

**PNG LNG Quarterly  
Environmental and Social Report**  
Third Quarter 2010



**PNG LNG**

*Energy for the World. Opportunity for Papua New Guinea.*

## Working Together

**“By engaging with the citizens of Papua New Guinea as neighbors, and community development partners we can ensure that the PNG LNG Project results in sustainable improvements and economic growth for the nation”.**

**Peter Graham, Managing Director, Esso Highlands Limited**

This is the third Papua New Guinea Liquefied Natural Gas (PNG LNG) Project (Project) Environmental and Social Quarterly Report demonstrating how Esso Highlands Limited (Company), as operator of the Project, is delivering on commitments in the areas of construction, safety, health, environment and social management.



Esso Highlands Limited, a subsidiary of Exxon Mobil Corporation, is constructing and will operate the Project on behalf of the co-venturers – Oil Search Limited, Kroton No. 2 Limited, Santos, JX Nippon Oil and Gas Exploration Corporation, Mineral Resources Development Company and Eda Oil.

The Project has completed its third quarter of a four-year construction period. Key activities this quarter (July to September, 2010) included further development of the Environmental and Social Management Plan (ESMP) to incorporate additional environmental monitoring requirements as well as lessons learned from field programs. The revised ESMP was submitted to the Lender Group and to the Department of Environment and Conservation (DEC), Papua New Guinean Government in August. The DEC issued an interim approval of the Plan in September, and the ESMP will be publically disclosed on [www.pnglng.com](http://www.pnglng.com).

Another significant activity during this quarter was the release of the first report issued by the Independent Environmental and Social Consultant (IESC) following their site visit in May, 2010. The IESC is an independent auditor group working on behalf of the Lender Group. The purpose of the visit was to monitor compliance with Project environmental and social commitments made during Project development. The IESC recognized the Project's commitment to avoiding adverse social, environmental, health and safety impacts that could be caused by Project activities. Non-conformances were reported in relation to the milestone schedule, waste management and resettlement. The Project is using these findings to identify appropriate actions.

As part of its continuous and transparent flow of information to elected Papua New Guinean officials, the Project Management Team provided a Project update to the Papua New Guinean Cabinet's Ministerial Committee on the Economic Sector in August. It is expected that these reviews will be conducted several times each year.

Bi-monthly meetings continue to be held with key Government agencies and contractors to manage the effective and efficient mobilization of Project labor into Papua New Guinea. A major initiative adopted by the Government during this quarter will enable Papua New Guinean consulates to accept bulk packages of Work Residential Employment visa applications from offshore locations such as Manila, Kuala Lumpur, Beijing and Brisbane. This process will facilitate visa processing for expatriate workers employed by the Project.

## CONSTRUCTION

Third quarter construction activities continued to focus on improving and upgrading infrastructure including roads and bridgeworks, telecommunications and the installation of pioneer and construction camps. A major milestone was the completion of two wharves at Kopi that will be used to receive the line pipe for the construction of the gas and condensate pipelines. In addition, the first load of finished line pipe arrived in Port Moresby in September.

Other highlights were; the completion, commissioning and handover to the contractor of the 800 person Pioneer Camp at the LNG plant site, and land clearing and earthworks activities commencing at the Hides Gas Conditioning Plant (HGCP) site. Table 1 provides an overview of all work that was undertaken.

*Offloading of first line pipe delivery*



*Table 1 – Contracts and main construction activities*

Contract	Contractor	Major Activities During the Third Quarter 2010
Upstream Infrastructure (C1)	Clough Curtain Brothers Joint Venture	The completion of two wharves at Kopi and the associated laydown area. Site clearing and earthworks activities at the HGCP site.
	Telecommunications (EPC1) – TransTel Engineering	Completion of a permanent communication facility at the LNG plant site, establishing voice and data services at the LNG plant site Pioneer Camp.
LNG Plant Early Works (C2)	Curtain Brothers Papua New Guinea Limited	LNG plant site Bypass Road and fencing completed. Papa and Lea Lea Road upgrades progressed.
Offshore Pipeline (EPC2)	Saipem	Manufacture of 190 kilometers (118 miles) of line pipe, of which 100 kilometers (62 miles) is complete with internal coating and concrete weight coating.
LNG Plant and Marine Facilities (EPC3)	Chiyoda and JGC Corporation	Site preparation works commenced. Jetty subcontract awarded.
Hides Gas Production Facilities and Hides Wellpads (EPC4)	CBI Clough Joint Venture	Detailed engineering, procurement and planning progressed at the contractor's main project offices in Singapore and Brisbane.
Onshore Pipelines and Infrastructure (EPC5A)	SpieCapag	Clearing activities commenced for the main pipeline route, with the resulting timber used primarily for temporary camp construction. The first load of finished line pipe arrived in Port Moresby. The contractor's Shore Base Camp at Kopi became operational. Work began on the access road to Kopi Scraper Station.
Komo Airfield (EPC5B)	McConnell Dowell and Consolidated Contractor Group Offshore	Clearing of the runway centerline completed. Clearing for camp areas and fencing of the Komo Airfield site began.

