



25th 
BONGKOT
Anniversary

MEMBER OF
Dow Jones
Sustainability Indices
In Collaboration with RobecoSAM

PTT Group Energy Day

18 October 2018



Company Overview

Financial Performance

Strategy and Growth

Investment Plan & Outlook

PTTEP: the E&P Flagship of PTT Group

Plays a pivotal role in Thailand's oil and gas production



As PTT's Upstream Flagship



Government of
Thailand

63.5%¹



Thailand's national energy company

65.3%²



Credit ratings equivalent to parent and country

S&P

Moody's

TRIS

BBB+

Baa1

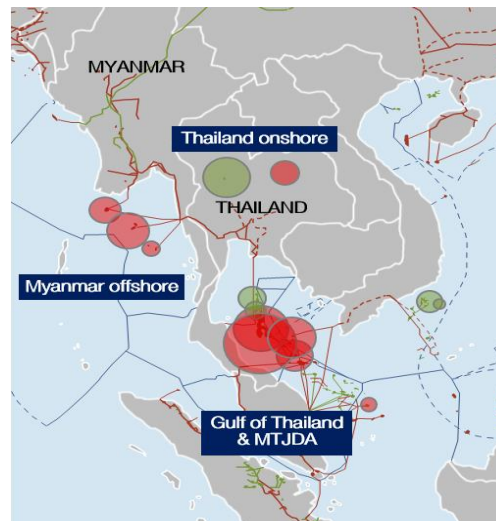
AAA

Largest oil and gas producers in
Thailand and Myanmar

Synergy with PTT's gas value chain through its dominant
position in the regional gas market

Opportunities to expand into regional investments

PTTEP's operations in SEA



○ Approx. 20 KBOED
of net sales volume

● Gas-
weighted

● Oil-
weighted

97%

of PTTEP's total
sales volume

+99%

Reliability of plants
and field facilities*

83%

of PTTEP's sales volume
sold to PTT

13 USD/
BOE

Average regional
cash cost

* of PTTEP-operated projects in Gulf of Thailand, excl. planned shutdown
All figures are as of 1H2018

Notes:

1. 51.1% is directly held by the Government of Thailand (Ministry of Finance), with the remaining 12.4% held by the state-controlled Vayupak Fund I as of 7 March 2018

2. Ownership as of 9 August 2018

A Firm Core for Accretive Growth

Reflected in 1H2018 performance



Operation

- ✓ **298 KBOED**
On-track sales volume target
- ✓ **30.37 \$/BOE**
Competitive unit cost
- ✓ Achieved **Bongkot** acquisition
& **Exploration** expansion



Financials

- ✓ **Healthy margin and liquidity**
 - **74%** EBITDA Margin
 - **\$3.4Bn** Cash on hand
 - **\$1.2Bn** Operating Cash Flow
 - **0.19x** Gearing ratio

Unlocking value through series of portfolio rationalization

Strengthen focus area

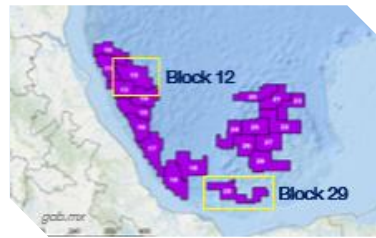
Reposition non-core

Acquisition

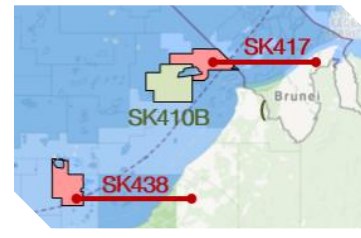


Completed 22.2222% stake acquisition in Bongkot from Shell

Expanded Exploration Portfolio



2 Deepwater blocks in Mexico with prudent operators



2 Shallow-water blocks in Malaysia as an operator

Divestment



Divestment of Montara Oil Field in Australia



Company Overview

Financial Performance

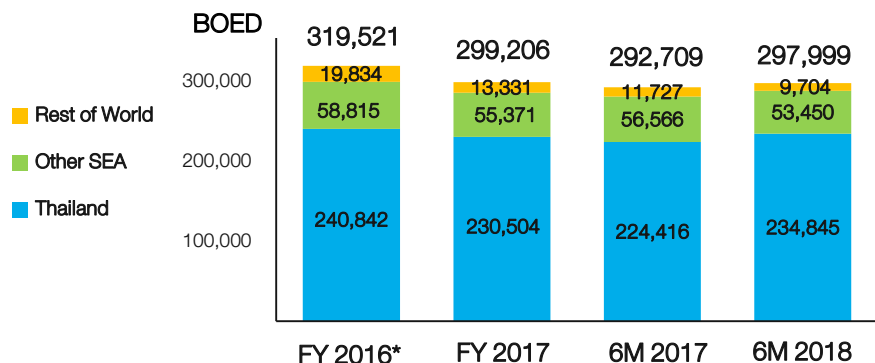
Strategy and Growth

Investment Plan & Outlook

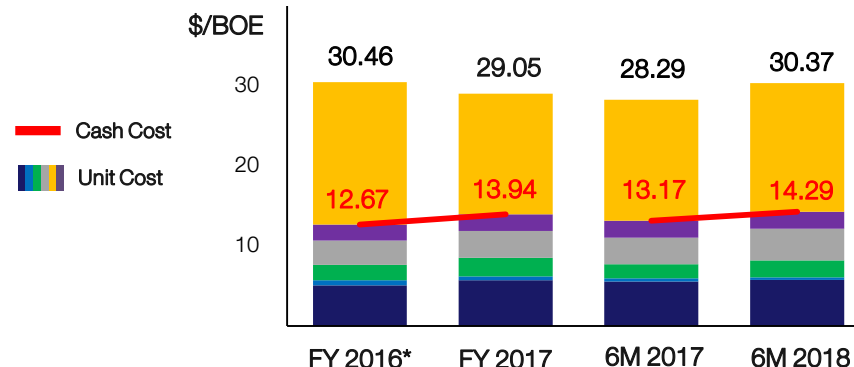
Sales Volume & Unit Cost

Higher sales volume offset with rising unit cost driven by DD&A

Sales Volume and Price



Unit Cost



| | | | | |
|----------------------------|---------|---------|---------|----------------|
| Gas (\$/MMBTU) | 5.60 | 5.59 | 5.45 | 6.14 |
| Liquid (\$/BBL) | 41.17 | 52.26 | 50.63 | 66.77 |
| Weighted Avg. (\$/BOE) | 35.91 | 39.20 | 38.04 | 45.51 |
| Avg. Dubai (\$/BBL) | 41.27 | 53.14 | 51.38 | 68.01 |
| Avg. HSFO (\$/BBL) | 35.48 | 49.64 | 47.85 | 61.85 |
| (High Sulphur Fuel Oil) | | | | |
| Volume Mix (Gas : Liquid) | 69 : 31 | 70 : 30 | 70 : 30 | 71 : 29 |
| Revenue Mix (Gas : Liquid) | 65 : 35 | 60 : 40 | 60 : 40 | 57 : 43 |

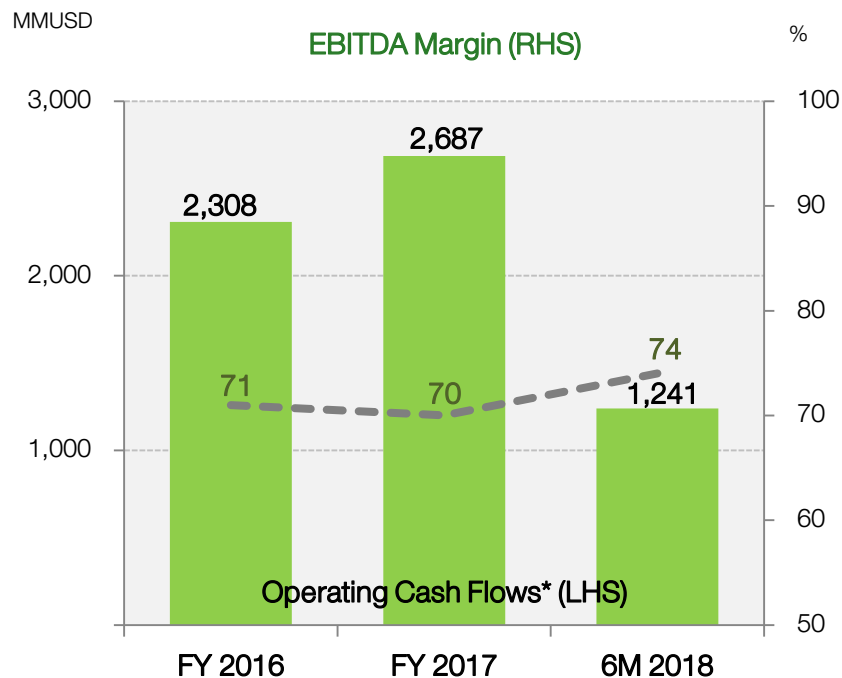
| | | | | |
|----------------------|-------|-------|-------|--------------|
| DD&A | 17.79 | 15.11 | 15.12 | 16.08 |
| Finance Cost | 2.01 | 2.07 | 2.12 | 2.12 |
| Royalties | 3.02 | 3.37 | 3.32 | 3.98 |
| G&A | 1.93 | 2.30 | 1.77 | 2.11 |
| Exploration Expenses | 0.63 | 0.48 | 0.39 | 0.33 |
| Operating Expenses | 5.08 | 5.72 | 5.57 | 5.75 |
| Lifting Cost | 4.18 | 4.19 | 4.10 | 4.17 |

Note: * Represented and includes discontinued operations until end of August 2016
The formulas for calculating ratios are provided in the supplementary section for your reference

Cash Flow Performance

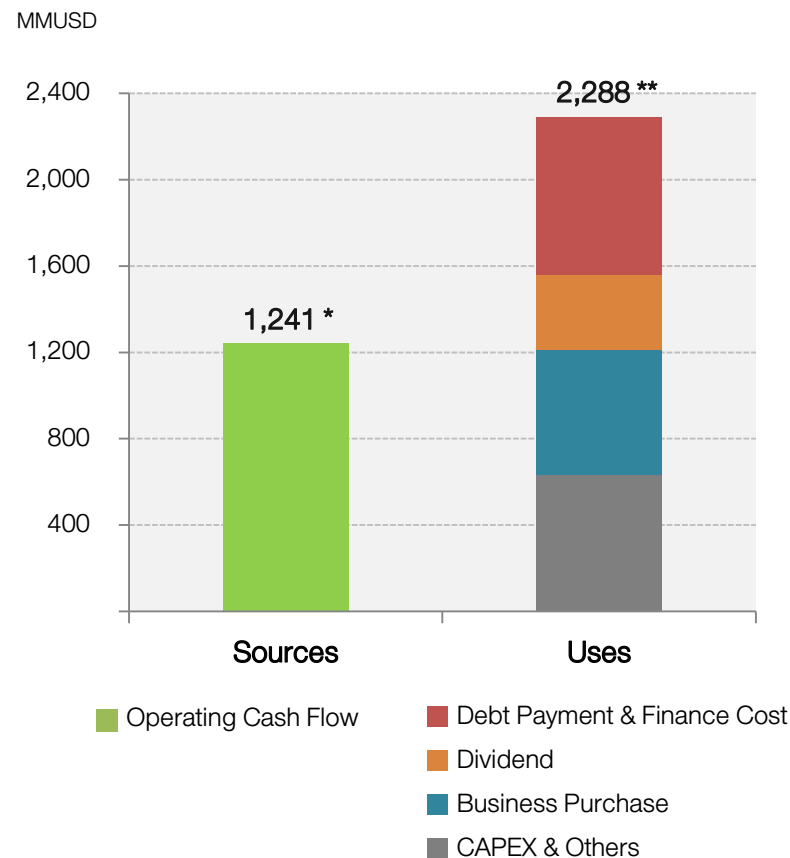
Maintained healthy operating cash flow

Cash Flow Performance



| | | | |
|-------------------------|-----|-----|-----|
| Net Income | 372 | 594 | 536 |
| Recurring Net Income*** | 466 | 836 | 640 |

Source & Use of Funds in 6M 2018



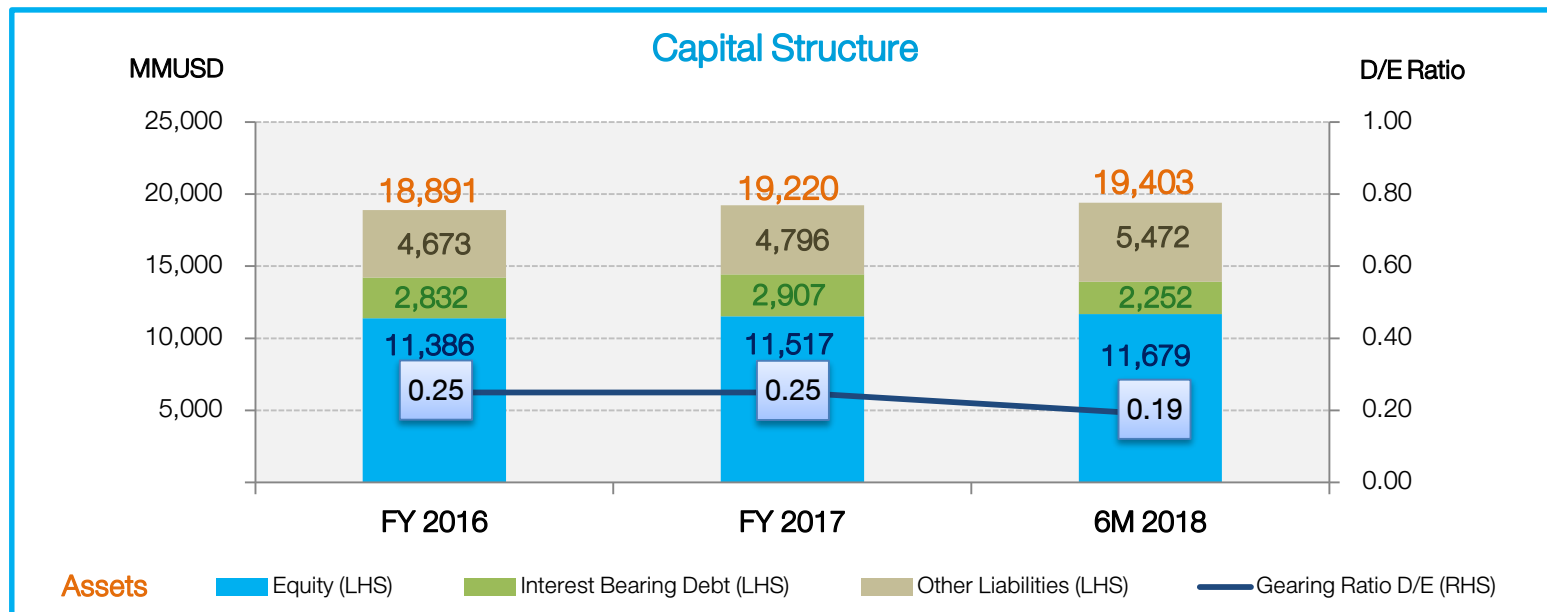
Remark: * Net of adjustment for the effect of exchange rate changes on cash and cash equivalents

** Excludes cash flows for investing in short-term investments (Fixed deposit > 3 months)

*** Excludes Gain/(Loss) on FX, Deferred tax from Functional currency, Current Tax from FX Revaluation, Gain/(Loss) from Financial Instruments, Impairment Loss on Assets, and etc.

