

August 2018

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### **AGENDA**



### **PRESENTATION**

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MANAGING DIRECTOR

CHIEF FINANCIAL OFFICER

**EGM - PNG BUSINESS UNIT** 

EGM – GAS, MARKETING & EXPLORATION



### **2018 FIRST HALF HIGHLIGHTS**

- Total production of 10.24 mmboe:
  - 31% lower than 1H17 due to 7.5 mag earthquake in February
  - OSH involved in major recovery effort, with activities ongoing
- Net profit after tax of US\$79.2 million, DPS of 2 US cents/share
- Strong recovery since coming back online, with PNG LNG reaching record daily rate >9 MTPA in May
- Mid-term SPAs signed with PetroChina and BP, taking total contracted volumes for PNG LNG to 7.5 MTPA
- Steady progress on new LNG development activities following alignment on downstream concept in 1Q18:
  - Three train LNG development
  - Underpinned by strong resource position in Elk-Antelope and P'nyang gas fields (>8tcf 1C and 11tcf 2C)
  - Discussions on technical definition, financing, commercial plus engagement with Government underway



### **2018 FIRST HALF HIGHLIGHTS** CONT.

- Successful appraisal in PNG forelands (Kimu 2, Barikewa 3), plus expansion of exploration portfolio in onshore Gulf
- Material upside in oil fields identified
- Alaska:
  - Recent drilling from ConocoPhillips highlights material resource upside in Pikka Unit
  - 2018/19 appraisal drilling campaign matured
  - Building world-class team
  - Highly valuable Option





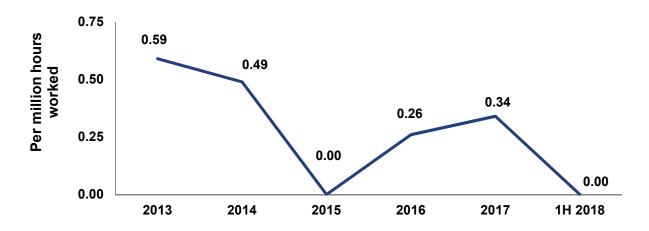




### TOTAL RECORDABLE INCIDENT RATE (TRIR)



### **LOST TIME INJURY FREQUENCY**



- No major injuries to OSH staff and contractors due to earthquake and aftershocks
- However, TRIR increased to 2.7 per million hours worked:
  - Largely associated with seismic operations in onshore Gulf, all minor, no LTIs
  - Improvement plan introduced end 1Q, resulting in decrease in reported incidents (5 in 2Q vs. 9 in 1Q)
- No material environmental incidents
- No loss of hydrocarbon containment as a result of earthquake





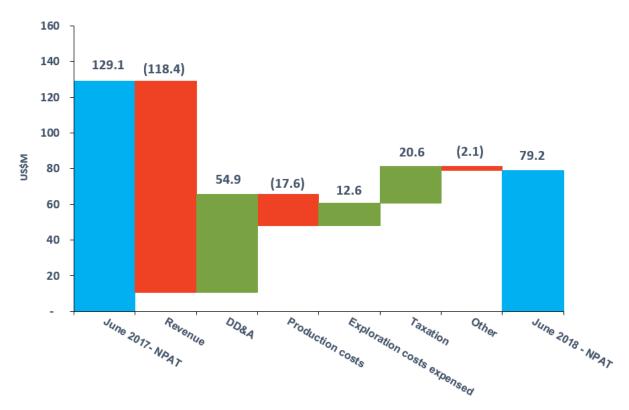
	1H18	1H17	
Sales volume (mmboe)	9.8	14.2	•
Net Profit after tax (US\$m)	79.2	129.1	•
Operating cash flow (US\$m)	215.2	419.3	•
Interim dividend (US cents)	2.0	4.0	•
Net debt (US\$m)	3,048	2,812	•
Liquidity (US\$m)	1,260	1,824	•
Average realised oil and condensate price (US\$/bbl)	71.45	53.35	
Average realised LNG and gas price (US\$/mmBtu)	9.02	7.67	•

- Net profit after tax of US\$79.2m, 39% lower than 1H17, reflecting impact of PNG Highlands earthquake on production and costs
- Production impact on earnings partially offset by continued recovery in oil and LNG prices
- Operating cash flow of US\$215.2m, impacted by lower sales volumes
- ❖ Total liquidity of US\$1.26 billion at 30 June 2018, reflecting lower cash flows combined with outflows including acquisition of Alaska assets (US\$416m) and US\$166m PNG LNG project finance debt repayment
- 2018 interim dividend of 2.0 US cents per share