Contract	Contractor	Major Activities During the Third Quarter 2010
Oil Search Limited Associated Gas Development	Aker Solutions	Completed detailed Hazard and Operability Study and model reviews for the Associated Gas scope. Design review plans were finalized for the new offloading buoy system.
Drilling (new wells and workovers)	Nabors Drilling International Limited	Finalized detailed drilling and completions engineering designs. Progressed drill rig optimization.
Port Moresby Construction Training Facility	Eos	Construction is in the final stages, with power and water systems installed and commissioned in all buildings.

*Completed LNG plant site Pioneer Camp at night*



## SAFETY AND SECURITY

In support of the Project's Safety Vision – “Nobody Gets Hurt” – a key focus during the third quarter was gathering lessons learned from early works activities to date and sharing them with contractors preparing to mobilize. Safety alerts, improved hazard identification, a better understanding of risks specific to working in Papua New Guinea, and more effective communication about hazards and mitigation measures all contributed to a downward trend in incidents.

**More than one  
million hours  
worked with ZERO  
Lost Time Injuries**

*LNG Plant Early Works team celebrating  
one million hours worked without a Lost Time Injury*



During this quarter, the LNG Plant Early Works team achieved over one million hours worked, almost double the efforts of the previous quarter, and with zero Lost Time Injuries.

However, some Project activities were impacted as a result of two situations involving Papua New Guinean citizens and workers that led to work interruptions. In August, work halted over resettlement concerns and claims regarding working conditions. The Papua New Guinean Constabulary maintained order and protected the wellbeing of those on the site and in the adjacent community. There was a second incident in September when equipment was damaged at a quarry site in Kaiam, and the Project's Security team supported police with an investigation.

## ENVIRONMENTAL PERFORMANCE

Pre-construction surveys, monitoring, verification and mitigation underpin the Project's commitments in the area of environmental performance. Interim approval of the Project-wide Environmental Management Plans, including the Environmental Monitoring Plan by the DEC, was a key achievement in the third quarter.

The Project has established a strong reporting culture, which resulted in 126 environmental and regulatory incidents being recorded in this quarter, the majority of which were classified as Severity Level <0 (very minor). There were nine environmental near misses, all related to preventing spills from reaching a permeable surface. Identifying and addressing the root cause of each spill, no matter how minor, continues to be a priority so that spills can be prevented from occurring.

To ensure environmental mitigation and management requirements are implemented throughout the Project, site verifications continued across all active worksites. Over 200 summary site verification reports were completed, listing major field observations, non-conformances and required actions. Additional independent verifications by contractors brought the total number of verifications to over 300 for the quarter.

Project Field Environmental Advisors have been stationed at Kopi, Gobe, the LNG plant site, and Hides. They are providing reports summarizing verification activities, which replace verification visits in these locations.

In recognition of the important biodiversity resources in the Project area and Papua New Guinea as a whole, the Project is taking a number of steps to protect these resources. The Quarantine Management Program was finalized during this quarter, and the Biodiversity Strategy is in the final stages of review and approval. Once finalized, consultation will commence with stakeholders such as Government, non-government organizations, industry and communities.

*Biodiversity of Papua New Guinea – Broad-Striped Tube-Nosed Fruit Bat, Rhododendron, Modest Forest Dragon*



During the third quarter, site-based waste management practices also continued to evolve. Four wastewater treatment plants became operational at camps in Oiyarip, IDT10, Wellpad A and Gobe.

