

Carnarvon commences renewable fuels business venture

6 July 2021



Highlights

- Carnarvon forms a joint venture to produce renewable diesel and other sustainable products
- The initiative enhances Carnarvon's ESG profile ahead of Dorado financing and development
- Provides Carnarvon with a pathway to minimise its future emissions intensity
- Complements the existing production value proposition from the Dorado and Buffalo oil fields

Carnarvon Petroleum Limited ("Carnarvon") (ASX:CVN) is pleased to announce that it has formed a joint venture with Frontier Impact Group ("FIG") (refer Note 1 for further information about FIG).

FIG has been actively progressing a biorefinery business in Western Australia to produce renewable diesel and other highly valuable products (refer Note 2 for further information about biorefining).

The joint venture plans to use internationally proven technology to process waste lignocellulosic biomass as a feedstock and produce renewable diesel, high-quality biochar and wood vinegar. The local implementation of this technology will be an Australian first. Much of the high-quality biochar could be processed further into high-quality graphene. Graphene has many next-generation applications such as electronics, batteries and material composites.

Each party will own 50 per cent equity in the joint venture, with Carnarvon set to invest AU\$2.6 million in seed capital to enable the first project to reach financial close, which is expected by early 2022. Further information about the joint venture is outlined in Note 3.

One of the attractions of the venture to Carnarvon is the effective enhancement of the Company's exposure to oil price linked production from renewable diesel. First production from the facility is targeted for late 2022, which would occur ahead of a successful Buffalo field redevelopment scheduled for late 2023 and first production from Dorado scheduled for late 2025.

Another attraction of the venture is its real potential to lower Carnarvon's emissions intensity on a portfolio basis, particularly as the projects are scaled up in the future.

The joint venture intends to pursue the accreditation of Australian Carbon Credit Units (ACCUs) for the production of renewable diesel and other associated activities. The venture is also looking to be involved in a number of carbon project development activities such as tree planting that will enable Carnarvon to generate ACCUs to offset carbon emissions produced from Buffalo and Dorado and place the Company firmly on the path to achieving its net-zero before 2050 target.

If the returns profile of the venture is in line with that being modelled, there are pathways to scale up and create a sizeable business venture over time that has a number of avenues for realising value for Carnarvon shareholders.

In the near term, Carnarvon will continue to focus on its core upstream oil and gas business. The core business offers attractive low cost production potential and exposure to strengthening oil prices. The biorefinery business is not expected to draw on Carnarvon's Buffalo and Dorado focused resources or detract from exploring the potential of the vast Bedout basin. But the venture is expected to be favourably received by lenders supporting these core projects.

Carnarvon Managing Director and CEO, Mr Adrian Cook, said:

"This opportunity underpins our core business endeavours, most particularly around funding Dorado, whilst enhancing our portfolio exposure to oil price linked products and for the future, building a value focused position in the renewables sector of the energy industry.

"Earlier today, we announced the Company's commitment to delivering a net-zero carbon emissions business before 2050.

"This joint venture demonstrates a clear and pragmatic start to delivering on our net-zero commitment, while ensuring long-term, sustainable shareholder value remains a key determinant in our decision making.

"The opportunity also gives us the ability to substantially scale up our operations and provide avenues to add value through our existing knowledge and experience.

"Carnarvon holds equity in the world-class Dorado field that recently entered the formal development engineering and design phase. We are also preparing to drill two exciting exploration prospects near Dorado and, as the operator, drill the Buffalo-10 well with the view to redeveloping the Buffalo field. Our focus on these first-rate projects has not diminished in any way.

"We believe this opportunity makes strong business sense for Carnarvon. There is a clear link between the delivery of our core projects, securing carbon offsets for these through this venture and producing valuable products such as renewable diesel."

Approved by



Adrian Cook
Managing Director
Carnarvon Petroleum

Investor inquiries:
Thomson Naude
Company Secretary
Phone: (08) 9321 2665
Email: investor.relations@cvn.com.au

Media inquiries:
Luke Derbyshire
Managing Director, Spoke Corporate
Phone: 0488 664 246
Email: luke@spokecorporate.com

Note 1 - About Frontier Impact Group

Frontier Impact Group is a climate solutions advisory and investment firm, deploying specialist expertise at scale to drive financially viable, planet friendly solutions and accelerate the global race to net zero.

Frontier Impact Group works directly and strategically with future-focused businesses on high impact projects across the globe to deliver exceptional environmental and commercial outcomes. Frontier Impact Group's key activities focus on the clean energy transition, waste and water management, and carbon project development focused on land protection and regeneration activities.

As pioneers in climate solutions, they use their cutting-edge technology, unique insights, and sophisticated financial models to provide comprehensive climate solutions advisory and project development capability to support the businesses of the future as they shape their climate strategy, business models and financing in the global race to net zero.

Note 2 - About biorefining

Biorefining is the process of producing multiple sustainable products from biomass or other biogenic feedstocks. FIG has identified a biorefinery technology that has been operating at scale internationally for several years. Identifying this technology de-risks an important part of the business model.

Modern biorefining can produce renewable diesel that is a direct substitute for petroleum-derived diesel. Older technologies produced biodiesel that could only be blended with petroleum-derived diesel. The renewable diesel biorefinery supports a low incremental cost pathway to produce other sustainable fuels.

Besides producing renewable diesel, the plant also produces high-grade biochar and wood vinegar. These valuable products add to the carbon sequestration equation. The high-grade biochar is capable of being further refined to a graphene product which would significantly enhance its sales value. The Development Company plans to pursue plant expansions in due course as the initial project matures.

The Development Company initially plans to secure feedstocks that would otherwise be destined for landfill, burnt with associated CO₂ released or utilised for less value-add purposes. In the future, the venture has a particular interest in deriving feedstock from harvesting biomass from tree planting activities that have the benefit of helping regenerate agricultural lands. These future tree planting activities have the benefit of generating carbon credits and harvesting treetops and thinnings for generating lower or zero carbon products such as renewable diesel.

Note 3 - About the Biorefinery Joint Venture ("BJV")

FIG and CVN will form an incorporated joint venture ("Development Company") which will develop biorefinery projects. Each party will own 50% in the Development Company.

The Development Company's aim is to develop multiple biorefining projects in which it will retain an equity interest in each biorefinery. FIG have the first biorefinery project matured to an advanced concept phase.

CVN will invest \$2.6 million in seed capital into the Development Company to enable the project to reach financial close. At this point, development capital will have been secured to fund the plant acquisition and construction and fund other ancillary requirements.

Forward Looking Information

This document may contain forward-looking information. Forward-looking information is generally identifiable by the terminology used, such as "expect", "believe", "estimate", "should", "anticipate" and "potential" or other similar wording. Forward-looking information in this document includes, but is not limited to, references to: well drilling programs and drilling plans, estimates of reserves and potentially recoverable resources, and information on future production and project start-ups. By their very nature, the forward-looking statements contained in this news release require Carnarvon and its management to make assumptions that may not materialize or that may not be accurate. The forward-looking information contained in this news release is subject to known and unknown risks and uncertainties and other factors, which could cause actual results, expectations, achievements or performance to differ materially, including without limitation: imprecision of reserve estimates and estimates of recoverable quantities of oil, changes in project schedules, operating and reservoir performance, the effects of weather and climate change, the results of exploration and development drilling and related activities, demand for oil and gas, commercial negotiations, other technical and economic factors or revisions and other factors, many of which are beyond the control of Carnarvon. Although Carnarvon believes that the expectations reflected in its forward-looking statements are reasonable, it can give no assurances that the expectations of any forward-looking statements will prove to be correct.