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# Advantaged gas portfolio and growth

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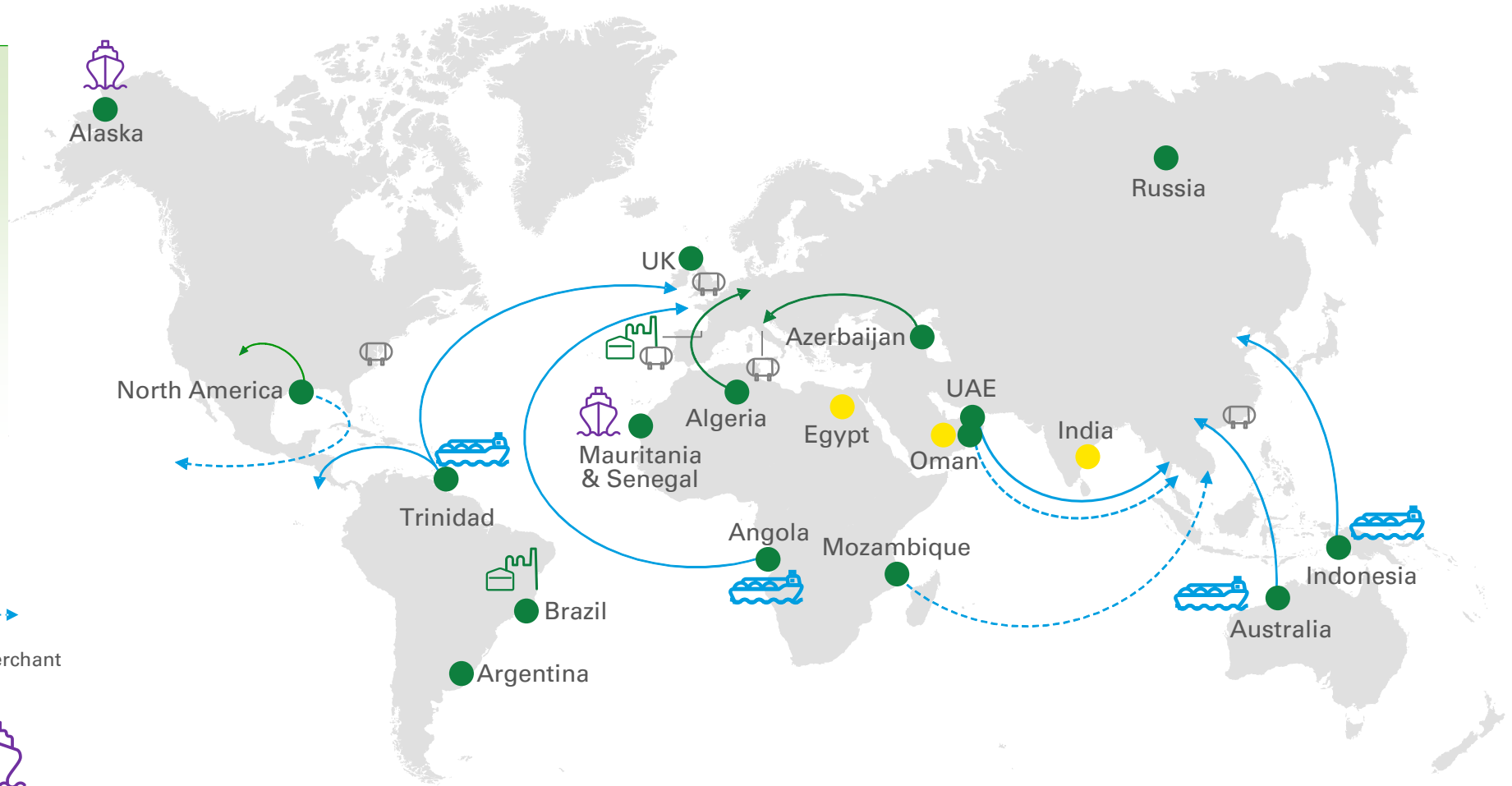
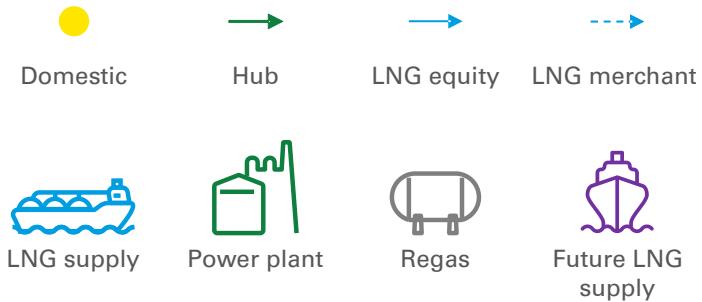
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# Advantaged gas

