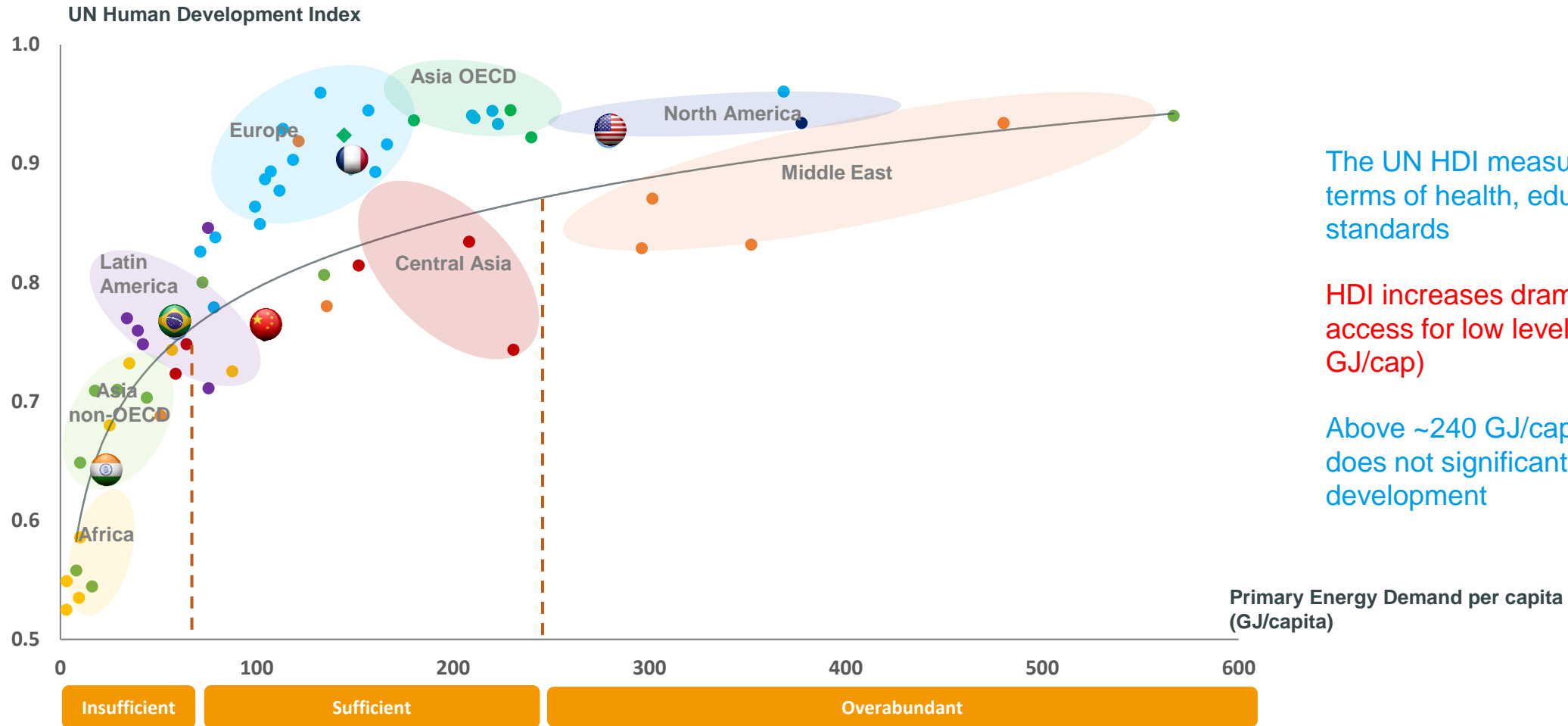
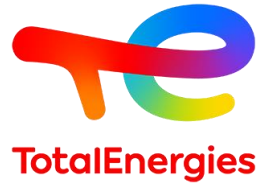


