



**carbonenergy**

Carbon Energy Limited | ABN 56 057 552 137

## ASX Announcement

30 September 2014

Level 9, 301 Coronation Drive,  
Milton QLD 4064 Australia  
PO Box 2118, Toowong DC  
QLD 4066 Australia

phone + 61 (0) 7 3156 7777

fax + 61 (0) 7 3156 7776

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

Carbon Energy Limited

ABN 56 057 552 137

Carbon Energy (Operations) Pty Ltd

ABN 61 105 176 967

## Investor Presentation – September & October 2014

**Carbon Energy** (ASX:CNX; OTCQX:CNXAY) Managing Director, Morné Engelbrecht, will be presenting the attached to potential investors across Australia during September and October 2014.

### ENDS

For and on behalf of the Board

Tracy Bragg

General Counsel & Company Secretary

Company	Investor relations
<b>Marina Cid</b> Corporate Affairs Manager Tel: +61 7 3156 7739 Email: <a href="mailto:mcid@carbonenergy.com.au">mcid@carbonenergy.com.au</a>	<b>Paul Dekkers</b> Buchan Consulting Tel: +61 (2) 9237 2807 Email: <a href="mailto:pdekkers@buchanwe.com.au">pdekkers@buchanwe.com.au</a>

## About Carbon Energy

Carbon Energy (ASX: CNX) (OTCQX: CNXAY) is building a Queensland gas business.

The Company is committed to providing Australian industrial gas users with an affordable and secure source of high quality gas, as gas prices continue to rise with increased overseas demand.

Carbon Energy is developing a new Queensland-based energy portfolio. Subject to government approvals, the Company is currently developing its first commercial project, the Blue Gum Gas Project, near Dalby in Queensland. This plant will supply 25PJ of natural gas per annum and is located within easy access to markets, and close to existing infrastructure.

Additionally, Carbon Energy has the potential to supply the growing overseas markets.

A key competitive advantage for Carbon Energy has been the development of its unique keyseam technology. This proven and highly controlled technology enables access to productive gas resources that were previously considered too deep or uneconomic.

keyseam maximises resource efficiency, while minimising surface disturbance and preserving groundwater quality. Originally developed by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) it has been proven through six years of field trials.

Alongside its local operations, Carbon Energy works with international partners to unlock new energy resources offshore. The Company delivers end-to-end services from initial project assessment through to commercial project development, operations, site decommissioning and rehabilitation. It also has an established project in Inner Mongolia, China.

Carbon Energy is headquartered in Brisbane, Australia, is listed on the Australian Securities Exchange (ASX) as CNX and is quoted on the OTCQX International Exchange as CNXAY in the United States.

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keyseam® is a registered Trademark of Carbon Energy Ltd



