Dorado on Cue for midyear FID in the Midst of Crude
Chaos and a Cold War

DALE GRANGER

George Orwell might have been labelled over imaginative had he scripted the Carnarvon Energy story that has brought Australia’s biggest oil discovery in 30-years, Dorado-1, to the cusp of FID just as Australia and the world re-enters an east-west cold war sparking oil shortages with crude prices touching all-time, record highs.

Having weathered the storm of COVID-19 that sent Brent Crude crashing to US$17 at the height of pandemic induced lockdowns in the first quarter of 2020, Carnarvon CEO Adrian Cook would be forgiven for thinking it’s a mad, mad world watching prices rebound to US$139 in late February – just $8 short of the July 2008 record peak – as Russian tanks rumbled into the Ukraine and the West fired back with a salvo of economic sanctions. Suddenly, energy security and self-sustainability had surfaced as a critical issue of the hour.

In the battle just to get the Santos-operated Dorado field to the starting grid, a four-year odyssey from discovery in 2018 now flagged for a mid-2022 investment decision, the chilling warning that Australia only has 30-days of oil in storage and could effectively be blacked out from receiving imports by a hostile superpower, appears to have fallen on deaf ears.

In the USA the Biden administration was taking heavy flak for cancelling the Keystone Pipeline and then scrambling to do deals with pariah states Venezuela and Iran to pump more oil to cool the markets, a scenario that infuriated Alaska Governor Michael Dunleavy, a long-time champion of the conviction that charity begins at home.

“The breaking point is imminent,” Dunleavy said. “Both Democrats and Republicans can see that the US is in a national emergency. We should not lift sanctions (against Venezuela and Iran). President Biden is searching for oil anywhere on the planet except at home. Now we must reverse course and streamline permitting and drop regulations that restrict oil and natural gas production. The Keystone Pipeline (cancelled by Biden on his first day in the White House) would replace Venezuela, Iran and Russian imports,” Dunleavy said.

You know that the world is in trouble when Elon Musk calls for more oil production, even though this would impact his Tesla car company, while in Europe a winter of discontent has left many wondering if the lunatics had been running the asylum for the past half-century having sanctioned the labyrinth of Russian pipelines that supplies 40% of the continent’s gas and 50% of Germany’s supplies. It beggars belief that Russia began constructing these pipelines in the 1960s, virtually at the peak of the cold war – remember the Cuban Missile Crisis?

At an Australian Financial Review Conference to discuss energy in a volatile geopolitical climate, Woodside CEO Meg O’Neill and Santos CEO Kevin Gallagher were both singing off the same hymn sheet as Musk and Cook.

O’Neill warned that the world’s precarious energy dynamics could prevail for decades and Gallagher said increased oil and gas supply was the only solution to the current crisis.

“Being highly dependent on energy from one particular nation, whose values may not be well aligned with yours, was a huge risk. And so, I think the world is going to have some real sober reflection on the pathway to diversify energy supply, and will look to countries like the US and Australia to see how they can support like-minded countries in providing their energy,” O’Neill said.

“The one thing that the crisis in the Ukraine will really cause the world to think very similarly about is the importance of energy security,” O’Neill added.

“Dorado was never a buy and held, it was always a book to the market and risk is the major consideration,” Gallagher said. “George Orwell might have been labelled over imaginative had he scripted the Carnarvon Energy story that has brought Australia’s biggest oil discovery in 30-years, Dorado-1, to the cusp of FID just as Australia and the world re-enters an east-west cold war sparking oil shortages with crude prices touching all-time, record highs.”

Against this backdrop Australians, now confronting a $12.5 billion price hike tab at the bowser in coming months and asking how we got to this point, might take comfort that the Dorado field, which is 20% owned by Carnarvon, will produce 100,000 barrels of oil a day when it comes onstream. Australia is a tiny player in the global oil market, producing just 350,000 barrels a day and Dorado’s output alone represents 35% of that total.

