

Competitiveness in Resource Development: the Alberta Experience

Matthew Foss

Alberta Department of Energy

November, 2011

The Big Picture....

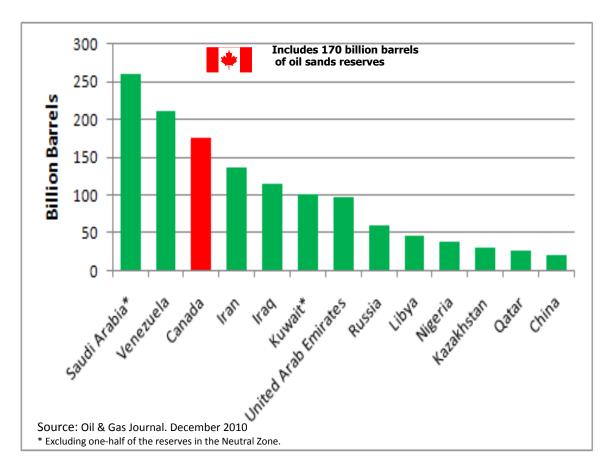
2

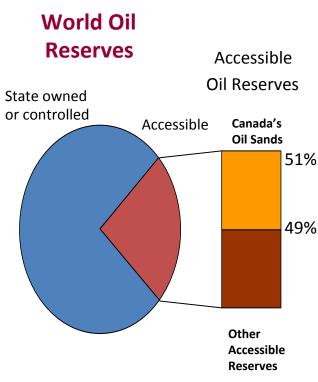
Key findings in the IEO2011 Reference case

- World energy consumption increases by 53% between 2008 and 2035 with half of the increase attributed to China and India
- Renewables are the world's fastest-growing energy source, at 2.8% per year; renewables share of world energy grows to roughly 15% in 2035
- Fossil fuels continue to supply almost 80% of world energy use in 2035
- Liquid fuels remain the largest energy source worldwide through 2035, but the oil share of total energy declines to 28% in 2035, as sustained high oil prices dampen demand and encourage fuel switching where possible and modest use of liquid biofuels

The world is still expected to rely heavily on fossil/liquid fuels for energy in 2035

Crude Oil Proved Reserves



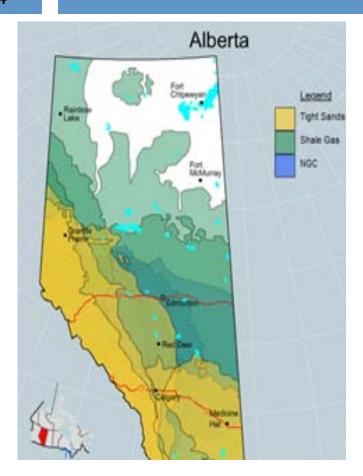


Alberta's Oil Sands represent more than half of the world's oil resources that are easily accessible

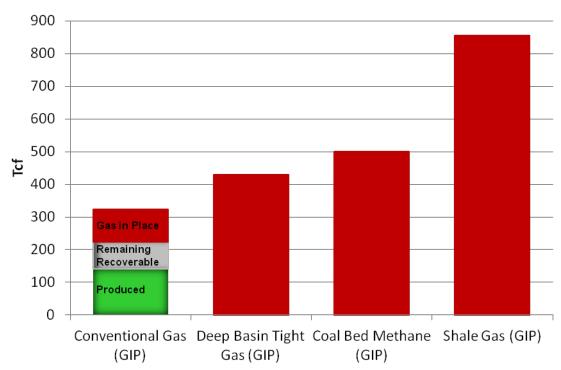


Alberta's Natural Gas Resources

4



Source: Canadian Society for Unconventional Gas



Source: Energy Resource Conservation Board, Petrel Robertson, Gas Technology Institute (GTI)

 $\mbox{\rm GIP:}$ $\mbox{\rm Gas}$ in Place is the total gas volume believed to be contained $% \mbox{\rm GIP:}$ in the reservoir.

