LEIGH CREEK ENERGY Limited

March 2017

Cheap Reliable Energy

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This presentation has been completed by Leigh Creek Energy Limited. It may contain forward looking statements that are subject to risk factors associated with the energy industry. It's believed that the expectations reflected in these statements are reasonable, but they may be affected by a variety of changes in underlying assumptions which could cause actual results or trends to differ, including but not limited to: price fluctuations, actual demand, currency fluctuations, drilling & production results, reserve estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal & regulatory developments, economic & financial market conditions in various countries & regions, political risks, project delay or advancement, approvals & cost estimates amongst other items, & the cumulative impact of items.

This presentation may also contain non-IFRS measures that are unaudited, but are derived from & reconciled to the audited accounts. All references to dollars, cents or $ in this presentation are to Australian currency, unless otherwise stated.

Mineral Resource Compliance Statement

Estimates of Mineral Resources reported in this announcement were initially reported & released to the ASX on 8 Dec 2015. We are not aware of any new information or data that materially affects the information included in the 8 Dec 2015 announcement & all the material assumptions & technical parameters underpinning the estimates in that announcement continue to apply & have not materially changed.

Gas Resources Compliance Statement

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Market Opportunity

Section 1 |

Right market, right time, right place

The right market, the right time:

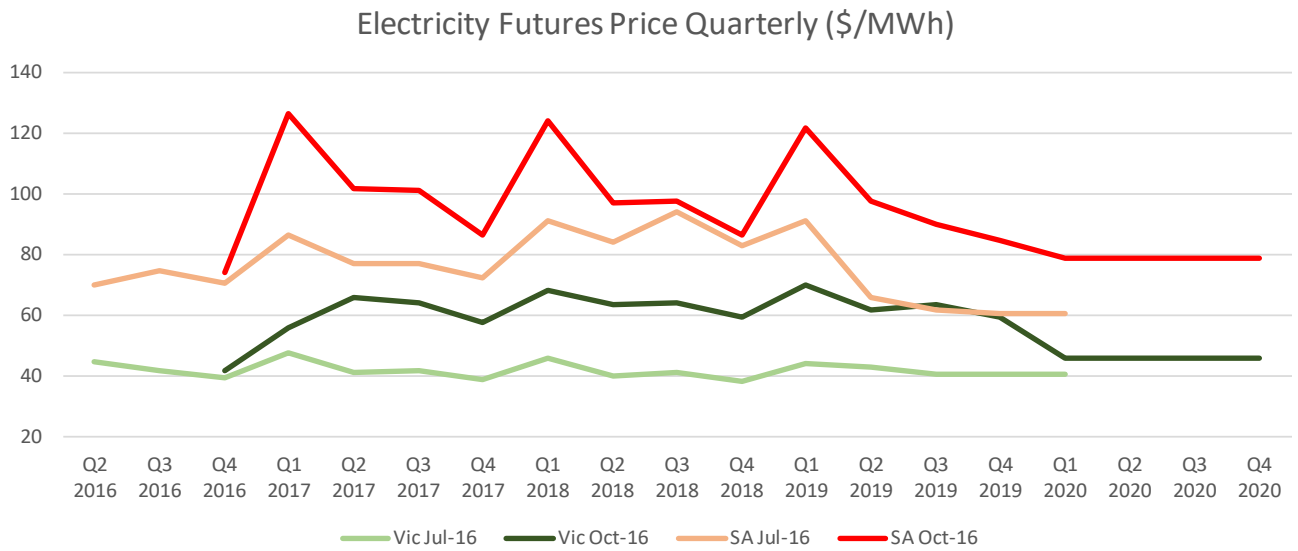
- Stability of energy supplies in crisis
- Dramatically rising power and gas prices
- Longterm supply constraints

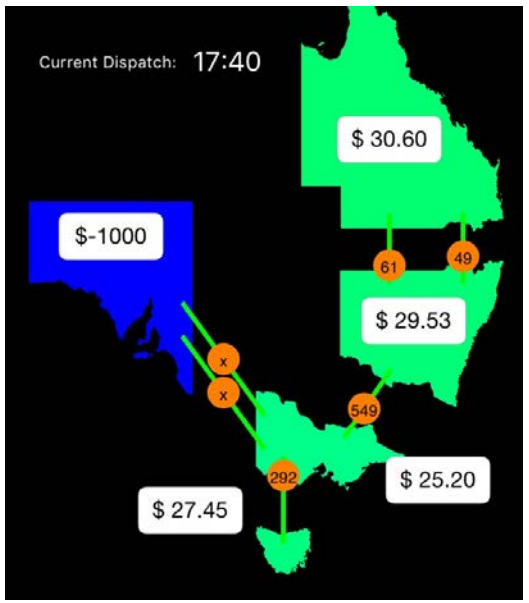
The right place:

- Ideal project location for ISG
- Strong local demand from major customers
- Legal and regulatory certainty in South Australia
- Very supportive government

Expensive and Unreliable Power in SA

The Australian National Electricity Market (NEM) is in turmoil, with South Australia at the epicentre. Prices have risen despite falling demand, averaging A$96/MWh since July, 2016.





