpower idea was always silly based on any realistic assessment of what “power” actually was. Worse, those focused on the contending climate narrative perceived it as an affront because of the way it was presented. What might be called the conservative energy narrative has now emerged in the electoral arena in the form of a headlong rush toward the last century, which will serve us well neither domestically nor in a global context. The alternative myth was the notion that an energy-intensive, resource-based economy with huge fossil fuel resources could somehow be a world leader in the quest for energy decarbonization. Through successive governments going back to the early 1990s Canada has attended international meetings and signed on to greenhouse



gas reduction commitments that clashed with its political and economic circumstances. The results (think of the “f” word – failure) would not surprise any knowledgeable observer.

Where is this likely to take us?

Small-c conservatives will likely continue to beat their heads against public opposition to energy projects. How much opposition, you ask? As American activist Jerry Rubin once said about public opposition to the war in Vietnam: “Enough, enough”. Those same conservatives will, with increasing justification, fret about the cumulative effect of Canadian policy, regulation and public activism on investor confidence. But at the same time, and for the crassest of political reasons, they will repudiate the one truly conservative policy for dealing with the substance of the climate issue and Canada’s international credibility – straightforward carbon pricing.



Figure 1: World leaders pose for photographs during the COP 21 conference in Paris, France. (Source: EPA)

Progressives meanwhile will fixate on a 2030 greenhouse gas commitment that is out of reach and the pursuit of which will distract us from the real challenge – the fundamental transformation of the energy economy required to mid-century and beyond. Many will also fixate on the supply end of the energy system, (in a weirdly ironic way, mirroring the failed anti-drug campaigns of recent decades) despite the fact that it won’t make any real difference to the world climate. However, they will do this because it is easy to target and politically safe for those who feel they can dismiss the far-reaching economic consequences of hobbling a regionally and nationally important industry or the reputational consequences for energy and resource development. Meanwhile, well-intentioned attempts to create a more inclusive decision-making process are likely to make the process less objective and evidence-based, more political and hostage to the loudest and most



persistent of a few self-appointed guardians of public morality who do not reflect broader public opinion.^{1 2 3}

The two narratives will contend in the public arena, thwarting each other's objectives. It is not at all implausible that we could end up achieving the worst of both worlds. The combined effects of turbulent public policy could well produce an energy investment climate that most prudent investors will avoid when there are so many alternatives around the world. The result would be negative consequences both for the energy-producing economy and for the integrity of the energy delivery system. Continued weak and ambiguous efforts on climate – especially in the face of upcoming probable electoral outcomes in Alberta and Ontario – based on tenuous public support, could combine with a failure to focus on the institutional innovation essential to long-term transformation. This could leave us some years from now trying to talk our way out of yet another failure.⁴

The alternative is a narrative that has been begging to be more clearly articulated and more broadly adopted for many years. Call it the three C's narrative: customers, citizens and communities.

Let's start with international customers.

One argument against Canadian fossil fuel production or its expansion is that the world market is going green and clean at such a pace that it will leave investors hung out to dry and a Canadian landscape littered with unutilized infrastructure. Another argument is that Canadian production, notably from the oilsands, is a unique threat to the climate.

The first argument should be the primary purview of investors. As long as these projects are not funded from the public purse, then it is investors who need to consider the risks in future markets, taking full account of potential carbon management policies in the global context. If these are poor investments, then investors will suffer for it; they don't need someone else to make that decision for them. And in any event, regulatory processes for facilities like pipelines demand that those investors demonstrate they are acting prudently.

The argument about Canada's unique threat to the planet is simply unconnected to the facts and unworthy of the debate or its participants. Canada's combined oil and gas (upstream plus refining

¹ Parliament of Canada, 2018, An Act to enact the Impact Assessment Act and the Canadian Energy Regulator Act, to amend the Navigation Protection Act and to make consequential amendments to other Acts (Bill C-69. First reading. February 8). Accessed on May 28th 2018 from <http://www.parl.ca/DocumentViewer/en/42-1/bill/C-69/first-reading>

² Michael Cleland and Monica Gattinger with Rafael Aguirre and Marisa Beck, 2018, *Durable Balance: Informed Reform of Energy Decision-Making in Canada*, Ottawa: University of Ottawa (Positive Energy).

