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Dow Jones
Sustainability Indices
In Collaboration with RobecoSAM



Q1 2018 Financial Results and Operational Update

Analyst Meeting
11 May 2018



Khun Montri Rawanchaikul
EVP, Strategy and
Business Development Group

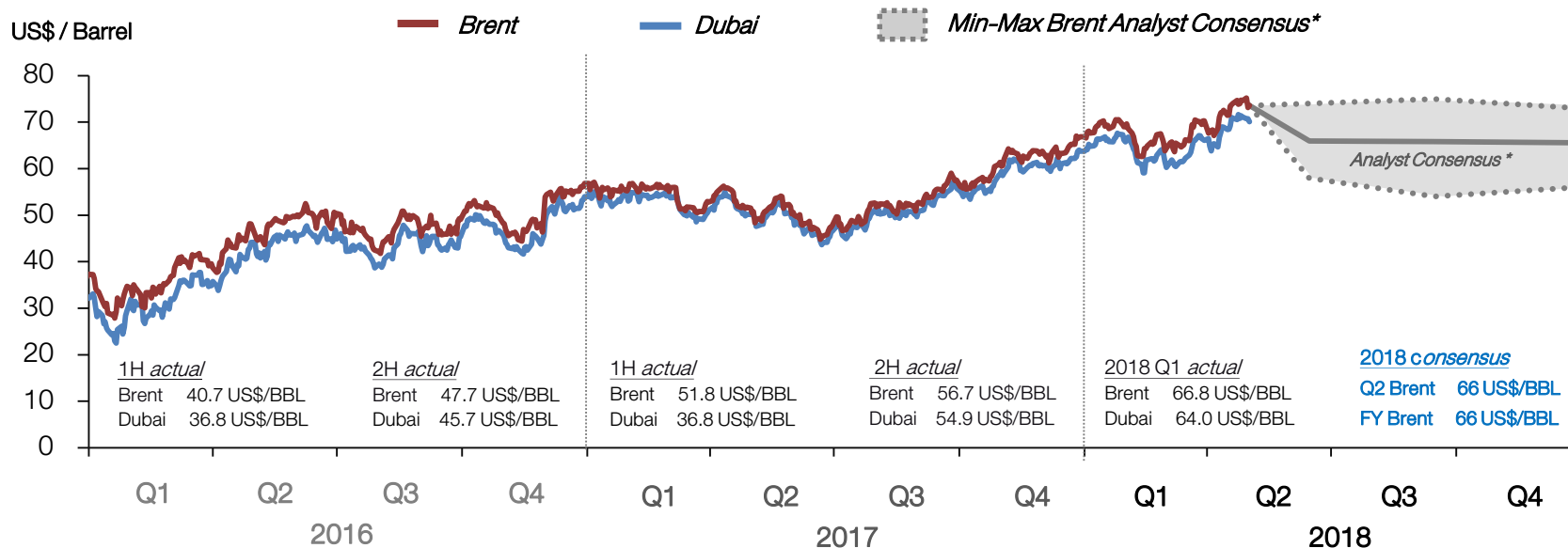
Industry Highlights

Strategy Update

Financial Performance

Oil Prices

Oil prices rally on signs of market rebalancing



Q1 2018 Highlights

- Crude stock decline supported by high compliance rate from OPEC and Non-OPEC

Compliance Rate Achieved

OPEC 106% | Non-OPEC 86%

- Crude demand growth from global economic recovery and the depreciation of US dollar
- Sanction of Iran's Nuclear Program by the U.S.
- Continuing growth in the U.S. supply and higher drilling activities among the E&P companies