The National Electricity Market on the day of the South Australian Blackout, 28 September 2016

Grid stability is becoming an important concern due to:

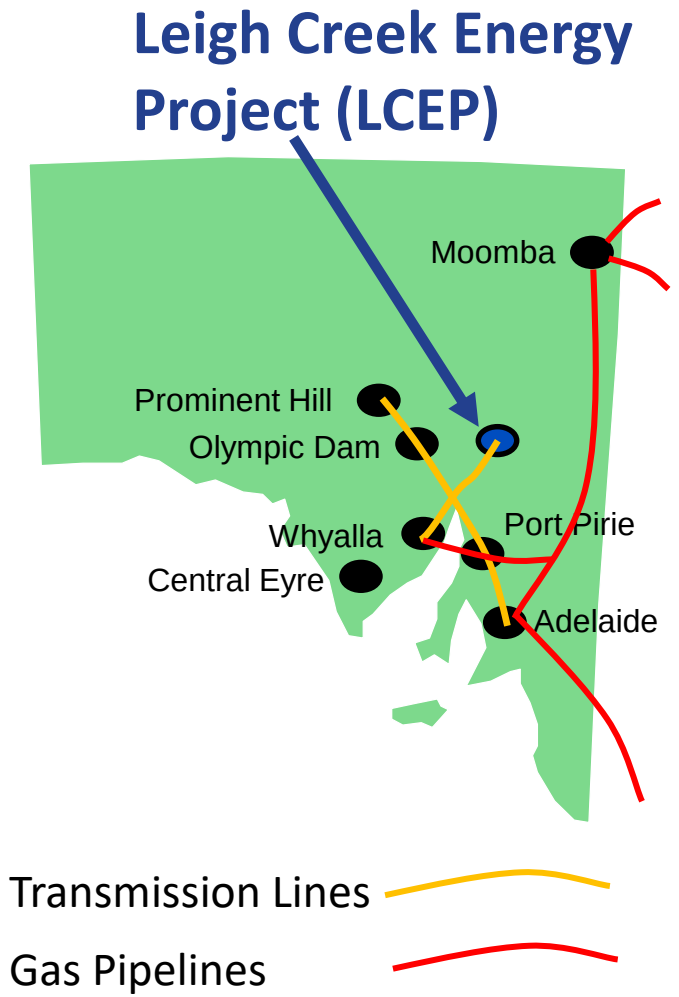
- Intermittent power
- Renewable mandates and certificates
- Withdrawal of both base-load and peak-load fossil supply

Regional demand for 500-900MW

LCEP is near major energy consumers:

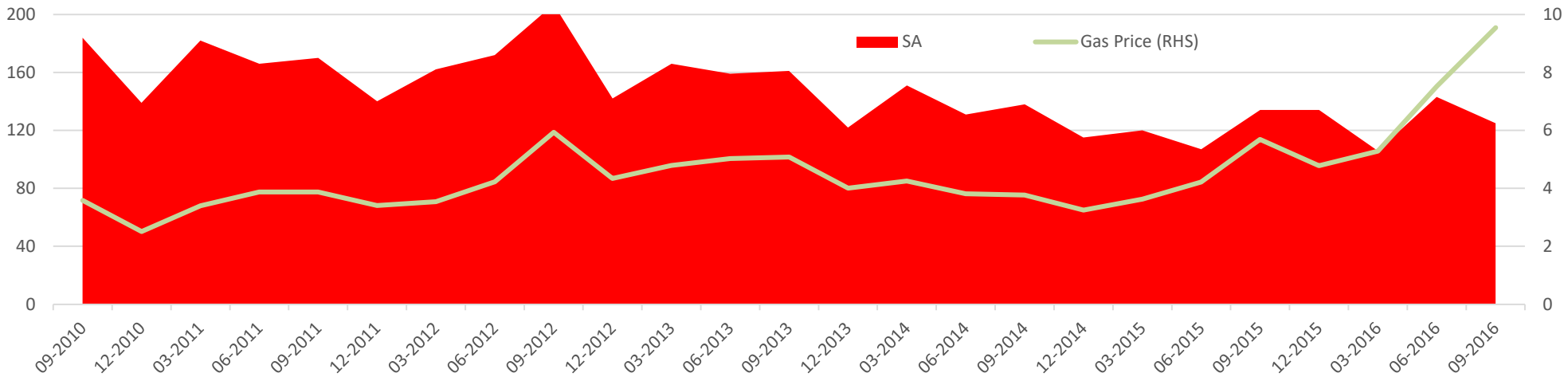
- Olympic Dam (Cu/U)
- Prominent Hill (Cu)
- Carrapateena (Cu)
- Whyalla (Steel and Hydromet)
- Port Pirie (Pb)
- Central Eyre (Iron Ore)

As well as the metropolitan demand centre in Adelaide.



Gas prices rising, LNG Exports driving demand

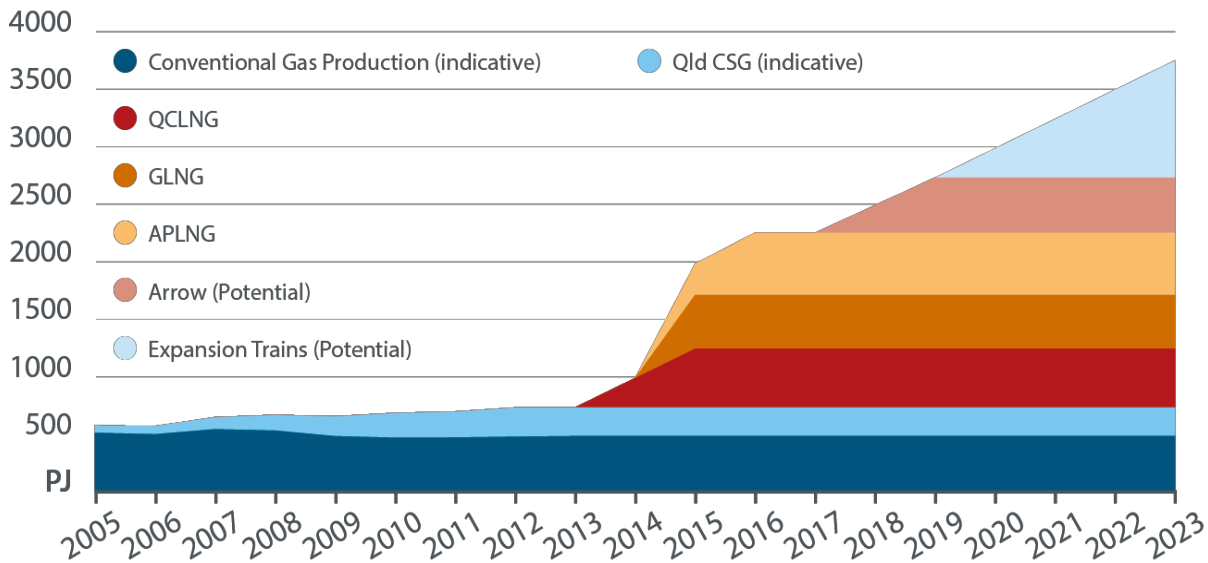
SA Daily Gas Consumption for Power (TJ) and Price (A$/GJ)