## 2018 FIRST HALF FINANCIAL PERFORMANCE



### **NET PROFIT AFTER TAX (US\$M)**

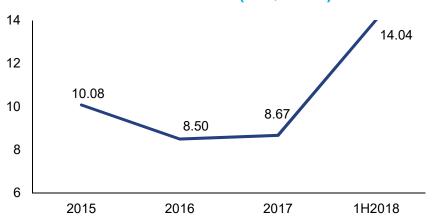


- Solid first half profit despite production shut-in from PNG Highlands earthquake, assisted by continued rise in oil and LNG prices
- Key financial measures impacted include:
  - Revenue down 17.5%
  - Production costs up 13.9%
  - Depreciation and amortisation down 29.5%
- Production costs impacted by earthquake remediation work, LNG cargo purchase and reprioritised maintenance activities
- Insurance recoveries released against operating costs as repairs are undertaken
- Effective tax rate of 34.2% compared to 32.3% for 1H17, due to one-off adjustments on lower taxable profits

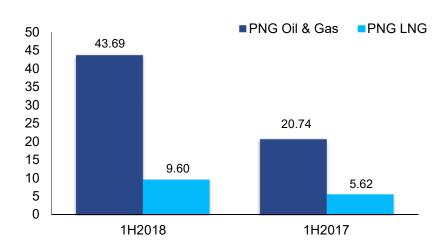


## UNIT PRODUCTION COST OF US\$14.04/BOE – IMPACT OF PNG HIGHLANDS EARTHQUAKE

### **UNIT PRODUCTION COST (US\$/BOE)**



### **UNIT PRODUCTION COSTS BY PROJECT (US\$/BOE)**



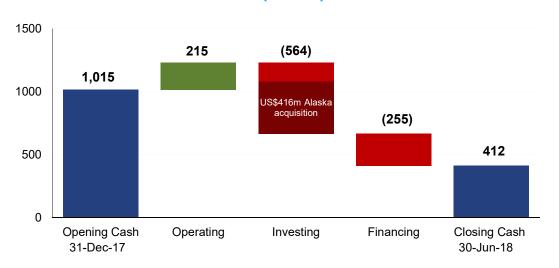
US\$M	1H 2018	1H 2017
Production costs:		
PNG LNG	85.5	67.2
PNG Oil and Gas	58.3	59.0
	143.8	126.2
Royalties and levies	1.7	4.6
Gas purchases	3.3	8.6
Inventory movements	(10.6)	(10.6)
Other costs of production	3.2	-
Total cost of production	141.3	128.9

- Unit production costs expected to recover to pre-earthquake levels in 2H18, supported by improved PNG LNG production rates post earthquake start-up
- Lower royalties, levies and gas purchases reflect 31% lower production
- Other costs of production include funding for LNG related projects and studies



### FINANCIAL METRICS REMAIN SOLID

### **CASH FLOW WATERFALL (US\$M)**



### **LIQUIDITY (US\$M)**



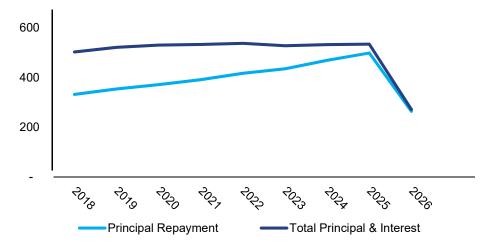
- Positive operating cash flow, despite earthquake impact on sales volumes, buoyed by strong oil and gas prices
- Liquidity position remains sound at US\$1.26 billion
- Investing cash outflows included US\$416 million for Alaska North Slope acquisition
- US\$165.7 million of PNG LNG project finance debt repaid on schedule
- Corporate debt facilities totalling US\$850 million undrawn at 30 June
- Cash balances to commence rebuilding in 2H18 despite material ongoing capital programme





- Extensive modelling supports OSH's ability to fund LNG and Alaska North Slope developments:
  - Based on more conservative oil price medium-term outlook than current levels
  - Debt funding through expansion of PNG LNG project finance facility plus new project finance facilities for Papua LNG and Alaska Nanushuk development
  - Equity component funded from existing cash balances, cash from operations (~US\$1bn pa, depending on oil prices) and existing/new corporate facilities

### INDICATIVE PNG LNG REPAYMENT PROFILE (NET, US\$M)



### CASH FLOW PRIORITIES REMAIN UNCHANGED

### Free cash flows

After scheduled debt servicing, sustaining capital expenditure and commitments

### **Dividends**

In accordance with dividend policy to distribute 35%-50% of core NPAT

### **Growth Capital Investments**

LNG expansion in PNG & Alaska North Slope

### **Other Growth Initiatives**

**Exploration** 

### **Surplus Capital**

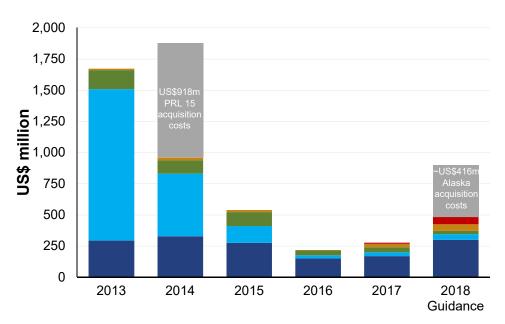
Return to shareholders:

- Share buy-backs, special dividends



### **2018 FULL YEAR FINANCIAL GUIDANCE**

Capital costs	2018 Guidance <sup>1</sup>
Exploration & Evaluation	US\$270 - 330m
Development	US\$40 - 50m
Production	US\$25 – 30m
Other PP&E	US\$50 - 55m
Power	US\$50 - 65m
Total	US\$435 – 530m



Production	2018 Guidance <sup>2</sup>	
Oil Search operated	3.0 – 4.0 mmboe <sup>3,4</sup>	
PNG LNG Project	21.0 – 22.0 mmboe <sup>3</sup>	
Total Production	24.0 – 26.0 mmboe	

Operating Costs	
Production costs	US\$11.0 - 13.0 / boe
Other operating costs <sup>5</sup>	US\$140 – 150 million
Depreciation and amortisation	US\$12.0 – 13.0 / boe

- 1. Excludes Alaska acquisition costs.
- 2. Numbers may not add due to rounding.
- Gas volumes have been converted to barrels of oil equivalent using an Oil Search specific conversion factor of 5,100 scf = 1 boe, which represents a weighted average, based on Oil Search's reserves portfolio, using the actual calorific value of each gas volume at its point of sale.
- 4. Includes SE Gobe gas sales.
- Includes gas purchase costs, royalties and levies, selling and distribution costs, rig operating costs, power expense and corporate administration costs (including business development), other expenses and inventory movements.





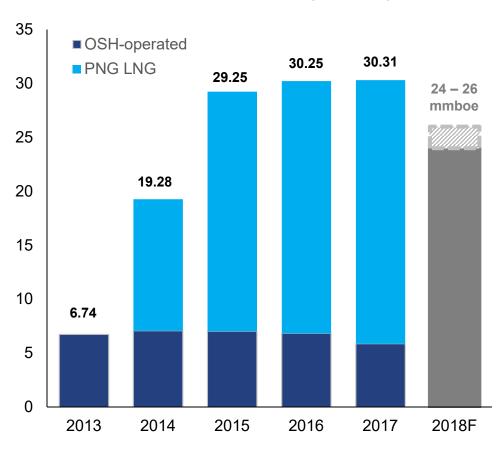
2018 FY production guidance upgraded:

Production	2018 Guidance <sup>1</sup>
Oil Search-operated	3 – 4 mmboe <sup>2,3</sup>
PNG LNG Project	21 – 22 mmboe <sup>2</sup>
Total production	24 – 26 mmboe

### PNG LNG:

- Expected to produce at/above pre-earthquake levels in 2H18 (post HGCP modifications and LNG plant maintenance undertaken in 1H18)
- No significant downtime for LNG plant maintenance currently planned for 2H18
- Progressive ramp up of OSH-operated production through to 1Q19

### OIL SEARCH NET PRODUCTION (MMBOE)1,2



<sup>&</sup>lt;sup>1</sup> Numbers may not add due to rounding.

<sup>&</sup>lt;sup>2</sup> Gas volumes have been converted to barrels of oil equivalent using an Oil Search specific conversion factor of 5,100 scf = 1 boe, which represents a weighted average, based on Oil Search's reserves portfolio, using the actual calorific value of each gas volume at its point of sale.

<sup>3</sup> Includes SE Gobe gas sales

<sup>1.</sup> LNG sales products at outlet of plant, post fuel, flare and shrinkage

<sup>2.</sup> Gas:oil conversion rate from 2014 onwards: 5,100 scf = 1 barrel of oil equivalent (prior 6,000 scf/boe)

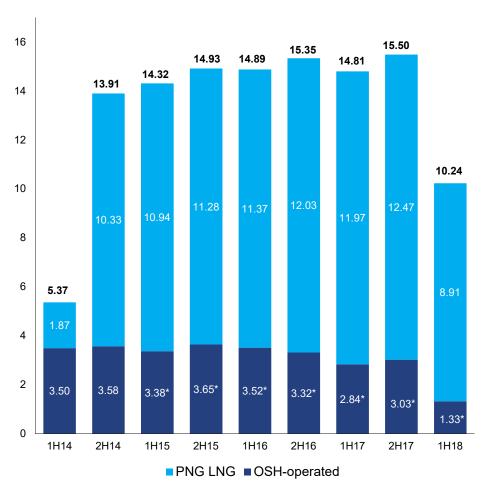
<sup>\*</sup> Oil Search operated production includes SE Gobe gas sales to PNG LNG Project





- ❖ 1H18 production of 10.24 mmboe, 31% lower than 1H17, reflecting temporary shutdown of operations due to February earthquake
- PNG LNG Project contributed 8.91 mmboe (39.3 bcf LNG, 1.2 mmboe liquids):
  - Operating at/above pre-earthquake levels since production resumed in April (8.5 MTPA in May and June, record daily annualised rate > 9 MTPA in June)
  - Reflects high operating reliability, planned modifications to HGCP and maintenance work on LNG trains undertaken during shutdown period
- OSH-operated production contributed 1.33mmboe:
  - All facilities now back online:
    - CPF (March), GPF (April), Hides GTE (May), APF (July)
  - Progressive ramp up in production expected through to 1Q19

