

CEE/BEG University of Texas

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Canada: Big Projects Update

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Outline

- Significant changes to the policy context for oil and gas industry
- Project Update & Outlook

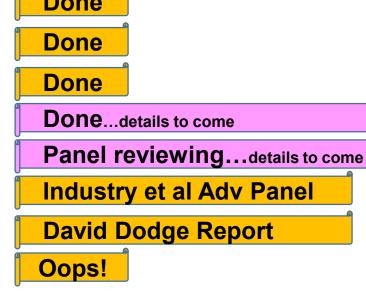
Federal Government: Historic Political Come-back (October 19th)

Promises re. Energy/Environment: "will price carbon" (w/ Provinces)

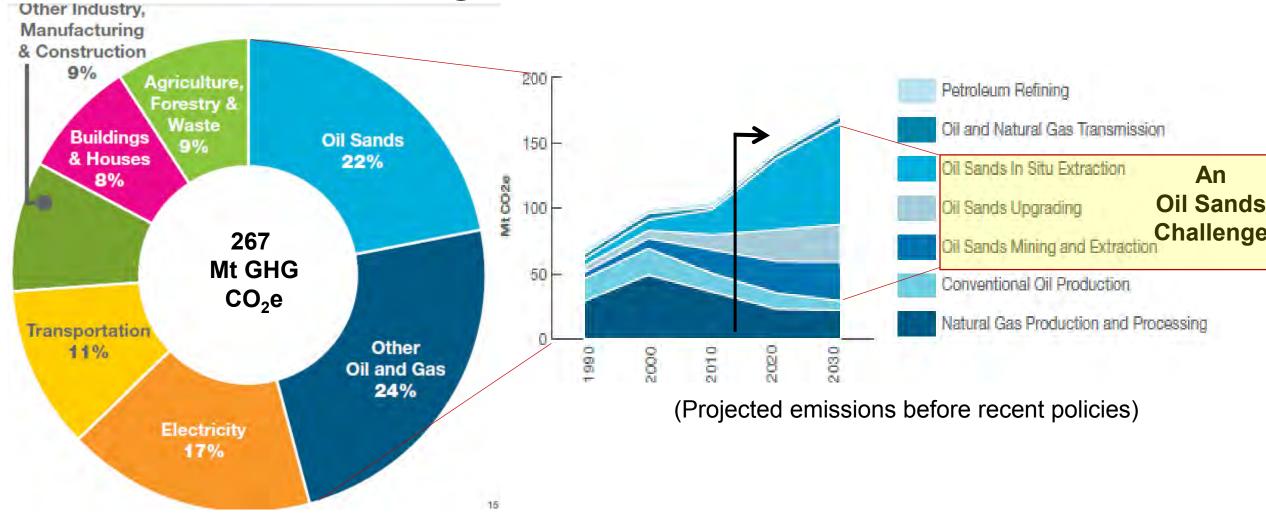
- Fiscal: End F.F. tax credits (Accelerated Capital Cost Credit and Exploration Expense Credit on unsuccessful wells) 100% → 30%; Green Renovation tax credit; Renewable Power Production Incentive
- Regulatory: Liberal Government position on pipelines 'neutral'—
 opposes Northern Gateway PL & will formalize moratorium on crude
 oil tankers north coast of BC;
- Rely on independent regulators' but committed to reviewing recent changes to NEB process, improving EA process, require consideration of climate change and greater involvement of Aboriginal communities.

Historic Political Shift in Alberta — (May 7, 2015)

- After 42 years of Conservative government, New Democratic Party elected under Premier Rachel Notley
- She promised to:
 - Increase Corporate Income Tax from 10% to 12% Done
 - Move away from flat 10% personal income tax to progressive tax brackets above \$125k
 - Increase Minimum Wage to \$15/hr by 2018
 - Ban corporate & union donations to political parties
 - Change Alberta's Climate policies
 - Review Royalties
 - Diversify the Economy (away from Oil & Gas)
 - Review province's capital needs
 - Cancel funding of CCS projects