Despite gas demand for electricity generation falling, prices have more than doubled since 2014 to A$9/GJ in Adelaide.

Other States are limiting supply of new gas. SA is the exception.

Further gas shortfalls are anticipated as the 3 LNG plants in QLD ramp up.



LCK Solution

Section 2 |

The Leigh Creek Energy Solution

Plentiful energy from in-situ gasification (ISG) of coal will permit, in a staged development, low cost domestic supply of:

- Electricity – reliable baseload for SA
- Natural Gas – into the East Coast system
- Further development – fertilisers and explosives

LCK's primary focus is to provide reliable electricity supply to major energy consumers in SA and the metropolitan demand centre in Adelaide.

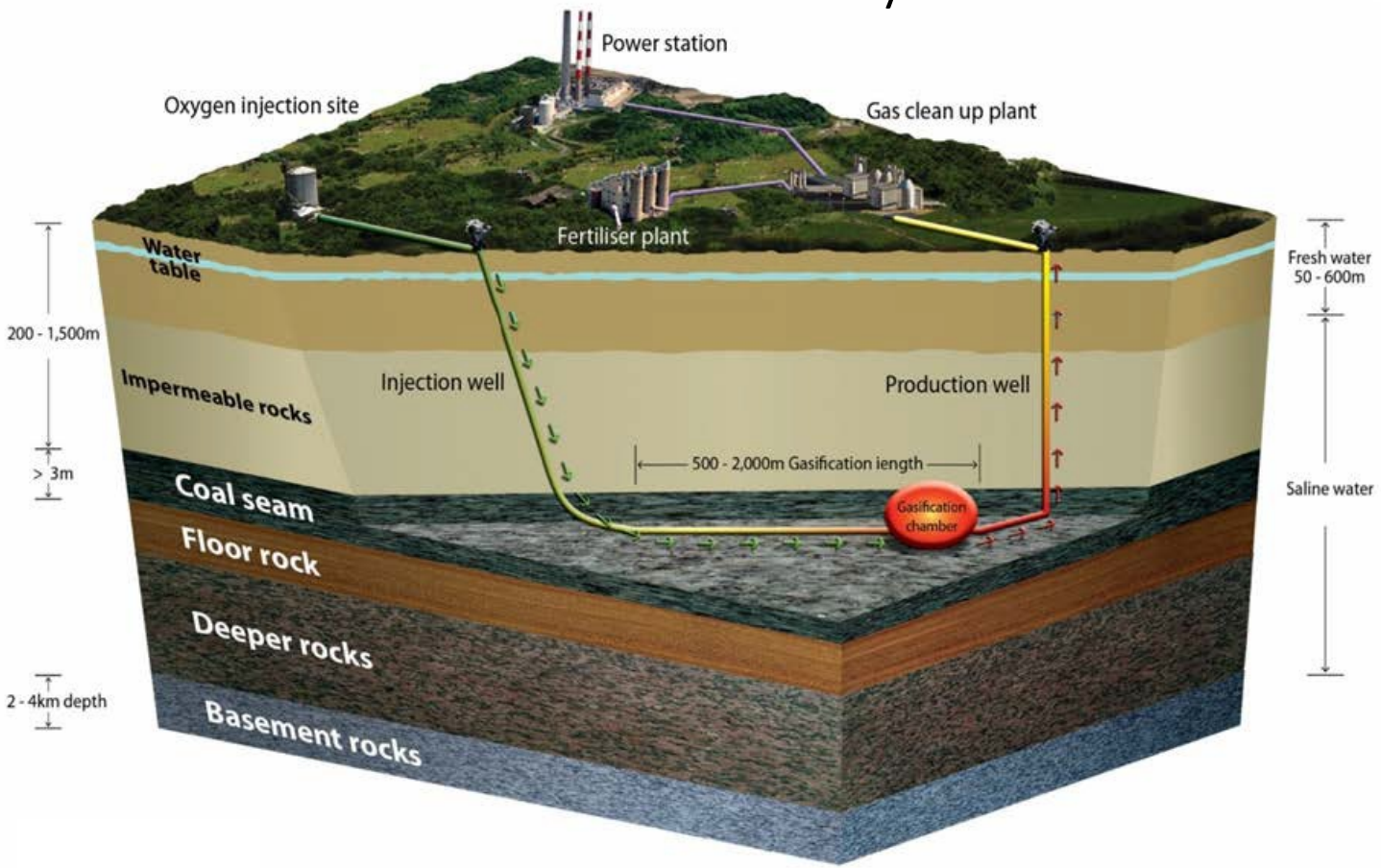
ISG Technology

Section 3 |

In-Situ Gasification (ISG)

The ISG process converts coal to syngas underground and then brought to the surface. The syngas is processed and can be used in a number of ways:

