CCEI: Canadian Centre for Energy Information

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Delivering insight through data for a better Canada

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Why Canada needs a Centre for Energy Information

- Polarization of energy/environment debates aggravated by multiple and often conflicting data sources
- Data duplication, respondent burden, and general confusion from multiple sources of similar data
- Incoherent data and inconsistencies across sources
- Difficult to find Canadian energy data and substitution of data from international sources

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Experts urge Ottawa to fix Canada's data deficit

TAVIA GRANT > AND ERIC ANDREW-GEE >
PUBLISHED JANUARY 27, 2019
UPDATED JANUARY 28, 2019
12 COMMENTS

Canada could fix gaps in public data by improvi
provinces, copying ideas from other countries ar
legislation that stifle access to information, acco
Canada workers and international experts.

The Globe and Mail spent six months examining
and the reasons why our public-data system is s
problems stem from data, such as health records
and not comparable – a desire by some governm
Canada to lock it away – and out-of-date acts or

In the dark: The cost of Canada's data defici

Around the same time, the federal public service
produced a set of recommendations that are aw
government. A report published in November ar
servants, including Anil Arora, chief statistician
in the management of public data in Canada.

"Managing, using and sharing data will be cruci
government is not set up to treat data as a strate

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Why Canada needs better information about all the energy it produces

'Imagine trying to drive a car while having only the rear-view mirror,' analyst says

Tony Seskus · CBC News · Posted: Feb 27, 2019 12:48 PM ET | Last Updated: February 27

A pumpjack works at a well head on an oil and gas installation in Alberta. Faced with the difficult job of assessing the impact of oil production cuts, industry watchers are renewing calls for better access to robust information about Canada's energy sector. (Jeff McIntosh/The Canadian Press)

A lack of information about Canada's energy sector has long been an issue for those trying to gauge how the system is working — from analysts to economists to public policy researchers.

There are several government organizations that compile energy-related data such Statistics Canada, the National Energy Board, Alberta Energy Regulator and Natural Resources Canada.

But there's no single, official source of up-to-date, comprehensive information on topics related to oil and gas production, renewable energy use, and the environmental impact of the sector, for instance.

CCEI: Canadian Centre for Energy Information

- Budget 2019 provides Natural Resources Canada with $15.2 million over five years, with $3.4 million per year ongoing, to establish a virtual Canadian Centre for Energy Information (the Centre) delivered by Statistics Canada.
- The Centre is a partnership between Natural Resources Canada (NRCan) and Statistics Canada
- In delivering the CCEI, Statistics Canada will be an arms-length arbitrator of energy statistics with no direct ministerial involvement in methodological or technical issues.

Statistics Canada Value Proposition

Independent

Political independence ensures statistics are neutral, objective, accurate and reliable.

Centralized statistics

Mandate to collect, compile, analyze, abstract and publish data on the economy, environment, people and communities of Canada.

Data integration

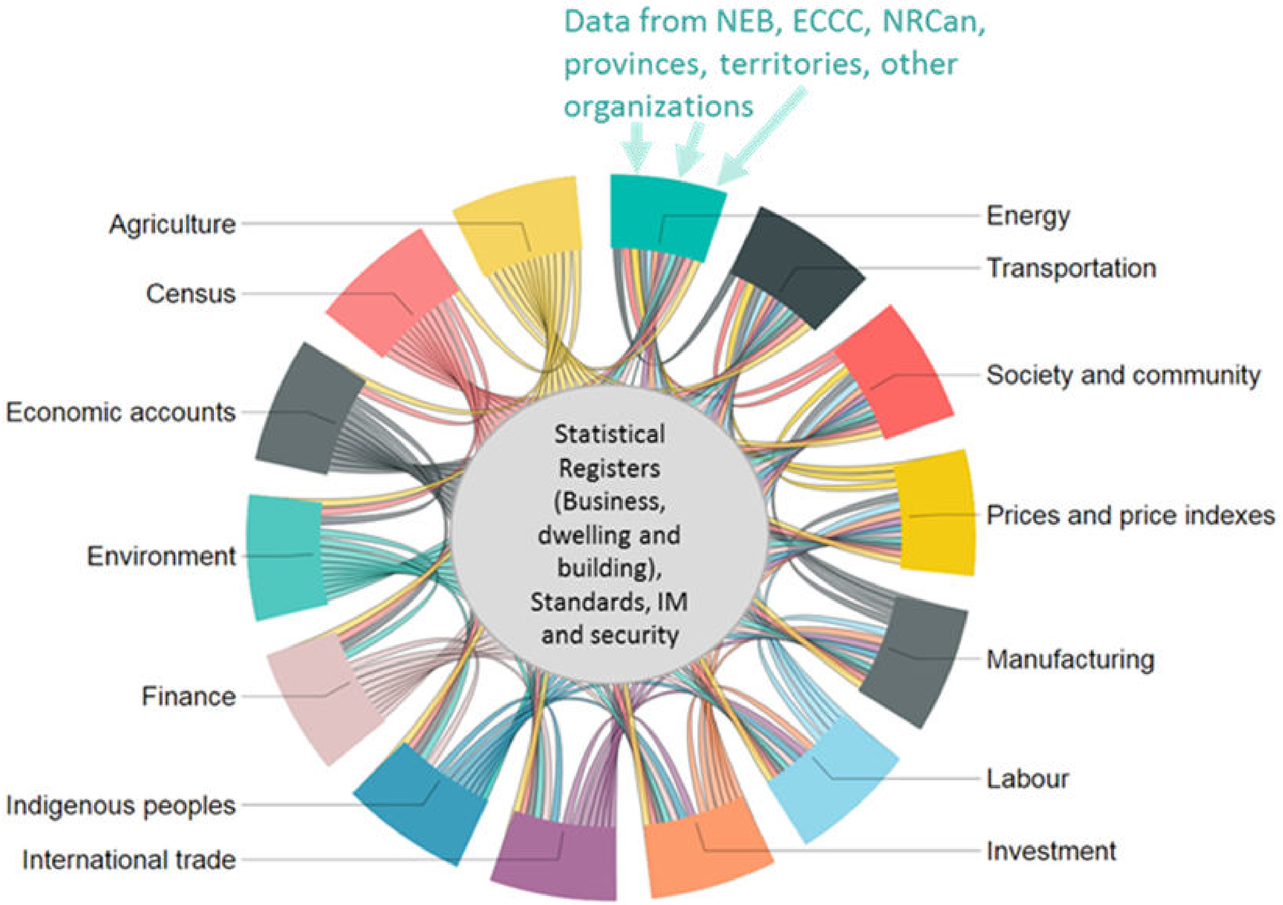
Collaborate with other departments, provinces and territories and integrate their data into the statistical system.

