



carbonenergy

Carbon Energy Limited | ABN 56 057 552 137

19 October 2018

ASX Market Announcements Platform
Australian Securities Exchange
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FOR ASX MARKET RELEASE

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Share Purchase Plan

'Roadmap to Reinvention and Profitability' Webcast Transcript

Carbon Energy Limited (ASX: CNX) (Carbon Energy or Company) provides the webcast transcript to Managing Director and CEO Bryan O'Donnell's presentation on 'Roadmap to Reinvention and Profitability'.

To access the presentation webcast, please go to the Carbon Energy website www.carbonenergy.com.au.

Click Announcements & Report

Click Presentations

Click 18-Oct-2018 SPP MD & CEO Presentation Webcast

This presentation was broadcast at 3:30 pm AEST on 18 October 2018 and will remain available in the Investor Centre on the Company's website.

For and on behalf of the Board

ENDS

WEBCAST PRESENTATION BY MANAGING DIRECTOR & CHIEF EXECUTIVE OFFICER

18 October 2018

Welcome to all our Carbon Energy Shareholders. My name is Bryan O'Donnell and I took up the position of Managing Director and CEO in January this year. I will take you through our SPP presentation and then answer key questions from our shareholders. Please ensure that you read the Company disclaimer and the important information on the last page of the SPP presentation

PLEASE GO TO SLIDE 2 OF OUR SPP PRESENTATION

As part of Carbon Energy's new strategic direction, the team has been focusing on adapting the use of our proven **keyseam**® technology to propel the Company into the new age of the hydrogen fuel economy.

The existing **keyseam**® technology, safely and effectively turns underground coal into syngas. By combining **keyseam**® with proven oil and gas technology, we anticipate that we can produce 98% CO₂-free hydrogen via coal steam reforming based on the concept study prepared by thyssenkrupp for the Company. The result of this work has uncovered great power in the Company's own intellectual property.

Hydrogen is placed to be the fuel of the future. Demand for hydrogen is on the increase. A growing global market is realising the benefits of a fuel with zero emissions.

keyseam® technology is perfectly suited to produce high quality low cost hydrogen. With relatively simple advancements, Carbon Energy is set on being one of the key players to achieve 98% CO₂ free hydrogen production.

PLEASE MOVE TO SLIDE 3

Carbon Energy needs your support to fund a genuine opportunity to become a major Australian hydrogen producer. We need all our eligible shareholders to support the SPP to enable progress on the development of our 98% CO₂ free hydrogen production in South Australia.

Without strong individual shareholder support, the unique proven **keyseam**® technology and the 98% CO₂ free hydrogen intellectual property, currently under development, could be lost from Australia.

South Australia presents a great opportunity as there are suitable tenements available and approvals for deep coal gasification are already in place for a trial at another company's project.

PLEASE MOVE TO SLIDE 4

Hydrogen is seen by many as the fuel of the future due to its low emissions and its ability to be produced CO₂-free. The Victorian Government has approved a \$100 million investment towards a hydrogen project in partnership with Kawasaki Heavy Industries, as part of Japan's push to commence a hydrogen economy by 2020.

Japan is not alone, with parts of the United States and Europe already developing their own large-scale hydrogen projects. Additionally, major corporations such as Toyota and Shell are commencing their own hydrogen projects. There is already the first hydrogen train in operation in Germany with several more in the planning. Toyota, Honda and Hyundai are currently producing 1000s of hydrogen cars.

PLEASE MOVE TO SLIDE 5

The hydrogen market is expected to grow by 10 fold between now and 2050. This estimate would mean that hydrogen would meet 18% of total final energy demand and power a fleet of more than 400 million cars, 15 to 20 million trucks and around 5 million buses.

PLEASE MOVE TO SLIDE 6

Carbon Energy has identified a low cost hydrogen production opportunity, utilising deep stranded coal for steam reforming.

Carbon Energy believes that it's unique and proven **keyseam**® technology can be combined with proven oil & gas technology to produce gas with up to 68.6% hydrogen. This high quality, hydrogen rich gas can then be refined into streams of pure hydrogen and/or ammonia.

The estimated headline production costs are less than A\$1.80/kilogram for hydrogen and less than A\$190/tonne for ammonia

These figures compare to a current market price of A\$16 to A\$20 per kilogram for hydrogen and A\$650 to A\$700 per tonne for ammonia. As a result, the likely project economics are very attractive with a payback period of 4 years and an IRR of 37%.