- Belief in gas
- Balanced portfolio
- Strong growth and quality
- Broad and integrated capability throughout gas value chains



~1.2mboed 2018 production<sup>1</sup>

~80tcf gas resources<sup>2</sup>

~50% total Upstream production

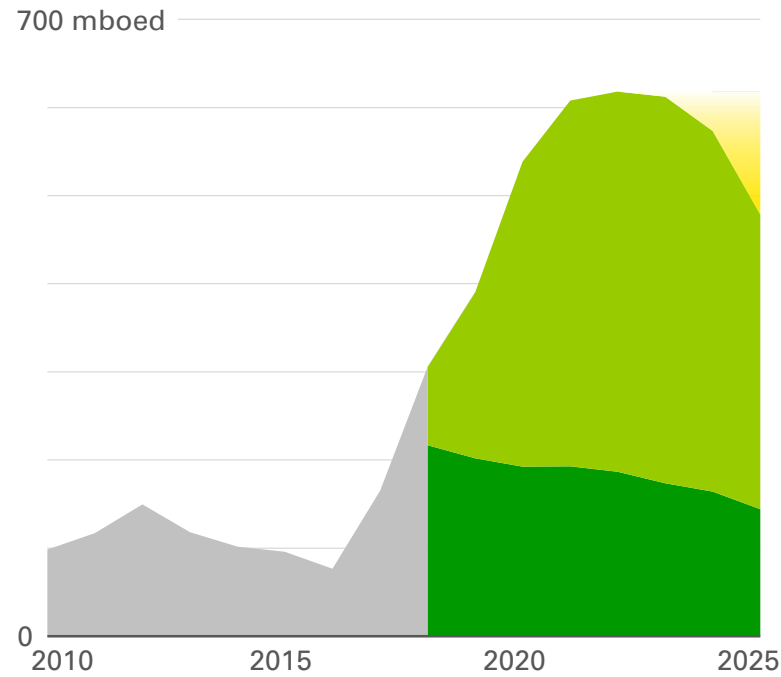
(1) Total production for gas producing regions (2) Includes BP's share of reserves of equity-accounted Upstream entities. Proved reserves year end 2017 estimate, and non-proved resources year end 2017 estimate updated for significant movements in 2018