Shared governance

Collaborate with all levels of government and indigenous groups

Minimize burden

Avoidance of unnecessary burden by minimizing duplication in the data collected by governments.



Vision of the CCEI

One-stop access

- User-centric design
- Compile and reconcile energy data

Better information

- Make energy information more complete, coherent and timely by addressing data gaps.

Collaborative governance

- Meeting the needs of diverse stakeholders via inclusive governance.

Infographics, dashboards and maps

Data with ability to:

- Query
- Manipulate
- Visualize
- Download
- Model and forecast

Analytical products and models such as:

- Supply forecasts
- GHG projections
- Provincial profiles
- Market snapshots

Virtual data labs

- Provides remote microdata access
- Collaboration
- Share code

Better information – Filling data gaps

Energy transition	Energy use	Renewables and electricity	Fossil fuels	Overall energy data

• **Support sound policy on competitiveness and the low carbon transition**
• **Examples:**
  • Indicators of progress along four GHG mitigation pathways identified through Generation Energy
  • Impact of the transition on workers in fossil fuel jobs
	• **Enable better management of energy demand**
	• **Examples:**
	  • Improve granularity of energy use data in all end use sectors through small area estimation, use of administrative data, etc.
	  • Energy consumption associated with vehicle use
		• **Support electrification and integration of renewables into the grid**
		• **Examples:**
		  • Data on electricity capacity, generation, and storage
		  • Real-time electricity consumption data from smart meters
			• **Attract FDI and allow markets to function more efficiently**
			• **Examples:**
			  • New data on natural gas liquids, petrochemicals
			  • Movements of refined products between regions
				• **Broad-based improvements to energy data**
				• **Examples:**
				  • Improve timeliness through ‘nowcasting’
				  • Monthly energy supply and use balances

Modelling and Forecasting

Standing up the CCEI – Deliverables and Foundational Work

	June 2020 – Launch Website		
Website user experience	• Modern, user-tested design and layout • Energy transformation frame	• Customization to different user types	
Website content and tools	• Data visualizations, infographics, and analytical reports on a range of energy transformation issues	• Expanded dashboards • First products related to modelling • Secure microdata access • Cloud-based collaboration space	• Data visualization tools • Geospatial features • Calculators to examine impacts of energy investments, policies, trends

Integrated and improved energy data	• Integration of some federal data that is currently scattered (e.g., NRCan Energy Facts)
	• New data to inform the low-carbon transition
	  ○ Electricity generation from biomass
	  ○ GHG intensity by PT
	  ○ GHGs by commodity
	  ○ More monthly data on energy supply/disposition
		• Continued integration of existing federal data
		• Begin and gradually complete integration of existing PT data
		• Address priority data gaps identified through engagement and governance	

Visible – New website, data, content, and tools

Less Visible – Foundational work

Website	• Consultations on user types	• Roll-out of tools to align with modernization of StatCan infrastructure
Integrated data	• Development of common data standards • Data integration strategy (metadata, definitions, data management)	• Prioritization of PT and other external data • On the ground work with PTs (e.g., IT specifications, developing concordances)
Improved energy data	• Gather input on priority data gaps through engagement	• Scoping studies, data collection, data integration, etc.
Modelling products	• Discussion with federal partners • Consult with modelling community to identify needs	• Development of modelling standards & documentation for consensus forecasts

Linkage with modelling

- Access to data
  - Data standards and metadata
  - Open data
  - Virtual Data Labs (Research Data Centres)
- Data gaps
- Collaborative space
- Standards for transparency
- Publish results
- Interactive tools

Thank you

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