LEIGH CREEK ENERGY Limited

Cheap Reliable Energy

September 2016

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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 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 Statement

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An energy market in turmoil

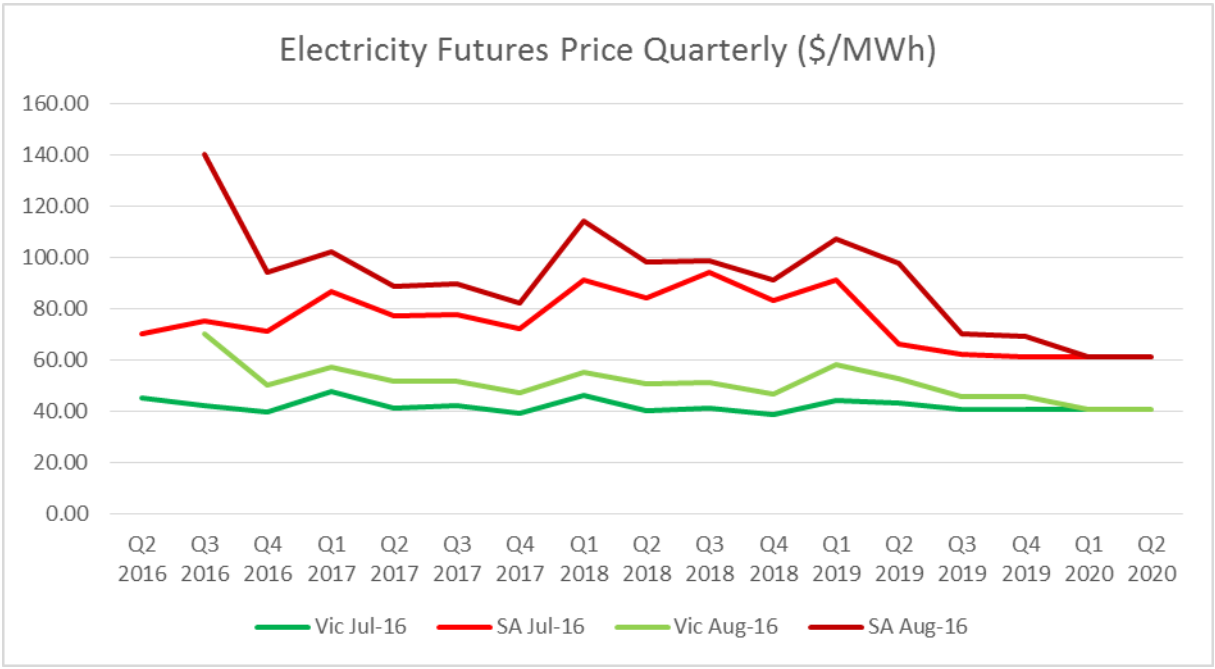
The Australian East Coast electricity market (NEM) is in turmoil. Prices have risen despite falling demand and grid stability is becoming an important concern for power consumers due to:

- Intermittent power
- Two-way power flows
- Renewable mandates and certificates
- Withdrawal of both baseload and peakload fossil supply
- Gas shortages
- Market power and vertical integration of retailers

South Australia (SA) is at the epicentre of this turmoil.

