

PNG LNG Quarterly  
Environmental and Social Report

Second Quarter

2012



**PNG LNG**

*Energy for the World. Opportunity for Papua New Guinea.  
Eneji Bilong Wol. Luksave Bilong Papua Niugini.*



## Working together to achieve success

“The workers, suppliers and stakeholders involved in the PNG LNG Project have built a strong team over the last two years. We respect and understand each other’s roles and share in each other’s successes.”



**Decie Autin, Project Executive, Esso Highlands Limited**

Since construction started in 2010, the Papua New Guinea Liquefied Natural Gas (PNG LNG) Project (the Project) has built a unified team of workers, contractors, community members and other stakeholders. This team is now enabling the delivery of key Project milestones and environmental, social and health commitments that will contribute to a sustainable future for Papua New Guinea.

This is the tenth PNG LNG Quarterly Environmental and Social Report, which outlines how Esso Highlands Limited, as operator of the US\$15.7 billion Project, is delivering on the Project’s social, environmental, health and safety commitments. As a subsidiary of Exxon Mobil Corporation, Esso Highlands Limited is responsible for the Project’s construction and operation and is developing the Project with co-venturers: Oil Search Limited, National Petroleum Company of PNG (Kroton) Limited, Santos Limited, JX Nippon Oil and Gas Exploration Corporation, Mineral Resources Development Company Limited and Petromin PNG Holdings Limited, and their affiliates.

### Workforce development

With construction activities at their peak, more than 17,600 people are now working together to deliver on the Project’s commitments across multiple project sites. Of those workers, close to half are Papua New Guineans, with Landowner Companies (Lancos) continuing to provide more than 70 percent of the total Papua New Guinean workforce.

**17,600+** people make up the total Project workforce

During this quarter, the Project delivered more than 950 courses equating to almost 147,000 training hours to help prepare the workforce for construction and operations roles. More than 10,000 Papua New Guinean citizens have undertaken training on the Project-to-date, bringing the total training hours to more than 1.3 million and the total number of courses delivered to more than 5,000.

The Port Moresby Construction Training Facility now boasts more than 1,600 graduates, with 30 percent female. Of these, more than 300 graduates have achieved the

internationally recognized Technical and Further Education (TAFE) Australia Certificate Level I in Resource and Infrastructure Operations, while 35 have achieved an Australian Quality Training Framework standard Certificate Level II in General Construction and Civil Construction.



**Port Moresby Construction Training Facility graduates**

The Project’s first intake of Operations and Maintenance trainees, initially recruited in mid-2010, is almost halfway through completing Advanced Skills training in Nova Scotia, Canada while the second intake is participating in the Foundation Skills Program in Papua New Guinea.

As work is completed on the Project, the demand for a large workforce will reduce. However, the extensive training the Project has provided to workers during the past two years has given them the skills needed to take advantage of other opportunities. This includes areas such as other mining and oil and gas projects, or government infrastructure projects. The Project’s capacity building and livelihood development programs are also supporting communities with local business development.

### Growing Papua New Guinean businesses

The work of the Enterprise Centre and the Project’s Business Development team has played an important role in promoting local participation in the Project, with approximately 183 million Kina (US\$88 million) in Project-related spend with Lancos this quarter and 1 billion Kina (US\$480 million) to date.

This has contributed towards a total in-country Project-related spend with both Lanco and non-Lanco suppliers reaching almost 5 billion Kina (US\$2.4 billion) to date.

## 5 billion Kina spent in Papua New Guinea to date

During this quarter, the Enterprise Centre achieved its own important milestone, completing its 200th business assessment report since it began in 2010. Overall, the Centre achieved 1,002 training days – a 67 percent increase from the first quarter 2012. This is due in part to the growing number of women’s organizations taking advantage of the training and business assessment opportunities the Centre offers.

During May, the Centre’s Annual Road Show focused on helping companies based outside of the Project impact area participate in Project-related business opportunities.

Meanwhile, in addition to Project-related activities, Lancos are taking advantage of business opportunities not directly related to Project construction. For example, four Lancos from the LNG plant site villages have formed a profit-sharing partnership with the long-standing local retail and wholesale company, RH Trading Limited, to operate three commissaries at the LNG plant site. The commissaries, which opened in April, are selling small grocery items to LNG plant site workers who previously had to travel to Port Moresby to buy supplies.

## Construction

The Project remains on target for the 2014 start-up window, achieving numerous construction milestones this quarter. This included completing installation of the 407-kilometre offshore pipeline, the jetty trestle, the north and south LNG tank outer shells and roof installation; and over 80 percent of the Drilling Rig 702 set up on Wellpad B.

Key construction highlights are outlined in Table 1.