- Power
- Methane
- Methanol
- Fertiliser
- Others

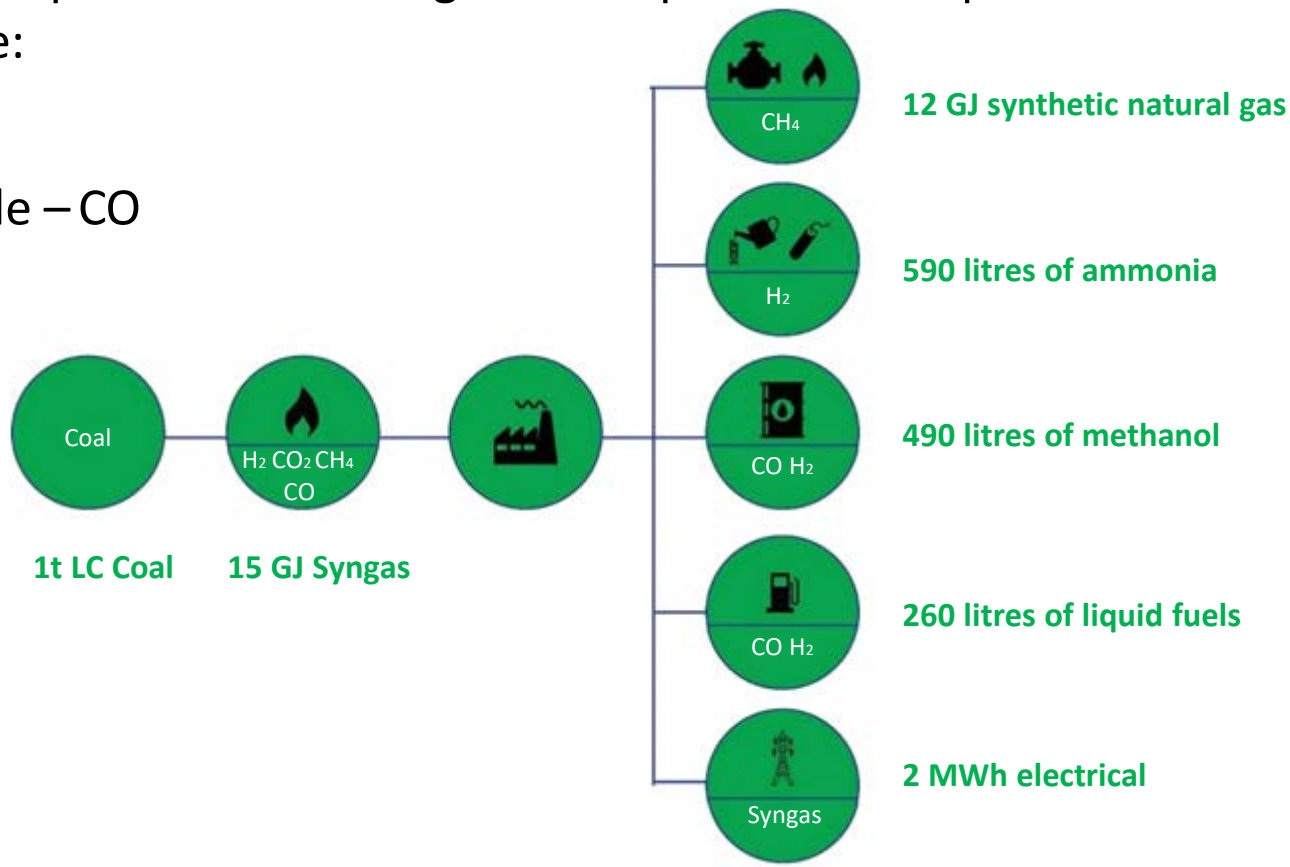


Standard oilfield equipment is used in the process.

Syngas composition and uses

ISG produces a syngas which contains a variety of components. The composition and energy content changes depending on whether the gasifier is Air-blown or Oxygen-blown. Oxygen-blown produces a richer gas but requires more capital. The main fuel components (1) are:

- 3-15% Methane – CH_4
- 10-20% Carbon monoxide – CO
- 20-35% Hydrogen – H_2



(1) HRL Process Modelling of ISG for Leigh Creek Coal, December 2015

The worldwide experience of ISG

Commercial Operations:

- Angren, Uzbekistan: 60 years of operation
- Eskom, Majuba, South Africa – co-firing power station with syngas

North American Experience:

- 40 years of trials & demonstration
- Multiple sites, techniques, outcomes
- Utilised standard oil-field

Australian Experience:

- Linc Energy – demonstration facility operated for 11 years
- Carbon Energy – demonstration facility operated for 5 years

Carbon Energy Bloodwood Creek Project

Queensland Government's Chief Scientist, ***Dr. Geoff Garrett AO****, confirmed that Carbon Energy:*

- *Met the key recommendations of the government appointed Independent Scientific Panel (ISP).*
- *"It is clear that Carbon Energy has contributed to the collective understanding of UCG and the conditions under which the operation is likely to be both safe and successful."*
- *Demonstrated safe and effective decommissioning and completing of a plan for rehabilitation which were independently reviewed by experts appointed by the DEHP.*

Leigh Creek Coal Field – ideal for ISG

Leigh Creek is an existing mine site. It produced coal for 60 years.
Coal was supplied to the Port Augusta power station, 250km away.