NGC: Natural gas from coal (CBM)

Alberta's Natural Gas Industry is Well Placed with Abundant Resource Opportunities



Alberta Oil and Gas in North America

5

•	World's	4 th	largest	gas	producer
---	---------	-----------------	---------	-----	----------

- World's 12th largest crude oil producer
 - moving up the list quickly with oil sands production increasing
- Alberta total energy production is forecast to increase more than 25 per cent over next 10 years

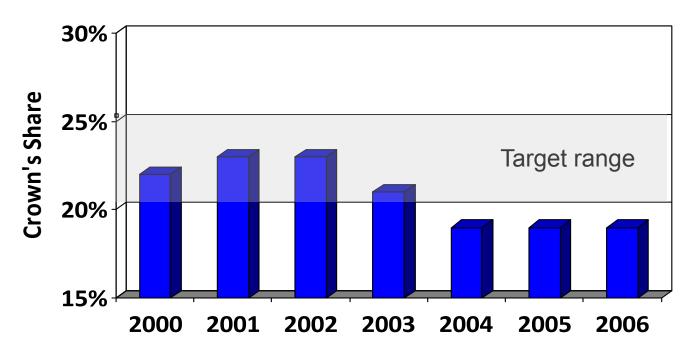
2010	Alberta Natural Gas	Alberta Crude Oil
Ranking of U.S. Imports	#1	#1
Share of U.S. demand	7%	8%
Share of U.S. imports	47%	12%
Source: ADOE, EIA, ERCB		



Sharing the Profits

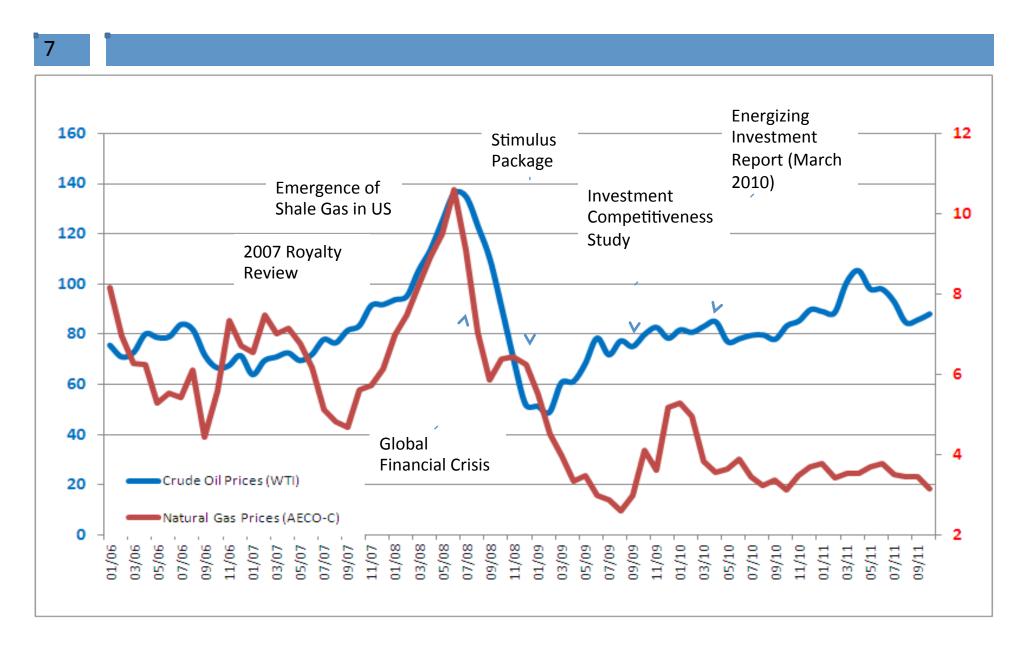
Target: 20 per cent to 25 per cent of industry's annual net operating revenue

Sharing the Profits





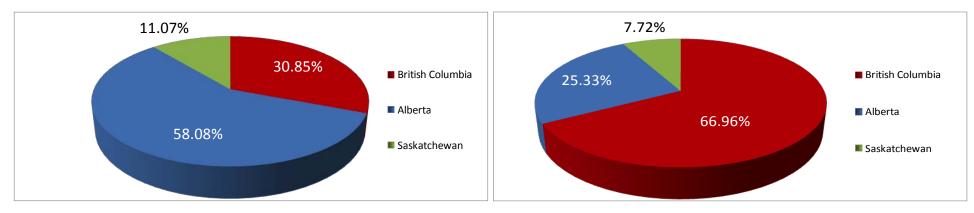
Responding to Changing Economics



Western Canada Land Sales

Percentage of Land Sales 1999-2008

Percentage of Land Sales January-October 2009



Source: ADOE, Energy, Mines and Petroleum Resources – Province of British Columbia, Government of Saskatchewan

