

# SPECIAL FEATURE



CREDIT: INTEROIL CORPORATION

# LNG IN PNG

The global downturn has been unable to dampen levels of expectation in Papua New Guinea surrounding liquefied natural gas. The country's considerable gas reserves have the potential to transform its economy and several projects—summarised below—are in development.

## PNG LNG

When *Business Advantage* visited Papua New Guinea in February 2009, one topic dominated conversations with business people of all kinds—liquefied natural gas (LNG) and, more specifically, the greater-than US\$10 billion ExxonMobil-led PNG LNG project. A 70-person delegation from export credit and ratings agencies had been in town to assess the project for themselves and the whole country seemed to be preparing itself for the critical final investment decision on the project, due in the last quarter of 2009.

*If it goes ahead, the PNG LNG project will be the largest single investment ever made in PNG.*

### 'COUNTRY-MAKER' PROJECT

It's hard not to get excited about the PNG LNG project when you consider its scale, and its potential to transform Papua New Guinea's economy. If it goes ahead, it will be the largest single investment ever made in PNG.

'It's not just a "company-maker" project for our business,' says Peter Botten, Managing Director of Oil Search Limited, which currently has a 34% stake in the project. 'It can also be a "country-maker".'

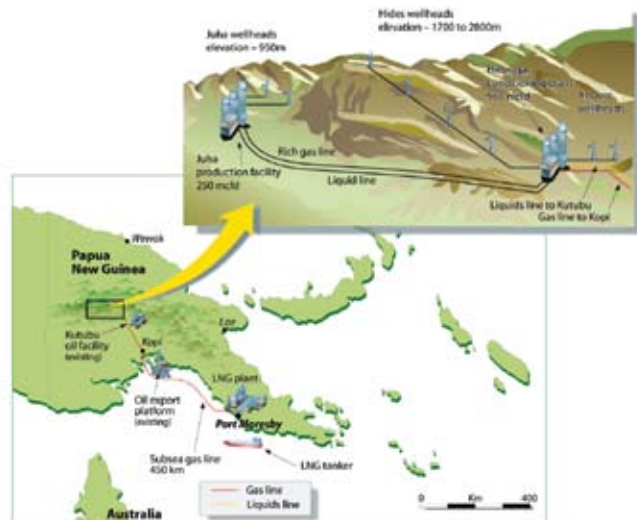
A recent ACIL Tasman report commissioned by ExxonMobil suggests that the project—which has the potential to produce 6.3 million tonnes of LNG per annum for up to 30 years out of gas fields in PNG's Southern Highlands and Western provinces—could contribute to a doubling of PNG's gross domestic product. About 7500 jobs will be created during the construction phase and a

further 850 once the project is running. The flow-on benefits to suppliers and service providers will amplify its direct impact. Royalties and taxes to Government (which will have a 19.2% stake in the project) and landowner groups will also be considerable.

### MAJOR MILESTONES

At the time of writing, the PNG LNG project was about 70% through its front end engineering and design (FEED) stage and the competitive bidding process to build pipelines for the project's massive 9.5 trillion cubic feet of gas reservoir, a new LNG plant 20km from Port Moresby, and associated facilities was underway.

Once the final investment decision is made, LNG production



THE PNG LNG PROJECT.

CREDIT: EXXONMOBIL

could commence as early as the fourth quarter of 2013. There is a sense of urgency driving the project towards this date, as ExxonMobil's PNG LNG Venture Manager Peter Graham explains:

'There is a perception that there's an opportunity in the market place at that point in time. Over the last several years there has been something of a pause in investments in LNG projects and right now this project will be one of only several new projects coming onto the market at that time [2013-4]. If we miss this timing, we'll enter the market with more competition.'

## GOVERNMENT SUPPORT

With a fixed deadline and a large project, Government support is critical, and Peter Graham has praise for the way the PNG Government has risen to the challenge:

'The State has made clear this project is a top priority for PNG. It is responding in a fashion consistent with that. There is a State coordination team that has been established. There is a Ministerial Economic Committee that provides policy oversight and direction to the respective departments. The State has reached every major milestone that we have laid in front of them to date.'

A joint marketing agreement was signed by co-venturers in May 2008, which sets out how the LNG will be marketed. With an estimated worldwide market for LNG of about 500 million tonnes by 2030, there is not likely to be a shortage of buyers.

## IMPACT OF THE GLOBAL FINANCIAL CRISIS



PETER GRAHAM, PNG LNG'S VENTURE MANAGER.

Like all large-scale resources projects, LNG projects require a significant amount of finance. At a time when many financial institutions are struggling, this might seem to pose a problem. While the project is not past the finish line yet, Peter Graham remains confident that finance will be secured for the project:

'Our assessment today is there is enough financial capacity from export credit agencies, and bonds potentially, to meet the financing requirements of the project,' he explains. 'We have a number of strengths in this project: it is regarded by everyone as amongst the world's most credible LNG projects. The fact that the State has its equity financing lined up and ExxonMobil is the operator will also help. We have built projects like this before. We have a track record.'

