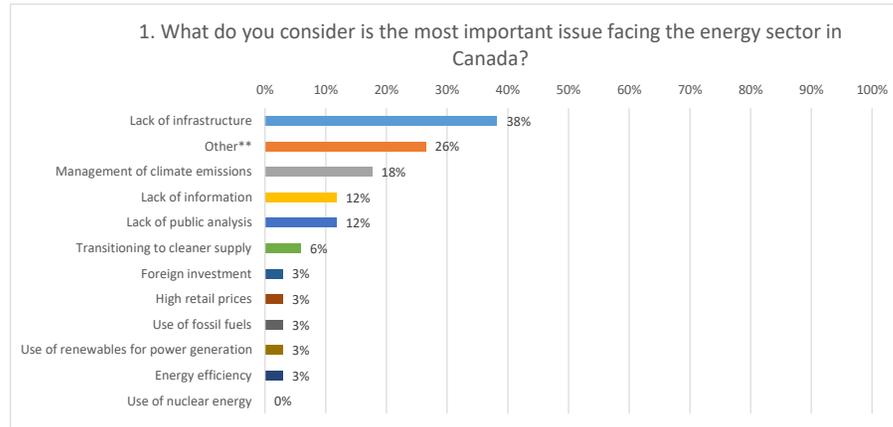


Survey on Need for Canadian Energy Information Organization

Conducted by Canadian Energy Research Institute (CERI) in September-October 2016; questionnaire was sent to 578 respondents with response ratio of 6%.
Energy firms, Industry associations, Governments, Indigenous peoples organizations, Financial sector, Academic institutions, Regulatory organizations, Legal firms, Large energy users, Consulting firms, Environmental organizations were included into respondent list

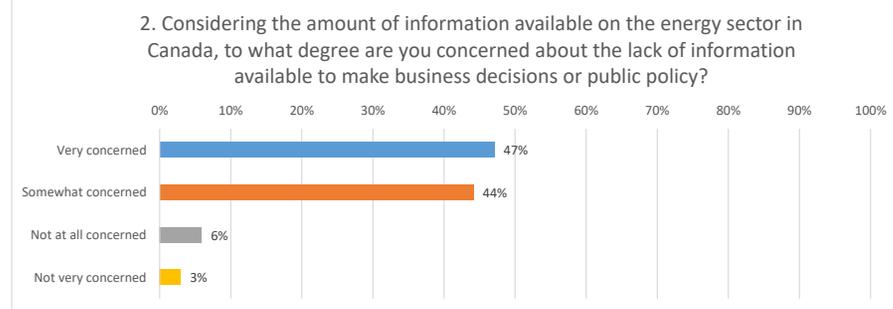
1. What do you consider is the most important issue facing the energy sector in Canada?	Response Ratio
Lack of infrastructure	38%
Other**	26%
Management of climate emissions	18%
Lack of information	12%
Lack of public analysis	12%
Transitioning to cleaner supply	6%
Foreign investment	3%
High retail prices	3%
Use of fossil fuels	3%
Use of renewables for power generation	3%
Energy efficiency	3%
Use of nuclear energy	0%

* Respondents could select more than one answer
** Responses are provided below



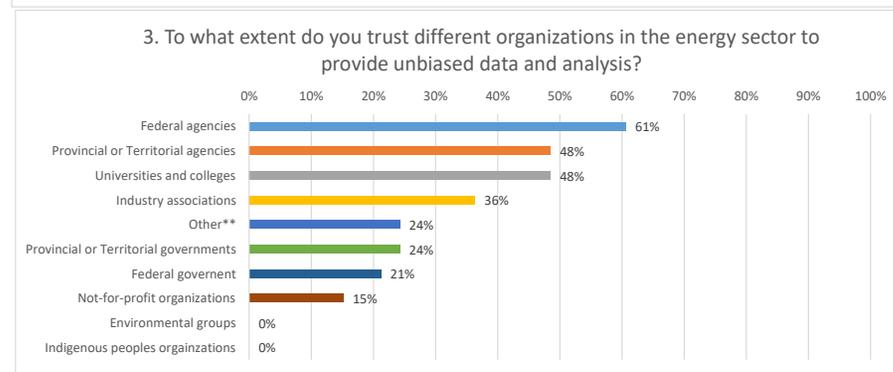
2. Considering the amount of information available on the energy sector in Canada, to what degree are you concerned about the lack of information available to make business decisions or public policy?	Response Ratio
Very concerned	47%
Somewhat concerned	44%
Not at all concerned	6%
Not very concerned	3%

