Fact Sheets on Industry Available

Sometimes all you want to see is the basics. What quantity of energy was used in the industry? How does this relate to production? How has intensity changed over time? What do the GHG data look like? What do they tell us about industry response to this issue? These are the straightforward questions CIEEDAC staff seek to answer in their "Fact Sheets" on various major industries in Canada. And yes, we try to capture all this information in just one page.

Of course, the data contain only a summary of what one can obtain from Statistics Canada (STC), with a few additional bits of information on physical production where STC does not gather such data. Using GHG coefficients from Environment Canada, we are also able to provide a picture of GHG emissions that includes process emissions. Then, using the available production data - usually only GDP but sometimes some physical unit data like tonnes of steel - we provide in these fact sheets a sense of the changes in intensity (energy or GHG per unit product) as well.

Other sources

Many of the larger industry associations prepare an annual or biennial report covering sustainability and environmental concerns. If data reflecting energy and GHG emissions are addressed, it is usually in such a report. Some associations have a statistics page or document on line; they typically address economic, production and/or employment data but may not have any data on energy, emissions or intensities. There are some exceptions; see below.

In most cases, the data provided in these reports or statistical tables reflect only the association's members and not the whole industry. For some associations, the membership and the industry universe in Canada is about the same. For example, the Cement Association of Canada represents all or nearly all facilities that produce cement in Canada, as does the Canadian Fuel Association (petroleum refiners). But for others, the membership is less than the industry's productive capacity. For example, the Canadian Electricity Association represents establishments that generate about 50% of electricity generated by utilities in Canada, about 46% of total (utility and industrial) generation. Members of the Forest Product Association of Canada are responsible for about 66% of certified forest lands. That said, the FPAC does gather energy and production data from all pulp and paper mills whether they are members or not.

Reports and/or data on energy and emissions for their respective industries are available from the Aluminium Association of Canada (French only), Cement Association of Canada, Chemistry Industry Association of Canada, Canadian Electricity Association, Forest Products Association of Canada, and the Mining Association of Canada. The Brewery

Energy Byte: Major Industries show declining GHGs

Most of the major manufacturing industries for which CIEECAC generates a fact sheet have shown significantly declining GHG emissions since 1990. For example, GHG intensities in aluminium, chemicals and wood products industries have dropped 40% or more. While GHG emissions in the generation of electricity by utilities have declined about 5%, their intensity has dropped more than 20%, primarily due to the shutdown of coal-fired generation in Ontario.
Actions.

Responses have impacted the industry's degree to which climate change (not provided here) give some indication of production and GHG data can be used to Canada. As with energy intensity, the emissions as provided by Environment GHG emissions and include any process production and sales data. Please note that this is not a comprehensive list.

What is currently available?
CIEEDAC writes a number of reports each year reviewing the production, energy and emissions data of many major industries in Canada. These include a number of primary metal industries, forest product industries, chemical industries, cement, mining industries, construction, and electricity generation. For each of these, a fact sheet is available online at www.cieedac.sfu.ca.

Figures 1 and 2 above provide an example of the graphs that appear in each fact sheet; these are taken from the Cement Industry Fact sheet. Production data (Fig. 1) provides information regarding economic and, if available, physical units of production over the last 20 or more years. Energy use graphs (not seen here) provide some detail on fossil fuel and electricity use over the same period. In combination with the production data, they are used to generate an intensity graph (Fig. 2). The graphs are accompanied by brief descriptions pointing out the relevant details (e.g., impact of the 2009 economic downturn). Using the energy data, CIEEDAC staff estimate GHG emissions and include any process emissions as provided by Environment Canada. As with energy intensity, the production and GHG data can be used to estimate GHG intensity. These graphs (not provided here) give some indication of the degree to which climate change responses have impacted the industry's actions.

If needed, more detail on the production, energy use and emissions generated are available in the associated reports and online database at CIEEDAC (www.cieedac.sfu.ca).

What's Going On?
CIEEDAC staff participate in CIPEC Data Day
Both John Nyboer and Brad Griffin participated in CIPEC Data Day held on Sept. 15, 2015. At least 6 task force chairs of major industries in Canada were on hand to provide feedback on the latest preliminary data set for 2014.

Initial data review completed
Each year, CIEEDAC's executive director, John Nyboer, receives a "work-in-progress" release of energy data under a confidentiality agreement with Statistics Canada (STC). This year, Brad Griffin, candidate for Dr. Nyboer's position next year, also received the data and, along with Nyboer, reviewed and analysed the material provided for each industry (about 100 different NAICS groups). The analysis was shared with STC in the hopes of providing to STC staff information that would improve the final data release expected late this fall.

Continued Consultation with Statistics Canada
As part of their continuing efforts to ensure the ongoing relevance and utility of their programs, Statistics Canada (STC) consulted with key data users to obtain feedback on data, products and services provided by their Manufacturing and Wholesale Trade Division (MWTD). The goal was to identify possible data gaps and/or deficiencies; highlight new and emerging needs; and uncover potential opportunities for future collaboration. The input provided would help to guide the future direction and development of these programs.

As one of the users of these data, CIEEDAC's Executive Director, Dr. John Nyboer, was also consulted. While not a big user of the various programs and services that MWTD provides, the data collected by this division of STC, focused on economic and, for some industries, physical production, are crucial to the work that CIEEDAC does. MWTD is also responsible for data on costs (salaries, energy, material and supplies, etc.) and statistics on labour and employment. CIEEDAC uses these data in many of its industry reports.

The initial consultation consisted of a meeting/conference call held in early June where both Nyboer and Brad Griffin of CIEEDAC participated. Natural Resources Canada, a number of industry associations and other industry stakeholders were represented as well. The discussion focused on changes in the program, data availability and usefulness and how STC might be better able to serve the data needs of the community.

Further consultations occurred when representatives of MWTD visited Dr. Nyboer in his offices at SFU near the end of June. Discussion focused on the declining levels of data on physical unit production (see enerInfo Industrial, 19:3, Oct, 2014), the most recent changes in GDP data and the availability of gross output data.

As per other STC / CIEEDAC consultations, Dr. Nyboer was pleased to participate in the consultation and looks forward to beneficial outcomes of this review.