**Building a Gas Business**  
Investor Presentation  
September & October 2014



carbonenergy

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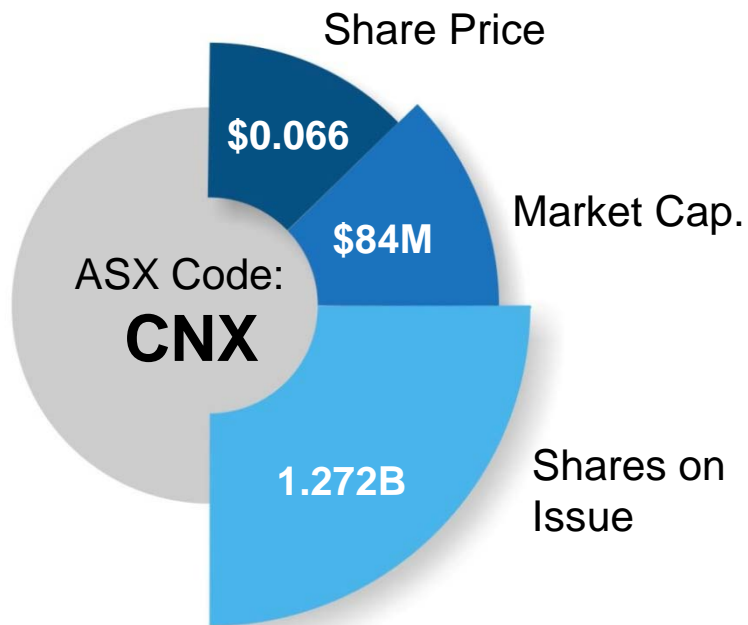
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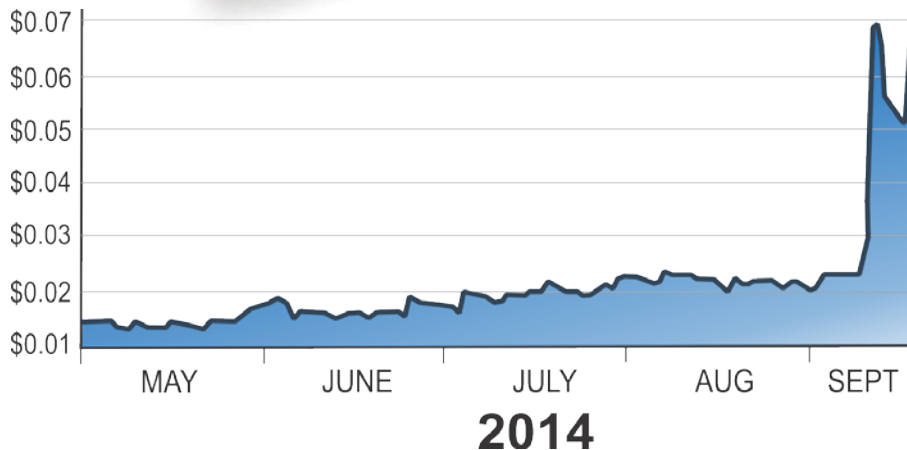
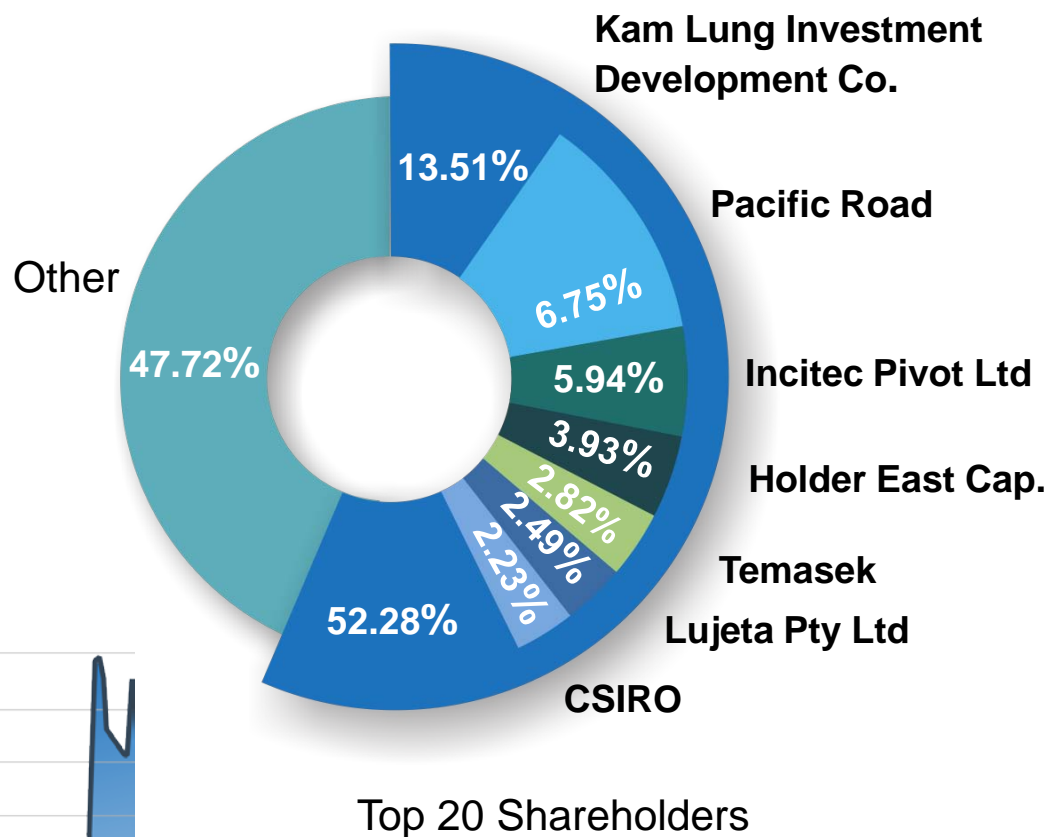
This presentation refers to estimates of petroleum reserves, contingent resources and prospective resources released to the market on 22<sup>nd</sup> September 2014 (Updated Reserves Statement). Carbon Energy confirms that it is not aware of any new information or data that materially affects the information included in the Updated Reserves Statement and that all material assumptions and technical parameters underpinning the estimates in the Updated Reserves Statement continue to apply and have not materially changed.