Financial Position

Robust financial position with low gearing ratio

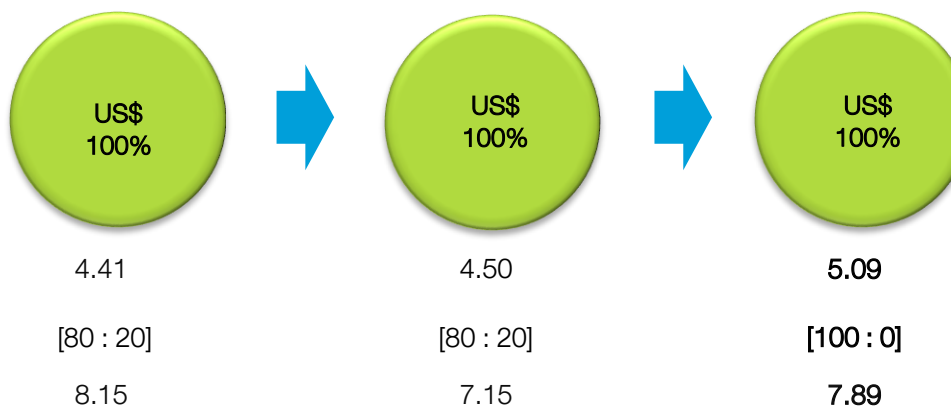


Debt Profile*

Weighted Average
Cost of Debt* (%)

[Fixed : Floating]

Average Loan Life* (Years)



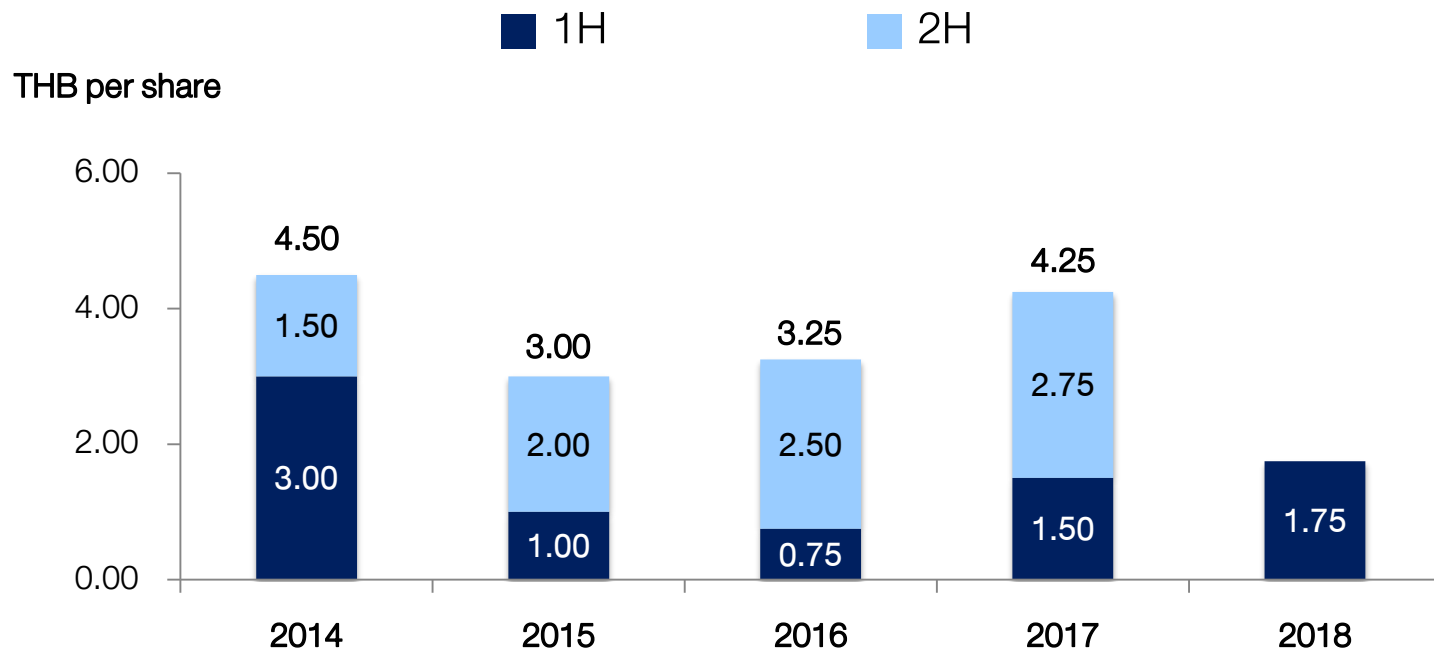
Remark: * Excludes Hybrid bonds

Dividends

Demonstrating our dividend commitment to shareholders



Dividend Payment History (Policy : No Less Than 30% of Net Income)



| | | | | | |
|------------------|----|-----|----|----|----|
| Payout Ratio (%) | 82 | N/A | 98 | 90 | 39 |
|------------------|----|-----|----|----|----|



Company Overview

Financial Performance

Strategy and Growth

Investment Plan & Outlook

RESET to Uphold Competitiveness

Achieved significant cost reduction and continue to improve efficiency

Ways

Optimizing Producing Projects



Capital Management



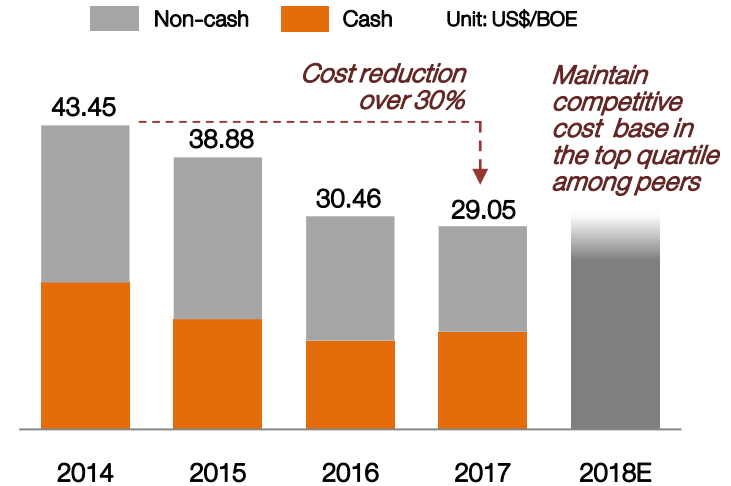
Organizational Restructuring
to cope with changing E&P landscape



Cost Management
through SPEND SMART campaign



Results



2017 SPEND SMART results



- ✓ \$200MM Savings
- ✓ \$310MM equivalent in efficiency gain
- ✓ 500+ new ideas initiated

Initiatives



Exploration



Engineering & Construction



Production Operations



Maintenance & Inspection



Drilling & Well



Logistics



Procurement



Finance & Accounting



G & A

REFOCUS through Series of Portfolio Rationalization

Strengthen Focus areas, Reposition Non-core

Strengthen focus areas

Mexico

2 Deepwater blocks with prudent operators

Thailand

Acquisition of 22.22% stake in Bongkot from Shell

Malaysia

2 blocks "Sarawak Cluster" model with operatorship

Australia

Divestment of Montara Oil Field

Reposition non-core

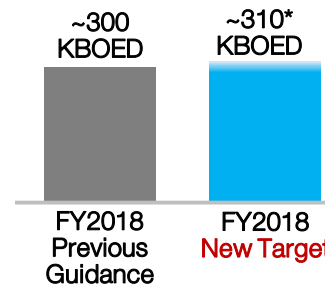
Transaction: In July 2018, PTTEP signed SPA to divest 100% stake in Montara field to Jadestone Energy (Eagle) Pty Ltd

Rationale: Be a non-operating position in non-core area and reduce exposure on mature and high cost operating assets

Impact to FY2018's performance

After 22.22% stake acquisition of Bongkot and the divestment of Montara field

Sales volume:



* Taken into account the additional Bongkot's sale contribution from late June 2018 (daily sales volume of 35 KBOED) offset with Montara divestment

Unit Cost:

- Continue to maintain overall unit cost in range between 30-31 \$/BOE

Financial Position:

- Immediate cash flow contribution from additional stake in Bongkot
- Enhance overall profitability

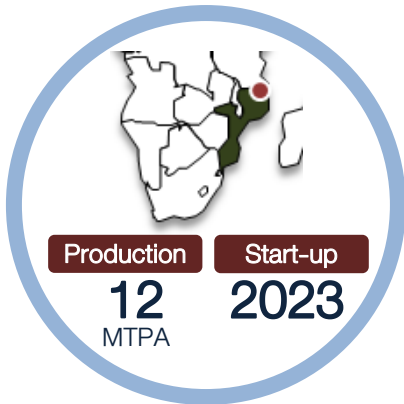
Reserves life:

- Neutral to R/P ratio

Fast-tracking FID of Key Pre-Development Projects

Stronger path towards Mozambique LNG FID by 1H2019

The Mozambique LNG: Significant progress to date



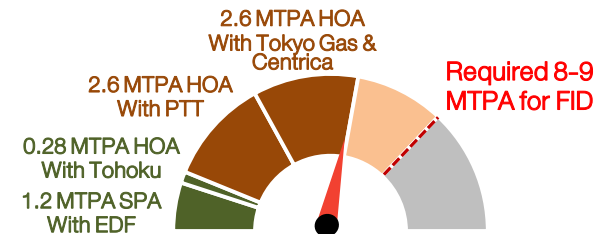
Mozambique Rovuma Offshore Area 1

Completed

- ✓ Legal & Contractual Framework and Marine Concessions as well as the development plan approved
- ✓ Resettlement Commenced and site preparation underway
- ✓ Off-take agreement: 1.2 MTPA SPA signed with EDF and 0.28 MTPA signed with Tohoku Electric
- ✓ Onshore contractor selected

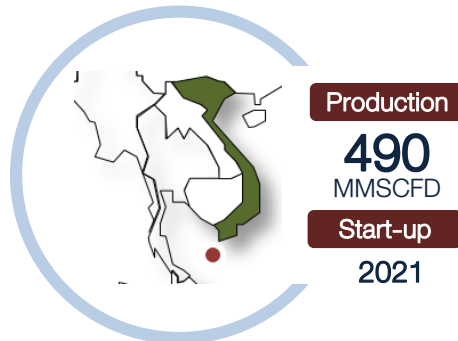
In-Progress

- ✓ Offshore contractor selections
- ✓ Project finance: Secure 2/3 leverage
- ✓ Marketing: SPA negotiations underway with 6.7 MTPA of announced deals



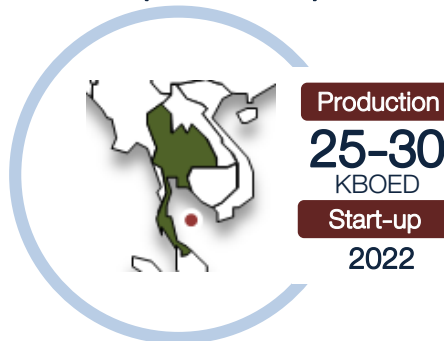
Along with the acceleration of other pre-FID projects

Southwest Vietnam



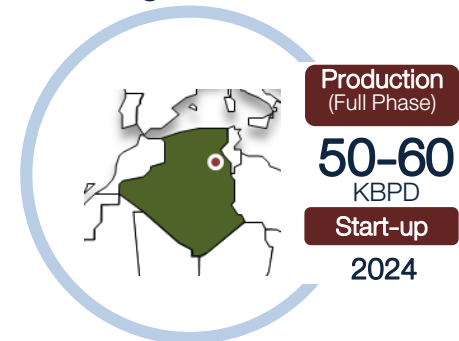
- Finalizing commercial agreements

Ubon (Contract 4)



- Preparing POD with partners

Algeria HBR



- Approved POD
- Finalizing documents with partners

Continue to Pursue Other Growth Strategies

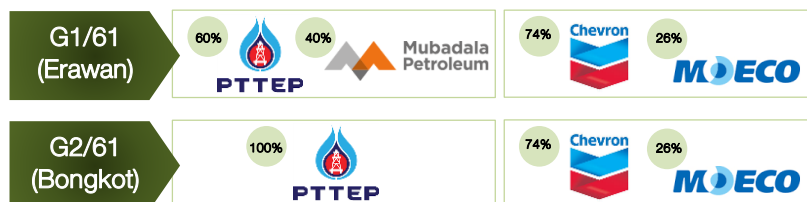
Production and Reserve accretion remains the top priority

Strive to win the Bidding: *PTTEP is well-positioned to bid for Bongkot and Erawan*

Timeline for the bidding of Expiring Concessions in GoT



Consortium from the bid submission



Source: DMF

Summary of TOR

Bidding Obligations

Minimum DCQ

- G1/61: 800MMSCFD
- G2/61: 700MMSCFD

Gas price formula

Commit under fixed formula in TOR

Facility bonus

- G1/61: 350 MMTHB
- G2/61: 175 MMTHB

Decommissioning

Must be obligated all infrastructure / facilities both new and transferred per PSC agreement

Bidding Proposal

1 Technical

1. Preparation period work plan
2. Exploration work plan
3. Field development plan

2 State Participation: 25% stake

3 Commercial

score

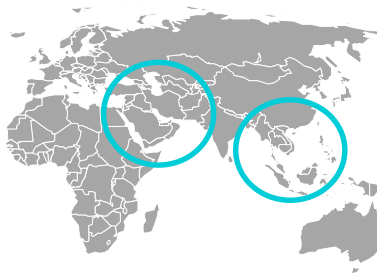
65% **Price Constant:** ≤ 214.23 THB per MMBTU

25% **Profit split:** ≤ 50%

Bonuses: Signature Bonus ≥ 350 MMTHB, Production Bonus ≥ 175 MMTHB and Training/CSR ≥ 3.5 MMTHB/Year

5% **Thai Employee Ratio:** ≥ 80% in 1st year and ≥ 90% in 5th year

Execution of M&A Deal

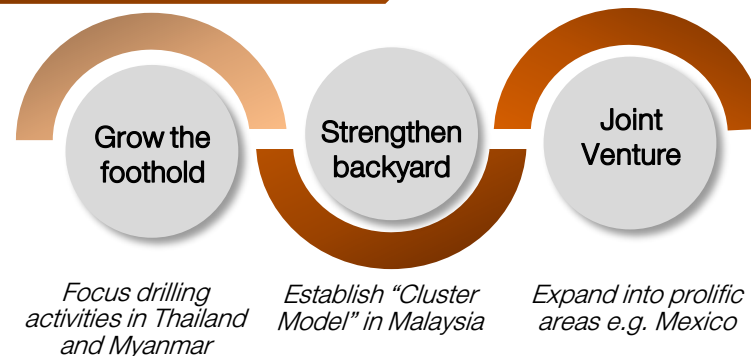


Geographical: SEA, Middle East and other potential areas

Target: Focus on producing or near-producing

Size: 500 – 1,000 MMUSD

Exploration Portfolio



RENEW in Response to Changing Industry Landscape

Strengthen core competency and business diversification

Enhancing Core Capability in Exploration & Production



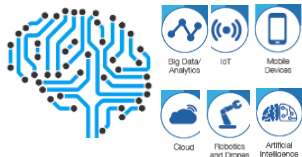
ORGANIZATIONAL TRANSFORMATION

Innovative, agile and result-driven



E&P TECHNOLOGY

Drive exploration success, production enhancement and green practices



DIGITAL TRANSFORMATION

Embrace digital technologies to drive efficiency

Value through Business Diversification



E&P-RELATED BUSINESS

Explore for value enhancement



GAS VALUE CHAIN

Extend presence across the gas chain

Midstream LNG: Invest to support E&P and develop diversified LNG supply and trading portfolio for Asian market