# 2024 Papua New Guinea **Investment Week**

**Aymen YAHYAOU**  
Vice President Papua New Guinea

Sydney, 6<sup>th</sup> – 11<sup>th</sup> December 2024

# Energy access is essential to human development



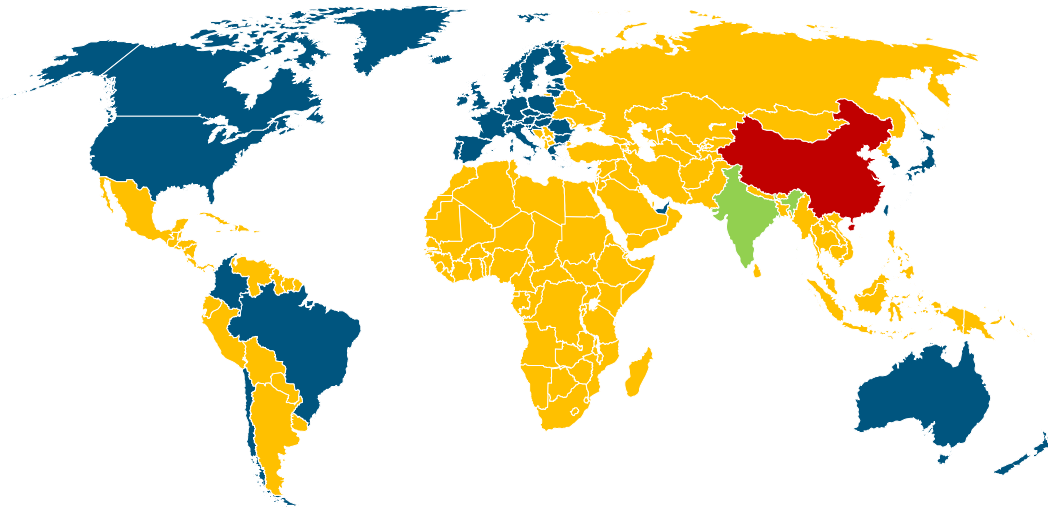
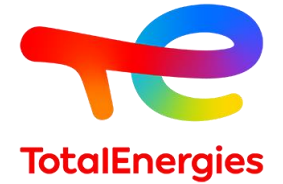
The UN HDI measures well-being in terms of health, education and living standards

HDI increases dramatically with energy access for low levels (below ~70 GJ/cap)

Above ~240 GJ/cap incremental energy does not significantly improve human development

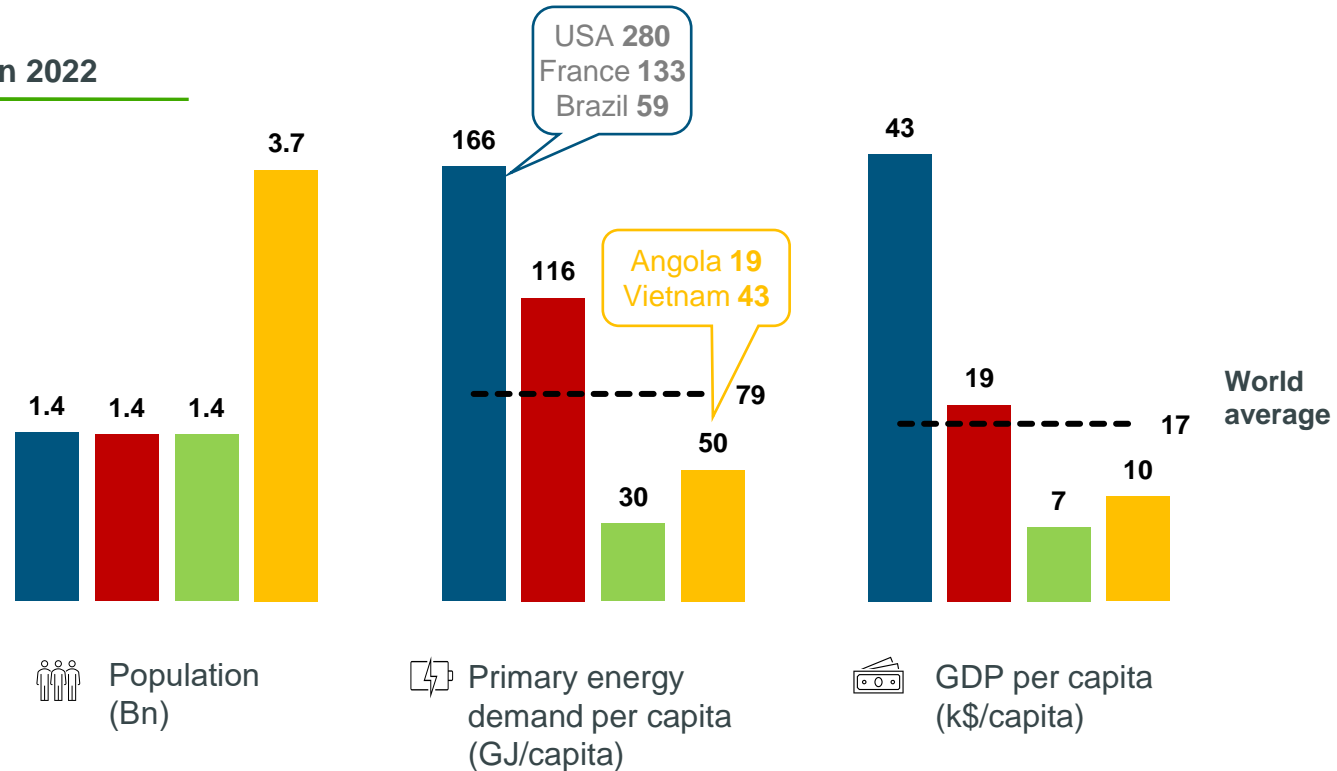
Today ~4.5 bn people have insufficient access to energy (below ~70 GJ/capita)

