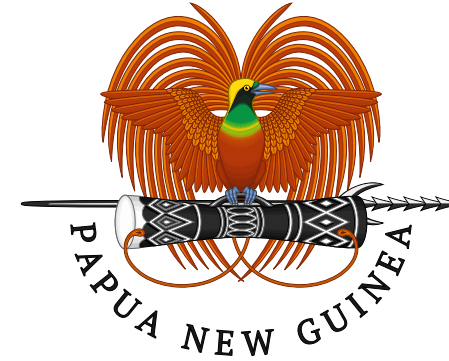


2025 PNG PETROLEUM & ENERGY CONFERENCE

8 & 9 OCTOBER 2025

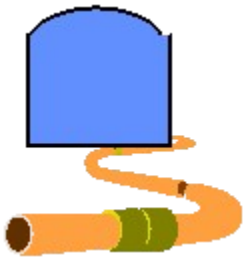
**Session 3: Explorations
Operations, Is There a Future?**

Presenter: David Manau
Secretary & A/Managing Director

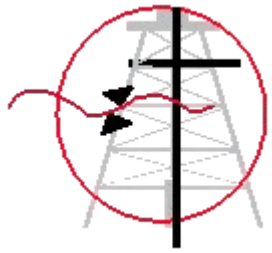


**NATIONAL PETROLEUM
AUTHORITY**



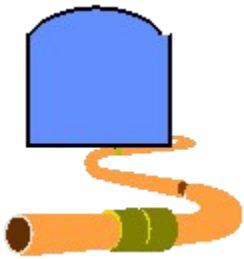


PNG's Strategic Energy Position

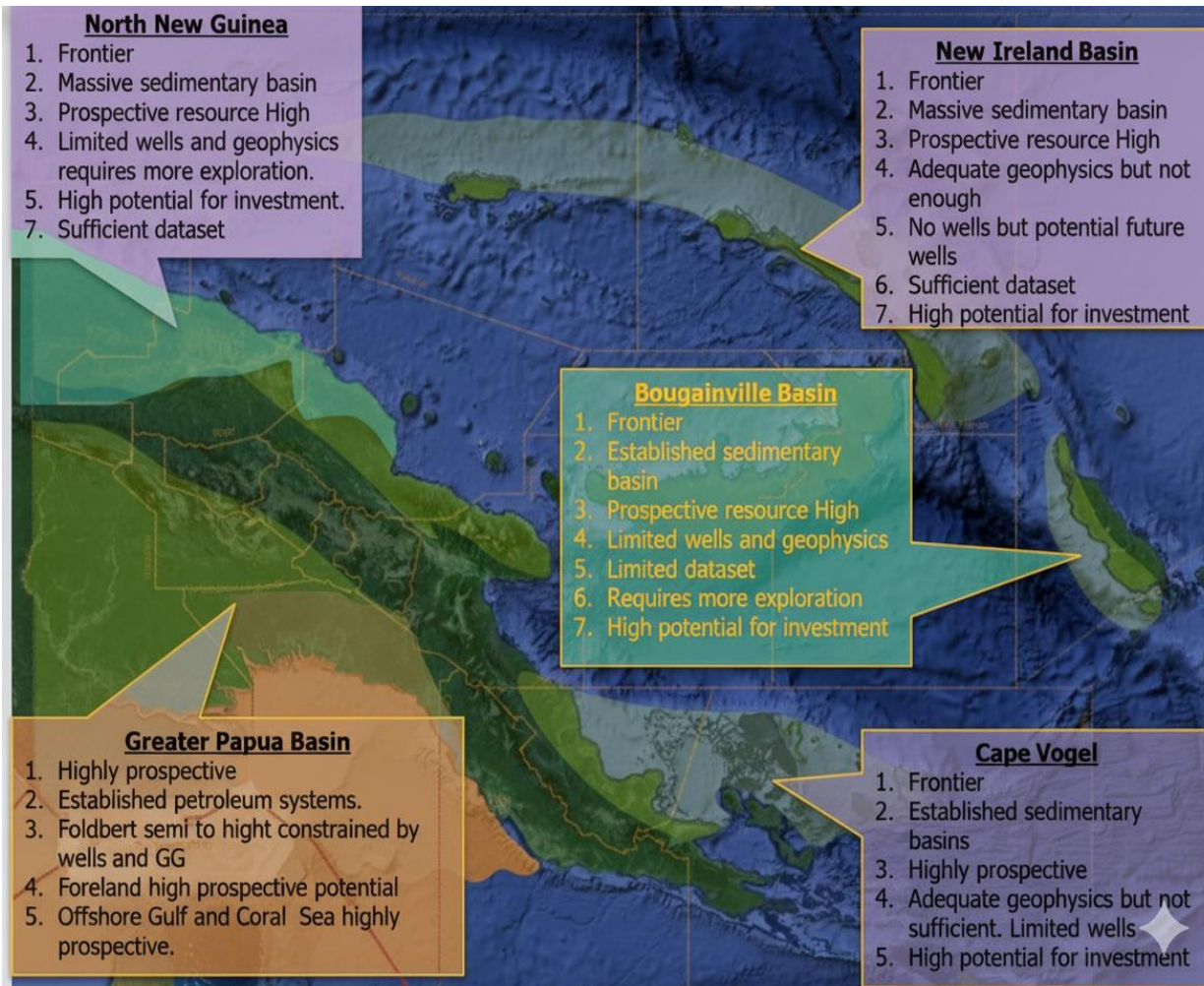
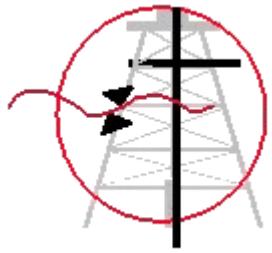