# CORPORATE OVERVIEW

## Capital Structure\*



## Major Shareholders\*



\*As at 29 September 2014

# BUILDING A GAS BUSINESS

## Here & Now

>\$100 million spent on proving CSIRO technology

5<sup>th</sup> Largest 2P gas reserves in Queensland

1<sup>st</sup> Revenue earned from Project in China

Final requirements being met re: QLD Gov. decision which will allow CNX to commence approvals process for Blue Gum Gas Project

Commenced initial works on Blue Gum Gas Project

External gas reserve valuation being undertaken

## Next 12 months

QLD Government approvals

Secure off-take and Investment in the Project

Commence Blue Gum Gas Pre-Feasibility Study

Expand Resource holding through Joint Venture with QLD coal owners

Generate revenue through licensing of technology

Commence construction of Inner Mongolia project

## 3 Year Vision

First QLD gas by 2017 (depending on approvals)

>\$180M revenue per annum

>\$4Bn over 25 years

Be a major Eastern Australian gas producer

Expansion across QLD, Australia and rest of the world

Strong Balance Sheet

# COMMERCIALISATION STRATEGY



## Blue Gum Gas Project

### Developing a New Gas Supply for Queensland Industry

- Commercialising Surat Basin gas reserves to meet local industrial demand – 5th largest 2P gas reserve in Queensland
- Aiming to Meet forecast gas shortages with commercially acceptable pricing
- Negotiating long-term off-take agreements
- Potential to unlock vast potential gas reserves through proprietary keyseam technology
- Seeking investment by local industrial partners to secure future supply through JV



## Technology Licensing and Services

### Generate ongoing licensing revenue

- Build on existing projects with Chinese partners leveraging commercially proven trial results
- Further licensing deals will bring further revenue
- Positive QLD Government decision will assist with further licensing of technology

