

Carbon storage estimates support Rafael development for Buru



By Andrew Duffy 2 DAYS AGO

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Buru Energy's Rafael development is supported by CO2 storage estimates. Credit: File.

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The results from GeoVault's assessment of the in-ground greenhouse gas storage capacity were independently reviewed by RISC Advisory (RISC), which described the findings as "reasonable".

The rule book for determining how much CO₂ can be injected and stored underground was written back in 2017 by the Society of Petroleum Engineers and published as the CO₂ Storage Resources Management System (SRMS). The guidelines aim to remove the subjective nature of subsurface assessments and act as a yardstick for resource assessors.

Under the guidelines, companies must estimate the amount of CO₂ available for storage and the amount of underground storage available. The lower of the values dictate the storage resource.

Geovault has now completed both technical estimates and RISC's imprimatur provides a confidence-boosting tick in the box to support the long term co-location of a carbon capture and storage project and the massive Rafael gas development.

Buru Energy chief executive officer Thomas Nador said: "CCS is a globally utilised safe and established method to support the decarbonisation of industry, and the work done to date by GeoVault confirms that Buru's current operational area in the Canning Basin has the capacity to store not only carbon emissions related to a potentially large-scale Rafael development but that of other carbon emitters, including potential international carbon emitters. The GeoVault team will continue to leverage Buru's extensive geological knowledge and operational expertise in the Canning Basin to support the commercialisation of the Rafael development and contribute to the realisation of a future carbon neutral economy for the benefit of stakeholders."

A 2022 independent review into Rafael's natural gas volume contained within the Ungani dolomite reservoir suggested a gross contingent gas resource ranging from 59 billion cubic feet (BCF) at a low-side estimate, 260 BCF as a best estimate and 1.024 trillion cubic feet (TCF) as a high-side estimate.

Buru's phased development strategy for Rafael plans to meet the domestic gas market reservation of 15 per cent with its low-side contingent resource and the company plans to export gas and chemical products if mid or high-side resource volumes are realised following appraisal drilling.

Phase one of the development plan will address a low-case volume outcome of less than 59 BCF of gas and 1.2 million barrels of condensate and will provide energy to the Kimberley through a small-footprint, scalable liquefied natural gas (LNG) supply stream. Gas and condensate will travel through underground pipes from Rafael to a mini-LNG plant before being trucked to Broome and regional communities for power generation.

If, as a result of appraisal drilling, Rafael's volumes prove to be between 400 and 800 BCF, Buru will select concepts that involve the completion of phase one, in addition to the production of blue methanol and/or ammonia products as part of phase two. Management says it will construct a CCS-supported plant that will produce between 0.5 and 1 million tonnes per annum of blue methanol and be fed by gas from some five to 10 appraisal wells in Rafael.

To address Rafael's high-side contingent resource volume case of more than 1000 BCF of gas and 20

million barrels of condensate, the company will complete its phase-one plan, in addition to producing LNG for export through a small-scale, permanently-moored floating facility in King Sound. The facility is planned with a capacity of about 1.6 million tonnes per annum of LNG and will be fed by up to 12 appraisal wells to be drilled and completed within Rafael.

In addition to the subsurface technical requirements outlined by the SRMS, companies must also be entitled to store the gas. Buru management has its collective finger on the pulse of WA's incoming CCS legislation, due before the end of this year, which will provide the required framework for the award of greenhouse gas exploration titles, retention leases and injection licences.

Last week, the Cook Government announced a \$134 million funding package to create jobs and reduce greenhouse gas emissions. Of that, \$60 million in funding will be allocated through the State's Investment Attraction Fund, which aims to support CCS projects alongside other critical mineral and renewable energy initiatives.

Buru says it will be vigorously pursuing Geovault's participation in the fund.