

Quarterly Report June 2011



# Highlights

- UCG Panel 2 at Carbon Energy's Bloodwood Creek site in Queensland, Australia has been producing syngas continuously throughout the Quarter.
- Initial testing of the 5MW Power Station engines was completed successfully during the Quarter.
- In Chile, key Phase 1 deliverables were achieved enabling the project to move forward with the formalisation of the Joint Venture Company.
- Carbon Energy completed its first international JORC resource assessment at the Mulpun coal deposit in Chile.
- Carbon Energy became quoted in the US on the OTCQX market on 24 June 2011 in support of international expansion plans following the acquisition of Clean Coal Inc (now Carbon Energy USA Inc) in April 2011.
- Carbon Energy opened its permanent US office in New York in late June 2011.
- Discussions with regulators in the US have commenced to progress the Wyoming project.
- The Board elected Dr Chris Rawlings as the new Chairman on 26 July 2011.
- The Company retained cash of \$9.8 million as at 30 June 2011.



#### Company Overview

Carbon Energy is a world leader in advanced coal technology. Our business is transforming stranded coal resources into high-value fuels with lower emissions to meet the increasing global demand for new, low cost, alternative energy sources.

This is being achieved through the execution of our three core strategic objectives:

- 1. Build a targeted International Portfolio of Coal Assets Suitable for UCG
- 2. Apply our Superior UCG Technology, known as **key**seam<sub>®</sub>
- 3. Supply UCG Syngas to High-Value Downstream Markets

#### 1. Resource

Project	JORC Resource <sup>1</sup> (million tonnes)	Commercial Target <sup>2</sup> (millions tonnes)	Recoverable Gas <sup>3</sup> (PJ)
Queensland, Australia	668		6,680
Mulpun, Chile	103		1,100
Wyoming, United States	By June 2012	500	5,000
Total	771	500	12,780

#### Notes

- 1. JORC compliant Competent Person: Dr C. Mallett
- 2. Carbon Energy target
- 3. Carbon Energy calculation based on estimated energy content of the coal & 50% recovery (taking into account pillars, losses and a gasification efficiency of 80%)

#### 2. Technology

Carbon Energy's keyseam<sub>®</sub> technology transforms stranded coal into high-quality gas, providing our market advantage.

**key**Seam<sub>®</sub> creates a low-cost, low-emission and low-impact pathway for delivering a new generation of commercial scale energy projects through more efficient, cleaner utilisation of deep coal resources; unlocking a previously inaccessible energy source with a minimal environmental footprint.

Site selection and panel design using advanced geological modeling and an unrivalled understanding of ground behaviour following on from 10 years of research and development by the CSIRO, Australia's leading scientific research agency. Carbon Energy has conducted 3 years of trials in readiness for commercialisation.

#### 3. Markets

Carbon Energy has established an enviable list of major commercial partners around the globe including:

- Incitec Pivot (Dyno Nobel) Australian listed, International Fertiliser and Explosives Manufacturer.
- Antofagasta Minerals S.A. London Stock Exchange listed, Chilean based, International Copper Mining Company.
- Arcadia Energy Trading Australian-based subsidiary of Farahead Holdings Group (incl. Golar LNG Ltd, Arcadia Petroleum Limited, Frontline Limited and Seadrill).
- Hema Endustri A.S. A Turkish construction, transport and mining corporation.
- Adani Major Indian Corporation with interests in power generation, coal mining and trading.



#### Australia

Project	JORC Resource <sup>1</sup> (million tonnes)	Recoverable Gas <sup>2</sup> (PJ)
Queensland, Australia	668	6,680

#### Notes

- 1. JORC compliant Competent Person: Dr C. Mallett
- 2. Carbon Energy calculation based on estimated energy content of the coal and 50% recovery (that takes into account pillars, losses and a gasification efficiency of 80%)

#### **Phase 1 Power Generation: 5MW Power Station**

At Carbon Energy's Queensland project at Bloodwood Creek, UCG Panel 2 has been producing syngas continuously throughout the period. Initially, syngas produced from Panel 2 was supplied to the surface via the Initiation Well as planned. On 2 April 2011, Carbon Energy achieved its optimal operating configuration with syngas produced from the Product Well in accordance with Carbon Energy's UCG panel design.