### **NET PRODUCTION (MMBOE)**



<sup>\*</sup> Includes SE Gobe gas sales

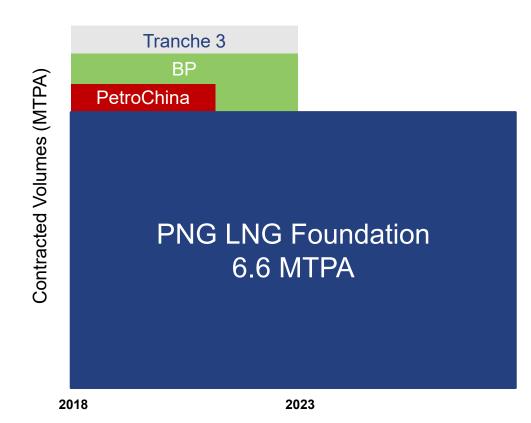






- Three-year SPA signed with PetroChina for ~0.45 MTPA of LNG. Supply commencing July '18
- ❖ Five-year SPA signed with BP: ~0.45 MTPA of LNG for three years, followed by ~0.9 MTPA for two years. Supply commencing Aug '18
- PetroChina and BP SPAs take total contracted volumes to ~7.5 MTPA
- Adds to 6.6 MPTA under long-term contract to JERA, Osaka Gas, Sinopec and CPC
- Supply agreement for remaining mid-term tranche expected to be finalised in nearterm
- Strong spot market for remaining uncommitted volumes

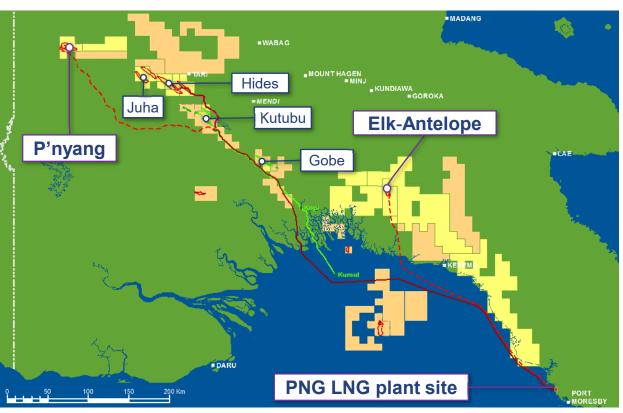
### PNG LNG CONTRACTUAL COMMITMENTS



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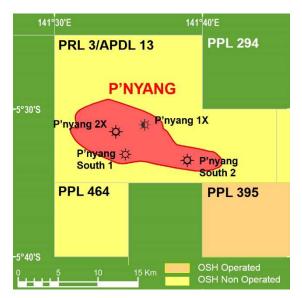
- Alignment reached on optimal downstream development concept:
  - Three ~2.7 MTPA trains, ~8 MTPA total capacity, two supported by Papua LNG (Elk-Antelope), one by PNG LNG and P'nyang, located on PNG LNG site
  - Excellent technical outcome, simplifies commercial and financial structure and is highly cost competitive
- Ongoing PNG LNG, PRL 3 and PRL 15 meetings to advance concept definition, engineering, project financing and commercial agreements
- State Negotiation Team established to negotiate gas agreements with PRL 15 and PRL 3 – dialogue underway
- Targeting FEED decision in 2H18

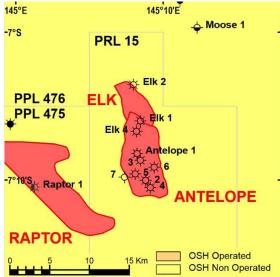




- Recertification of P'nyang field by NSAI completed in 1Q18:
  - Incorporated results of P'nyang South 2 well
  - Resulted in tripling of gross 1C certified resource to 3.51 tcf, 2C increased to 4.36 tcf
  - Supports financing and marketing activities for LNG expansion
  - In line with OSH internal estimate
- Both P'nyang and Elk-Antelope fields now fully appraised and certified:
  - Contain ~11tcf of 2C and >8tcf 1C to support LNG expansion
  - More than original resource underwriting PNG LNG Project

Sources of gas for LNG expansion (tcf)	1C	2C
Elk-Antelope (OSH 2017 estimate)	5.2	6.7
P'nyang (NSAI 2018)	3.5	4.4
Total	>8	~11