Gas Market: Create market beyond Thailand; and capture value along the gas-to-power chain



RENEWABLE ENERGY

Evaluate strategic and competency compatibility



Company Overview

Financial Performance

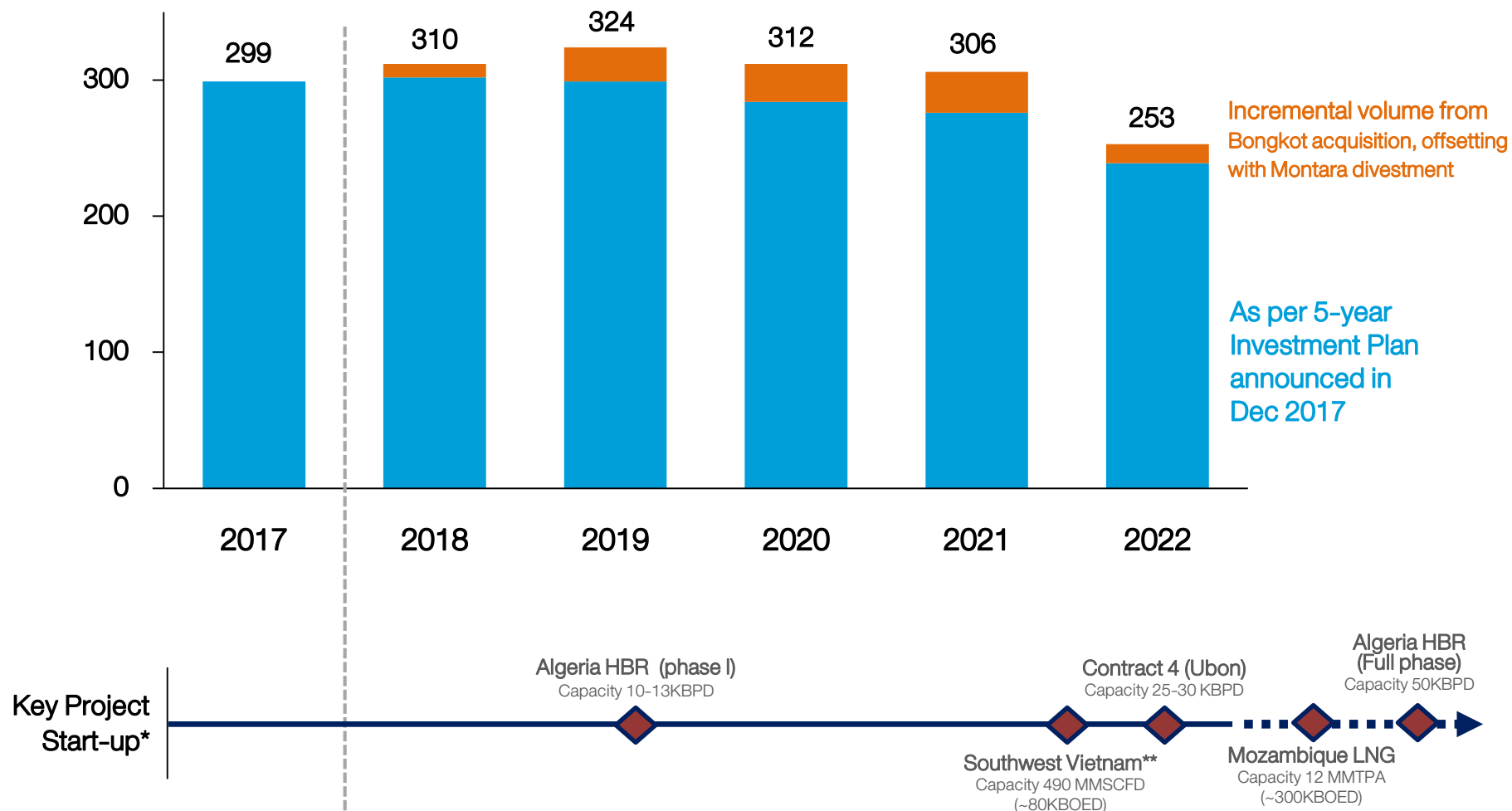
Strategy and Growth

Investment Plan & Outlook

Sales Volume

M&As and concession bidding remain key upside

Unit : KBOED

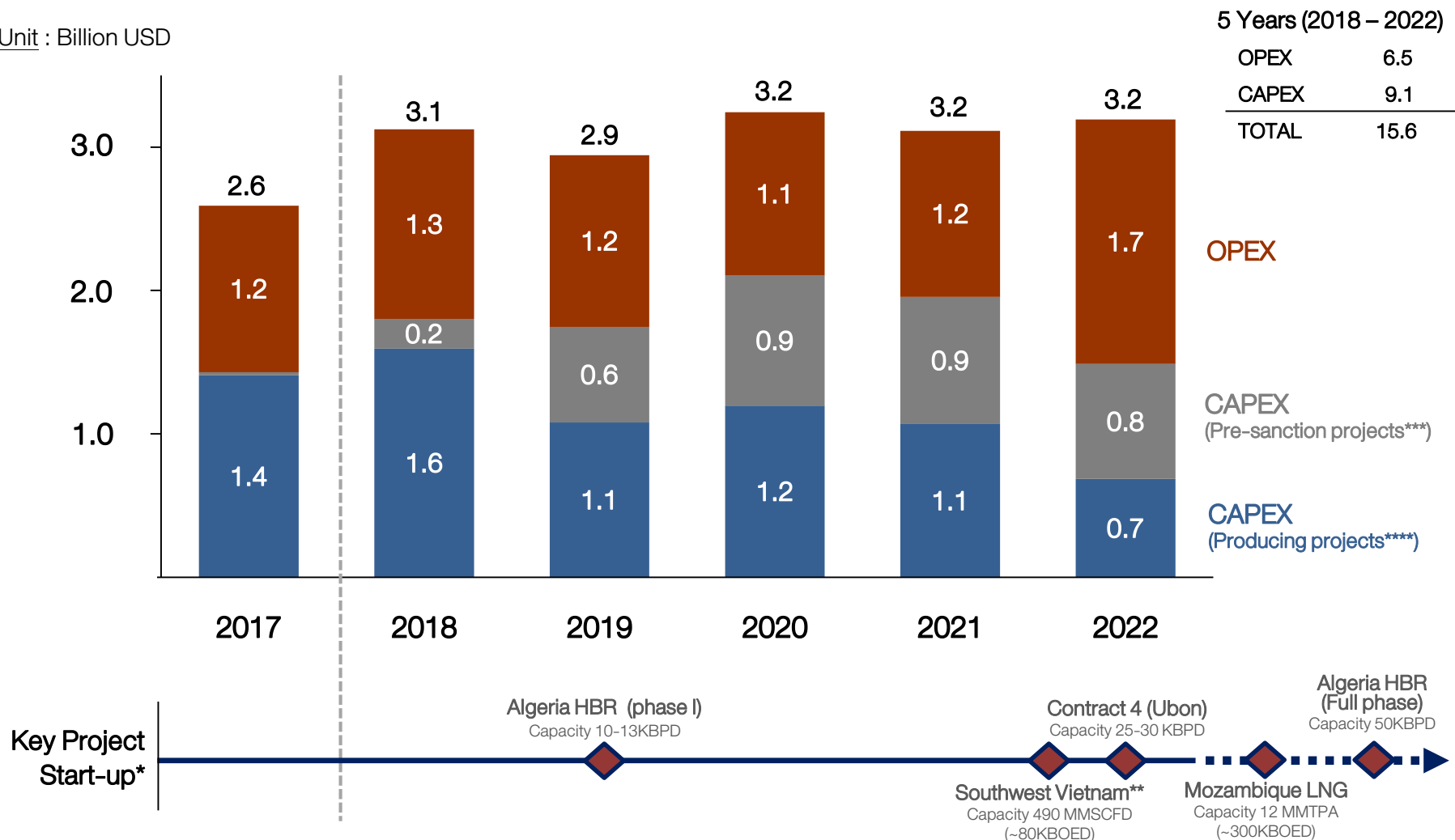


Note: * Subject to FID timing
** Expected project start-up in late 2021

Investment Plan (excluding Acquisition cost on M&As)

Disciplined spending on core assets for future production growth

Unit : Billion USD



Note: * Subject to FID timing

** Expected project start-up in late 2021

*** Pre-sanction projects include Mozambique LNG, Contract 4 (Ubon), Algeria HBR and Southwest Vietnam

**** Includes exploration and appraisal in all projects and head office CAPEX

Financial Outlook

Expect strong core operational performance and margin



**Average
Sales Volume***
KBOED

**Average
Gas Price****
USD/MMBTU

Unit Cost
USD/BOE

EBITDA Margin
% of sales volume

Q3 2018

FY 2018

~308

~310

~6.5

~6.5

31-32

30-31

~70-75

Note: * Included sales volume from 1) the additional stakes in Bongkot and 2) Montara until the expected divestment completion

** Based on FY2018 Dubai oil price at 70 \$/BBL

Key Takeaways

Maximizing value through solid growth platforms

Strengthen fundamental

- Sustain competitive cost structure
- Uplift sales volume through efficiency improvement
- Maintain healthy margin

Focus on production and reserves accretion

- Implement series of portfolio rationalization
- Continue gas-weighted portfolio in line with global trend
- Push forward FID of key pre-development projects
- Expansion exploration portfolio and M&A execution in focus areas

Ready for future challenges

- Organizational Transformation
- Collaboration with PTT for LNG value chain investments
- Diversification through new business opportunities

Solid balance sheet to support growth

- \$3.4 Bn cash on hand with concrete capital structure
- Consistent dividend payments to shareholders



Thank you and Q&A



You can reach the Investor Relations team for more information and inquiry through the following channels:



<http://www.pttep.com>



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Passion to Explore
For a Sustainable Future



| | |
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Summary of Q2 2018 Financial Results

Strong core earnings supported by higher selling price and volumes

Unit : MMUSD

| Statement of Income | Q1 18 | Q2 18 | % QoQ | Q2 17 | % YoY | 6M 18 | 6M 17 | % YTD |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| Total Revenues | 1,240 | 1,347 | 9% | 1,032 | 31% | 2,562 | 2,121 | 21% |
| Sales | 1,161 | 1,293 | 11% | 975 | 33% | 2,454 | 2,015 | 22% |
| Others | 79 | 54 | (32%) | 57 | (5%) | 108 | 106 | 2% |
| Sales Volume (BOED) | 293,099 | 302,846 | 3% | 281,435 | 8% | 297,999 | 292,709 | 2% |
| Sales Price (USD/BOE) | 44.01 | 46.94 | 7% | 38.08 | 23% | 45.51 | 38.04 | 20% |
| Total Expenses | 817 | 1,234 | 51% | 812 | 52% | 2,026 | 1,552 | 31% |
| Major Expenses: | | | | | | | | |
| Operating Expenses | 141 | 169 | 20% | 153 | 10% | 310 | 295 | 5% |
| Exploration Expenses | 3 | 15 | >100% | 19 | (21%) | 18 | 20 | (10%) |
| DD&A | 408 | 460 | 13% | 381 | 21% | 868 | 801 | 8% |
| Income Tax Expense | 5 | 329 | >100% | 67 | >100% | 334 | 59 | >100% |
| (Gain)/Loss on FX | (25) | 30 | >100% | (11) | >100% | 5 | (14) | >100% |
| Net Income | 423 | 113 | (73%) | 220 | (49%) | 536 | 569 | (6%) |
| Recurring Net Income | 304 | 336 | 11% | 167 | >100% | 640 | 378 | 69% |
| Non-Recurring * | 119 | (223) | (>100%) | 53 | (>100%) | (104) | 191 | (>100%) |

Note: * Includes Gain/(Loss) on FX, Deferred tax from Functional currency, Current Tax from FX Revaluation, Gain/(Loss) from Financial Instruments and etc.

Financial Performance : Income Statement

Maintained strong EBITDA margin

| | Q1 18 | Q2 18 | Q2 17 | 6M 18 | 6M 17 |
|--|-------|-------|-------|-------|-------|
| Sales and Revenue from Pipeline Transportation (MMUSD) | 1,184 | 1,319 | 993 | 2,503 | 2,046 |
| EBITDA (MMUSD) | 879 | 965 | 685 | 1,844 | 1,461 |
| Net Income (MMUSD) | 423 | 113 | 220 | 536 | 569 |
| Recurring Net Income (MMUSD) | 304 | 336 | 167 | 640 | 378 |
| Earning Per Share (USD) | 0.10 | 0.03 | 0.04 | 0.13 | 0.13 |
| Key Financial Ratios | | | | | |
| EBITDA Margin (%) | 74 | 73 | 69 | 74 | 71 |
| Return on Equity (%) (LTM) | 6 | 5 | 6 | 5 | 6 |
| Return on Capital Employed (%) (LTM) | 5 | 5 | 6 | 5 | 6 |
| Return on Equity (%) (LTM, Recurring Net Income) | 8 | 9 | 5 | 9 | 5 |
| Return on Capital Employed (%) (LTM, Recurring Net Income) | 7 | 8 | 5 | 8 | 5 |

Note: The formulas for calculating ratios are provided in the supplementary section for your reference

Financial Performance : Balance Sheet

Robust financial position with low gearing ratio

| | YE 17 | Q2 18 |
|------------------------------------|--------|--------|
| Total Assets (MMUSD) | 19,220 | 19,403 |
| - Cash & cash equivalents* (MMUSD) | 4,468 | 3,421 |
| Total Liabilities (MMUSD) | 7,703 | 7,724 |
| - Interest bearing debt (MMUSD) | 2,907 | 2,252 |
| Equity (MMUSD) | 11,517 | 11,679 |
| Key Financial Ratios | | |
| Total Debt to Equity (X) | 0.25 | 0.19 |
| Net Debt* to Equity (X) | (0.14) | (0.10) |
| Total Debt to Capitalization (X) | 0.20 | 0.16 |
| Total Debt to EBITDA (X) | 0.95 | 0.65 |
| EBITDA Interest Coverage (X) | 23 | 25 |

Credit Ratings : BBB+ (S&P), Baa1 (Moody's), AAA (TRIS)

Weighted Average Cost of Debt :** 5.09%

Average Loan Life :** 7.89 years

Note: * Cash & Cash Equivalents (Cash on hand) include Short-term Investments (Fixed deposit > 3 months)

