



Energy in Canada @150 and Beyond A New Energy Future for Canada?

By Michael Cleland

One in a series of papers prepared by Canadian energy sector leaders – at the invitation of the Energy Council of Canada – exploring key aspects of our ongoing national energy story on the occasion of the 150th anniversary of Confederation.

Summary: Michael Cleland reflects on whether Canada has an energy decision system that mirrors today's realities and that is capable of dealing with tomorrow's challenges, given the complex interplay of policy, planning, regulation and a growing cast of active participants from federal, provincial and territorial governments; to Indigenous and municipal governments; and a wide range of private stakeholders. He opines that the growing list of controversies and confrontations associated with decisions on major energy projects indicates that Canada has some work to do.

For about half of the 150 years since Confederation, energy has been one of the principal economic drivers in Canada. This fact is manifest not only in the fossil-fuel endowed West, but in the East Coast offshore, in several hydro-power endowed provinces, through Canada's unique nuclear technology, and through the benefits of low cost, secure, reliable energy to sustain our society. What about the next fifty years?

If we take seriously our political commitments on climate change we are looking at radical changes in the way we use, and especially, produce and deliver energy. The scale and nature of the effort needed to make those changes poses challenges for Canadian energy vastly greater than any we

have faced to date. At the heart of those challenges is a complex energy decision system involving policy, planning, regulation and a growing cast of active participants from federal, provincial and territorial governments, to Indigenous and municipal governments, to a wide range of private stakeholders. Do we have an energy decision system that reflects today's realities and tomorrow's challenges? Based on the growing list of controversies from one side of Canada to the other, and touching everything from pipelines to power plants of all sorts, we have some work to do.

Beyond a Few Fixes

Leave aside for the moment whether the changes contemplated in Canada's Paris commitments are practical under any circumstances; the energy decision system is in need of reform no matter what it is we want to accomplish and a few "fixes" to energy regulators will fall far short of making it right. It starts with society and its expectations. As illustrated by the evidence in several case studies recently undertaken by the University of Ottawa's Positive Energy Project and the Canada West Foundation, Canadians no longer accept that energy decisions should be made solely by central governments. Governments are not trusted; deference to authority has steadily declined. At the same time tolerance for risk has



sharply declined even as the risks appear ever more complex and difficult to understand. New authorities have stepped up and claimed a place in the decision system. Both Indigenous governments and municipal authorities are increasingly engaged in thinking about energy and expecting that their voices will be an important part of the process. A recently released report from the University of Ottawa¹ explores some of the implications of these trends.

Meanwhile, the issues keep getting more complex. Some Canadians are coming to grips with the fact that the low cost electric power may be a thing of the past. The effects of rising costs both on economic competitiveness and on fairness for low income citizens have emerged as a central issue, most prominently in Ontario. Our case studies revealed consistently across Canada that local and regional environmental and social issues dominate community attitudes, and that addressing those is the sine qua non of community acceptance. Virtually every type of energy project – pipelines, fossil power plants, hydro projects, nuclear projects, wind farms – faces often intractable local opposition. On the other side of the coin, where there may be support for projects, many communities are insisting that they have a direct economic stake in those developments as well as a meaningful role in the decision processes. All of this has led to decision processes becoming longer and more costly as well as much more unpredictable with growing negative consequences for how Canada is perceived as a destination for investment.

¹ System Under Stress: Energy Decision Making in Canada and the Need for Informed Reform by Michael Cleland and Monica Gattinger

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In parallel, a variety of forces including technological change have utterly changed the communications environment. We now live in a world where insurgents can dominate the public discourse and often carry the day in political processes. Facts, evidence and logical argument compete, most often unsuccessfully, against opinion and “alternative facts” constructed to sustain the biases of those participating in any given discussion. Complexity and expertise are met with suspicion (at best) and hostility as often as not.

Against that backdrop we are now beginning to debate what it would mean to fundamentally transform the energy economy to a very low carbon configuration and to do so in a time frame of around 30 years. Recall that we have been discussing climate change for just about 30 years. Despite that, emissions trends are nowhere close to the steady and steep downward trajectory contemplated by our Paris commitment. We are only on the cusp of screwing up the political courage to actually price carbon across the economy and still uncertain that we can do so without fundamental harm to our national competitive position, a question under debate by economists and business analysts with positions and opinions as diverse as Canada itself.



Informed Reform

My colleagues and I at the Positive Energy Project refer to what is needed as “informed reform” of the energy decision system. If this idea has any meaning at all it will need to start with a much deeper, more widespread and better informed debate about energy in Canada. Note, that is a debate about energy not just climate change. There is a long list of potential questions of which the following is just a sampler.

