

Level 12, 301 Coronation Drive, Milton QLD 4064 Australia PO Box 2118, Toowong DC QLD 4066 Australia phone + 61 (0) 7 3337 9944 fax + 61 (0) 7 3337 9945

www.carbonenergy.com.au

Carbon Energy Limited ABN 56 057 552 137 Carbon Energy (Operations) Pty Ltd) ABN 61 105 176 967

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ASX Limited 10<sup>th</sup> Floor, 20 Bond Street SYDNEY NSW 2000

RE: Carbon Energy Limited – Investor Presentation

Carbon Energy Limited (ASX Code: CNX) is pleased to provide a copy of the Investor Presentation on International Expansion.

Yours Faithfully

Prem Nair

CFO & Company Secretary

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# Carbon Energy

Low cost, low emission energy has arrived

Investor Presentation
International Expansion

Andrew Dash Managing Director February 2011



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#### **Competent Person**

The information in this presentation (where it relates to resources) is based on information compiled by Dr C. W. Mallett, Executive 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 presentation of the matters based on his information in the form and context in which it appears.

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.



### Carbon Energy Acquisition Benefits

- Transforms Carbon Energy into a truly international energy business
- Additional Resource Key Development Milestone: a total of 1,500 million tonnes of inferred resources across 3 locations
  - Wyoming, USA
  - Montana / North Dakota, USA
  - Amasra, Turkey
- Access to higher priced energy markets
- Diversified market and regulatory risk
- Key relationships with strategic partners
- Access to additional revenue stream from sale of CO<sub>2</sub> for Enhanced Oil Recovery



### **Market Opportunity**

### **Tonnage**



**Syngas** 

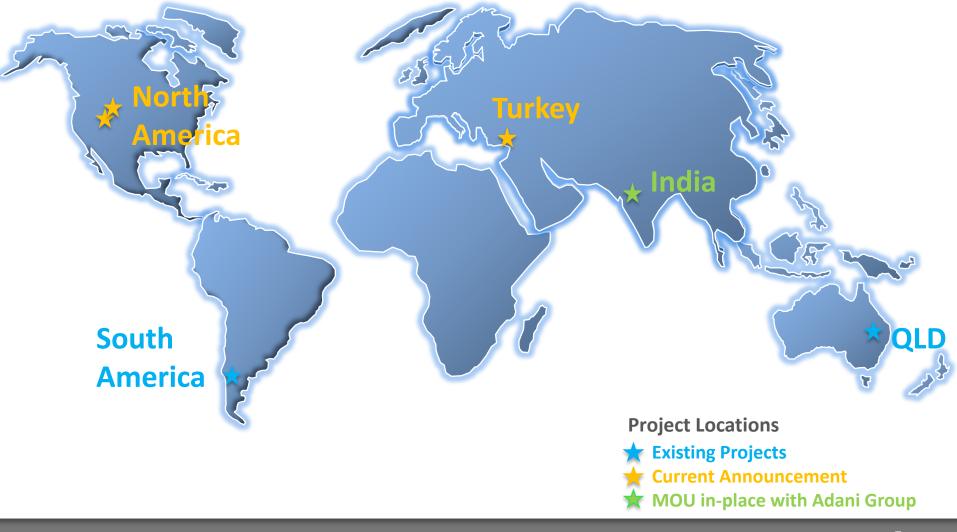


Revenue

- From 30 million tonnes of deep coal, UCG can recover > 300PJ energy
- 300PJ will sustain a 20PJ p.a. production rate for 15 years, sufficient for any of:
  - 300MW Power Station, or
  - World-scale Ammonia Plant, or
  - Synthetic Natural Gas Plant.
- 20PJ p.a. will generate:
  - \$70 million p.a. for 15 years @ \$3.50/GJ (indicative of QLD market)
  - \$110 million p.a. for 15 years @ \$5.50/GJ (indicative of US market)
  - \$150 million p.a. for 15 years @ \$7.50/GJ (indicative of Turkish market)

100mt supports 3 world-scale projects generating \$210M to \$450M p.a. 500mt supports projects generating \$1 billion to \$2.2 billion p.a. 1,500mt supports projects generating \$3 billion to \$6.6 billion p.a.