PLEASE MOVE TO SLIDE 7

This simplified diagram represents the proposed Carbon Energy 98% CO₂ free hydrogen production process. This process combines deep coal gasification with steam reforming to produce hydrogen and CO₂. This produced gas with 68.6% hydrogen will then be processed into pure hydrogen and pure CO₂. 98% of the produced CO₂ can then be captured to be utilised for enhanced oil recovery, based on the thyssenkrupp concept study.

PLEASE MOVE TO SLIDE 8

Deep coal hydrogen production using steam reforming produces low cost 98% CO₂ free hydrogen. The production cost is estimated to be lower than methane steam reforming. At the moment, the vast majority of hydrogen is produced by methane steam reforming as it is currently the most cost effective method

The hydrogen can be readily transformed into ammonia and then transported as liquid ammonia. Currently there is a global market and logistics system in place for ammonia. Recently CSIRO has developed a cost effective system for transforming ammonia back into pure hydrogen that can then be readily used in hydrogen cars, buses, trucks and trains.

PLEASE MOVE TO SLIDE 9

We are focussing on the Cooper Basin, as South Australia's regulatory environment provides support for in-situ coal gasification and energy innovation.

We have identified a suitable deep coal resource in the Cooper Basin for hydrogen production. The Cooper Basin is also ideally suited for CO₂ sequestration into existing depleted deep oil and gas reservoirs.

The Cooper Basin deep coal resource has the capacity for hydrogen production of up to 20 MT pa for over 50 years. That would result in estimated revenues of up to \$100 Billion per year. Consequently, South Australia is well positioned to be a global leader in hydrogen production.

We have been engaging with the South Australian Government during the last 6 months. South Australia is the leading Australian State for innovation in energy projects. They recently approved an in-situ gas trial project at Leigh Creek and are fostering a supportive environment to help deliver South Australia's energy requirements.

PLEASE MOVE TO SLIDE 10

In July 2018, thyssenkrupp completed the concept study, to support both the economics and viability of the project using coal steam reforming with **keyseam**® technology. The final results are extremely encouraging with the hydrogen production costs being estimated at less than A\$1.80/kilogram compared to current market rates of A\$16-20/kilogram. We have already started the process of presenting our proposed project to many interested parties.

PLEASE MOVE TO SLIDE 11

Our vision is to be the first choice for hydrogen producers, as well as providing a bridge towards “green hydrogen.” Carbon Energy’s technology remains trail blazing and this new direction and the development of a hydrogen project offers great potential, with expectations of strong returns once production commences.

PLEASE MOVE TO SLIDE 12

On behalf of Carbon Energy’s Board of Directors, I thank you for your continued support and invite you to take up this investment opportunity by participating in the Share Purchase Plan. Your support will place Carbon Energy in the best position to commence its journey towards delivering future value for shareholders.

PLEASE MOVE TO SLIDE 13

That completes the presentation and I will now address some of the key questions from our shareholders.

SPP Shareholder Questions and Answers – FINAL

1. Carbon Energy is asking for more money again when we have already lost a lot. Why is this time any different and why do you think Carbon Energy will be successful this time?

Thank you for asking such an important question, it's true we have been down a pretty long and tough road and I thank every shareholder for their support so far. We continue to maintain our unique and proven technology that has been developed here in Australia. Additionally we have adapted the technology to target hydrogen production, and we can do it more cost effectively than what is available in the market today. The technology will still require further definition as part of normal project development.

Hydrogen is rapidly becoming the focus for the decarbonisation of the world's energy economy. It's a clean fuel because carbon can be captured during production and hydrogen can also be produced using renewable energy. This means that the use of hydrogen can allow the capture and utilisation of CO₂ at the source of energy production. Hydrogen can then be used both as an energy carrier and a fuel for cars, buses, trucks, trains and equipment.

The difference with our roadmap today is that hydrogen is favourable for the environment.

2. Are you going to continue to remain named as Carbon Energy?

That's a good question and one we have put considerable thought into. What is important is that the company has developed a unique and proven technology, which has been acknowledged by the Queensland Government's Chief Scientist, as being safe and effective. What we don't want to do, is distance ourselves from the great technology that Carbon Energy has developed.

