ISES 2015, Bali, 12th June 2015

The Story of Shale

Barry Goldstein
Executive Director
Department of State Development
South Australian State Government

US$/Bbl Brent

31.2 TCF produced in the USA in 2014
26.8 TCF consumed in the USA in 2014

Ted Beaumont, President AAPG (July 2012 Explorer pp 3)

2014

Actual Consumption
Actual Production

Australia leads in using CSG as LNG feedstock

USA is producing more gas than it consumes and will export LNG

M K Hubbert (1956) Ultimate Gas Production Curve

Ted Beaumont, President AAPG (July 2012 Explorer pp 3)

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...organic matter, maturity and brittleness

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$/barrel for Brent Crude

$160  Venezuela balances budget
$130  Iran balances budget
$115  Breakeven for highest cost USA shale oil
$114  Iraq balances budget
$110  Russia balances budget
$100  Supports new Canadian oil sands
$95   Average crude price to boost airline profits by $15bln
$90   Saudi Arabia balances budget
$80   High cost deepwater offsh. Angola, Brazil, Norway and UK
$60   Median break-even for USA shale oil (assoc’d gas ~free)
$50   Kuwait balances budget
$40   Break-even for lowest price USA shale oil

Guide to Crude Oil Price Implications
Ed Crooks, pp 8, Financial Times 8 Nov 14

CONTEXT

US$65/B Brent Crude
Context – International, fungible price for LNG sales

National Natural Gas Market Overview: World LNG Landed Prices

Federal Energy Regulatory Commission • Market Oversight • www.ferc.gov/oversight

World LNG Estimated April 2015 Landed Prices

Source: Waterborne Energy, Inc. Data in $US/MMBtu. Landed prices are based on a netback calculation. Note: Includes information and Data supplied by IHS Global Inc. and its affiliates (“IHS”). Copyright (publication year) all rights reserved.
OBJECTIVES:
Safe, secure and competitively priced natural gas

Gas price parity based on FERC’s April 2015 landed LNG
US$7.45 to 7.85 per gigajoule (GJ) for LNG in Asia
Less ~US$ 6 per GJ for pipeline, LNG processing & transport
< US$1.85 / GJ benchmark for net-back for gas price parity

Gas price parity based on 15% of Brent oil (US$65/barrel)
US$9.75 per gigajoule (GJ) for LNG in Asia
Less ~US$ 6 per GJ for pipeline, LNG processing & transport
A$3.75 / GJ benchmark net-back for gas price parity

Foreign exchange rates are a local factor in price parity

Comparative advantages delivered from locally produced natural gas include less transport & LNG processing costs
South Australia has a **BAN** on all oil, gas, geothermal energy and gas (including greenhouse) gas storage operations **UNTIL potentially significant risks, risk mitigation strategies and residual risks are established and after **EFFECTIVE CONSULTATION** with potentially affected people, enterprises and organisations under **STATEMENTS OF ENVIRONMENTAL OBJECTIVES (SEOs)** resolve that operations- and region-specific risks are simultaneously reduced to as low as reasonably practical and meet community expectations for net outcomes

Thereafter, SEOs are approved and operators give **NOTICE OF ENTRY (NoE)** with sufficient project details to enable stakeholders to make informed decisions whether or not to object to land access.

Every potentially directly affected person, enterprise and organisation is given **NoE** can be a show-stopper with disputes resolved in court. ~14,500 NoEs since 2000 without a single instance of court proceedings
Fact checked answers to Frequently Asked Questions (FAQs)

• FAQ Sheet – Unconventional Gas and Oil in the South East of South Australia

• Whole-of-government submission to South Australian Natural Resource Committee Inquiry Into Unconventional Gas (Fracking)
Go to South Australia

Drill a well

Bingo

Sorted

I can't help feeling you may have over simplified our objectives somewhat...

Barry Goldstein
Executive Director
Department of State Development
South Australian State Government