# Balanced gas portfolio

## Domestic pricing<sup>1</sup>

Oman, Egypt gas, Russia, India

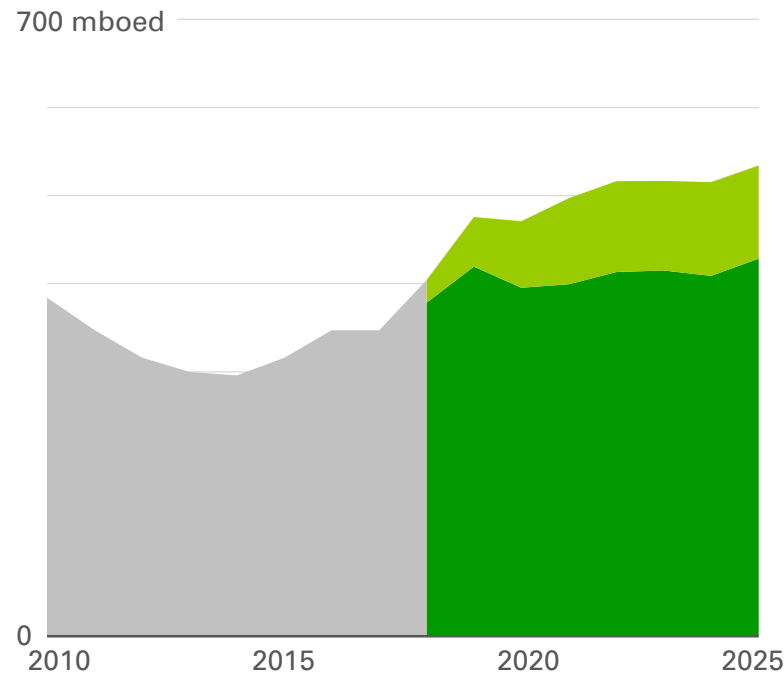
■ Base ■ Major projects ■ E&A options



## Hub pricing<sup>1</sup>

Algeria, Azerbaijan (Shah Deniz gas), BPX Energy gas

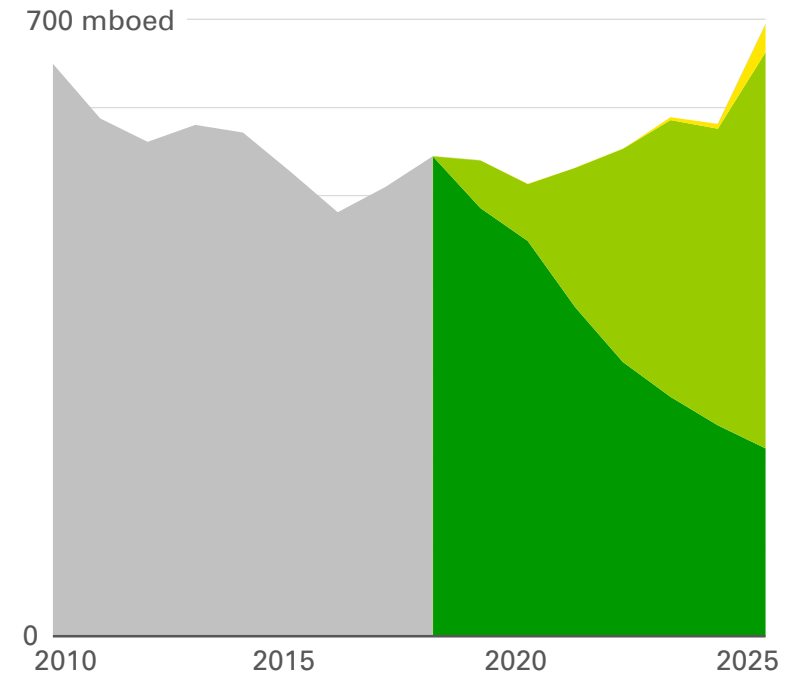
