

## **PNG LNG – the making of Oil Search**

In November 2009 Michael Bentley, Northward Capital's Sector PM for Metals & Mining, Energy, Utilities and Chemicals sectors, undertook a research field trip to the PNG operations of Oil Search Limited (OSH). OSH's PNG LNG (Liquefied Natural Gas) project is of crucial importance to the PNG Economy, Government and the people as well as being considered a "company maker" for OSH. The objective of the trip was to evaluate the local PNG operations and further develop our understanding of the opportunities and risks associated with OSH's Oil and Gas operations in PNG.

The 3 day visit to PNG comprised a visit to OSH's office in Port Moresby, presentations by senior OSH staff, an informal meeting with PNG Ministers and senior landholder figures, and a visit to the site for the PNG LNG processing plant and wharf, the Hides gas facilities and the Agogo Processing Facility. Michael also attended the Hides Landholders Conference Official Opening and completed a flyover of all existing OSH facilities and PNG LNG project gas pipeline route and future infrastructure.

Being 'on-the-ground' provides considerable benefits. Physically meeting the local onsite management, witnessing the process and effort required when dealing with landholders and talking directly to local PNG decision makers helps to develop a level of insight that can simply not be achieved from a desk in Australia. Being on-site helps develop a sense of the scale associated with the project, the broad impact on PNG and the prospects for success. It also improves our understanding and insight into the key milestones of the project's life and the potential implications if they are not met. This plays an important role in allowing us to effectively manage our investment in OSH.

### **Support**

The project has overwhelming support of the government and the general population of PNG is also behind the project. While this does not remove all the issues associated with dealing with the local people and building such a major project in a 3rd world country, the broad level support is positive, although not surprising. The anticipated total budget for the project is \$US15 billion. According to OSH, this project will double the gross domestic product – which currently averages just \$US2,300 per person per year – while trebling exports. The initial 30-year life of the development will create billions in dollars in revenue as gas extracted from the energy rich mountains is shipped to Asia and the region's fast growing economies.

The project partners (ExxonMobil operator, 33.2%, Oil Search 29.0%, PNG Government 16.6%, Santos 13.5%, Nippon Oil Exploration 4.7%, PNG landowners 2.8% and Petromin PNG Holdings 0.2%) are highly committed creating a low risk of the project not proceeding. Approximately \$1 billion has been spent already in early works and pre operating expenses.

# NORTHWARD CAPITAL

## Practical implications

A project of this size, in its geographical location requires exceptional planning and operating management. The numbers are impressive - the construction is estimated to require between 12,000 and 15,000 workers, with locals filling 6,000 – 7,000 of those positions. The project is committed to training local staff (up to 1000 a year in a purpose-built technical college) and while there is a significant amount of local labour, there will need to be large amounts of skilled workers imported from places like the Philippines and Thailand.

Managing the operation requires a careful balance. Testament to the complexity is there being more than 860 indigenous languages – representing around one-tenth of the world’s known tongues. Local civil unrest and tribal conflict is not uncommon, and the logistics of getting the right materials in the right quantities at the right time is not without issue in such demanding mountainous terrain.

There is an experienced team working on the project for OSH and the company is well aware of the important role it plays in dealing with local issues. OSH can point to the fact they have been operating in PNG since 1929, and since starting production in 1991 have never missed a shipment. The record and quality of local management is first class.

While OSH provides the experience in dealing with local issues, Exxon provides strong expertise and experience in building and managing large and complex projects. This skill set is an important contribution to the project given the 750km pipeline (linking the production facility to the sea level plant) traverses a rugged steep mountain range that is covered in thick jungle and 400km of sea bed pipeline.



Source: Oil Search

# NORTHWARD

## CAPITAL

### Funded to completion

Assuming all goes to plan, the first shipment of LNG should leave Port Moresby in late 2013, early 2014. Funding for the project, assuming there are no cost blowouts, has been secured through the combined recent equity raising and debt facility arrangements.

The deadline set by Exxon as the operator of the project for the Final Investment Decision (FID) was met by the 8th December. Two final gas sales agreements remain to be signed and are expected to be early in the new year.

