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The low cost  
fertiliser  
opportunity

# LIBERTY RESOURCES

Australia's Fertiliser Future

USA OTC QX:	LRTYY
ASX:	LBY
Frankfurt:	A0B9HB

## Competent Person Statement

The information in the report to which this statement is attached relates to Exploration Results, Mineral Resources or Ore Reserves compiled by Mr D. J. Holden, who is a Member of The Australian Institute of Mining and Metallurgy, with over 20 years experience in the mining and resource exploration industry. Mr Holden has had previous relevant experience and qualifies as a Competent Person as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore reserves". Mr Holden consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Claus Wohlert is a mechanical engineer with a Bachelor of Engineering (1<sup>st</sup> Class Hons) from the University of Canterbury, Doctor of Philosophy from the University of Canterbury. Mr Wohlert has over 30 years local and international experience in the oil and gas industry. His work experience covers major oil companies and consulting firms, all phases of the oil and gas industry, including design engineering, construction, commissioning, and maintenance and a full range of rotating and static equipment.

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The images of production facilities contained in this document are not actual assets of the Company, but are representative of the proposed Urea Corp Fertiliser Project.

[libertyresources.com.au](http://libertyresources.com.au)

# The Liberty Team

## Management Team

- **Andrew Haythorpe** - *Managing Director*
- **Steve McRae**- *CFO*
- **Lance Harcourt** - *Projects Delivery Manager*
- **Claus Wohlert-Jensen** - *Senior Mechanical Engineer*
- **Gavin Ball** – *GM, RLF Partnership*
- **Ken Hancock** – *RLF MD*
- **Scott Cross** – *QLD Manager*

## Board of Directors

- **Andrew Haythorpe**, *MD and Acting Chairman* (former mining analyst and fund manager, experienced company director)
- **Michael Fry**, *NED* (extensive experience in capital markets and commodity, currency and interest rate risk management)
- **James Becke**, *NED* (ex founding Director of Macquarie Bank, 35 years experience in all facets of the Australian capital markets)

# New Fertiliser, New Energy



**Urea Corp**  
of Australia

Investor relations:

Karl Cahill

+1 (858)531-6100

[karlcahill@sbcglobal.net](mailto:karlcahill@sbcglobal.net)

Santiago, USA

ASX:	LBY
Frankfurt	A0B9HB
USA OTCQX ADR	LTRY
Share Price*	\$0.05
Shares on Issue	197.2m
Market Cap	\$ 10m
Cash	\$1.5 m
Other Assets	\$3.0 m
Debt	\$0.0
Largest Shareholders	LBY Management Dundee Corp

\*Share information as at 9.7.11 ([www.asx.com.au](http://www.asx.com.au))

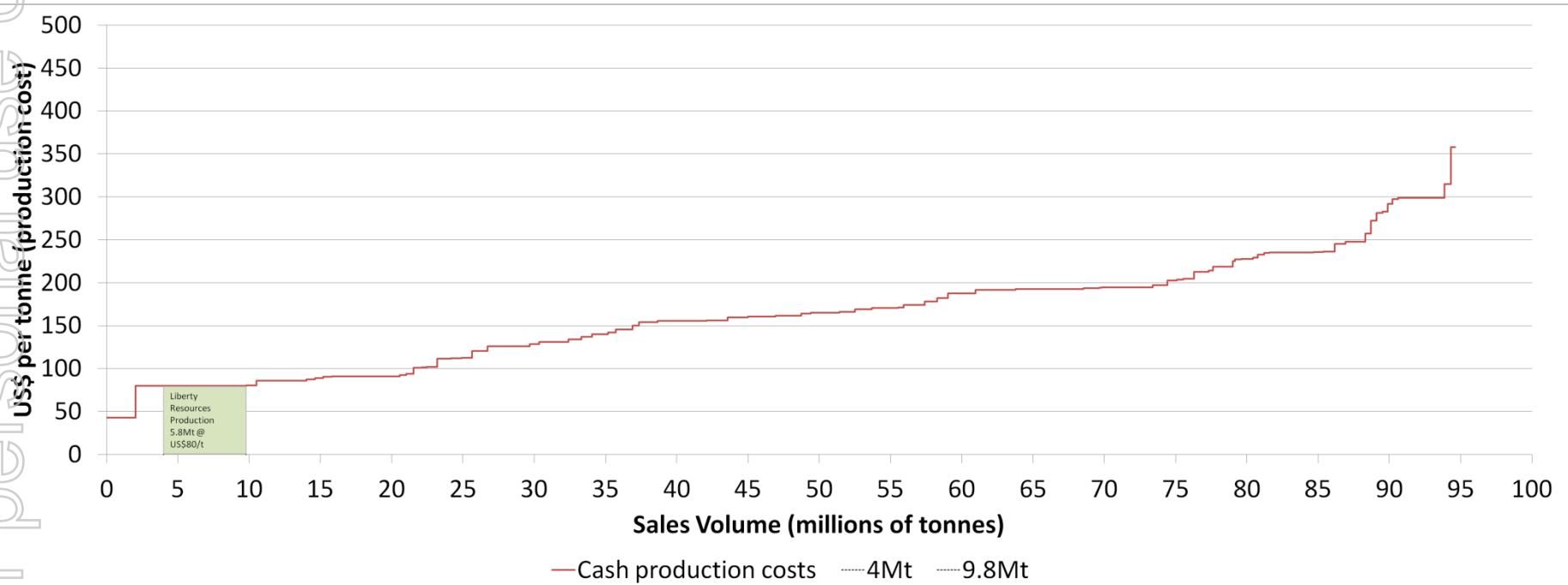
# Liberty Advantages

- ▶ Lowest cost Urea project
- ▶ Protected from gas price rises
- ▶ Safer and Cleaner than current
- ▶ Rail, Fertiliser and coal relationships