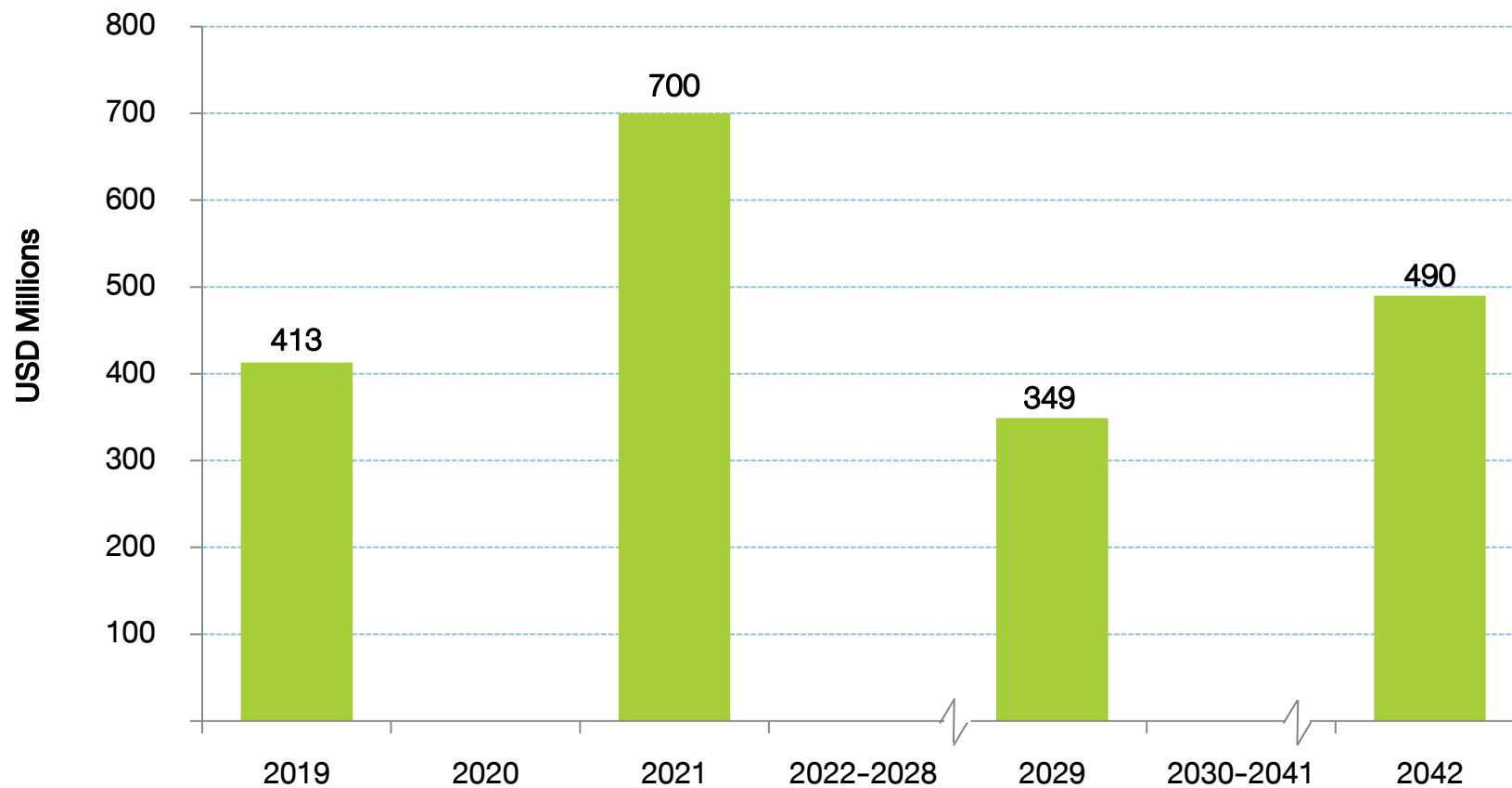
Net Debt = Total Debt less Cash & Cash Equivalents and Short-term Investments

** Excludes hybrid bonds

The formulas for calculating ratios are provided in the supplementary section for your reference

Debt Maturity Profile

(as of end of September 2018)



Note: Excludes Hybrid bonds

Unit: USD Millions or equivalent after cross currency swap

Priority on Safety and Sustainability

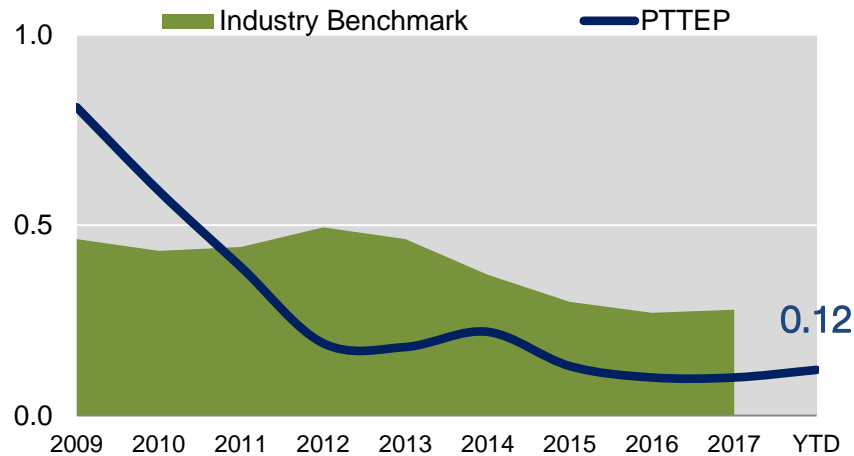
Deliver high safety performance and ensure our commitment to all stakeholders

Safety

Maintain high safety standard

of incidents per million man hours

(Lost time injury incident frequency, LTIF)



Safety of PTTEP employees and contractors in every aspect of our operations is key to achieve the goal of "Target Zero"

Sustainability

Create a long-term value for society



PTTEP as a Member of CAC

(Thailand's Private Sector Collective Action Coalition Against Corruption Council)

To demonstrates our commitment to conduct business with transparency



PTTEP won 6 international CSR awards 2018 from 4 key CSR projects

- 3 Awards from the 10th Annual Global CSR Summit and Awards and the Global Good Governance Awards 2018, *Indonesia*
- 1 Award from the Area Responsible Entrepreneurship Awards 2018, *Philippines*
- 2 Awards from the 2018 Asia-Pacific Stevie Awards, *Hong Kong*



H.T.M.S. Underwater Learning Site Project



Free Clinic Project



Waste to Energy Project



Crab Hatchery Learning Center Project

Sustainable development

Pursue long-term growth with social and environmental wellness



MEMBER OF
**Dow Jones
Sustainability Indices**
In Collaboration with RobecoSAM

2018 DJSI Listed Company

PTTEP has been selected as a member of the 2018 Dow Jones Sustainability Indices (DJSI) in the DJSI World Oil and Gas Upstream & Integrated Industry for its fifth consecutive year.



Proven business integrity

Asia's Icon on Corporate Governance Award
Corporate Governance Asia Magazine

Platinum Corporate Award
The Asset Corporate Awards 2017

Sustainability Report Award 2017
Securities and Exchange Commission



FTSE4Good

FTSE4Good Emerging Index 2018

PTTEP becomes a constituent of the FTSE4Good Emerging Index 2018 for the third consecutive year



Exemplary social contributor

Platinum and Gold Awards for 3 CSR Projects:
Best Environmental Excellence and Community Program
the 10th Annual Global CSR Summit 2018

Silver Award for Free Clinic and Waste to Energy Project:
the 2018 Asia-Pacific Stevie Awards Program

Green driver to environment

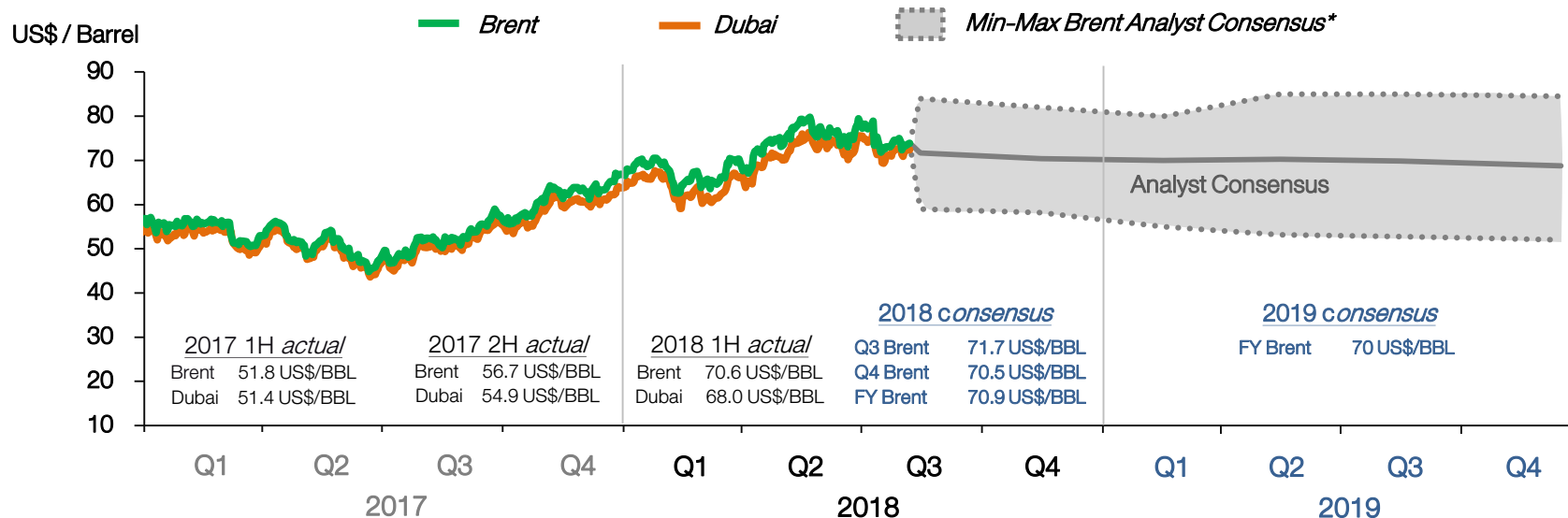
Water A List Award
Carbon Disclosure Project (CDP)

2017 LESS Award Letter of Recognition
Thailand Greenhouse Gas Management Organization

Thailand Occupational Safety and Health Awards
the Ministry of Labour

Oil Prices

Oil prices stabilize in 65-75 US\$/BBL range as market rebalances



Q2 2018 Highlights

Higher than expected supply cut compliance rate

Compliance Rate Achieved as of Jun'18

OPEC 120% | Non-OPEC 66%

Lower crude supply from Venezuela as a result of US financial sanctions and port dispute with ConocoPhillips

Lower crude export from Iran due to nuclear sanctions by US

Output raise from Saudi Arabia and Russia to replace missing volumes from Venezuela and Iran

2H 2018 Outlook

Continued compliance on supply cut and potential extension of supply cut agreement among OPEC and Non-OPEC

Compliance Rate Target from Jul'18 onwards

OPEC Target 100%

Prolonged decline in supply from Venezuela and Iran driven by US sanctions

Slow down in US production ramp up due to pipeline capacity shortage

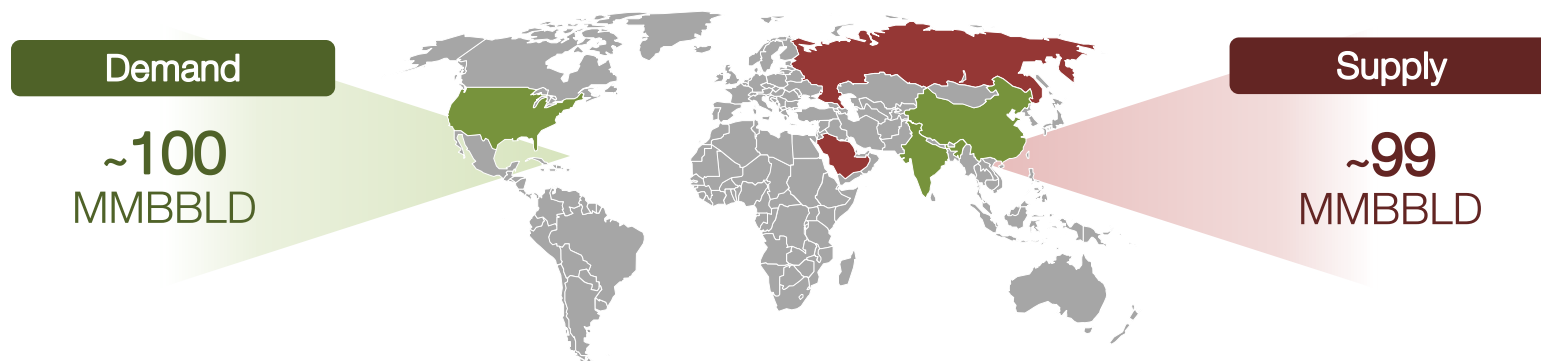
Pressure from production uplift from Saudi Arabia and Russia as well as economic momentum around US-China trade war

Remark: * Bloomberg Analyst Consensus (CPFC) as of 7 August 2018 and IEA (as of July 2018)

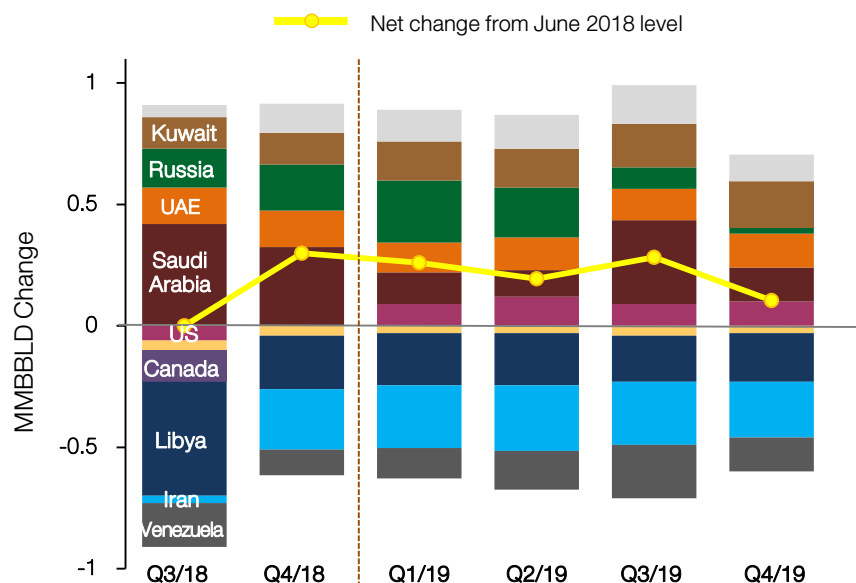
Oil Market Outlook

Market balancing continues in 2019

Oil demand is forecasted to continue to outstrip supply towards 2019, with support from demand growth in China, India and US



Supply change forecast based on June 2018 supply of ~98.8 MMBBLD



Supply will be driven by OPEC and Russia offsetting with lower volumes from

Libya

- 2 main export terminals shut-in
- 2 storage tanks badly damaged by fighting

Iran

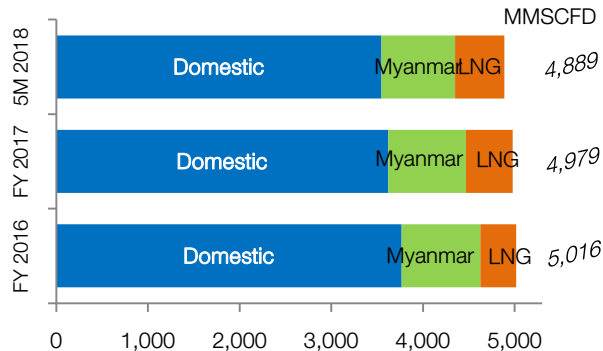
- Nuclear Sanctions by US
- Impact from Q4/2018 onwards