Product gas heating values rapidly reached the Company's target range of 5-6 MJ/m3 with sustained gas production periods achieving heating values in excess of 6MJ/m3. As is to be expected, there has been some variability in gas quality associated with the progressive development of the gasification reaction transitioning from the initiation phase to gasification across the entire panel width. During this period controlled changes to operating parameters have been made with the objective of optimising gasifier performance.

Commissioning of the surface facilities for Panel 2 was completed successfully and the effectiveness of improvements implemented from the learnings of Panel 1 was confirmed. Syngas was introduced to the 5MW Power Station in May allowing the testing of each engine to commence. Initial testing of the engines was completed successfully by the end of the period.

Following period-end, the July milestone of testing power station load circuits was achieved. Additionally, the first engine successfully delivered electricity to the 2MW load bank and testing at full-load capacity is on track for completion during August 2011 as scheduled.

Completion of the electricity lines from the site to the local network and connection work by the network operator is progressing with major sub-contracts executed in early July. In addition, the required amendment to the Company's existing Environmental Authorities which would allow for an increase in the volume of gas consumed to enable the full commissioning of the 5MW Power Station is being progressed with the Queensland Department of Environment and Resource Management (DERM).

The controlled decommissioning of UCG Panel 1 is continuing as planned. Results from the decommissioning process will be used to demonstrate the environmentally safe operations of a full life cycle of a UCG Panel in support of applications for long term gas production licences.



#### Tenement Status at end June 2011

Tenement	Status	Sub-Blocks as at March 2011	Sub-Blocks as at June 2011	Area Sq km
MLA 50253	Application	1342 ha	1342 ha	15
MDL 374	Granted	2687 ha	2687 ha	32
867	Granted	191	191	670
869	Granted	64	64	213
868	Granted	177	177	605
1132	Granted	23	23	78
1109	Granted	65	65	224
		·	Total	1,837

#### Phase 2 Power Generation: 25MW Power Station

Connection arrangements for the 5MW Power Station are being designed to allow, as much as possible, for the future planned export of a further 25MW from the Company's planned development of a 25MW Power Station. Final commitments to the 25MW Power Station will be made once there is greater certainty on the Queensland Government's UCG policy such that the necessary financial investment is not subject to tenure risk.

#### Phase 3: 300 MW Power Station, Blue Gum Energy Park

Plans for a 300MW Power Station fuelled by syngas and developed with Carbon Energy's power station development partner, Arcadia Energy Trading, will be further developed in the future. It is anticipated that Federal Government's plan to implement policy for the reduction of carbon emissions will positively change the economics of Carbon Energy's planned project. This is expected as the carbon intensity of the syngas-fuelled power station (CO2/MWh of electricity generated) will be lower than the average intensity of coal fired electricity generation. Co-firing of coal and syngas would enable an existing power station using both fuels to be a net beneficiary of the pass through of lower carbon costs into electricity prices.

#### Chile

Project	JORC Resource <sup>1</sup> (million tonnes)	Recoverable Gas <sup>2</sup> (PJ)
Mulpun, Chile	103	1,100

Notes

Activities by Carbon Energy in conjunction with the Company's partner Antofagasta Minerals S.A. have been increasing in Chile. The work program is progressing well with the following activities being undertaken during the Quarter:

- Tender submissions for the drilling contract for the first panel have been received and are under evaluation.
- Drilling of the water monitoring wells has commenced.

<sup>1.</sup> JORC compliant – Competent Person: Dr C. Mallett

<sup>2.</sup> Carbon Energy calculation based on estimated energy content of the coal and 50% recovery (that takes into account pillars, losses and a gasification efficiency of 80%)



- Dispatch of long lead items such as well heads and related materials, supplied from Australia has been completed.
- Preliminary site civil works have commenced with the construction of roadways and drilling pads substantially completed.