- ✓ PNG holds ~25 trillion cubic feet (Tcf) of identified gas reserves—among the largest in the region.
- ✓ Oil production began in 1991 but is now declining; national focus has shifted to LNG.
- ✓ PNG is a rising LNG exporter to Asia-Pacific markets, with growing demand.
- ✓ Kumul Petroleum Holdings Ltd (KPHL) holds State equity in all future developments.
- ✓ State Endorsement of the National Petroleum Authority (NPA): Tasked with promoting exploration and de-risking prospects in partnership with licence owners and industry partners.

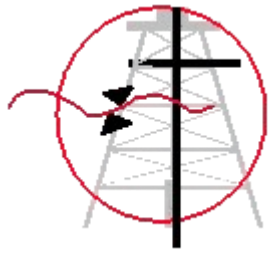
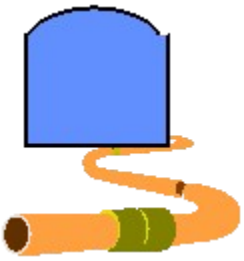




Development Footprint: *PNG's Petroleum Basins*



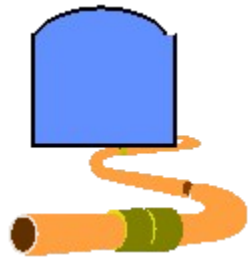
- PNG has five petroleum basins: Papuan, North New Guinea, Cape Vogel, Bougainville, and New Ireland.
- Only the Papuan Basin is currently producing oil and gas.
- The Papuan Basin contributes ~17% of PNG's GDP—highlighting its economic significance.
- Other basins are underexplored and require geoscientific data and policy incentives to attract investment.
- Unlocking even one additional basin could dramatically increase national revenue and landowner benefits.