Venezuela

- Sanctions imposed by US
- Maintenance outages

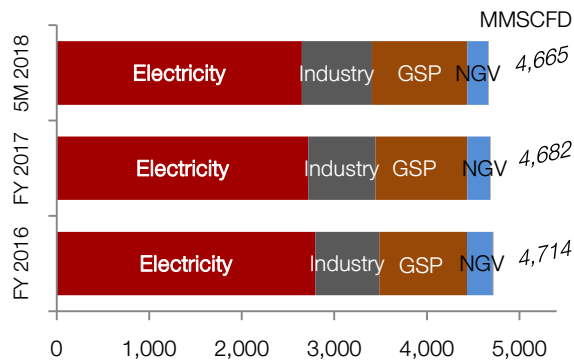
Thailand Energy Overview

Natural Gas Supply

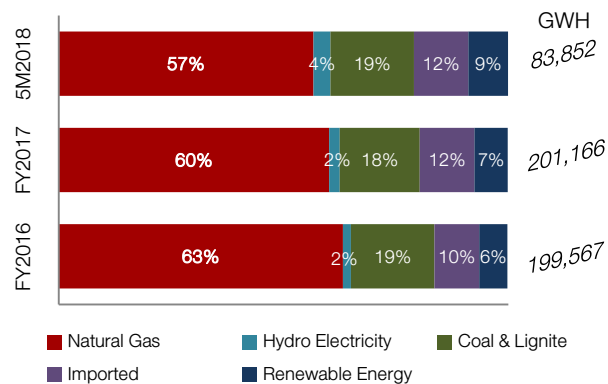


Slight decline in domestic production and Myanmar piped gas imports as a result of lower demands and growth in LNG import

Natural Gas Consumption



Electricity Generation



Source: EPPO

Exchange Rate Movement (THB/USD)



Consensus on the exchange rate mostly depends on

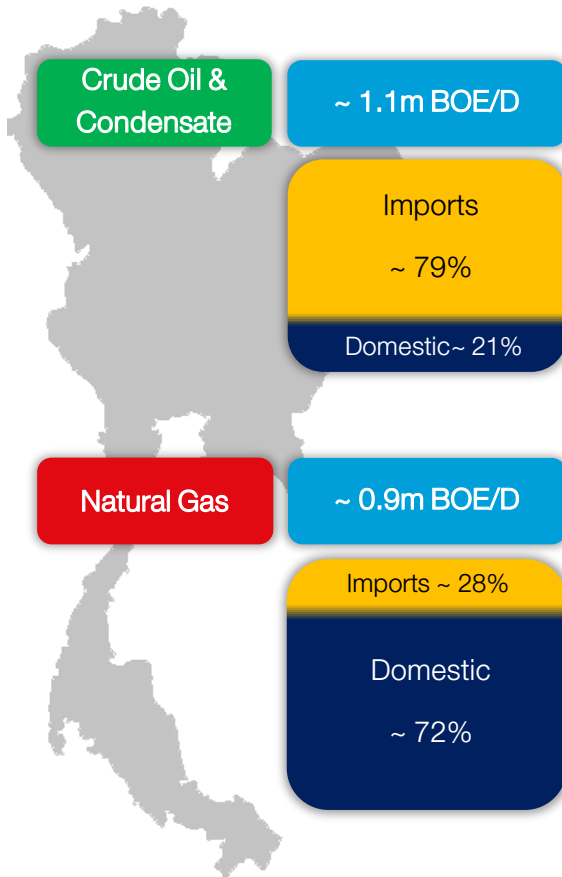
- Continued uncertainty around monetary policies of major global economies such as Europe
- Trade war between the US and China
- The political instability in several regions

Source: Bank of Thailand, Bloomberg
 Forecast based on Bloomberg Consensus as of 6 August 2018

Thailand's Energy Value Chain

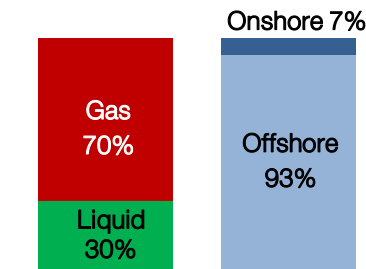
PTTEP contributes almost 1/3 of Thailand's petroleum production

Thailand's Oil and Gas Demand

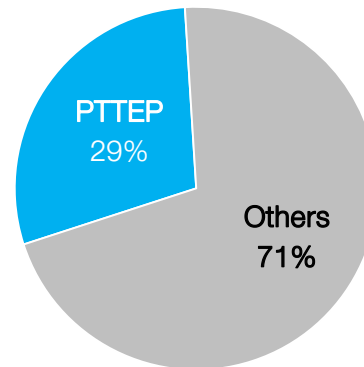


Thailand Petroleum Production 2017

% by Petroleum Type and Area



% Production by Company



Midstream

Gas: operated by PTT

Transmission Pipelines
Gas Separation Plants

Oil: PTT participates through subsidiaries

Refineries

Downstream

Petrochemicals
Oil and gas marketing

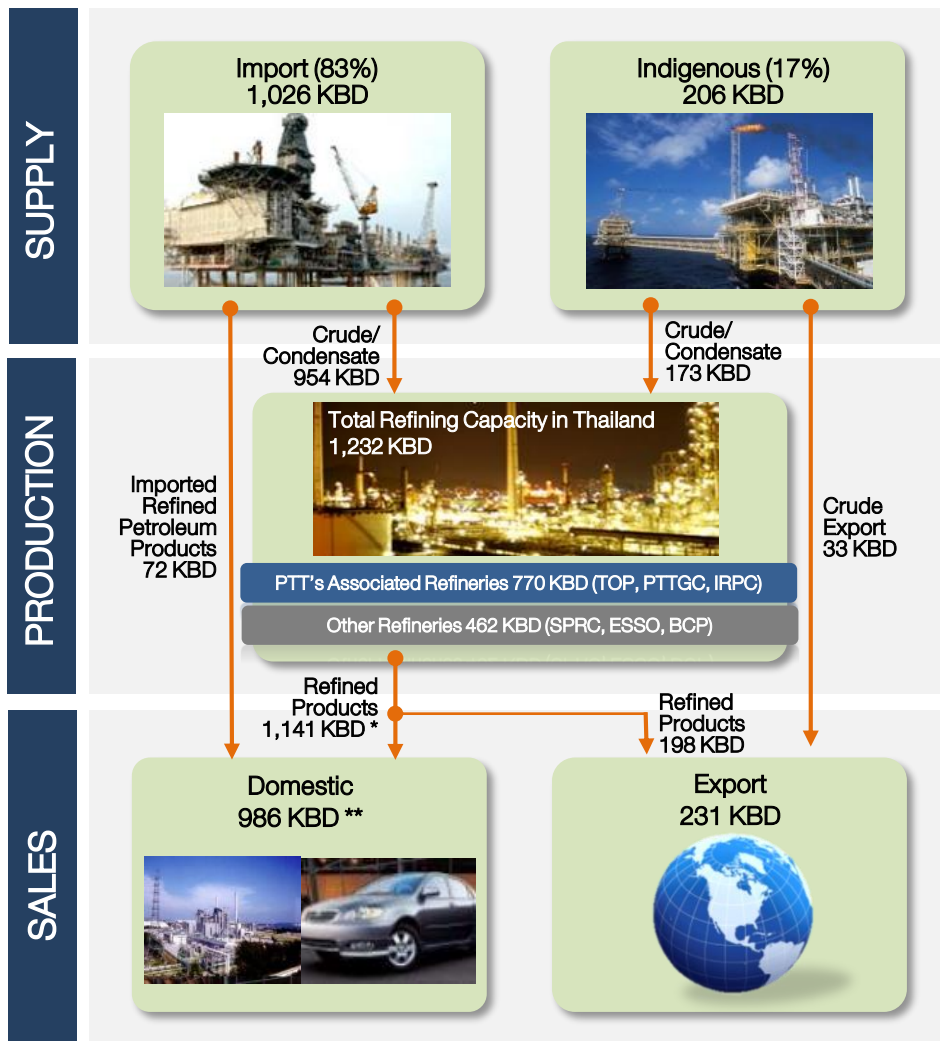
Source: Energy Policy and Planning Office (EPPO) and Department of Mineral Fuels (DMF)

Thailand's Oil and Gas Balance

January – June 2018

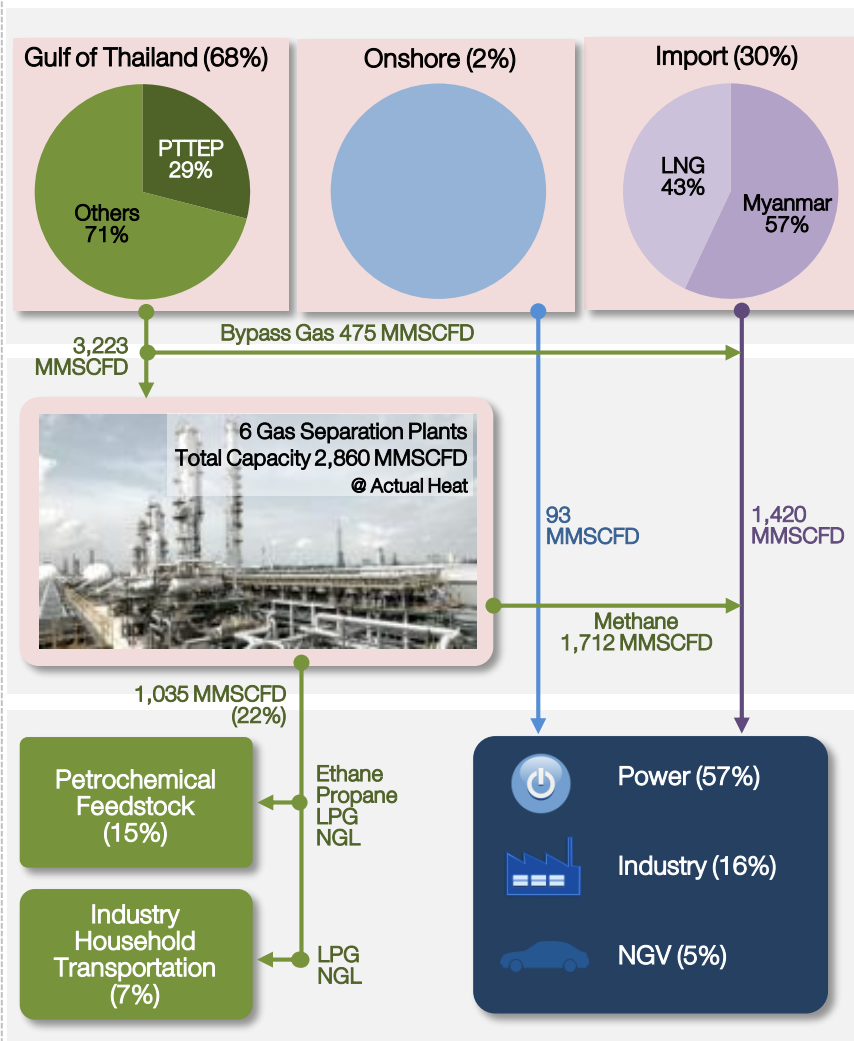
Oil Balance

Maintains stability supply through adequate refining capacity



Natural Gas Balance

Main driver of the Thailand economy



Source: PTIT

Remark: * Refined product from refineries = 1,031 KBD, including domestic supply of LPG from GSPs and Petrochemical Plants = 110 KBD

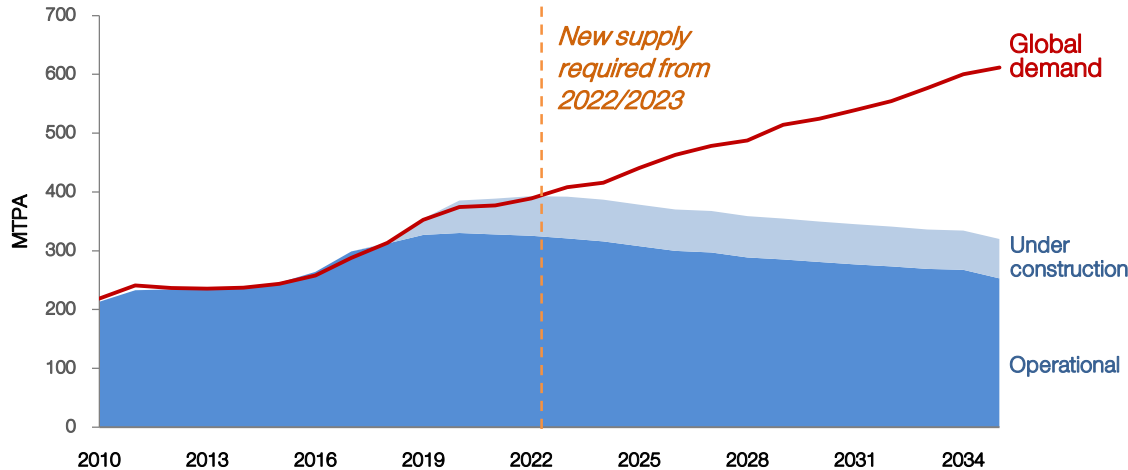
** Not included Inventory

MMSCFD @ Heating Value 1,000 Btu/ft³

Global LNG Market Update

In need of new LNG supply from 2022/2023 onwards

Global LNG Market

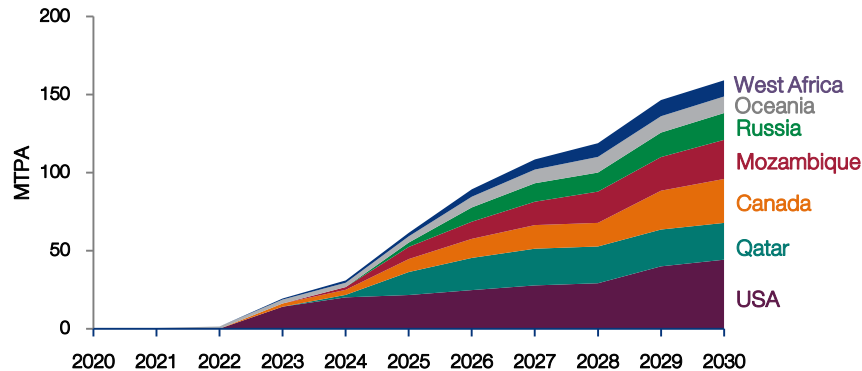


LNG demand shows continuous growth, and market will likely rebalance over the next 3 years

New LNG projects are needed on-stream as a demand gap emerges in 2022. Thus, there is momentum behind investment decision of pre-FID projects over the next 18 months

