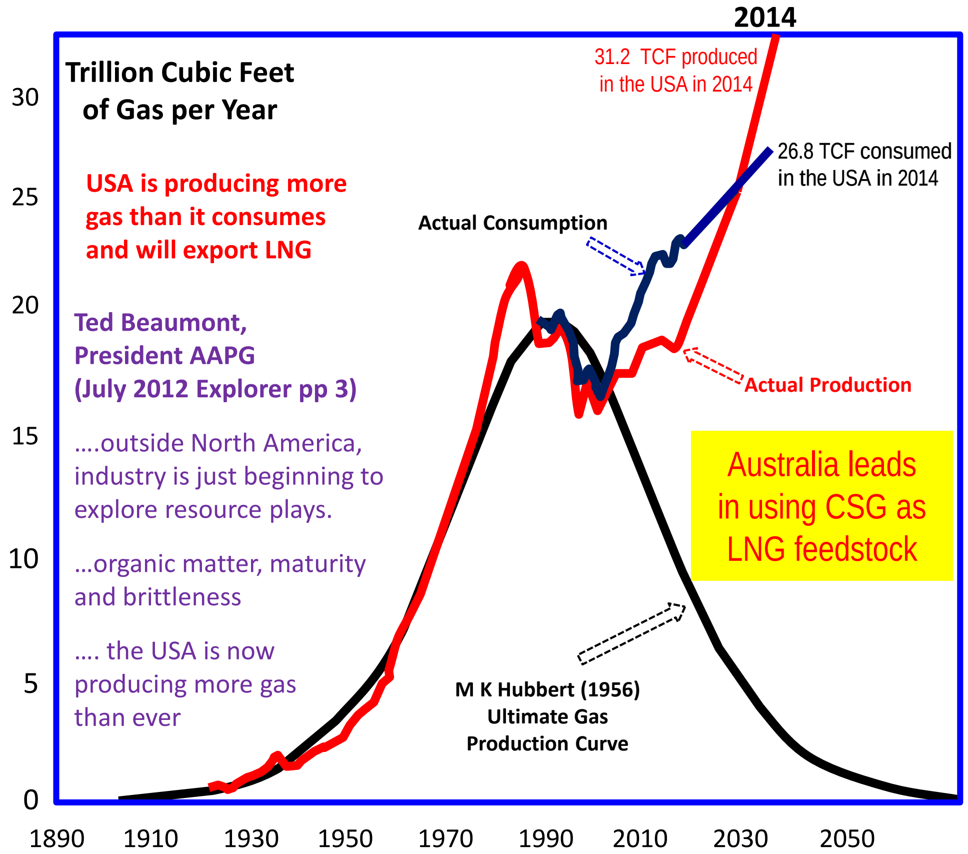
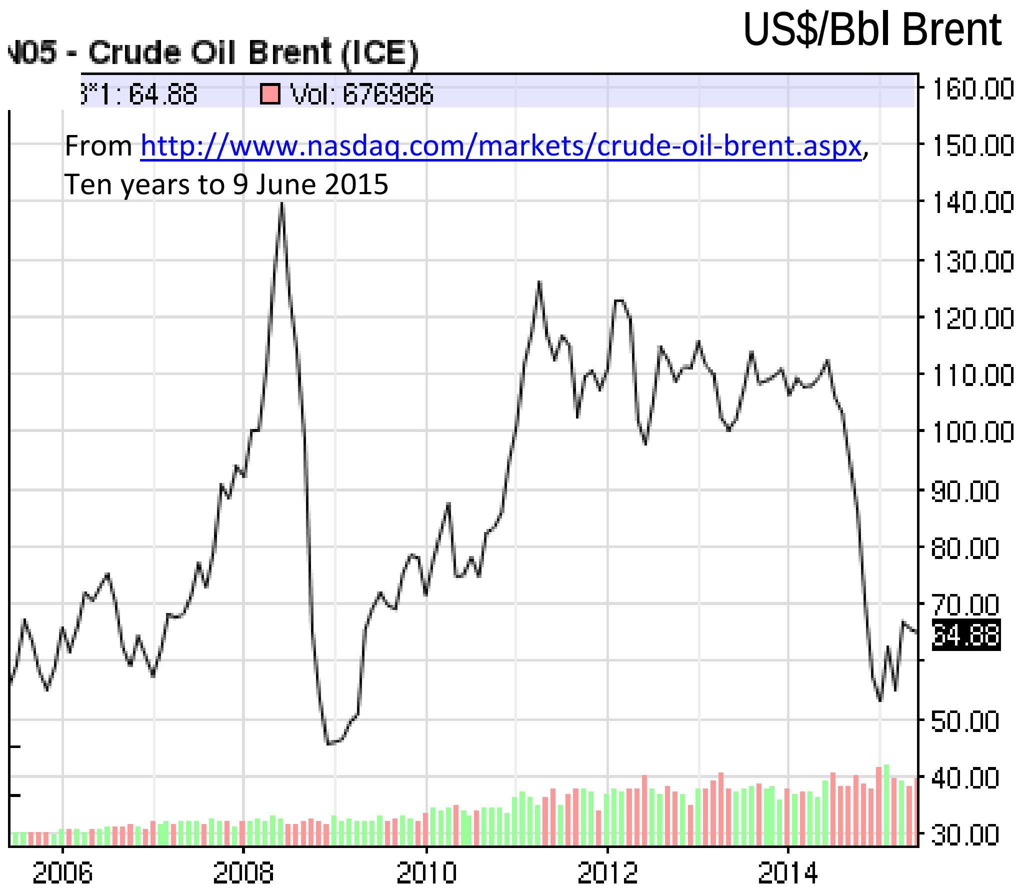
ISES 2015, Bali, 12th June 2015

