



Gas  
Andy Hopwood and Paul Reed

Tangguh LNG Plant, Indonesia



# Gas

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Andy Hopwood, COO Strategy and Regions

Paul Reed, CEO Integrated Supply and Trading

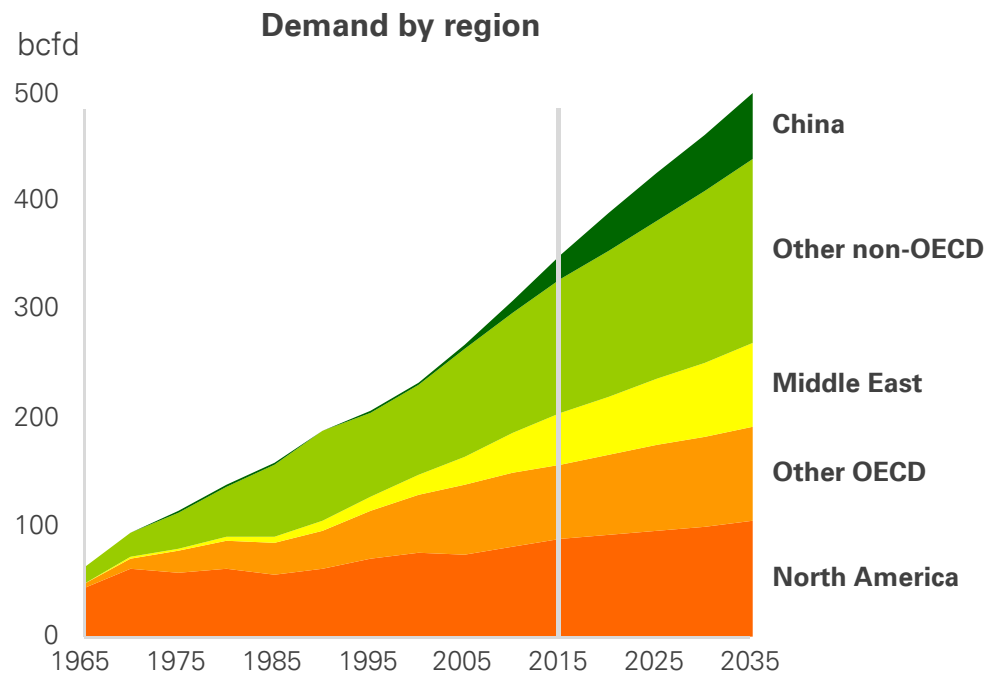
## **Agenda**

- Strategy
- Portfolio
- Business model
- Potential outcomes



## Demand for gas continues to grow

- Global gas demand grows at around 2% pa ~ double that of oil
- Global LNG demand grows at around 4% pa
- Demand driven by non-OECD countries
- North American unconventional supply growth continues