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# Urea Corp Fertiliser Project

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# Urea Corp Fertiliser Project

- ▶ Human populations continue to grow
- ▶ Fertiliser is the key
- ▶ We intend to produce more fertiliser, at lower cost
- ▶ This can reverse Australia's fertiliser imbalance

# 83 million per annum

- ▶ Population forecast 7.5 – 10 billion by 2050 (3) (4) (5)
- ▶ Current population est. 6.93 billion.
- ▶ Annual births 140 million
- ▶ Annual deaths 57 million

Source: "U.S. Census Bureau - World POPClock Projection". <http://www.census.gov/ipc/www/popclockworld.html>

"World Population Clock — Worldometers"

[http://www.worldometers.info/population/International Data Base \(IDB\) — World Population](http://www.worldometers.info/population/International%20Data%20Base%20(IDB)%20—%20World%20Population)

"World Population Prospects: The 2008 Revision"

Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat.  
[http://www.un.org/esa/population/publications/popnews/Newsltr\\_87.pdf](http://www.un.org/esa/population/publications/popnews/Newsltr_87.pdf)



# Urea Corp Fertiliser Project

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# Fertilisers value

With fertiliser

Without fertiliser



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# Fertiliser – The place to be

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- ...Rising wealth
- ...rising food consumption,
- ...fertiliser required.



***“Over the past three decades, the proportion of the Chinese population living in urban centres has more than doubled to almost 45 per cent.”***

*Presentation by Dr Philip Lowe, Assistant Governor of the RBA (Central Bank) to the ABS Natstats conference, Australia.*

# Fertilisers for food production

▶ **Urea**

(Nitrogen N )

▶ Potash

(Potassium K )

▶ Phosphate

(Phosphorous P )