³ Nanos, 2018, *A majority of Canadians think it is possible or somewhat possible for Canada to develop its energy resources while protecting the environment but think Canada is doing a poor or very poor job at balancing concerns of communities and building public confidence in energy projects*. April 2018 Submission 2018-1169. Toronto and Ottawa. Nanos Research. Accessed on May 28th 2018 from https://www.uottawa.ca/positive-energy/sites/www.uottawa.ca/positive-energy/files/2018-1169_positive_energy_march_omni_-_populated_report_with_tabs.pdf

⁴ Abacus Data, 2018, *Perceptions of Carbon Pricing in Canada. A Survey of 2250 Canadians (February 2018)*, accessed on May 28th 2018 from: https://ecofiscal.ca/wp-content/uploads/2018/04/Ecofiscal_Polling_February2018_FINAL_RELEASE.pdf



plus fugitive emissions) industries and mining produced in 2016 a reported 172 MT⁵ of greenhouse gases. That figure is approximately 25 per cent of Canada's total emissions, which were in turn about 1.9⁶ per cent of world emissions in the same year. The oil and gas industry is witnessing a fast pace of innovation respecting both costs and greenhouse gas intensity. Recent reports suggest that greenfield Canadian oilsands producers can be cost-competitive with U.S. rivals while operating at GHG intensities as good as or better than the world average. For example, a Canadian Energy Research Institute study in 2017 demonstrated that the oilsands sector can reduce its GHG emissions and production costs by 80 per cent and 46 per cent respectively.⁷ Even with extensive production growth, policies, prices and regulations in place combined with private sector innovation and cost management will make it likely that Canada's oil and gas emissions might by 2030 amount to something considerably less than one-half of one per cent of world emissions. While Canada still needs to do its part – and this leaves us with challenges respecting our 2030 target – this contribution will make little difference one way or the other to the world emissions total.

OK, but are we not contributing to world emissions by somehow aiding and abetting fossil fuel demand growth (the drug dealer argument)? Economists going back at least to Adam Smith have pointed out that demand calls forth supply, not the other way around. So what if we looked at the customers in Shanghai, Mumbai and Bangkok, or for that matter in North American or European countries?

The International Energy Agency is a generally reliable source for what is happening to demand, and its World Energy Outlook (WEO)⁸ provides a pretty solid foundation. The WEO takes a scenario approach that includes current policies, new policies and measures, and a more assertive approach on environment and conservation focused on sustainable development. In the first two of these, demand for fossil fuels increases out to 2040 even while the demand for renewable energy also increases. In the sustainable development scenario, fossil fuel demand decreases but not as much as one might expect. Oil demand drops to 73 million barrels a day from 97 million today. Natural gas demand is unchanged and coal drops by half.

However, the sustainable development approach faces a very steep climb and some statistics are staggering. Globally, there are still over one billion people without access to electricity and over 2.5 billion people without access to clean energy for cooking. This suggests that development will continue to create upward pressure on energy demand of all types. The vast majority of private investors assessing the overall market outlook will place their bets on continued demand growth, including for petroleum-based transportation fuels out to 2040. The change in energy consumption and emissions varies internationally with declines expected in Europe, the U.S. and

⁵ Environment and Climate Change Canada, 2018, *National Inventory Report. 1990-2016: Greenhouse Gas Sources and Sinks in Canada. Canada's Submission to the United Nations Framework Convention on Climate Change* (Executive Summary, Page 9), Accessed on May 28th 2018 from <https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/emissions-inventories-reporting/nir-executive-summary/National%20Inventory%20Report%20Executive%20Summary%202018.pdf>

⁶ <http://edgar.jrc.ec.europa.eu/overview.php?v=CO2andGHG1970-2016&sort=des8> European Commission, Emissions Database for Global Atmospheric Research, accessed May 17, 2018.

⁷ Canadian Energy Research Institute, 2017, *Economic Potentials and Efficiencies of Oil Sands Operations: Processes and Technologies* (Study no. 164), Calgary. Accessed on May 28th 2018 from https://www.ceri.ca/assets/files/Study_164_Full_Report.pdf

⁸ International Energy Agency, 2017, *World Energy Outlook*, Paris.



