



# Projects

June 2016



Quad 204, North Sea  
Glen Lyon FPSO in tow

# Track record of project delivery



## 2014 – 2016 Major projects start-ups

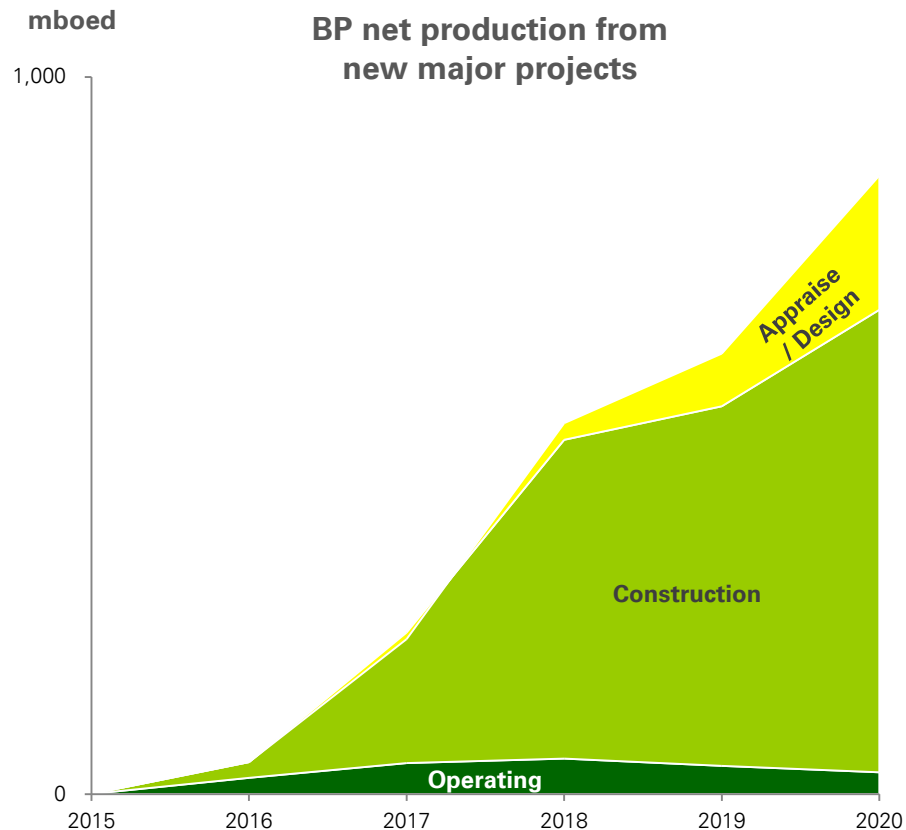
2014	2015	2016
<ul style="list-style-type: none"><li>✓ Chirag Oil</li><li>✓ Mars B</li><li>✓ NaKika Phase 3</li><li>✓ Atlantis North Expansion Phase 2</li><li>✓ CLOV</li><li>✓ Sunrise Phase 1</li><li>✓ Kinnoull</li></ul>	<ul style="list-style-type: none"><li>✓ Kizomba Satellites Phase 2</li><li>✓ Greater Plutonio Phase 3</li><li>✓ Western Flank A</li></ul>	<ul style="list-style-type: none"><li>✓ In Salah Southern Fields</li><li>✓ Thunder Horse Water Injection</li><li>✓ Point Thomson</li><li>✓ Angola LNG In Amenas Compression</li></ul>

**Top quartile schedule predictability**

**Top quartile first year operability performance**



# Major projects growth to 2020



## 500mboed of new capacity online by end 2017

**2016**

In Salah Southern Fields  
Thunder Horse Water Injection  
Point Thomson  
Angola LNG

In Amenan Compression

**2017**

Quad 204  
Clair Ridge  
Juniper  
Khazzan  
Persephone  
Thunder Horse South Expansion  
Trinidad Onshore Compression  
West Nile Delta – Taurus/Libra

## 2018-2020

Culzean  
Shah Deniz 2  
West Nile Delta –  
Giza/Fayoum/Raven  
Western Flank B

Angelin  
Atoll Phase 1

Block 18 Platina  
Khazzan Train 3  
India Gas Projects  
Tangguh Train 3  
Snadd  
Trinidad Compression Project

**Delivering 800mboed of new production by 2020**

# North Sea



**Quad 204 - Glen Lyon FPSO**



## **Quad 204**

- New FPSO to extend life of Schiehallion field (BP ~36%)
- 14 new wells, 53 existing wells
- Peak production ~ 120 mboed, gross
- Project ~ 90% complete with start-up planned early 2017
- FPSO arrived safely from Korea with installation West of Shetland in progress