Ideal Location with existing infrastructure:

- Remote from major populations
- Self-contained groundwater system
- Power transmission lines
- Sealed road, airport, rail, water
- Major gas pipeline 125km away
- Township of Leigh Creek

LCK Project Status

Section 4|

Gas and Coal Resources

Coal resource: JORC 2012: 377 million tonnes inferred. (1)
SYNGAS resource: SPE-PRMS: 2,964 PJ 2C. (2)

Category	1C	2C	3C
SYNGAS Resource (PJ)	2,748	2,964	3,303

- Resources will likely convert from 2C to 2P Reserves once gas demonstration is completed in 2017.
- Options include power production and/or natural gas production.
- Offering 25-50 years of production, depending on production profile.
- In the whole of Australia, the Economically Demonstrated Resources (EDR) totals is 113,193PJ.(3)

(1) Refer ASX release dated December 8, 2015
(2) Refer ASX release dated January 8, 2016
(3) Source: ABS, Australian System of National Accounts, 30-Jun-2016

Successful Scoping Study Completed

LCK completed a successful Scoping Study in January 2017. It covered a number of development cases for further processing of Syngas. The key elements were:

- Power generation case ranging from 150MW to 550MW
- Natural gas production case ranging from 20PJpa to 80PJpa.
- Based on the results of the Study, it is anticipated that a upon completion of the Pre-Commercial Demonstration and analysis of results.
- Conclusions: Cases for both power and natural gas are:
  - Major portion of the current 2C Resource could be converted to a 2P Reserve
  - Robust technically and financially
  - Support advancing to the Pre-Feasibility Study (PFS) phase and PCD
- The LCK Board has approved the immediate commencement of a Pre-Feasibility Study on the LCEP.

There are no guarantees that a specific option can be supported by the Company's current 2C Syngas Resource of 2,964PJ.

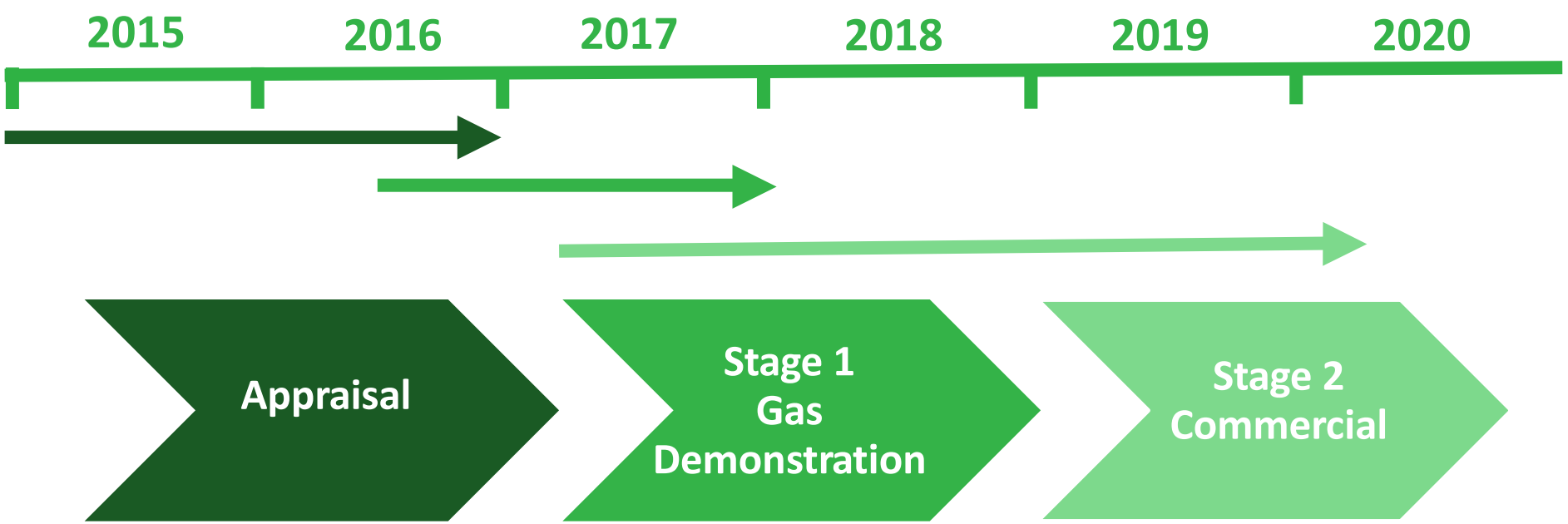
Government funding supports

Federal R&D tax offset on PCD spending:

- Advance Finding Certificate awarded from Federal Government on eligible activities on our Pre Commercial Demonstration
- Estimated expenditure on eligible activities totals A$21m
- Implied cash rebate totalling A$9m
- $4m R&D working capital finance facility secured with CBA

- **Furthermore, LCK has A$45m in available tax losses**

Next steps for LCK



- JORC 2012 resources
- Gas certification
- Site environmental characterisation

- Approvals
- Construction
- Cold and hot commissioning
- Syngas demonstration in 2017

- Approvals
- Construction
- Cold & hot commissioning
- Electricity and Syngas production (2020)
- Plant expansions

ISG demonstration

Demonstration will show community and government that ISG can operate:

- Safely
- With minimal impact to the environment

Data Obtained from Demonstration Allows:

- Government to approve Commercial Project
- Development of safety and environmental controls
- Optimisation of plant design
- Operating costs discovery

Crucially, for a total spend of A$20m, it is anticipated that a major portion of the current 2C Contingent Syngas Resource could be converted to a 2P Syngas Reserve.

