Update: Canada

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CEE – BEG, Houston Texas

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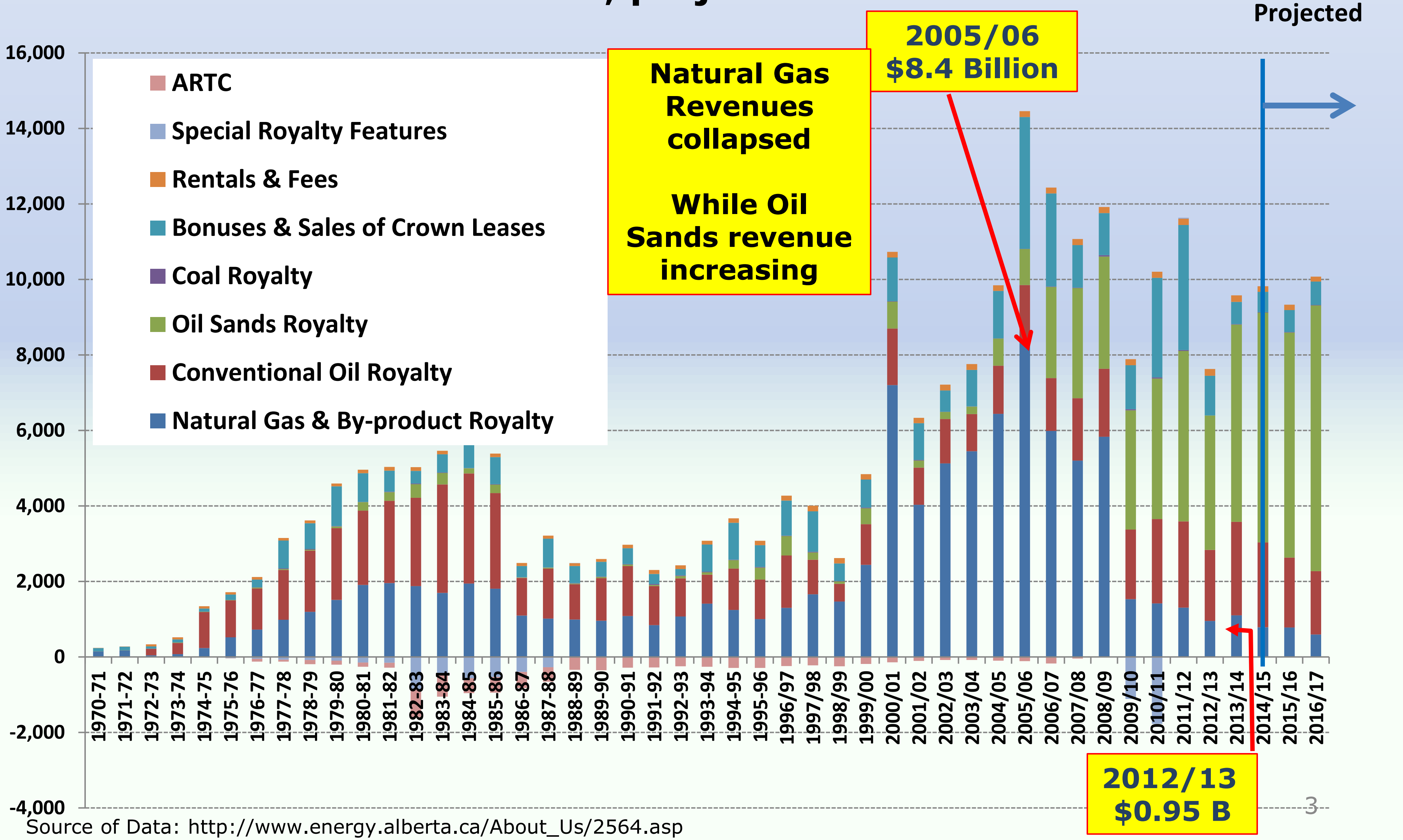
Since last year…

