

# **The Business Case for an Energy Information and Research Organization in Canada**

## **Part 1: Strategic Vision and Value Added Services (Sep 2015)**

### **INTRODUCTION**

Most Canadian energy professionals dealing with research projects note the lack of accurate, timely and comprehensive data or any source of regular, consistent analytical work encompassing the whole energy economy. Project reviews before regulatory organizations often generate debate amongst interested stakeholders. Pre and post assessment of policies are inconclusive and allow for no education of policy makers for the next iteration. Governments sometimes disagree on the facts when other political objectives are important. Issues surrounding the operation and development of energy supply and those that focus on changing demand dynamics can be resolved more effectively if all parties to a particular issue can agree on the facts.

We have a gap in Canada when it comes to available facts. What facts do exist are collected within a narrow scope of the overall energy supply and demand sector and have varying degrees of accuracy and precision. It makes it difficult for business, government and other stakeholders to make evidence based decisions. This paper looks at the need for an organization with a mandate to provide a Canada-wide data and research service to which all stakeholders can refer. This discussion focuses on the need and services, further documents will scope a development plan and resource requirements should interested parties endorse this strategic vision.

### **THE NEED FOR AN ENERGY INFORMATION AND RESEARCH ORGANIZATION**

“Finding information about the Canadian energy industry is easy – if you go to the U.S.” This headline is from an article in the Financial Post magazine dated June 19, 2012 by Jameson Berkow. The headline sums up the situation we face in Canada. There is no comprehensive data repository of the energy industry in Canada.

In a March 2014 report on renewable energy to Natural Resources Canada, the Canadian Industrial Energy End-use Data and Analysis Centre concluded “many questions remain

about the extent and nature of renewable energy production in Canada”. They attribute this challenge to a lack of data and analysis of this evolving sector.

These two examples exemplify data and analysis challenges related to the energy sector in Canada. Relying on information and research from the U.S. Energy Information Administration (EIA) has been the default option of most energy analysts in Canada for many years. However, this limits the effectiveness of understanding issues because the EIA’s data collection and research agenda is driven by the requirements of U.S. federal and state governments and other American stakeholders.

Issues that demonstrate the need for an organization assessing the Canadian energy industry from a Canadian perspective include:

- The economic costs and benefits of the Energy East project
- The potential impacts of a crude oil spill off the BC coast served by the Northern Gateway pipeline
- Nuclear energy investments in Ontario compared to renewable energy options as a means of addressing climate change
- Off shore investments in oil and gas off the coast of Newfoundland and Nova Scotia
- The economic costs and benefits of energy developments in Northern Canada

None of these issues would be considered by the U.S. EIA because these debates are exclusively Canadian. These issues are difficult policy and business challenges, made even more so by the lack of agreed on facts.

The need for a Pan-Canadian organization holding a similar position in this country that the EIA does in the U.S. has been noted formally at least twice in the recent pass. In 2012, the School of Public Policy at the University of Calgary published a report urging the creation of Pan-Canadian Energy Information Organization (CEIO). In that report authored by Michal Moore, the argument is made that such an organization would address the *“need for accurate data collection... ..to cut through the tangle of overlapping jurisdictions that confuse present attempts to understand the Canadian energy sector as a whole”*.

Also in 2012 the Standing Senate Committee on Energy, the Environment issued a report on the energy sector in Canada. One of its recommendations was to establish a Canadian

Energy Information Agency (CEIA). The quote from the report dealing with this matter is reproduced below.

***It's Time for a Canadian Energy Information Agency***

*The committee considers it a key priority for the federal government, along with interested provincial and territorial partners, to consolidate energy information from existing sources and establish a Canadian Energy Information Agency modeled after the U.S. Energy Information Agency. The proposed Agency would be national in scope, with a mandate to collect, analyze and disseminate independent energy information to Canadians, policymakers, and various energy stakeholders. It would also provide systematic lifecycle analyses.*

Clearly, numerous parties in Canada recognize the need for such an agency to assist with energy debates between business/governments, between governments in Canada and internationally. Within Canada there are numerous examples of project specific debates that would benefit from unbiased and relevant data and analysis. This need is reinforced by the Canadian Energy Strategy. Released in July 2015, the strategy documents the commitment of provinces to work collaboratively to resolve energy issues.

Interestingly this document is footnoted with references from the U.S. EIA and the International Energy Agency (IEA). Canadian specific statistics quoted in the strategy are sourced from trade associations, the National Energy Board and Natural Resources Canada. A clear example of the disparate nature of Canada's collection of information and analysis. It is difficult to determine the quality and accuracy of the information from these different sources.

In addition to interprovincial debates, Canada faces international challenges as its market for expanded energy developments is increasingly based on exports. International trade agreements and their inevitable disputes with respect to the energy sector means that Canada needs an expert voice to support its position. For example, the Trans-Pacific Partnership supports the development of a closer trade relationship between the U.S. and Japan regarding energy exports. How might Canada be affected? A Pan-Canadian energy information and research organization could provide expert advice based on a rigorous understanding of the Canadian energy sector.

**ENERGY RESEARCH ORGANIZATIONS IN CANADA**

There are numerous organizations in Canada dedicated to the assessment and evaluation of energy issues. The work is sponsored and supported from different stakeholders in the

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sector. Much of the work is solid and useful but it is almost always relatively narrowly focused (reflecting the mandate of the particular organization); data sources and methodologies are inconsistent; and in many cases the advocacy mandate of the particular organization colours the credibility of the work. In short, Canada has a patch work of organizations across the country including academic institutions, regulatory agencies, industry associations, environmental organizations independent think tanks and government departments with different information based understandings of the same issues. By comparison, for several decades the US has had an entity which is well resourced and independent whose mandate encompasses data and analysis of the whole energy economy.