At the beginning of June 2011, a major development milestone was achieved with sign-off by both Carbon Energy and Antofagasta following the achievement of key Phase 1 deliverables enabling the project to move forward with the formalisation of the Joint Venture Company. These deliverables included:

- Design plan, work plan and budget development.
- Hydrological Model development.
- Site selection for the UCG Trial.
- Land acquisition.
- Environmental Approval for the UCG Trial.
- Preliminary market study for the commercial application of UCG syngas for the production of power and natural gas.

Near the end of the Quarter Carbon Energy completed its maiden JORC resource assessment for the Mulpun coal deposit in Chile. The JORC Resources estimate totals 103 million tonnes at 2 metre coal seam thickness cut-off (Measured: 26 million tonnes, Indicated: 37 million tonnes, Inferred: 40 million tonnes). This is Carbon Energy's first international JORC resource assessment and upon completion of agreed milestones Carbon Energy has the right to a contributing 30% interest in the Mulpun deposit.

This 103 million tonne coal resource could produce approximately 1,100 petajoules (PJ) of syngas<sup>1</sup> based on conservative assumptions. Energy output of this scale would be sufficient to operate a 300MW power station for over 55 years making this a significant energy resource in the Chilean market.

Chile continues to provide an attractive market for energy projects due to the country's reliance on imported fuel and rapidly growing energy demand of 8% p.a. When Carbon Energy initially considered the Mulpun Project in late 2009, electricity spot prices were US\$120 per MWh. Recently, reports have indicated that spot prices have increased to US\$220 per MWh making these some of the highest prices in the world. Electricity prices of \$120/MWh would equate to fuel prices into a power station of \$14.5/GJ to \$27/GJ on a short-run marginal cost basis.



#### **United States of America**

Project	JORC Resource <sup>1</sup>	Commercial Target <sup>2</sup>	Recoverable Gas <sup>3</sup>
	(million tonnes)	(millions tonnes)	(PJ)
Wyoming, United States	By June 2012	500	5,000

#### Notes

- 1. JORC compliant Competent Person: Dr C. Mallett
- 2. Carbon Energy target
- 3. Carbon Energy calculation based on estimated energy content of the coal and 50% recovery (that takes into account pillars, losses and a gasification efficiency of 80%)

In late June 2011 Carbon Energy established a permanent office in the USA following its acquisition earlier in the year of Clean Coal Inc (now renamed Carbon Energy USA Inc) with project interests in Wyoming (with Anadarko) and in Montana/North Dakota (with Great Northern Properties). The US office is based in New York and preliminary work is underway to establish the Wyoming project.

As of June 2011, Carbon Energy is now quoted on the OTCQX in the United States. The OTCQX is a market widely used by overseas domiciled companies (such as Deutsche Telekom and Adidas) to allow trading of their stock in the US market. This is achieved by trading of American Depository Receipts (ADRs) which, in the case of Carbon Energy, represents 20 CNX shares. Any trading on the OTCQX requires settlement on the ASX, therefore creating additional liquidity in the underlying security. Carbon Energy is represented on the OTCQX by Madison Williams, its Principal American Liaison (PAL).

#### **Wyoming**

- A preliminary coal resource assessment of Carbon Energy's Exploration Rights in southern Wyoming has been undertaken.
- Exploration planning at the preferred site is underway.
- Discussions with key regulators have commenced to facilitate UCG permitting activities.
- Project planning for environmental baseline monitoring at the preferred site has commenced.

Carbon Energy's commercial target of 500 million tonnes of coal resource in each US project location can support gas production of 5,000PJ which can generate USD \$1,800 million each year for 15 years at USD \$5.50 per gigajoule (GJ)<sup>4</sup>.

