

# Corporate presentation – Biofuturing Conference

16 June 2022



Carnarvon Energy Limited (“**Carnarvon**”) (ASX:CVN) is pleased to provide the attached corporate presentation to be presented at the Biofuturing Australia 2022 Conference today.

Approved by:

A handwritten signature in black ink, appearing to read "A. Cook", is positioned above the printed name.

**Adrian Cook**

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# Carnarvon's Energy Transition Vision

ASX listed energy company (ASX:CVN)

BIOFUTURING 2022 CONFERENCE

16 JUNE 2022



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The resource estimates outlined in this presentation are based on and fairly represent information and supporting documentation prepared by Carnarvon's Chief Operating Officer, Mr Philip Huizenga, who is a full-time employee of the company. Mr Huizenga has over 25 years experience in petroleum exploration and engineering. Mr Huizenga holds a Bachelor Degree in Engineering, a Masters Degree in Petroleum Engineering and is a member of the society of Petroleum Engineers. Mr Huizenga is qualified in accordance with the ASX Listing Rules and has consented to the form and context in which this statement appears.

All contingent and prospective resources presented in this presentation are prepared as at 20 August 2018, 15 October 2018, 15 July 2019 and 2 May 2022 pursuant to the announcements released to the ASX on 20 August 2018, 15 October 2018, 15 July 2019 and 2 May 2022. The estimates of contingent and prospective resources included in this presentation have been prepared in accordance with the definitions and guidelines set forth in the SPE-PRMS. Carnarvon is not aware of any new information or data that materially affects the information included in this presentation, and that all material assumptions and technical parameters underpinning the estimates in this presentation continue to apply and have not materially changed. Deterministic and probabilistic methods have been used to prepare the estimates of contingent resources. These contingent resources have been aggregated by arithmetic summation and hence the aggregate 1C may be a very conservative estimate, and the 3C may be a very optimistic estimate, due to the portfolio effects of arithmetic summation.

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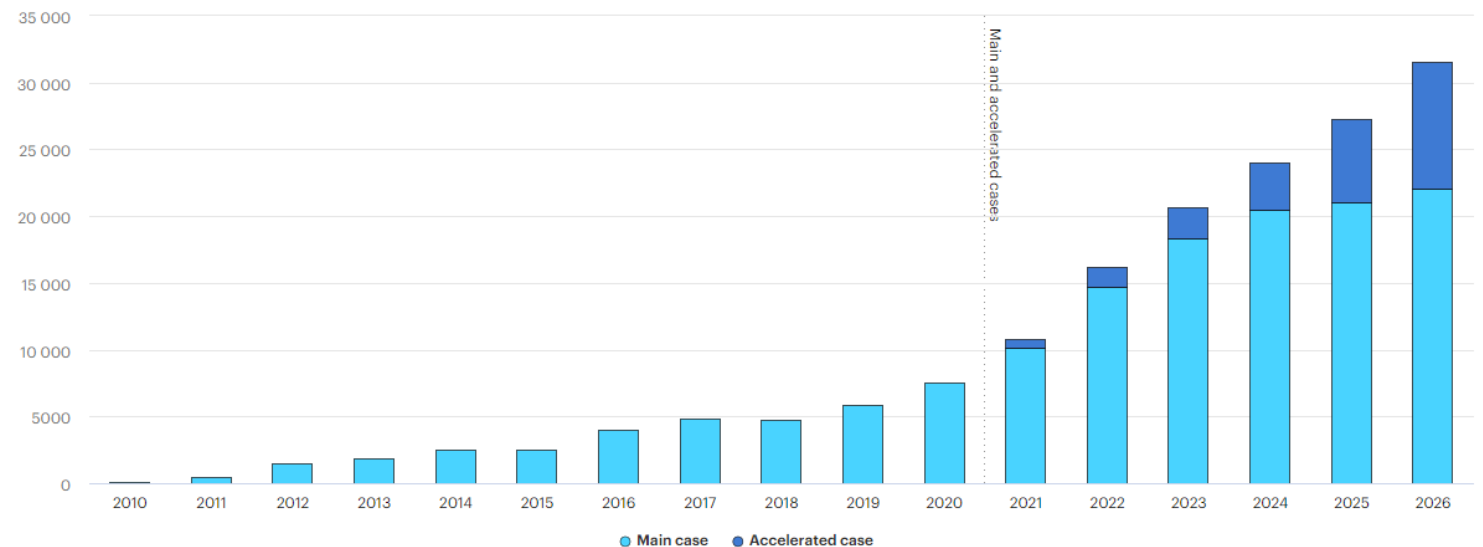
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# Strong demand for renewable diesel globally