Source: Energy outlook 2035



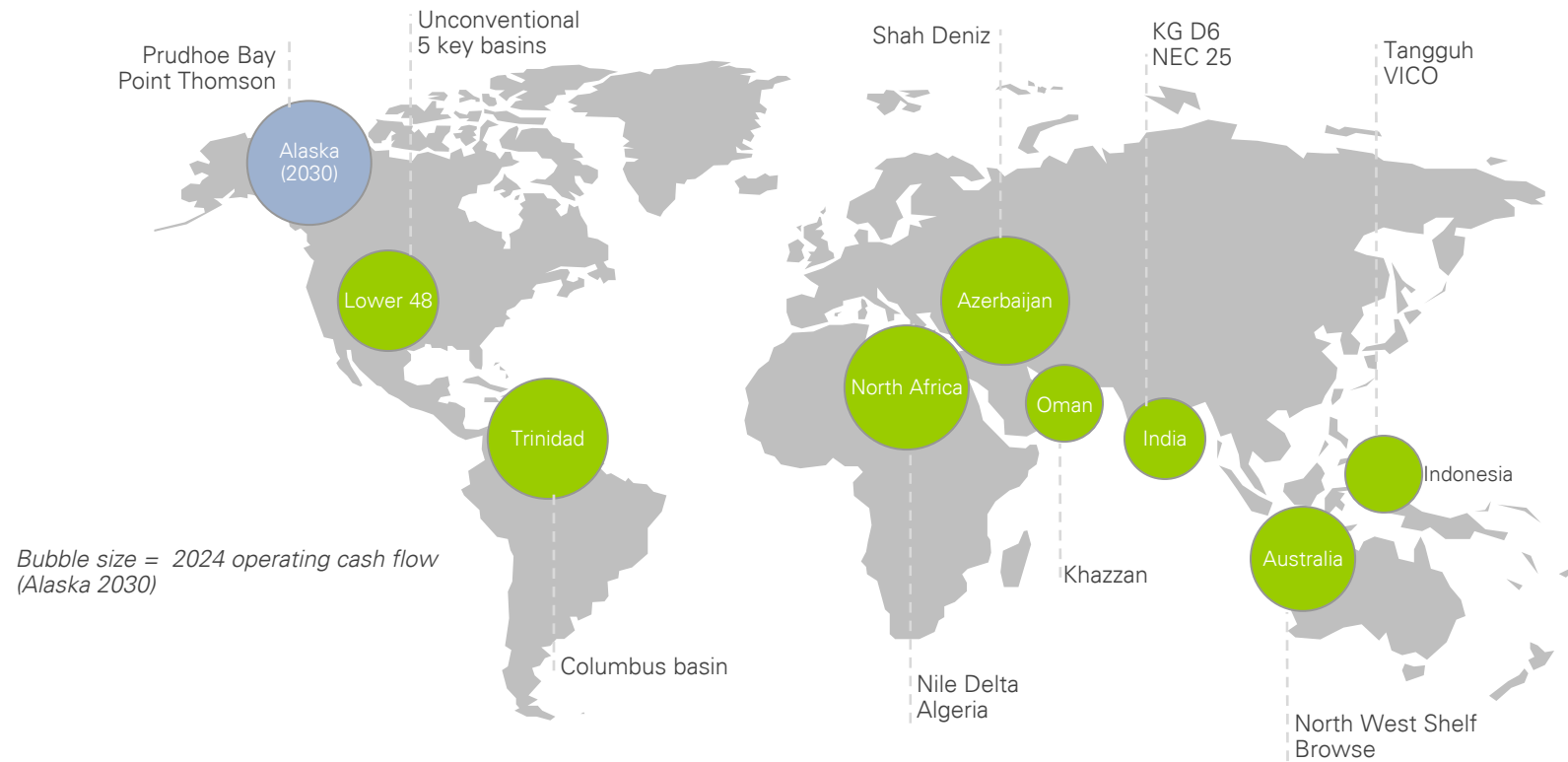
## Our strategy for gas is focused on value

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- **Access the lowest cost resources** in the basin
  - From incumbency in oil and exploration
- Be prepared to take on projects at **scale and complexity**
  - Deep water, pipelines, LNG, unconventional, technology
- Maintain a **deliberate balance** with a view to the long term
  - Resource type, price, geography, politics, and domestic and export
- Grow a **critical scale of LNG** business to manage risk and improve margins
  - Balanced equity and merchant position provides potential growth
- Use **knowledge of key markets** to provide value from trading
  - Three key hubs in North America, Europe and Asia
- Deploy **conversion technology selectively** only when it can add value