▶ Trace elements

▶ Water + CO<sub>2</sub>



# Fertiliser from Non cropping land

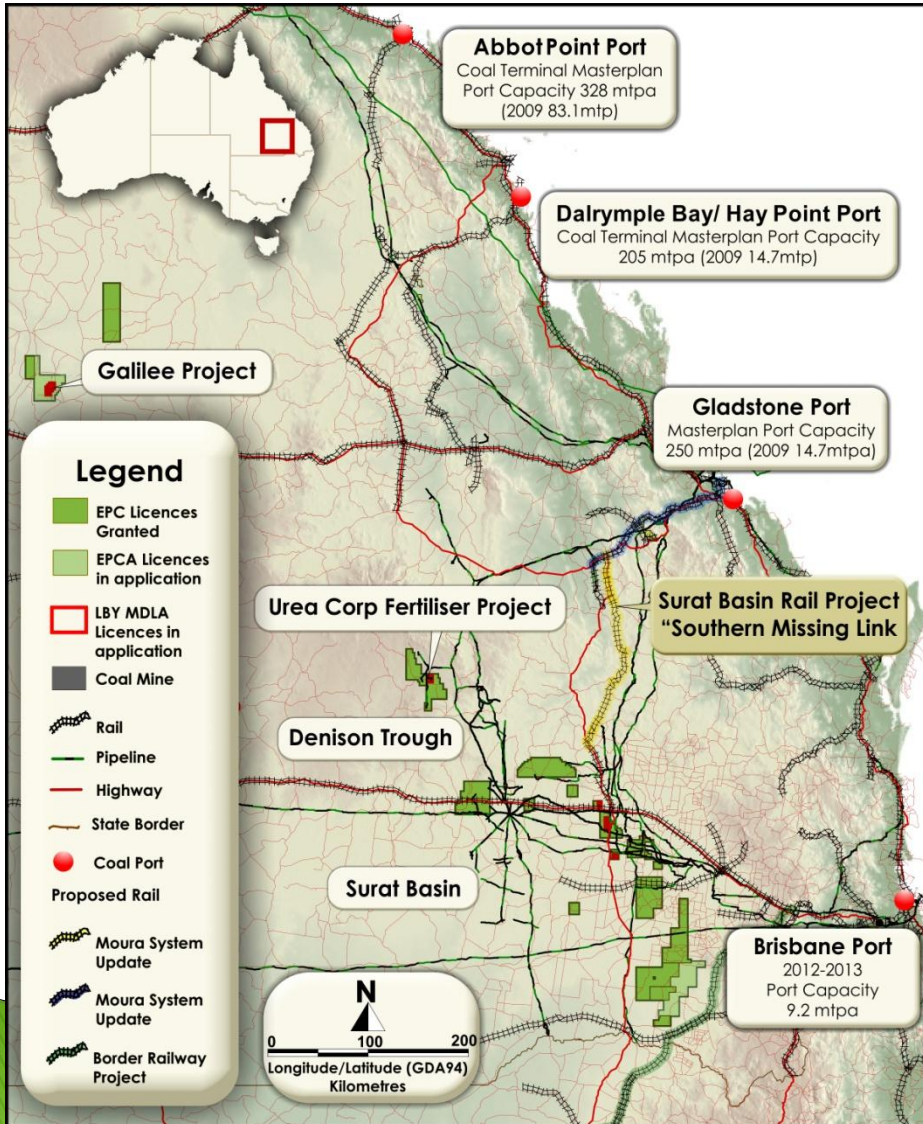


- ▶ State logging
- ▶ No farms
- ▶ No towns
- ▶ No cropping

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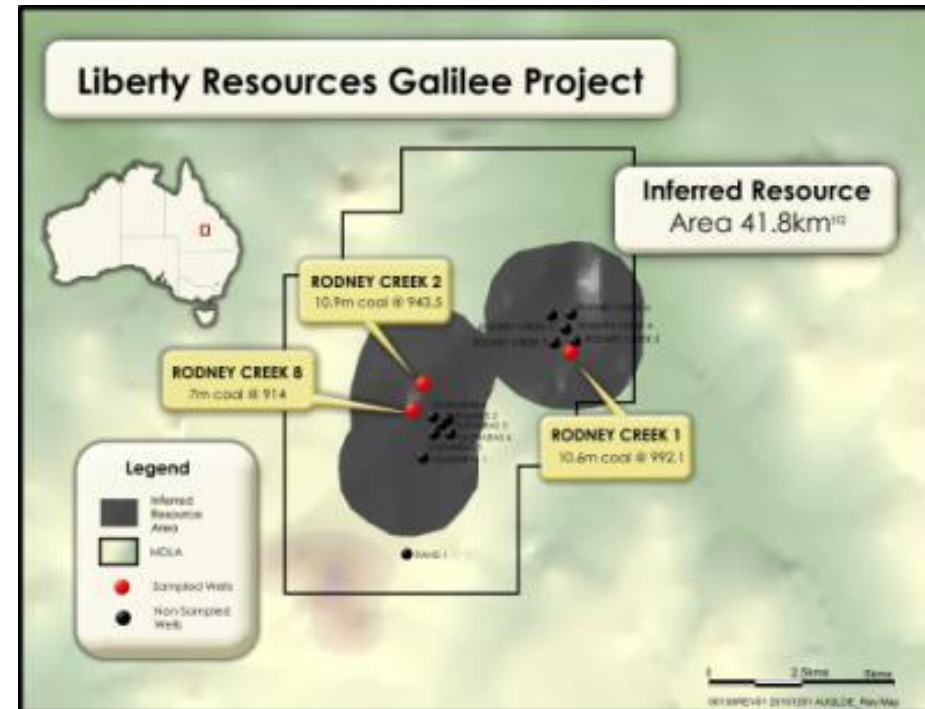
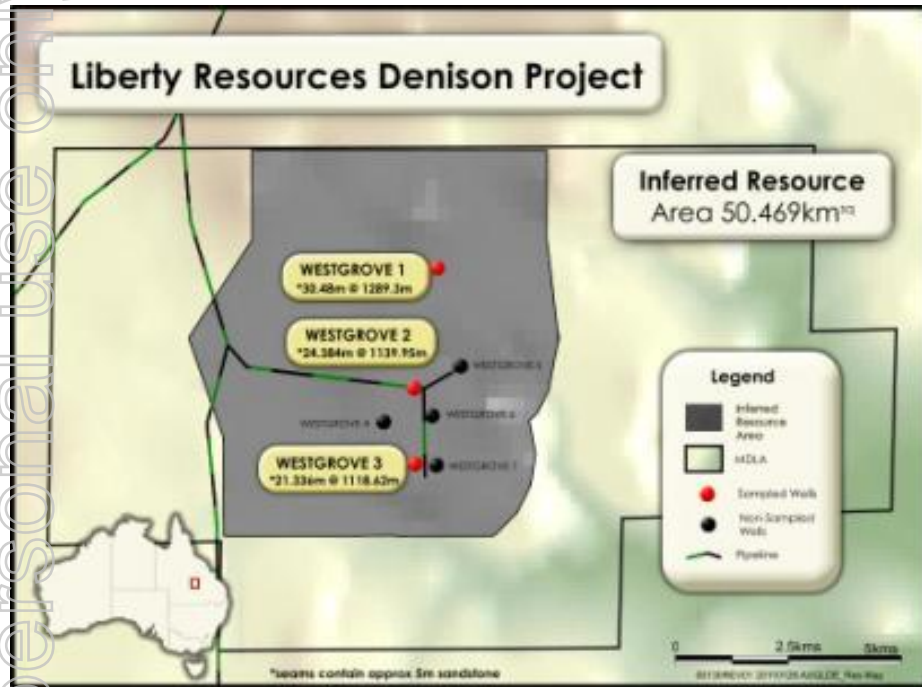
# LBY Projects – infrastructure advantage

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- ▶ Ports
- ▶ Rail
- ▶ Pipelines
- ▶ People