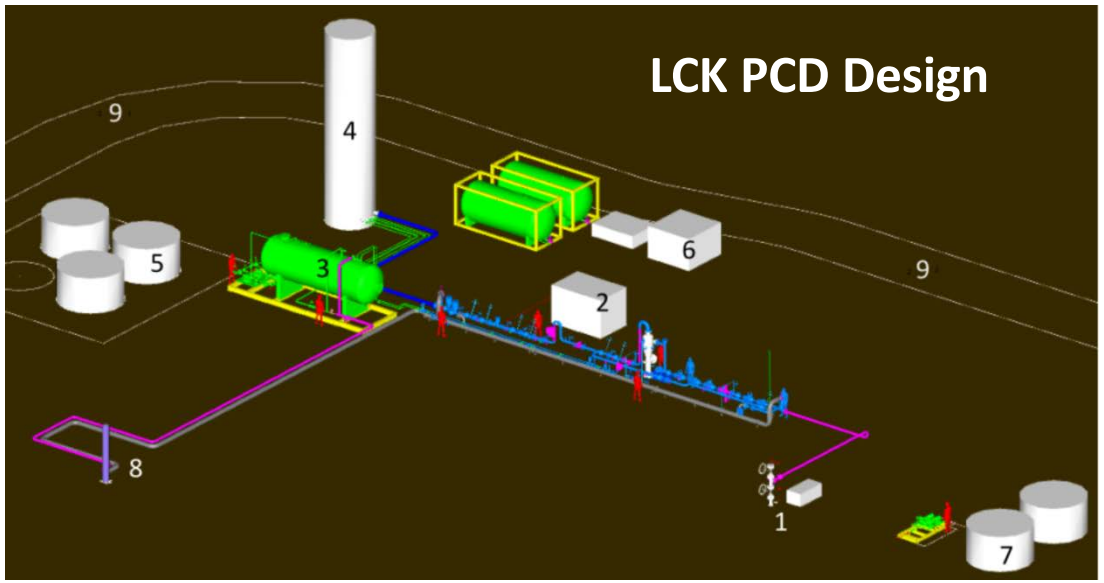
Key Engineering Contracts Awarded

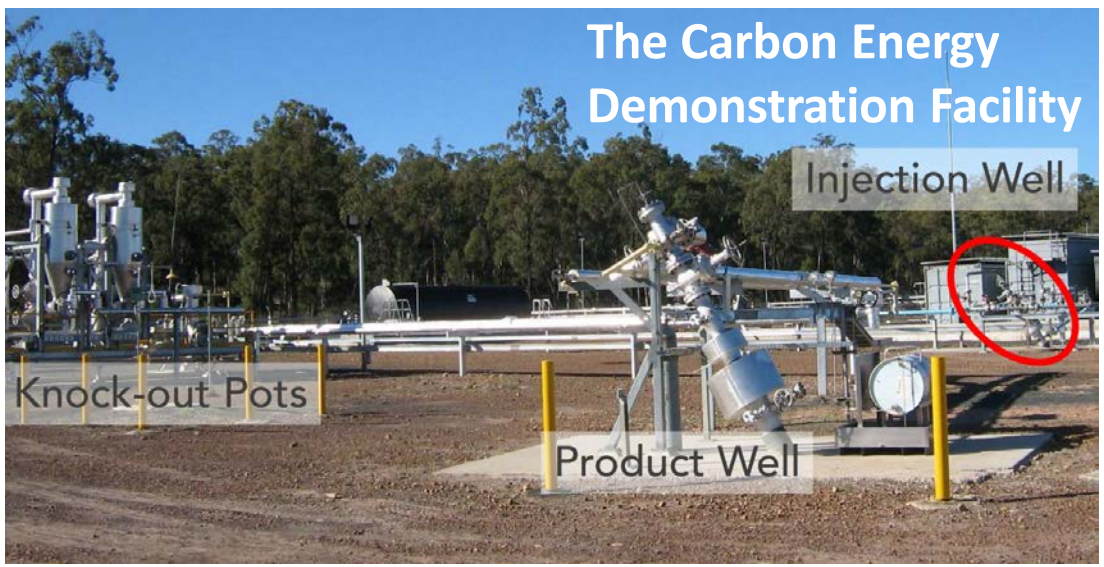
LCK PCD Engineering Design

1. Production well
2. Gas analyser
3. Condensate separation tank
4. Thermal oxidiser
5. Condensate buffer tanks
6. Generators and diesel storage
7. Water injection facility
8. Cold Vent/Safety Vent
9. Access Road

LCK has awarded the contract for the Thermal Oxidiser and Cold Vent package to Gasco Pty Ltd.

LCK corporate video and ISG explanation: https://youtu.be/w1-4gYzT8Ek





Legal and Political Environment

Section 5|

South Australia is an excellent jurisdiction

South Australia consistently ranks near the top of the world's mining provinces as a place to do business. (1)

- Clear title and development pathway
- ISG is included in existing legislation
- Government support for Unconventional Gas
- Native Title process well understood
- Highly skilled labour in need of employment
- Identified as the state which supported natural resource development the most.

Leigh Creek Energy Project (LCEP)

SA has a roadmap for unconventional gas, has encouraged a migration of gas companies into the state, and has established grants to assist in the proving of new resources.

(1) *Fraser Institute 2015 survey placed SA 10th out of 109 regions worldwide*

South Australian Government Support

Jay Weatherill
Premier of South Australia

SA Premier visit to Shanghai, China, April 11, 2016:
Achievements highlighted by Weatherill included a heads of agreement signed by the Shanghai Electric Power Generation Group and Leigh Creek Energy Ltd to explore the joint development of a gas-fired power station in South Australia.
"The agreement is positive for the Upper Spencer Gulf, providing hope for towns such as Port Augusta, Whyalla and the northern regional town of Leigh Creek," Weatherill said.

29 April 2016:
" … the Leigh Creek project remained subject to rigorous environmental impact assessments before it could progress further".
"We have a very effective regulatory framework in SA and the merits of the LCK project will be assessed against that framework, not a political decision …"

Tom Koutsantonis
Treasurer and Minister for Mineral Resources and Energy

30 Aug 2016:
Treasurer Tom Koutsantonis has delivered a swipe at his Labor colleagues in Victoria – and spruiked for the business of unconventional gas miners – after Victoria opted to permanently ban fracking in that state.
"I strongly believe that the approval or otherwise of gas exploration and extraction projects should be left to independent experts, rather than to politicians. We have the best regulatory systems in the world in this country and those systems should be trusted to protect the environment, the agriculture industry and communities. This decision is bad news for the National Electricity Market because new sources of supply of gas will continue to be constrained."
He used the Victorian ban to once again position SA as "open for business" for the controversial extraction method. "I encourage any exploration companies affected by this decision to consider coming to South Australia, where the assessment and approval of projects is left to expert regulators".