### Future development

As the first stage of the project (2 LNG trains producing a total 6.6 million tonnes of LNG annually) to develop, the market will be looking more closely at the expansion of the project to a 3rd and 4th train. The first stage of the project's infrastructure is being sized (and funded) to allow for expansion which, as a consequence, will have an extremely high return. OSH has begun studies and has put in place an exploration and appraisal programme designed to prove up enough gas to feed a 3rd and 4th train. The programme is relatively low risk, and it is expected that at least, the 3rd train will be built. This could be worth an additional \$3-\$4 to OSH share price.

### Risks

A project of this magnitude does not come without its risks. Typically these revolve around capital costs, landholder issues, terrain, labour skills, and the long term management of expectations, jobs, and wage and cost inflation. Also included in this are government attitudes towards additional tax revenue.

As with any project there is risk of the project becoming uneconomic. The PNG LNG project however has strong returns at oil prices as low as \$35 a barrel.

Within a third world environment there are potentially a number of additional risks, with labour shortages potentially being exacerbated by the need to entice skilled migrant labour, issues associated with PNG infrastructure including accommodation, roads (particularly in the mountains), airports and communication networks. Landholder issues are also more acute given the disparate nature of the tribes, as well as there being a potential for greater political instability, regime change or at least shift in attitude by the incumbent government.

# NORTHWARD CAPITAL

## Why does this represent a 'company maker' for OSH?

The project's scale in terms of the investment, time and potential revenues all combine to make this a company maker for OSH. OSH's annual production will almost triple from 2014 onwards. The project has an estimated life of at least 30 years.

## Conclusions

PNG LNG is a large complex project and represents many challenges, particularly in a country such as PNG with its own unique cultural, social, political and geographical issues. Visiting PNG though did confirm the advanced state of the project, the backing of the government and the eagerness of the PNG people for this project to succeed. Ultimately, the inevitable cost and wage inflation and the inequities delivered by the project will need to be managed by the government.

The trip also highlighted the commitment from Exxon and provided more detail as to how OSH will manage the local country issues. Through time, managing the landholders' expectations will be important to the success of the project and is something the local OSH management has a demonstrable skill.

The trip confirmed our positive view on the project. The current share price does build in some value for the project but also builds in significant risk. As key milestones are met it is expected that the project can add \$2 to the share price over the next 12 months. Further, the expansion of the project to a 3rd and 4th train is a strong possibility and has significant value for OSH.

## Contact

Charles Brooks: [cbrooks@northwardcapital.com](mailto:cbrooks@northwardcapital.com) 02 8088 4499

### **Important Legal Notice:**

This document is intended for use by wholesale clients only and must not be made available to any retail client. You must not pass on any advice contained in this document to any retail client. This document has been prepared by Northward Capital Pty Limited (ABN 97 113 618 938; AFSL 294368) ("Northward") in good faith (where applicable) using information from sources believed to be reliable and accurate and based on information that are correct and estimates, opinions, conclusions or recommendations that are reasonably held or made as at the time of preparation. However, no representation or warranty (express or implied) is given by Northward as to its accuracy, reliability or completeness (which may change without notice). To the maximum extent lawful, no liability (whether arising in negligence or otherwise) is accepted by Northward, its related bodies corporate or their respective employees and officers for any error, omission, loss or damage (directly or indirectly) caused to any person acting on the information provided. Opinions expressed constitute Northward's judgment at the time of presentation and may change. This document may not be reproduced or copies circulated without Northward's prior authority.

# NORTHWARD CAPITAL



**Oil and Gas in the Highlands of PNG**



**Some spectacular PNG infrastructure. An oil pipeline 500m above the valley floor and 500m across.**

# NORTHWARD CAPITAL



**Helicopters are the workhorse of the PNG Oil and Gas industry**



**Existing Gas Processing facilities**

# NORTHWARD CAPITAL



The local Hulis welcome officials to the Landholders Conference at Hides.



The Chief Minister of the Southern Highlands Province and the Federal Minister for Enterprise at the Landholders Conference at the Hides Gas Field