* Respondents could select only one answer



3. To what extent do you trust different organizations in the energy sector to provide unbiased data and analysis?	Response Ratio
Federal agencies	61%
Provincial or Territorial agencies	48%
Universities and colleges	48%
Industry associations	36%
Other**	24%
Provincial or Territorial governments	24%
Federal government	21%
Not-for-profit organizations	15%
Environmental groups	0%
Indigenous peoples organizations	0%

* Respondents could select more than one answer
** Responses are provided below



4. Please describe what an energy information organization should do to build your trust in the data and analysis they provide?

Responses for this question are provided below

5. What type of information or service would you want to receive from an energy information organization? **Response Ratio**

Economic impacts of energy supply and demand	65%
Quality assurance of existing data sources	62%
Fossil fuel supply and demand	59%
Environmental impacts of energy supply and demand	59%
Data gap analysis	47%
Electricity supply and demand	47%
Evaluation of potential energy policy impacts	47%
Market trends	44%
Transition to a cleaner energy sector	41%
Energy efficiency and demand response	41%
Forecast of energy sector activities	41%
Retail pricing	38%
Technical information about energy resource extraction	35%
All of the above	29%
Other**	26%

* Respondents could select more than one answer

** Responses are provided below

6. Please describe, from your perspective, the largest energy sector data gaps that exist in Canada

Responses for this question are provided below

7. Are you in support of the establishment of a Canadian Energy Information Organization to be a central source of unbiased data collection and analysis? **Response Ratio**

Yes	88%
No	12%

* Respondents could select only one answer

8. Please indicate why you selected "Yes" or "No" in your answer to Question 7

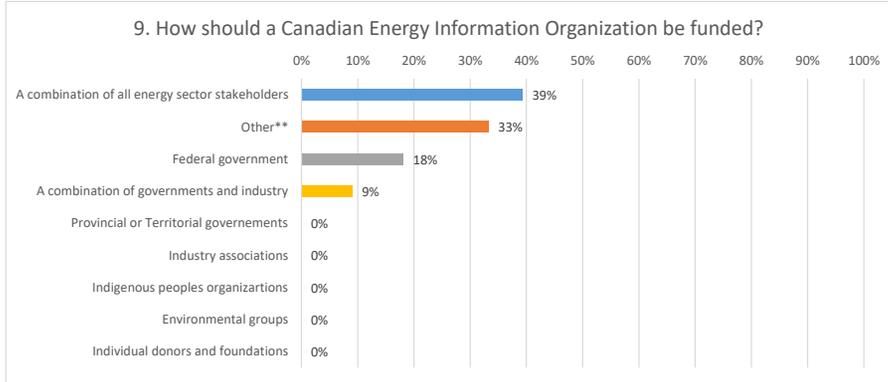
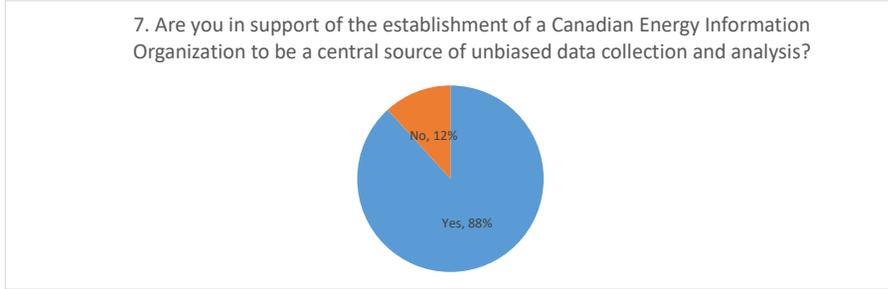
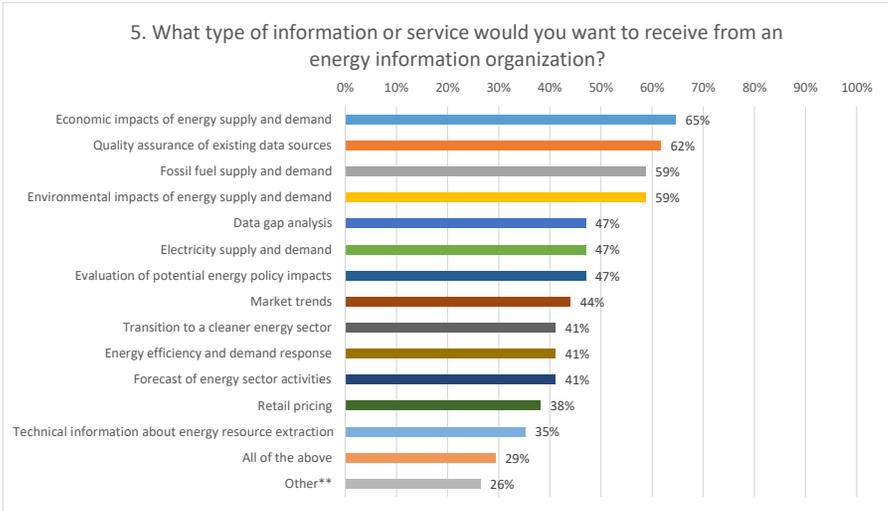
Responses for this question are provided below