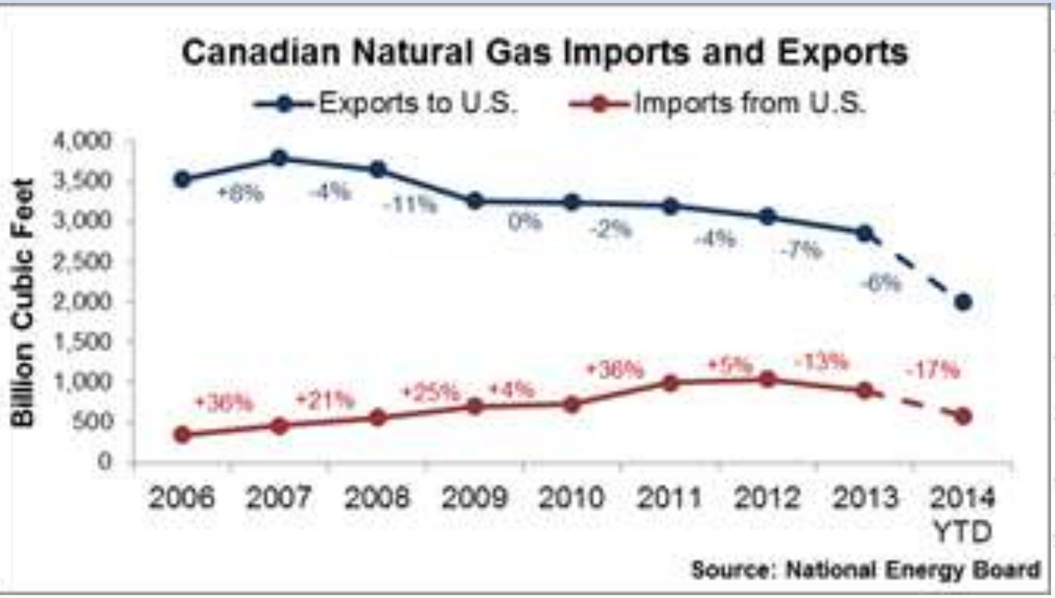
- Pipelines more problematic
  - Keystone:6 years and counting
  - Northern Gateway: OK, but…
  - Trans-Mountain PL: Civil disobedience & GPS incompetence
  - Line 9: OK but still pockets of opposition
  - Energy East: Application in, Placards out;
  - Meanwhile pipes getting built and oil moving by rail; i.e. some pipes raise sea level more than others!
- LNG proposals for both coasts stack up but no FIDs yet; B.C. LNG Tax and Env laws in place but regulations still unknown.
- Oil price the big concern
- New Premier in Alberta

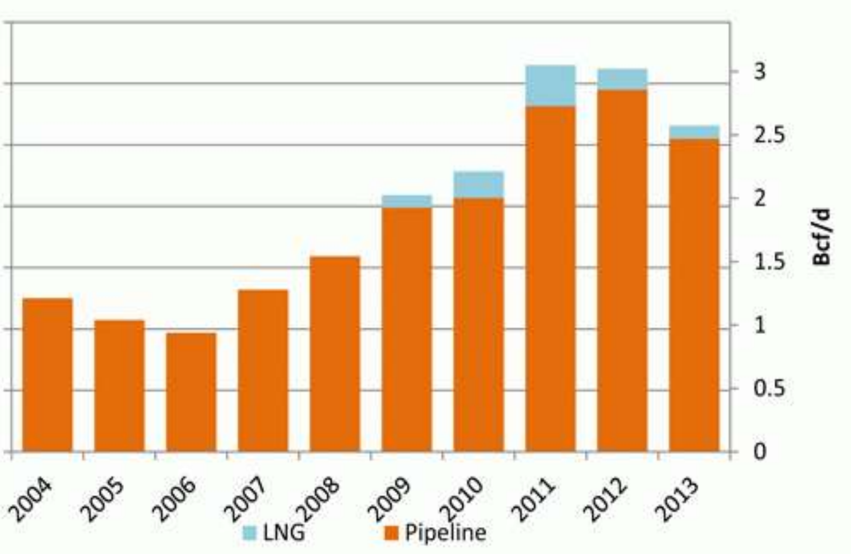
Alberta's Non-Renewable Resource Revenues
($mm)
1970 – 2014; projected → 2017