Japan, and increases throughout the rest of the world, particularly in Asia. Interestingly, declines in greenhouse gas emissions are mostly a result of lower emissions from electricity systems, where Canada has been taking a very active approach. The body of evidence to date shows no overall decline in fossil fuel use or energy use generally. (Notably and discouragingly, the IEA indicates that world 2017 carbon dioxide emissions have increased 1.4 per cent compared to no growth in the previous three years). In all the scenarios, increased energy efficiency will dominate system change, with renewable sources and natural gas assuming a much larger share of the market. Petroleum products will still be very much in demand.

The critical point in all of this is that the customers and their governments in various regions of the world are going to determine the pace and nature of change. If Canadian supply is unavailable to meet their needs, it will be met from other sources, many of them associated with poor environmental and human rights practices in comparison to which Canada is a model world citizen. Much more of our attention should be on those customers, not only because it is their decisions (and our reputation in their eyes) that will matter the most, but because they may surprise us one way or the other and we don't want to get caught flat-footed.

In Canada the energy and carbon intensities of the economy will in all likelihood continue to steadily decline.⁹ Looking out to 2040, Canadian customers will likely demand less energy in total, driven by changes in the structure of the economy and our communities and the efficiency with which energy is used. More and more of that energy will come from “clean” sources.

The really important point is that customers will continue to demand the amenity afforded them by energy systems – including basic functionality (such as comfort, mobility or access to entertainment, information and social interaction) – delivered safely, reliably and secure from disruption or threats to privacy. They will be sensitive to anything that compromises the affordability of that amenity value. These are energy basics and they have to be the starting point for any rational energy debate, and in particular one that holds out any hope of meeting greenhouse gas objectives.

Citizens are not the same as customers. Even though they are often one and the same person they may have different priorities which may be contradictory and will leave policy-makers struggling to reconcile those contradictions. Citizens will often express a wish that Canada meet its greenhouse gas reduction objectives. But based on the experience of energy project developers, regulators, energy delivery agents, and on research done for the University of Ottawa's Positive Energy project, when citizens are faced with a choice, less abstract environmental and cultural values will most often prevail. All energy options – whether low greenhouse gas-emitting or not – will be evaluated against those values. And should citizens be confronted with challenges to

⁹ See www.conferenceboard.ca/hcp/Details/Environment/energy-intensity.aspx in which Canada is compared with other OECD countries looking back year by year from 1971 to 2009. Canada's energy intensity declined by 39% over that period and both energy and carbon intensity have continued to decline since.



what they seek as customers, the customer will most often carry the day.¹⁰ A focus on customers is a necessary complement to a focus on citizens and we have to deal with both.



Figure 2: Gas prices at a refuelling station in the outskirts of Vancouver. As the author notes, many Canadians have different priorities as citizens than they do as customers. (Source: Dan Ferguson/Langley Times)

The third “C” is communities, the places where those customers and citizens live. Much recent controversy has centred on how communities have mounted opposition to energy projects of all sorts as well as insisting that they be more fully engaged in the decision processes. It is unclear that much of this opposition truly reflects a consensus of the affected communities. Not enough attention has been given to whether those community representatives speak for a large constituency. (We have seen vocal opposition in the media being disconnected from survey results of the “silent majority”). How do we reconcile those differences? More attention needs to be given to how communities can be constructive contributors to the energy debate and how responsible, thoughtful local authorities can act to help reconcile those competing priorities of customers and citizens.

Still less attention has been paid to the potential for local communities to be economic beneficiaries from all sorts of energy development. A particularly destructive aspect of this oversight concerns Indigenous communities for whom energy and resource development may be

¹⁰ Michael Cleland, with Stephen Bird, Stewart Fast, Shafak Sajid and Louis Simard, 2016, *A Matter of Trust: The Role of Communities in Energy Decision-Making*, Ottawa, University of Ottawa and Canada West Foundation.



virtually the only source of economic advancement. Many examples can be found in Canada of how Indigenous communities, having come to terms with energy development, have prospered and laid much firmer foundations for taking charge of their own destinies.