9. How should a Canadian Energy Information Organization be funded? **Response Ratio**

A combination of all energy sector stakeholders	39%
Other**	33%
Federal government	18%
A combination of governments and industry	9%
Provincial or Territorial governments	0%
Industry associations	0%
Indigenous peoples organizations	0%
Environmental groups	0%
Individual donors and foundations	0%

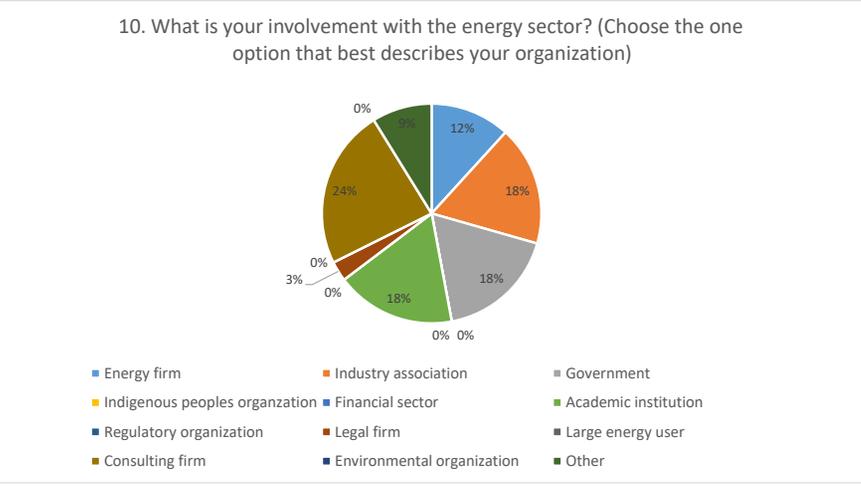
* Respondents could select only one answer

** Responses are provided below



10. What is your involvement with the energy sector?	Response Ratio
Energy firm	12%
Industry association	18%
Government	18%
Indigenous peoples organization	0%
Financial sector	0%
Academic institution	18%
Regulatory organization	0%
Legal firm	3%
Large energy user	0%
Consulting firm	24%
Environmental organization	0%
Other	9%