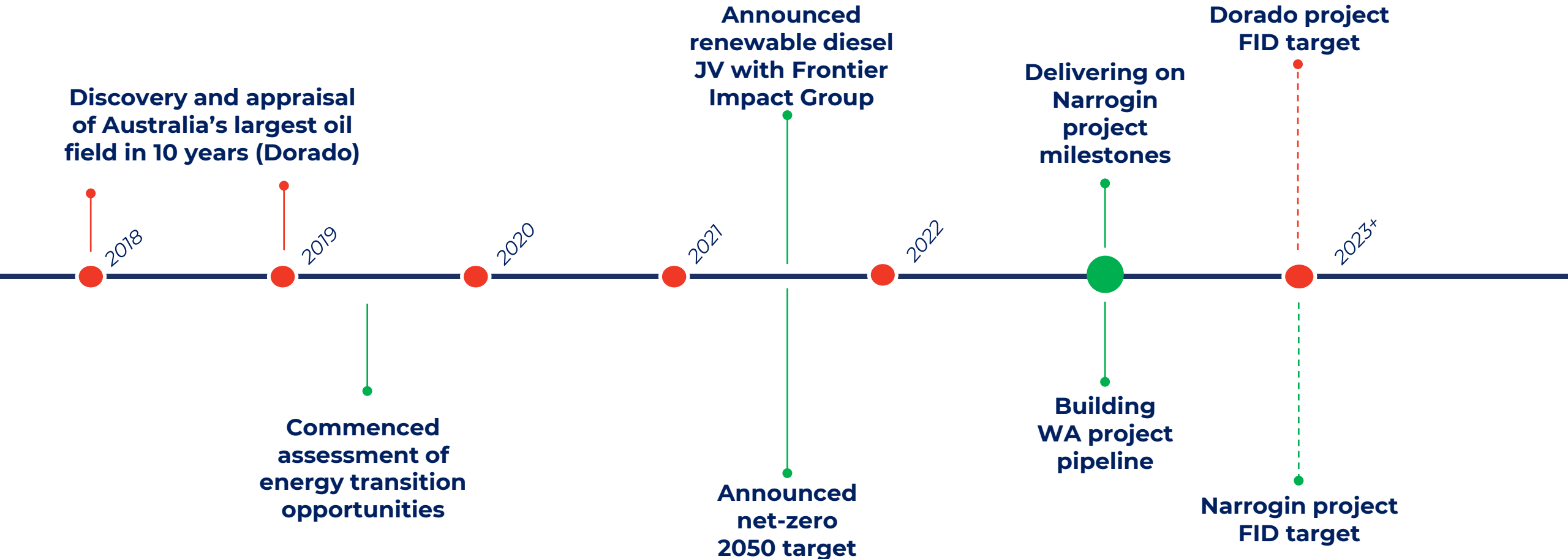
- **Global demand to triple** from 2021 – 2026, according to the IEA
- **Increasing recognition** of renewable diesel’s low-carbon and nil-capex burden for the end user
- **Supportive policies** in the US and EU driving demand with Asian markets expected to follow

Renewable Diesel consumption, World, 2010-2026  
M litres/year



Source: IEA Renewable diesel consumption (2021)