## Turkey

Carbon Energy has commenced an extensive desk top study of the coal resources that form Hema Endustri (subsidiary of the diversified Hattat Group) coal tenements in Amasra northern Turkey. The desk top study will identify coal seams suitable for conducting a UCG trial project, currently planned for the first quarter of 2012. Carbon Energy is responsible for initial pilot costs, while the joint venture company is responsible for production royalties to state-owned mining company, Turkish Hard Coal Enterprise ("TTK"). Turkey continues to present a significant market opportunity for Carbon Energy with attractive power and gas prices<sup>5</sup> of around USD\$70 per megawatt hour (MWh) and USD \$7.30 per GJ respectively.

Note 4 - Sources: NYMEX and Carbon Energy analysis

Note 5 - Sources: TETAS and BOTAS



#### India

Carbon Energy's Memorandum of Understanding with Adani Enterprises resulted in a bid for two potential UCG coal blocks released by Coal India. The final assessment of the bids is still being conducted by Coal India.

#### **Ammonia**

Carbon Energy and Incitec Pivot continue to discuss options for the use of syngas. The additional opportunities presented by Carbon Energy's entry into overseas markets may create further opportunities for both companies to assess the markets for ammonia, synthetic natural gas and other high-value downstream products during the course of 2011.

### Corporate

#### **Board Changes**

On 1 July 2011, Dr Chris Rawlings was appointed a Director of the Company. The Board elected Chris as the Chairman of the Board on 26 July 2011. Mr Kim Robinson, the previous Chairman of the Board will remain as a Non-Executive Director of the Board. Dr Cliff Mallett stepped down from the Board on 30 June 2011 but has remained an Executive of Carbon Energy. The Board would like to thank Cliff for his valuable contribution as a founder of the Company's proprietary UCG technology.

#### **Issued Capital & Cash Funds**

- The total issued capital at the end of the June 2011 Quarter was 698,517,858 fully paid ordinary shares quoted on the Australian Stock Exchange.
- In April 2011 as consideration for the acquisition of USA-based Clean Coal Inc. and UK-based Clean Coal Amasra Ltd 27,645,208 Ordinary shares were issued.
- A total of 37,955,000 unlisted options with exercise prices between \$0.20 and \$1.60 are on issue (with expiry dates ranging between 30 June 2011 and 22 March 2015) and with the vast majority subject to meeting annual performance measures. 2 million employee options were cancelled during the Quarter.
- The Company retains cash of \$9.8 million as at 30 June 2011.

#### **Listed Investments**

 Carbon Energy held 29 million shares in ASX listed uranium company, Energia Minerals Limited, as at 30 June 2011.

For and on behalf of the Board

A.M. Dash Managing Director 28 July 2011

Amples



## Coal Resource Summary – Appendix A

#### As at 30<sup>th</sup> June 2011

June 2011 Quarter Resource Statement

Location	Coal Thickness Cut-Off (m)	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	TOTAL (Mt)
Bloodwood	2		218	280	498
Creek, Australia	5 <sup>1</sup>		158	57	215
Vogan Australia	2			170	170
Kogan, Australia	5 <sup>1</sup>			149	149
Mulaua Chila <sup>2</sup>	2	26.4	36.7	40.1	103.2
Mulpun, Chile <sup>2</sup>	5 <sup>1</sup>	25.3	19	39.3	83.6
Total Resource	2	26.4	254.7	490.1	771.2
	<b>5</b> <sup>1</sup>	25.3	177	245.3	447.6

#### Notes:

- 1. Optimal target for Underground Coal Gasification
- 2. Carbon Energy has the right to a 30% contributing interest in the Chile deposit upon completion of agreed milestones

#### **Competent Person Statement - Coal**

The information in this release that relates to resources is based on information compiled by Dr C.W. Mallett, Technical Director Carbon Energy Limited who is a member of the Australian Institute of Mining and Metallurgy. Dr Mallett has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Mallett consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.