Climate Change Policies Announced



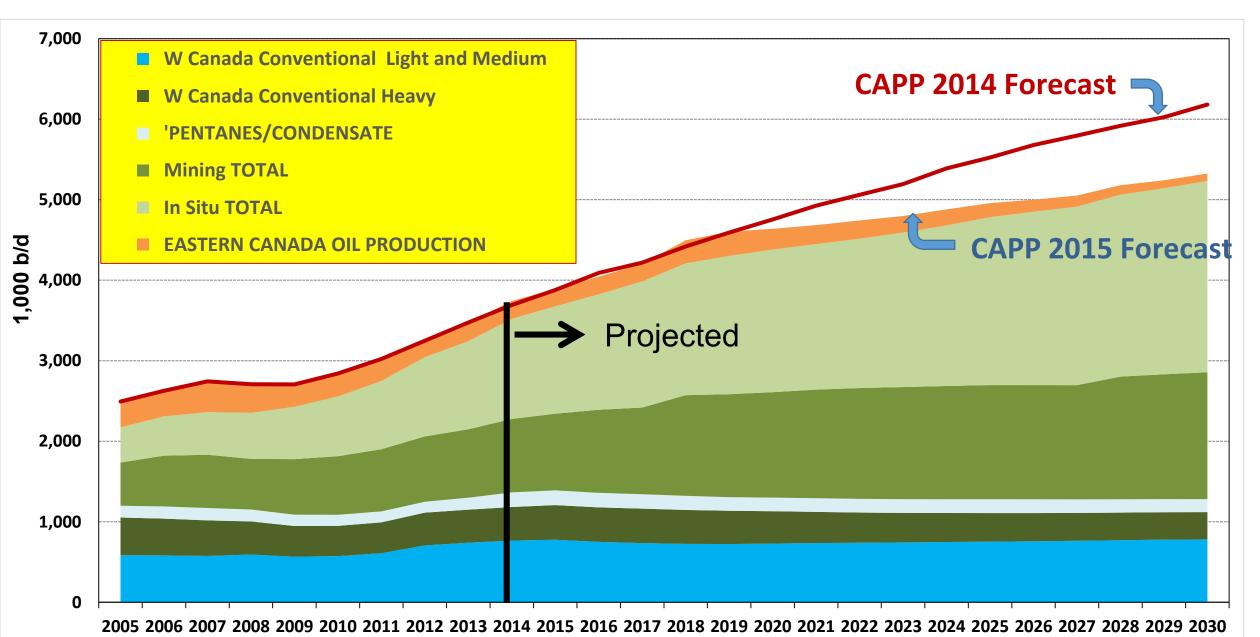
Alberta Climate Policies

- **1. Economy-wide carbon tax:** \$20/t in 2017, \$30/t in 2018; possible increases @ CPI+2%/y*
- **2. Electricity:** a) Phase out <u>all</u> coal by 2030; replace 2/3s with renewables, 1/3 *capacity* by gas such that 30% of electricity *generated* from renewables, b) 2018, \$30/t for emissions > AB's cleanest gas-powered plant generating equivalent power
- 3. Cap on emissions from oil sands = 100 Mt (vs ~70 Mt today)
- **4. 45**% reduction of CH₄ emissions by 2025
- Renewables support & Province-wide energy efficiency program
- Provinces & Ottawa to meet 90 days after COP 21

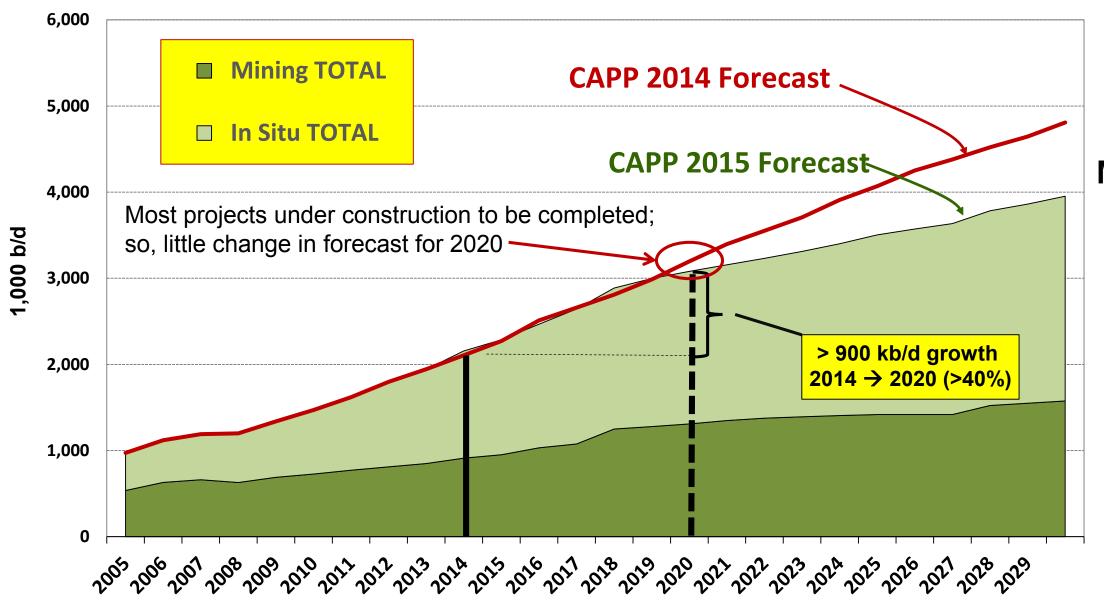
Alberta Climate Policies: Issues & initial thoughts