* Respondents could select only one answer



Responses to open-ended questions and when "Other" option was selected

1. What do you consider is the most important issue facing the energy sector in Canada? - Other responses	
	Answer
	Lack of a Clear National Energy Strategy
	No context for the public; to enable reasoned discussion of infrastructure & climat
	Pricing/Markets
	Lack of complete information re energy needs/desires & practical alternatives
	Low carbon economy, GHG
	Lack of information and tools to develop and strategy for the transformation of energy systems to meet economic and environmental goals
	Failure of governments to make decisions within their mandate and legislation
	Lack of a clear national policy and objective with respect to all of the items above, but particularly new infrastructure and environmental/climate strategies.
	Access to market - lack of pipeline infrastructures
3. To what extent do you trust different organizations in the energy sector to provide unbiased data and analysis? - Other responses	
	Answer
	None of the above - all biased or use different definitions
	NEB
	Only those whose work is governed by APEGA, PEGBC etc
	Unfortunately none of these seem to provide unbiased data
	None of the above
	Don't understand how to answer this question. I would like to provide a 1 to 5 trust ranking for each of the groups, but separate data collection and validation and presentation from data analysis. All groups have an agenda I think energy data needs to be separated from energy analysis.
4. Please describe what an energy information organization should do to build your trust in the data and analysis they provide? - Responses	
	Answer
	Be explicit on all data sources; i.e., reported directly by companies, obtained from provincial regulators or National Energy Board, obtained from Statistics Canada, etc.
	Use credible data sources; not double count; use agreed definitions of end use; differentiate between mandatory and discretionary energy use.
	Specifically address the concerns as identified by various stakeholders help the public understand how a healthy energy industry brings local as well as national benefits - provide tangible local examples
	Unbiased, clear on methodology of data/info collection, non-affiliated to industry or gov't (government)
	1. They should be upfront about their source of funding 2. They should to the extent possible provide the most up to date UNDISPUTED data 3. Where dispute exists on quality/analysis they should ONLY reference the various source documents that are available in the public domain or otherwise easily accessed by the public
	1. perform the Canadian role of the EIA 2. deliver a Canadian version of BP's statistical review 3. become the public's portal to the IEA since NRCan doesn't appear to want the role 4. perhaps be accountable to the NEB but not to government
	Autonomous governance. Funding from the federal government.
	Gather, analyze and report on facts
	Transparency around data and methodology
	Internationally recognized methods of data, to allow cross jurisdiction comparisons
	They must be seen as being completely objective, with no bias or conflict of interest. They must be fact based and incorporate accurate scientific information in their analyses.
	Provide an understanding of the choices and tradeoffs in various energy choices with REALISTIC information re full cycle costs (economic and environmental) and REALISTIC TIMELINES