High electricity prices despite weak demand

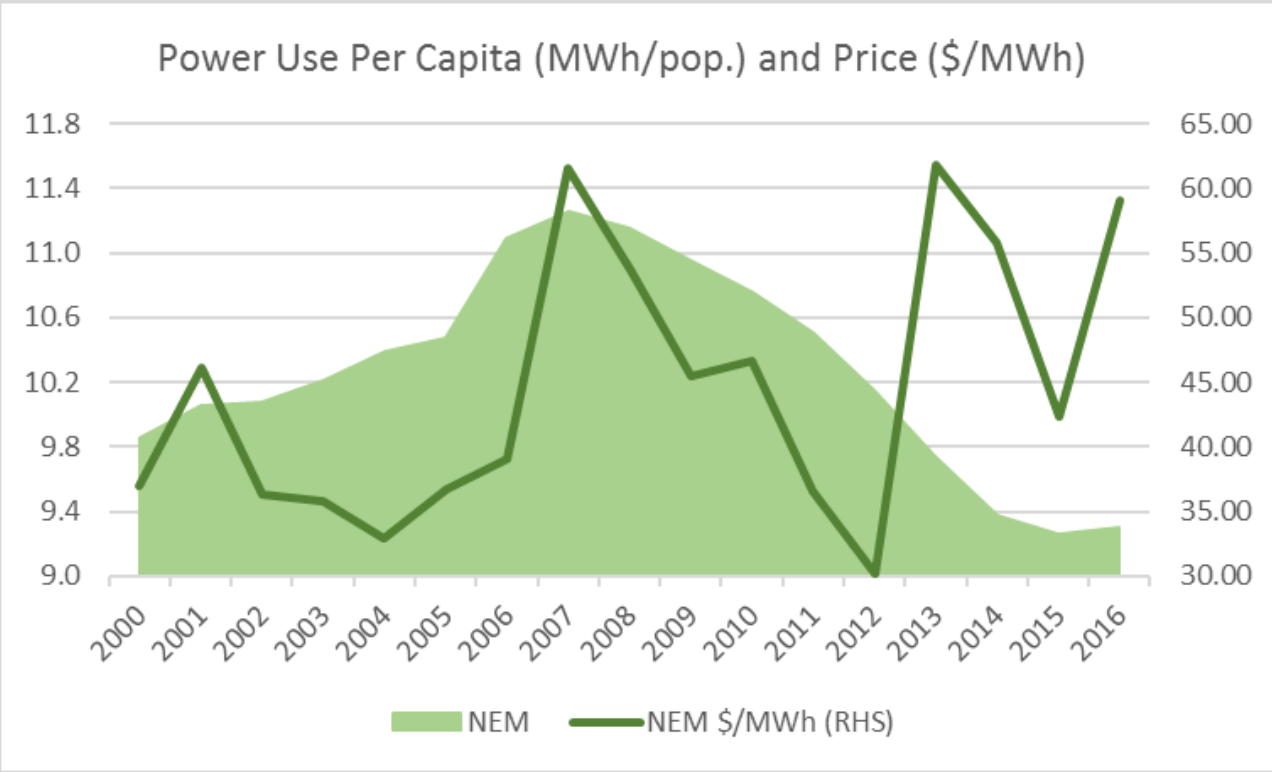
SA power prices are higher than anywhere else in the NEM.



Major consumers are now worried about reliability of power supply *as well* as the price of power. Despite the closure of large manufacturers in South Australia helping to lower demand, the remaining consumers are suffering from energy insecurity.