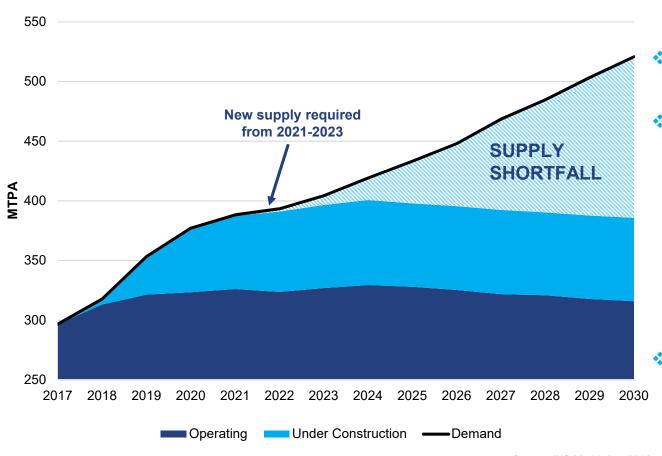








#### **GLOBAL SUPPLY AND DEMAND**



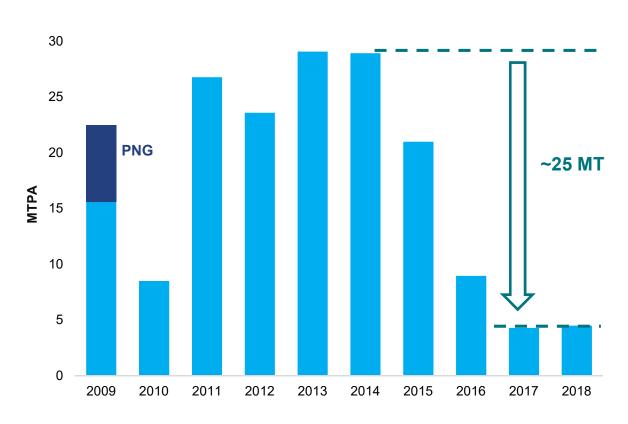
Source: IHS Markit Aug 2018

- Global LNG demand grew 11% in 2017 and >7% higher in 1H18 than in 1H17
- LNG demand growth expected to be >4.5% p.a. to 2030
- Growing demand driven by NE Asia:
  - Taiwan phasing out nuclear power by 2025
  - China and South Korea
     prioritising gas and renewable
     generation over coal and
     nuclear to address air quality
     concerns
- Material supply shortfall of ~135 MTPA expected by 2030:
  - New LNG projects required to meet supply-demand gap, expected as early as ~2021-2023

## POTENTIAL GLOBAL LNG SUPPLY SHORTFALL COMMENCING IN EARLY 2020'S

# Oil Search

### **LNG LIQUEFACTION CAPACITY BY FID YEAR**



Source: IHS Markit Aug 2018

- Significant fall in amount of new LNG capacity sanctioned:
  - Only 8.8 MTPA sanctioned since 2016
- ❖ To meet supply-demand gap in 2025, ~40 MTPA of additional supply required (9 x 4.5 MTPA LNG trains)
  - New projects would need to take FID by ~2020
- By 2030, a further 135 MTPA of new supply required (30 x 4.5 MTPA LNG trains)

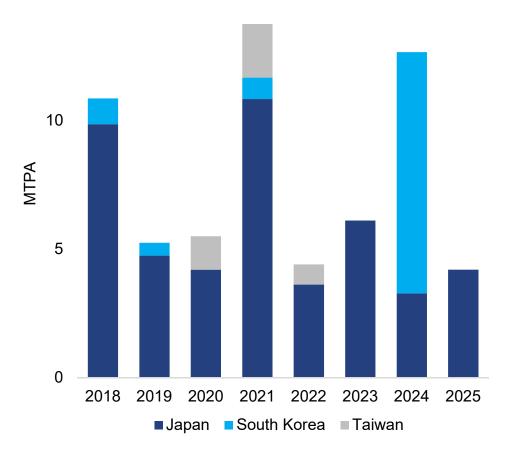




- Very positive response received from Tier 1 Buyers to OSH equity marketing from new LNG capacity in PNG
- Buyers seeking LNG source diversification from new countries and new sellers
- Renewed interest from buyers for term supply
- Marketing LNG with attractive high heating value from brownfield expansion
- Security of supply from proven project to meet growing supply-demand gap from early-2020s:
  - Significant growth in Asian regional demand
  - By 2025, 60+ MTPA of LNG contracts expire across JKT. Many expiring contracts with projects that are in decline

### **CONTRACT EXPIRATIONS BY YEAR**

15



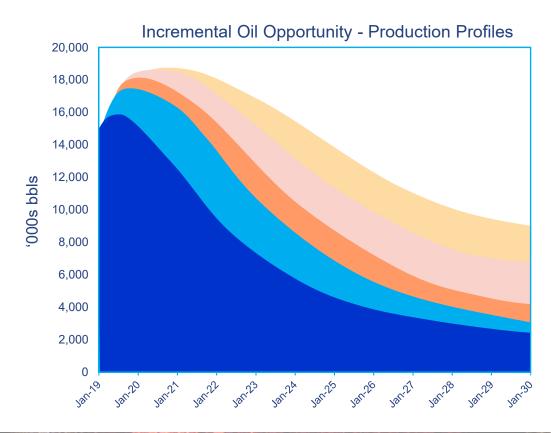
Source: IHS Markit Aug 2018





### Liquids

- Significant low risk opportunities identified to extend production life of oil fields
- Potential to extend plateau oil production until 2023-24 and add > 30mmbbl net