# Material portfolio of gas value chains



Estimates based upon BP planning assumptions

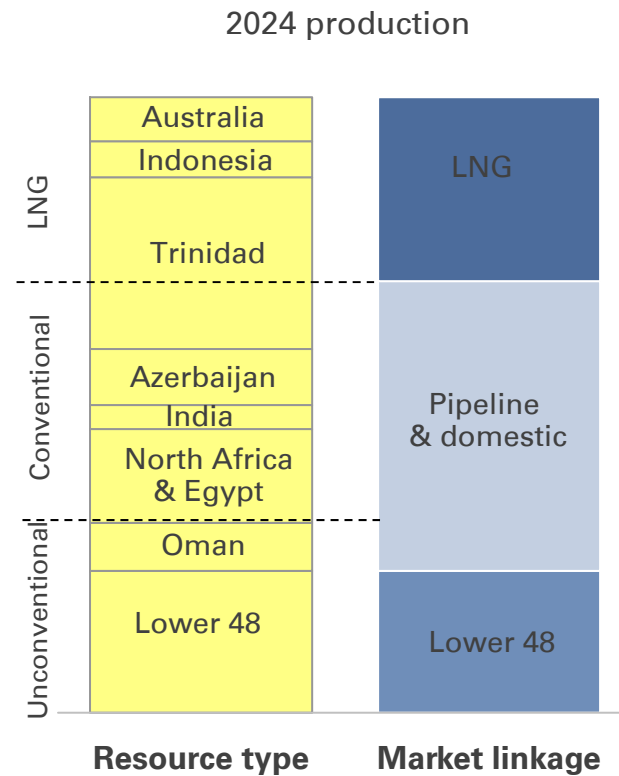
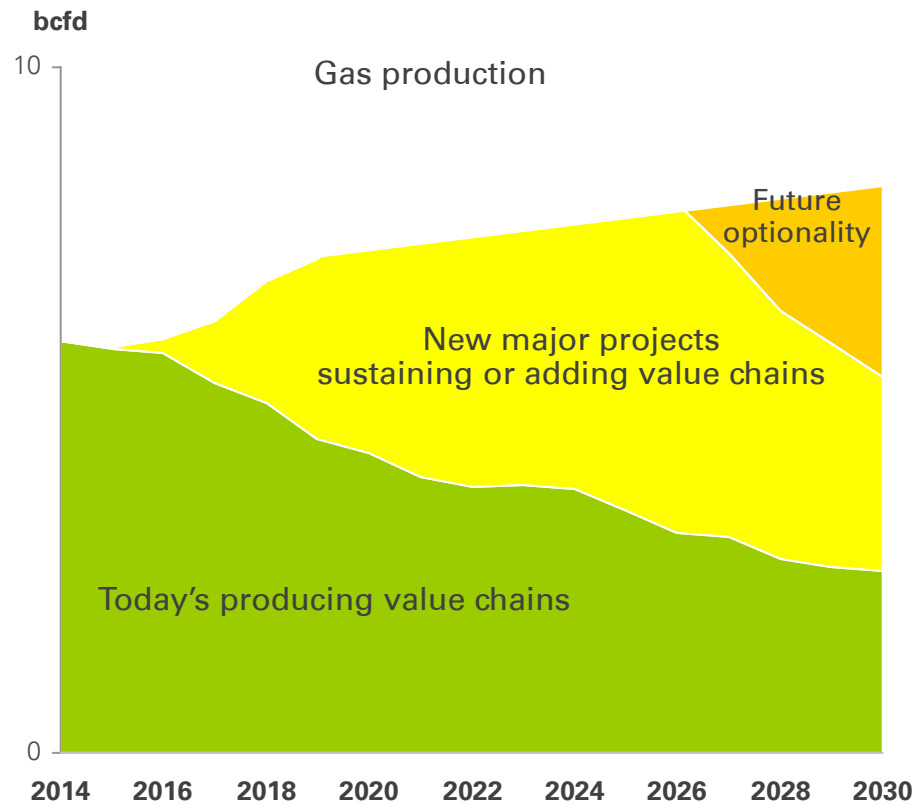