In short, I think a name change could be something we will at look at in the future. Already 2 of Carbon Energy's wholly owned subsidiaries are now named Hydrogen Production Group Pty Ltd and Hydrogen Production System Pty Ltd, following name changes in 2018. These names were disclosed as part of this year's financial report.

3. How will the money raised from the SPP be used?

We have a very clear roadmap to become an innovator 'for the production of low cost 98% CO₂ free Hydrogen.

We intend to use the funds raised, to pursue the Company's commercial strategy of hydrogen production as a key product along with ammonia and synthetic natural gas. We will also continue the development of deep coal gasification projects using our keyseam technology for 98% CO₂ free hydrogen production projects in the Cooper Basin, South Australia and power and hydrogen projects in South Africa;

Existing cash, together with the funds raised under this SPP, will support Carbon Energy to commence activities necessary to initiate these projects. These funds are expected to allow Carbon Energy to commence its hydrogen project front end engineering design study, whilst continuing to seek additional funding.

4. What are the plans for future funding?

We have a very clear roadmap to turn our Company into a hydrogen production company. This will start by our shareholders taking up the SPP to support our strategic focus.

From there we will be looking for additional investment into the Hydrogen Production business from Japan and Australian companies via private share placements and a number of other options for raising capital including Joint Venture agreements. We plan to use these additional funds to acquire tenements in South Australia and progress the Hydrogen Production Project in the Cooper Basin in South Australia.

Concurrently we are looking to provide Technical Services to planned projects in Africa and China to raise additional funds.

5. How do you know South Australia is going to be suitable?

We have chosen South Australia for a number of reasons. Firstly it has a Government that has a positive attitude and policy towards finding innovative energy solutions. Secondly using the publicly available data our technical team have identified suitable coal resources available in tenements that meet our technical team's site selection criteria.

Is there a risk that it's not suitable? Yes, there are always risks, but our concept studies are indicating very encouraging results for a 98% CO₂ free hydrogen project to be commercially successful.

6. Why was the Chinese Joint Venture project at Mori not successful?

The Beijing JinHong New Energy Co. Joint Venture was unable to continue progressing the Mori project due to changes in the agreement with the coal partner. The coal partner indicated that it no longer wished to continue its involvement in the project and that its preference was for the Joint Venture to purchase the coal deposit. The Joint Venture was unable to reach mutually acceptable terms and, consequently, was unable to continue progressing the Mori Project.

7. Why hasn't the Chinese Joint Venture progressed further?

Since the inception of the Beijing JinHong JV, the purpose has been to find suitable tenements in China. As we have informed the market, the Joint Venture has looked at several suitable tenements. To date, however, the terms have not been favourable for the JV to progress a project.

Work in China will still progress, however, Carbon Energy's strategic focus is now on hydrogen. We believe the Carbon Energy keyseam technology provides substantial competitive advantage for hydrogen production.

8. Will Carbon Energy continue to pursue projects in China?

As projects present themselves, wherever they may be in the world, we will consider them.

9. Did Carbon Energy have access to the US\$30 million of funding for China?

As part of the establishment of the Beijing JinHong Joint Venture, a US\$30 million contribution was to be provided by the Beijing JinHong Investment Co. This was to capitalise the Beijing JinHong Joint Venture over a period of 3 years, subject to milestones being met.

However, as the US\$30 million represents capital contribution to the Beijing JinHong Joint Venture, Carbon Energy does not have direct access to those funds.

While work continues to identify suitable sites for projects in China, Carbon Energy continues to provide technical and design support services in the search for suitable sites. As this has not yet occurred, Carbon Energy has adjusted the strategy for commercialising the keyseam technology and is focusing on a hydrogen production project in South Australia.

10. Why was the SPP not underwritten and it does appear that the major shareholder is not willing to provide future support to Carbon Energy.

Carbon Energy cannot speak on behalf of any of our shareholders.

This is an opportunity for Eligible Shareholders to buy additional equity in Carbon Energy for the future plans of Hydrogen Production Projects. We want Carbon Energy to take the opportunity, the new age of the Hydrogen Fuel Economy gives to our unique and proven technology. We believe our keyseam technology is capable of producing gas with up to 68.6% Hydrogen.

The Company considered the option for this SPP capital raising to be underwritten, but on balance made the decision for it not to be underwritten.

Thank you for all your questions, please don't hesitate to ask further questions via our website or calling our Brisbane office directly.