



human energy®

upstream overview

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Executive Vice President



2015 performance

Improving margins

Project updates

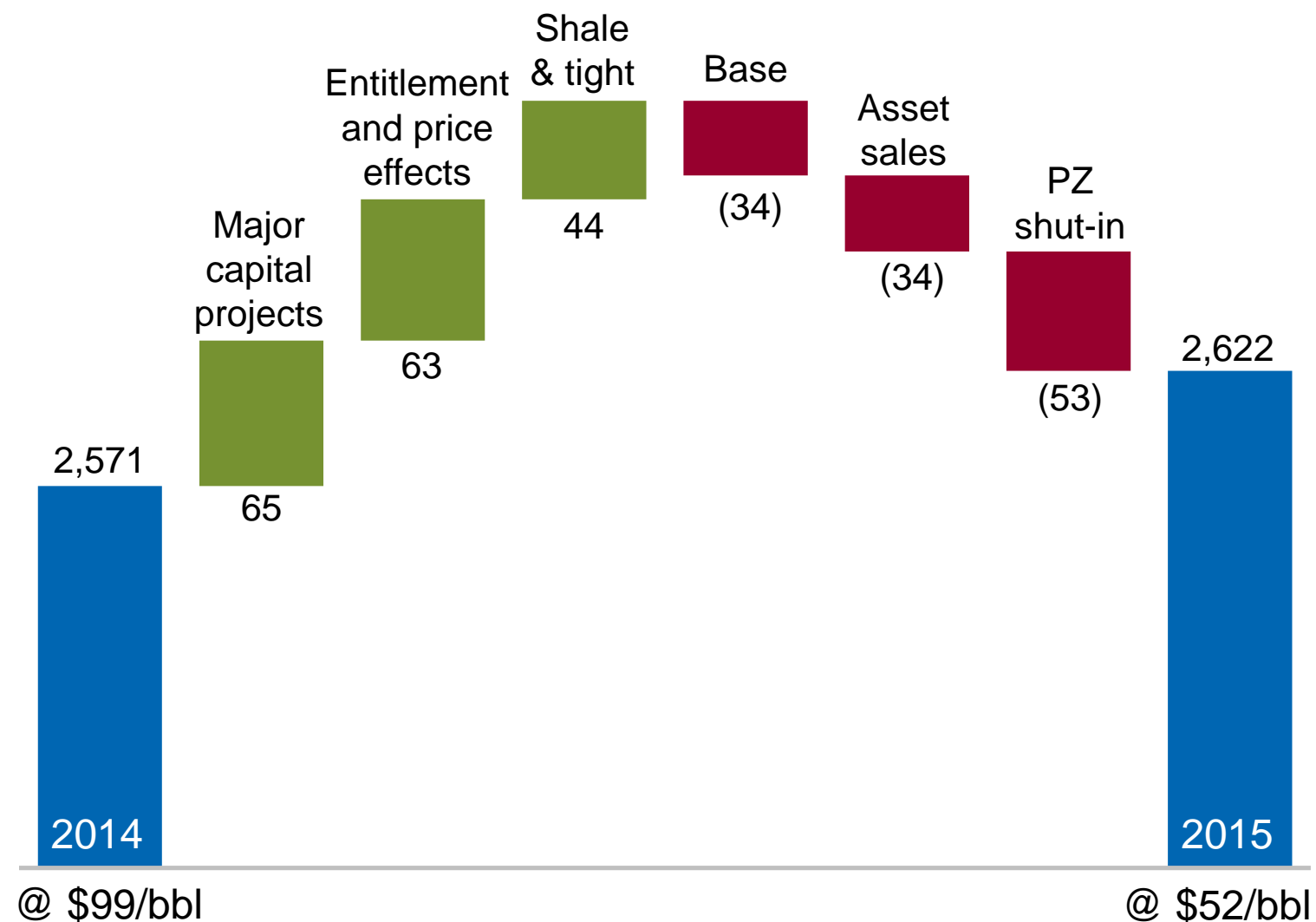
Future development options



2015 net production

Net production

MBOED



2015 production grew ~2%

▲ Major capital projects

Ramp-ups

- Jack / St. Malo
- Bibiyana Expansion
- Tubular Bells

Start-ups

- Agbami 3