2018 Outlook

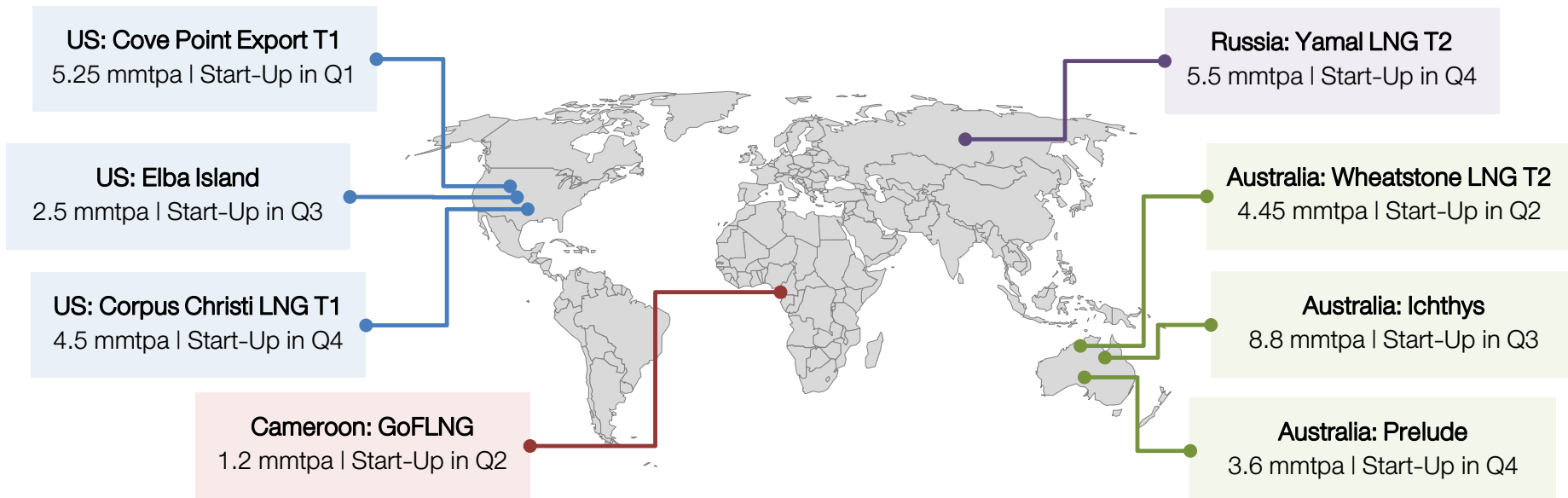
- Potential to extend supply cut agreement by major oil producers and declined output from Venezuela due to economic instability
- Potential increase in the U.S. supply
- Negotiation between Saudi Arabia and Russia to pursue long-term output cut agreement
- Political tensions in Middle East : Sanction on Iran's Nuclear Program and Syria chemical attack
- Watching list: Monetary policies of major economy countries

Remark: * Bloomberg Analyst Consensus (CPFC) as of 30 April 2018 and IEA (as of April 2018)

LNG Updates

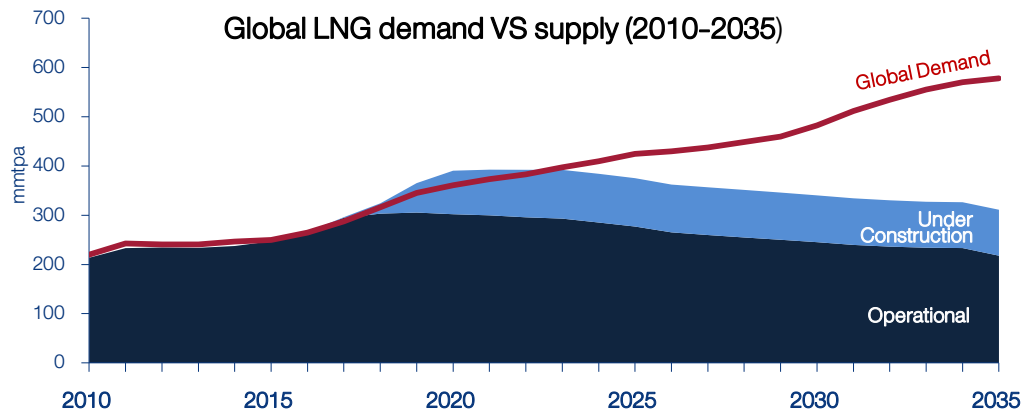
LNG market remains oversupplied, but expected to rebalance from 2023 onwards

Key Projects with expected start-up in 2018



Global LNG Situation

Global LNG demand VS supply (2010-2035)



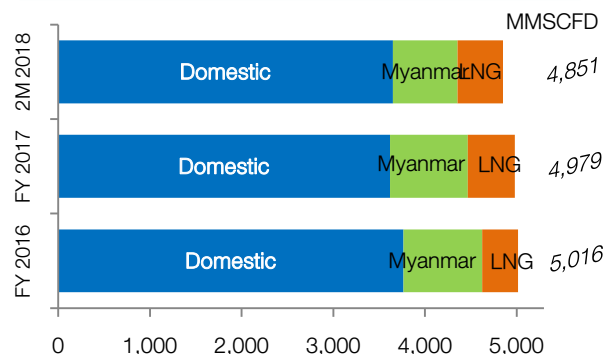
- **Short-term LNG market (2018):** Continue to be oversupplied with average Asian spot LNG forecasted range of 6.5-7.6 \$/MMBTU