	Provide, not only data, but clear and concise information derived from that data that is non-positional.
	Some forms of the EIA North, with the capacity and authority to collect and disseminate energy data! When new organization is proposed, please consider how it can do a better job than STC!!
	Robust analysis, citing, funding transparency
	Take environmental and economic into consideration, including the cost of status quo or doing nothing
	Transparency of organizational structure. Gaining trust is difficult, regaining trust is next to impossible. Be upfront about connections and utilize reputable sources, specifically public agencies (AER, NEB, OEB, IESO etc) who have both the technical capacity and institutional knowledge to collect energy data and information. Work with industry, trade and environmental groups but remain independent. Data collection is as much art as science and these groups often collect very interesting high quality data. Work with them in this regard and also work with them on data presentation, buy in is important and in this polarized atmosphere data analysis that both sides regard as coherent is incredibly valuable. It helps strengthen an agencies reputation.
	Peer reviewed, science and/or evidence base data is the foundation for the analysis
	Have a separate legislative mandate, be at arm's length from the federal government
	CERI
	Comprehensive, detailed data collection, validation, organization, and presentation so it is freely and easily available and understood. Data analysis (i.e. what is the meaning of the numbers) is to politically loaded and must be left to others.
	Data verification and checking; Cross-Validation of analysis using different methods; Peer-reviewed publications of study results
	Find a common and consistent reporting basis. Provide transparency about sources of data and screening process
	Provide more easily understandable information that takes the data and explains what the trends are and mean and how they impact the choices that can be made.
	Easily accessible data; vetted and reliable data--not provided by lobbying bodies like industry associations; the org should not try to be an EIA from day one, but focus on putting together a (virtual or otherwise) comprehensive data repository, easily accessible electronically with as much historical depth as possible.
	Break down analysis in simple to understand language using lots of proven examples.
	It must clearly demonstrate that it follows an objective and thorough process in developing its material. That includes clearly stating assumptions, sources and methodologies. Independent peer reviews.
	Better describe the social and economical impacts of a project while protecting the environment. A balanced perspective.
	All documents (and background information) should be publically available. They should also continue to look at issues of public importance. Work to correct misinformation. And ensure Governments are able to understand the repurcussions of policy decisions and there ability to reach desired outcomes.
	The source of data quality should be good/reliable. They should be easily validated and used my many people.
	Ideally provide third party audit assessment of process, data sources and confirm the protections in place to ensure data submitters cannot manipulate analysis through data input
	Be able to listen to different concerns and be able to set aside their preconceptions to find the whole story.
5. What type of information or service would you want to receive from an energy information organization? - Other responses	
	Answer
	Trade patterns
	Place Canada in an int'l (international) perspective
	A FULL CYCLE analysis of energy choices - e.g. include environmental impact of producing solar panels, batteries, neodymium PM motors, etc.. Also an understanding of the downstream costs of "carbon taxes" - e.g. increased price of food for transportation, agriculture use of fossil fuels, etc. Understanding of the social/political impact of importing oil from countries with dubious political/human rights values - we are indirectly supporting these.
	Effective and efficient collection and dissemination of quality and timely data, all under the responsibility of one organization.
	Drilling productivity, inventory levels, corporate financial metrics
	Historical data only. if forecasts are done, there only business as usual forecasts based on existing government policies.
	Critical analysis of data sources and trends; cross-validation of studies on topics against data peer-reviewed studies of historical data trends and projected future trends.
	All of the above, but recognizing that some of the list are already addressed to some extent by a variety of organizations or agencies, so they are not all the same priority
	Electricity capacity, by fuel, type, pipelines and transmission lines capacity and utilisation rates, refinery feed stock and utilisation rates, end use statistics as disaggregated as possible (NRCan data base); vehicle stock; vmt, pvmt, new vehicle sales by type. And carbon emissions.

6. Please describe, from your perspective, the largest energy sector data gaps that exist in Canada - Responses

	Answer
	<p>Crude oil and natural gas pipeline usage Crude oil and natural gas prices Destination of non-U.S. bound energy exports Refinery data Environmental impacts of resource extraction Greenhouse gas emissions from energy consumption, residential broken down (household heating, personal transportation) and by NAICS sector</p>
	<p>Use of renewable energy sources in non-electric applications (from geo heat pumps to solar thermal to wood stoves).</p>
	<p>Comparative costs (and updates)</p>
	<p>The real cost of renewables. The energy intensity factors for ALL modes of energy production and transportation. The economic costs of stranding assets</p>
	<p>In a relative sense, data gaps are not nearly as large as the knowledge and information gaps. With a STEM challenged public, there is poor capacity to make interpretations and judgments of data from biased sources. The governments of Alberta and Ontario have access to data but make unsound decisions from an ideologically driven analysis. Fed's too.</p>
	<p>Constraints to a more open and transparent hub for NGL's. Pricing of NGL's. Market efficiency and clearing. Regulatory comparison with competing jurisdictions. Construction pricing comparison and escalators. Shipping costs.</p>
	<p>the cost/benefit of using various forms of energy and in particular regarding oil, the cost/benefit of our oil vs oil produced by others and imported into Canada.</p>
	<p>Transparency around what makes up retail prices</p>
	<p>Carbon climate change</p>
	<p>There is a real need for a Canadian "Energy Information Agency" This organization would compile relevant information and report on recent data, trends, and conduct analyses of trends, etc.</p>
	<p>As above - we lack an understanding of the social/political impact of importing oil from countries with dubious political/human rights values and thus supporting these</p>
	<p>Unified emissions reporting</p>
	<p>The reality of what transitioning to a lower fossil fuel future looks like in terms of loss of jobs, spin off effects</p>
	<p>Energy consumption data while available is difficult to find and work with. Energy production data is woefully fragmented and incomplete. Accessible databases of oil production, natural gas production and storage, supply/demand etc. Are spread out across multiple platforms and are difficult to retrieve unless one is highly motivated.</p>
	<p>Safety and compliance information in plain language for the public</p>
	<p>Lack of timely and comprehensive inventory data, lack of production figures by region, inconsistencies in definition for historical production</p>
	<p>Data on the good effect of current environmental stewardship in the O&G industry Data on the potential for Geothermal & Wind energy development</p>
	<p>There are so many that it's hard to identify anyone. lack of reliable provincial data in so many areas, massive data gaps in cansim tables (supposedly confidential). nonsensical numbers in other data sets. The lack of a central depot for data of all kinds that can be used to understand energy supply and demand. The need for an organization charged with ensuring high-quality reliable data from all parts of the energy system, and all provinces territories</p>
	<p>Making all and I mean all the data the AER holds public without a fee for reporting.</p>
	<p>I'm not convinced there are data gaps so much as issues of data access, time lag in data release, and inconsistency in reporting basis.</p>
	<p>Are analysis of the choices that exist for energy transition and the possible timelines associated with this transition.</p>
	<p>The data seem to be out there, the problem is it is all over the place in different agencies with different protocols for access, different time series, some not up to date.</p>
	<p>Data is not centralized. not easily accessible. not easy to query or analyze and represent data in a meaningful format to enable business decisions.</p>
	<p>Alberta provides excellent data on most of its upstream activities, though it can be hard to evaluate without the use of an expensive 3rd party tool. Other provinces and territories have varying degrees of information available. The EIA (US Energy Information Administration) is an outstanding good example.</p>