■ Base ■ Major projects



## International LNG<sup>1</sup>

Australia, Indonesia, Mauritania & Senegal, Trinidad

■ Base ■ Major projects ■ E&A options

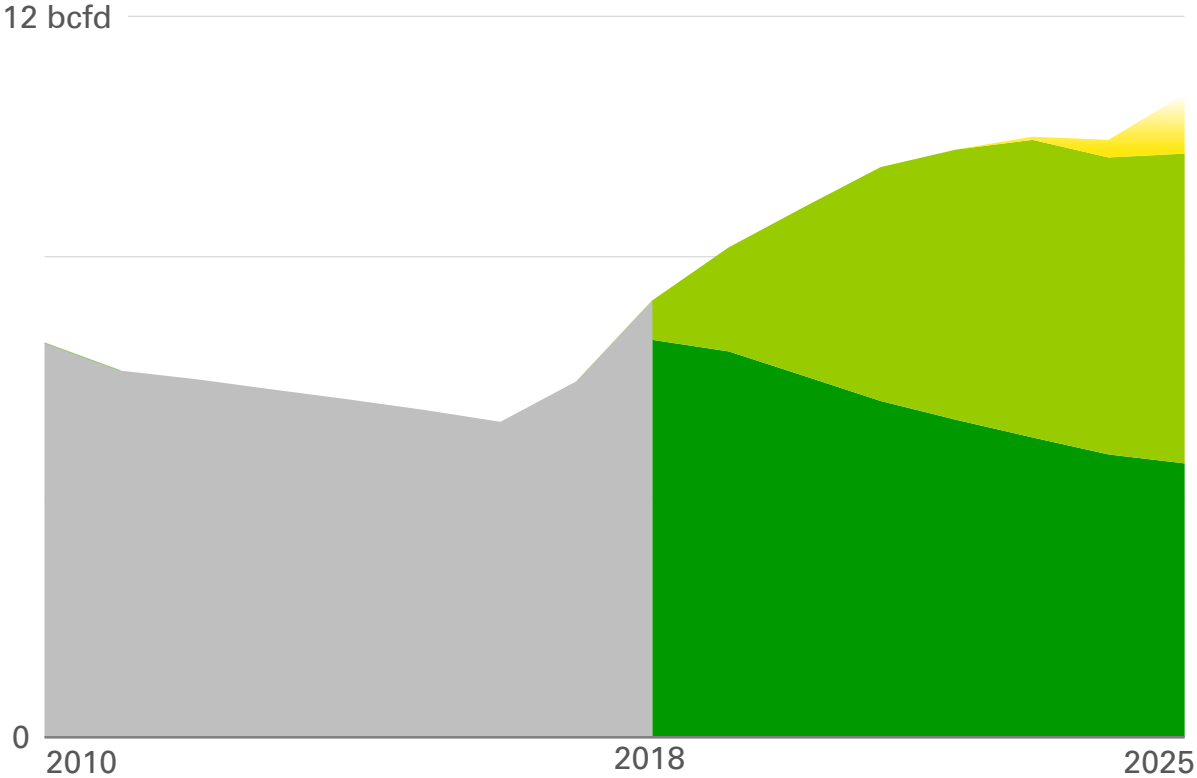


(1) Total production for gas producing regions