Canada faces multiple energy challenges over the coming years – greatly improving energy efficiency, developing the emerging urban centered energy systems of the 21<sup>st</sup> Century, reducing greenhouse gases, remaining a competitive supplier of energy in a world of ever slowing growth in demand for commodities. These challenges will require of Canadians an ever more sophisticated and widespread understanding of their energy economy. A fragmented approach to energy data and analysis will make such understanding virtually impossible to achieve.

A key element of an effective information organization is independence from other organizations that may have an advocacy position to further. This can include all stakeholders (governments, industry, First Nations, environmental groups and community organizations). However, to be successful support must be garnered from all these groups. This means that while the organization is independent it must still have strong relationships with all stakeholders. This can be accomplished by multi-stakeholder guidance of the organization with transparent governance and reporting procedures.

## **ARE THERE EXISTING ORGANIZATIONS THAT CAN FULFILL THIS ROLE?**

To fulfill the need for unbiased and comprehensive energy information and research an organization should have the following characteristics. It should be:

- Credible – a new organization would lack such credibility and need to provide itself. Existing organization have developed their own credibility over the years. The one that stands out from this perspective is Statscan.

- Independent - Well established governance processes that demonstrate the independence of data collection and research.
- Unbiased – Trade associations exist to further specific concerns of their industry. Government ministries are sometimes limited in their activities by the policy framework of governments. CERI does not take a position regarding its research. The research focuses on the analysis of information using widely accepted analytical tools and well justified assumptions.
- Data driven.
- Have strong linkages to all interested stakeholders
- Pan-Canadian
- Inclusive of all energy types and environmental impacts.

No organization exists that can be strongly associated with all these aspects. However, some have the basis for developing into an agency with these characteristics. Those closest to the ideal include:

- National Energy Board
- StatsCan, and
- Canadian Energy Research Institute

## **TYPES OF SERVICES THAT COULD BE PROVIDED**

Three service offerings could be provided including:

- Data Management

In terms of energy data management, there are numerous databases that exist throughout the country. However they are fragmented, are of varying levels of quality, and can be hard to access.

CEIA could provide a central clearing house function. It would forge relationships with all database centres in such a way as to facilitate ease of access and provide a level of quality assurance. In this way, scarce funding resources are not wasted and the CEIA can build credibility with those data centres.

More importantly, CEIA would base its data management on a comprehensive data template similar to that used by the U.S. Energy Information Administration. A review of existing data bases would be conducted and the new organization would act to provide data to fill in those gaps. The information would be structured in a hierarchical format allowing for other researchers to take advantage of the information at the level of detail desired.

- Economic and Environmental Analysis

The focus of the research at CEIA would be economic analysis and consideration of associated environmental impacts, which is the focus of the Canadian Energy Research Institute. Only those subjects for which data is available would be considered. Existing policy organizations in academia and the private sector would fill the need for the qualitative assessment of energy issues.

Specific reporting areas could include:

- Energy demand assessments
- Annual energy market assessments
- Hydrocarbon supply cost and production forecasts
- Electricity generation options levelized costs
- Economic and environmental impacts of energy supply activities
- Economic impacts of select projects
- Economic and environmental impacts of energy policy options

- Education and Outreach

- A program of regular reporting from a Canadian perspective on market updates and major projects for:
  - energy and environmental conferences
  - Canadian governments and international trading partners
  - energy sector stakeholders
  - the financial sector, and
  - investment organizations
- An outreach program with Canadian universities, government agencies, industry associations and nongovernmental groups to coordinate research

to fill in data and analysis gaps. This would be focused on furthering the understanding of the economic and environmental impacts of energy supply and demand issues.

## **SUMMARY**

Canada lacks an institution with the national and international credibility to understand and assess energy issues. Canada is the third (or so) most energy intensive country in the developed world, in other words a society and economy almost uniquely dependent on energy. Canada is a major energy producer of hydrocarbons and of electricity especially hydroelectricity. Canada aspires to be at the leading edge of the 21<sup>st</sup> Century energy economy, greener, cleaner, more efficient and smarter. It is, therefore, a more coordinated and fact based approach to energy development will be vital to our future.

Canadian governments in the July 2015 Canadian Energy Strategy have stated a desire to work collaboratively to capitalize on new development opportunities and markets. An independent and credible organization can facilitate this cooperation. In addition, as Canada works closely with other trading partners either through the federal government, provincial/territorial governments or with energy sector stakeholders, a source trusted by all parties involved will assist with effective dialogue and decision making.

Various types of organizations have strengths that should be a foundation of such a capability but each type has limitations.

- Academic institutions are more likely data consumers rather than providers and often limit their scope to specific research topics.
- Regulatory agencies are limited in what they can do because their mandate is defined by legislation. This can create frustration for stakeholders when evolving issues raise concerns beyond that expected in the legislation.
- Industry associations and environmental organizations have specific policy agendas they hope to achieve. Under these mandates it is difficult for counterparties to accept the unbiased nature of their information.
- Government departments and agencies follow the policy direction of the government in power and increasingly they are perceived – not always fairly – as

lacking objectivity. These departments could form the basis of a source of data and analysis if they were able to work independent of policy considerations.

The National Energy Board, Statistics Canada and the Canadian Energy Research Institute have some of the necessary criteria to evolve into a national organization dedicated to energy sector data gathering and research. Regardless of the starting point for the initiative, Canada needs a well-resourced, independent and dedicated organization to provide evidence based support for our interprovincial, national and international energy debates.