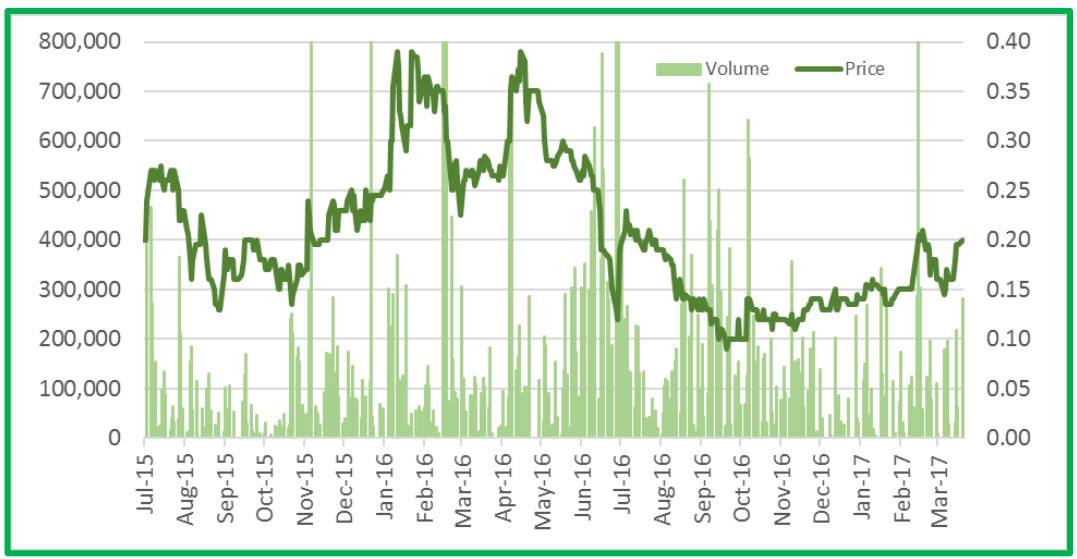
Corporate & Financial

Section 6 |

LCK Corporate Summary

LCK Capital Structure		
Shares		265.9m
Options		40.4m
Market Cap @ A$0.20	A$	53.2m
Cash (as at 31-Dec-16)	A$	3.0m
Debt	A$	0.0m
Enterprise Value	A$	50.2m
EV/Resource (2C)	**A$/GJ**	**0.02**

Top Shareholders	# of Shares	%
Allied Resource Partners	104.8m	39.4
CITIC Australia	17.2m	6.5
RBC Investor Services	6.7m	2.5
One Design Skiff & Sails	5.2m	1.9
HSBC Custody	4.6m	1.7
Top 20	**176.1 m**	**66.2**



Leigh Creek (LCK) has 2,964 PJ of PRMS certified syngas and is aiming for commercial production from 2020.

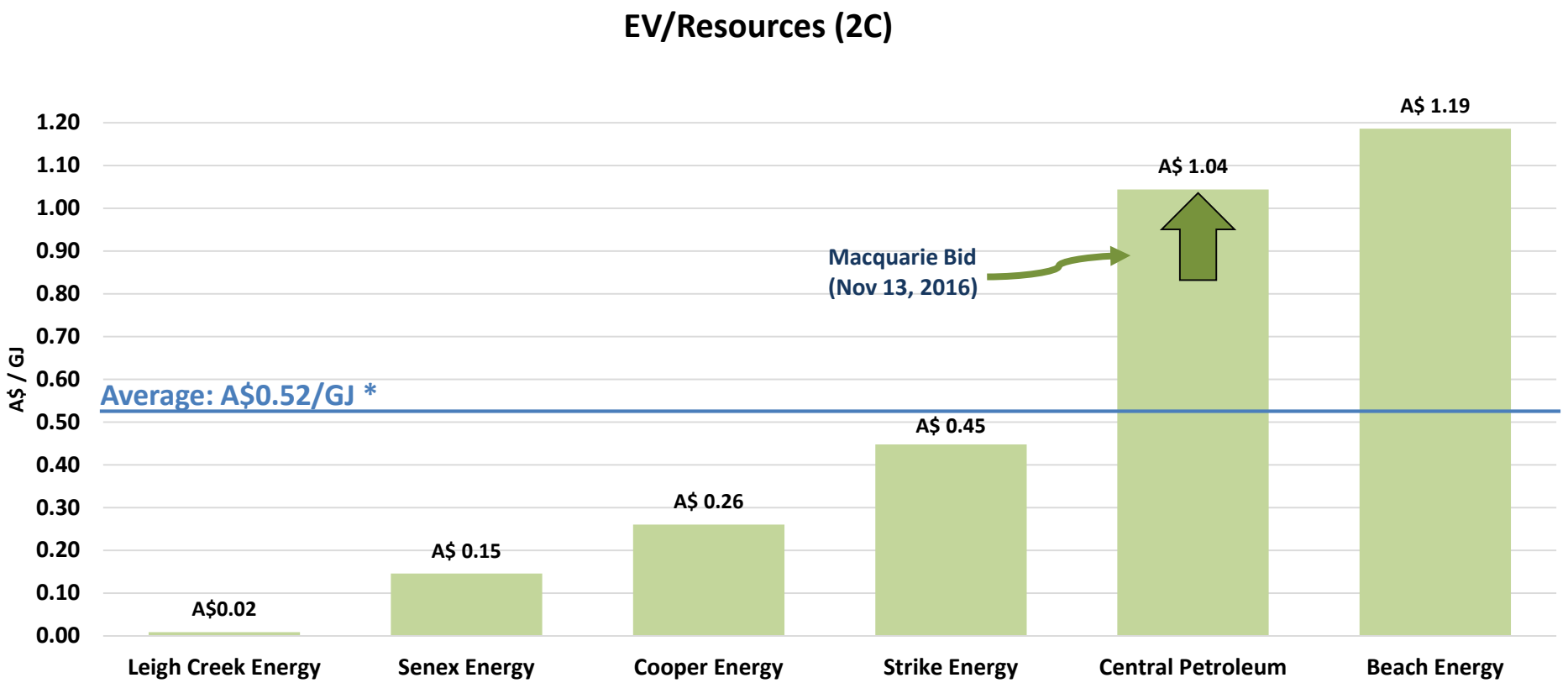
First syngas demonstration is due in 2017.