	Evaluation of potential energy policy impacts
	How Canada's energy industry is regulated versus other jurisdictions. What the overall impacts of carbon tax policies will be versus how they will work to impact global emission levels. Also how Canadian energy exports have the ability to lower global emissions.
	Cost of production (convention v/s oil sands), royalties to name a few
	Impact of governmental programs, such as emission schemes, seem completely missing, or are issued by clearly biased entities
	It's in the heads of our politicians and oil&gas sector workers. They are so ignorant about climate change, energy and environmental impacts, it's frightening.
8. Please indicate why you selected "Yes" or "No" in your answer to Question 7 - Responses	
	Answer
Yes	There is no centralized agency providing energy data in Canada, current data is spread across provincial regulators, CAPP, Statistics Canada, the National Energy Board, Natural Resources Canada and Environment Canada. Data is not always consistent and the original source is not always apparent.
Yes	StatsCan data are suspect; OEE uses StatsCan data. We need a better source that is endorsed by all stakeholders.
Yes	There is a need for more info provided by unbiased and unaffiliated sources
Yes	Other than the NEB Publications and those from a few Provincial orgs I don't see an honest broker
Yes	A decade ago I would have pointed squarely at the NEB to fill this role. With the decline of societal trust in both business and governments the NEB is not in a position to take this on currently. With time and rebuilt trust it could re-assume this responsibility.
Yes	It promotes an open and competitive market. It promotes Canada and makes a Canadian location more attractive to foreign and local investors alike. All of Canada will benefit. Other jurisdictions have experienced success with this type of organization.
Yes	To reduce the use of "facts" to suit a particular agenda.
Yes	Lack of consistent, reliable information from existing sources
Yes	There is a real need for a Canadian "Energy Information Agency". This organization would compile relevant information and report on recent data, trends, and conduct analyses of trends, etc.
Yes	No specific response
Yes	If funding (below) comes from a variety of sources there is better chance of avoiding bias in one direction. There is a risk of "Consensus by Committee" which usually results in a watered down product of limited value, but better than nothing.
Yes	It is needed
Yes	No specific response
Yes	The more unbiased information, the better, the average citizen knows only headlines
Yes	In a highly polarized environment the loudest voices come from the edges of each ideological side. Credible data helps advance the discussion for the middle segment of these debates. It will also help reassure stakeholders that Canada's energy sectors are functioning properly. Too often debates about energy get sidetracked on relatively minor issues. Clarity around the energy sector and how it operates helps dispel myths around the sector and transparency can help root out malfeasance.
Yes	Could be foundational to driving greater literacy on the energy system with the public
Yes	The current reporting system has its limitations. Despite sporadic attempts to improve energy data reporting, there are still large data gaps and consistency issues. While StatsCan has the legislative authority to collect and report data, energy data is only one small aspect of what they are responsible for, so this may not be receiving the attention it deserves.
Yes	We need a credible source of information not tied 100% to the private or public sector. The public has to buy in and believe. Not just Albertans but Canadians. We have to put forward energy information always backed up by facts and run by the acid test of the Environmental NGO's. Involve the Universities in studies to support the facts and form the baseline for policy. We have to get off the political correctness and bring real information delivered by real people.
Yes	Energy is a provincial response, but the data needs to be collected and stored on a standardized national framework. and organization is needed which is trusted by both federal and provincial governments (and municipal to), as well as industry sectors and environmental groups.
Yes	Need consistency in data sources that are being used for business and policy analysis. Get away from 'dueling data'.
Yes	There is too much data and not enough analysis with respect to energy information in Canada. In particular the data is so complex relative to most users' interests
Yes	We need a 'one portal' access to data. It does not have to be an agency or body/institution like the EIA; it can be a virtual agency that pulls together data from many sources. IT is exceedingly difficult to quickly and easily analyse trends in supply and demand and basic energy sources. For example, how much wind electricity is actually being generated across the country? What are the trends? This type of information is impossible to get.