The Project also received notice from the Director of the Papua New Guinea National Museum and Art Gallery that its obligations under the Permit for Salvage Archaeology for the Upstream Scope of the PNG LNG Project were deemed complete. This approval follows the conduct of significant Project cultural heritage survey and salvage efforts across the Hides portion of the Project area.

## SOCIAL DEVELOPMENT

The Project is investing and participating in a broad range of initiatives to promote economic growth and create positive, sustainable impacts in areas including health, education, agriculture, local economic development, women's economic empowerment, and capacity building of individuals and community institutions.

In the area of community health, the Project approved the construction of a Diagnostic Laboratory at the University of Papua New Guinea's School of Medical Sciences to diagnose malaria, tuberculosis, cholera and other diseases. This will be the first integrated infectious disease diagnostic research facility in Papua New Guinea.

The Project continued its collaboration with the Papua New Guinea Institute of Medical Research in the fight against pneumonia, sponsoring their upcoming research program aimed at identifying the most effective vaccine against the specific strain of pneumonia in Papua New Guinea. This research precedes the Papua New Guinean Government's planned selection of a vaccine against pneumonia in 2012.

Support was also provided to the Port Moresby Cancer Relief Society and Friends That Care, which raises awareness around Human Immunodeficiency Virus (HIV)/Acquired Immune Deficiency Syndrome (AIDS) through music and media productions. The Project continues to support Rotarians Against Malaria with the logistics involved in malaria prevention and education programs, for example, through the distribution of bed nets to remote villages.

Providing a cohesive and considered approach to community investments that ensures resources are allocated efficiently, effectively and equitably is a priority. In September, the Project established a Community Investment and Contributions (CIC) Committee and Working Group to provide internal coordination, strategic oversight and approval of Project-funded community support activities.

The Project's Community Development Support Plan (CDSP) was also provided to the Lender Group. This Plan is aimed at providing opportunities for sustainable development benefits while avoiding or reducing the risk of adverse social impacts on Papua New Guinean communities during Project construction and production.

The Project achieved significant progress with grievance management during this quarter, implementing its Community Grievance Procedure, which covers the reporting, assessment and management of grievances. Training and awareness sessions were attended by close to 200 Project employees and contractors. An information card was also developed for community members, summarizing the grievance process and providing concise contact details and instructions for submitting a grievance.

*Papua New Guinea flag ceremony for Independence Day celebrations at Kopi Shore Base*



**Hau bai yu tok aut long hevi na wari bilong yu**

**Pilis kontektim mi**

**Nem bilong me:**  
**Peles/haus lain:**  
**Mobile namba bilong mi:**  
**Hevi na wari bilong mi:**  
**Dei:**

**Hau bai yu tok aut long hevi na wari bilong yu**

**We bilong stretim hevi na wari**

**Projek Opla**

Projek Opla	Phon	POM Adres
Hides/Komo	2786008/0022	EHL Grievance PO Box 118, Port Moresby Papua New Guinea
Moro/Mendi	2782135/0030	
Kepi/Gube	2786923/0952	
LNG Plant	3218150	Fax: 3208457

**Givim dispela pepa long:**  
**Dei:**

Stakeholder engagement activities during the third quarter continued to be based on proactively communicating about current and proposed Project activities, addressing stakeholder concerns and seeking opportunities for shared outcomes. The Land and Community Affairs team held approximately 700 formal and impromptu meetings with landowners, spanning all work locations. Landowners have been primarily concerned about business development and employment opportunities.

Community engagement for this quarter focused on the Porebada, Papa, Boera and Lea Lea villages near the LNG plant site. These regular meetings provided a forum for updates on the LNG plant site Pioneer Camp construction work and plans for the near future, as well as an opportunity for open communication with these communities.

In the Hides and Komo areas, a Traffic and Construction Site Safety Awareness Program was implemented focusing on schools, churches, local communities and Project drivers. Direct engagement, drama skits, and fun children's games with a safety message supplemented posters and flyers.

Presentation at Lea Lea Elementary School

Children participating in literacy development activities



A Driver Traffic Safety Awareness Program was conducted in August at the LNG plant site, prior to the opening of the new Bypass Road. The Bypass Road replaced the existing road, which ran through the site, and ensures uninterrupted travel for people living on either side of the site.