# The Beginning - Coal

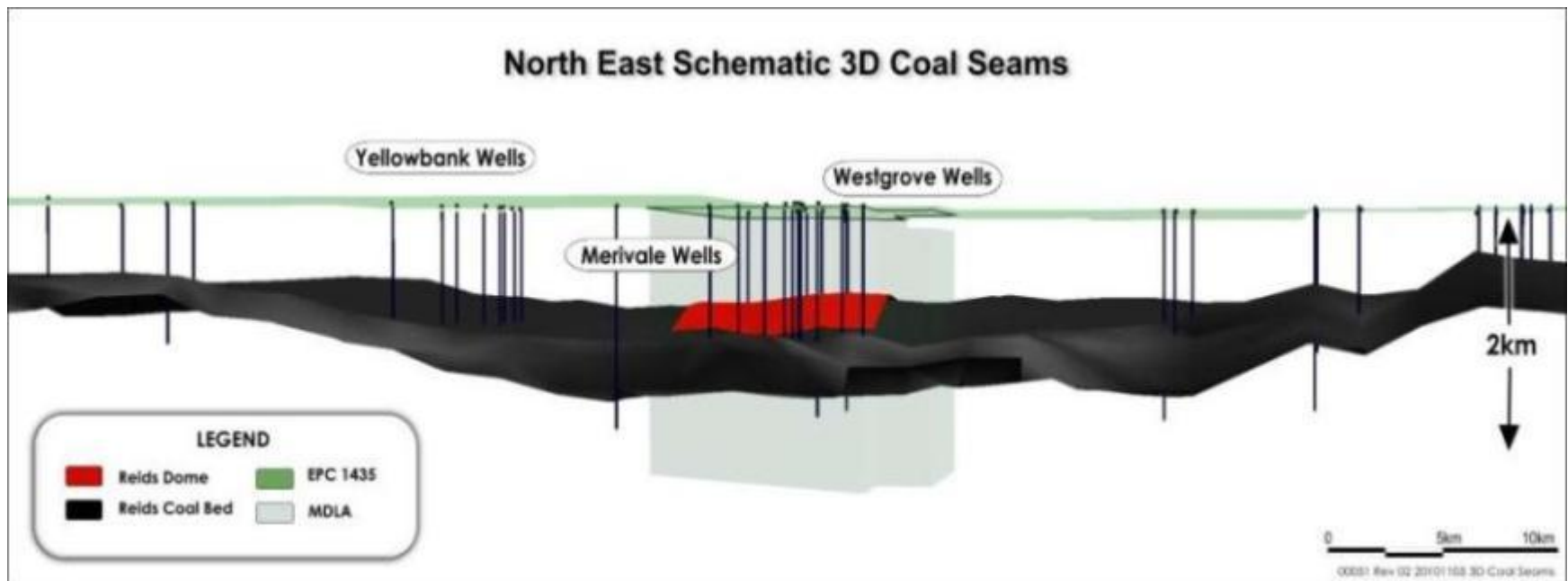


(\* ) This resource forms part of the Westgrove Project area resource as announced by the Company on 21 September 2009

# Denison Coal – Drilling data

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PROJECT	INFERRED RESOURCE	AVERAGE COAL QUALITY
DENISON	1,467 mt	Mod Sulphur thermal coal CV of 6200 Kcal/kg
GALILEE	338 mt	Mod sulphur thermal coal CV of 5100 Kcal/kg