# Each country will follow a different energy transition path



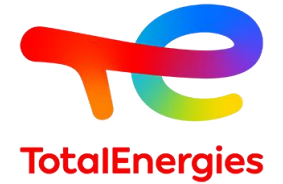
■ NZ50\* ■ China ■ India ■ Global South

In 2022

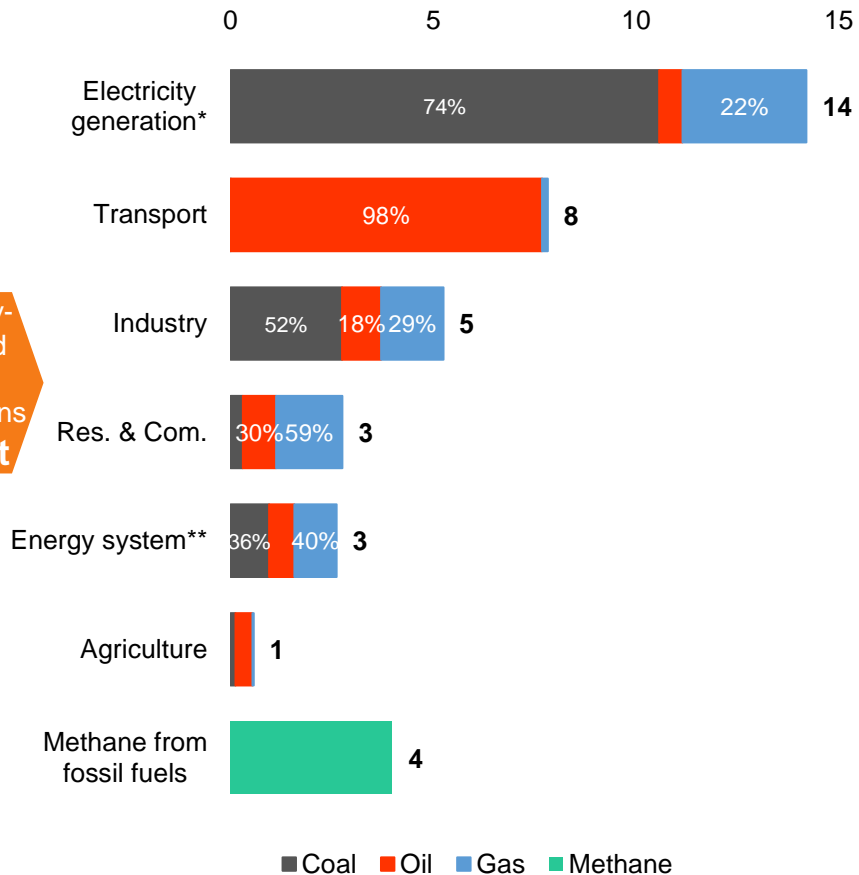
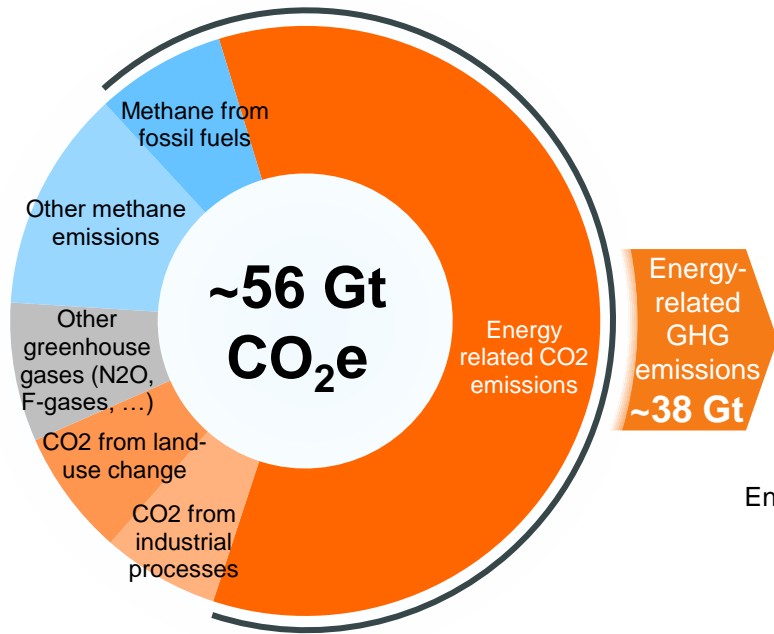