# Significant future investment potential

Value chain	2014 BP production (bcfd)	BP upstream production equity (%)	BP net plateau (bcfd)	Potential lifespan (yrs)	Optionality
Trinidad	2.3	BPTT (70% BP)	2.2 - 2.5	15-20	Potential to extend contracts and sustain production from infill, tie backs and further exploration
Lower 48	1.7	Various	1.8 - 2.0	>50	Drive growth through improved competitiveness of the newly separated Lower 48. Focused in five franchise plays
Azerbaijan	0.3	28.8% Shah Deniz 50% Shafag Asiman	0.7 - 0.8	>20	Expansion of the Shah Deniz field and potentially new basin discoveries into the newly built corridor
N Africa	0.6	50-60% Egypt 33-46% Algeria	1.0 - 1.3	>40	Offshore and deep Nile Delta reservoirs provide sustained resource pull through opportunities
Oman	0.0	60% Block 61	0.7 - 1.1	>40	Potential to expand processing capacity, and extend development within Block 61 to the North
India	0.1	30% of Reliance offshore blocks	0.4 - 0.5	10-15	Large resource base; R-series satellites and the D55 discovery. Requires gas price clarity
Indonesia	0.4	37.2% Tangguh VICO 50%	0.4 - 0.5	>20	Tangguh train 3 expansion through infill, tie-backs and exploration to support growing capacity
Australia	0.5	16.7% NWS 17.2 % Browse	0.4 - 0.6	>30	Potential to extend NWS plateau through new exploration, and third party tie-ins, enhanced by FLNG development of Browse.
Alaska	0.0	26% Prudhoe Bay 32% Point Thomson	0.7 - 0.8 (2025+)	>30	Potential new gas value chain via LNG to monetise significant Point Thomson and Prudhoe Bay gas resources
<b>9 hubs</b>	<b>6.0</b>		<b>8 - 9</b>	<b>&gt;40</b>	