All except that very little, if any, Dorado oil is likely to fill any tanks in Australia.

“We’re now importing around 90% of our oil and we’ve only got two refineries left,” Cook explained. “There’s no major oil production on the horizon, except Dorado and I hope Pavo will follow. We’re living off the legacy of our past exploration efforts in Australia and if our
channel of access to oil gets cut off, for example due to war, or because there’s just not enough oil to go around, what are we going to do? Our farmers trucks and tractors run on diesel, similarly the trucks bringing food from the farms and as do our mining operations. On top of this 99% of our cars on the roads are powered by petrol or diesel. What happens if that all grinds to a halt if our fuel supply gets cut off?

“It just feels like we’re all pretty exposed at the moment. Australia has been buying into the US Strategic Petroleum Reserve, which on paper extends our potential national supply, which the Government represents as covering 90 days. But these reserves are far away and I think the money would have been better spent expanding our own production, refining and storage capacities. It’s not inconceivable that our channel of access to oil gets cut off, for quite some time and our planned renewable diesel is a direct drop in substitute for traditional diesel that substantially reduces emissions or brings them down to zero.

The geopolitical risk premium we’re experiencing in the oil price is a consequence of massive underestimation of sovereign risk and it’s pretty scary,” Cook said. “Chronic underinvestment in exploration and production for at least a decade has backfired. The Warren Buffett maxim of ‘When the tide goes out, we see who has been swimming naked’ raises the question: To what degree can US shale step up to the plate? OPEC has been swimming naked for years culminating in Russia and OPEC effectively being handed control of the market. Saudi Arabia, the de facto leader of OPEC, is not even on speaking terms with the US government and has ignored pleas for more production to lower prices and combat soaring inflation.

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“Dorado… it has been a hell of a journey in which we’ve felt every step of the way,” Cook said with the project now at the FEED stage and on the home stretch with FID in sight for a mid-year ETA.

By the time we start construction it would have been three to three-and-a-half years from discovery, which is normal industry practice, but considering all the circumstances that is really quite incredible,” Cook said of the project that will feature a FPSO and is really quite incredible.” Cook said of the project that will feature a FPSO and a wellhead platform delivering sweet, 51° API crude which is expected to sell at a premium to Brent. Shallow depths and lower costs also made the project appealing from the onset.

Despite these attractive qualities, Cook said that sourcing funding would be a key challenge that would be addressed this year.

“We believe that oil and gas will remain a critical element in the supply chain mix for a long time.”

In spite of COVID conundrums and now the biggest armed conflict in Europe since World War 2, Cook believes the Dorado JV has proven incredibly resilient during trying times.

Carnarvon recently announced that it had appointed Azure Capital as its financial advisor to source funds for the development of Dorado and said it was considering traditional reserve-based debt facilities, an alternative of junior or subordinated debt or divesting in a portion of its share of the Dorado project and/or exploration acreage.

“The banks are saying they want to see 2050 net zero commitments for energy investments, which is one of the reasons why we presented our renewable diesel project to them and said, ‘we don’t just want to buy offsets, we would rather be active in the transition with real products for customers that also make real money for shareholders. We believe liquid fuel is going to be in demand for quite some time and our planned renewable diesel is a direct drop in substitute for traditional diesel that substantially reduces emissions or brings them down to zero.”

“The banks like that but are under ESG pressures from activists and other stakeholders. We have demonstrated our initial response to the energy transition with this project. We expect the capital providers will understand that responsible investing and lending is important moving forward. You have to be careful that the pendulum doesn’t
CARNARVON UNVEILS PIONEERING RENEWABLE DIESEL PLANS IN WA

West Australian exploration and development company Carnarvon Energy has significantly accelerated its commitment to net zero emissions by 2050.

After implementing annual sustainability reporting in 2020 and 2021, the Perth-headquartered company invested $2.6 million of seed capital last July into a pioneering renewable diesel production project.

