Canada’s Perspective: Natural Gas Data Collection and JODI-Gas Issues

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Technology expanding Canada’s natural gas resource base:
- 70 Tcf of proved reserve in 2011
- Estimated 700 - 1,300 Tcf of technically recoverable resources

Canada is the 3rd largest producer of natural gas behind Russia and U.S. (4.7% of global production)

Production has been on declining trend over last five years due to shale gas boom in U.S. and declining prices in North America

98% of current marketable production comes from Western provinces, with remainder coming mainly from offshore in Eastern Canada
Canada’s Natural Gas Resource Base

Fields with current marketable production

Technically recoverable resources
Integrated North American Natural Gas Network

- Integrated pipeline network delivers natural gas from producing to consuming regions in North America
- All Canadian exports currently destined for U.S.
- With increasing US production, Canadian producers seeking opportunity to diversify markets via LNG exports:
  - 5 proposals for new LNG terminals on West coast, 1 on East coast
Shared Federal/Provincial Jurisdiction

- Provinces own and manage the resources found within their boundaries:
  - exploration, production, gathering, and processing infrastructure, and intra-provincial transmission pipelines

- Federal government is responsible for:
  - inter-provincial and international trade (market structure)
  - exports/imports (licensing)
  - cross-border pipelines
  - exploration in North, offshore, and on Crown lands

- Downstream use of natural gas, including storage, distribution, electricity generation, LNG facilities, is generally provincially-regulated
Monthly Gas Data in Canada

A mature data collection system for supply-demand:

1. Upstream data are collected by nine different regulatory agencies (Federal and Provincial) and shared with Statistics Canada:
   - overseeing a large number of conventional suppliers, one offshore field, and one LNG import terminal

2. Transportation/distribution data collected by Statistics Canada via a detailed statistical survey (in existence for several decades):
   - ≈ 40 respondents, including long-distance pipelines and local distribution companies
Issue: Data Timeliness for M-1

- Current availability of data:
  - preliminary data available from regulatory and statistical agencies about 1 to 1½ months after the reference month
  - actuals available ≈ 1 to 2 months later

- Options:
  - estimate missing data for M-1 using data from private sector consultants (current practice)
  - accelerate the collection of key statistics
    - as was done in Canada for JODI-Oil
    - feasibility study required
Issue: Stock Levels

- Currently, there are no administrative/statistical surveys in Canada on levels of gas in storage
  - however, data on deliveries to, and withdrawals from storage sites are collected under the pipeline/distribution survey
  - thus, stock changes data can be calculated

Options:
- use data available from private sector consultants (current practice)
- develop a new statistical survey of storage sites
  - feasibility study required to expand monthly survey to include stock levels
Issue: Power Generation

- Currently, no monthly data reported as pipeline/distribution survey does not ask respondents to identify deliveries to power generators

- Options:
  - modify monthly electricity survey to seek electricity generation from natural gas, and then estimate fuel input
    - feasibility study required
  - expand the pipeline/distribution survey
    - however, respondents may not know if gas delivered to industrial facilities are used for industrial purposes or power generation
Thank you