Power per capita in steep decline

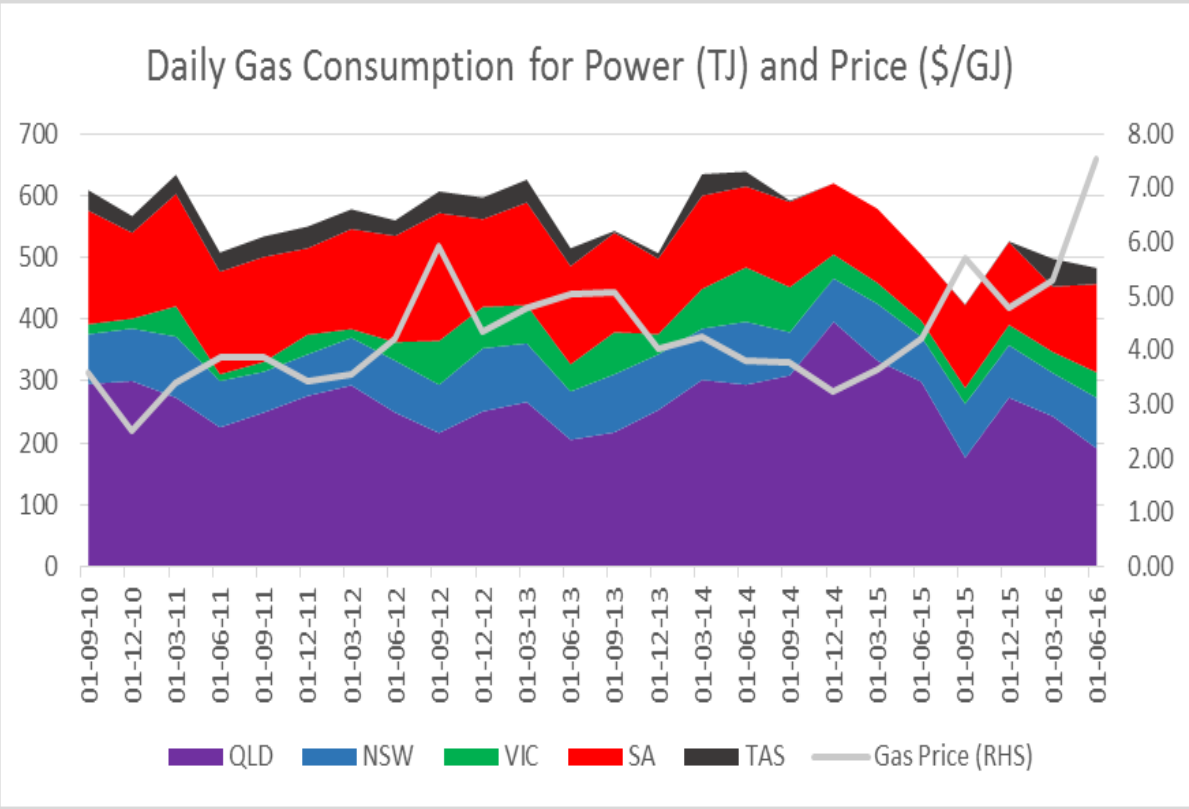
Due to rooftop solar, energy efficiency measures, and closure of manufacturing.



Retail prices have tripled from $100/MWh in 2000 to $280/MWh in the current year.

Gas prices also rising rapidly

Despite gas demand for power declining, prices have doubled to $7/GJ in Adelaide.



Further gas shortfalls are anticipated as the 3 LNG plants in QLD ramp up. Stretched balance sheets and restraints to new gas exploration result in lower than anticipated supply.

The Leigh Creek Energy solution

The Leigh Creek Energy Project (LCEP) is aiming for commercial production from mid 2019. Cheap energy from in-situ gasification of coal will permit, in a staged development, low cost and domestic supply of:

- Electricity – baseload and peaking for SA
- Pipeline Gas – into the East Coast system
- Fertilisers – SA farmers currently import 100% of their nitrogen fertiliser needs
- Explosives – SA is a significant mining region and there are few options for miners

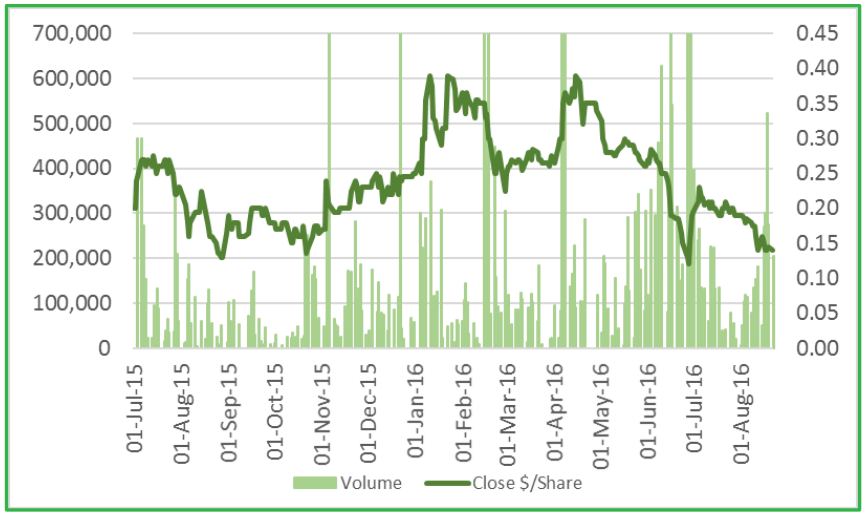
Our primary focus is reliable electricity supply to major customers in SA.

