

# Buru Energy: Study shows FLNG solution is feasible option for large-scale gas discovery in Canning Basin

BUSINESS DEVELOPMENTS & PROJECTS

April 21, 2023, by Ajsa Habibic

Australian oil and gas E&P company Buru Energy, together with compatriot Transborders Energy, has completed a pre-feasibility study for a floating LNG (FLNG) plant solution for its large-scale Rafael conventional gas and condensate discovery in the Canning Basin.



*Illustration; Archive. Courtesy of Transborders Energy*

Buru Energy [commissioned](#) Transborders Energy to conduct the study in November 2022 as part of its efforts to commercialise the Rafael gas and condensate discovery.

The study looked into a Kimberley-based compact marinised FLNG plant solution which is said to potentially provide a faster, more capital-efficient, and less complex regulatory and commercial alternative LNG production pathway for Rafael gas than a concept involving transporting gas to the North West Shelf (NWS) for liquefaction and export.

The FLNG concept consists of a permanently moored, shallow water depth, compact FLNG facility with a liquefaction capacity of ~1.6 million tonnes of LNG per annum connected via an offshore/onshore pipeline to a small footprint onshore condensate stabilisation, LPG separation and gas conditioning plant. The Rafael field development will require a limited number of conventional wells with connecting flowlines, Buru Energy explained.

### **Study findings**

Findings from this study confirmed that the FLNG facility feed gas requirements are compatible with the Rafael gas specification obtained during well testing, with the pre-engineered FLNG facility processing capacity supportive of the independently assessed 3C contingent resource volume of over one trillion cubic feet (TCF) of gas.

For the purposes of the study, the offshore location of the FLNG facility has been assumed as the Shire of Derby-West Kimberley, Western Australia with facility location selection being a key consideration during future potential phases of work.

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As explained, Rafael feed gas for the FLNG facility will be required to be processed to pipeline specifications which will principally entail condensate removal and stabilisation and LPG separation. As the Rafael raw gas stream has very low levels of CO<sub>2</sub> (~2%), there will be minimal requirements for gas conditioning. This condensate and LPG processing is assumed to be undertaken in a small footprint onshore plant located in regional proximity to the Rafael discovery, with product export via existing Broome Port infrastructure. The potentially significant volumes of condensate (light oil) and LPG will provide a valuable and sought after additional product stream.

Furthermore, economic modelling has confirmed that the development concept economics for this option to monetise the Rafael source is compelling, Buru Energy said. The FLNG concept provides competitive LNG delivery price metrics to Japan against LNG delivered from a range of projects from the east coast of the USA.

### **Next steps**

As part of the next phase of work on this commercialisation option for the Rafael resource, Buru plans to work with Transborders and its multi-project collaboration partners Kyushu Electric Power, Mitsui O.S.K. Lines, Technip Energies, SBM Offshore and Add Energy (part of ABL Group ASA), to refine the objectives, work scope and cost and schedule parameters associated with the next phase of pre-FEED definition.

In parallel, the company will continue working on pre-feasibility level engineering for various other development options that cater for various Rafael resource volume scenarios.

The company added that preparations to acquire the 3D seismic survey over the Rafael gas and condensate accumulation are well advanced and on track for 2H CY 2023, with planning for appraisal drilling also advancing, targeting drilling during the operating season in 2024.