### United States – Wyoming

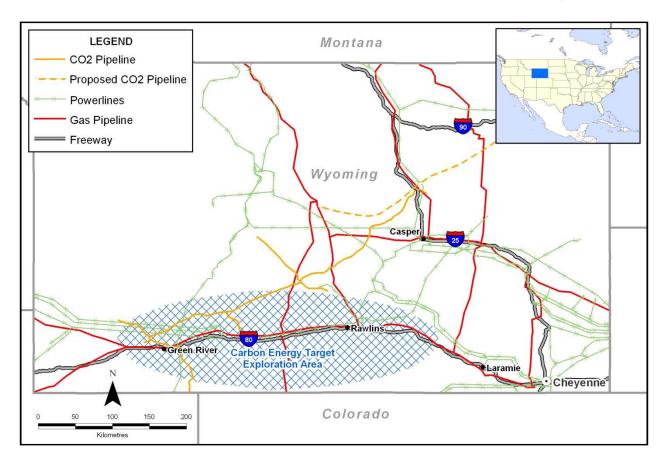
#### **Project Outline**

- Located in southern Wyoming established UCG Regulatory Framework exists
- Access to area of approx 113km<sup>2</sup> Key Development Milestone: 500mt inferred resource
- Located close to existing infrastructure natural gas, electricity and CO<sub>2</sub> pipelines
- Attractive energy prices for example, USA wholesale gas prices are as much as 50% higher than in Queensland and expected to increase\*
- Contract includes Off-Take Agreement for CO<sub>2</sub> for use in Enhanced Oil Recovery generating additional revenue stream
- Planned production of electricity, synthetic natural gas (SNG) and CO<sub>2</sub> for Enhanced Oil Recovery (EOR)
- 500mt can support gas production of 5,000PJ which can generate \$1.8 billion p.a. for 15 years (@\$5.50/GJ)

<sup>\*</sup> Sources: NYMEX, FERC, AEMO and Carbon Energy analysis



## United States – Wyoming





### United States – Wyoming

Independent Assessment and Advice Undertaken for Wyoming Project is as follows:

#### Resource

- Carbon Energy and independent consultants have assessed hundreds of coal and petroleum boreholes
- Coal seams of up to 10m thick identified at depths of between 200m and 1000m
- Targeted drilling program can fast-track establishment of JORC resource
- High confidence of establishing targeted resource of 500mt

#### **Environmental Permitting**

Key environmental permitting processes and associated project timeline have been established.

#### **Access to Key Markets**

- Location of key electricity and gas pipeline infrastructure as well as proximity to Enhanced Oil Recovery projects and associated CO<sub>2</sub> pipeline infrastructure have been identified.
- Each of the prospective sites in the target exploration area are within reasonable commercial distance of market infrastructure.



### United States – Montana / North Dakota

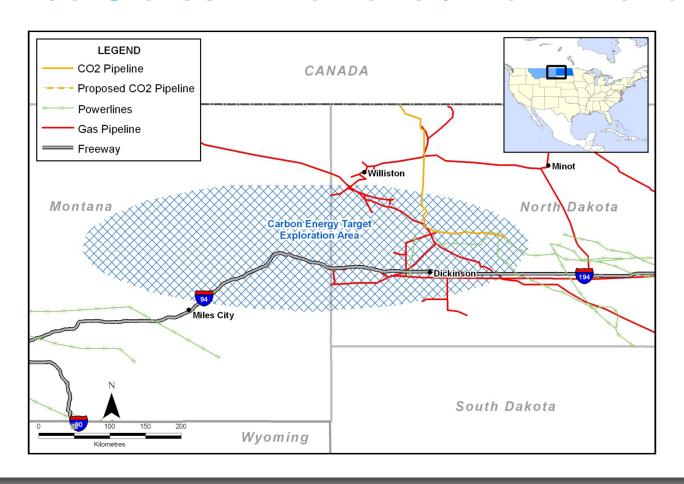
### **Project Outline**

- Located across Montana and North Dakota border UCG Regulatory Framework currently under evaluation by Montana State Government with approvals expected in the coming months
- Exploration rights over an area of 276km<sup>2</sup> Key Development Milestone: 500mt inferred resource
- Preliminary work undertaken by State geological agency has produced a number of potential targets for UCG development across Great Northern Properties (GNP) land
- Contract with GNP (see slide 11) includes Off-Take Agreement for the sale of CO<sub>2</sub>, generating additional revenue stream
- Located close to existing infrastructure
- Attractive energy prices for example, USA wholesale gas prices are as much as 50% higher than in Queensland and expected to increase\*
- Planned production of power, synthetic natural gas (SNG) and CO<sub>2</sub> for Enhanced Oil Recovery
- 500mt can support gas production of 5,000 PJ which can generate \$1.8 billion p.a. for 15 years (@\$5.50/GJ)