LCK Corporate summary

LCK Capital Structure		
Shares	#m	265.9
Options	#m	40.4
Market Cap @0.14	**$m**	**37.2**
Cash	$m	8.7
Debt	$m	0.0
Enterprise Value	**$m**	**28.5**
EV/Resource (2C)	**$/GJ**	**0.01**

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

Leigh Creek (LCK) has 3,000PJ of PRMS certified gas and is aiming for commercial production from mid 2019. First gas demonstration is due in the March Quarter of 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).
David Shearwood **Managing Director**	Almost 30 years of experience as a fund manager, strategist and investment banker at Macquarie Bank, Westpac, QBE, Atom Funds Management, Du Pont, and Rio Tinto. Major shareholder in 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 **GM – Technical**	Broad experience across engineering and geological services. Most recently, worked as Technical Manager for Carbon Energy, successfully operating their ISG facility.
Mark Terry **GM – Project Development**	CPA with more than 20 years of experience in the mining industry, including KPMG, Normandy, Newmont, and Xstrata.
Bruce Holman **GM – Strategy**	30 years in mining, investment management, and NSW Treasury. Transaction roles at Treasury included the sale of Macquarie Gen.
Andrew Harrington **GM – Project Finance**	20 years across consulting, project finance, institutional banking, and stockbroking. Was a #1 rated equity analyst by Reuters.

3,000PJ of certified gas

Identified 377Mt of coal resources at Inferred category under the JORC 2012 code, independently reported by GeoConsult in December 2015.

- Resources based on over 6,000 drill holes
- Average depth is 500m+

LCK has achieved certification of its recoverable gas resources under the SPE-PRMS code, by MHA Petroleum Consultants of Denver USA.

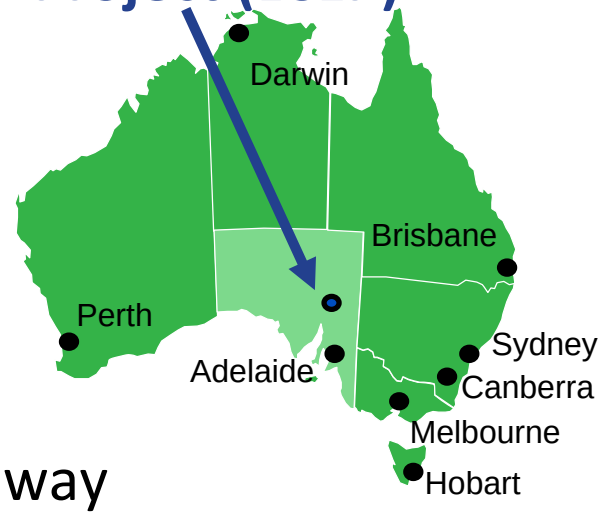
Category	1C	2C	3C
Gas Resource (PJ)	2,748	2,964	3,303

Resources will likely convert from 2C to 2P Reserves once gas demonstration is completed in the March Quarter of 2017.

South Australia is an excellent jurisdiction

In the annual Investment Attractiveness Survey conducted by the **Fraser Institute**, South Australia consistently ranks near the top of the world's mining provinces. In the 2015 survey, SA ranked 10th out of 109 regions.

Leigh Creek Energy Project (LCEP)