Source of Data: http://www.energy.alberta.ca/About_Us/2564.asp

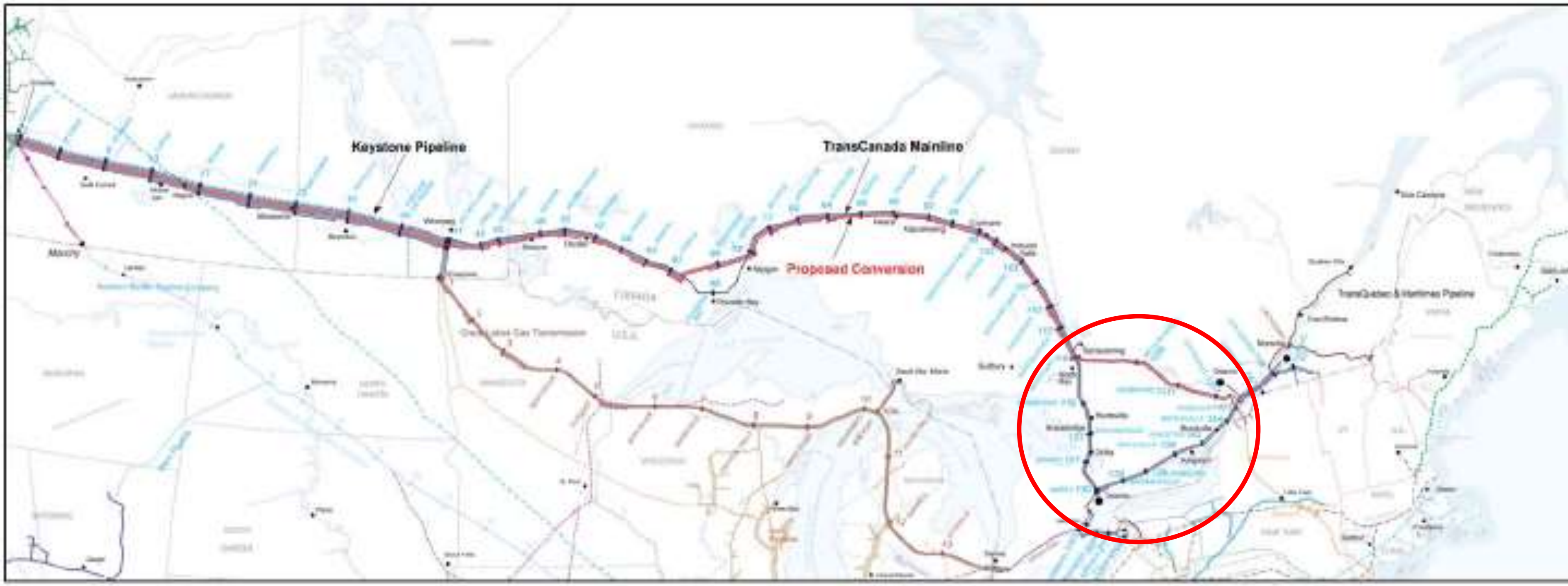
Central Canada shifting to US gas





While the methane that bakes their baguettes comes from fracked wells in the U.S., Quebec will not allow fracking in the province.