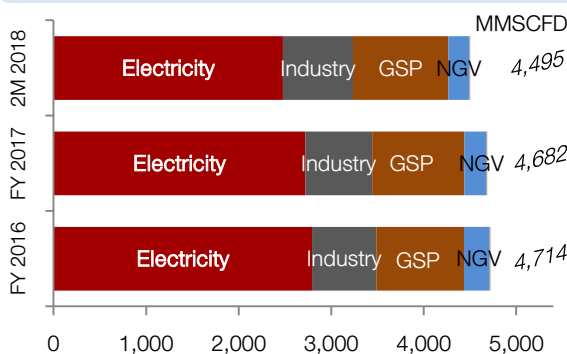
- Oversupply conditions are expected to rebalance from 2023 onwards, however, uncertainty in demand growth especially from China, will impact the timing of rebalancing point

Thailand Energy Overview

Natural Gas Supply



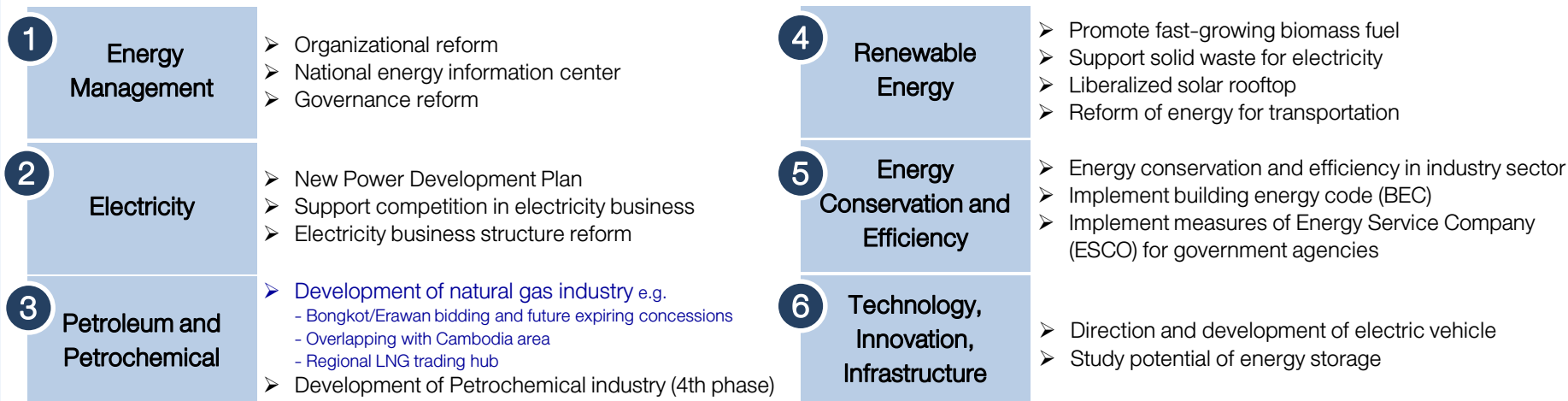
Natural Gas Consumption



- Slight decline in domestic production and Myanmar piped gas imports as a result of lower demands
- Domestic volumes were pressured due to growth in LNG import

Source: Gas supply and consumption from EPPO

Thailand Energy Reform - Focus on 6 dimensions



Source: Announcement of the Office of the Prime Minister regarding national reform plan, announced on 6 April 2018



Khun Somporn Vongvuthipornchai
Chief Executive Officer

Industry Highlights

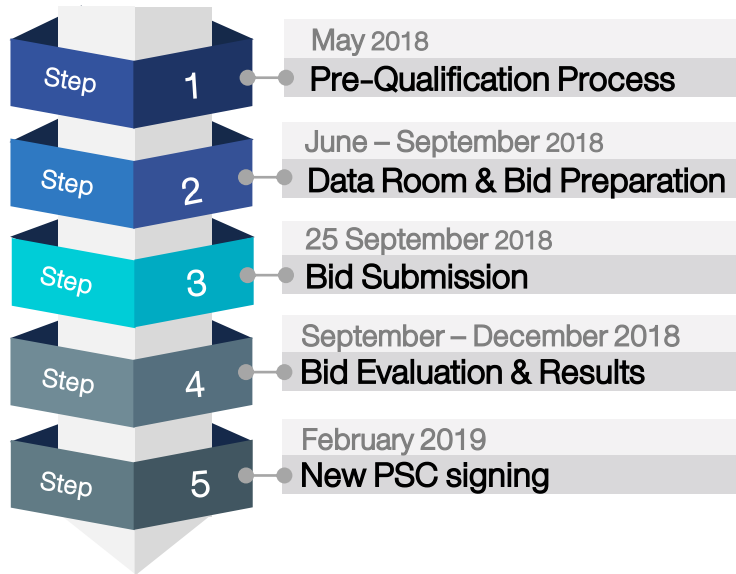
Strategy Update

Financial Performance

1st Priority on the Bidding of Expiring Concessions

Strive to win Bongkot and Erawan Bidding

Process and Timeline



PTTEP is well-positioned to bid for Bongkot and Erawan

- ✓ Deep subsurface understanding with more than 20yrs operatorship experience
- ✓ Ability to ensure operational reliability and production continuation
- ✓ Synergy in the Gulf of Thailand