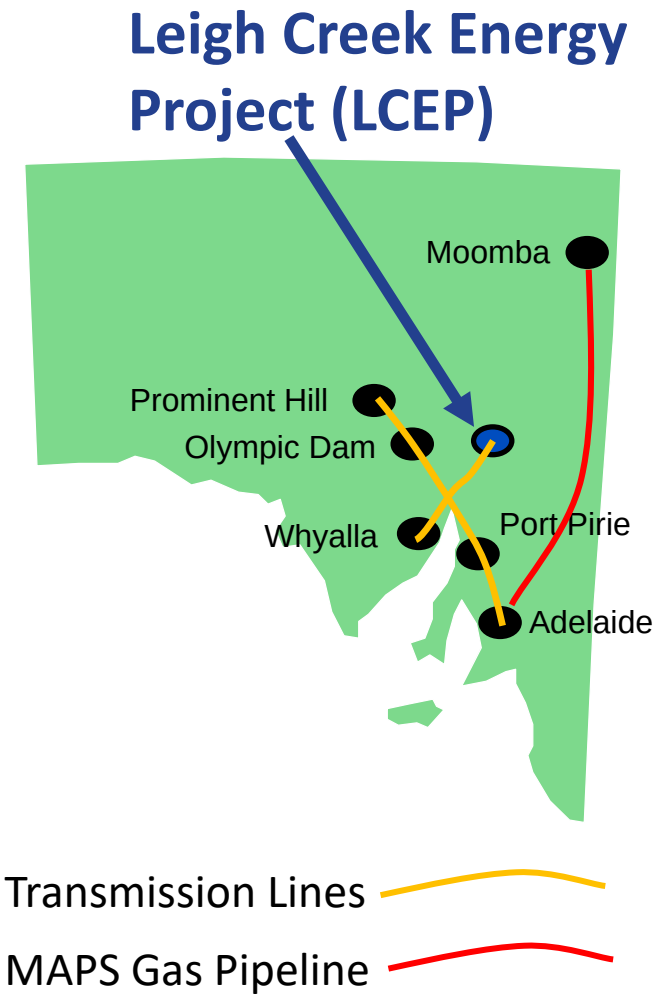
- Clear title and development pathway
- ISG is included in existing legislation
- Broad government support of economic development
- Native Title process well understood
- Highly skilled labour in need of employment

Regional demand for 500-900MW

LCEP is near major energy consumers:

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

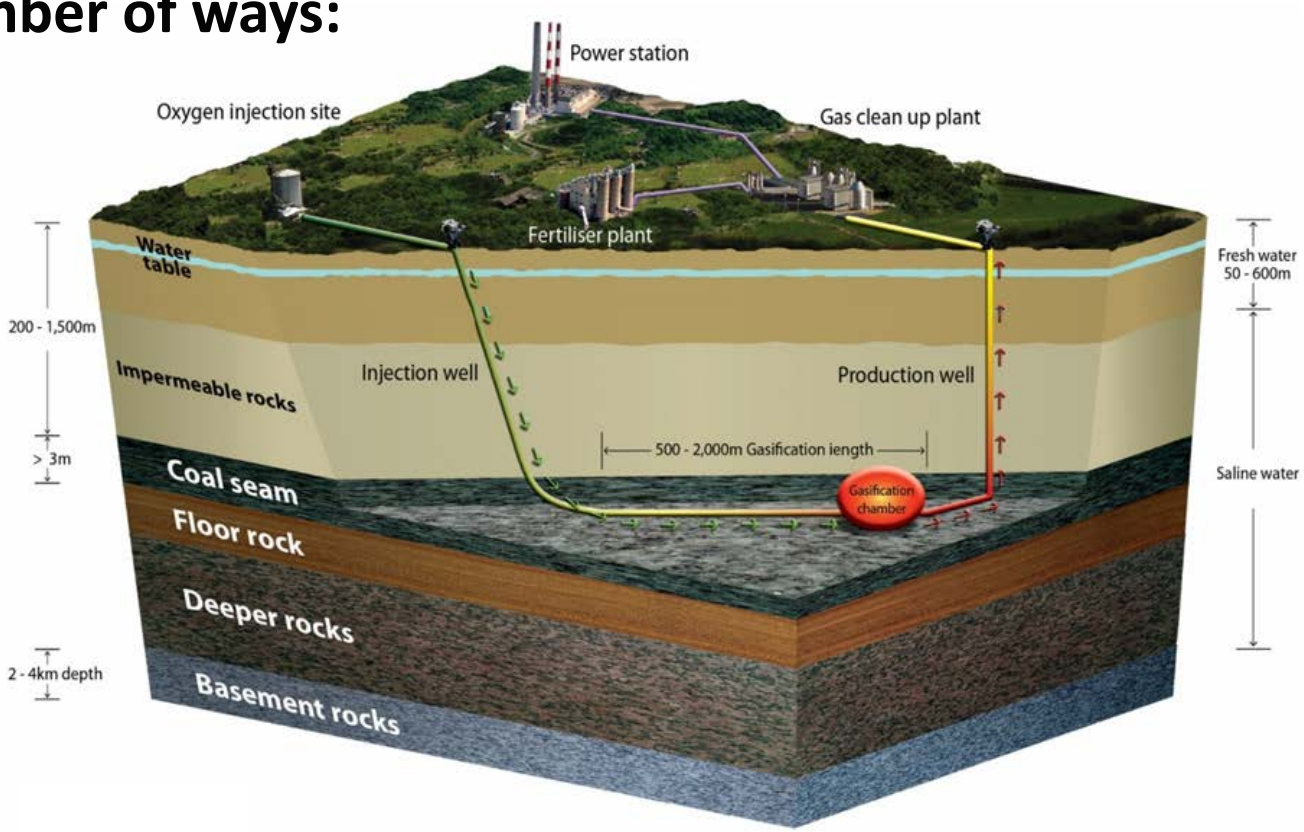
As well as the metropolitan demand centre in Adelaide city.