#### In accordance with Society of Petroleum Engineers (SPE) guidelines, the reserves in these properties are:

AREA	CATEGORY	GROSS GAS VOLUMES(PJ)
Bloodwood Creek EPC 867 (including MDL 374)	1P Reserve (Proven)	11
	2P Reserve (Proven + Probable)	743
	3P Reserve (Proven + Probable + Possible)	1,042

The reserve estimates used in this document were compiled by Mr Timothy Hower of MHA Petroleum consultants, Colorado, USA, a qualified person under ASX Listing Rule 5.11. Mr Hower has consented to the use of the reserve information contained within this document in the form and context in which it appears.

Rule 5.3

# Appendix 5B

# Mining exploration entity quarterly report

 $Introduced \ o{1/07/96} \ \ Origin \ Appendix \ 8 \ \ Amended \ o{1/07/97}, \ o{1/07/98}, \ 30/09/01, \ o{1/06/10}, \ 17/12/10$ 

Name of entity	
CARBC	ON ENERGY LIMITED
ABN	Quarter ended ("current quarter")
56 057 552 137	30 June 2011

## Consolidated statement of cash flows

	isonuated statement of cash now		
		Current quarter	Year to date (12
Cash flows related to operating activities		\$A'000	months)
			\$A'000
1.1	Receipts from product sales and related debtors	-	-
1.2	Payments for (a) exploration & evaluation	_	_
	(b) development	(2,087)	(5,837)
	(c) production	(1,223)	(2,674)
	(d) administration	(1,373)	(4,662)
	(e) commercial & other	(707)	(1,658)
	business development	(707)	(1,050)
	(g) Other projects – UCG Panel 1, Project Support, Project Chile, IT Project	(814)	(1,890)
1.3	Dividends received	_	-
1.4	Interest and other items of a similar nature received	242	673
1.5	Interest and other costs of finance paid	_	_
1.6	Income taxes paid	_	_
1.7	Other (provide details if material) – Fuel	29	125
,	Tax Credits		
	Net Operating Cash Flows	(5,933)	(15,923)
	Cash flows related to investing activities		
1.8	Payment for purchases of: (a) prospects (b) equity investments (c) other fixed assets	-	-
1.9	Proceeds from sale of: (a) prospects (b) equity investments	-	-
	(c) other fixed assets		
1.10	Loans to other entities	-	-
1.11	Loans repaid by other entities	-	-
1.12	Other (provide details if material) – Construction of 5MW Plant, 2 <sup>nd</sup> and 3 <sup>rd</sup> UCG Panels and other site works	(1,268)	(8,799)

<sup>+</sup> See chapter 19 for defined terms.

1.13	Net investing cash flows Total operating and investing cash flows (carried forward)	(1,268) (7,201)	(8,799) (24,722)
1.14 1.15 1.16 1.17 1.18 1.19	Cash flows related to financing activities Proceeds from issues of shares, options, etc. Proceeds from sale of forfeited shares Proceeds from borrowings Repayment of borrowings Dividends paid Other (provide details if material) – Trade	- - - - (83)	19,494 - - - - (3,847)
	Creditors/Debtors  Net financing cash flows	(83)	15,647
	Net increase (decrease) in cash held	(7,284)	(9,075)
1.20 1.21	Cash at beginning of quarter/year to date Exchange rate adjustments to item 1.20	17,083	18,874
1.22	Cash at end of quarter	9,799	9,799

Payments to directors of the entity and associates of the directors Payments to related entities of the entity and associates of the related entities

		Current quarter	
		\$A'000	
			231
1.23	Aggregate amount of payments to the parties included in item 1.2		
			-
1.24	Aggregate amount of loans to the parties included in item 1.10		

1.25 Explanation necessary for an understanding of the transactions

Costs included in item 1.23 above cover Directors' expenses for any services undertaken outside the scope of Directors' duties, salaries for the Brisbane based executive Directors, plus Non-Executive Directors' fees and superannuation.

### Non-cash financing and investing activities

Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

consolidated assets and habilities but did not involve cash nows	
N/A	

Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

which the reporting entity has an interest	
N/A	

### Financing facilities available

Add notes as necessary for an understanding of the position.

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<sup>+</sup> See chapter 19 for defined terms.

