The Survey of Commercial and Institutional Energy Use (SCIEU 2019)

October 2020
Outline

1. Why we collect energy data
2. Surveys: expanding our primary info source
3. Challenges: meeting data needs and COVID-19
1. Data: a *Canadian* evidence base

- How do we *use* data?
- What data *types* do we need?
- Data quality: credible results?
- Required Coverage and frequency?

Support policy
Program Inputs:
Energy benchmarking through Portfolio Manager
Info requests: research, academic, government
2. Why we collect building energy data?

- Better understand the market
- Guide policy and program development
- Measuring progress, including on sub-sector programs
- Energy benchmarking through Portfolio Manager
- Support government priorities
3. Recent Data Collection

- 2000 Commercial and Institutional Buildings Energy Use Survey (CIBEUS)
- 2014 Survey of Energy Consumption of Arenas (SECA)
- Establishments: supplies data to Canada’s Energy Balances (RESD)
- 2018 Survey of Multi-Unit Residential Buildings (MURBs)
4. Survey of Commercial and Institutional Energy Use (SCIEU)
5. Key data on floor space and energy use intensity (SCIEU)

Energy intensity
Canada = 1.14

% Floor Space

GJ/m²

Office buildings
Medical office buildings
Elementary/secondary...
Assisted daily/residential
Warehouses
Hotels, motels or lodges
Hospitals
Food and beverage stores
Non-food retail stores
Other activity or function

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6. Multi Unit Residential Buildings (MURBs)
7. Expanding SCIEU for 2019

- Current policy and budget initiatives
  - Provinces/Territories: working toward full energy disclosure
  - ENERGY STAR™ Portfolio Manager benchmarking tool: must expand from 10 to 26 building types to cover 80% of floor space
  - Better sense of market penetration of key policies re: retrofits, recommissioning, retro-commissioning, fuel switching
  - Maintain consistency with U.S. EPA
8. Survey Operational Challenges

Data Quality/Use

• Need to find *all C&I buildings in Canada*
• At present, # buildings and energy consumption are statistically derived
• Quality of ‘estimates’ is uncertain
• Universities and Hospitals: important but problematic
9. Establishment Challenge: e.g., Hospitals
10: COVID-19 Challenges

Viability of a business survey:
• Are the units still in business?
• Availability of knowledgeable reps?
• Effects on StatsCan re: processing?
• Effects on the data?
  – What do results really represent?
  – Pre/post COVID?
  – Trends, relationship to other sources?
  – How long will this last?
11. Solutions

• **Buildings Registry**: up-to-date inventory of all buildings
  Statistically derived: Canada = 482,000
  Buildings Registry: Canada = 1,018,000 !!
• **Much Larger Sample**: increase coverage/quality
• **More Building Types**: 80% floor space
• **Establishment Survey**: campus-level data
• **COVID-19**: still an unknown
12. Next steps

• Winter/Spring 2020/21: data collection
• Summer/Fall 2021: review data and their messages:
  – COVID-19 effect?
  – Do data make sense?
  – Are they useful?
  – Do they answer our mandate information needs i.e.,
    supporting our transition to a lower carbon economy
• Jan/Feb 2022: web-based publication of SCIEU 2019 data
• Prep for SCIEU 2024
Thank You!

Peter Greenberg
Office of Energy Efficiency
Buildings and Industry Division
peter.Greenberg@Canada.ca
(613) 790-3861