<sup>\*</sup> Sources: NYMEX, FERC, AEMO and Carbon Energy analysis



### United States - Montana / North Dakota





### United States - Montana / North Dakota

#### **Great Northern Properties**

- Great Northern Properties (GNP) is the largest private coal owner in the US with over 20 billion tonnes of proven coal reserves across the country.
- Formed in 1991 by the Robertson family and American Bailey Mining Limited Partnership to acquire lands from Burlington Northern Railroad.
- As the largest private mineral rights owner in Montana and North Dakota, GNP controls vast amounts of coal resources. Carbon Energy believes the involvement of GNP will bring enormous benefit to the project due to GNP's:
  - extensive experience in the natural resource industry
  - proven capability in project delivery
  - instrumental role in advancing UCG legislation in North Dakota and Montana (currently under evaluation with greater regulatory certainty expected in the coming months).



### Turkey – Amasra

### **Project Outline**

- 50/50 JV with Hema Endustri, one of the 17 companies in the diversified Hattat Group, one of Turkey's leading companies
- Hattat expect to deliver 1400MW, open three deep wells, produce 5mtpa of hard coal and employ 11,000 employees at the Amasra coal fields
- Located Northern Turkish coast
- Government approval for UCG pilot in place
- Key Development Milestone: 500mt inferred resource
- Located close to existing infrastructure and mining operations
- Planned production of lower-emission power and synthetic natural gas (SNG)
- Pilot planning due to commence 2011
- Attractive Power and Gas Prices\*
- Turkey is one of the fastest growing economies in Europe but imports about 70% of its energy needs

<sup>\*</sup> Sources: TETAS, BOTAS



# Turkey – Amasra





### Turkey – Amasra

- The Amasra coalfield has been subject to extensive exploration and mining over 40 years
- Hema has mining and CSG rights over the Amasra Project area (consequently there is no conflict over access to resources)
- 160 wells have been drilled in the area providing a good understanding of the geology
- Four coal seams have been correlated
- Assessment of these seams has identified blocks with seam thicknesses of up to 6.5m



### **Indicative Work Program 2011**

- United States Wyoming and Montana / North Dakota (\$3M)
  - Commence exploration program
  - Commence environmental permitting
- Turkey Amasra (\$2.8M)
  - Confirm pilot location suitability
  - Commence project planning and design
  - Commence exploration program
- Currently, CNX has cash on hand of over \$19M and consequently does not need additional funds at this time.



# International Expansion

#### Key points from the announcement

Carbon Energy to acquire two subsidiary companies, holding rights to projects in Wyoming (USA), Montana / North Dakota (USA) and Amasra (Turkey):

- Consideration of US\$10 million of shares (based on 60 day VWAP) which will be issued within the Company's 15% share issue capacity. Two further tranches of US\$4.5 million of shares each (based on 30 day VWAP at time of milestone achievement) will be issued subject to meeting key development milestones including the delineation of JORC complaint coal resources in excess of 500mt at 2 of the 3 locations.
- Wyoming Project: includes rights to explore and lease coal tenements with Anadarko Land Corporation over 113km<sup>2</sup>. Carbon Energy is responsible for rents, minimum expenditures and production royalty to Anadarko.
- Montana / North Dakota Project: includes rights to explore and lease coal tenements with Great Northern Properties (subsidiary of the Quintana Capital Group) in an area over 276km<sup>2</sup>. Carbon Energy is responsible for rents, minimum expenditures and production royalty to GNP.
- Amasra Project: 50/50 Joint Venture Agreement with Hema Endustri (subsidiary of the diversified Hattat Group)
  to develop UCG projects in Hema's coal tenements in Amasra, northern Turkey. Carbon Energy is responsible for
  initial pilot costs, while the JV is responsible for production royalty to state-owned mining company, Turkish Hard
  Coal Enterprises ("TTK").



### Summary – 2011 Project Activities

- Australia Queensland
- Chile Mulpun
- US Wyoming
- US Montana
- Turkey Amasra
- India

- Operational trial + 5MW Power Station
- First panel in construction + commissioning
- Exploration and permitting commencement
- **Exploration**
- UCG Pilot Design, planning and exploration
- Tender for UCG coal blocks



# Thank You

# Carbon Energy

Low-cost, low-emission energy has arrived

Andrew Dash Managing Director