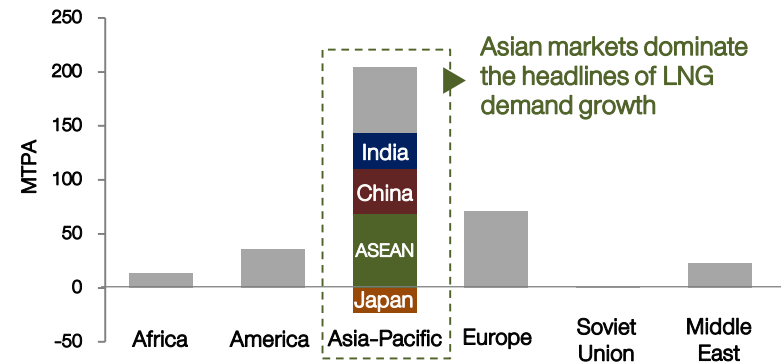
“Risks of a global LNG oversupply continue to reduce but price recovery might be dented by the amount of new FIDs”

LNG supply growth areas



Pre-FID LNG capacity adds are expected, and with current strong fundamental, players speed-up to take FID

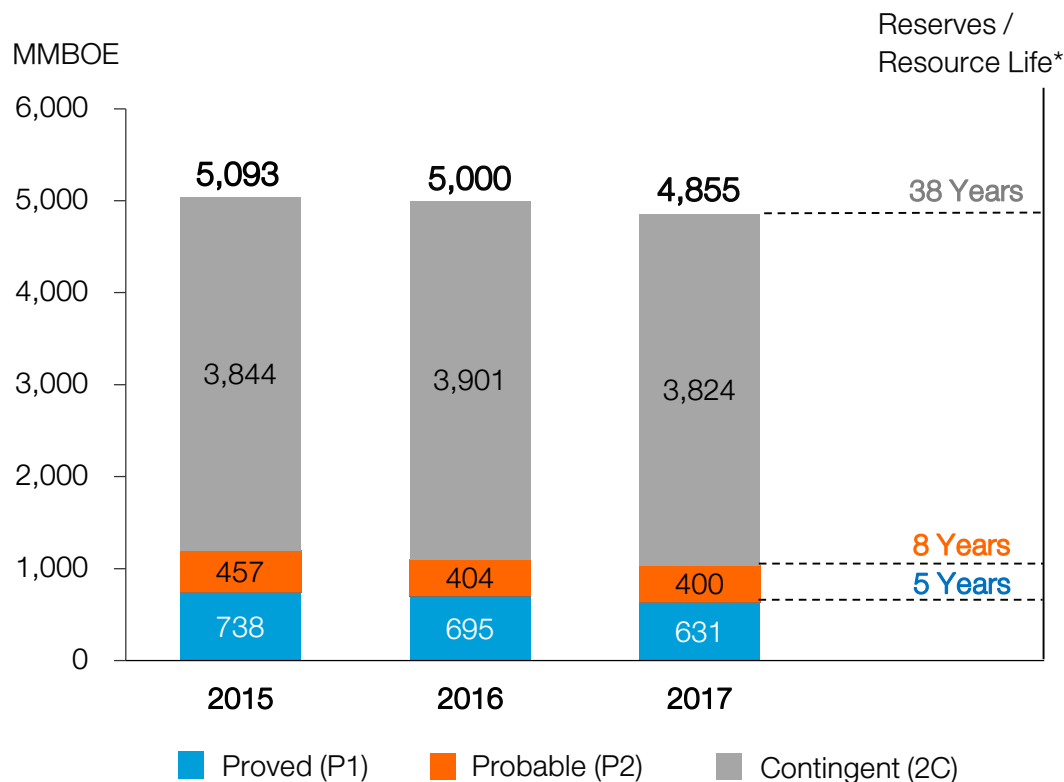
LNG demand growth outlook (2017-2035)



Key drivers of Asian LNG demand growth include pro-gas energy policies and emerging market growth accelerating

Reserves and Resources

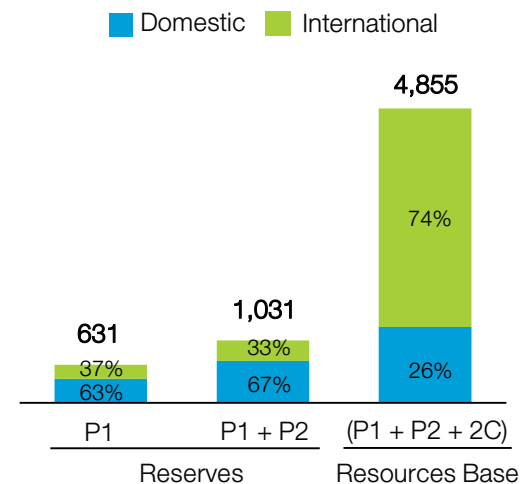
Maintained reserve life with majority of reserves base in SEA



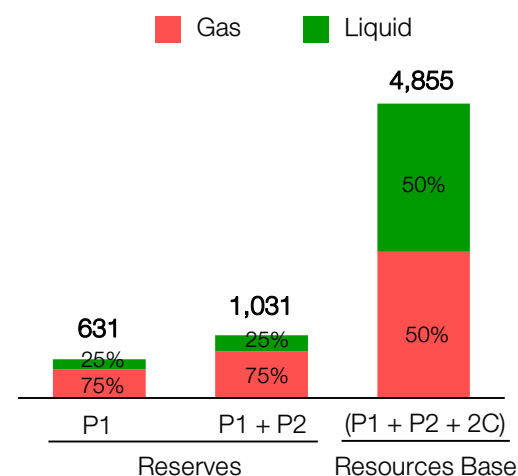
5-Year Average Proved Reserves Replacement Ratio (RRR)

| 2015 | 2016 | 2017 |
|-------|-------|-------|
| 0.50x | 0.57x | 0.58x |

2017 by Geography



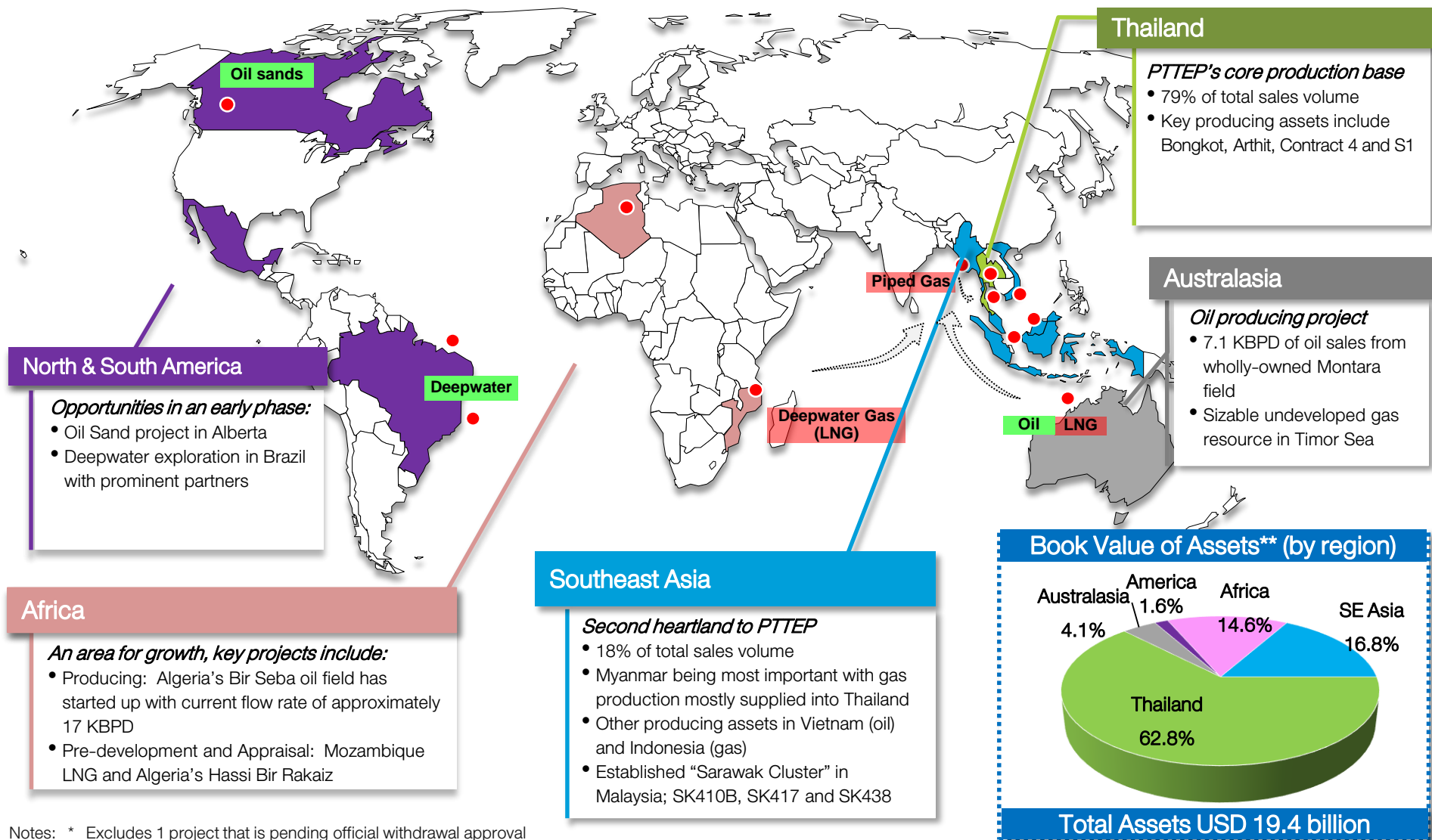
2017 by Product Type



* Based on total production of natural gas, condensate, and crude oil (including LPG) of 347 KBOED for the year ended December 31, 2017

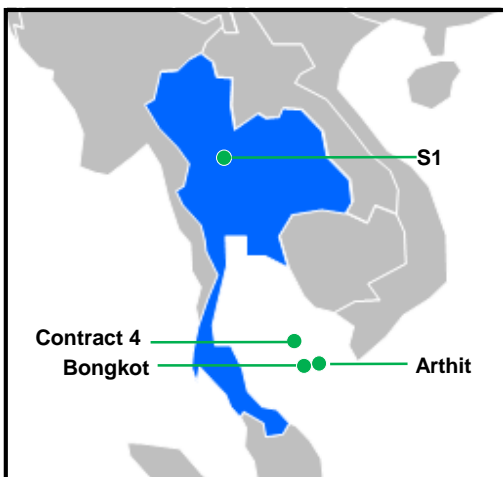
Diversified international portfolio

Worldwide operations: 40 projects* in 11 countries



Notes: * Excludes 1 project that is pending official withdrawal approval

** Information dated as of 1H 2018



● Production / Ramp-up Projects

Bongkot (66.6667% interest)

- Bongkot's natural gas sales volume of 776 MMSCFD in 1H2018.
- Average condensate sales volume was 26 KBPD in 1H2018.

S1 (100% interest)

- S1 is the largest onshore crude oil production field in Thailand.
- Average crude oil sales volume was 27 KBPD in 1H2018.

Arthit (80% interest)

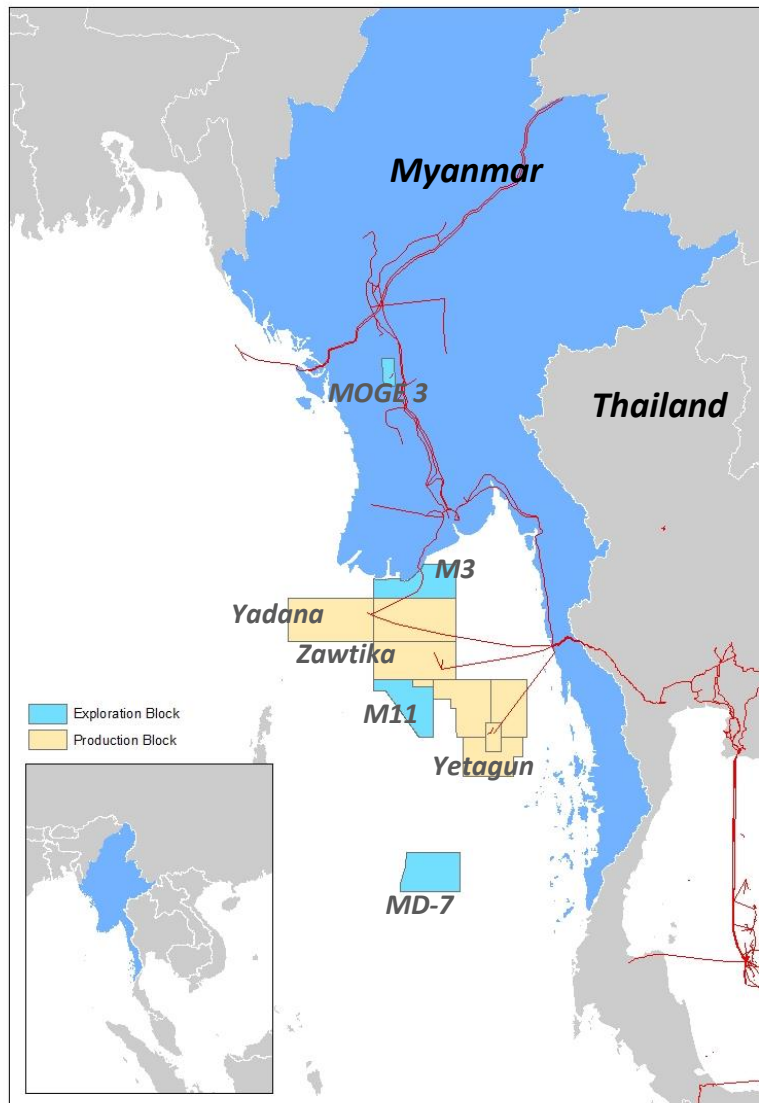
- Average sales volume in 1H2018 was 221 MMSCFD of natural gas and 10 KBPD of condensates.

Contract 4 (60% interest)

- Acquired from Hess Corporation in 2014.
- Contract 4 had an average sales rate of 403 MMSCFD for natural gas and 17 KBPD for condensate in 1H2018.