**Clair Ridge**



## **Clair Ridge**

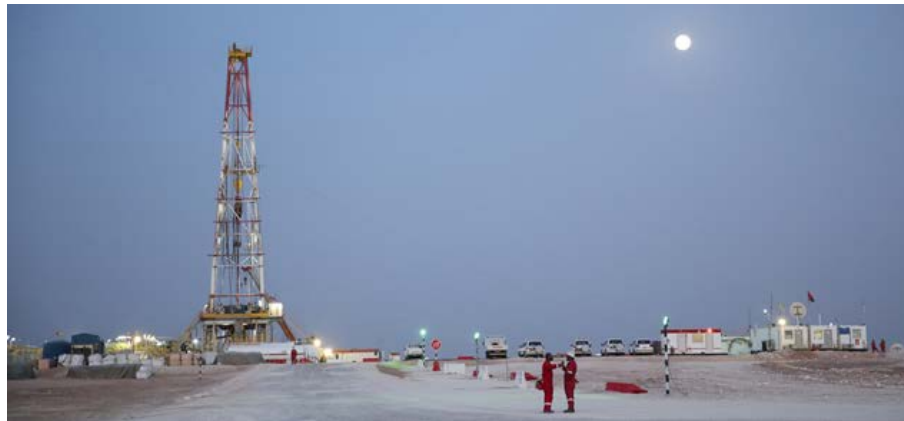
- 2<sup>nd</sup> phase of the giant Clair field development (BP ~29%)
- New production, accommodations and drilling facilities
- Peak production ~ 100 mboed, gross
- Project ~ 85% complete with 2017 start-up planned
- All production modules are installed offshore and progressing with hook-up and commissioning



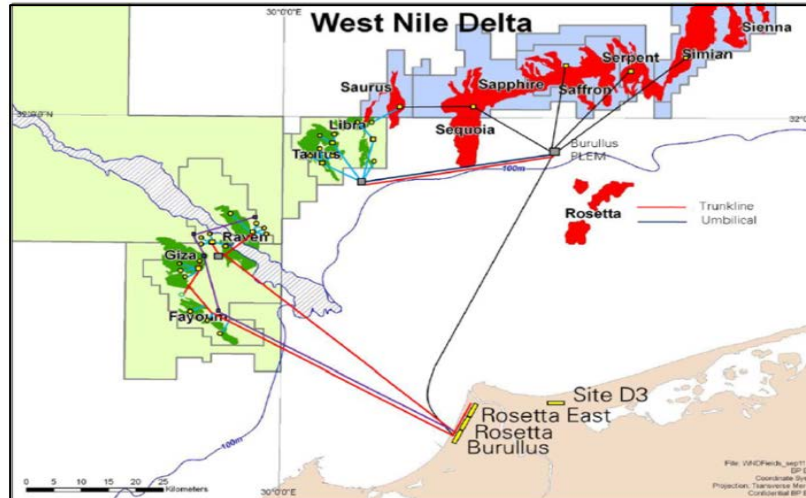
# Oman Khazzan: 10.5 tcf of gross recoverable gas resources



- Acreage: 3,700 km<sup>2</sup>
- Production plateau 1.5 bcf/d by 2020
- Ph1 Facilities (2 trains) ~70% complete
  - ~30 wells drilled
  - 2017 start-up on track and on budget
- Khazzan Train3 and 125 wells with 2020 start-up
- BP technology enabled step change in well targeting and productivity



# West Nile Delta



Two projects expected to develop 5tcf of gas resources, gross (BP ~83%)

- 21 total development wells
- Peak production ~ 290 mboed, gross

## Taurus/Libra

- Production through BG's Burullus facilities
- Facilities ~ 55% complete with 2017 start-up planned
- 9 wells total – all drilled and completions started
- First subsea tree successfully installed

## Giza/Fayoum/Raven

- Deepwater long-distance tie backs to shore
- Existing Rosetta plant to be modified for Giza/Fayoum and integrated with a new onshore plant for Raven
- Facilities ~ 10% complete with 2019 start-up planned
- 12 wells total - 3 drilled to top of reservoir

# Juniper



**Topsides at TOFCO, Trinidad**



**Jacket at GMF, Texas**

New normally unmanned platform will produce gas from Corallita and Lantana fields (BP 70%)<sup>1</sup>

- First subsea development for bpTT, 5 subsea wells
- Production capacity of 590 million standard cubic feet per day
- Peak production ~95mboed gross
- Project ~75% complete with planned 2017 start-up
- Platform on track for installation early 2017 with offshore hook up and commissioning to follow
- 5 wells drilled with completions in progress, to be completed by end of 2016