## 407-kilometre offshore pipeline installation completed



Drilling Rig 702 at Wellpad B

Table 1 – Contracts and construction highlights

Contract	Contractor	Major activities during the second quarter 2012
Upstream Infrastructure (C1)	Clough Curtain Brothers Joint Venture	Majority of earthworks along the Wellpad Access Road completed. Completion and handover of the process area of the Hides Gas Conditioning Plant to the Hides Gas Conditioning Plant and Hides Wellpads contractor.
Offshore Pipeline (EPC2)	Saipem	Completion of the 407-kilometre offshore pipeline installation.
LNG Plant and Marine Facilities (EPC3)	Chiyoda and JGC	Completion of the outer shells and roof installation for the two LNG tanks. Completion of the 2.4-kilometre jetty trestle.
Hides Gas Conditioning Plant and Hides Wellpads (EPC4)	CBI Clough Joint Venture	Concrete pouring for the equipment foundations began in the utility area. Structural steel and underground piping installation commenced.
Onshore Pipeline (EPC5A)	SpieCapag	More than 170 kilometres of welding completed on the 292-kilometre pipeline. Almost 180 kilometres of the pipeline Right of Way cleared and graded. The third and largest of four horizontal directional drilling operations completed under the Mubi River.
Komo Airfield (EPC5B)	McConnell Dowell and Consolidated Contractor Group	More than 800 metres of runway length completed. Completion of 75 percent of the steel erection for the support facilities.
Associated Gas Development	Various	Construction began at the Gobe Production Facility. Completion of commissioning and performance testing of the triethylene glycol unit and associated gas cooler at the Kutubu Central Processing Facility. Two new platform generators commissioned at the Kumul Marine Terminal.
Drilling (new wells and workovers)	Nabors Drilling International Limited	Set-up of the first drilling rig on Wellpad B. Second drilling rig began the 800-kilometre journey along the Highlands Highway to the Hides area.

## Safety, health and security

The Project had the safest quarter to date, despite construction being at its peak and achieving over one million work hours per week.



**Over 33,000 pipe joints safely transported from Malaysia to Papua New Guinea**

This improving safety trend is attributed to ongoing improvements in core safety processes related to construction activity, and the commitment of Project workers to take care of themselves and each other. For example, during this quarter the Project initiated regular Safety Best Practice meetings as part of the Leading Indicators for Higher Hazard Activities program established during the first quarter 2012.

Meanwhile, an Operations Centre was established in Hides to help coordinate security and journey management in the northern Project areas.

The Health team is supporting Project contractors as they move construction activities and camps along the onshore pipeline. This includes assessing hygiene and food and water quality as new worksites and camps are established and ensuring the quality of pre-employment medical screening and health assessments. The Health team is also working with contractors and the Project's medical provider to ensure adequate medical resourcing is provided at Upstream work locations.

Tuberculosis diagnosis significantly improved during this quarter, through revised diagnostic and contact tracing procedures. This included the introduction of GeneXpert® technology to both the Project and the Kikori Hospital as part of the 'Partnership for Health' agreement with the Papua New Guinea Institute of Medical Research.

The GeneXpert technology significantly reduces the diagnostic time taken to obtain a result for suspected tuberculosis from weeks to hours, and with 99 percent accuracy. This will assist with the effective diagnosis and management of tuberculosis both within the Project and in the community.

Communities will also benefit from the construction of the National Infectious Disease Diagnostic and Research Laboratory at the University of Papua New Guinea School of Medicine and Health Sciences in Port Moresby, which was funded by Esso Highlands Limited and will be fully operational by the fourth quarter 2012.

## Social development

The Socioeconomic team continues supporting community development committees and expanding training programs for Papua New Guineans through initiatives such as targeted training opportunities for women and Personal Viability training. The latter helps participants better manage their time and money, foster better relationships between family members, clans and social groups, and become more confident about starting their own micro income-generating projects. So far more than 560 people from the Hides, Komo, Kutubu, Moran and LNG plant site areas have participated in Personal Viability training.

Also, two women, Cathy Alex and Doris Pipi from the Southern Highlands Province, attended a five-week Global Women in Management program in Washington DC with Project sponsorship, this quarter. The program is specifically designed to help women from developing countries improve their economic participation within their country.

The Project is continuing its Support to Schools program by donating cabinets filled with school reading materials, as well as water tanks, to schools in the LNG plant site villages. Through the combined efforts of the Project and its contractors, a new purpose-built elementary school building was also constructed and opened in Hides this quarter, catering to children in pre-school, grade 1 and grade 2.



**The students of Para Elementary School at the official opening ceremony**

In addition to supporting schools, the Project donated US\$300,000 to Papua New Guinea's Urban Youth Employment Program. The Program provides pre-employment training and apprenticeships to at-risk young people in Papua New Guinea's National Capital District. The Project has committed a total of US\$900,000 to support this Program.

## Environmental performance

During this quarter, the Project's first independent weed review evaluated the implementation and effectiveness of the Project's Weed, Plant Pathogen and Pest Management Plan as well as contractors' weed management programs. The review found that Project and contractor facilities generally showed compliance with the Plan, including high levels of weed hygiene noted at worksites and a strong focus by contractors on achieving positive weed management outcomes.