**Even countries that have committed to be Net Zero by 2050 (NZ50)\* are likely to follow different decarbonization paths**

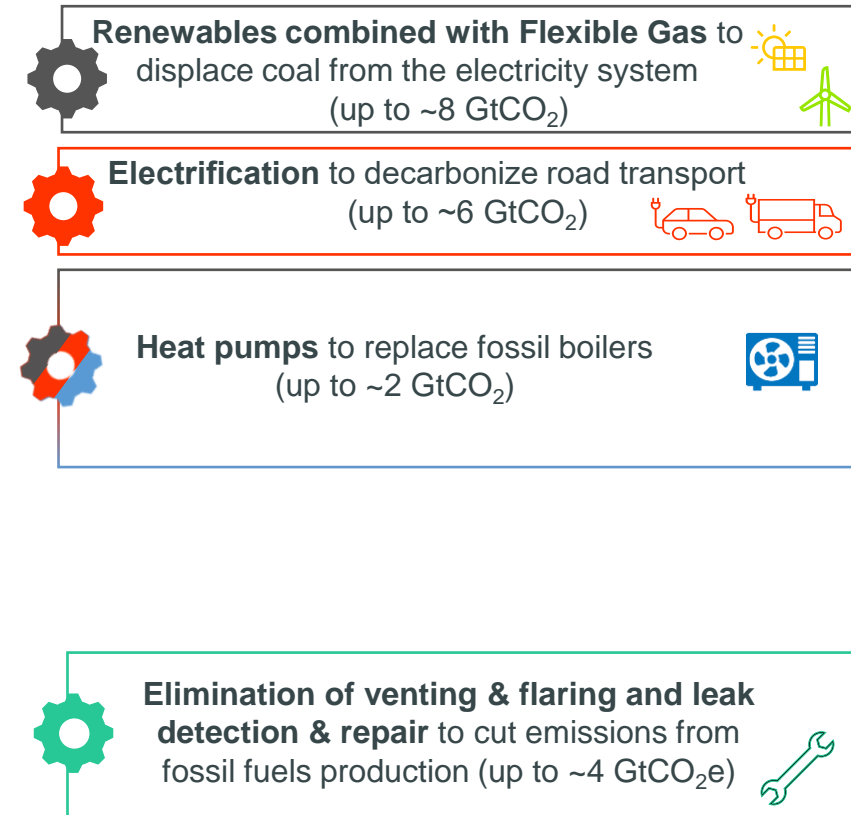
# Existing technologies, if deployed fully, could halve energy-related GHG emissions