Oil Search's Peter Botten agrees that Exxon's involvement is critical:

'You need a large player to facilitate a project like this—it's not a game for small players. Exxon's involvement will provide both customers and financiers with a lot of comfort.'

## LIQUID NIUGINI GAS

The second-largest LNG opportunity in PNG is currently being driven by InterOil Corporation, which is already heavily involved in oil production and petroleum retail in PNG.

The US\$5 billion project is based on InterOil's Elk and Antelope gas fields in PNG's Gulf Province, which have large reserves of natural gas. March 2009 flow tests at Antelope 1 suggest it could produce 17.7 billion cubic feet of natural gas per day on its own.

'It's a high quality reservoir, there's not a better structure capacity in the world,' InterOil's founder and Chief Executive Officer, Phil Mulacek, told *Business Advantage*. 'There's three trillion cubic feet to start with. It has the potential to put PNG in the international LNG league. It's also a watershed event for our company.'

Modelling suggests that the project could add as much as 20% to the country's GDP.



PNG PRIME MINISTER SIR MICHAEL SOMARE AND INTEROIL'S CEO PHIL MULACEK CELEBRATE WORLD RECORD GAS/CONDENSATE FLOW FROM INTEROIL'S ANTELOPE-1 WELL.

## NEW LNG PLANT

InterOil plans to build a pipeline from the Elk/Antelope fields to a newly built LNG plant adjacent to its Napa Napa petroleum refinery near Port Moresby. From there, LNG will be loaded onto ships for export. Construction and project management company Bechtel will carry out front-end engineering and design and engineering, procurement and contracting for the plant.

## NEW PARTNERS

In March 2009, InterOil terminated its relationship with financially troubled partner Merrill Lynch, which had take-off rights to the project, and is now looking for other take-off partners. This followed the October 2008 agreement to sell a direct interest in the Elk/Antelope fields to state-owned mineral company Petromin, which will now fund 20.5% of the development costs.

In the meantime, Phil Mulacek says InterOil will generate its share of development costs for the LNG project by harvesting the liquid oil also present in the fields.

## RIFT OIL



RIFT OIL'S CHIEF EXECUTIVE, JENNI LEAN.

At the December 2009 PNG Mining and Petroleum Conference in Sydney, Ian Gowrie-Smith, Chairman of exploration company RiftOil PLC, suggested that his LNG project might be the first to actually bring LNG out of Papua New Guinea.

RiftOil is currently drilling in its Douglas, Puk-Puk and Langia prospects in the Foreland basin of PNG's Western Province, and has identified what it believes are significant gas fields. Two further prospects are also slated

for exploration.

'Typically, the first discoveries are made in the highlands, but then even bigger discoveries are found in the foreland later on. We believe the [Western Province] Foreland is potentially a hugely productive basin,' RiftOil's Port Moresby-based Chief Executive Jenni Lean told *Business Advantage*.

### FLOATING LNG

RiftOil is looking at a different way to take its gas to market: a process known as 'floating LNG', whereby natural gas is piped to a custom-made ship that pre-treats and liquefies the gas. This avoids the need to construct a costly on-shore processing facility. While the technique, which requires the re-bundling of a number of proven technologies, is still under development by Flex LNG, Lean suggests it will provide 'the fastest route to commercialisation.'

### ACCESS TO FINANCE

At the time of writing, RiftOil was talking with investors to see its PNG project through to first production and Lean was reporting

'very high' bids. Thereafter, a bigger partner will be required for full commercialisation. While exploration is by its nature high risk: 'we believe this was a very low risk investment in the high risk end,' says Lean. She feels confident that the global financial crisis won't hamper the project's long-term prospects:

'My personal experience of the global crisis is that it has had no effect on us. LNG is a long-term product. Countries like Japan have invested in having LNG receiver plants right around their country. These are very expensive plants. They are looking for long-term supplies.'

If all goes well, the first RiftOil LNG could be shipped in 2012.

## TALISMAN ENERGY

Finally, Talisman Energy is exploring the Pandora gas field offshore in the Gulf of Papua. Already between 1.5 and 2.3 million cubic feet of reserves have been discovered thanks to 3D seismic surveying completed at the end of 2008.

According to Dr Lawrence Bernstein of Talisman Energy, Talisman plans to put an offshore rig over the field in the second half of 2010, and is considering a floating LNG solution to transport the gas to market.

### A GLUT OF PROJECTS?

Given the number of LNG projects now at various stages of development, is there a risk that they may compete for skills and services, thereby driving up costs, not only in the resources sector but in the PNG economy generally? RiftOil's Jenni Lean thinks not.

'I think this country can easily support six big projects. There is no need for people to be worried about competition,' she told *Business Advantage*. 'It is best for the country to spread its risks, especially geographically.'

'Multiple LNG facilities will transform the country for the benefit of all,' agrees Phil Mulacek. ■

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