Bidding Requirement

Bidding Obligations

- **Production:** A minimum production of 800 MMSCFD for G1/61 (Erawan) and 700 MMSCFD for G2/61 (Bongkot), for a period of 10 years
- **Gas Price:** Fixed gas price formula (linked to Dubai price)
- **Facility Bonus:** 350 MMTHB for G1/61 and 175 MMTHB for G2/61
- **Decommissioning:** Pre-expiry liabilities will be based on a ratio of remaining reserves over total recoverable reserves.

Proposal

Technical

- Preparation period work plan
- Field development plan (FDP)
- Exploration work plan

Commercial

Terms

- | Terms | Weighting |
|---|-----------|
| • Gas Price Constant: ≤ 214.26 THB/MMBTU | 65% |
| • Contractor's Profit Share: $\leq 50\%$ | 25% |
| • Bonus: Signature Bonus ≥ 350 MMTHB
Production Bonus ≥ 175 MMTHB
Supporting Contribution e.g. Training and CSR ≥ 3.5 MMTHB | 5% |
| • Thai Employee Ratio: $\geq 80\%$ in 1 st Year and $\geq 90\%$ in 5 th Year | 5% |
| • State Participation: Offer terms and conditions for 25% state participation | |

Source: DMF

Push Forward Other Growth Strategies

Enhance reserves and production through concrete plans

Strike M&A deal



Geographical: SEA, Middle East and other potential areas

Target: Focus on producing or near-producing

Size: 500 – 1,000 MMUSD

Fast-track on pre-FID candidates

Mozambique Rovuma Offshore Area 1

Production
12MMTPA in 2023

- Approval of key legal framework and development plan
- Commenced the resettlement plan
- Significant progress on SPA negotiation with the execution of 1st SPA of 1.2MMTPA with EDF

Southwest Vietnam

Production 490MMSCFD in 2021

- Finalizing commercial agreements

Algeria HBR

Production 50KBPD in 2023

- Approved POD, finalizing documents with partners for FID

Ubon (Contract 4)