- Lianzi
- Moho Nord

▲ Shale & tight growth
~30% year-on-year

▼ Partitioned Zone shut-in and asset sales



Jack / St. Malo

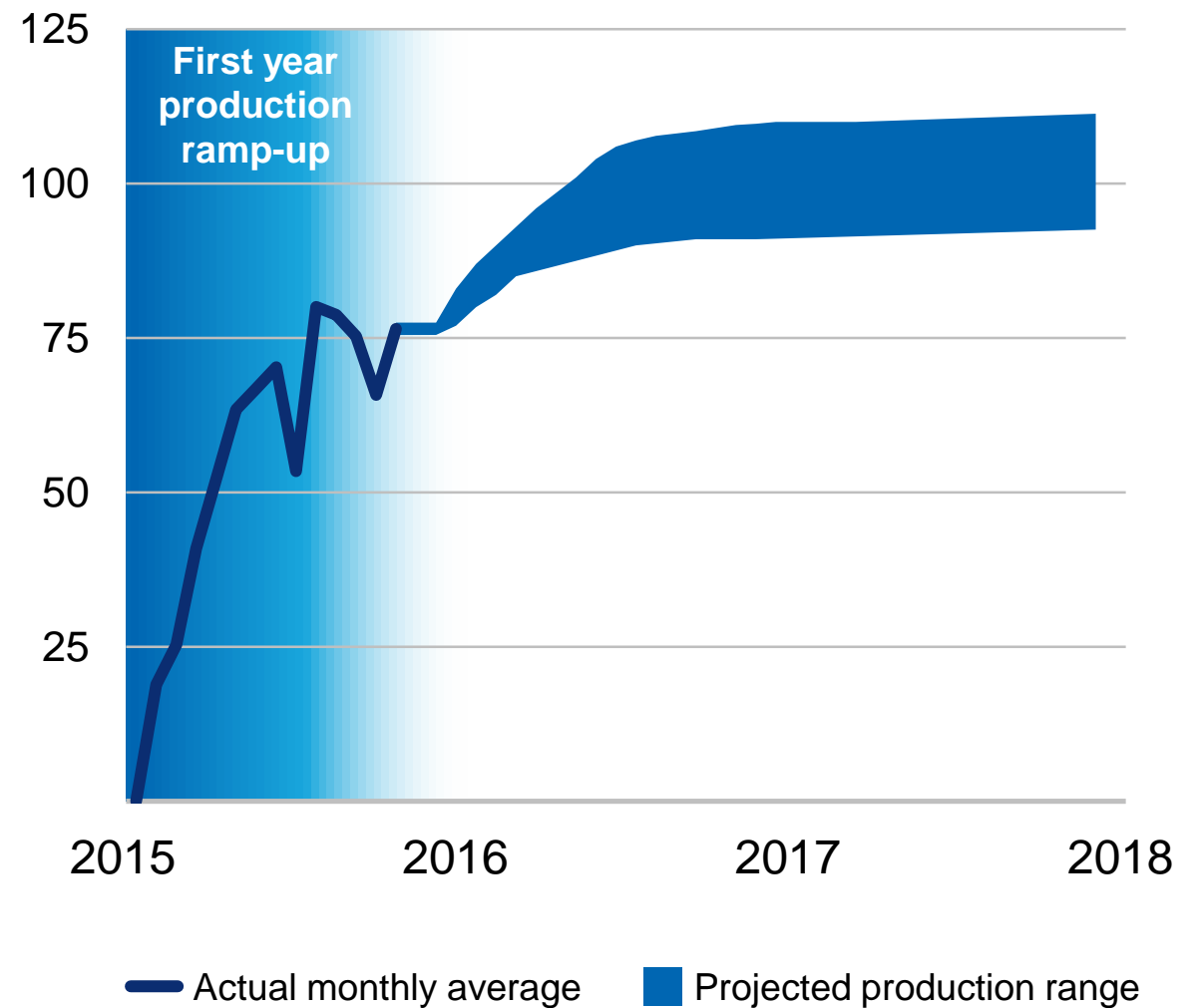
Strong stage 1 performance

- Project delivered on time and on budget
- 6 wells online, with 3 more wells in 2016
- Well performance meeting expectations
- Operational reliability of 96% over first year
- Top quartile development drilling performance