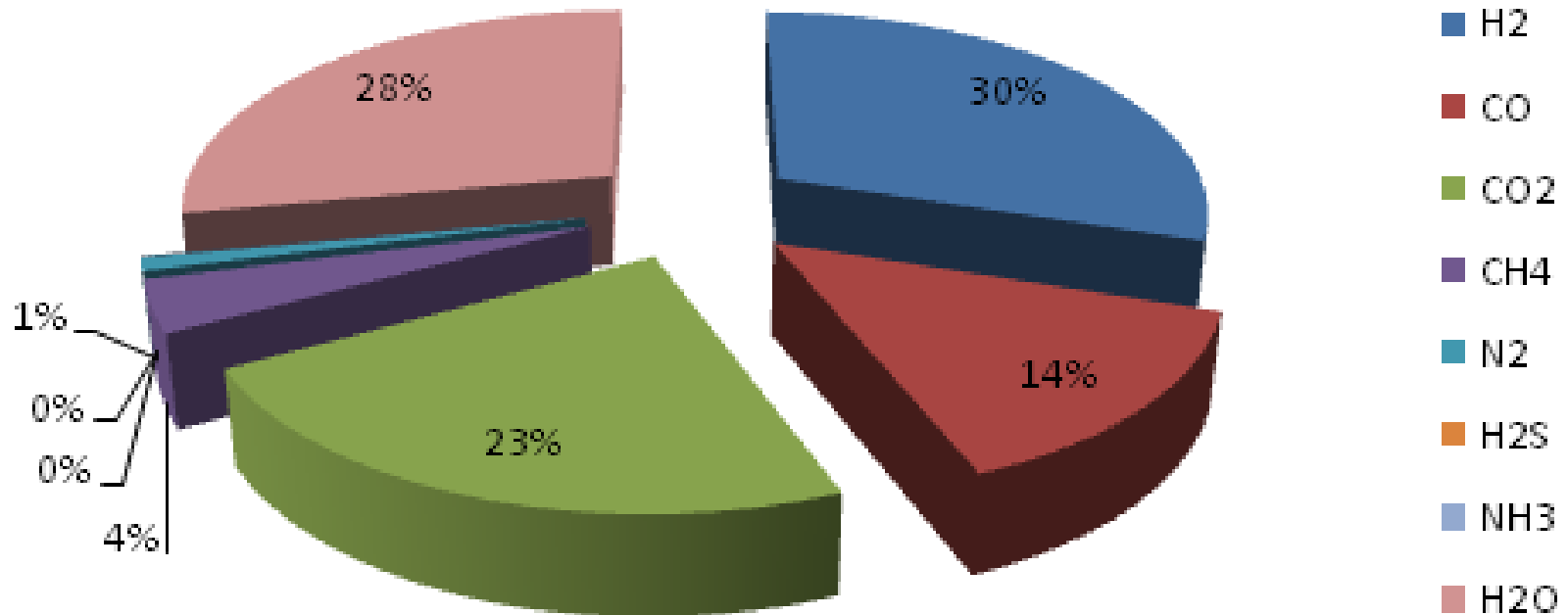
# From coal we make Syngas

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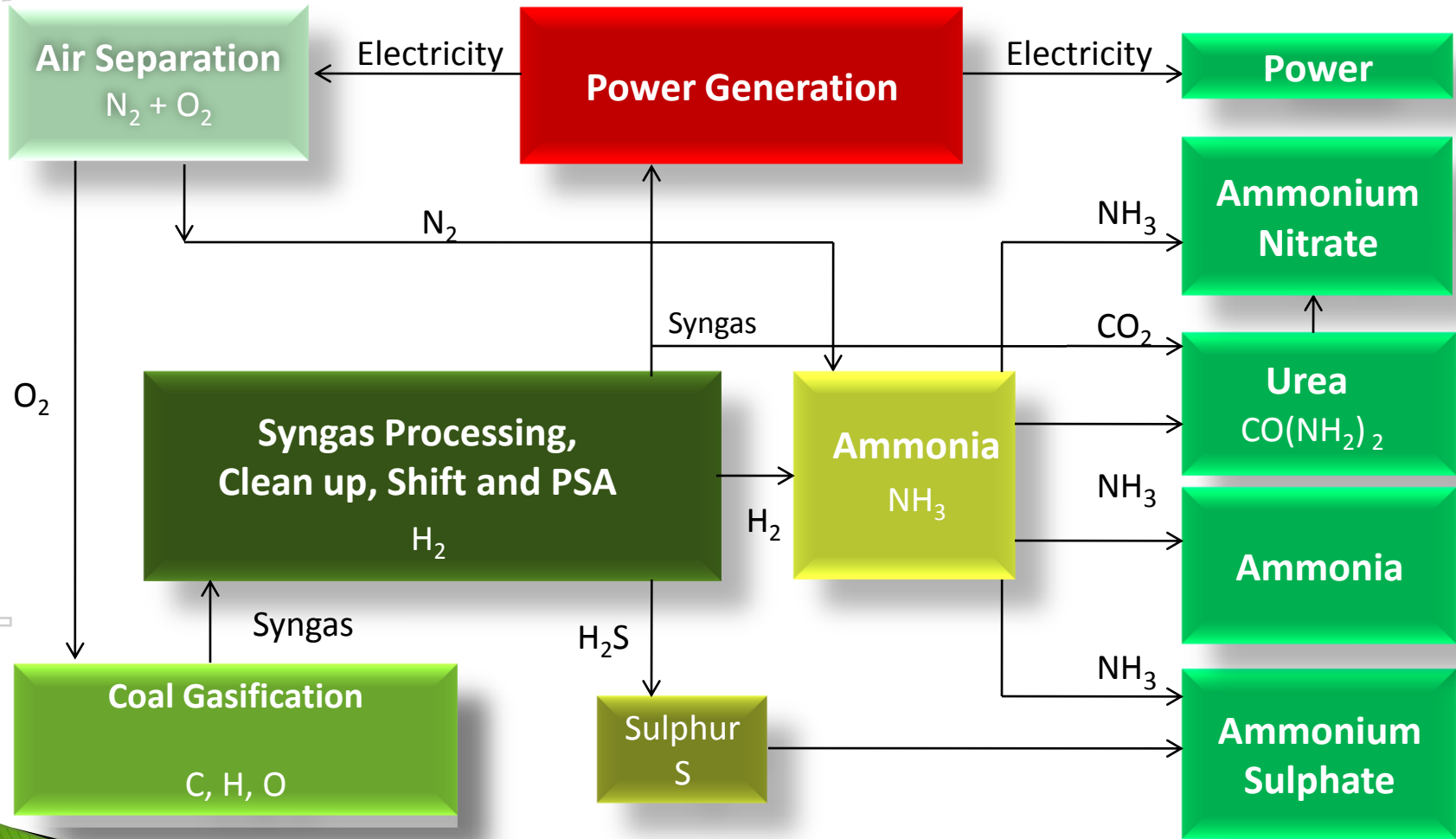
# Syngas' hydrogen advantage

## Syngas Composition Model %



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# Fertiliser and versatile Ammonia



\* Please note that figures are nominal only.