Yes	This initiative has forward momentum to sort out the chaos (data) which already exists, but is not centralized or better yet, automated in real time. In todays in digitized world, all platforms will be connected/integrated and open such that business owners do not have to rely on external sources to feed disparate information.
Yes	Consistency. Hopefully impartial. Rigorous. This would provide a national basis from which to develop national energy policies that support the entire country.
Yes	Energy literacy is the main challenge for Canadians
Yes	I do not believe this currently exists and it is a gap.
Yes	We need a unbiased data collection and analysis from the Canadian context.
Yes	Yes, because an unbiased verifiable source can be important - but I would have answered maybe if it was available because creating such an unbiased entity will be very difficult
Yes	To provide a neutral unbiased organization that all stakeholders can go to for energy information sources.
Yes	Because it would allow us to make effective energy policy decisions.
No	Really this is a 'qualified NO'. There will be challenges with the perception of the Organization; would it be independent and unbiased? Would it have access to the data it needs? Would other industry organizations be in competition with it by distributing their own version of the data? What are the boundaries for the type of information that would be produced? What governance model and source of funding wouldbe used?
No	Should build on federal government capability
No	The EIA North should be an organization positioned to effectively and efficiently collect and disseminate quality and timely data (covering the functions of STC+NEB). It should not be an organization to supplement or oversee the functions of STC energy statistical program.
No	I believe that data should be available, but it should be available from those who have the responsibility to collect it and verify it. Introducing a third party compiler will just introduce uncertainties in veracity.

9. How should a Canadian Energy Information Organization be funded? - Other responses

	Answer
	C comb'n (combinaton) of federal & provincial regulators, per MJ of regulated consumption
	Grants from NRCan
	FPT (federal, provinical, territorial)
	Primary funding from federal governments and industry would provide the most stable and easily collectable revenue source. However, funding does not give a blank check over governance, data collection, survey design, etc. Partnership with indigenous, environmental and academic stakeholders can lead to more robust data coming into the group. Engage many stakeholders even if funding comes primarily from one or two sources.
	Why did you make it so that this question forced you to pick only one. it needs to be funded by federal and provincial/territorial governments, with a governance board has a reasonably large academic component in a mandate to be nonpartisan and provide a reliable source of balanced high-quality information. Industry / environmental groups / special interest groups should not be a funders or involved in governance.
	Lottery funds
	Don't do this for reasons stated above.
	It should be government funded, but compel industry to provide data under the Stats Canada Act. the more sources of funding the more difficult to get a governance structure.
	A combination of all stakeholders including indigenous community.
	Combination of government and private bodies
	It would have to be self funded from the sale of information - picking any of the above will only lead to complaints of bias and question the integrity of the data

10. What is your involvement with the energy sector? (Choose the one option that best describes your organization) - Other responses

	Answer
	NGO
	Independent energy consultant - upstream oil & gas
	Energy Transportation