The Story of Shale





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

Government of South Australia
Department of State Development

South Australia

Guide to Crude Oil Price Implications

Ed Crooks, pp 8, Financial Times 8 Nov 14

$/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

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

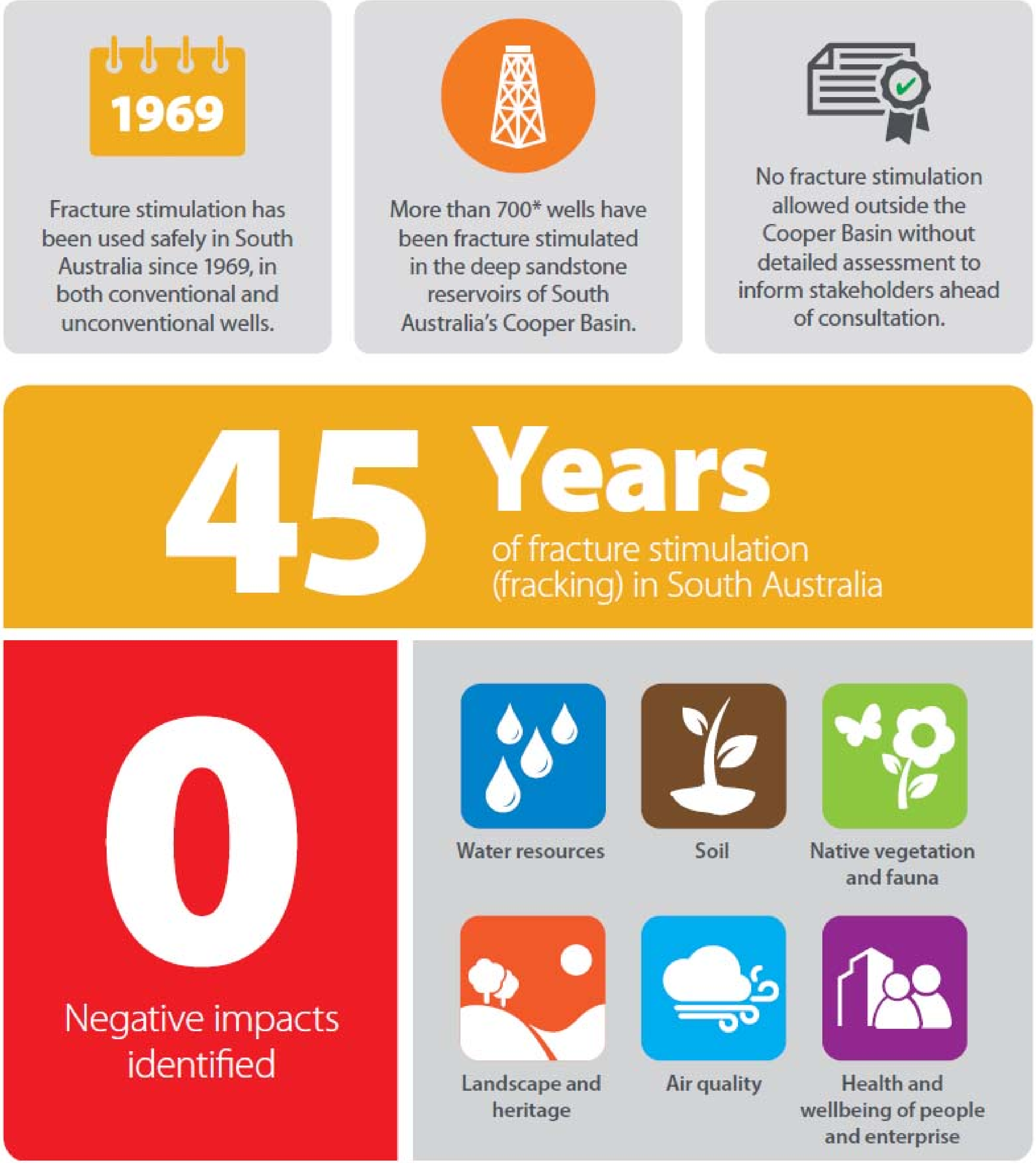
Gas price parity based on FERC's April 2015 landed LNG
US$7.45 to 7.85 per gigajoule (GJ) for LNG in Asia
<u>Less ~US$ 6 per GJ for pipeline, LNG processing & transport</u>
< US$1.85 / GJ benchmark for net- back for gas price parity

Gas price parity based on 15% of Brent oil (US$65/barrel)
US$9.75 per gigajoule (GJ) for LNG in Asia
<u>Less ~US$ 6 per GJ for pipeline, LNG processing & transport</u>
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

Experience and Regulatory Framework in South Australia



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
  http://www.pir.sa.gov.au/__data/assets/pdf_file/0003/218109/FAQ_-_South_East_Unconventional_Gas_and_Oil.pdf

- Whole-of-government submission to South Australian Natural Resource Committee Inquiry Into Unconventional Gas (Fracking)
  http://www.petroleum.dmitre.sa.gov.au/__data/assets/pdf_file/0009/240120/Inquiry_into_Unconventional_Gas_Fracking.pdf

ISES 2015, Bali, 12th June 2015

The Story of Shale

Government of South Australia

Department of State Development

South Australia

Barry Goldstein

Executive Director

Department of State Development

South Australian State Government