Progressing stage 2 development

- 4 additional wells

Total production (100%) MBOED



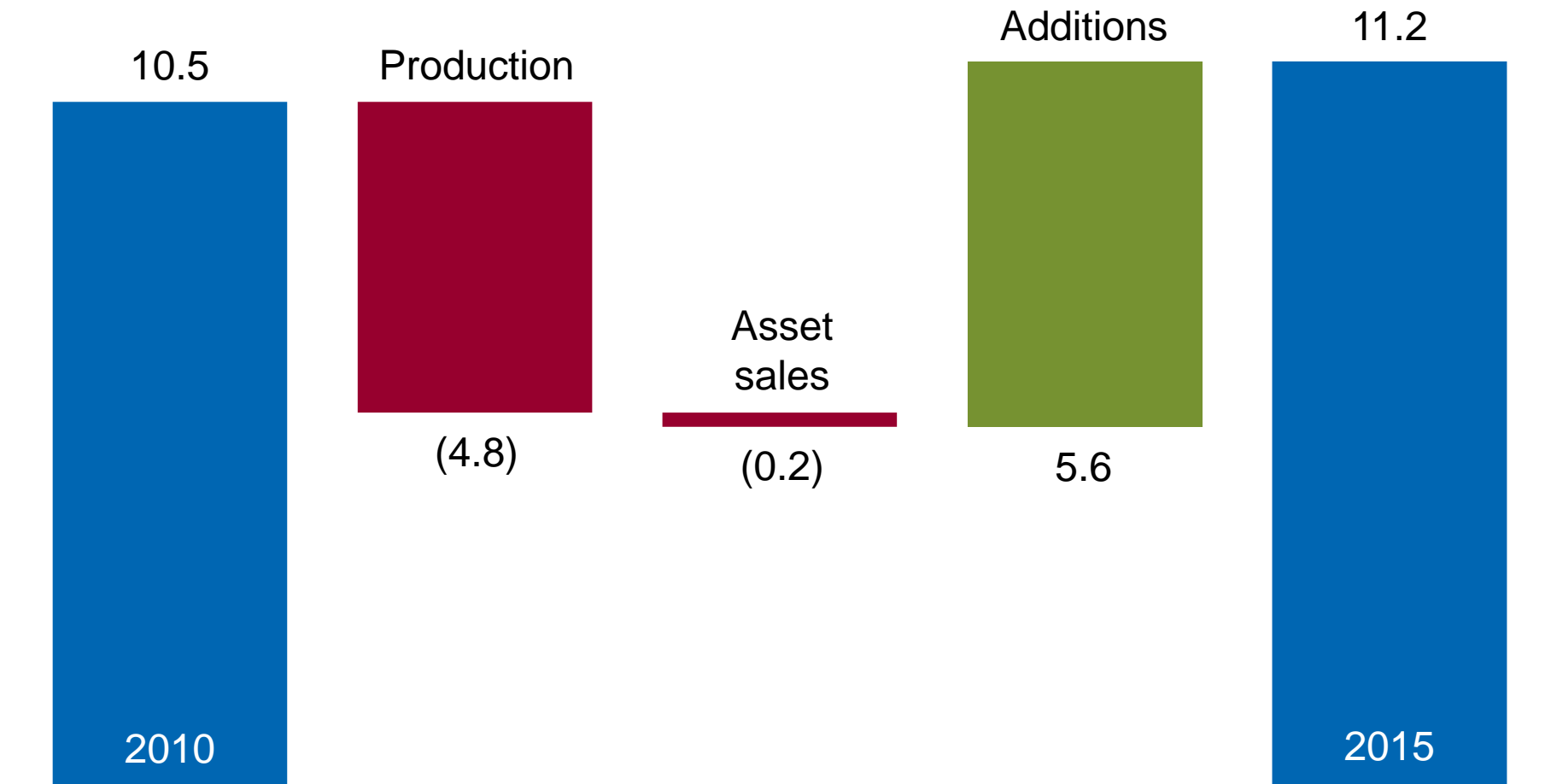
Strong reserves performance

Reserve replacement ratio

107%
1 year

113%
5 year

5 year reserve replacement BBOE



Leading exploration performance

1.8 BBOE

Resource* adds
in 2015

62%

Success rate
in 2015

\$1.22

Unit finding cost
in 2015



11.3 BBOE

Resource* adds
10 year total
2006–2015

57%

Success rate
10 year average
2006–2015