Production 25-30KBPD in 2021

- Preparing the POD with partners

Enhance exploration portfolio

Grow the foothold

Focus the drilling activities in Thailand and Myanmar

Strengthen backyard and cluster model

Established "Sarawak Cluster" in Malaysia

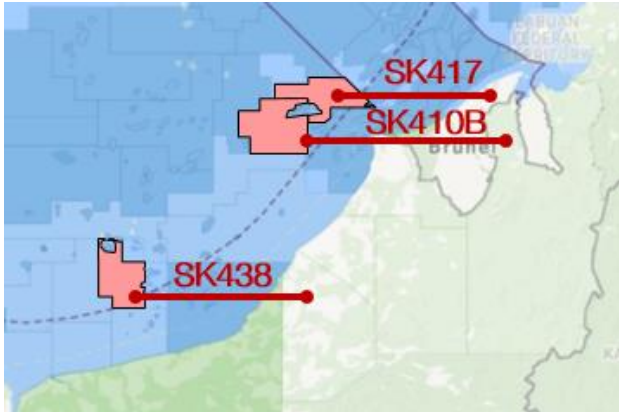
Joint venture

Stepped in the deepwater blocks in Gulf of Mexico

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

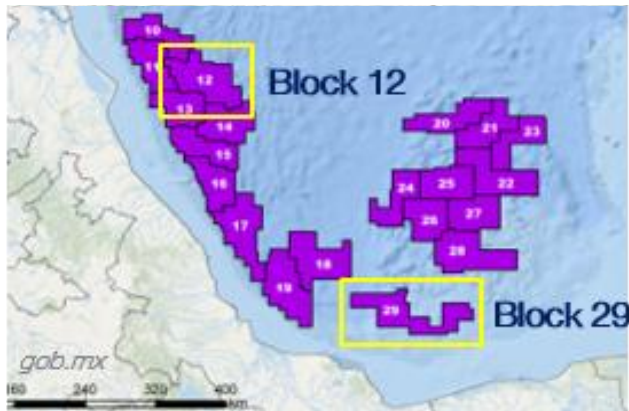
Location: Sarawak Basin, Malaysia

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



Khun Pannalin Mahawongtikul
EVP, Finance and Accounting Group

Industry Highlights

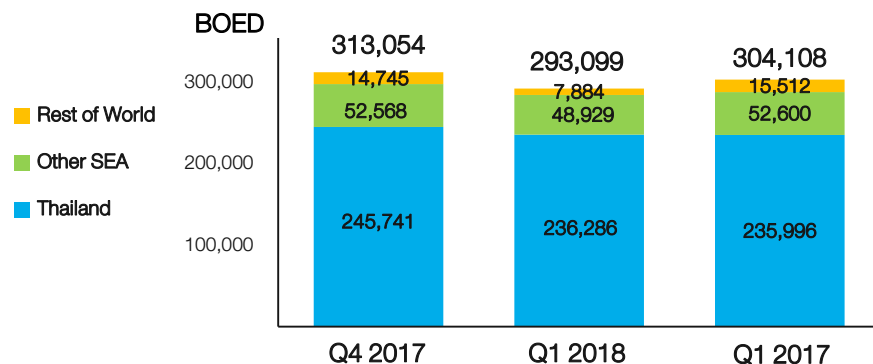
Strategy Update

Financial Performance

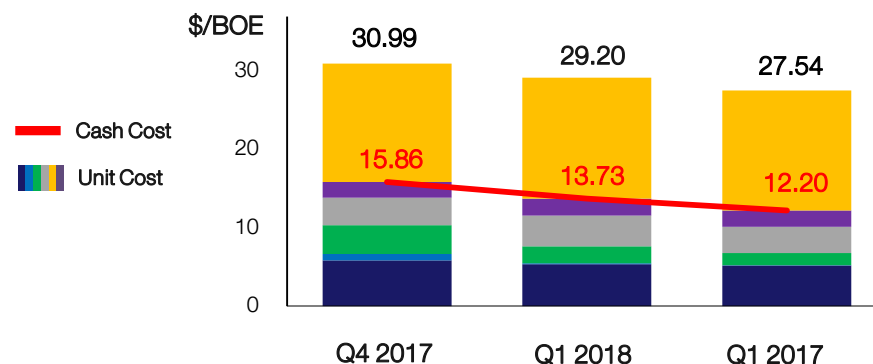
Sales Volume & Unit Cost

Higher selling price with competitive cost

Sales Volume and Price



Unit Cost



Gas (\$/MMBTU)	5.75	6.07	5.24
Liquid (\$/BBL)	59.20	63.12	52.79
Weighted Avg. (\$/BOE)	41.74	44.01	38.00
Avg. Dubai (\$/BBL)	59.31	63.96	53.03
Avg. HSFO (\$/BBL)	54.98	57.64	48.72
(High Sulphur Fuel Oil)			
Volume Mix (Gas : Liquid)	71 : 29	72 : 28	69 : 31
Revenue Mix (Gas : Liquid)	58 : 42	59 : 41	57 : 43

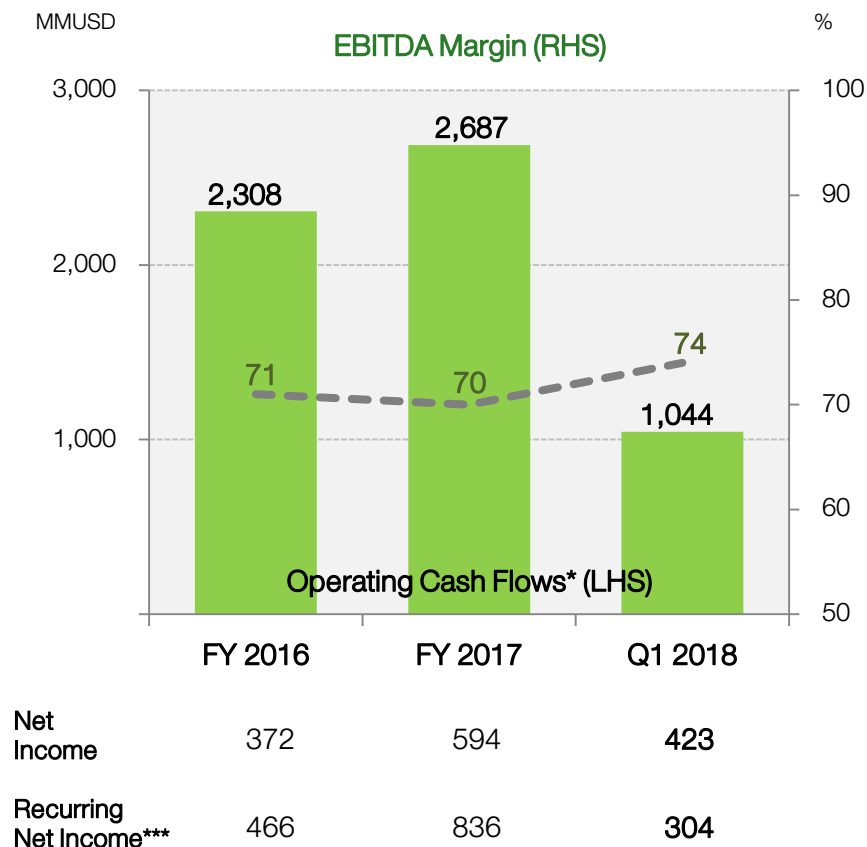
DD&A	15.13	15.47	15.34
Finance Cost	1.99	2.16	2.08
Royalties	3.55	3.94	3.34
G&A	3.68	2.18	1.54
Exploration Expenses	0.80	0.10	0.05
Operating Expenses	5.84	5.34	5.19
Lifting Cost	4.39	4.04	3.83