In-Situ Gasification (ISG)

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

- Power
- Methane
- Methanol
- Fertiliser
- and others



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.***

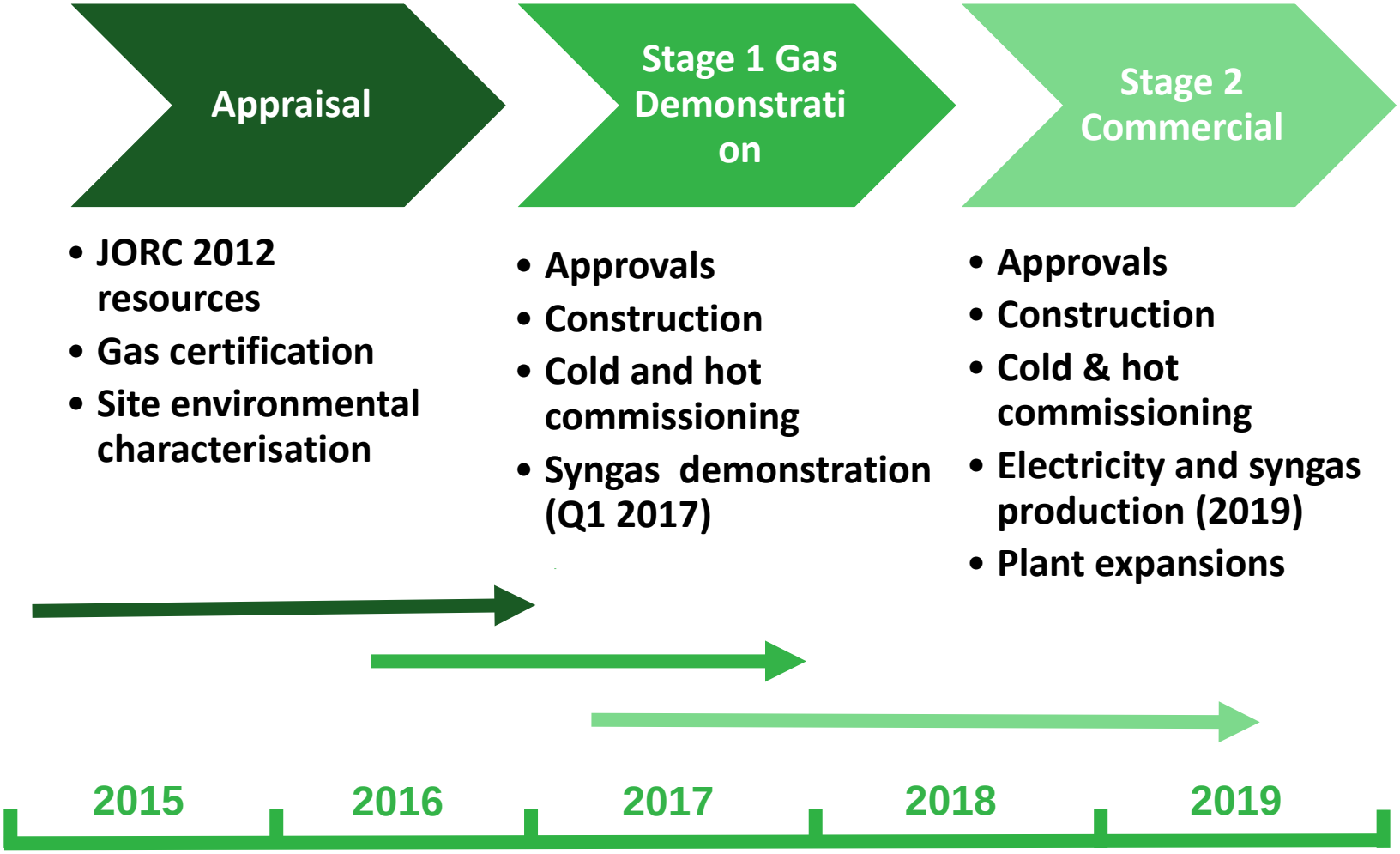
Leigh Creek Coal Field – ideal for ISG

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

Ideal Location with 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

Next steps for LCK



ISG gas demonstration

Target operation of gas production demonstration during Q1 2017 at LCEP. To show community and government that ISG can operate:

- Safely, and with
- Minimal impact to the environment

Indicative Timeline	Event