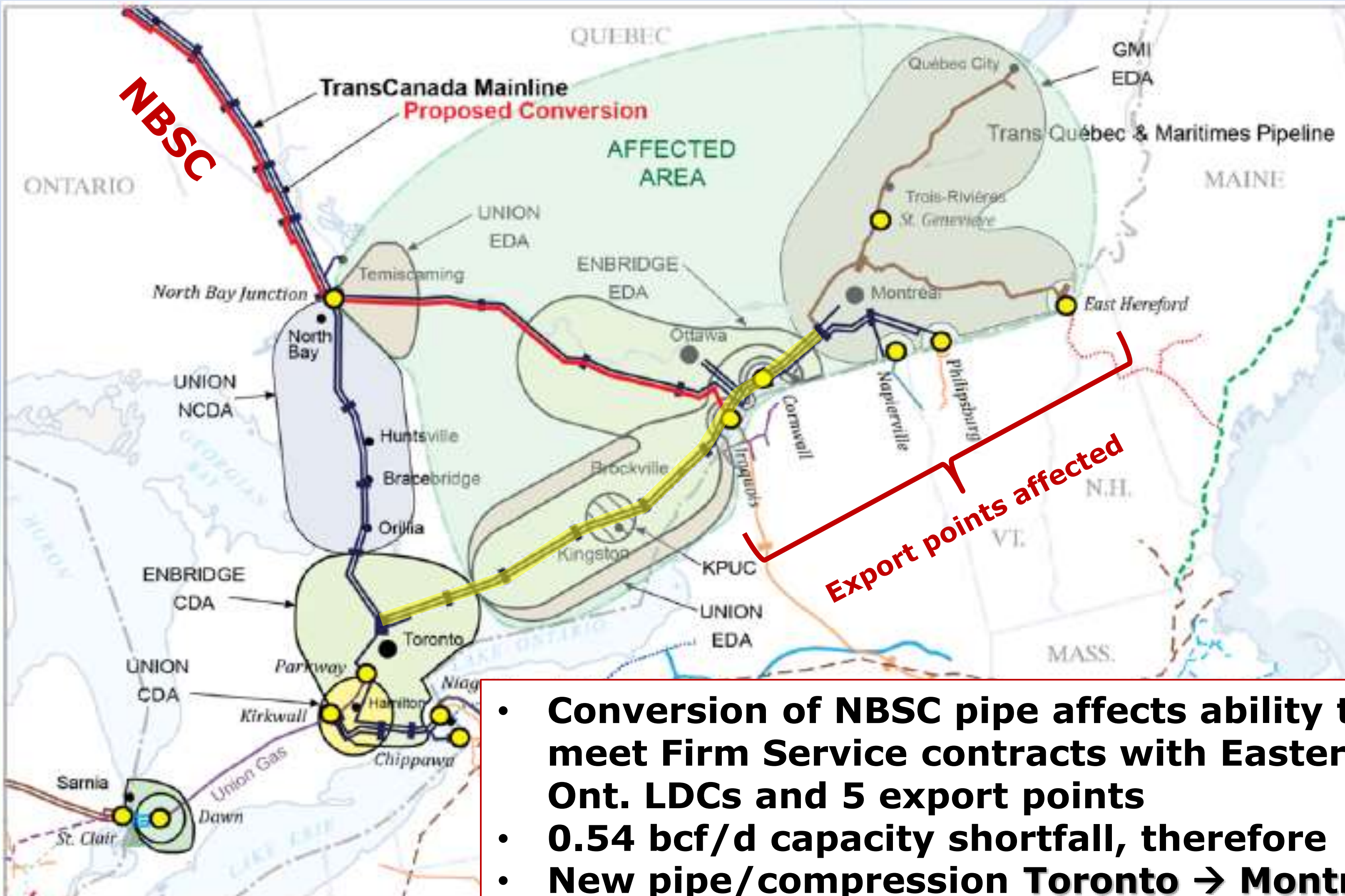
Energy East Pipeline Proposal
Eastern Triangle LDCs



Source: TCPL Application to NEB; ENERGY EAST V. 1, Sec. 1 Project and Application Overview

Led by Quebec LDC, TQM, central Canada LDCs contesting conversion to oil service.
GMi (50% TQM) has political origins and no reason to think this issue will not become very political before it is concluded.