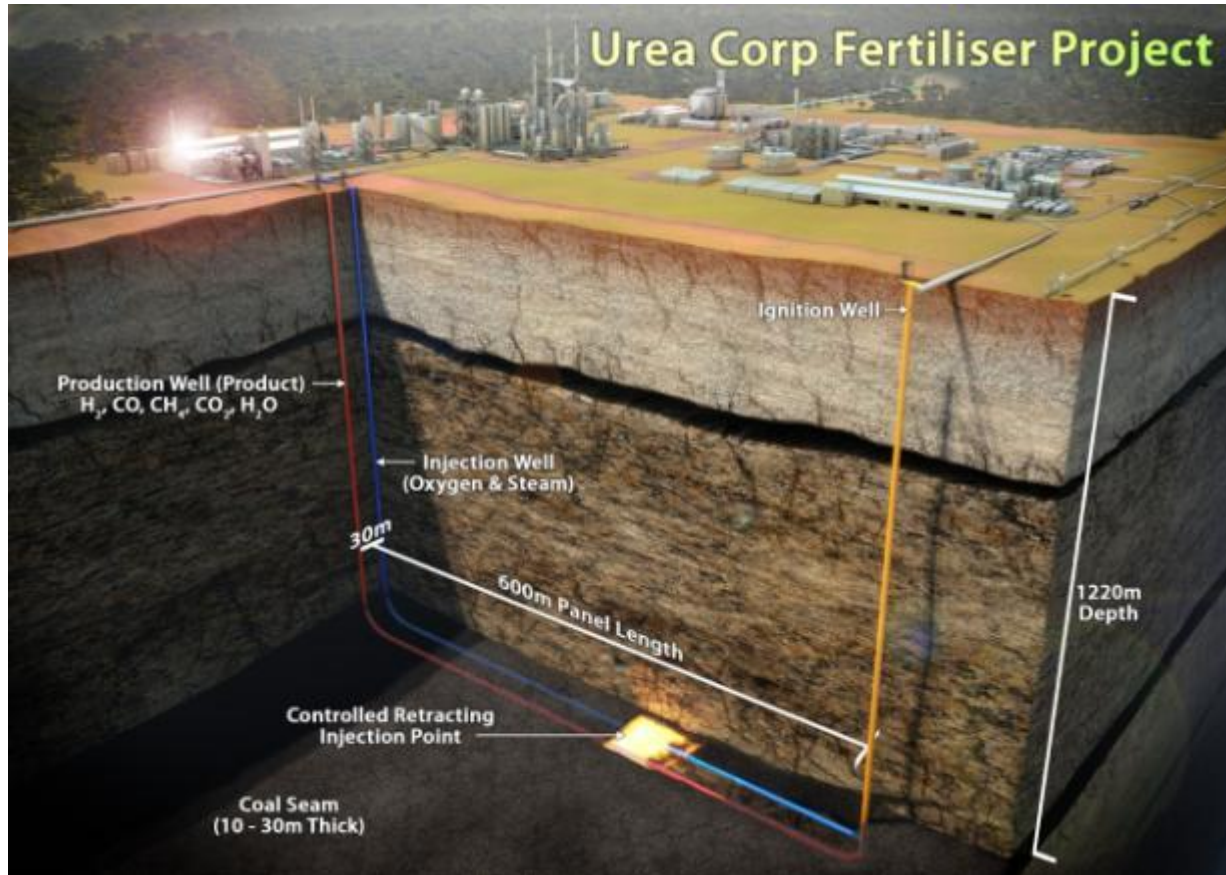
# Water Treatment Plant

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# Directional drilling coal

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# Urea Plant - safe fertiliser

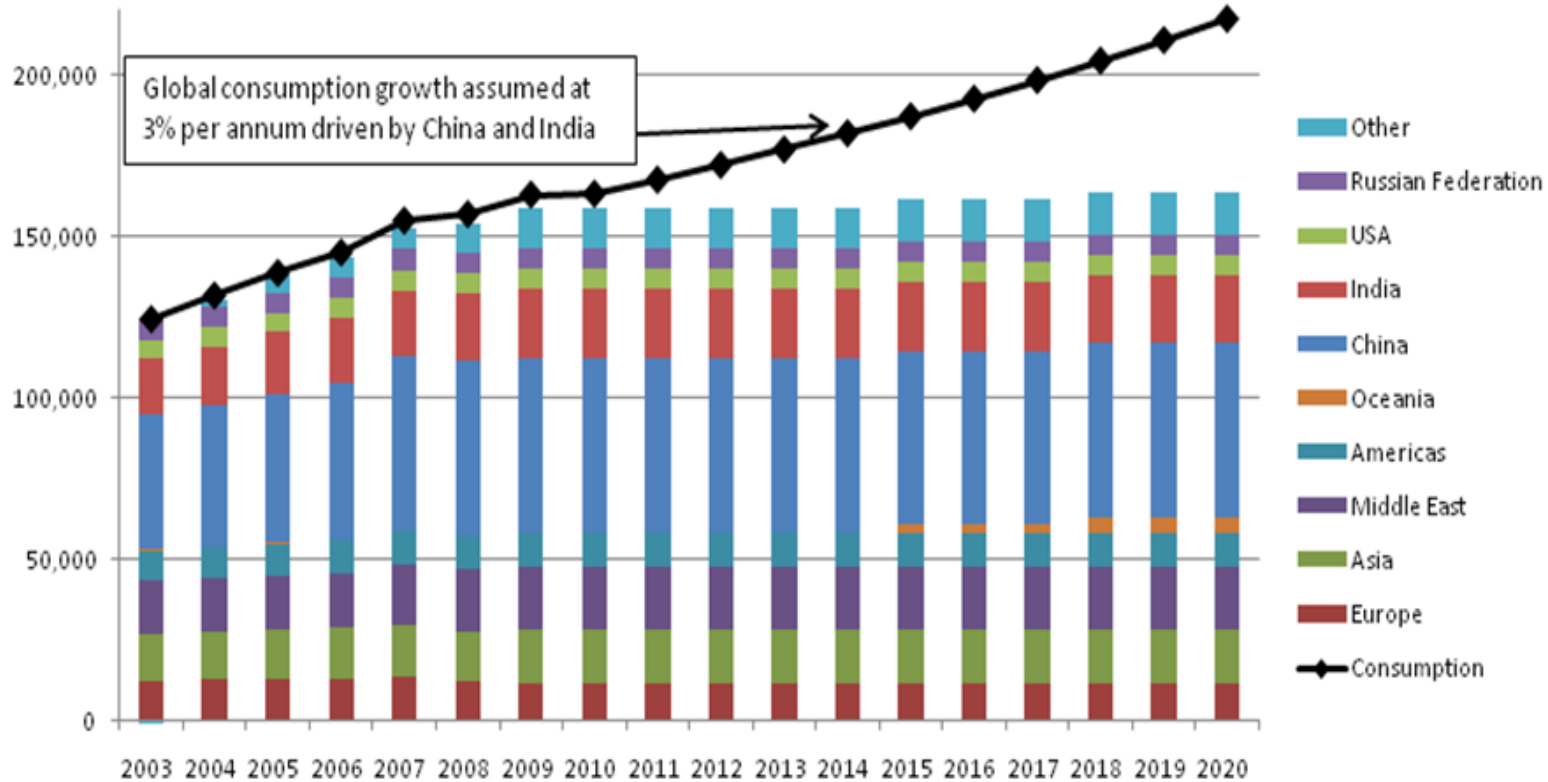


- ▶ Urea – easy to transport
- ▶ Solid granular product
- ▶ Safe to store

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# Demand rising – new capacity required

## Production with consumption – the gap



Source: Urea world market outlook and forecast, *Merchant Research & Consulting Ltd 2010*. And Liberty data