Q4 2016	Stage 1 Gas Demonstration Approval
Q1 2017	Stage 1 Gas Demonstration

Data Obtained from Demonstration Allows:

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

Syngas fuel for power and pipeline gas

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. The main fuel components are:

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

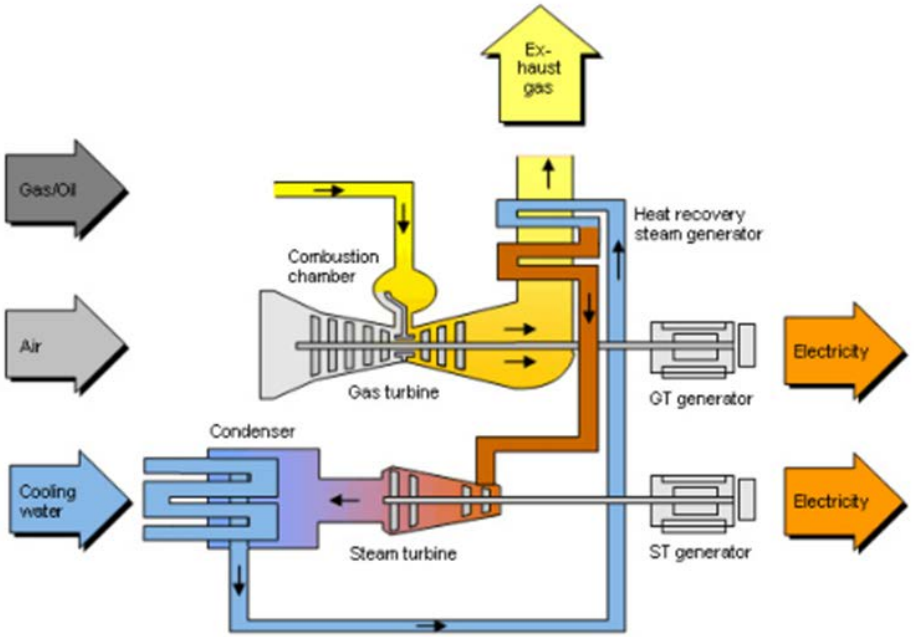
The application of ISG is new, but the equipment for both gas handling and the power station is standard:

- Performance guarantees from turbine suppliers
- Gas clean-up and upgrading into pipeline gas (>93% CH_4)

Surplus gas will be sold to the East Coast market.