The Affected Area



- **Conversion of NBSC pipe affects ability to meet Firm Service contracts with Eastern Ont. LDCs and 5 export points**
- **0.54 bcf/d capacity shortfall, therefore**
- **New pipe/compression Toronto → Montreal**

Source: TCPL Application to NEB; ENERGY EAST V. 1, Sec. 1 Project and Application Overview

Ziff's outlook for long term Canadian gas demand

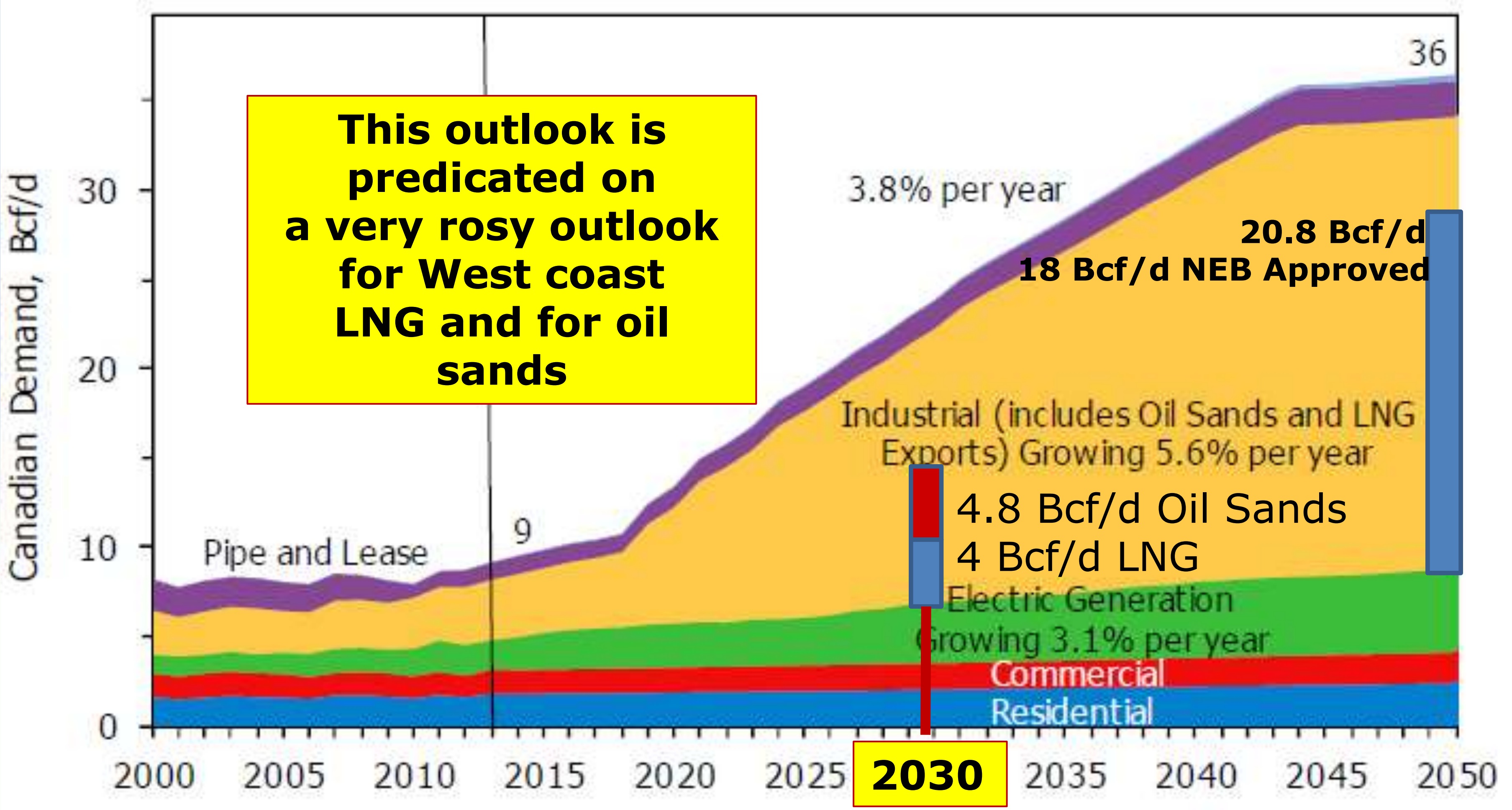


Figure 29. Canadian Demand Overview

Oil Sands gas needs based on CAPP Crude oil forecast 2014; LNG own estimates

Long-Term Natural Gas Supply and Demand Forecast to 2050 for Bear Head LNG
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Submitted to NEB in support of Bear Head LNG Export Application