# BLUE GUM GAS PROJECT

## COMMERCIAL VISION - 25PJ pa SNG Plant

**\$4.6 billion** = **25 YEARS** REVENUE

**\$187 million** = **ANNUAL** REVENUE

**\$9.15 million** = **QLD STATE ROYALTIES** ANNUALLY



OVER **1000** JOBS DURING

**150** NEW SUSTAINED LOCAL JOBS



CONSTRUCTION

\* **1** JOB = **7.6** JOBS IN OTHER INDUSTRIES

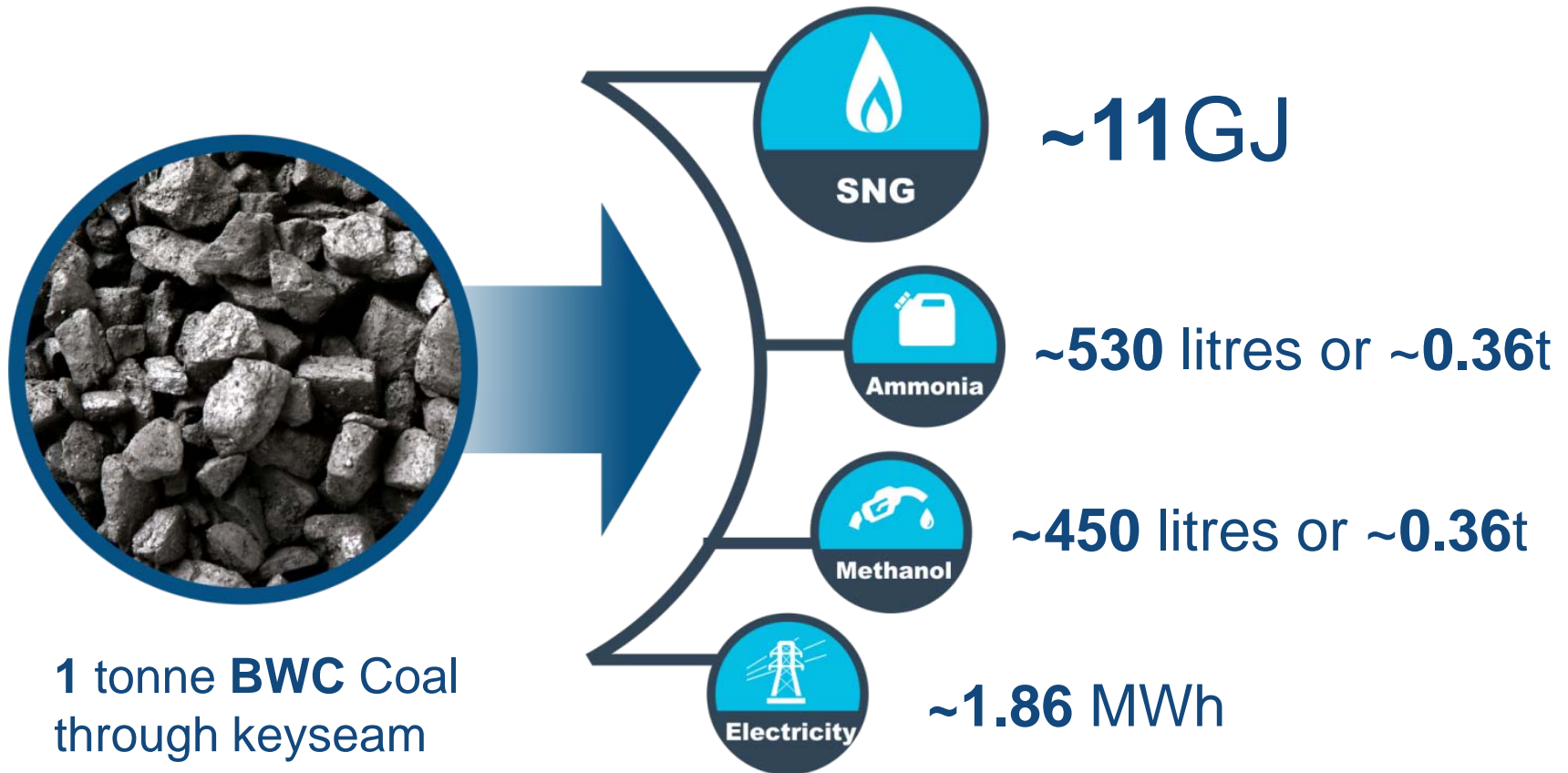
\* ABS employment multipliers for the gas industry



# UNLOCKING DEEP “UNECONOMIC” RESOURCES

- keyseam technology initially developed by **CSIRO over 10 years**
- a **new design and approach** to UCG including:
  - **Consistency** of gas quality
  - Commercial **scalability**
  - **Continuous** versus “batch” process
  - **Geotechnical** stability of wells
- **6 years of field trials** by Carbon Energy > \$100 million in R&D
- **Proof of concept** of keyseam reached through >20 months of continuous production of consistent high quality syngas
- Over **2,000 samples collected over 6 years** reported to government agency monthly to prove environmental standards