# Strong growth and quality

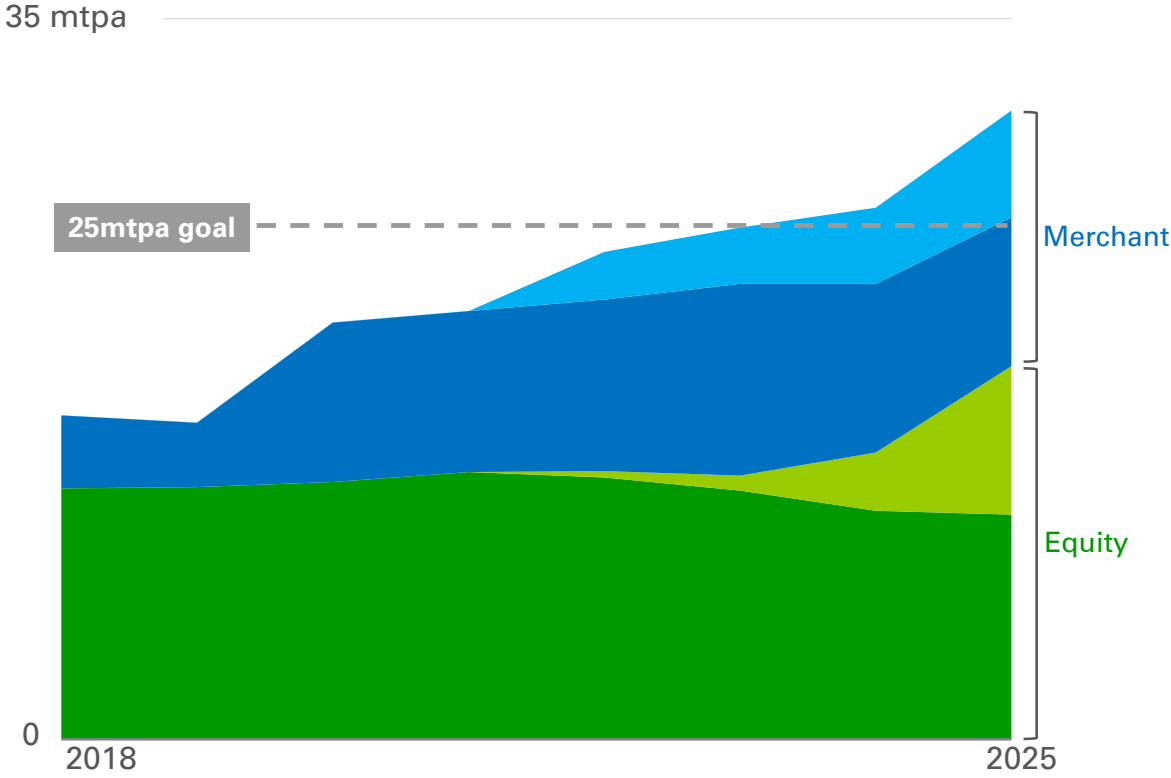
## Gas production<sup>1</sup>

■ Managed base 
 ■ Major projects 
 ■ E&A options



## LNG volumes

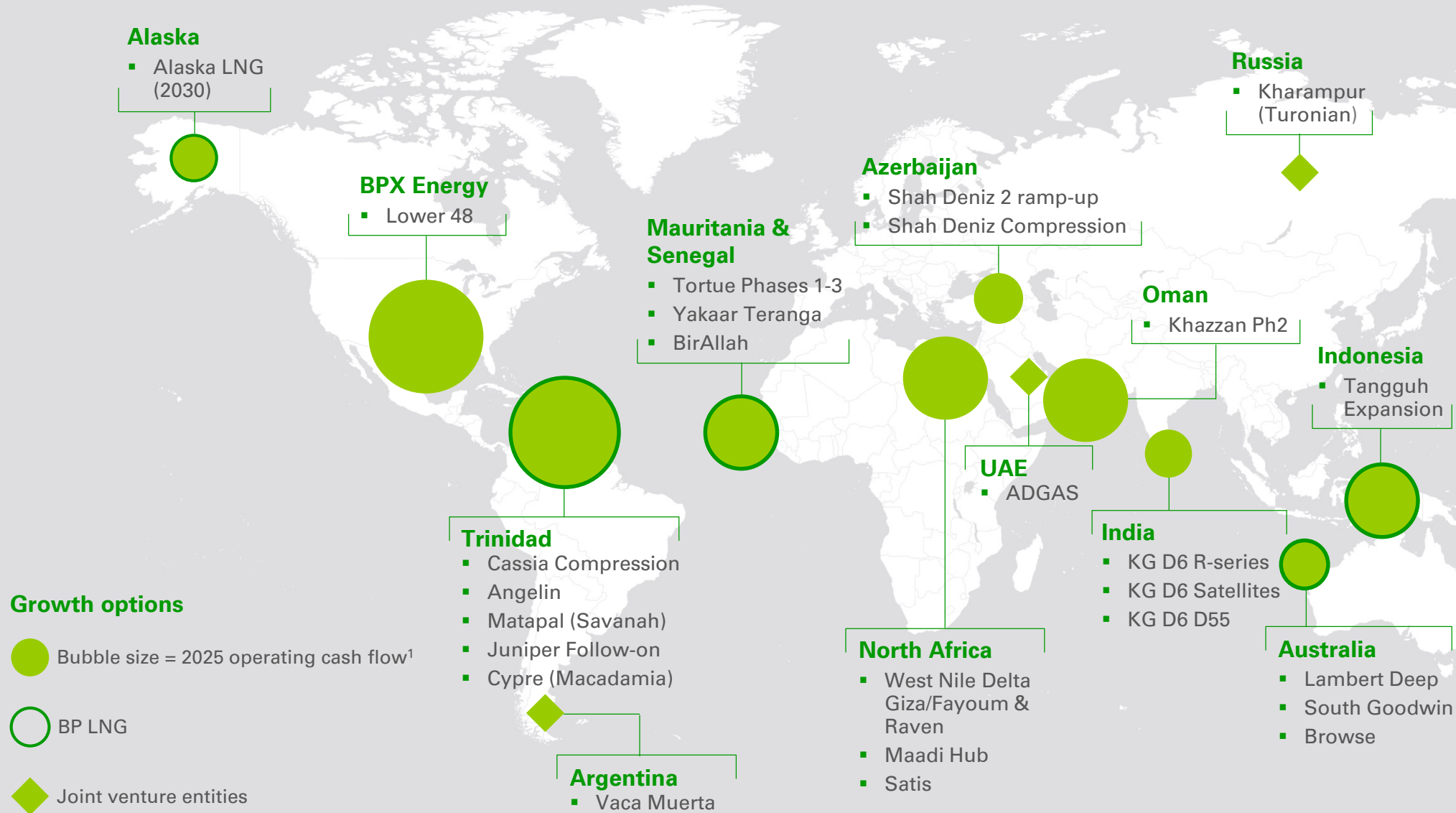
■ Equity base 
 ■ Equity opportunity 
 ■ Merchant base 
 ■ Merchant opportunity