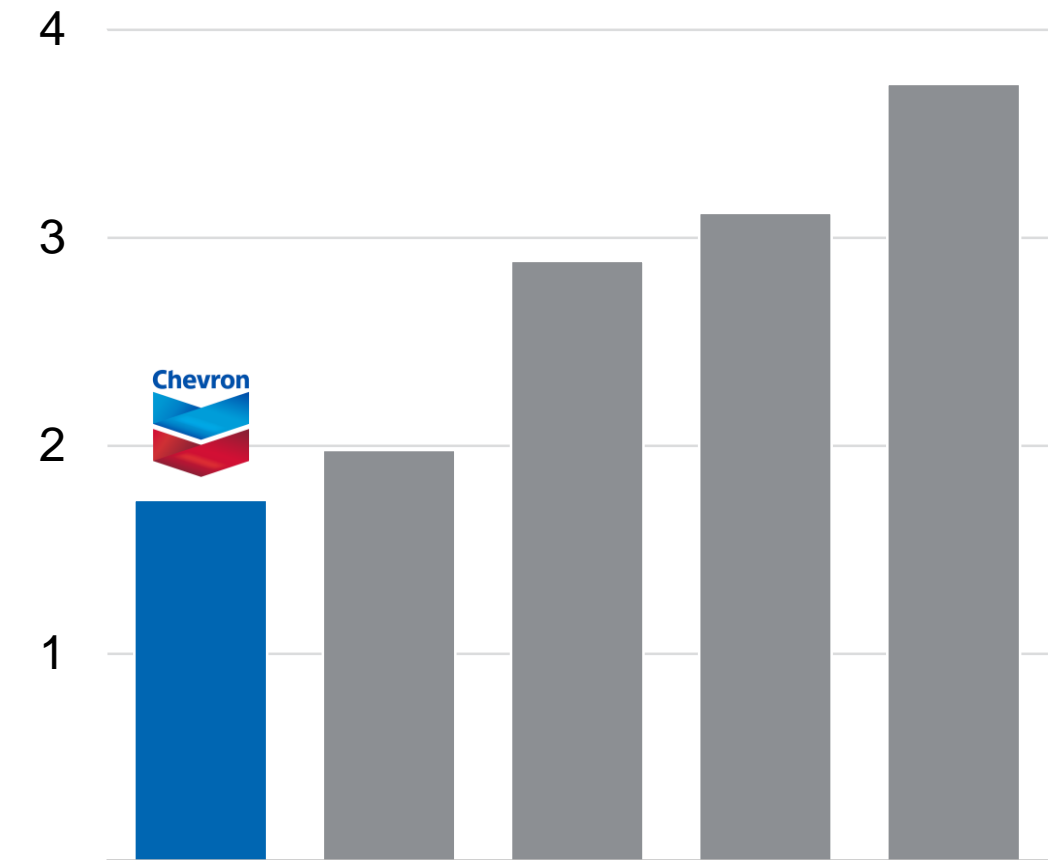
\$1.73

Unit finding cost
10 year average
2006–2015

Discovery costs

2005–2014

\$/BOE



Competitor range: BP, RDS, TOT, XOM

* Recoverable resources as defined in the Supplement to the Annual Report



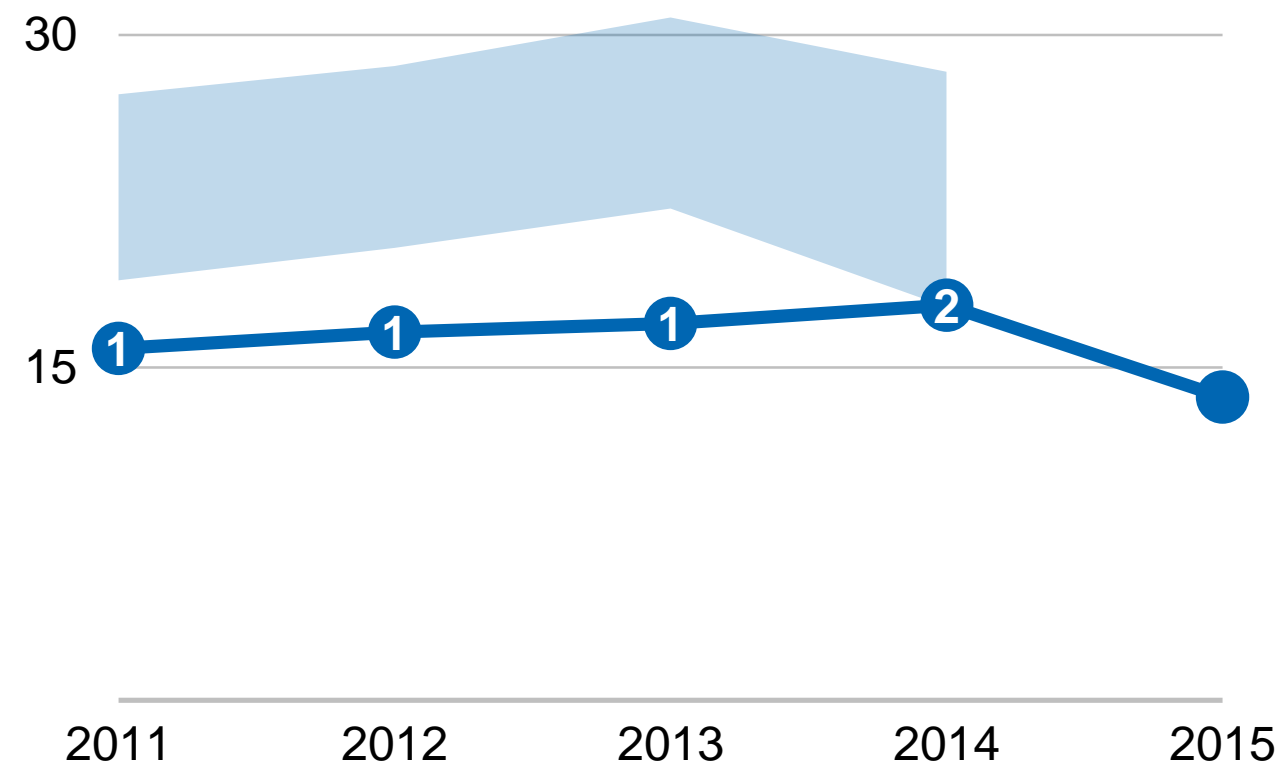
Reducing cost structure

20–25% workforce reduction

Capturing market savings

Improving efficiency

Upstream cash production cost per BOE



● CVX ranking relative to IOC competitors, 1 being the best