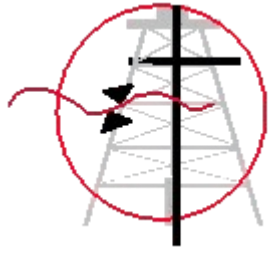
Exploration Activity (2020 – 2025)



- Exploration activity declined sharply due to global volatility and COVID-19 disruptions.
- Petroleum Prospecting Licenses (PPLs) dropped from 104 to 40.
- No high-impact exploration wells were drilled until Mailu-1, scheduled for Q4 2025.
- Focus shifted to LNG development projects: Papua LNG, P'nyang, Pasca A.
- Exploration dollars were scarce, and companies prioritized lower-risk, short-cycle investments.

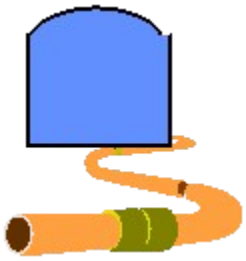


Exploration Spending & Fiscal Incentives

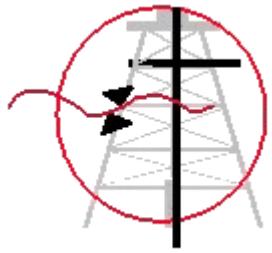


- Despite low drilling, companies invested in seismic surveys, G&G studies, and licensing.
- PNG's Income Tax Act (s155N) allowed amortization of exploration expenditure—leading to K10 billion in forgone revenue.
- This fiscal incentive kept exploration capital flowing during the downturn.
- Zero-rating of exports also supported upstream investment.
- These tools demonstrate PNG's commitment to exploration-friendly policy.





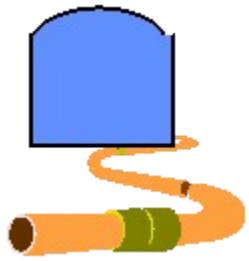
Offshore Multi-Client Seismic Surveys



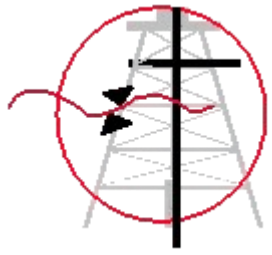
OFFSHORE MULTICLIENT SEIEMIC SURVEY



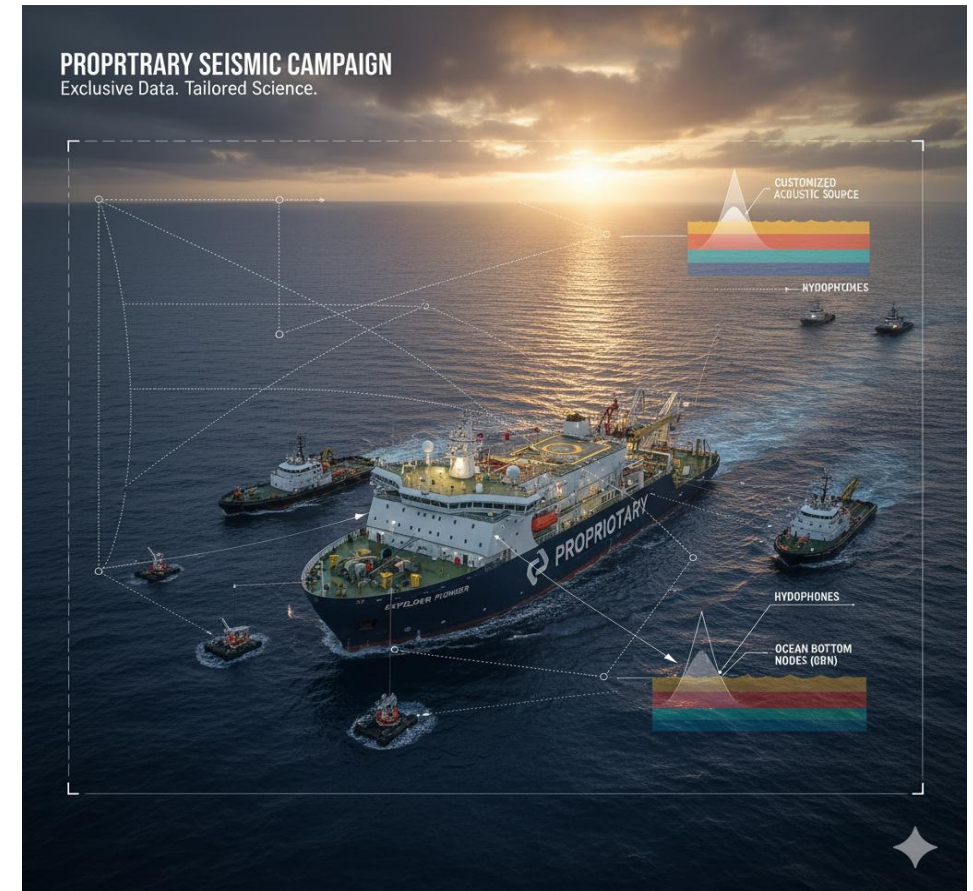
- **Painimaut 2D (2020):** A comprehensive 2D seismic survey acquired in the deepwater Gulf of Papua to map regional geology.
- **Nanamarope 3D (2023):** A high-resolution 3D seismic survey acquired to define specific drill targets.
- **Vendor-Funded & Non-Exclusive:** These multi-client surveys, initiated by seismic vendors, signal speculative but increasing industry confidence in the region.
- **Catalyst for Investment:** By spreading data costs, multi-client surveys effectively de-risk exploration, drawing a wider range of bidders for future license block allocations.
- **PNG's Next Exploration Hotspot:** The Offshore Gulf of Papua is rapidly gaining recognition as PNG's most promising new exploration frontier.