(1) Total production for gas producing regions



# Underpinning growth and basin leadership

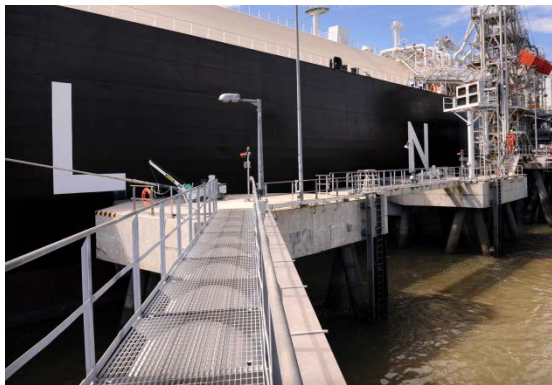


(1) Estimates based on BP planning assumptions

# Broad capability – gas value chain optimisation

## Global LNG

- Diversified supply of equity and merchant LNG
- Geographic and price exposure balance
- Building markets: Brazil, India, China, other Asia



**~200**

spot cargos traded in 2018

**5**

regas plants in US, UK, China, Italy and Spain

**13 ships**

7 current + 3 on order + 3 charter

**2017**

CWC/World Gas Awards outstanding contribution to the industry

## Gas and Power

- Trading
- Operations
- Origination
- Analytics
- Integrated marketing



**>20bcf/d**

natural gas marketed in North America

**>4mmboed**

NGLs traded globally

**~50TWh/yr**

wholesale power marketed

**2018**

Energy Risk Awards natural gas house of the year

# Broad capability – delivering complex projects

## Tangguh LNG



- Located at a remote site in Bintuni Bay, West Papua, Indonesia with 2 LNG trains producing 7.6mtpa
- Operator across the LNG value chain from wellhead to market, with 5 other partners and multiple LNG buyers
- Existing LNG trains started up in 2009 and are expected to deliver 1,000<sup>th</sup> cargo by January 2019
- Tangguh Expansion will add another 3.8mtpa making the facility the largest gas producer in Indonesia – on track for 2020 start-up

## Southern Gas Corridor



- Shah Deniz – world class reservoir in the Caspian, Azerbaijan with up to 40tcf of gas initially in place
- 3,500km pipeline infrastructure linking Caspian to Europe transiting 6 countries
- Started up with delivery of gas in July 2018 into Turkey
- Trans Adriatic Pipeline (TAP) portion and further ramp-up on track for 2020 start-up into Europe



# Broad capability – creating innovative solutions

## Mauritania & Senegal

### Material position in a world class hydrocarbon basin

- ~50,000km<sup>2</sup> of acreage across 7 blocks
- 50-100tcf estimated gas in place
- Competitive near-shore LNG to Europe
- Phased development options