# Carnarvon's energy journey

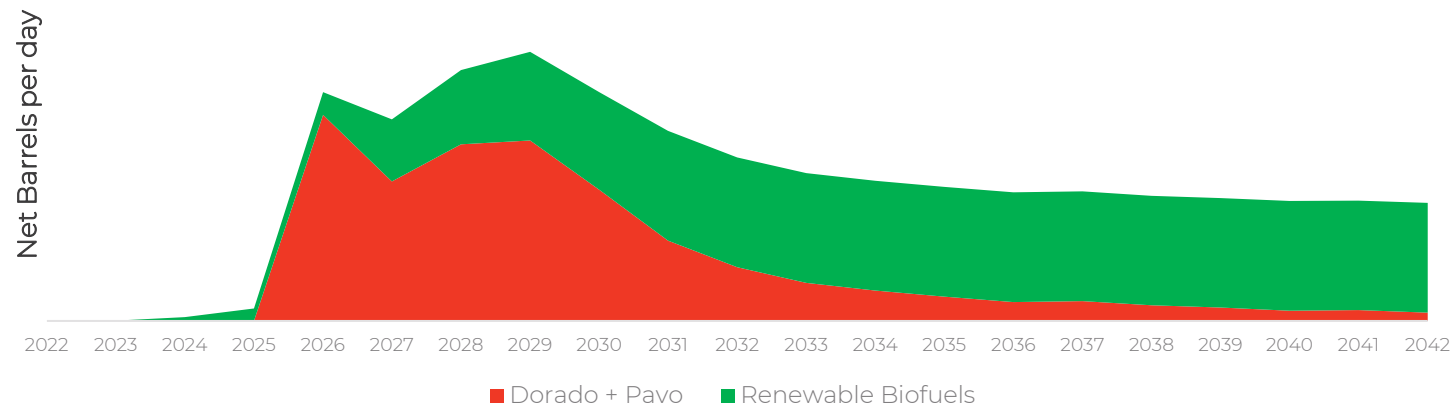


# Carnarvon's biofuels vision – 500 million litres p.a.<sup>1</sup> by 2030

## To be leader in renewable biofuels in Australia

- Capital investment of around \$3 billion
- Potential funding contribution from Dorado and Pavo free cash flows
- New sites centered around feedstock hubs and regional communities
- Aspirations in sustainable aviation fuel production & battery graphene

Carnarvon Energy's Future Production Mix



- Initial facility
- Other proposed biorefinery sites (indicative)

<sup>1</sup> on a gross basis

## ***First project to be located in the Shire of Narrogin (WA)***

- **Funded to FID** (target H2, 2022) with Carnarvon seed capital investment
- **Large 65ha site** in Shire of Narrogin selected
- **Received \$2m grant** from the WA State Government's Clean Energy Future Fund
- **Engineering** advanced with Technip Energies
- **Development approvals** underway
- **Fuel tested** to Australian diesel standards. Already meets US and European diesel standards
- **Significant interest** from companies in the mining, construction and power generation sectors
- **Additional value** in biochar and wood vinegar to improve soil health and soil carbon
- **First production** targeted for H2, 2023



*3D Model of proposed Narrogin biorefinery*



# ***Renewable fuel production from sustainable feedstocks***

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**The aim is to produce renewable fuel that works in collaboration with land regeneration**

## **Sustainable feedstock**

- Focus is on waste materials
  - Otherwise be burned or used for lower value economic outcomes such as export
- New plantings which support the regeneration of land, eg oil mallee in areas of salinity
  - Opportunity to adopt an integrated farm approach

## **Supporting a circular economy**

- Biochar and wood vinegar also produced from the facility
- These products can be used on the land to help improve soil health
- They can also increase soil carbon



## ***Challenges and opportunities***

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- **Reliable domestic fuel security** – Australia is a net fuel importer and exposed to fluctuations in the international oil price. Local renewable diesel production will contribute to mitigating this risk
- **Affordable fuel** – under-investment in new oil supplies globally is expected to make direct substitutes like renewable diesel more economically attractive
- **Lowering emissions** – renewable diesel has a lower carbon intensity than conventional diesel, making it attractive in hard to abate sectors such as mining, construction, logistics and remote power generation
- **Sector support** – Australian Government support is critical to scaling local biorefining capability. Strong biofuels policies in the US and EU have driven investment in conventional and advanced biofuels, and accelerated industry growth



# **Carnarvon's Energy Transition Vision – a contemporary approach that integrates conventional assets and renewables**

## **HEAD OFFICE**

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