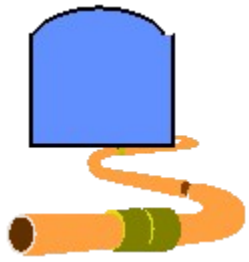


Proprietary Seismic Campaigns

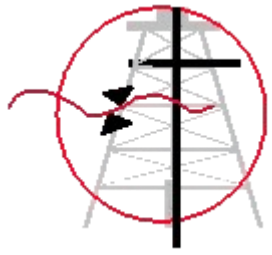


- **KPHL Enters Upstream Exploration:** Kumul Petroleum Holdings Limited (KPHL) completed its inaugural seismic campaign in the Kimu and Barikewa Petroleum Retention Licenses (PRLs).
- **AIE Optimizes P'nyang:** AIE utilized Vibroseis technology for an infill exploration survey near the P'nyang field, aiming to refine existing reserve estimates.
- **The Nature of Proprietary Seismic:** Such surveys are 100% funded by the operator, often target geologically complex reservoir systems, and necessitate extensive manual clearing of survey lines alongside robust community engagement.
- **Sustained National Exploration:** These activities highlight PNG's ongoing national commitment to resource exploration, persisting even through adverse global economic and market pressures.





Deepwater Wildcat – Game Changer

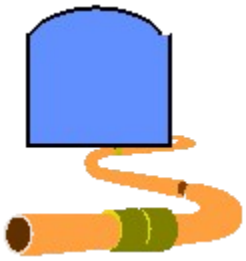


• MAILU-1

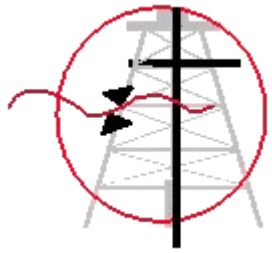
- **Mailu-1** targets a giant liquids prospect in Tertiary carbonate play.
- Requires advanced deepwater drilling: DP3 drillship, MPD system, 2,100m water depth.
- Estimated cost: \$50–\$80 million USD.
- Petronas farmed into PL 576, acquiring 50%—validating the prospect’s potential.
- Scheduled to spud in Q1 2026; could open a new offshore hydrocarbon province.