2010 Gas imports & exports (Ziff)

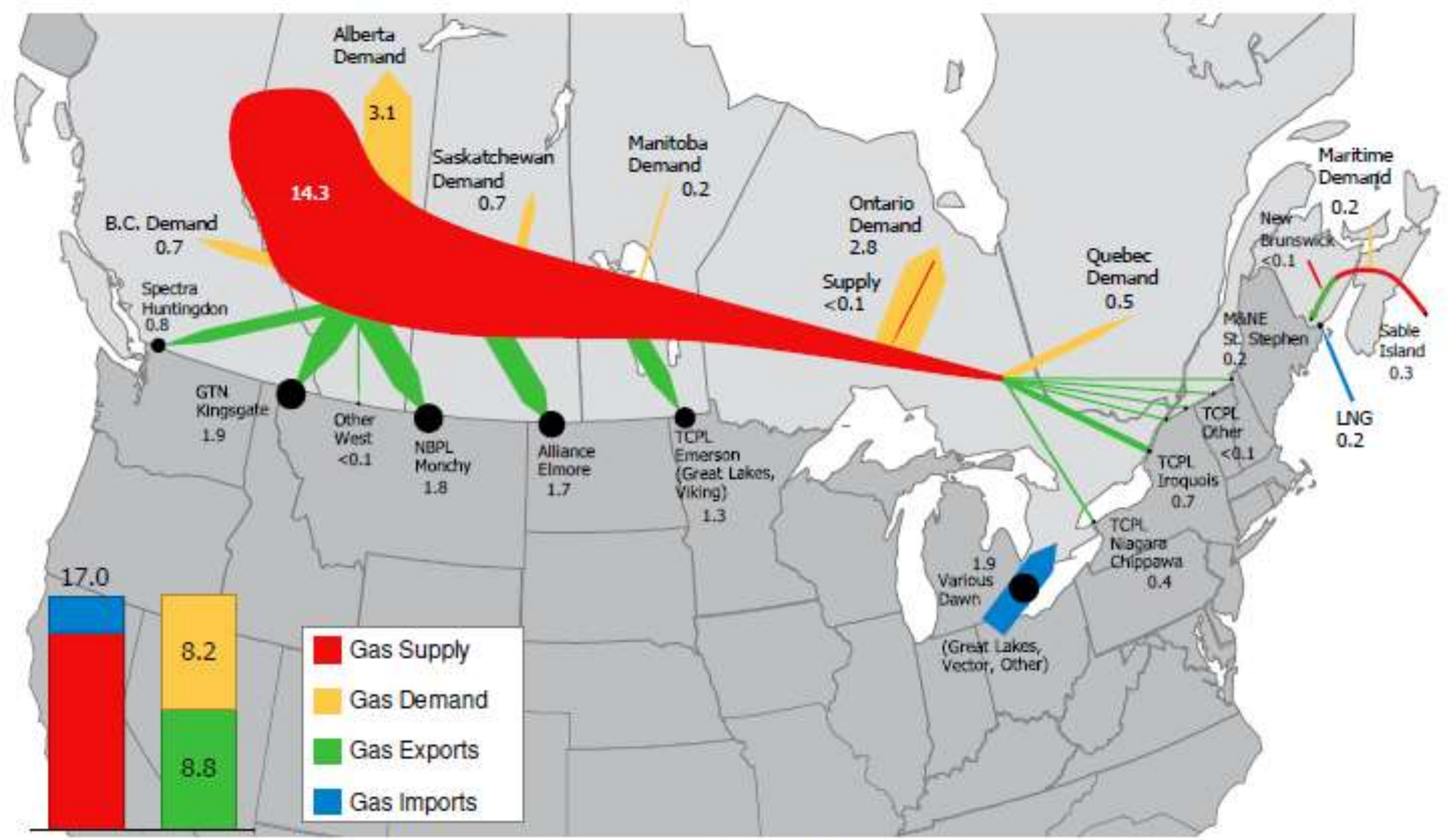

Figure 37. Canadian Gas Imports and Exports (Bcf/d), 2010

Projected 2050 gas imports & exports (Ziff)