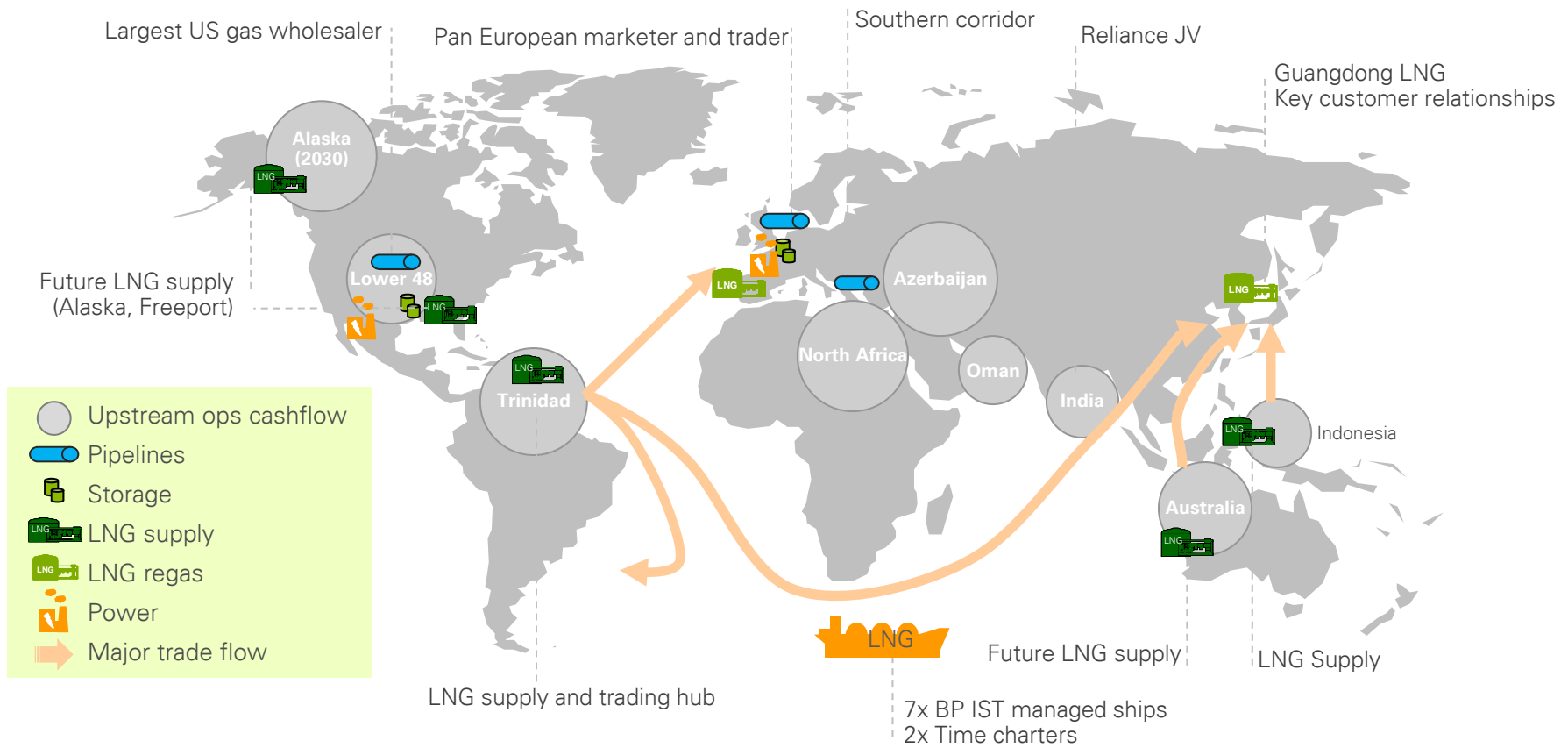


# Balanced production growth





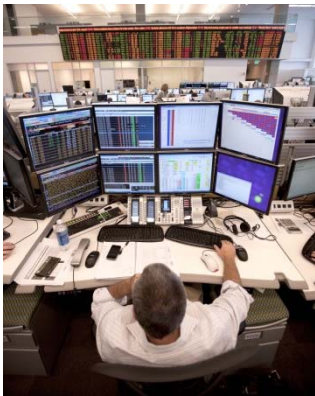
# Supported by Integrated Supply & Trading assets





# A world class marketing and trading capability

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Experienced global team of professionals

- Deep knowledge of market supply and demand
- Relationships with key global gas players and regional partners

Global scale and flexibility

- Largest wholesale gas trader in North America
- Pan-European presence in gas
- A leading LNG portfolio



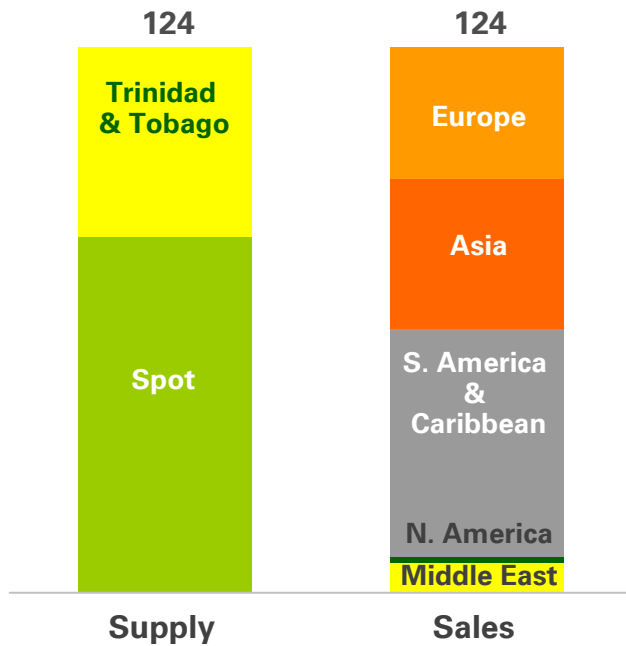
Adding incremental value to BP's gas value chains

- Informed seller of equity gas
- Ability to capture value as market conditions change