• WILDEBEEST (onshore Gulf)

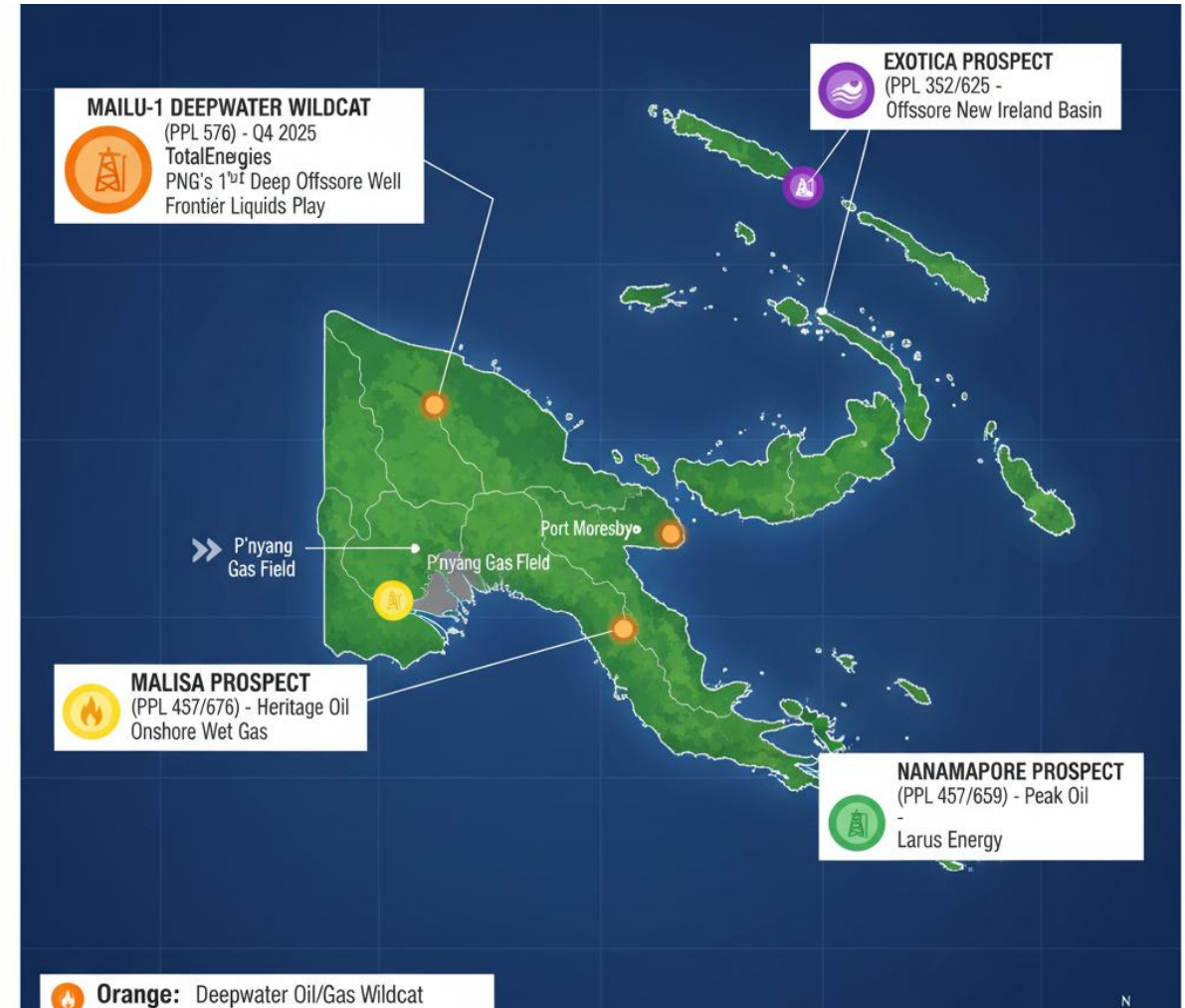
- Operator: Originally operated by TotalEnergies (now TotalEnergies EP PNG Corporation, a subsidiary of TotalEnergies SE).
- Location: Situated onshore Gulf Province, an area that is considered one of PNG's next high-impact exploration frontiers.
- Wildebeest considered a wildcat prospect, Such wells are high-risk, high-reward.
- High-Impact Potential: The prospect has been identified as having the potential for very large gas discoveries.