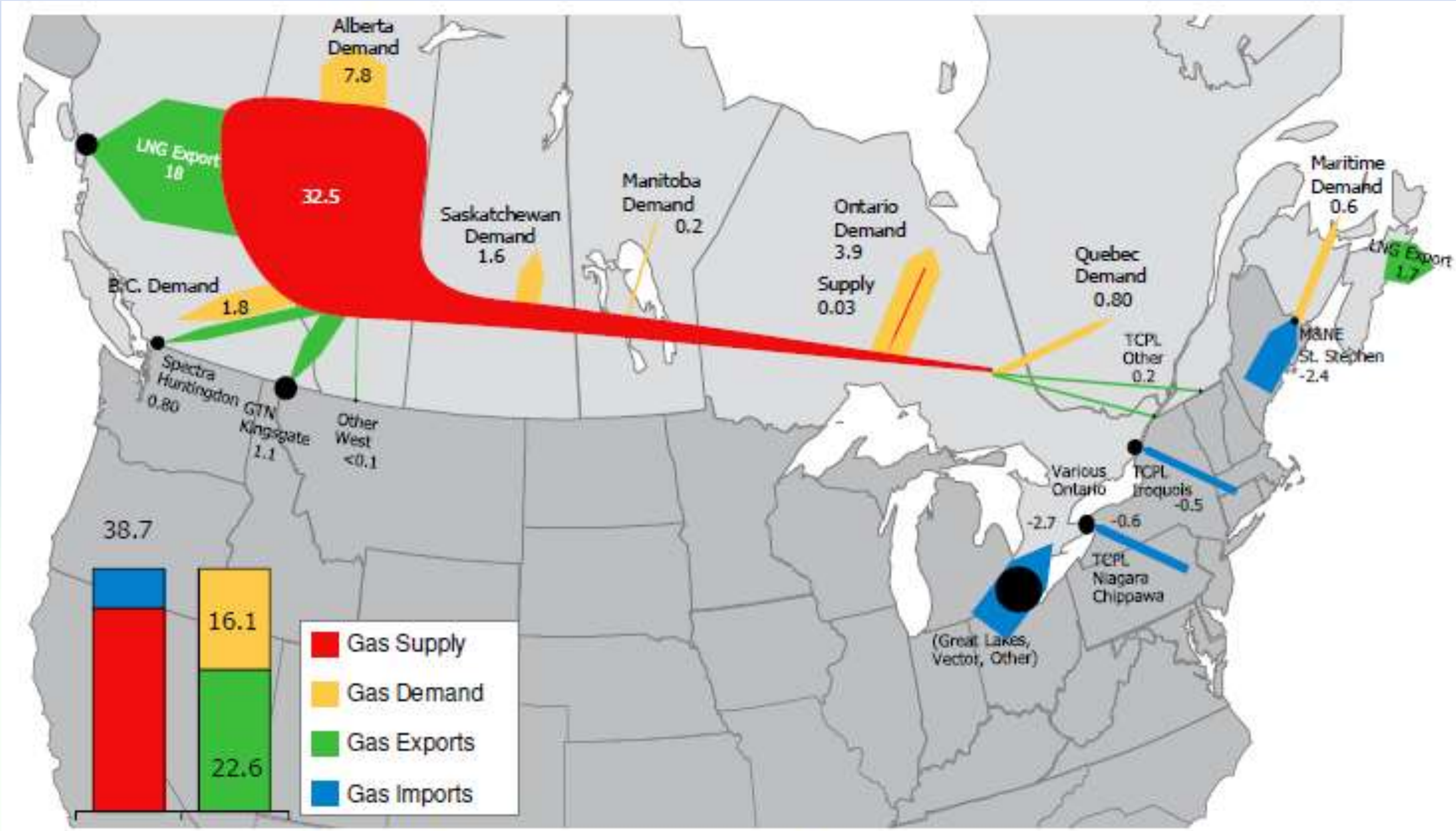

Figure 38. Canadian Gas Imports and Exports (Bcf/d), 2050

Long-Term Natural Gas Supply and Demand Forecast to 2050 for Bear Head LNG

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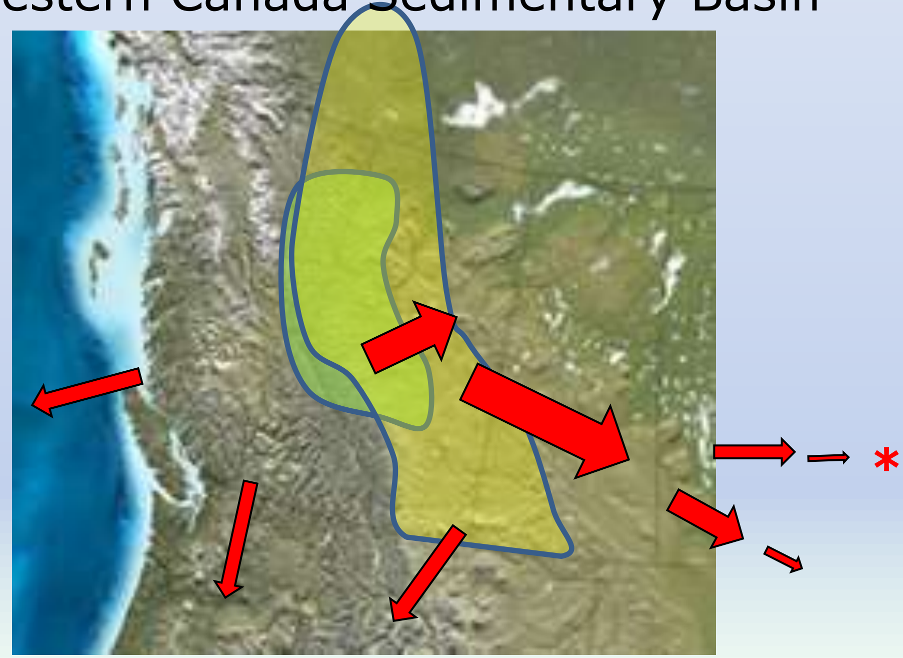
The Long Term Natural Gas Map for Canada?

Western Canada Sedimentary Basin



- Conventional gas continues to whither
- Drilling Shifts west to wet shale plays
- Gas stays home & goes west
  - Oil sands steam and power
  - West coast LNG, (Can & US) as
  - Traditional Eastern Canada and mid-western US markets captured.

Demand centre in Central Canada

- Demand grows slowly
- Based on imported US shale gas
- Some LNG exports on East Coast fed by Marcellus and Utica shale gas