The investment forms part of a 50:50 joint venture partnership with Victorian climate solutions advisory and investment firm Frontier Impact Group to create FutureEnergy Australia (FEA).

Chaired by Carnarvon CEO Adrian Cook, FEA this month announced a range of project milestones - including formalising its name - towards establishing Australia’s first commercial scale renewable diesel biorefinery in Narrogin, about 200km south-east of Perth.

Mr Cook said the project presented a significant opportunity to bolster fuel security, reduce carbon emissions and produce an alternative fuel to power the transport, energy generation, agricultural and other sectors.

“Our project has the potential to transform the approach to fuel production and use for individuals, businesses and organisations looking to reduce their carbon footprint,” he said.

“The benefits are not exclusive to fuel users, with additional by-products produced in the biorefining process such as biochar and wood vinegar providing significant soil improvement opportunities to the agricultural sector.

“We’re excited to be developing our first biorefinery that will produce important renewable fuel, create a circular economy in Western Australia’s Wheatbelt, foster regional employment opportunities and deliver a significant reduction in carbon emissions.”

FEA’s biorefinery will utilise a technology that turns sustainably sourced woody biomass such as timber construction waste, ecological thinning and plant-based agricultural waste into renewable diesel using high temperature pyrolysis.

Syngas produced through the 1100°C heating process is further processed and distilled into fuel, which can be used in place of conventional petroleum diesel.

Its application doesn’t require modifications to existing diesel engines, burns cleaner and has a lower emissions profile compared to petroleum diesel.

Value-adding by-products produced through the production and conversion process including biochar and wood vinegar - both proven to have important ecological and environmental outcomes when applied to agricultural settings - will form part of commercialisation plans.

Further refinement of biochar is known to produce graphene, a carbon-based substance which is the strongest, lightest material ever isolated and has a wide array of applications and sustainability benefits.

Late last year, world-leading engineering and technology firm Techm Energies was appointed to carry out Front-End Engineering and Design (FEED) for the FEA biorefinery project.

And last month Carnarvon identified a 65ha site in Narrogin in WA’s Wheatbelt region as the potential site of its first biorefinery facility.

Mr Cook said once operational, the biorefinery could produce up to 18 million litres of renewable diesel per annum.

“Our JV partner has estimated $56.6 million in economic value could be created for every 55,000 dry tonnes of biomass processed,” he said.

“We’re also looking at significant employment creation opportunities including, for each plant, 36 operational and up to 90 indirect jobs through the associated supply chain.”

In December 2021 the International Energy Agency (IEA) forecast global demand for renewable diesel would grow 41 per cent to 2025.

And in a domestic setting, the Federal Government released its Bioenergy Roadmap last November, which outlines the nation’s growing bioenergy sector could contribute $30 billion to GDP and more than 26,000 new jobs, as well as reducing emissions and diverting waste from landfill.

Mr Cook said market conditions, coupled with growing awareness of fuel security and decarbonisation, presented a unique opportunity for FEA’s biorefinery development.

“We’ve identified and invested in alternative fuel as a starting point, but the more exciting aspect is the ability to scale up bioenergy production and create a reliable alternative fuel sector helping power Australia’s energy needs,” he said.

“There is a strong case to invest in decarbonisation initiatives, more effective waste management, diversified revenue streams and economic growth - for communities, businesses, shareholders and other stakeholders.”

Beyond its first biorefinery in WA, FEA has a vision to build a portfolio of up to 30 biorefineries across Australia.

Collectively these could produce more than 540 million litres of renewable diesel annually and generate carbon reduction benefits of more than two million tonnes of CO₂e per annum.

The project pipeline is projected to create more than 3,500 new jobs, leverage $3 billion in capital investment and generate around $1.35 billion in annual economic value.

For more information on FutureEnergy Australia visit https://futureenergyaust.com.au/

Carnarvon has discovered the Noble Tom Prosser in the Pavo-1 exploration well, with hopes that it will aid in the success of the nearby Dorado 1 discovery.