## Global anthropogenic GHG emissions 2022 GtCO<sub>2</sub>e



## Available technologies to reduce GHG emissions and their potential impact



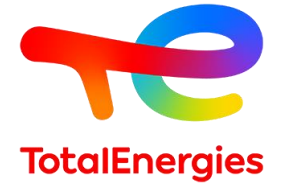
\* Including heat combined with power

\*\* Includes energy sector own use, transport losses and energy transformation

Sources: IEA, Enerdata, TTE analysis. « Methane from fossil fuels » includes methane emissions from the production and transport of fossil fuels

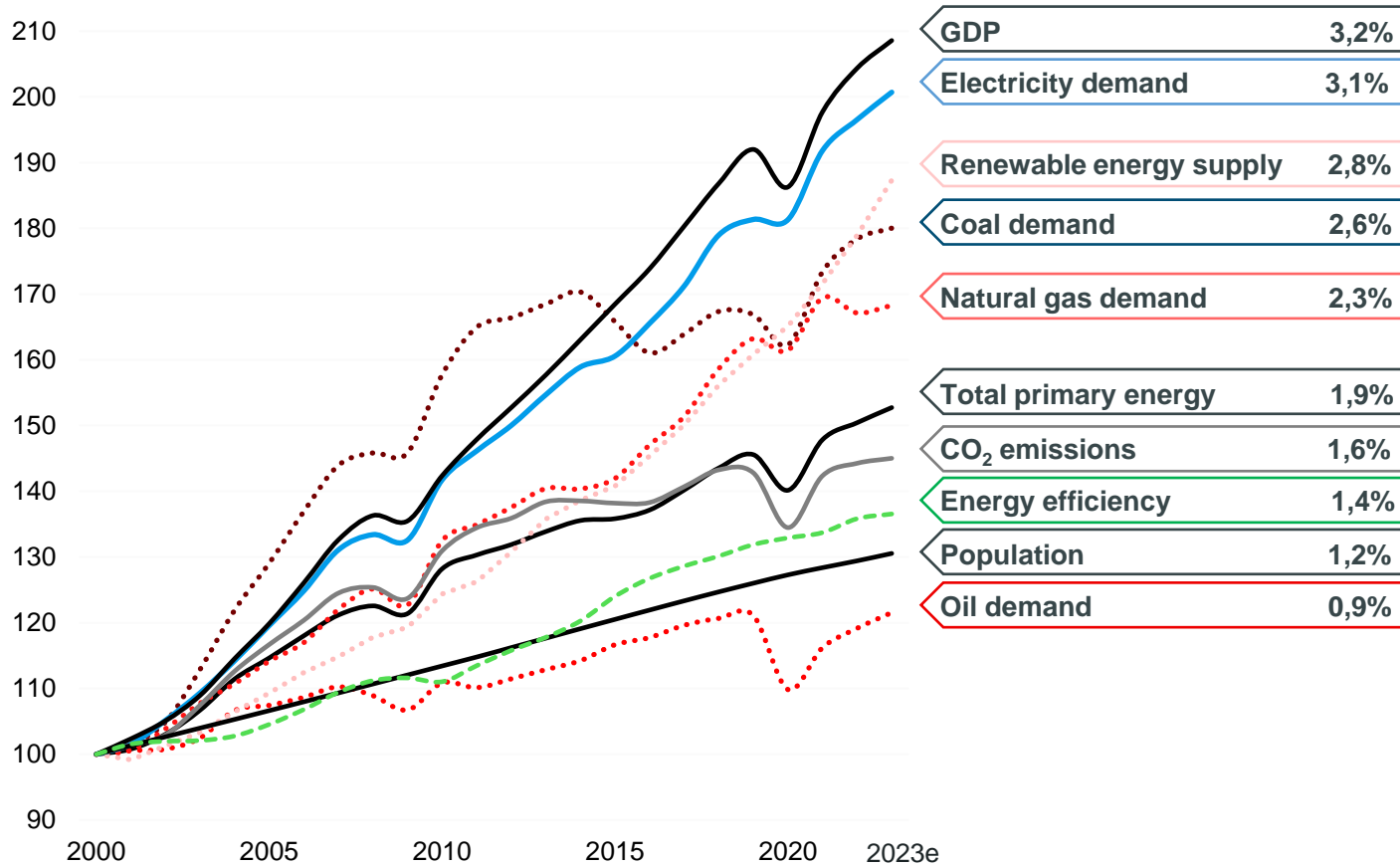
# Evolution of global energy indicators since 2000

