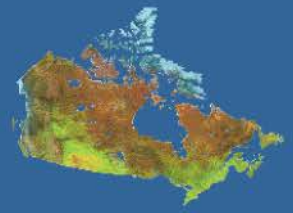
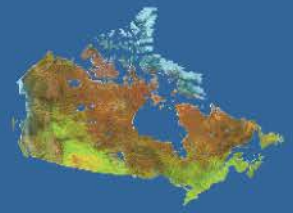


Canada's Perspective: Natural Gas Data Collection and JODI-Gas Issues

James Zeni
Natural Resources Canada

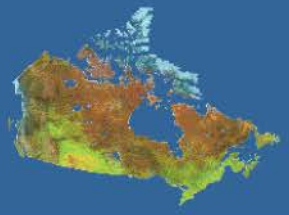
3rd Gas Data Transparency Conference
Bali, Indonesia
June 4-5, 2013

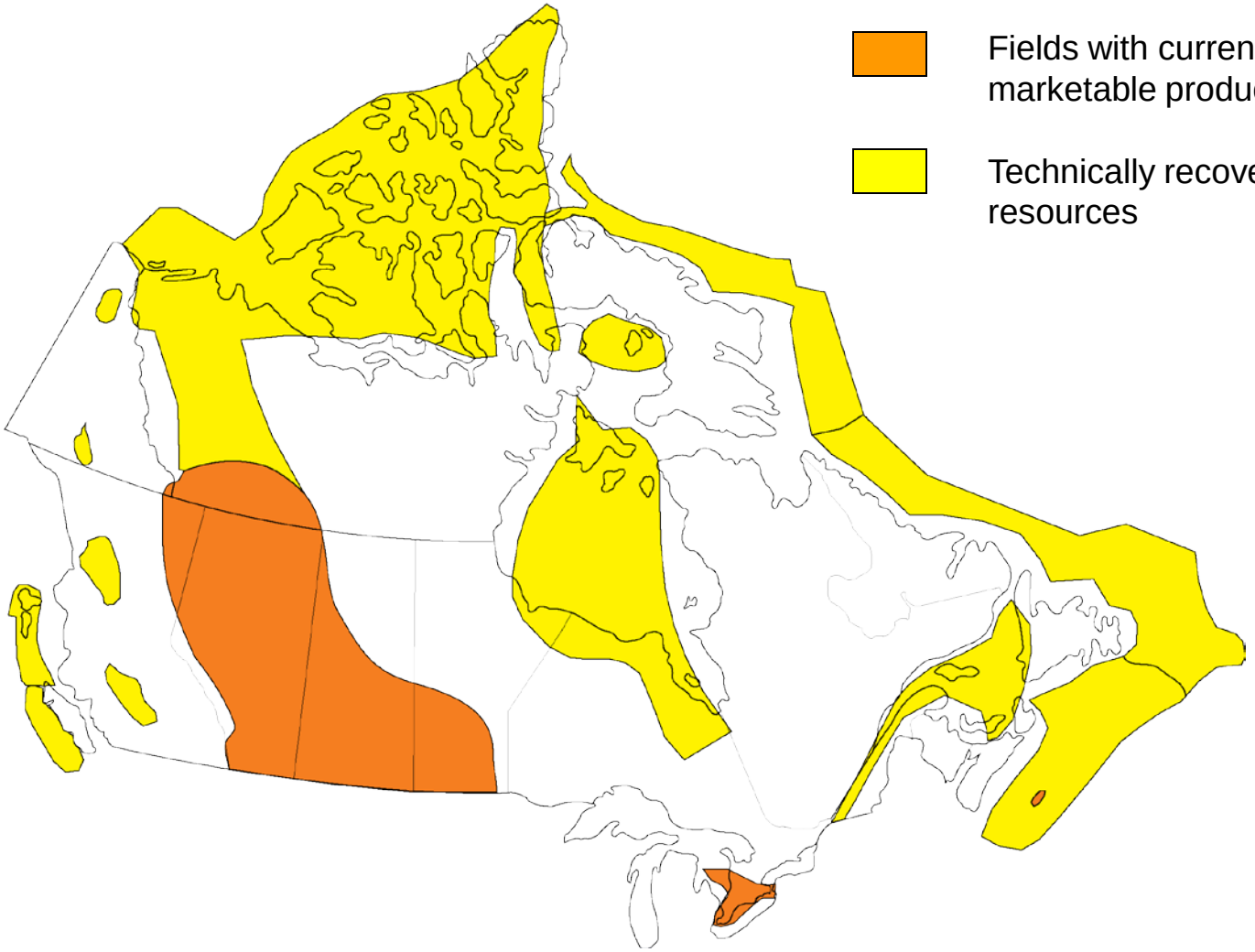
Canada's Natural Gas Resource Base



- 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

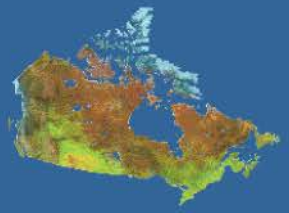




Integrated North American Natural Gas Network

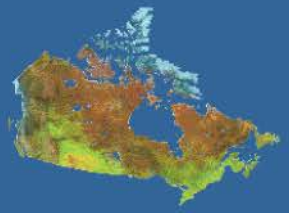
- Integrated pipeline network delivers natural gas from producing to consuming regions in North America
- All Canadian exports currently destined for U.S.
- With increasing US production, Canadian producers seeking opportunity to diversify markets via LNG exports:
  - 5 proposals for new LNG terminals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

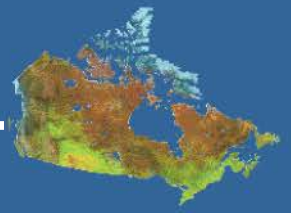
Monthly Gas Data in Canada



A mature data collection system for supply-demand:

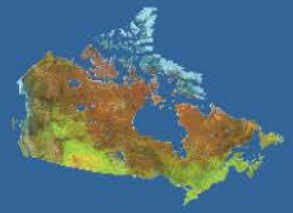
1. Upstream data are collected by nine different regulatory agencies (Federal and Provincial) and shared with Statistics Canada:
   - overseeing a large number of conventional suppliers, one offshore field, and one LNG import terminal
2. Transportation/distribution data collected by Statistics Canada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



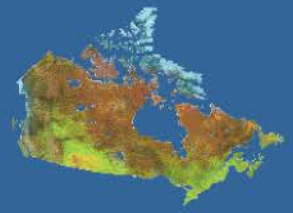
- Current availability of data:
  - preliminary data available from regulatory and statistical agencies about 1 to 1½ months after the reference month
  - actuals available ≈ 1 to 2 months later
- Options:
  - estimate missing data for M-1 using data from private sector consultants (current practice)
  - accelerate the collection of key statistics
    - as was done in Canada for JODI-Oil
    - feasibility study required

Issue: Stock Levels

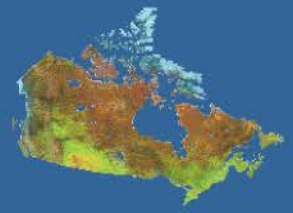


- Currently, there are no administrative/statistical surveys in Canada on levels of gas in storage
  - however, data on deliveries to, and withdrawals from storage sites are collected under the pipeline/distribution survey
  - thus, stock changes data can be calculated
- Options:
  - use data available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