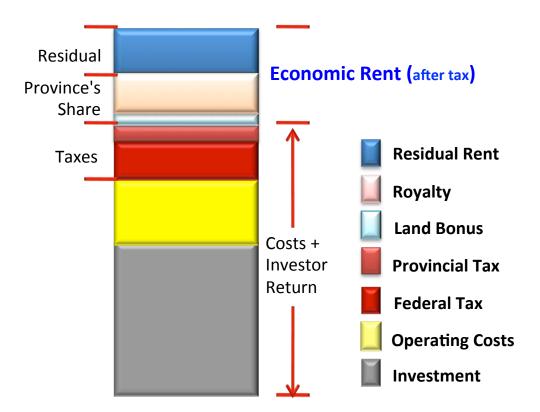
Land sales are a leading indicator of future activity. Investors have indicated more confidence in the future prospects in BC than in Alberta.



Decision-Making Process



Representation of the Present Value of Cash Flows Over the Life of a Project



- 2007 review view based on resource scarcity – rent is tied to the resource
- 2009 review influenced by competitiveness
 - increased resource availability
 - rent no longer exclusive to the resource



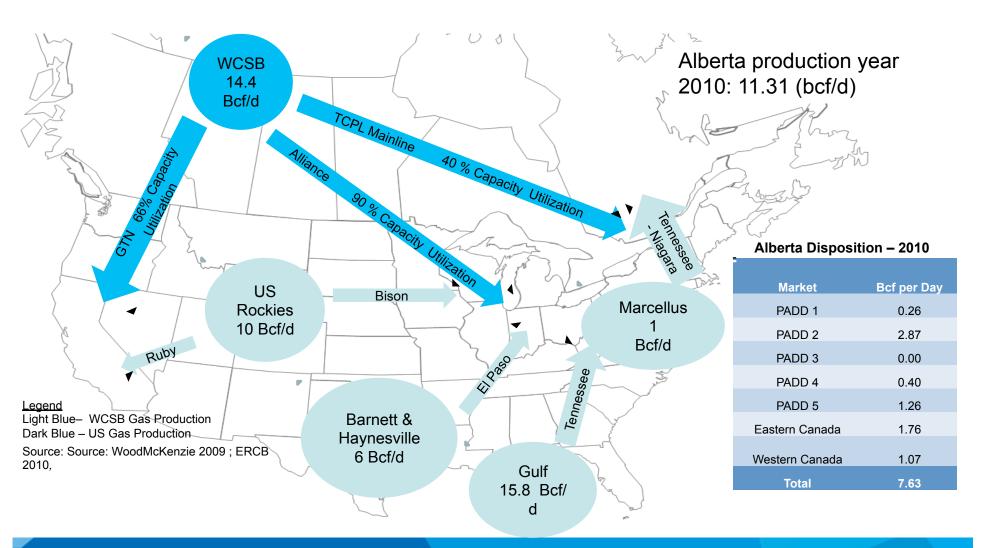
Energizing Investment

- Royalty Maximum Reductions
- Royalty Curve Adjustments
- New Well Royalty Rate
- Horizontal Oil New Well Royalty Rate
- Shale Gas Royalty Rate

Enhancing Assurance

- Single regulatory body for oil and gas (ERCB, Environment and SRD)
- New Policy Management Office
- Common risk assessment and management approach
- Clear public engagement
- Establish Performance Measures for effective delivery
- Effective mechanism to address landowner concerns

Alberta Natural Gas Markets





Current Alberta Crude Oil Markets

	Alberta Exports
	(Barrels Per Day
Market	000's)
PADD 1	59
PADD 2	1,167
PADD 3	78
PADD 4	218
I ADD 4	210
PADD 5	106
Eastern Canada	252
Western Canada	47
Total	1,927

Source: CAPP