Commercial electricity production

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



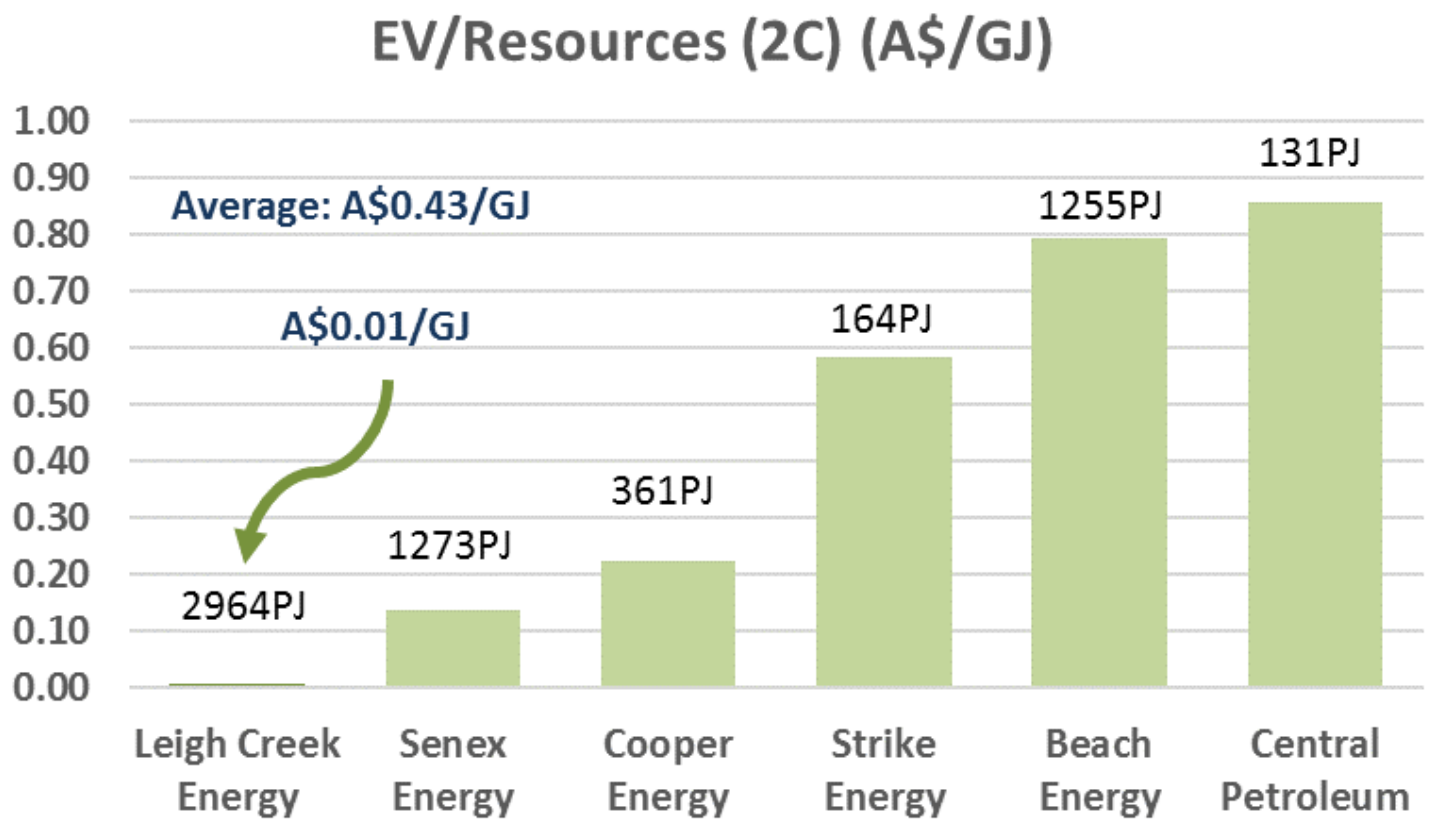
Relationships:

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

Indicative Timeline:

- Approvals by end 2017, then 18 month construction time

LCK compares very cheaply



LCK is trading at an EV/Resource of only $0.01/GJ

Conclusions

- Leigh Creek Energy aims to produce cheap energy
- LCEP will initially generate electricity from syngas to support existing and potential manufacturing and mining operations in SA
- Future expansion looking to include natural gas and ammonia-based fertilisers
- SA has a supportive and enabling regulatory framework and process
- The Leigh Creek Energy project is located on a former coal minesite that has significant existing infrastructure
- LCK is working with the local and regional communities to achieve positive outcomes

Appendix 1: Existing Transmission Lines

Regional network and potential major customer locations