■ Competitor range: BP, RDS, TOT, XOM

Production expenses (excluding taxes) + taxes other than income + other expense/income (excluding asset sale gains/losses)



Improving efficiency

Deepwater Gulf of Mexico

- Intelligent well completions enhance economic recovery
- Basin experience and standardization improving performance

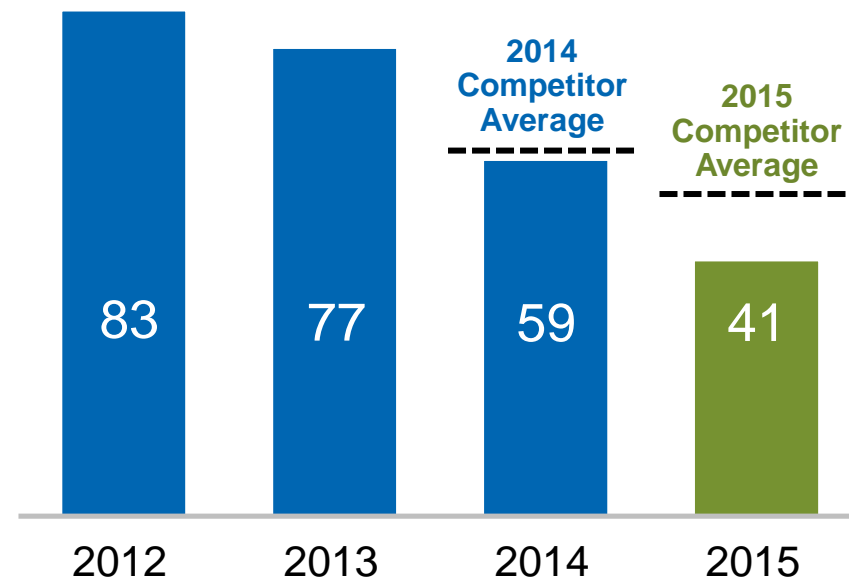
Tengiz

- New well stimulation method reduced costs ~70%
- Debottlenecking increased production capacity ~16 MBOPD