As part of the Project's support for empowering women to drive positive economic change in their communities, a number of Papua New Guinean women were sponsored to attend the Australian Women in Agriculture's annual meeting in August. This event allows female farmers to share lessons learned, best practices, and network with peers. In September, along with partner organization the Papua New Guinea Chamber of Mines, the Project began a skills development needs assessment, as a precursor to launching a training program for women in communities around the LNG plant site, including Porebada, Boera, Papa and Lea Lea.

**38,000 books  
sorted and packaged  
for Children's  
Libraries**

The Project also launched its Workforce Volunteer Program in September with Buk Bilong Pikinini, a library that provides education services and literacy development to children who otherwise would not be able to obtain formal education. Over four days, 59 members of the Project's workforce and their families sorted and packaged over 38,000 books for distribution to Buk Bilong Pikinini libraries in Papua New Guinea.

## DEVELOPING PAPUA NEW GUINEAN BUSINESSES

In support of the Project's National Content objectives, more than 1.7 million Kina (US\$660,000) has been invested through the Enterprise Centre for building the capacity of local businesses and establishing channels for communication between domestic businesses and Project contractors. A series of workshops held in September introduced over 600 Papua New Guinean business people to the LNG Plant and Marine Facilities contractor and its awarded subcontractors, so they could learn more about them, their scope of works, and business opportunities.

During this quarter, the Enterprise Centre assisted more than 1,500 Papua New Guinean entrepreneurs, and so

**556 million  
Kina invested this  
quarter with local  
companies**

far, almost 900 on-line expressions of interest from Papua New Guinean businesses have been registered and approximately 11,000 page logins recorded in the PNG Supplier Database ([http://www.pnglng.com/opportunities/expression\\_of\\_interest.htm](http://www.pnglng.com/opportunities/expression_of_interest.htm)).

In addition, the Project invested more than 556 million Kina (US\$210 million) in Papua New Guinean goods and services related to early works, logistics and construction activities during this quarter.

*Presentation of a certificate of attainment  
in Business Basics training*



## WORKFORCE DEVELOPMENT

The Project's workforce has doubled since the second quarter, scaling up rapidly as activities began to transition from early works/site preparation activities into the early construction phase on a number of sites. More than 3,700 Papua New Guinean citizens were employed on Project activities at the end of September, representing almost 80 percent of the Project's total construction workforce. More than two-thirds of these workers were sourced through Landowner Companies (Lancos).

**3,700  
Papua New Guinean  
citizens employed  
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construction workforce**

In addition to employing Papua New Guinean citizens for construction-related activities, the Project has recruited 22 personnel as part of a Graduate Training Development Program. These recruits are recent Papua New Guinean university graduates with degrees in Engineering, Business and Finance. Having completed an initial Project-specific training program, they have been assigned within the Project team in a variety of engineering, project control, administration and finance roles at locations including Brisbane, Singapore and Papua New Guinea.

A significant training milestone this quarter was the official opening of the Production Operations Training Centre in Waigani, Port Moresby in September. The Centre will train Papua New Guinean operations and maintenance technicians who will be recruited over the next two years for work in the LNG plant site operating facilities after Project completion and commissioning.

Finally, the new Port Moresby Construction Training Facility is on target to take its first 80 civil construction labor trainees in the fourth quarter 2010. Since training commenced in April, 2010 at the interim training facility in Gordon, 152 male and 40 female trainees have graduated with a certificate in civil construction. Approximately 2,500 Papua New Guinean citizens are expected to be trained by the end of March, 2012.

*Official opening of the Production Operations Training Centre*



*Street view of buildings at the Port Moresby Construction Training Facility nearing completion*

#### Graduate Profile

Name: Paul M Koli  
Home Province: Western Highlands  
Position: Project Controls

*"The six month training program has really changed and equipped me to be a professional and a leader for the company and also the Nation in the future. I have also developed the basic skills to work in the Western corporate environment, and how to work in a team. Not only that, but I also learned a lot about safety at the personal and corporate level which I am always conscious about now in everyday life."*





**PNG LNG**

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

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# ExxonMobil

PNG LNG is operated by a subsidiary of  
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Kroton No. 2 Limited

**Santos**  
We have the energy.



JX Nippon Oil & Gas Exploration



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