### Greater BirAllah

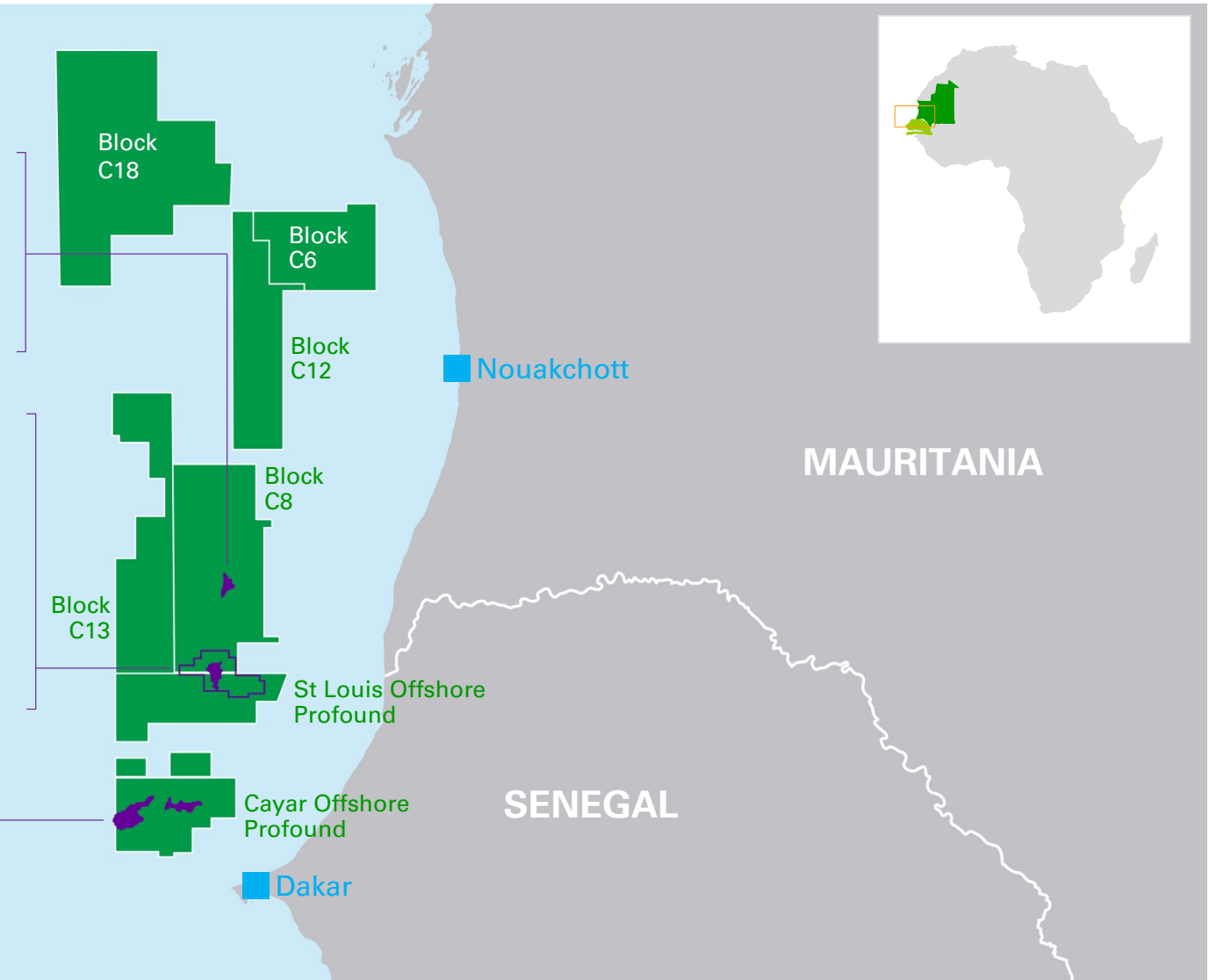
- 12-60tcf GIIP<sup>1</sup>
- 2019 appraisal programme

### Tortue

- ~15tcf recoverable resource
- Near-shore LNG
- Phased development
  - Phase 1 ~2.5mtpa by 2022
  - Full field development ~10mtpa

### Yakaar Teranga

- 10-25tcf GIIP<sup>1</sup>
- 2019 appraisal programme



(1) Gas initially in place