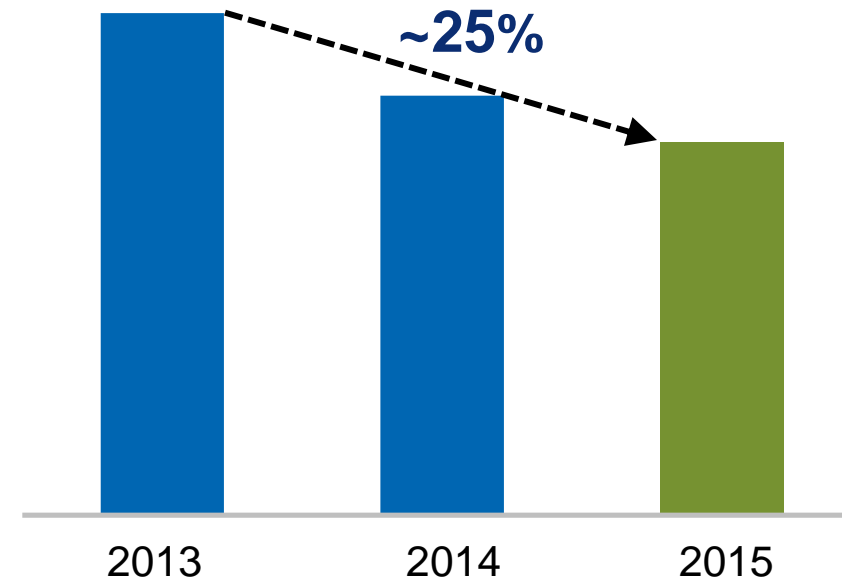
Technology

- 30% production increase from artificial intelligence techniques in California
- 2,000+ critical rotating machines centrally monitored

Average days per 10,000 feet drilled



Transportation cost reduction



Improving project execution

Increasing engineering maturity

Strengthening design assurance

Optimizing contracting strategy

Verifying execution readiness

Improving quality management



Gorgon

Train 1

- First cargo expected this month

Trains 2 and 3

- All modules delivered to site
- Planned start-up at ~6 month intervals



Wheatstone

Progress

- All train 1 modules required for start-up set on foundations
- Train 2 module delivery underway
- LNG loading jetty complete
- 8 of 9 wells complete



2016 key milestones

- All wells ready for production
- Platform fully commissioned
- Gas turbine generators online
- All train 2 modules on foundations



Other 2016 start-ups

Alder

- First production expected 2H 2016



Mafumeira Sul

- Hook-up & commissioning ongoing
- First production expected 2H 2016



Angola LNG

- Repairs and design improvements complete
- Final commissioning ongoing
- Expect first LNG cargo 2Q 2016



Chuandongbei

- Train 1 online
- Expect train 2 and 3 start-ups 2Q 2016



Bangka

- First production expected 2H 2016



Other projects in execution

Big Foot

- Tension Leg Platform design validated
- Platform in storm-safe storage
- Start-up expected 2H 2018