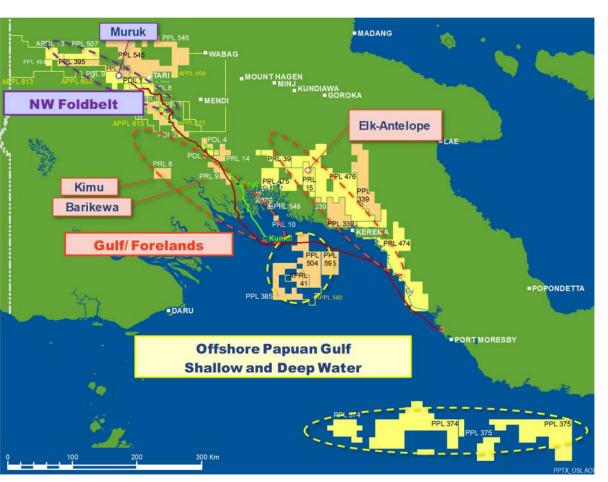


### **Associated Gas Expansion (AGX)**

- Work progressing on AGX opportunity
- Comprises accelerating gas from Kutubu, Agogo and Moran fields to support higher PNG LNG production
- Potential source of low cost feed gas to front-end PNG LNG/P'nyang expansion train under three-train concept
- Recertified increased PNG LNG reserves within oil fields underpins higher gas production rates







- Successful appraisal in PNG Forelands:
  - Kimu 2 and Barikewa 3 intersected gas in high quality target reservoirs
  - Evaluation of well results underway to define resource volume, determine optimal route for commercialisation
- Muruk 2 appraisal in NW Foldbelt:
  - 11km step-out to test resource upside, expected to spud 4Q18
- Expansion of exploration portfolio in onshore Gulf:
  - 25% farm-in to PPLs 474, 475, 476, PRL 39, adjacent to Elk-Antelope fields in PRL 15
- First phase seismic acquisition in onshore Gulf >85% complete:
  - Operated by OSH on behalf of ExxonMobil and Total, covering >330km around PRL 15, expected completion 3Q18
  - Will help define attractive leads and prospects in close proximity to planned Papua LNG infrastructure





- Building team, agreeing programmes, setting priorities, deliverables and accountabilities
  - Building integrated and empowered team in Anchorage (currently 50 employees, expect ~100 by end 2018)
- Aligning the Joint Venture:
  - 2018/19 work programme (appraisal and development) and budget
  - Contracting and alliancing strategies
  - Immediate and long-term exploration priorities
- EIS optimisation and long-term access agreements:
  - Ensure EIS development submission supports Record of Decision in 2Q19
  - Listen to community concerns, build long-term alignment and access
- Setting pathway for optimised cooperation with key stakeholders:
  - State, ConocoPhillips and local Native corporations
- Commencing process for Armstrong (AOG) option value capture:
  - Aligning with Repsol to attract quality 3rd parties linked to exercising option and undertaking joint divestment
  - Preparing data room and team to support divestment



## MATERIAL, BALANCED PORTFOLIO WITH FOUR STAGES OF GROWTH

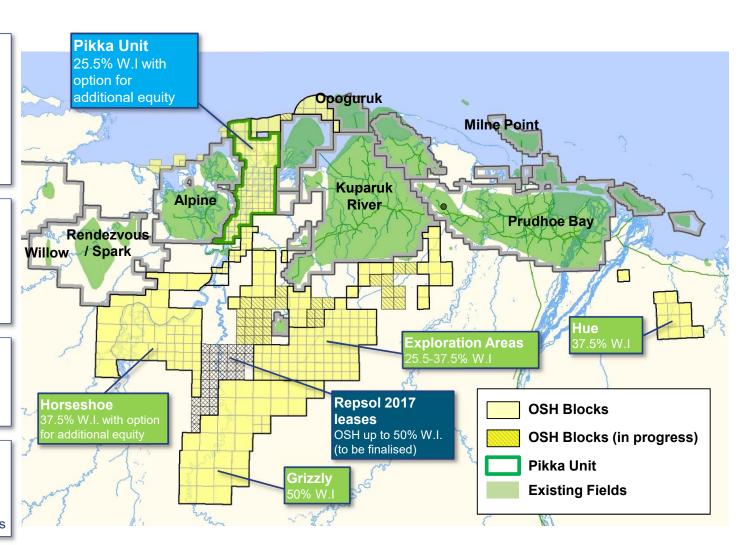




- 80-120,000 b/d at 500 mmbbl with significant upside potential
- Key milestones:
- FEED Entry in 2Q19
- FID in mid-2020
- 1st oil in 2023
- Nanushuk Expansion (Horseshoe)
- Potential for >300 mmbbl expansion
- Appraisal strategy:
- 2019: reprocessing 3D seismic, reservoir modelling, data trades
- 2020: Appraisal drilling
- Exploration
- Portfolio high-grading for 3+ year programme
- Focus on tie-back opportunities
- New Business