1. 100% owned by BP Trinidad and Tobago which is owned by BP (70%) and Repsol (30%)



# Shah Deniz Stage 2



**Offshore facilities**



Shah Deniz is BP's largest ever gas discovery with 40tcf of gas in place (BP ~29%)

- 2 offshore platforms and onshore processing and compression facilities
- 26 total development wells
- South Caucasus pipeline expansion
- Also includes two new pipelines, the Trans Adriatic Pipeline (BP 20%) and the Trans Anatolian Gas Pipeline (BP 12%)
- Peak production ~ 370 mboed, gross
- Project ~ 70% complete with 2018 start-up planned
- 9 wells drilled, onshore and offshore facilities are progressing as planned

**TANAP pipeline**

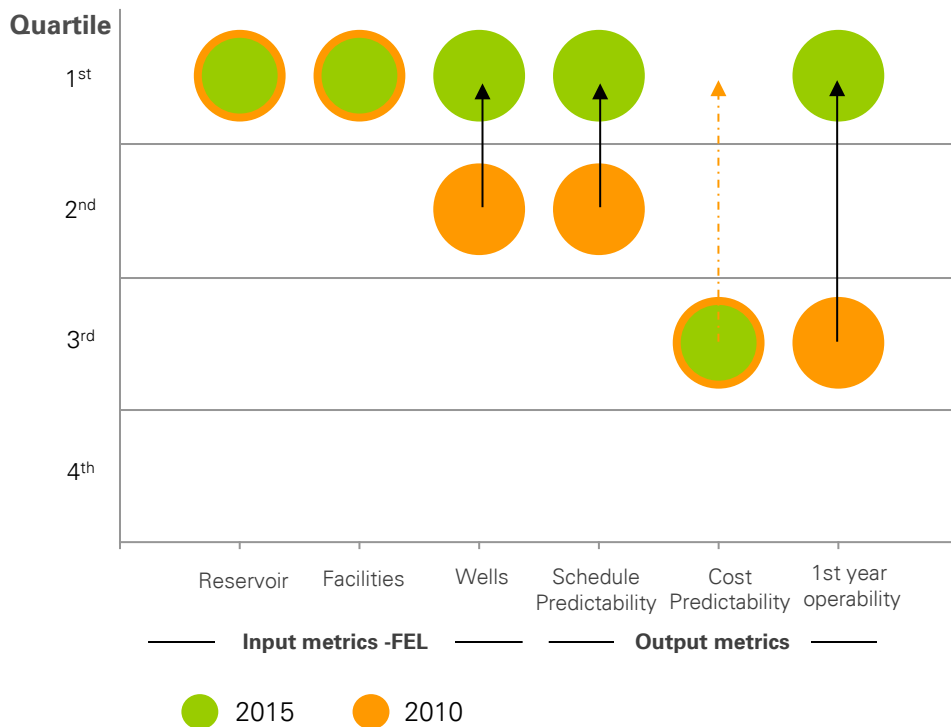




# Enhancing project execution



## BP Relative performance has improved according to IPA



*"...your efforts are clearly setting you up ahead of your peers to thrive in the current market and take advantage when the market picks up..." IPA Director*

- Leveraging our global execution model
- Implementing supplier-led solutions to simplify and standardize
- Simplifying requirements and eliminating excess
- Working more efficiently with contractors

# Optimizing pre-FID projects



- **We have around 40 projects in the pipeline for post-2020 start-up**
  - Balance of resource types and a range of development types
  - Global portfolio with significant exposure to low development cost regions
- **Centralized project creation – ‘Global Concept Development’**
  - Single team ensuring consistency in approach - ‘value over volume’
  - Deep expertise, integrating BP with supplier-led solutions to create highly competitive projects
  - Maximize benefits of standardization through re-use of industry proven solutions
  - Adhering to our hurdle rates - mid teens returns for new greenfield projects at \$60

# Summary



- **High-quality and material project portfolio to underpin growth to 2020 and beyond**
  - 4 major project start-ups achieved year-to-date, another on-track for start-up before year-end
  - 500 mboed of new net capacity by end-2017
  - 800 mboed of new net production by end-2020, ~85% under construction or already operating
  - Value over volume: current project portfolio margins 35% better than our current base assets
  - Deep portfolio – only do the best when they are optimized and ready to execute
- **Global execution model improving project optimization and execution**
  - IPA benchmarks BP project performance as first quartile on five of the six key metrics
  - Partnering with suppliers to simplify, standardize and reduce costs
  - Capturing accelerated deflation in the supply chain as we time our investment decisions