More broadly, and a potentially massive factor for the future, is how communities can take charge of their energy destinies through including energy as a component of community planning and development just like land use or other services. What colleagues at QUEST call “smart energy communities” are becoming mainstream in Canada, finding ways to improve the efficiency of their systems both at end use and delivery, as well as exploiting multiple means of energy service delivery based on local sources, most of them renewable.¹¹ That is where the future of a low-carbon Canada is to be found. It will take time as the economy and communities gradually evolve, but it can be truly sustainable, ensuring that customers’ needs get priority and that those needs are met while fully respecting citizens’ interests and values.

Canada has the potential to make good progress across the three C’s, using that as the basis for an energy narrative which could act as a counterweight to the divisive and destructive discourse that seems to be dominating the debate today.

A constructive view of our energy export economy should start with a realistic view of where international customers are going – more efficient, preferring cleaner sources, but still needing a significant supply of oil and especially natural gas for some time. This should be combined with a pragmatic perspective on our ability to competitively supply some of those needs and why it is fully morally justifiable that we should do so.

A constructive view of domestic customers would recognize that they too will be looking for attributes of “efficient” and “clean” in acquiring their energy services and they will learn to live with carbon prices even if they never learn to like them. But above all, the system must deliver amenity and affordability. Abstract ideas of doing good for the planet will, for most of us, be found in the “nice to have”, not the “essential” column. Citizens nationally and provincially will complicate the narrative. They will place more emphasis on environmental and cultural values, sometimes stumbling on contradictions of their own making with demands that are difficult to reconcile with customers’ wishes.

A constructive view of how to move to a low-carbon economy – ensuring that Canada’s 1.9 per cent of global greenhouse gas emissions is placed on a steady downward trajectory – would recognize that these efforts will need to occur in real places inhabited by real people with real aspirations to economic security and many competing investment priorities. This is where we find many of the tradeoffs that much of the current discourse simply chooses to ignore. Citizens in their communities acting as responsible civic actors will be able to do some of the necessary balancing and they should be called upon to do so and assisted through various public policy measures.

¹¹ QUEST (Quality Urban Energy Systems of Tomorrow): <http://www.questcanada.org>



This is a narrative that avoids gratuitously pitting one region against another. It does not meet the 2030 commitment under the Paris agreement (which is of no material consequence except to some political pride) but it does potentially build the conditions for fundamental, sustainable change by mid-century. It recognizes that energy development of various sorts can create many different economic opportunities in both remote and urban communities. It also recognizes that none of that will come about without the hard work of engaging local citizens and assiduously ensuring that the system always lives up to the expectations of the majority of both citizens and customers. It can be done. It is being done in Indigenous and non-Indigenous communities and the list of success stories is long and getting longer.

What if Canada set out to build an energy narrative of this sort, leaving the ideologues from both extremes to have their say but no longer completely owning the debate? While the ideologues may own much of the electoral debate, a lot of room remains for the engaged stakeholder community covering a wide range of interests to work together to frame a more centrist narrative and accompanying policy implications. Such a narrative, widely enough shared, could create political space for the implementation of practical, achievable policy measures. The payoffs for economic success, political civility and international reputation could make the effort well worth it.

► About the Author

Michael Cleland is a private consultant with extensive experience in energy and environment policy. He is Senior Fellow with the University of Ottawa and a member of uOttawa's Positive Energy research team', Chair of the Board of Directors at the Canadian Energy Research Institute, a member of the Board of Directors of QUEST (Quality Urban Energy Systems of Tomorrow) and Fellow at the Canadian Global Affairs Institute. In 2015, Mr. Cleland was named Canadian Energy Person of the Year by the Energy Council of Canada. He is formerly President and CEO of the Canadian Gas Association, Senior Vice President, Government Affairs for the Canadian Electricity Association, Assistant Deputy Minister, Energy Sector at Natural Resources Canada, and Director General of the Energy Policy Branch. From 1987 to January 1990, he was Assistant Director, Resource Policy Division in the Department of Finance. Before joining the federal government, Mr. Cleland was a private consultant who also lectured in business – government relations at Dalhousie University. Prior to that he worked in various capacities with the Nova Scotia Departments of Development and Municipal Affairs. Mr. Cleland was educated at the University of British Columbia (BA in political science 1972) and Queens (MPL urban and regional planning 1974).

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