# Unit cost estimates - scope

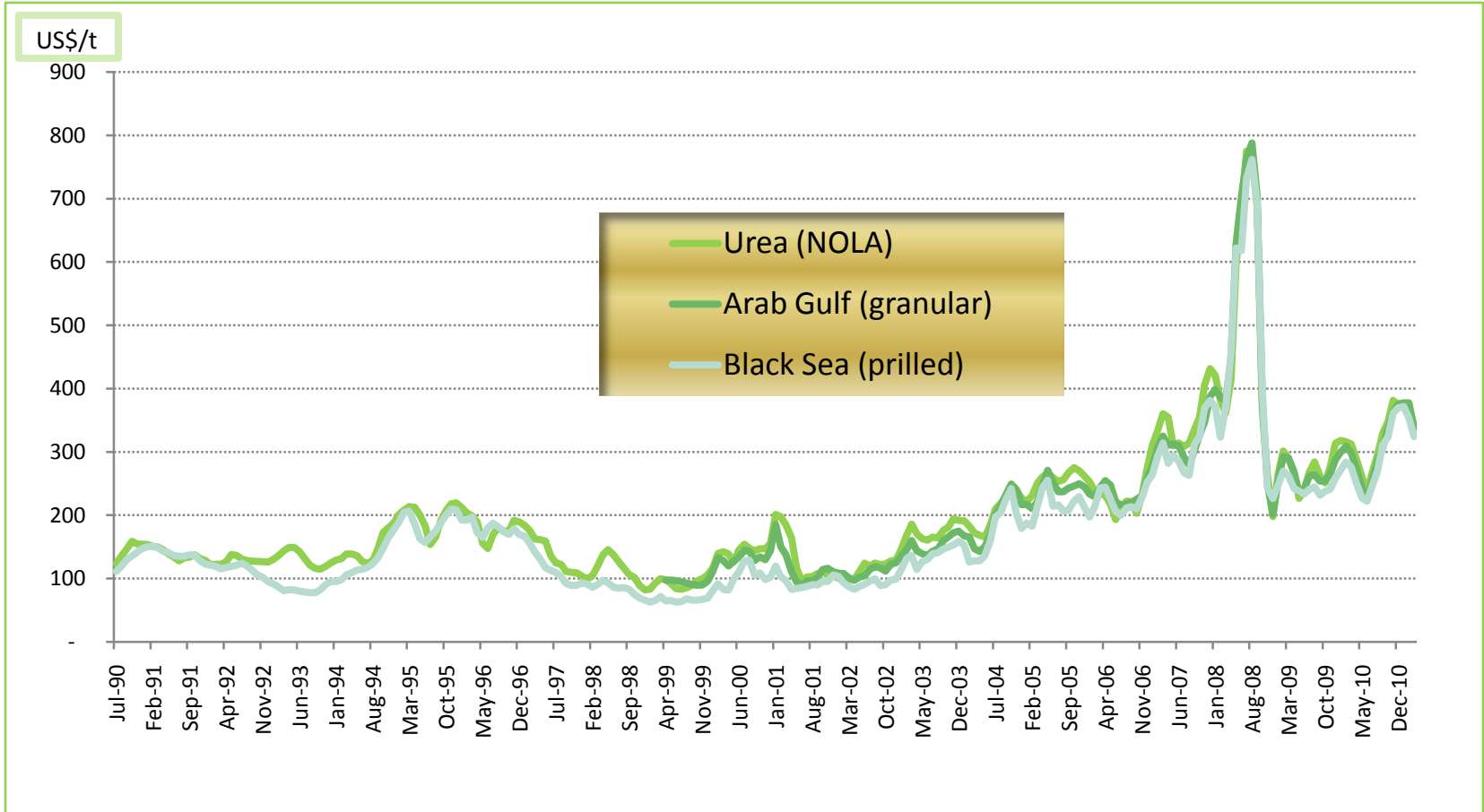
Revenue (Spot)	A\$400/t
- Marketing Costs	A\$40/t
- Operating Cost, Freight to Port	A\$100/t
Total Cash Costs FOB	A\$140/t
Cash Profit	A\$260/t

*Source: \*\* ASX Release - Technical audit completed on scoping study model 4th Sept 2010. Based on audited 30 years plant life scoping study . Excluding accounting adjustments for depreciation and amortisation. Scoping study completed to +/- 30% accuracy. Figures based on certain assumptions. If any assumption is not met, these figures may alter.*



# Urea Price driven by energy cost

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# “Customer” Finance Strategy

- ▶ Non Disclosure Agreements with 4 Majors
- ▶ Discounted offtake offered - 10% discount to spot
- ▶ Equivalent to 1/3 of total Urea yield
- ▶ Project Finance secures offtake discount
- ▶ Using cheap coal to gas from Australia

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# Coals advantage

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*Barrels of Oil Equivalent*

Oil sands 3 GJ/t

Alberta (Canada)



Coal 18-24 GJ/t QLD



Oil shale 6 GJ/t

Julia Creek Shale (QLD)



Source: Oil Shale & Tar Sands Programmatic EIS (<http://ostseis.anl.gov/guide/tarsands/index.cfm>)

\*Based on Raw oil sand contains 66% sand and 33% heavy bituminous oil

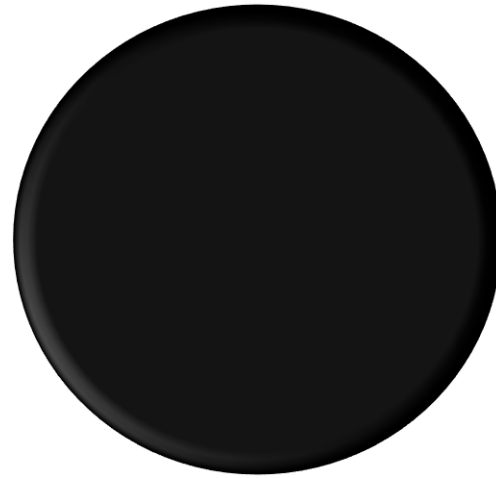
\*\* Kerogen value for Julia Creek (Qld) is 18%. Kerogen is the sole energy component of oil shale and has an energy value of 35GJ/t. Assuming 65% conversion of kerogen to kerosene with an energy value of 43GJ/t.