Other start-ups

- Sonam 2017
- Hebron 2017
- Clair Ridge 2017
- Stampede 2018

NOJV project start-up dates per operator guidance



Attractive Permian growth

Large, quality resource

- ~2 MM net acres
- ~9 BBOE resource*
- ~85% no or low royalty

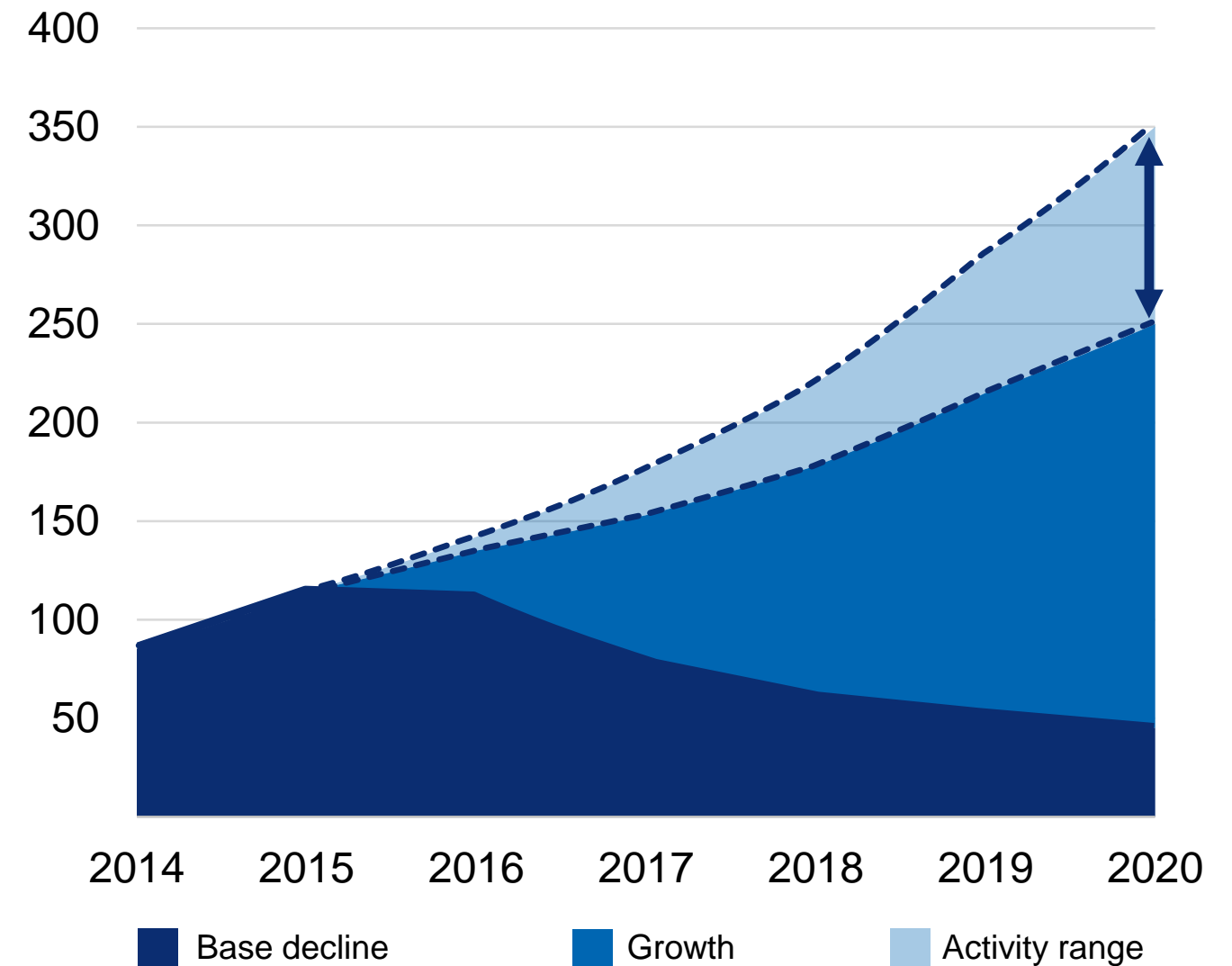
Efficient development plans

- Factory mode with multi-well pads
- Systematic development of high-graded queue

Production growth underway

- 33% increase from 2014 to 2015

Net production – Midland & Delaware Basins MBOED



*Potentially recoverable resources as defined in the Supplement to the Annual Report



Competitive Permian performance

Lowering development costs

Horizontal well costs reduced ~40%

- Drilling footage per day increased ~45%
- Frac stages per day increased ~115%

Recent performance

Delaware Basin

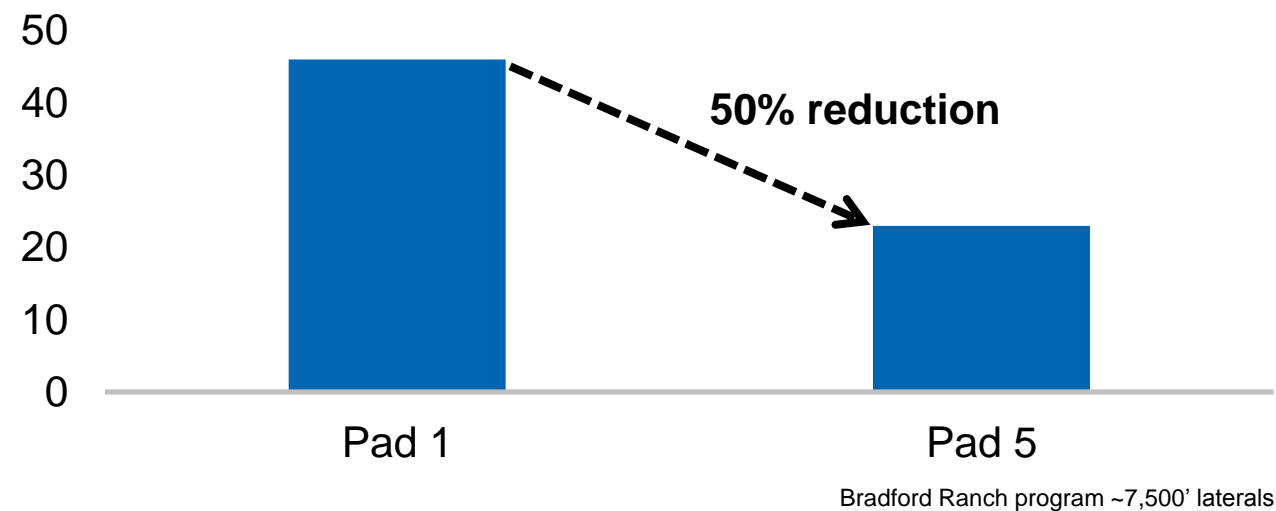
7,000' laterals
 ~\$7.1 MM well cost
 ~960 MBOE / well