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

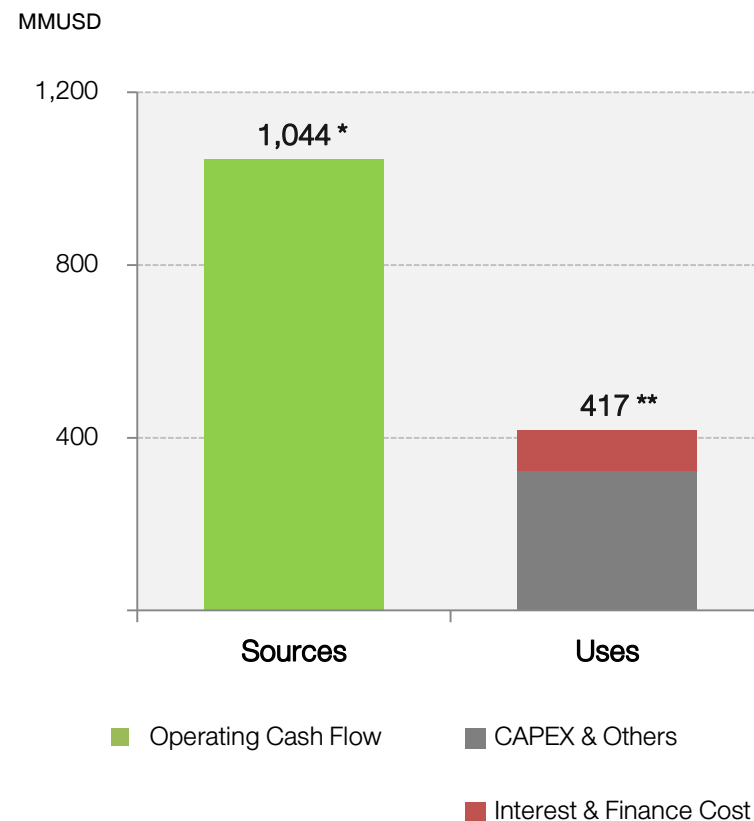
Cash Flow Performance

Self funding driven by robust cash flow generation

Cash Flow Performance



Source & Use of Funds in Q1 2018



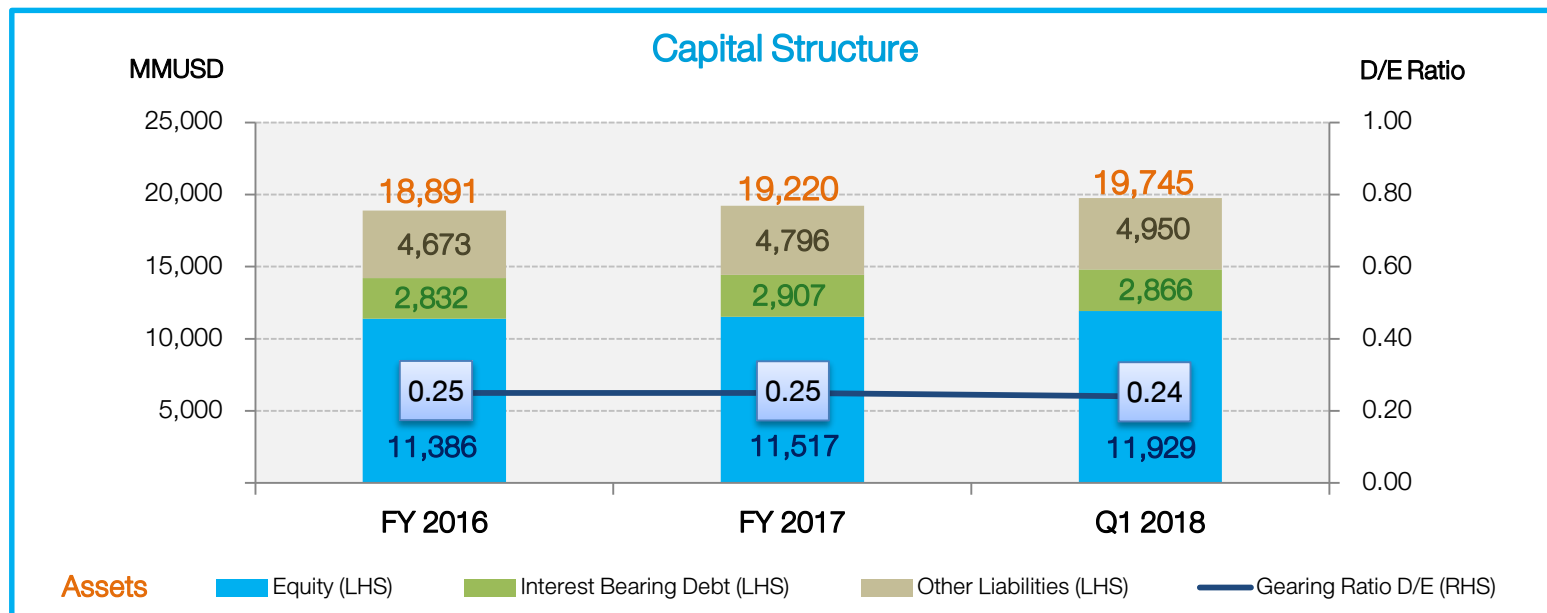
Remark: * Net of adjustment for the effect of exchange rate changes on cash and cash equivalents

** 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

Healthy balance sheet with net cash position

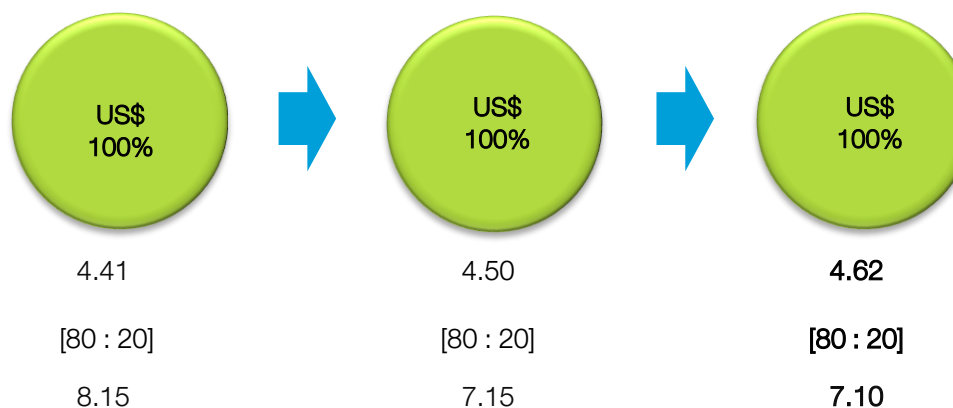


Debt Profile**

Weighted Average
Cost of Debt* (%)

[Fixed : Floating]

Average Loan Life* (Years)



Remark: * Excludes Hybrid bonds

Financial Outlook

Expect to deliver strong core financial performance



**Average
Sales Volume***
KBOED

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

Unit Cost
USD/BOE

EBITDA Margin
% of sales volume

Q2 2018

FY 2018

~297

~300

~6.3

~6.3

~31

30-31

70-75

Note: * Excludes sales volume from the acquisition of additional stakes in Bongkot

** Based on FY2018 Dubai oil price at 63 \$/BBL

Key Takeaways

Maximizing value through solid growth platforms

Concrete plans for reserve accretion

- Strive to win Bongkot and Erawan bidding
- Series of M&A deals execution
- Accelerate FID of key pre-development projects
- Exploration expansion to prolific areas

Competitive cost base and strong margin

- Competitive cost base in top quartile
- Sustain ~70% EBITDA margin amid oil price volatility
- Solid capital structure with \$5.1 Bn cash on hand and low gearing

Commitment to shareholders' value creation

- A consistent dividend-paying company with a track record of over 15 years

Well prepared for future challenges

- Organizational transformation to cope with changing industry landscape as well as to enhance operational efficiency
- Gas-weighted portfolio in line with global energy trend
- Diversification to LNG value chain with PTT
- Explore new business opportunities