# QUEENSLAND GAS FOR QUEENSLAND

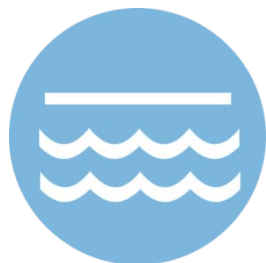


1 tonne **BWC** Coal  
through keyseam

# ENVIRONMENTAL BENEFITS\*



Small footprint for the volume of energy recovered



Preserves groundwater volumes & quality



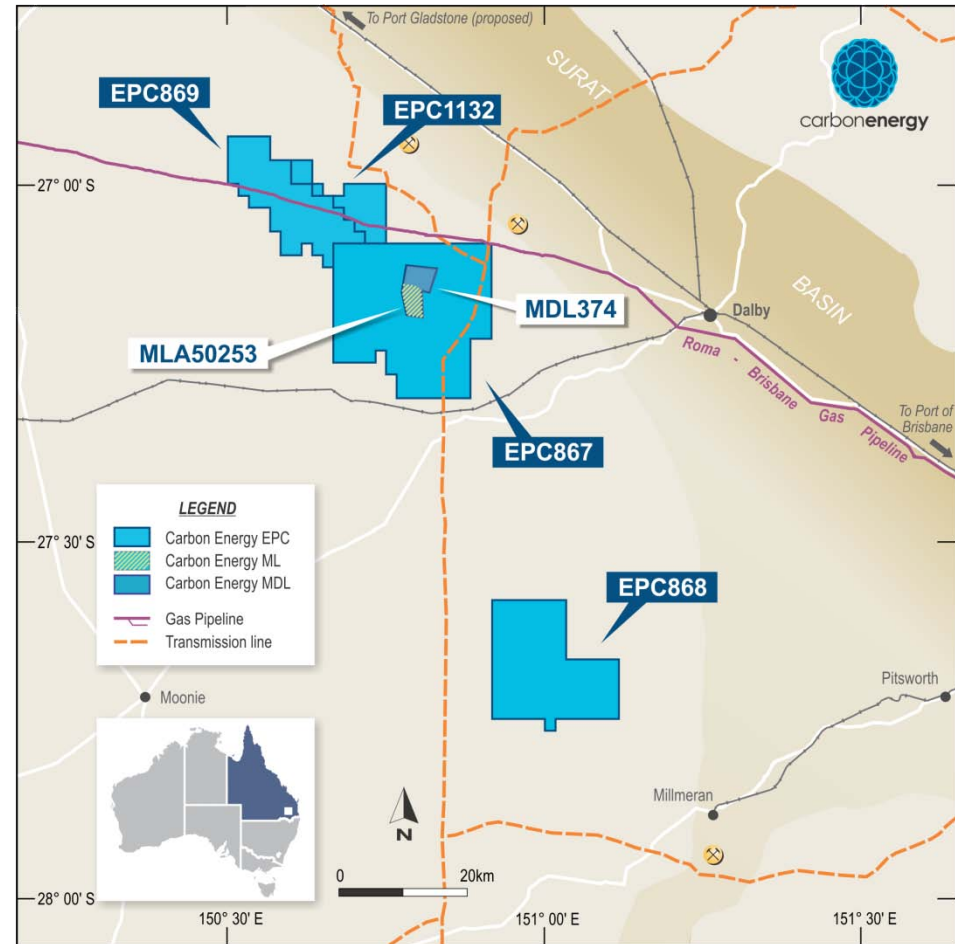
Minimises environmental impact by not excavating, fracking or transporting coal.