Aim: Alberta emissions ~ at 2013 level by 2030

- Carbon Tax NOT Revenue Neutral (money spent on renewables, efficiency & technology); some rebates for low/medium income
- Large emitters (>100 kt) to get emissions permits; top quartile performers pay no tax (start 2018)
- Uncertain if performance based on Company, Technology, Project or Phase? Uncertain if stringency increases post 2018?
- Oil Sands Cap → Room for Cogen, new Upgrading & efficiency gains in current projects, ~ 10 Mt each.
- Distributors of fuel are the 'tax collectors'
- CH₄ reductions to align with EPA; tax to apply to conventional oil and gas site-use & flaring in 2023

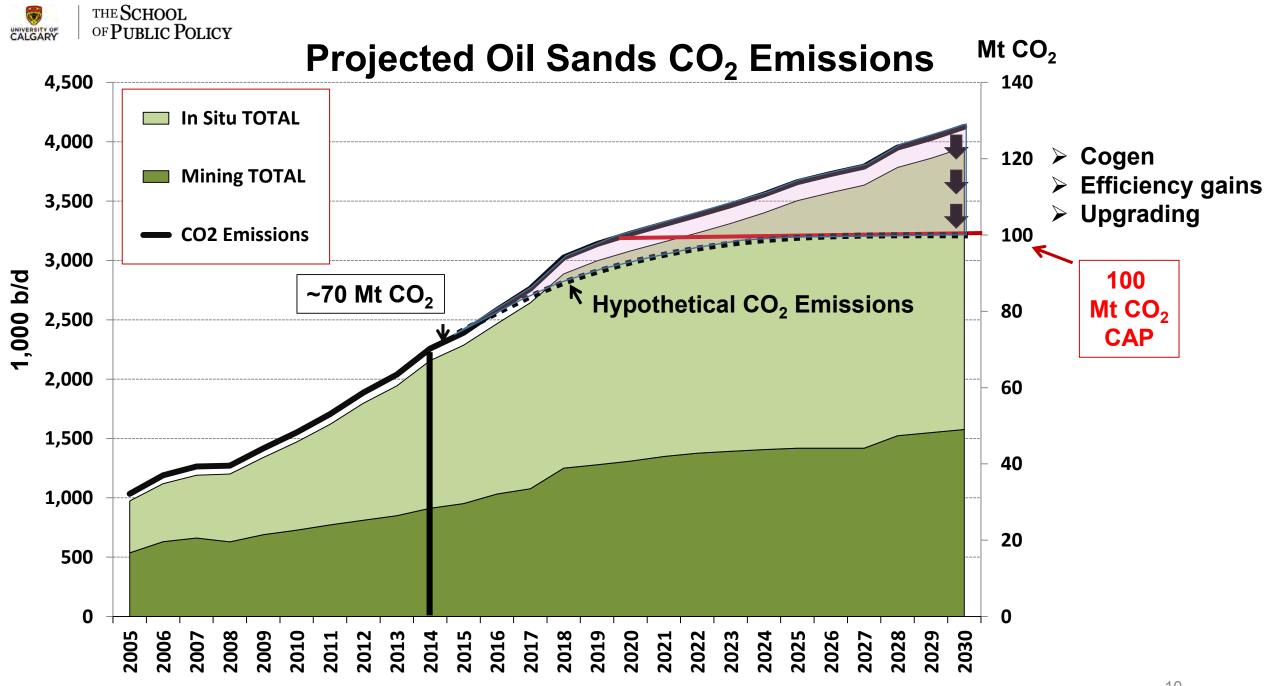


Source: CAPP Crude Oil Forecast June 2015; 2014



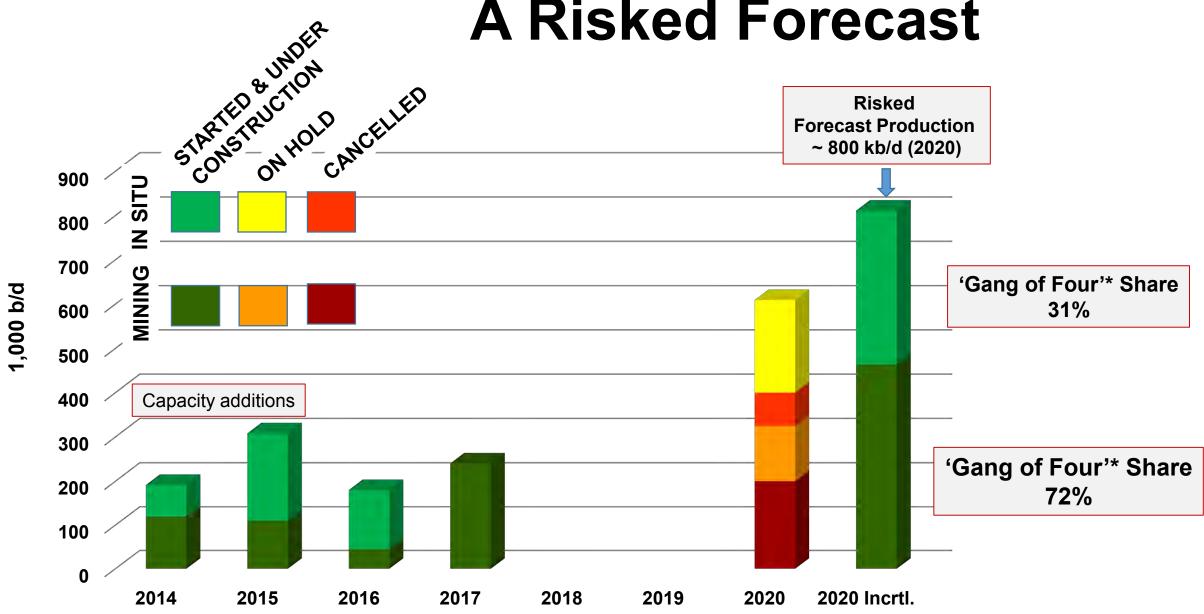
Oil Sands
Project
Momentum

Q





A Risked Forecast



^{*} CNRL, Suncor, Shell, Cenovus: operate ~ 50% of 2015 oil sands capacity

Pipelines

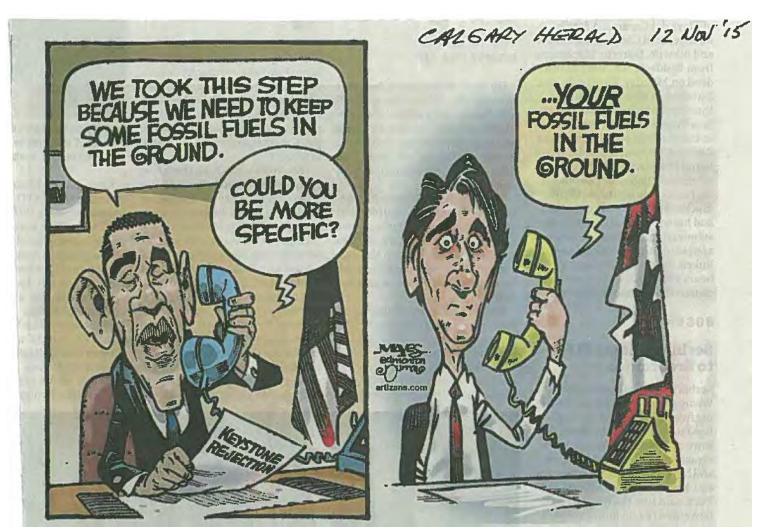
- Line 9 're-reversal'; currently starting up
- Trans Mountain Kinder Morgan to Burnaby B.C. (NEB review adjusted after procedural challenges, the 'Kelly Affair', Burnaby politicians oppose but election voted for 'balance' and court deferred to NEB and assigned costs to Burnaby)
- Northern Gateway; approved, 200+ conditions, court challenge by Aboriginals; probably 'Dead' (Trudeau does not support)