Southeast Asia: Myanmar

Significant contribution to growth



- Participating in three producing gas fields which supply gas to both Thailand and Myanmar: Yadana, Yetagun, Zawtika.
- Operate Zawtika project, brought online in March 2014 with current gas supply of 304 MMSCFD in 1H2018.
- Significant exploration acreage both onshore and offshore in the Moattama Basin.

| Project Status | | |
|---|---|---|
| Producing | Appraisal | Exploration |
| <ul style="list-style-type: none">• Yadana (25.5% WI)• Yetagun (19.3% WI)• Zawtika (80% WI) | <ul style="list-style-type: none">• M3 (80% WI) | <ul style="list-style-type: none">• MOGE 3 (75% WI)• M11 (100% WI)• MD-7 (50% WI) |

Note: WI – working interest

Southeast Asia: Vietnam and Indonesia

Reinforcing regional exposure through strategic partnerships

Vietnam 16-1



● Production / Ramp-up Projects

Natuna Sea A



Vietnam 16-1 (28.5% interest)

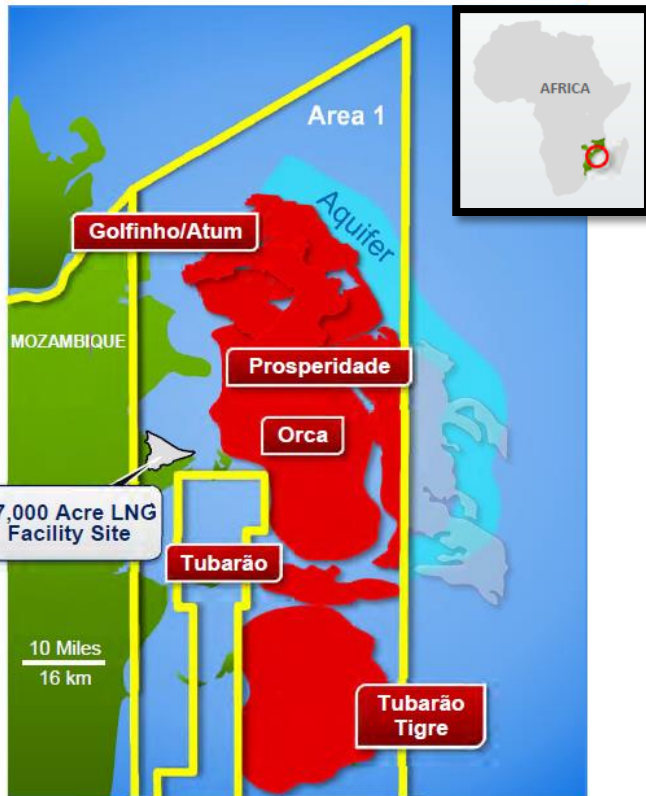
- Average sales volume of crude oil was 19 KBPD in 1H2018.
- The project is preparing further production drilling plan aiming to maintain production plateau.

Natuna Sea A (11.5% interest)

- Average sales volume of natural gas was 242 MMSCFD in 1H2018.

East Africa: Mozambique

Potential to become one of the world's largest emerging LNG supply hubs



Location and Cost Advantage

- Close proximity to shore
- High quality reservoirs
- Access to Asian markets

*Substantial recoverable resources of **70+ tcf** with scalable offshore development of **more than 6 LNG trains***

Key Milestones to Final Investment Decision – targeting at 1H2019

Technical

- ✓ Certified reserves to support initial trains
- ✓ Announced selection of contractor for onshore LNG facilities construction

Commercial

- ✓ Recently signed SPA of 1.2 MTPA with EDF (French) and multiple HOAs secured

Regulatory

- ✓ Received approval on marine concession and development plan of Golfinho-Atum Field
- ✓ Commenced the resettlement plan in Q4 2017

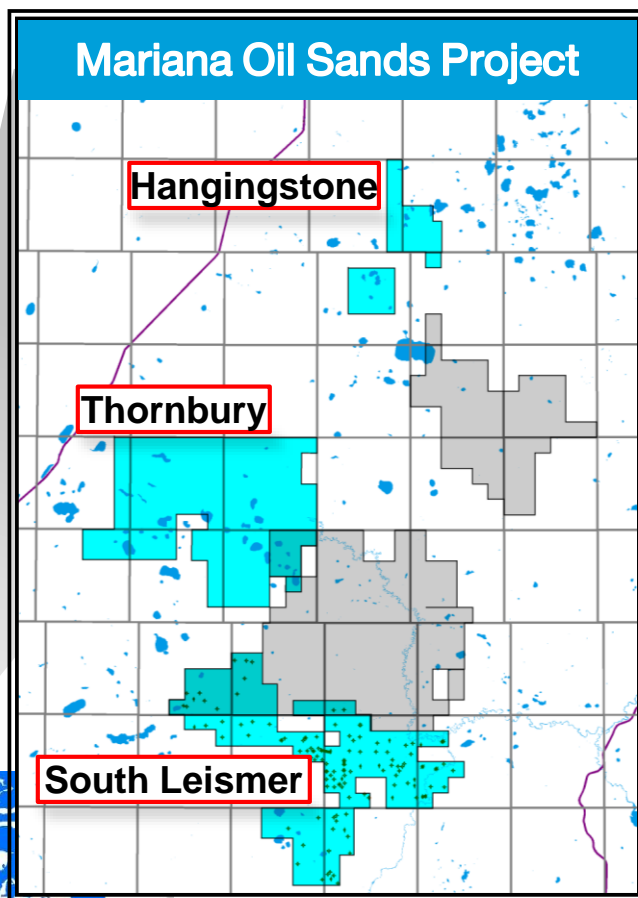
Financing

- ✓ On-going negotiation for project financing

Onwards to initial phase of 12 MMTPA

America: Canada Oil Sands

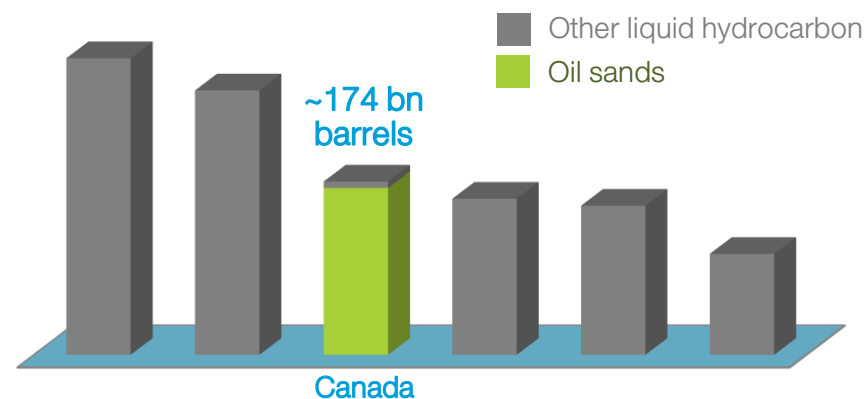
Flexibility to pursue long-term investment from the oil sands project



Project Overview

- Operates 100% interest of the Thornbury, Hangingstone and South Leismer (THSL) areas (exploration and appraisal phase)
- Potential large resource base with over a billion barrel
- In Q3 2017, the Company revised the project's development plan which involves delaying the project's Final Investment Decision, to reflect results from the assessment of the industry and commercial feasibility studies

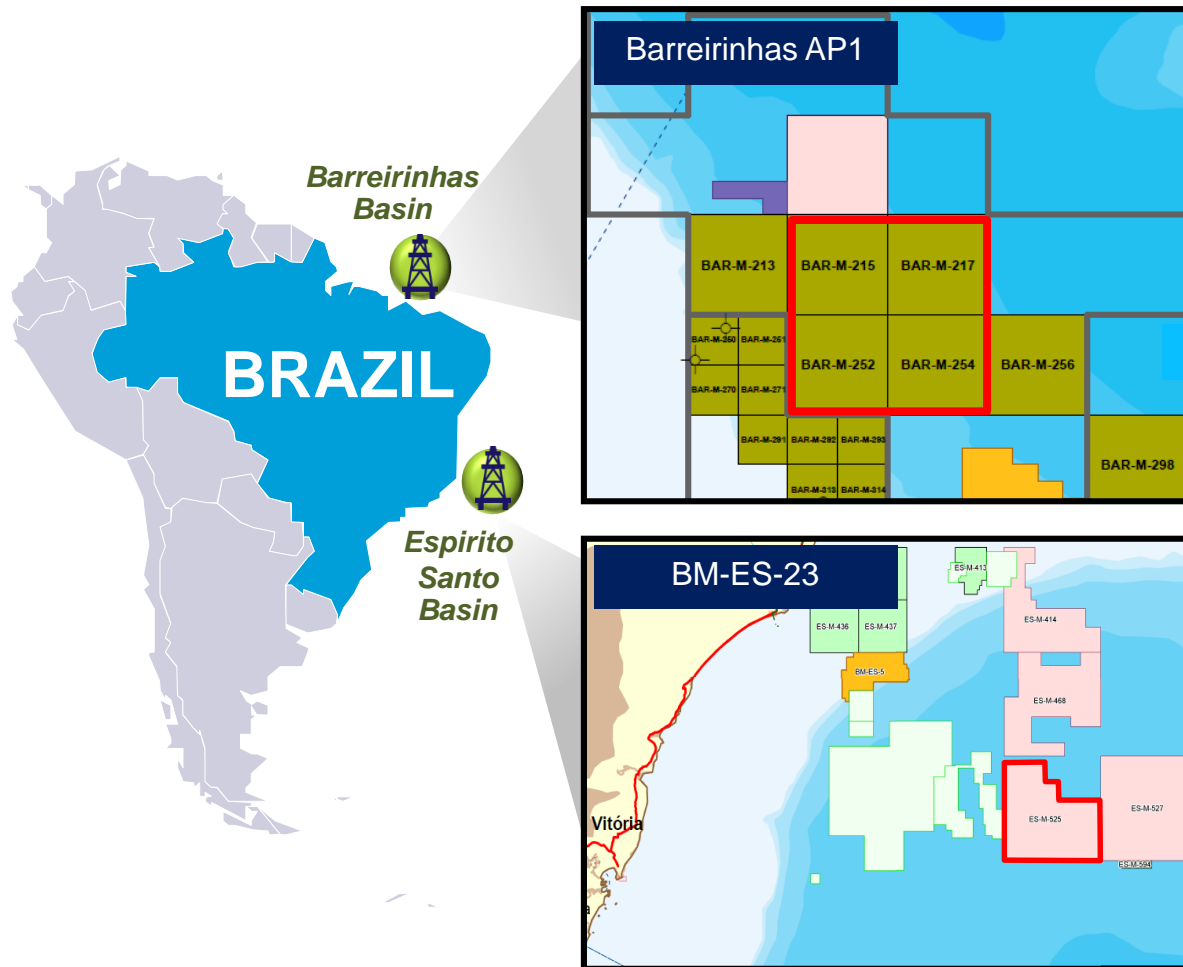
Approximately 96% of the reserves in Canada, the world's 3rd largest oil reserves, is oil sands



Source: Company data, BP Statistical Review of World Energy 2014

America: Brazil Deepwater

Entry into high potential petroleum province at exploration phase



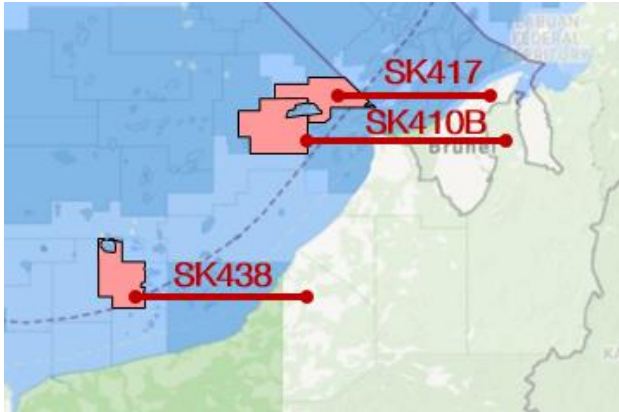
- Farm-in 25% from BG Group in 2014
 - Operated by Shell Brasil (65% interest)
 - Four offshore exploration blocks: BAR-M-215, BAR-M-217, BAR-M-252 and BAR-M-254
 - Completed 3D seismic activities and is in the process of assessing the petroleum potential
-
- Acquired 20% interest from Shell in Q3 2014
 - Partnered with Petrobras (65%, operator) and INPEX (15%)

Source : The National Agency of Petroleum, Natural Gas and Biofuels, Brazil (the ANP)

Unlocking the Exploration Potentials

Expanded portfolio in high prolific areas: Malaysia and Mexico

Sarawak Basin, Malaysia



PTTEP's Block: SK410B (42.5%), SK417 (80%) and SK438 (80%) with operatorship

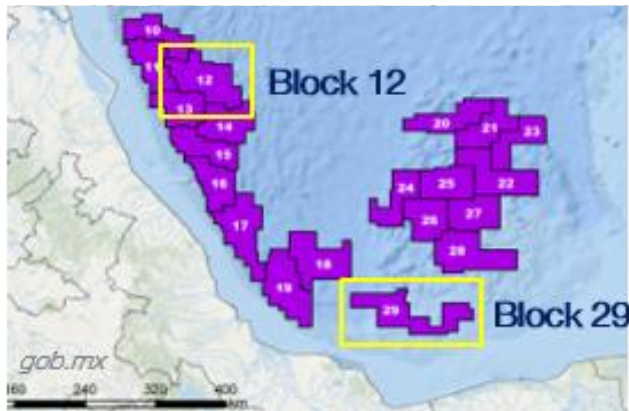
Location: Sarawak Basin, Malaysia

Characteristic: Shallow-water with low operational risk

Exploration Strategy:

- Expect exploration drilling activities during 2018-2021
- "Cluster Model" synergy operations within basin to optimize costs
- In place production infrastructure in nearby area

Gulf of Mexico, Mexico



PTTEP's Block: Block 12 (20%) and Block 29 (16.67%), as non-operating partner

Location: Mexican Ridges Basin for Block 12 and Campeche Basin for Block 29

Characteristic: Deep-water with high petroleum potentials and attractive fiscal regime

Exploration Strategy:

- Joined hand with prudent operators being Petronas and Repsol
- Mexico still has high potential prospective resources with significant sizeable discoveries

LNG Value Chain Investment : MLNG Train 9


First step into midstream LNG business in strategic area of focus

10% Investment in MLNG Train 9 by PTT Global LNG....