\*compared to conventional coal mining and other unconventional gas sources

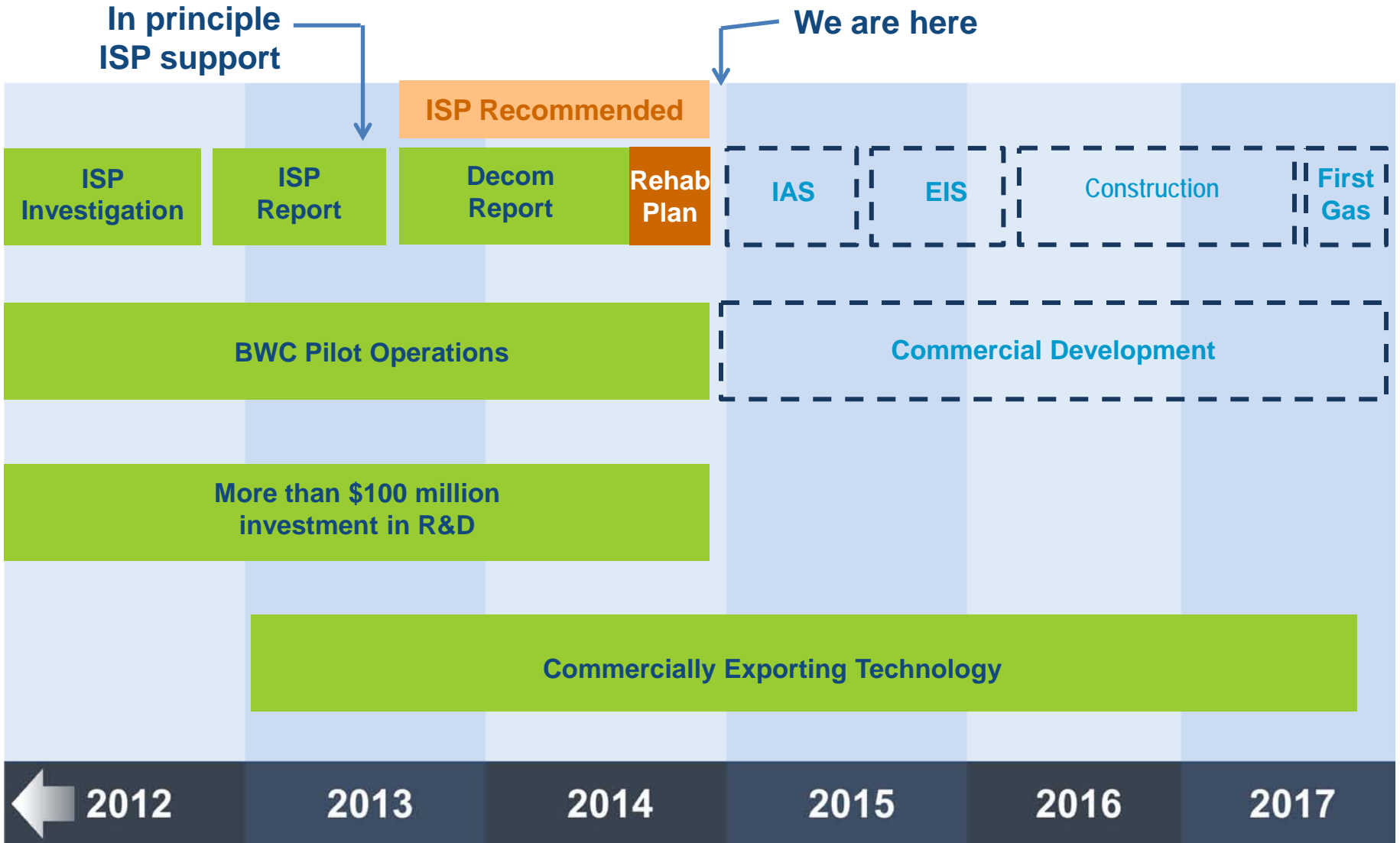
# SUBSTANTIAL RESERVES AND RESOURCES

## Snapshot

<b>Location</b>	Surat Basin, Queensland
<b>Gas Reserve</b>	1 Tcf 2P Gas Reserves & 5 Tcf 3P Gas Reserves
<b>Gas Resource</b>	8 Tcf 2C Resource
<b>QLD Downstream Markets</b>	Synthetic Natural Gas (SNG) and/or Ammonia/Urea
<b>Infrastructure</b>	Access to major infrastructure