Primary Energy demand grows slower than GDP; CO<sub>2</sub> emissions start to decouple



Evolution of a selection of indicators  
2000=100

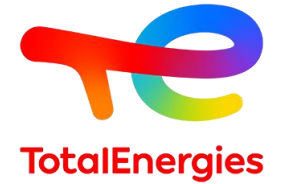
Compound Annual Growth Rate  
(CAGR) 2000-2023



- Electricity demand grows as fast as GDP
- Renewable energy growth has accelerated since 2015
- Coal grows almost as fast as Renewables, benefiting from a cost advantage
- Natural gas demand remains strong
- Oil demand keeps growing roughly as population

# Executing our balanced transition strategy

## Two pillars: Oil & Gas + Integrated Power



### Oil & Gas

- Deep upstream portfolio
- Delivering high-return growth, with optionality
- Integrated LNG portfolio, resilient through cycles
- Harvesting downstream free cash flow while transitioning

**~+3%/y**

Oil & Gas production  
CAGR 2024–30

**+50%**

LNG growth  
Equity + long-term offtake  
2030 vs 2023



### Integrated Power

- Driving value from integrated model
- Clean firm power for customers through gas + renewables integration
- Capturing value from merchant exposure

**> 100 TWh**  
power generation  
2030

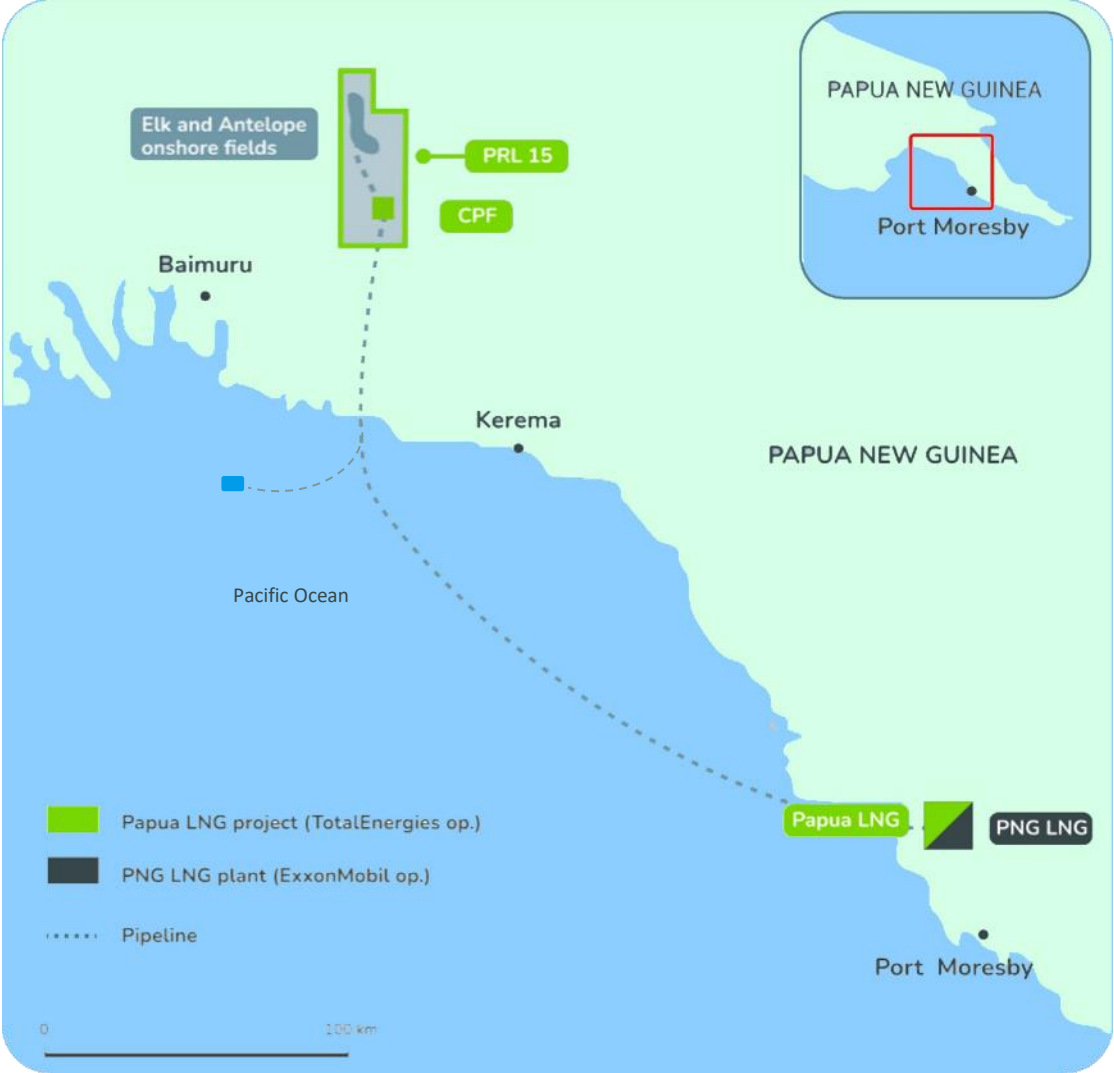
**Nearly 20%**  
of TotalEnergies' energy production  
2030

