Gas
Andy Hopwood and Paul Reed

Tangguh LNG Plant, Indonesia
Gas

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

- **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, unconventionals, 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**

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

Gas production

Today's producing value chains

New major projects sustaining or adding value chains

Future optionality

2024 production

Australia

Indonesia

Trinidad

Azerbaijan

India

North Africa & Egypt

Oman

Lower 48

LNG

Pipeline & domestic

Unconventional

Conventional

Resource type

Market linkage

0 2014 2016 2018 2020 2022 2024 2026 2028 2030 bcfd

10
Supported by Integrated Supply & Trading assets

- Largest US gas wholesaler
- Pan European marketer and trader
- Southern corridor
- Reliance JV
- Guangdong LNG
  - Key customer relationships

Future LNG supply
- Alaska, Freeport
- Lower 48
- Trinidad

LNG supply and trading hub
- Pipelines
- Storage
- LNG supply
- LNG regas
- Power
- Major trade flow

Future LNG supply
- 7x BP IST managed ships
- 2x Time charters

Key customer relationships
- India
- Oman
- North Africa
- Indonesia
- Australia
A world class marketing and trading capability

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

- Trinidad & Tobago: 124 cargoes
- Europe: 124 cargoes
- Spot: Trinidad & Tobago, Europe, Asia, South America \\& Caribbean, Middle East

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

Potential BP portfolio

- LNG liquefaction capacity (mtpa)
- BP goal ~25mtpa
- Merchant: future, current
- Equity: future, current

0 10 20 30 40
2014 2016 2018 2020 2022 2024 2026 2028 2030

0 10 20 30 40
2014 2016 2018 2020 2022 2024 2026 2028 2030

Merchant opportunity  BP equity future
Merchant current  BP equity current
Flexibility key as premium markets shift over time
Trinidad & Tobago

Historic global gas prices

- USA (2000 – 2006)
- Asia (2010 – 2014)
- S. America (2010 – 2014)

Legend:
- Orange: USA Premium
- Green: HH
- Blue: NBP

(1) USA Premium
(2) European Premium
(3 & 4) Asia / S.America Premium

$/MMBtu

Jan-00 Jan-02 Jan-04 Jan-06 Jan-08 Jan-10 Jan-12 Jan-14
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

(1) BP long-term planning price assumptions