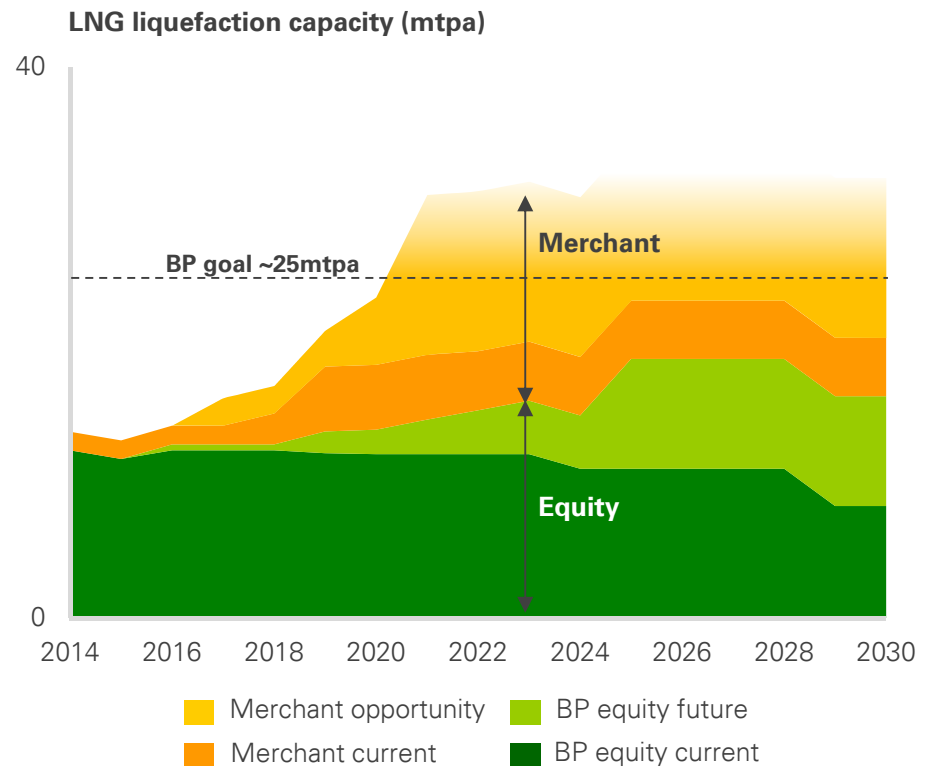
# Enables growth in our LNG portfolio

2014 year-to-date LNG cargo flows



Full year 2014 forecast  
~140 cargoes traded, 18 countries, 40 counterparties

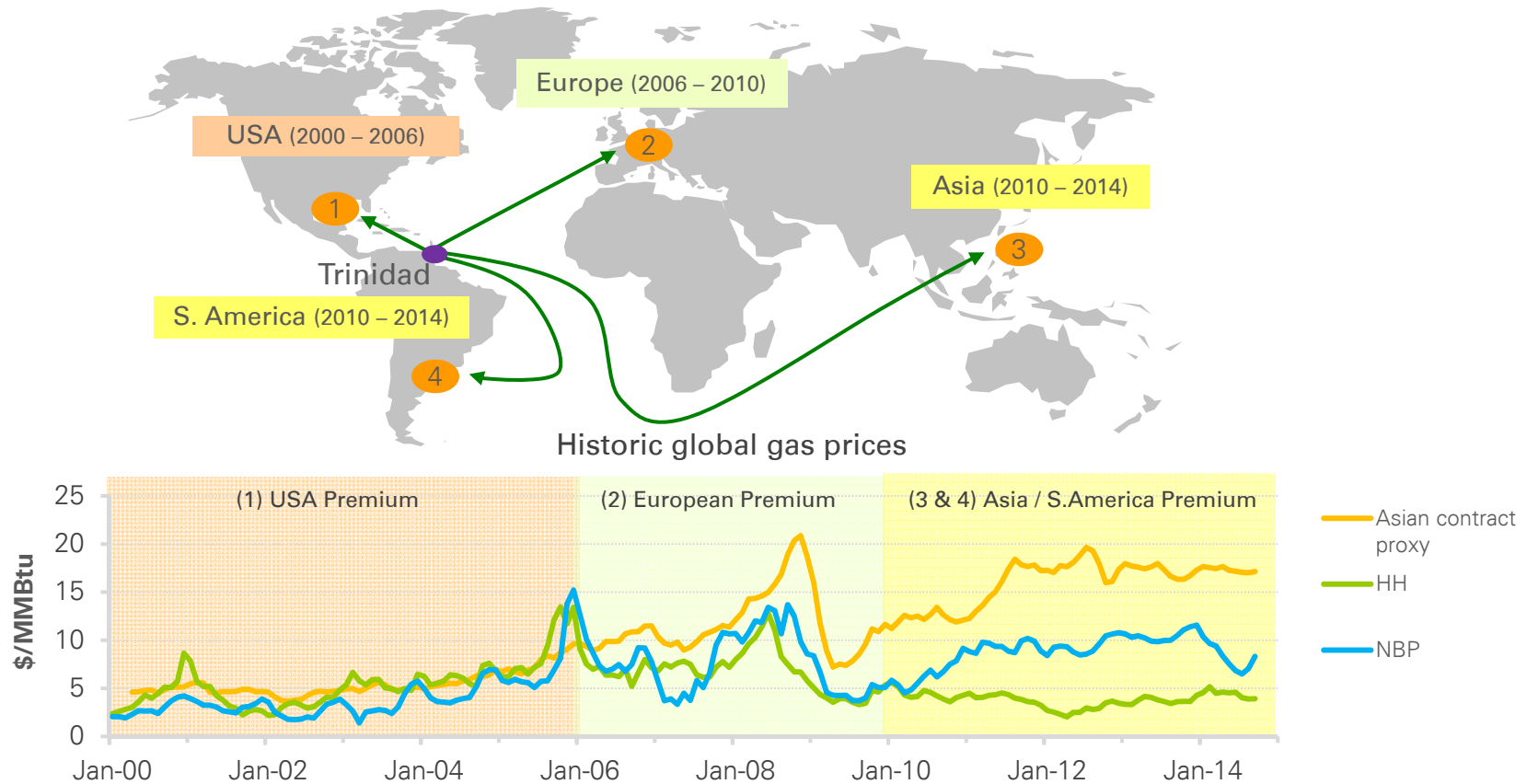
Potential BP portfolio





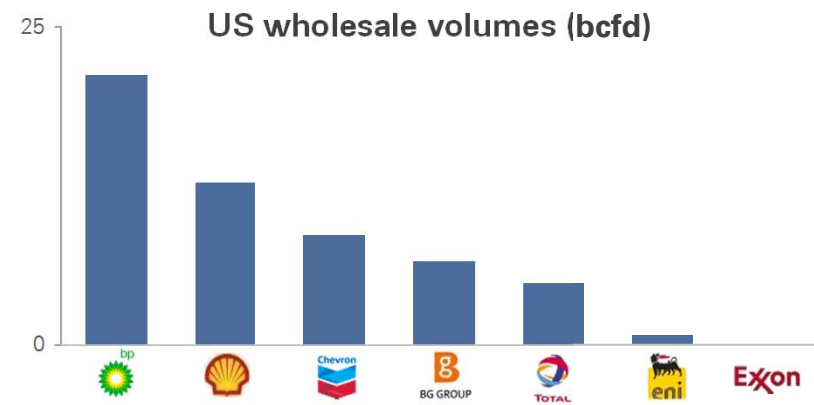
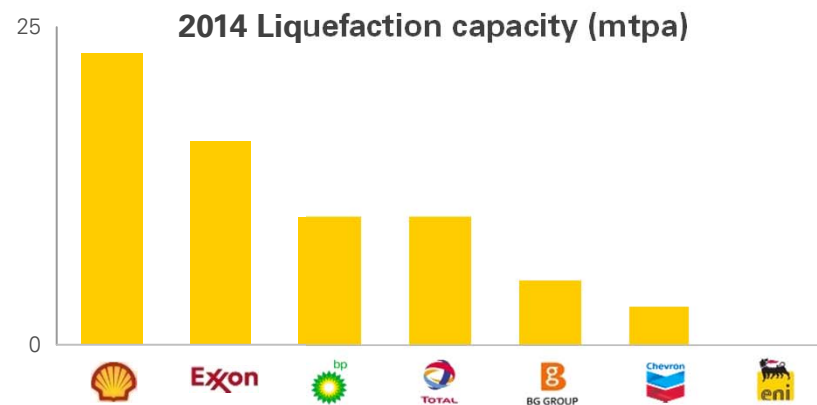