# NEXT STEPS (INDICATIVE ONLY)

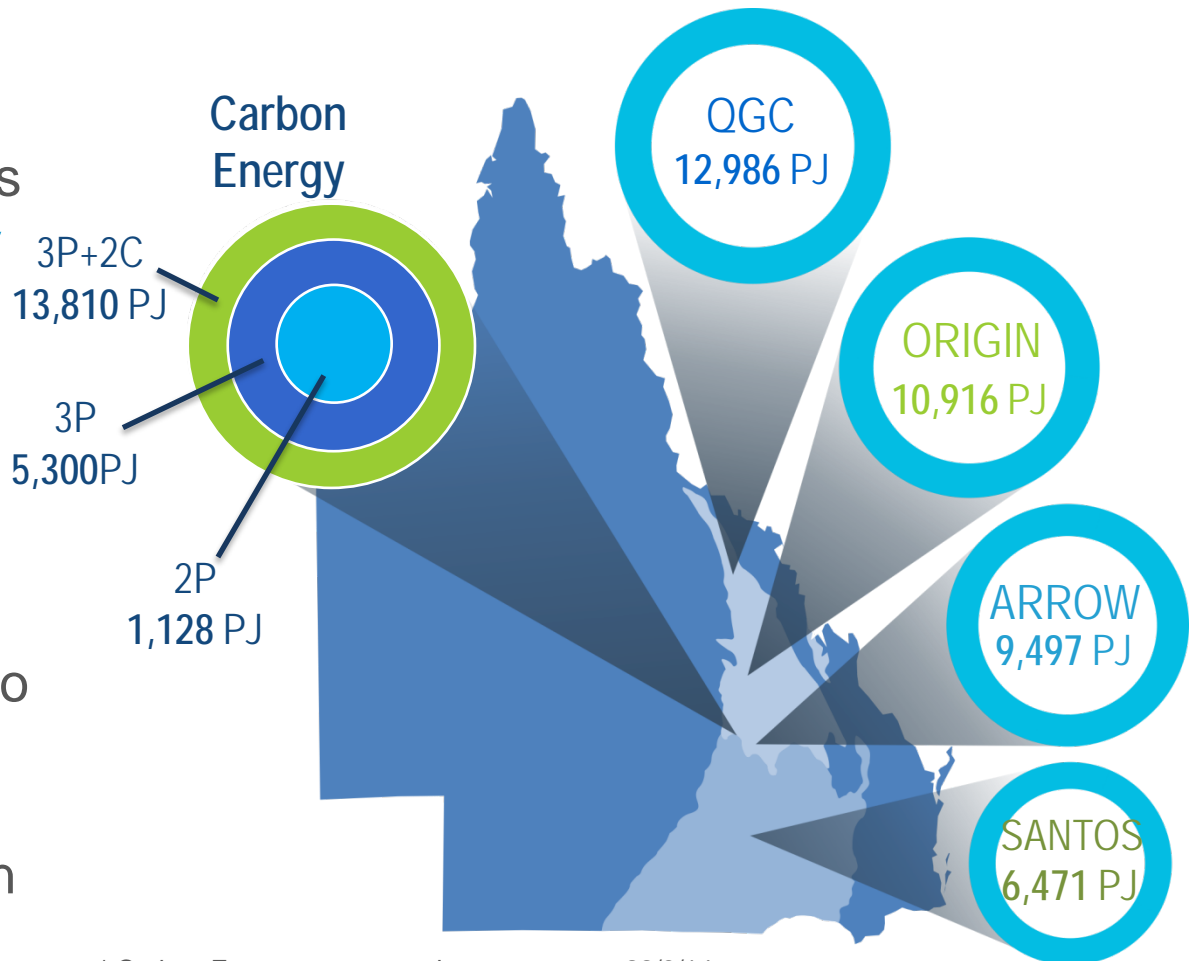


 Complete/approval
  In progress
  Planned/Future

# QUEENSLAND GAS SUPPLIER

## Carbon Energy Reserves as compared to other major operators 2P Reserves in the Surat & Bowen basins

- Carbon Energy is entering the market as a major gas company
- CNX holds significant reserves and resources in QLD – compared to peers (CSG listed companies)
- CNX well positioned to supply significant gas reserves to local industry players within three years