# In situ Gasification Advantage

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**In situ Gasification**  
1,300 PJ



**Longwall Coal Mining**  
800 PJ



**Coal Seam Gas**  
60 PJ

Source: G.Couch. IEA Clean Coal Centre. *Progress with underground coal gasification*. [www.iea-coal.org.uk](http://www.iea-coal.org.uk) (Energy extraction for typical 12km<sup>2</sup> deposit)

# Mining is an Open System

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# Purification and Management

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No Fracking

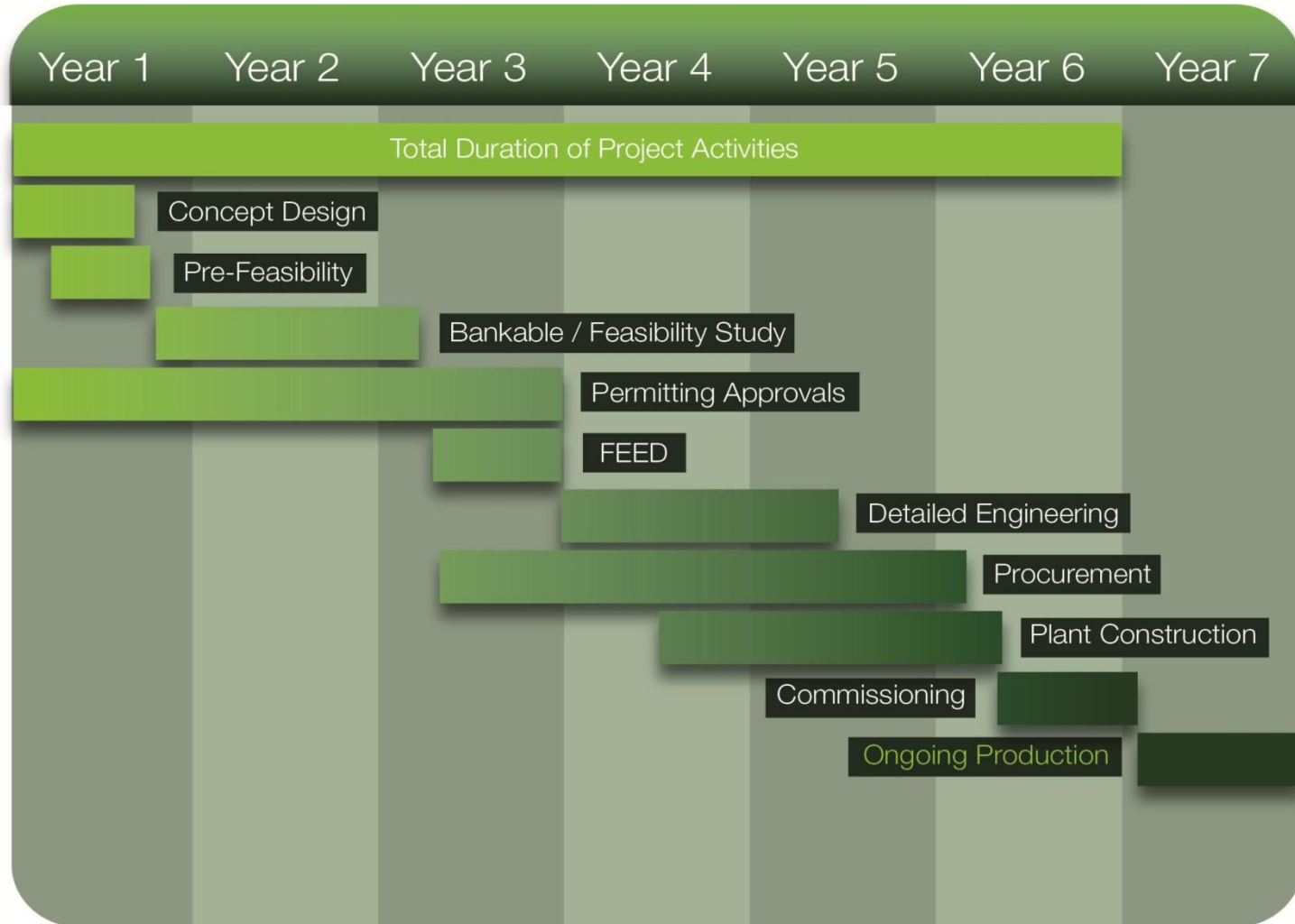
# RLF and Nitrogenesis

- ▶ Rural Liquid Fertilisers - Australian based
- ▶ Manufacturing expertise in China
- ▶ Sinochem and Sinofert distribution arrangements
- ▶ Nitrogenesis – 40 years in Ammonia, AN, Urea

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# Project Schedule

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# Liberty Advantages

- ▶ Lowest cost Urea project
- ▶ Protected from gas price rises
- ▶ Safer and Cleaner than current
- ▶ Partnerships in Rail, Fertiliser and coal

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# *New Fertiliser, New Energy*

**Vast untapped riches remain  
below Queensland**



**LIBERTY RESOURCES**

Australia's Fertiliser Future

UB3, 431 Roberts Rd  
SUBIACO WA 6008

[www.libertyresources.com.au](http://www.libertyresources.com.au)

PH: 08 9287 4488

FX: 08 9388 8862

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