Experienced Team

The Team	Experience
Justyn Peters **Executive Chairman**	Senior exec with Linc Energy (LNC), the Australian pioneer in ISG, and previously held senior roles in the Queensland EPA. Major shareholder in Allied Resource Partners (ARP).
Phil Staveley **CEO**	30 years working in oil and gas and mining in planning, commercial and finance roles for firms like Schlumberger, SAGASCO, SAOG, and Normandy.
Justin Haines **COO**	Broad experience across engineering and geological services. Most recently, worked as Technical Manager for Carbon Energy, successfully operating their ISG facility.
Mark Terry **CFO**	CPA with more than 20 years of experience in the mining industry, including KPMG, Normandy, Newmont, and Xstrata.
Andrew Harrington **GM – Project Finance**	20 years across consulting, project finance, institutional banking, and stockbroking. Was a #1 rated equity analyst by Reuters.
Dave Munro **Operations Manager**	Electrical trades qualified operations manager of process plants in coal, gas and industrial minerals. Recently completed 8 years managing site and support operations for Linc Energy.

LCK compares very cheaply

LCK is trading at an EV/Resource of only A$0.02/GJ.



2C Resources	2,964 PJ	1,273 PJ	361 PJ	164 PJ	143 PJ	1,255 PJ

* LCK Resource' Under Avg Valuation: A$1,541m

Conclusion: Right market, right time, right place

LCK is ideally placed close to major South Australian (SA) energy consumers, infrastructure, as well as the metropolitan demand in Adelaide , where LCK can provide a cost effective solution to an energy market in turmoil.

LCK will provide:

- Cheap Electricity
- Reliability of supply
- Supply to a natural gas market in shortage

Key Points:

- Spending ~A$20m to convert 2,964 PJ (3tcf) of 2C Syngas into a similar amount of 2P Syngas
- The South Australian government is very supportive of the unconventional gas industry

Appendix 1 – Royalties and Taxes

Item	Note
Federal Government Corporate Tax Rate	30% - Levied on net profits.
South Australian State Oil and Gas Royalty	10% - Wellhead value minus certain costs. Likely to equate to an effective rate of 7%.
TriE Royalty (to Founders)	Calculated at $0.15/GJ up to $6/GJ, $0.30/GJ up to $10/GJ, and 3% on gross revenue of methane above $10/GJ on a real basis as of 31-Dec-14. All other products have a royalty of 2%.

Appendix 2 - Commercial electricity production

The application of ISG is new, but the equipment for both gas handling and the power station is standard:

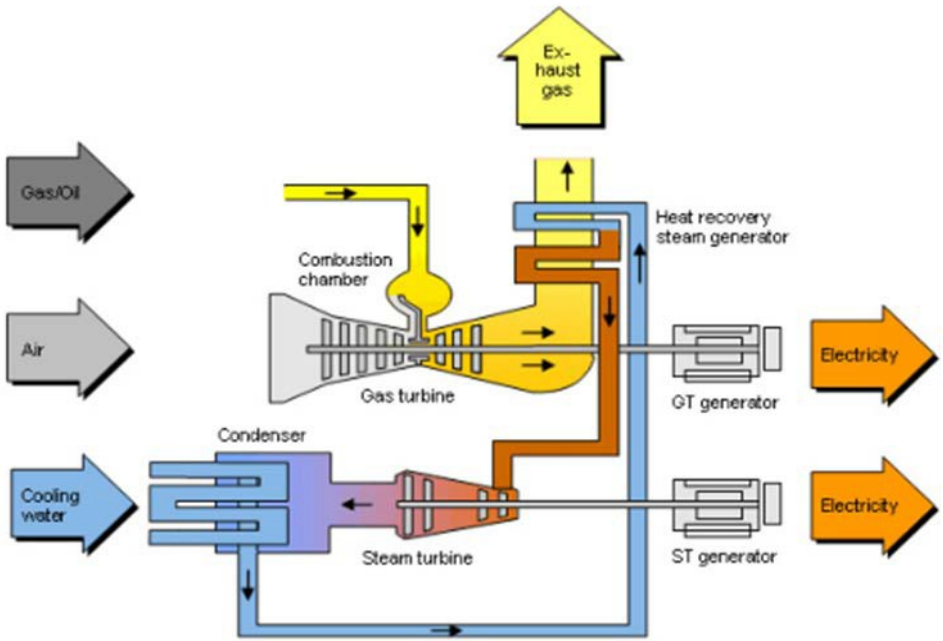
- Performance guarantees from turbine suppliers

Relationships:

- ElectraNet – transmission routes
- CQ Partners – power market studies
- APA – gas pipeline routes
- Shanghai Electric Group – power station construction

Indicative Timeline:

- Approvals by early 2018, then 18 month construction time



Syngas produced from ISG can be used to fuel a standard Open Cycle or Combined Cycle gas turbine. Feasibility is underway for a staged 100-500MW power station option.