- Energy East, Hearings to start next fall; FNs lining up
- Keystone XL (Dead or just in deep sleep?)
- Enbridge Line 3 Pipe replacement, review underway
- 'Work-around' with rail and expansions to existing pipe



Carbon Atoms in Oil Sands are the Worst!



The carbon in this molecule are 'special': They imperil the Earth more than others.



West coast LNG Projects



- 20 Projects Proposed, > 40 Bcf/d
- 13 with NEB export license approvals (27 Bcf/d)
- At least 6 significant pipeline projects
- B.C. government gung ho.
- Petronas project (2 Bcf/d) made "conditional FID" (June 2015)
 - Federal Environmental Review,
 - Provincial Approvals,
 - FN's concerns)

For Update & Recent Analysis, refer to:

- http://engage.gov.bc.ca/lnginbc/lng-projects/
- http://www.ceri.ca/images/stories/CERI Study 148.pdf



SUMMARY

Canadian Oil & Gas sector under major stress

- Low prices (thankfully a US\$0.74 Loonie!)
- Some of the highest cost O&G in the world
- Details of Alberta Climate Policy & Royalties unknown

The most critical issue for Canada's O&G Industry is Market Diversification & Access to Tide Water →A 'deal' with the NGOs: '100 Mt cap for access to markets'?

Financing of oil and gas a challenge, especially small companies

Thank You