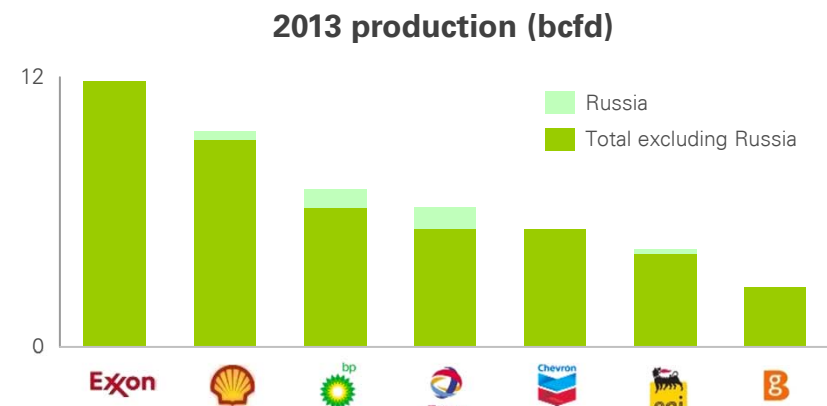
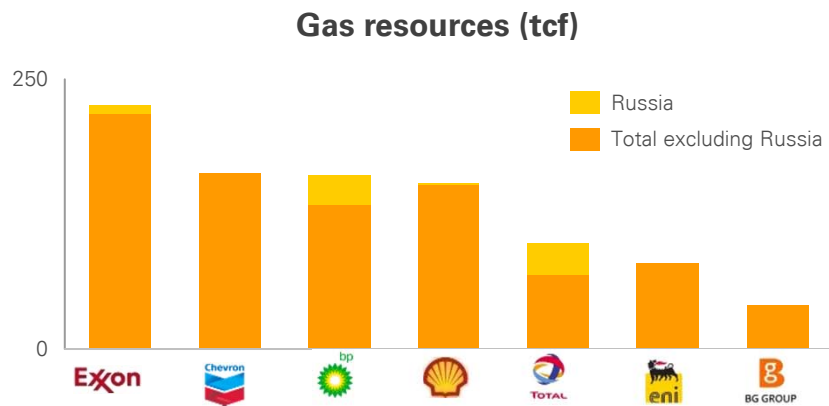
# Flexibility key as premium markets shift over time

## Trinidad & Tobago





# A business competitively positioned for value



Source: BP internal, Wood Mackenzie, FERC 552 returns, company information.



# Summary

## Material gas resources

- 133 tcf of BP entitlement resources