Midland Basin

7,500' laterals
 ~\$7.4 MM well cost
 ~850 MBOE / well

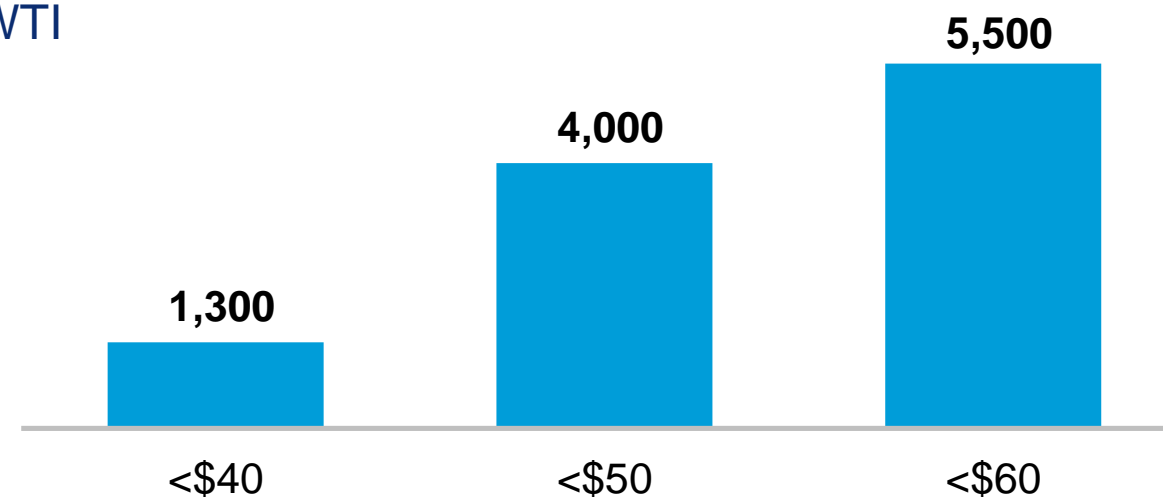
Performance improvements above are comparison of 2015 vs. 2014 horizontal well averages

Drilling days per well



Breakevens

\$ WTI



Figures reflect cumulative well counts for ~30% of operated acreage
 Breakevens per Wood Mackenzie definition: 10% rate of return at flat real oil price



Leveraging Permian performance to other shale & tight assets

Duvernay

- Appraisal program advancing
- Best-in-class drilling; days per well reduced ~35%
- Unit development cost decreased ~35%



Duvernay baseline 2H 2014

Vaca Muerta

- Initiated horizontal factory mode
- Horizontal well costs reduced ~20%
- Improved well designs have achieved IP rates ~800 BOED
- Unit development cost decreased ~30%



Vaca Muerta baseline 4Q 2014

Appalachia

- Pacing investment
- Well costs reduced ~35%
- Cycle time shortened ~45%
- EUR increased ~30%
- Unit development cost decreased ~40%



Appalachia baseline 1Q 2014

Base projects

Well factories

- Gulf of Thailand
- San Joaquin Valley
- Indonesia



Base deepwater

- Focused on development of existing assets
- Agbami, Tahiti, Jack / St. Malo, Caesar Tonga, Mad Dog



Asset enhancements

- Infill drilling
- Debottlenecking and reliability upgrades



Tengiz FGP / WPMP

Project has two components

- WPMP provides additional wells and pressure boost facilities to fill existing plant capacity
- FGP adds wells and new plant capacity of 250–300 MBOPD (100%)
- FID expected mid-2016



Applying project lessons learned to FGP / WPMP

Increasing engineering maturity at FID

Engineering > 40% complete; all underground piping, electrical and foundations in 3D model

Strengthening design assurance

Process design, equipment sizing & specifications verified; hazard and operability studies complete at FID

Optimizing contracting strategy

Module fabricator involved in design; integrated project management team; scopes of work matched to contractor capabilities

Verifying execution readiness

4,500 camp beds ready; dredging > 25% complete; 3D model 90% complete and verified before fabrication begins

Improving quality management

Project engineers assigned to equipment packages from design through start-up; dedicated equipment preservation team in place



Future opportunity queue