# Papua LNG Project



## A unique adventure

**A key location**  
To supply Asian growing LNG demand



**LNG Production ~5.6 Mtpa**

**Upstream :**  
Antelope & Elk carbonate fields  
also used for CO2 re-injection

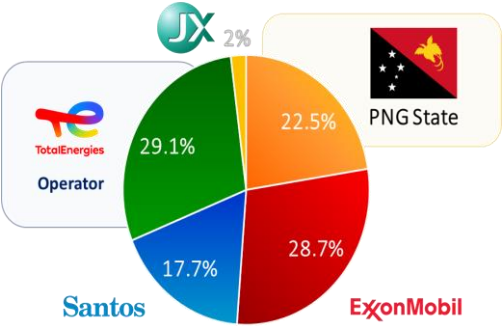
**Downstream**  
in synergy with PNG LNG  
**new e-trains → 4 Mtpa capacity  
+ 2 Mtpa in the existing PNG LNG**

**Key Milestones**

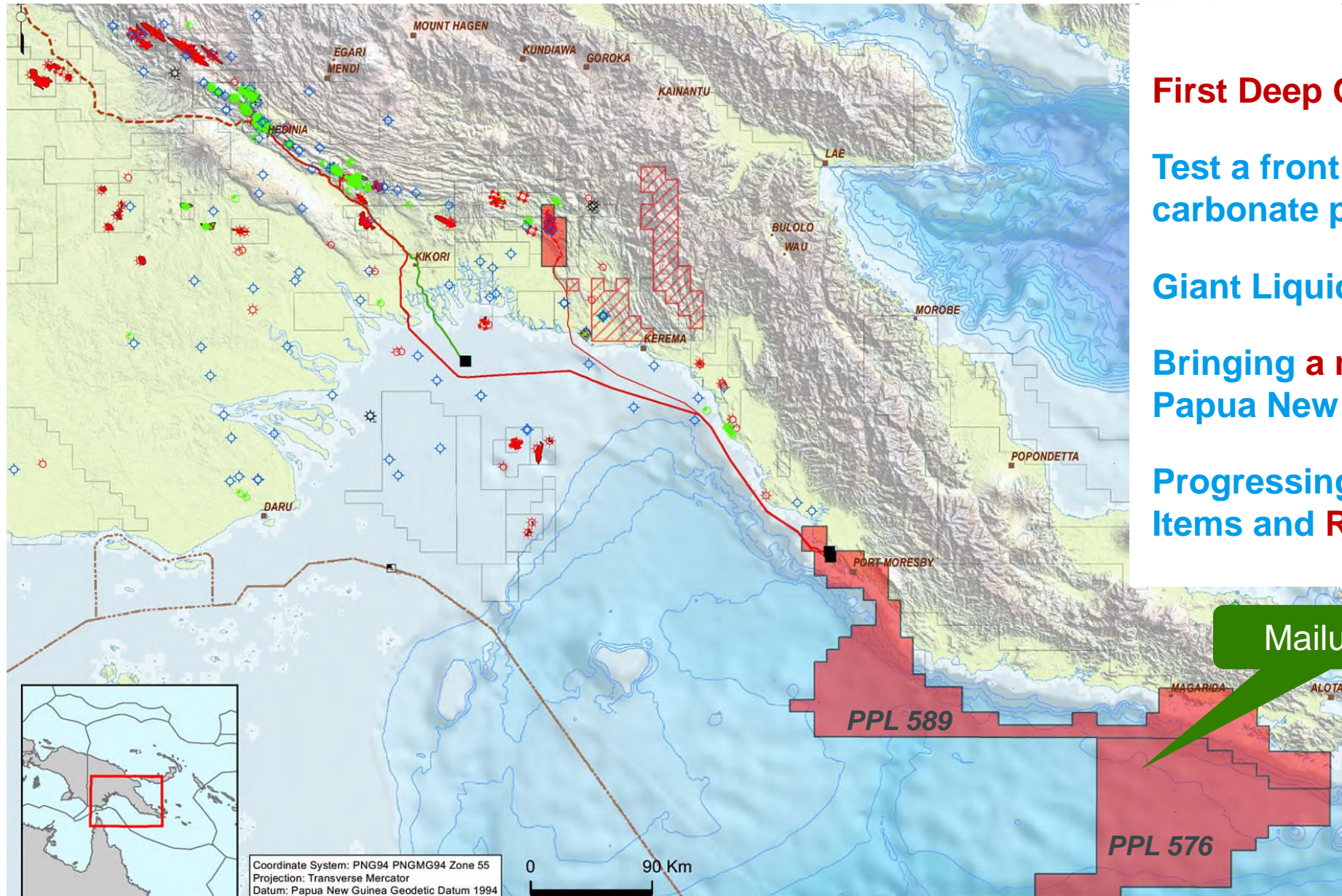
Integrated FEED	2023
FID	2025
First Gas	4y later

## A strong partnership

PAPUA LNG joint venture  
after final investment decision



# PPL 576 : Mailu-1 well : Potential play opener with High stakes



**First Deep Offshore well in PNG**

**Test a frontier basin, targeting large carbonate platform**

**Giant Liquid Prospect with large upsides**

**Bringing a major international