The Lender Group's Independent Environmental and Social Consultant (IESC) also monitored conformance with the Project's environmental and social commitments during its sixth site visit, conducted in March 2012. The report from the visit is available on the Project website and outlines the IESC's findings from inspections of selected worksites and meetings with Project workers and involved communities.

This quarter, the Project awarded a contract for the provision of waste collection services and operation of the Hides Waste Management Facility. Waste oil processing also commenced at facilities in Lae and Port Moresby following Project review and approval. Meanwhile, Project contractors are identifying opportunities to increase recycling. For example, the Onshore Pipeline contractor is re-using packaging cardboard to wrap and protect bales of tin cans and plastics during their transfer to third party processing facilities. At the LNG plant site, the success of a biodigester for treating food waste has led to procurement of a second unit. Approximately two tonnes of composted material removed from the first biodigester was used as fertilizer on land surrounding the LNG plant site.

Worksites across the Project marked World Environment Day on June 5 with local activities including a can recycling competition, which resulted in 59 kilograms of cans collected and donated for recycling at Hides.



Cleaning up Project sites on World Environment Day

With the start of drilling preparation works this quarter, training and awareness sessions were conducted with the Drilling contractor covering topics such as animal protection and weed identification. The Drilling team also undertook formal Project-led spill response training. Arrangements were made with a third party vendor to provide spill response support services for spills that exceed on-site capabilities, ensuring that appropriate spill response capacity is in place before drilling commences.

Reinstatement has been another key activity this quarter as construction work finishes at a number of Project worksites.

## Stakeholder and community engagement

Livelihood restoration activities were a highlight this quarter with the Project distributing nearly 28,000 sweet potato cuttings, 940 cassava cuttings, 1,700 pineapple offshoots (slips), 530 orange/mandarin seedlings, 340 kilograms of corn, 260 kilograms of peanuts and 2.1 kilograms of temperate climate vegetable seeds in the Hides and Komo areas. During the past two years, the Project has focused on propagating plants and livestock for livelihood restoration activities. The emphasis now also includes encouraging villagers to use their skills to generate incomes for themselves and their communities. In the longer term, it is anticipated that such micro-businesses will become self-sustaining, without any need for Project support.

During this quarter, the Project registered and categorized 100 grievances, which was a 23 percent decrease from last quarter. The decrease in grievances may be attributed to factors such as two major construction contractors completing their work and the near completion of land access activities.

The Project's water taskforce continues to collaborate with communities to address water-related grievances and potential construction impacts to watercourses. This quarter, an additional 14 water structures were constructed, bringing the number of water structures built for communities in the Hides and Komo areas to 61.

The Project's engagement with communities and other stakeholders to keep them informed of Project activities and reinforce safety messages continues. For example, during this quarter the Project launched a monthly newspaper column from Esso Highlands Limited Managing Director, Peter Graham. The column, entitled 'Yumi Stori long PNG LNG' (Let's have a chat about PNG LNG), updates readers on the Project's construction progress and community programs. The first column was published in the two daily newspapers, *The National* and the *Post Courier*, and was translated into Tok Pisin for the *Wantok Nius*.

## Almost **28,000** participants in engagement activities to date

Also this quarter, Papua New Guinea's national rugby league team, the Kumuls, visited Onshore Pipeline worksites over a seven-day period. Their visit attracted national newspaper coverage.



**The Kumuls visiting Project worksites to reinforce key safety messages**

In collaboration with the Papua New Guinean Department of Foreign Affairs, the Project provided a construction update and LNG plant site tour to 15 representatives from foreign missions in Papua New Guinea, including ten Heads of Mission.

Following engagements with the Hela Transitional Authority and the Central Provincial Government during the first quarter 2012, the Project also met with the provincial administrations for the Gulf Province and Southern Highlands Province with the aim of working collaboratively with them to achieve positive development outcomes in areas impacted by Project induced in-migration. Meanwhile, Kikori-based government agencies implemented influx control measures including a five-year development plan and in-migration public awareness activities in concert with local community groups. The Kikori District Local Level Government has also developed an in-migration policy.

As the Project moves from the construction phase towards operational activities, building a culture of teamwork becomes increasingly important for the long-term workforce. The Project is engaging with workers, community members and other key stakeholders to foster teamwork and drive successful and sustainable outcomes for Papua New Guinea.







**PNG LNG**

**[www.pnglng.com](http://www.pnglng.com)**

Port Moresby - Project Headquarters  
Esso Highlands Limited  
Lawes Road, Munidubu Street  
GPO Box 118  
Konedobu, Port Moresby  
Papua New Guinea

Email: [pnglngproject@exxonmobil.com](mailto:pnglngproject@exxonmobil.com)

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