## Significant growth potential

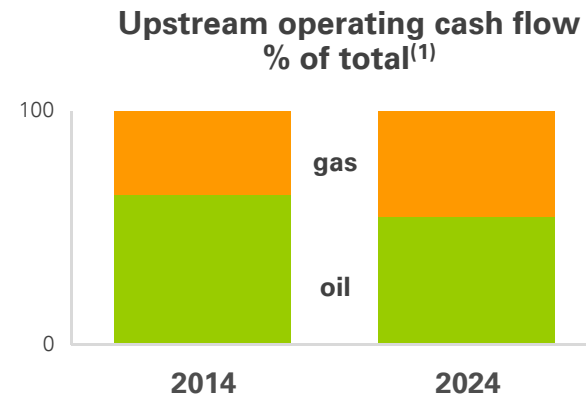
- Gas growth greater than oil

## Material cash conversion

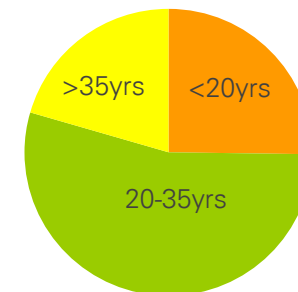
- Investment of ~\$100bn by 2024

## Margins expand and returns improve

- Lower development costs for gas



**BP major gas projects  
production profile length**



(1) BP long-term planning price assumptions