player to Papua New Guinea**

**Progressing procurement of Long Lead Items and Rig slot in 2H 2025**

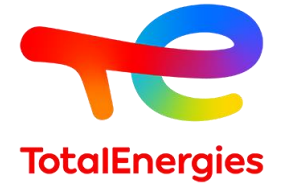
Mailu 1 well

PPL 589

PPL 576



# Committed to Papua New Guinea



- Business activity
- Local companies
- Local employment



Growing PNG Economy



Sharing Benefits

- Long lasting benefits for future generation

- Native CO<sub>2</sub> reinjection
- Minimize footprint
- Electric LNG trains
- Reforestation program
- Monitor, Nurseries ...



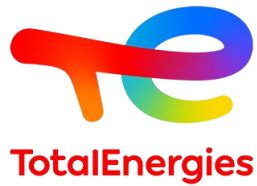
Environment



Local welfare

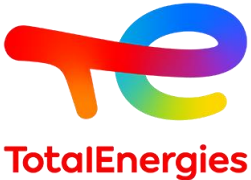
- Communities
- Training and Scholarships
- Socio economic projects
- Health





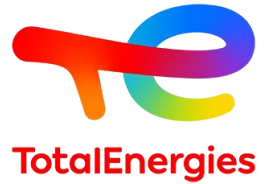


Pioneers for **100** years





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