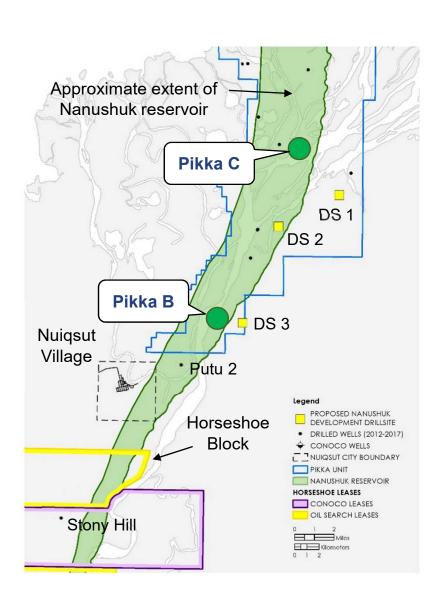
Medium / Long Term

- Strategic relationships
- Potential for infrastructuresharing with CPA
- Portfolio growth options with AOG, Repsol & others



### 2018/19 WORK PROGRAMME FOCUSED ON MATURING PIKKA RESOURCE ESTIMATES





### **OBJECTIVES**

- Drill two appraisal wells to constrain continuity of Nanushuk reservoir of Pikka Unit:
  - Pikka B and Pikka C locations identified, sites surveyed
- Add 1C around DS 3 and constrain 2C resources in Pikka Unit
- Define volumes for FEED decision (2Q19):
  - Recent subsurface work and results of COP's Putu 2 well indicate potential resource upside in Pikka Unit (above OSH estimate of 500 mmbbl gross)
  - Learnings from COP's technical advances
- Undertake Pre-FEED Optimisation Studies

### **Current OSH estimate**

Reservoir	2C (mmbbl)
Nanushuk	400
Satellite Reservoirs	100
Total	500

2018/09 appraisal programme targeting moving >250mmbl from 3C to 2C.
i.e. focused on appraising material upside, as recognised by joint venture partners

## PNG HIGHLANDS EARTHQUAKE – ONGOING COMMITMENT TO RELIEF AND LONG-TERM RECOVERY



- 7.5 magnitude earthquake in late February 2018 one in 100 year event
- OSH and OSH Foundation played critical 'First Responder' role:
  - UN estimates OSH delivered ~80% of total food supplies to impacted areas in first four weeks after earthquake
- Communities in Hela, Southern Highlands and Western Provinces continue to be impacted:
  - Thousands dislocated, basic services unavailable, schools closed, roads blocked
- Long-term term recovery and restoration activities underway:
  - Oil Search Foundation leading major immunisation programme to combat communicable diseases, rehabilitation of health facilities, addressing water, sanitation and hygiene needs
  - Working with Government and others on rebuilding essential infrastructure

### K16<sub>M</sub> (US\$5<sub>M</sub>)

COMMITTED IN CASH AND KIND TO SUPPORT DISASTER RELIEF EFFORTS IN HELA AND SOUTHERN HIGHLANDS PROVINCES

### **>200 TONNES**

FOOD AND SUPPLIES DELIVERED INTO VILLAGES, REACHING >200,000 PEOPLE

~2,400

MEDICAL TREATMENT CASES UNDERTAKEN

~100

HEALTH CENTRE KITS
DELIVERED







- >US\$200m of landowner benefits held in trust, waiting for confirmation of final landowner identification in certain licences
- Government making strong progress on identification and verification of landowners highly complex process
- Payment structures for landowner benefits distribution and relevant corporations all in place, dispute resolution making progress
- Importance of completing process, to ensure all landowner benefits are distributed, fully recognised by Government and Department of Petroleum
- Continue to support Government processes to expedite resolution of remaining issues



### **OTHER PNG INITIATIVES**

- Construction of 58MW power station in Port Moresby, due onstream early 2019
- Final fit-out of APEC Haus prior to APEC
- FEED decision on Biomass project
- Development of Papua New Guinean workforce and support of new diversity goals
- Ongoing social programmes, directly and through Oil Search Foundation:
  - Support of Hela Provincial Hospital and Health Authority provision of world-class health care
  - Women's empowerment
  - Addressing gender-based violence with new programmes
  - Champions for Change
- Support of rugby league in PNG:
  - Including promoting women through sponsorship of the Orchids