....continue to look for more LNG opportunities globally



MLNG Train 9 – Overview

| | | |
|----------------------------------|-----------------------------|---|
| Location | Bintulu, Sarawak, Malaysia | |
| Asset | Liquefaction Train 9 Tank 7 | |
| Phase | Commercial: Jan 2017 | |
| Capacity | 3.6MTPA | |
| Contract Life | 20 years | |
| Partners (subject to closing) | Petronas 80% |  |
| | JX Nippon 10% | |
| | PTT Global LNG 10% | |

Investment Rationales

- Capture opportunity from increasing LNG demand as a supplement to Thailand gas production
- Venture into midstream LNG as a mean to secure LNG supply and growth of PTT and PTTEP, as well as capture value added along with LNG value chain
- Low risk and highly market secured opportunity
 - Highly experienced operator
 - Already commenced commercial production with immediate revenue stream
- In vicinity of future upstream opportunities in focus area – offshore Sarawak

Project information 1/3

Production phase: Thailand and JDA

| | Project | Status* | PTTEP's Share | Partners (as of Q2 2018) | 1H2018 Average Sales Volume ** | | 2018 Key Activities |
|------------------|-------------------------------------|---------|---------------|---|--------------------------------|---|--|
| | | | | | Gas | Oil and Other | |
| Production Phase | | | | | | | |
| Thailand and JDA | | | | | | | |
| 1 | Arthit | OP | 80% | Chevron MOECO 16% 4% | 221 MMSCFD | Condensate: 10 k BPD | <ul style="list-style-type: none">Ensure gas deliverability level at DCQ****Drill development wells |
| 2 | B6/27 | OP | 100% | | - | - | <ul style="list-style-type: none">Prepare drilling plan |
| 3 | B8/32 & 9A | | 25% | Chevron MOECO KrisEnergy Palang Sophon 51.66% 16.71% 4.63% 2% | 68 MMSCFD | Crude: 18 k BPD | <ul style="list-style-type: none">Drill development wellsPerform waterflood activities |
| 4 | Bongkot | OP | 66.6667% | TOTAL 33.3333% | 776 MMSCFD | Condensate: 26 k BPD | <ul style="list-style-type: none">Ensure gas deliverability level at DCQ****Drill development wellsInstall wellhead platformscompleted the acquisition of 22.2222% from shellDataroom assessment for bidding |
| 5 | Contract 3 (Formerly Unocal III) | | 5% | Chevron MOECO 71.25% 23.75% | 623 MMSCFD | Crude: 23 k BPD Condensate: 22 k BPD | <ul style="list-style-type: none">Drill exploration / appraisal / development wellsInstall wellhead platformsPerform waterflood activities |
| 6 | Contract 4 (Formerly Pailin) | | 60% | Chevron MOECO 35% 5% | 403 MMSCFD | Condensate: 17 k BPD | <ul style="list-style-type: none">Ensure gas deliverability level at DCQ****Drill development wellsInstall wellhead platformsIn process of pre-development of Ubon field |
| 7 | E5 | | 20% | ExxonMobil 80% | 8.3 MMSCFD | - | |
| 8 | G4/43 | | 21.375% | Chevron MOECO Palang Sophon 51% 21.25% 6.375% | 1.4 MMSCFD | Crude: 4.2 k BPD | <ul style="list-style-type: none">Drill development wellsPerform waterflood activities |
| 9 | G4/48 | | 5% | Chevron MOECO 71.25% 23.75% | 4.7 MMSCFD | Crude: 0.9 k BPD | |
| 10 | L53/43 & L54/43 | OP | 100% | | - | Crude: 1.1 k BPD | <ul style="list-style-type: none">Drill exploration / appraisal / development wells |
| 11 | PTTEP1 | OP | 100% | | - | Crude: 273 BPD | <ul style="list-style-type: none">Drill development wellsPerform waterflood activities |
| 12 | S1 | OP | 100% | | 15 MMSCFD | Crude: 27 k BPD LPG: 0.2 k MT/D | <ul style="list-style-type: none">Drill exploration / development wellsEnhance oil recovery program includes waterflooding and artificial lift |
| 13 | Sinphuhorm | OP | 55% | Apico ExxonMobil 35% 10% | 77 MMSCFD | Condensate: 266 BPD | <ul style="list-style-type: none">Drill development wells |
| 14 | MTJDA | JOC | 50% | Petronas-Carigali 50% | 341 MMSCFD | Condensate: 6.9 k BPD | <ul style="list-style-type: none">Drill development wellsInstall wellhead platforms |
| 15 | L22/43 | OP | 100% | | - | Crude: 43 BPD | <ul style="list-style-type: none">Drill development wells |

* Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship

** Sales volume stated at 100% basis.

*** DCQ = Daily Contractual Quantity

Project information 2/3

Production phase: Overseas



| | Project | Status* | PTTEP's Share | Partners (as of Q2 2018) | 1H2018 Average Sales Volume ** | | 2018 Key Activities |
|------------------|--------------------------------|---------|---------------------------------|--|--------------------------------|---------------------------------------|--|
| | | | | | Gas | Oil and Other | |
| Production Phase | | | | | | | |
| Overseas | | | | | | | |
| 16 | Vietnam 9-2 | JOC | 25% | PetroVietnam 50% SOCO 25% | 13 MMSCFD | Crude: 4.1 k BPD | <ul style="list-style-type: none">Maintain production operationPerform reservoir management |
| 17 | Yadana | | 25.5% | TOTAL 31.24% Chevron 28.26% MOGE 15% | 794 MMSCFD | - | <ul style="list-style-type: none">Ensure gas deliverability level at DCQ*** |
| 18 | Yetagun | | 19.3178% | Petronas-Carigali 30.00140% MOGE 20.4541% Nippon Oil 19.3178% PC Myanmar 10.90878% (Hong Kong) | 156 MMSCFD | Condensate: 3.3 k BPD | <ul style="list-style-type: none">Drill appraisal / development wellsPerform reservoir Management |
| 19 | Vietnam 16-1 | JOC | 28.5% | PetroVietnam 41% SOCO 28.5% OPECO 2% | 6.0 MMSCFD | Crude: 19 k BPD | <ul style="list-style-type: none">Drill development wellsMaintain production operation |
| 20 | PTTEP Australasia (PTTEP AA) | OP | 90%-100% (varied by permits) | | - | Crude: 7.1 k BPD | <ul style="list-style-type: none">Maintain production operationDivest Montara field to Jadestone on 15 Jul 18 which expected to complete by end of 2018 |
| 21 | Natuna Sea A | | 11.5% | Premier Oil 28.67% KUFPEC 33.33% Petronas 15% Pertamina 11.5% | 242 MMSCFD | Crude: 0.8 k BPD | <ul style="list-style-type: none">Maintain production operation |
| 22 | Zawtika (M9 & a part of M11) | OP | 80% | Myanma Oil and Gas Enterprise (MOGE) 20% | 304 MMSCFD | - | <ul style="list-style-type: none">Maintain production rateDrill development wellsInstall wellhead platforms |
| 23 | Algeria 433a & 416b (Bir Seba) | JOC | 35% | PetroVietnam 40% Sonatrach 25% | - | Crude: 2.6 k BPD (net entitlement) | <ul style="list-style-type: none">Maintain production operation |

* Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship

** Sales volume stated at 100% basis except for Algeria 433a & 416b

*** DCQ = Daily Contractual Quantity

Project information 3/3

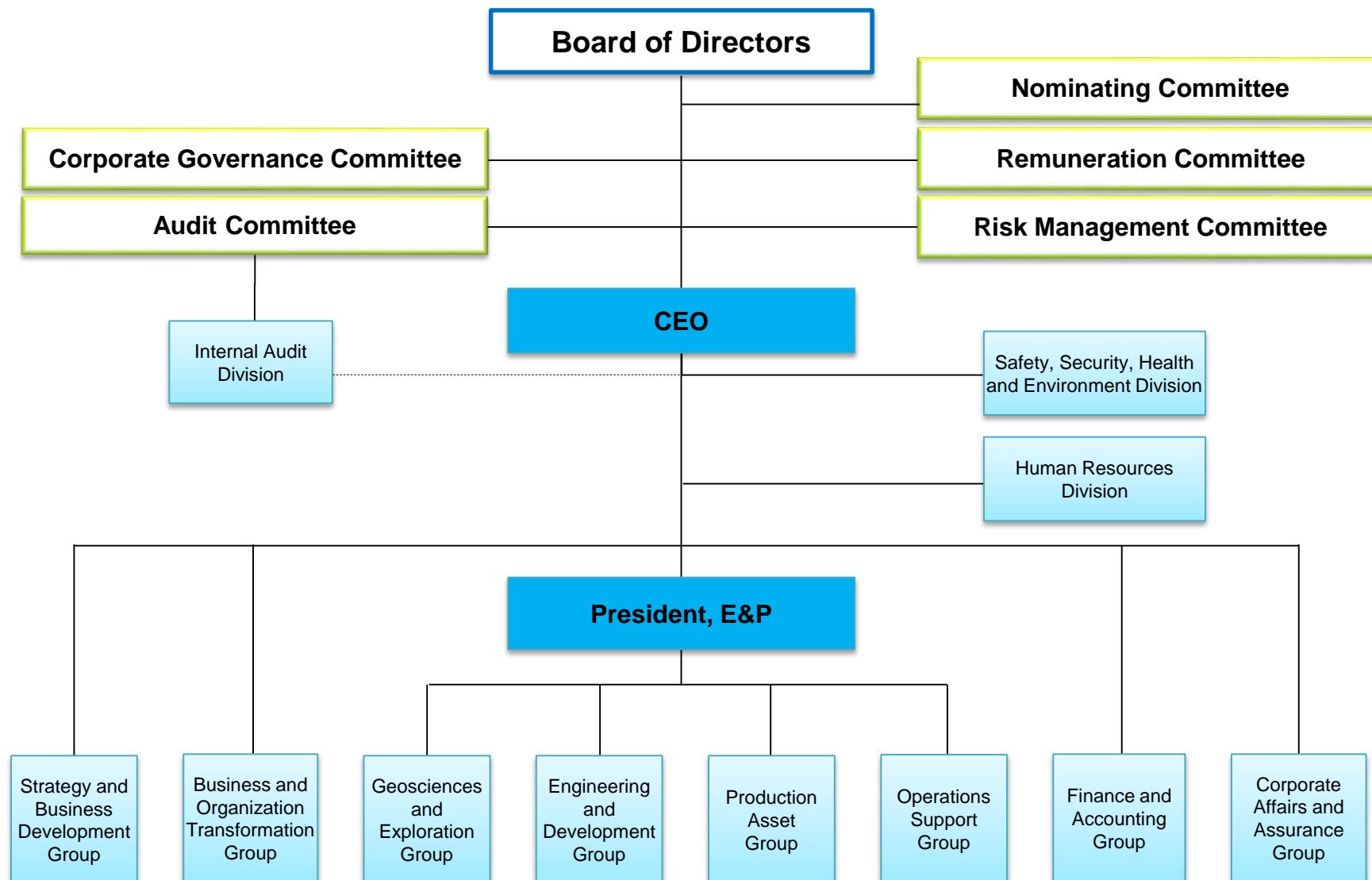
Exploration/Development phase

| | Project | Status* | PTTEP's Share | Partners (as of Q2 2018) | 2018 Key Activities |
|--------------------------------------|-----------------------------------|---------|---------------|--|---|
| Exploration/Development Phase | | | | | |
| Thailand and JDA | | | | | |
| 24 | G9/43 | OP | 100% | | |
| Overseas | | | | | |
| 25 | Myanmar M3 | OP | 80% | MOECO 20% | <ul style="list-style-type: none"> Completed Pre-FEED study and expected to propose FDP in Q3/18 Negotiate the commercial framework with the Myanmar government |
| 26 | Mozambique Rovuma Offshore Area 1 | | 8.5% | Anadarko, Mitsui, 26.5%, 20% ENH, ONGC 15%, 10% Beas Rovuma, Bharat 10%, 10% | <ul style="list-style-type: none"> Preparatory work for Final Investment Decision (FID) including LNG marketing and finalization of remaining commercial contracts |
| 27 | Algeria Hassi Bir Rekaiz | OP | 24.5% | CNOOC 24.5% Sonatrach 51% | <ul style="list-style-type: none"> Got approval on FDP |
| 28 | Myanmar M11 | OP | 100% | | <ul style="list-style-type: none"> Preparation of exploration drilling plan and seeking partner to manage project's risk |
| 29 | Vietnam B & 48/95 | | 8.5% | PVN 65.88% MOECO 25.62% | <ul style="list-style-type: none"> Negotiate a GSA with the Vietnamese government |
| 30 | Vietnam 52/97 | | 7% | PVN 73.4% MOECO 19.6% | <ul style="list-style-type: none"> Negotiate a GSA with the Vietnamese government |
| 31 | Myanmar MD-7 | OP | 50% | TOTAL 50% | <ul style="list-style-type: none"> Assess resource field's potential |
| 32 | Mariana Oil Sands | OP | 100% | | <ul style="list-style-type: none"> Assess appropriated development approach |
| 33 | Barreirinhas AP1 | | 25% | Shell Brasil 65% Mitsui E&P Brasil 10% | <ul style="list-style-type: none"> Assess petroleum potential |
| 34 | Myanmar MOGE 3 | OP | 75% | Palang Sophon 10% MOECO 10% WinPreciousResources 5% | <ul style="list-style-type: none"> prepare exploration drilling well |
| 35 | Brazil BM-ES-23 | | 20% | Petrobras 65% INPEX 15% | <ul style="list-style-type: none"> Assess petroleum potential |
| 36 | Sarawak SK410B | OP | 42.5% | KUFPEC 42.5% Petronas-Carigali 15% | <ul style="list-style-type: none"> Assess petroleum potential and prepare exploration drilling plan |
| 37 | Sarawak SK417 | OP | 80% | Petronas-Carigali 20% | <ul style="list-style-type: none"> Acquire 3D seismic |
| 38 | Sarawak SK438 | OP | 80% | Petronas-Carigali 20% | <ul style="list-style-type: none"> Acquire 3D seismic |
| 39 | Mexico block 12 (2.4) | | 20% | PC Carigali Mexico 60% Ophir Mexico 20% | <ul style="list-style-type: none"> Assess petroleum potential |
| 40 | Mexico block 29 (2.4) | | 16.67% | Repsol Mexico 30% PC Carigali Mexico 28.33% Sierra Nevada 25% | <ul style="list-style-type: none"> Assess petroleum potential |

* Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship

Organization structure

Ensuring transparency, integrity and good corporate governance



| Ratio | Formula |
|--------------------------------|---|
| Lifting Cost (\$/BOE) | $(\text{Operating Exp.} - \text{Transportation Cost} - \text{Stock Variation} - \text{Other expenses not related to lifting}) / \text{Production Volume}$ |
| Cash Cost (\$/BOE) | $(\text{Operating Exp.} + \text{Exploration Exp.} + \text{G\&A} + \text{Royalties} + \text{Finance Cost}) / \text{Sales Volume}$ |
| Unit Cost (\$/BOE) | $(\text{Operating Exp.} + \text{Exploration Exp.} + \text{G\&A} + \text{Royalties} + \text{Finance Cost} + \text{DD\&A}) / \text{Sales Volume}$ |
| Reserves Replacement Ratio | $5\text{-Yr Additional Proved Reserves} / 5\text{-Yr Production Volume}$ |
| Reserves Life Index (Year) | $\text{Proved Reserves} / \text{Production Volume}$ |
| Success Ratio | $\text{Number of wells with petroleum discovery} / \text{Total number of exploration and appraisal wells}$ |
| Sales Revenue | $\text{Sales} + \text{Revenue from pipeline transportation}$ |
| EBITDA | $(\text{Sales} + \text{Revenue from pipeline transportation}) - (\text{Operating expenses} + \text{Exploration expenses} + \text{Administrative expenses} + \text{Petroleum royalties and remuneration} + \text{Management's remuneration})$ |
| EBITDA Margin | $\text{EBITDA} / \text{Sales Revenue}$ |
| Return on Equity | $\text{Trailing-12-month net income} / \text{Average shareholders' equity between the beginning and the end of the 12-month period}$ |
| Return on Capital Employed | $(\text{Trailing-12-month net income} + \text{Trailing-12-month Interest Expenses \& Amortization of Bond Issuing Cost}) / (\text{Average shareholders' equity and average total debt between the beginning and the end of the 12-month period})$ |
| Simple Effective Tax Rate | $\text{Income tax expenses} / \text{Income before income taxes}$ |
| Total debt | $\text{Short-term loans from financial institution} + \text{Current portion of long-term debts} + \text{Bonds} + \text{Long-term loans from financial institution}$ |
| Net debt | $\text{Total debt} - \text{Liquidity}$ |
| Debt to Equity | $\text{Total debt} / \text{Shareholders' equity}$ |
| Net Debt to Equity | $\text{Net debt} / \text{Shareholders' equity}$ |
| Total Debt to Capital | $\text{Total debt} / (\text{Total debt} + \text{Shareholders' equity})$ |
| Total Debt to EBITDA | $\text{Total debt} / \text{Trailing-12-month EBITDA}$ |
| Net Debt to EBITDA | $\text{Net debt} / \text{Trailing-12-month EBITDA}$ |
| EBITDA Interest Coverage Ratio | $\text{Trailing-12-month EBITDA} / \text{Trailing-12-month Interest Expenses \& Amortization of Bond Issuing Cost}$ |