Can energy development continue to be an economic driver in the world of 2050 if many of the sources of our comparative advantage are deliberately set aside for one reason or another?² Should they be set aside at all when no other fossil fuel endowed economy in the world is doing likewise, or rather managed more carefully to reduce local impacts and carbon intensity? Where are Canada’s realistic opportunities to benefit economically from the emerging low carbon energy economy? In a system based primarily on renewable sources can Canada count on a stable, secure, low cost energy system as one of its major economic advantages in the coming century? How much can we reduce the energy intensity of our economy while maintaining economic competitiveness, particularly in the natural resource sectors such as minerals, agriculture, fisheries and forestry not to mention energy itself? What are the implications of potentially tripling (yes tripling and maybe more) the size of our electric power system at the same time that

² Exactly what will be our sources of comparative advantage in the coming years and which traditional energy sources could be pushed aside is by no means clear. Oil sands are the most obvious target. But many low carbon sources are also in question. Large scale hydro is hugely controversial and not

we drive to zero carbon electricity? How much of our energy system can be based on local actions such as increasing efficiency, better land use management, and development of local sources?

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All of this in turn will need to rest on an energy decision system that looks very different from today. We see at least three major areas of reform.

A Rethink in Three Parts

We need to rethink the relationship among three parts of the system: policy, planning and regulation. All of these are in need of reform. One reform is to build a more coherent policy system, one that today can fairly be described as often feckless, characterized by goals and commitments most often unmatched by commensurate action and sometimes inducing actions that are ill thought through, precipitate and harmful. Another is to build a planning system that today is underdeveloped and is difficult to reconcile with an otherwise successful market system but which will be an essential underpinning of any ambitious transformation based on broad-based public support. The third is to rebuild trust in the regulatory system, particularly by restoring its ability to act independently and objectively,

obviously “cheap” as we used to call it. Nuclear power is at least as controversial and probably even costlier. Natural gas attracts great controversy, especially when associated with hydraulic fracturing and LNG and some municipal governments want to get rid of it all together.



making decisions that reflect the general direction coming from the policy and planning systems (where political accountability needs to rest) and based on evidence and trusted procedure without late in the game “guidance” from political actors.

We need to rethink the “role of local”. Local governments, both Indigenous and municipal, will have an important role both influencing energy decisions and in some cases being the deciders. But what is that role exactly? Much energy infrastructure has impacts and implications that extend far beyond any local community or even region. So where does local authority begin and end in any realistic scenario for the future? What is the unique role of Indigenous governments based on their distinctive legal position in the context of the Canadian constitution? To what degree can any community’s energy service needs be met by local actions? How can we build community energy planning capabilities and the human resource capabilities that need to underpin them so that they are compatible with the greatly increased responsibilities envisaged by many local leaders?

Finally, we need to rethink the role of citizens in energy decisions. Citizens are demanding a bigger say. But it remains to be seen whether they have the patience for the investment of time and effort needed to carry out that role constructively. How can policy, planning and regulatory processes be constructed so as to realistically engage citizens in ways that are seen as fair, open and real at the same time that decision processes reach timely conclusions without adding inordinately to risk for investors? How do we build the sophisticated energy information systems that would be consistent

with a 21st Century decision-making environment?

Distinctive Challenges and Advantages

These are all big questions and they contain within them a multitude of contradictions and inherently incompatible requirements. If they were easy we would have dealt with them long ago and it serves no purpose at all to simply blame the politicians who, after all, are reading and trying to respond to the public mood while balancing many competing priorities including the need for fiscal prudence.

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Canada has a distinctive set of challenges in the energy business and they are the stuff of much public debate, albeit much of it ill informed or given to glossing over the tough questions in the hope that they will somehow go away or be overtaken by events. But Canada also has several advantages. Although the system is often described as “broken” we should also be realistic about what isn’t broken. Many of our regulatory systems, by world standards, are sophisticated and well managed, based firmly on the rule of law and able – to this point at least – to arrive at broadly accepted decisions even if the process is getting ever more painful and protracted. We have a multitude of energy options, renewable and otherwise that we can build on to sustain cost competitive and secure energy systems while moving steadily to lower carbon emissions. We have world leading, environmentally and socially responsible companies across the energy spectrum. We have a variety of organizations engaged in research and other actions aimed at innovation,



and a population of capable professionals whose energy and imagination can underpin the sorts of actions that we need to take.

Above all we have the beginnings of a dialogue. Indigenous citizens and their governments are at the table as full partners, being treated respectfully and seriously as constructive participants. At the local level there is a growing movement toward community energy planning and smart energy communities. This sort of dialogue is going to pose some tough challenges for senior governments. It will require investment in politically unrewarding things like public processes and energy information. It will force them to come to grips with the gulf between climate commitments and energy realities. And it will force them to focus their attentions on setting frameworks, relinquishing control over individual investment decisions and leaving ever more of them in the hands of independent regulatory authorities, local authorities and private investors.

If we invest now in getting our systems right the challenges of the 21st Century energy economy will still be tough. We need to be realistic about that. But Canadians have dealt with tough challenges in the past and if we reflect carefully on our past experience we will notice that we have done so based on systems and institutions that reflected Canadian capability, Canadian interests and Canadian values. That makes a good starting point for getting to 2050.

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