\* Carbon Energy reserve and resource as at 22/9/14

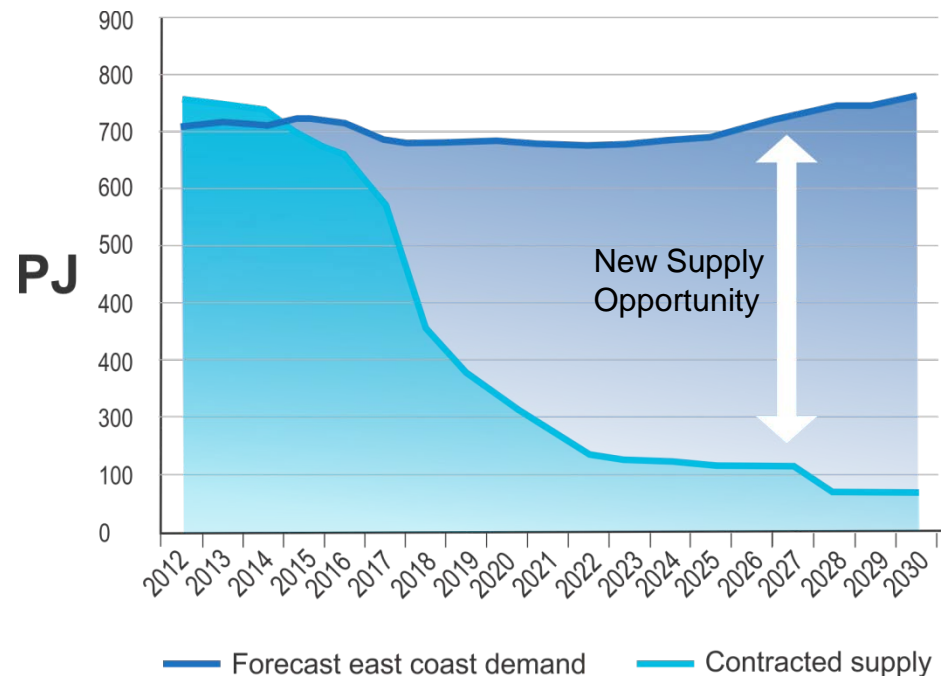
All other reserves: Qld Government, Department of Natural Resources and Mines, Coal Seam Gas Reserves, 2P reserves as at 31/12/13



# OPPORTUNITY FOR NEW GAS SOURCES

- With 5,300 PJ of 3P reserves, **Carbon Energy** is well placed to meet the increased gas demand
- Recent east coast **contracts** **>\$8/GJ** (Expiring contracts have been as low as \$2.50/GJ, historical average of around \$3-4/GJ)
- Capital and **operating costs** **competitive** with any new source of gas
- UCG production cost < other gas production cost

## Gas Demand and Supply



Source: SKM 2013, gas market modelling

# INTERNATIONAL LICENSING OF keyseam® TECHNOLOGY

- Inner Mongolia Licensing deal done in 2013.
- Substantially most of Engineering Design work complete.
- Awaiting appointment of PCM contractor before procurement and construction can commence.
- Revenue of \$1.8 million received to date





# SUMMARY

- **Building a gas business**
- **5th largest 2P gas reserves** in Queensland
- **25PJ Blue Gum Gas Project** to deliver >\$4B over 25 years
- **Off-take** discussions occurring
- Positioned to **supply** constrained **East Coast market by 2017**
- **Final submission** to QLD Government by **end of September 2014**
- Positioned well to **take advantage of potential QLD Government approval both locally and internationally**

# CONTACT INFORMATION



## Head Office Brisbane:

Carbon Energy  
Level 9, 301 Coronation Drive  
Milton 4064

### **Marina Cid**

Investor Relations Manager  
Email: [mcid@carbonenergy.com.au](mailto:mcid@carbonenergy.com.au)

### **Paul Dekkers**

Buchan Consulting  
Email: [pdekkers@buchanwe.com.au](mailto:pdekkers@buchanwe.com.au)

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