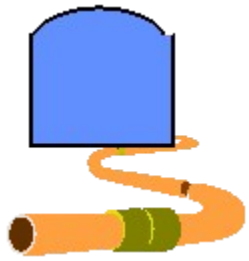


PNG Exploration Initiatives

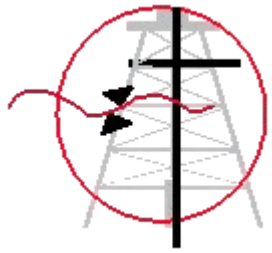


- **PPL437 & PPL676 (Malisa Prospect):** Operated by Heritage Oil, this prospect is located near P'nyang and is identified as a drill-ready prospect with approximately 2 Tcf potential, focused on wet gas.
- **Exotica Gas Prospect (PPL 352 and PPL 625):** Located in the New Ireland Basin, licenses held by Peak Oil.
- **Nanamapore Prospect (PPLs 579 and 659):** Located in Central Province, Papuan Basin, and is a Larus Energy prospect.



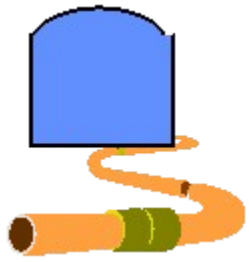


Leveraging Infrastructure & Brownfield Strategy

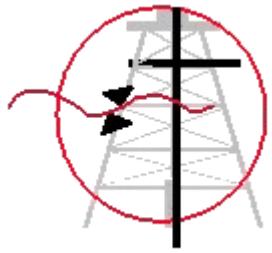


- Near-field exploration near existing pipelines and LNG plants reduces cost and risk.
- Brownfield areas offer faster time-to-market for new discoveries.
- Angore Pipeline Tie-in Project is a model for efficient development.
- Existing infrastructure can support marginal fields and domestic supply.
- Strategic use of infrastructure enhances investor confidence.



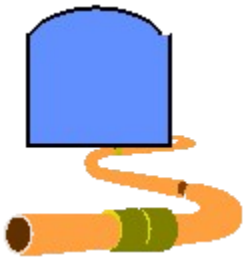


Regulatory & Fiscal Reform

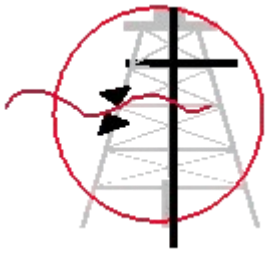


- PNG is transitioning from a concessional regime to a **Production Sharing Regime (PSR) by 2026**.
- PSR offers a different risk/reward balance—more attractive for frontier exploration.
- NPA is preparing bid rounds and facilitating MCSS permits.
- Data-driven governance improves transparency and investor engagement.
- Reforms must align with geological potential and market realities.





Way Forward: Centers on three pillars



1. Fiscal and Regulatory Reform

PNG is shifting to a **Production Sharing Regime (PSR)** by 2026, replacing the current concessional model for explorations. The National Petroleum Authority (**NPA**) will launch a new **exploration licensing bid round** in Q1 2026.

2. **Aggregate marginal fields** for LNG tie-in and domestic supply.

3. **Reviving Exploration & Reducing Risk:** support high-risk exploration projects. **Multi-client seismic surveys (MCSS)** will continue in frontier areas like the **Offshore Gulf of Papua** and to **other basins**, to reduce geological uncertainty.

4. Operational Efficiency and Domestic Impact

PNG is prioritizing a **brownfield strategy**—using existing LNG infrastructure to lower costs and speed up development. Projects like the **Angore Pipeline Tie-in** and **Agogo Tie-in project** show how future new discoveries can be efficiently integrated.