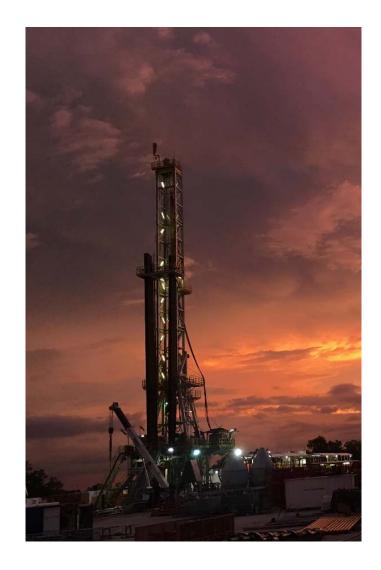


- In March 2018, OSH released its 2017 Climate Change Resilience Report:
  - One of the first ASX-listed companies to report in accordance with TCFD guidelines
- Report findings:
  - OSH's current and growth assets have long-term resilience and generate positive returns under a range of scenarios, including 2°C pathway
  - Low risk of OSH's low-cost assets being stranded in a carbon-constrained world
- Positive feedback since Report's release:
  - Well received by investment and ESG community
  - OSH ranked by Carbon Tracker in top quartile of 72 oil and gas companies globally in terms of resilience to climate change



### **SUMMARY**

- Strong recovery following devastating earthquake in PNG in February
- Positive production outlook for 2H18, with profitability supported by higher oil and LNG prices
- Three train development concept represents excellent technical, commercial and financial outcome and is highly cost competitive:
  - Targeting FEED decision in 2H18
- Global LNG demand continues to strengthen, significant interest from tier one NE Asian customers in OSH's equity volumes from proposed Papua LNG Project and from P'nyang development
- Alaska asset material uplift in value since initial investment. Focus on 2018/19 drilling programme, ahead of FEED entry in 2Q19. Build-up of Alaskan operation/capacity,
- Strong balance sheet, despite impact of earthquake, and excellent cash generation from operations, to support next phase of growth





### **2018 FIRST HALF RESULTS**

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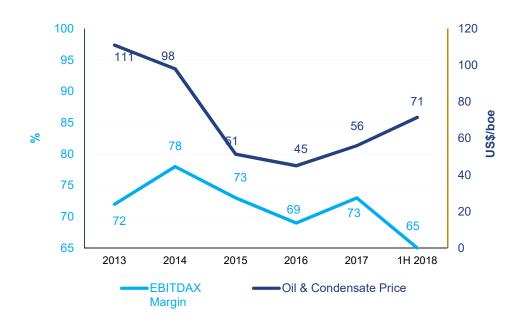
US\$m	1H 2018	1H 2017
Sales volume (mmboe)	9.77	14.18
Revenue	557.8	676.2
Production costs	(143.8)	(126.2)
Other operating costs	(55.0)	(55.0)
Other income	4.7	5.6
EBITDAX <sup>1</sup>	363.7	500.5
Depreciation and amortisation	(131.4)	(186.3)
Exploration costs expensed	(12.3)	(24.9)
Net finance costs	(99.6)	(98.5)
Profit before tax	120.3	190.8
Tax	(41.1)	(61.7)
Net profit after tax	79.2	129.1

<sup>&</sup>lt;sup>1</sup> EBITDAX (earnings before interest, tax, depreciation/amortisation, non-core activities, impairment and exploration) is a non-IFRS measures that are presented to provide a more meaningful understanding of the performance of Oil Search's operations. The non-IFRS financial information is derived from the financial statements which have been subject to review by the Group's auditor.



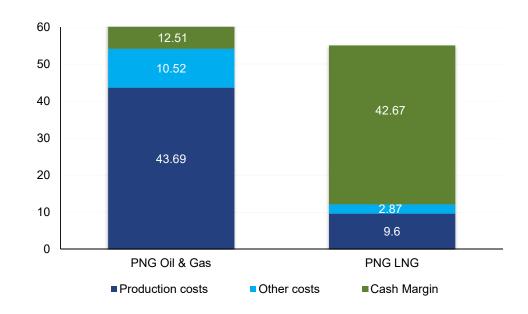
### **OPERATING MARGINS**

#### **EBITDAX MARGIN**



EBITDAX margin for 1H18 revenue impacted by PNG earthquake

### **CASH MARGIN BY ASSET (US\$/BOE)**



- Positive cash margins maintained
  - PNG LNG ~US\$43/boe
  - PNG Oil and Gas ~US\$13/boe



### **BUILDING CAPABILITY IN ALASKA**

### **INVESTING IN LOCAL TALENT**

- 70% Alaskan Citizens
- 9% Native Alaskans

### STRONG ALASKAN & INTERNATIONAL CAPABILITY

- 335+ years of US oil and gas experience
- 240+ years of Alaska North Slope experience
- Extensive global experience
- Advancing key strategic alliances and relationships

### **BUILDING A DIVERSE LEADERSHIP PIPELINE**

- 28% women represented on leadership team
- 30% women represented in Oil Search Alaska (OSA)
- 16% expats transferring OSH knowledge to OSA







### 2018 FIRST HALF RESULTS August 2018

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