		Amount available	Amount used
		\$A'000	\$A'000
3.1	Loan facilities	-	-
3.2	Credit standby arrangements	187	187

# Estimated cash outflows for next quarter

4.1	Exploration and evaluation	\$A'000 -
		1.
4.2	Development	4,500
4.3	Production	-
4.4	Administration	2,000
	Total	6,500

# Reconciliation of cash

show	nciliation of cash at the end of the quarter (as n in the consolidated statement of cash flows) e related items in the accounts is as follows.	Current quarter \$A'000	Previous quarter \$A'000
5.1	Cash on hand and at bank	3,299	4,083
5.2	Deposits at call	6,500	13,000
5.3	Bank overdraft	-	-
5.4	Other (provide details)	-	-
	Total: cash at end of quarter (item 1.22)	9,799	17,083

# Changes in interests in mining tenements

		reference	(note (2))	Interest at beginning	Interest at end of
				of quarter	quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed			Nil	Nil
6.2	Interests in mining tenements acquired or increased	Coal	Refer Covering Quarterly Activity Report Attached hereto	100%	100%

<sup>+</sup> See chapter 19 for defined terms.

# **Issued and quoted securities at end of current quarter**Description includes rate of interest and any redemption or conversion rights together with prices and dates.

		Total number	Number quoted	Issue price per	Amount paid up
				security (see	per security (see
	D., . f.,	Nil	Nil	note 3) (cents)	note 3) (cents)
7.1	Preference	INII	INII	-	-
	+securities				
	(description)	3 711	2 711		
7.2	Changes during	Nil	Nil	-	-
	quarter				
	(a) Increases through				
	issues				
	(b) Decreases				
	through returns of				
	capital, buy-backs,				
	redemptions +Ordinary	608 515 858	608 515 858	Various	Fully paid
7.3	securities	698,517,858	698,517,858	Various	rully palu
	securities				
7.4	Changes during				
	quarter				
	(a) Increases through	27,645,208	27,645,208	36.1c	Fully paid
	issues				
	(b) Decreases	-	-	-	-
	through returns of				
	capital, buy-backs				
7.5	<sup>+</sup> Convertible debt	Nil	Nil	-	-
	securities				
	(description)				
7.6	Changes during				
	quarter				
	(a) Increases through	-	-	-	-
	issues				
	(b) Decreases	-	-	-	-
	through securities matured, converted				
	Options			Exercise price	Expiry date
7.7	Unlisted Options 30c	F00 000	_	_	30/06/2011
	Unlisted Options 6oc	500,000	_	30c 60c	30/06/2011
	Unlisted Options 25c	1,000,000 100,000	_	25c	01/04/2012
	Unlisted Options 40c	205,000	_	40c	01/04/2012
	Unlisted Options 25c	5,000,000	_	25c	10/12/2013
	Unlisted Options 35c	1,400,000	_	35c	10/12/2013
	Unlisted Options 70c	8,000,000	_	70c	10/12/2013
	Unlisted Options 8oc	7,250,000	_	8oc	10/12/2013
	Unlisted Options 8oc	1,000,000	_	8oc	22/03/2015
	Unlisted Options \$1.00	10,000,000	-	\$1.00	10/12/2014
	Unlisted Options \$1.20	1,750,000	-	\$1.20	10/12/2013
	Unlisted Options \$1.60	1,750,000	-	\$1.60	10/12/2013
	-				
7.8	Issued during quarter	-	-	-	-
7.9	Exercised during	-	-	-	-
	quarter				

<sup>+</sup> See chapter 19 for defined terms.

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7.10	Expired during quarter	-	-	-	-
7.11	Debentures (totals only)	-	-		
7.12	Unsecured notes (totals only)	-	-		

## Compliance statement

- This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX.
- This statement does give a true and fair view of the matters disclosed.

Sign here:

Date: 28 July 2011

Print name:

Prem Nair

Title:

Chief Financial Officer & Company Secretary

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<sup>+</sup> See chapter 19 for defined terms.