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



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Q1 2018 Financial Results

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Summary of Q1 2018 Financial Results

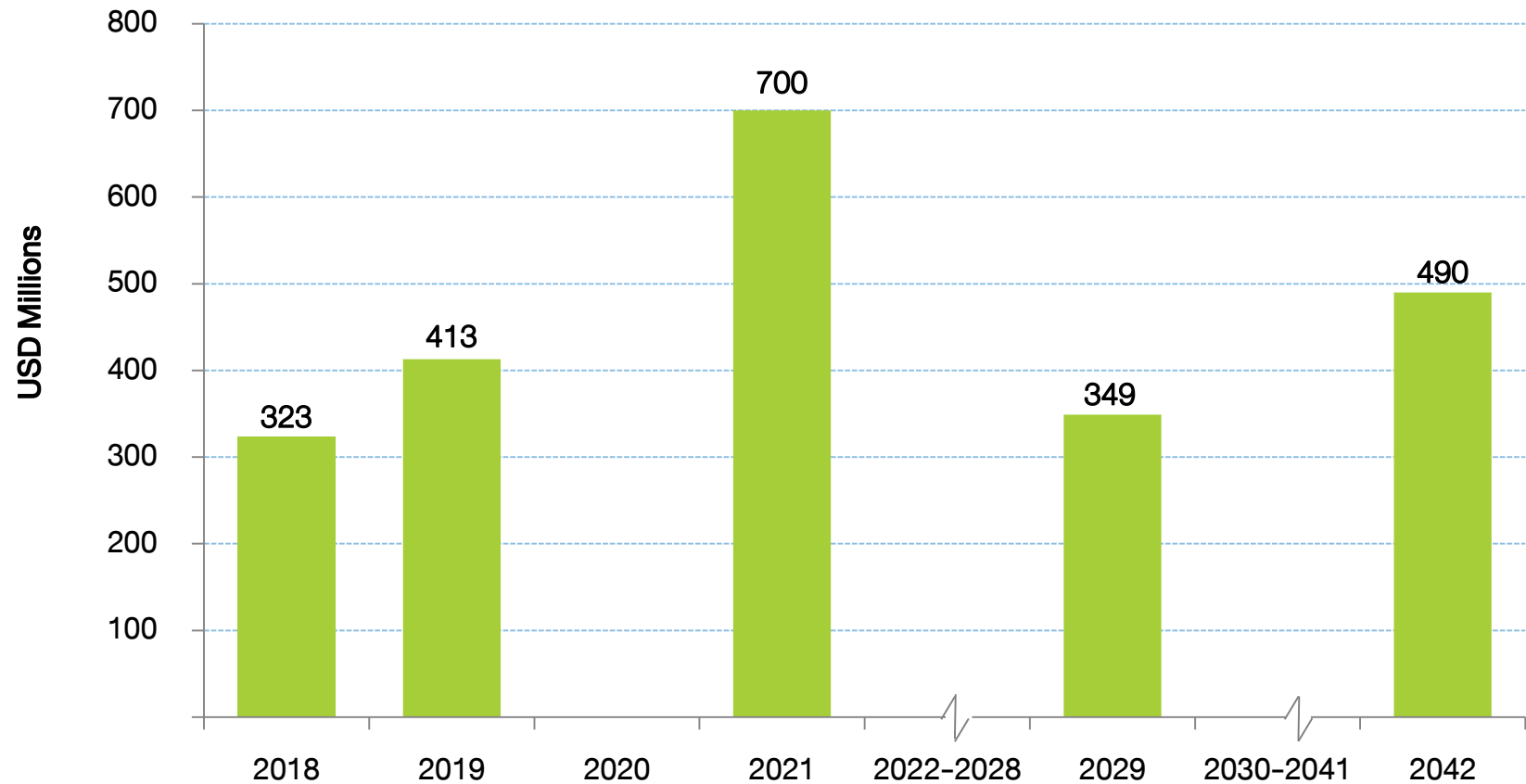
Solid net income supported by improved selling price and cost management



Unit : MMUSD

Statement of Income	Q4 17	Q1 18	% QoQ	Q1 17	% YoY
Total Revenues	1,271	1,240	(2%)	1,092	14%
Sales	1,202	1,161	(3%)	1,040	12%
Others	69	79	14%	52	52%
Sales Volume (BOED)	313,054	293,099	(6%)	304,108	(4%)
Sales Price (USD/BOE)	41.74	44.01	5%	38.00	16%
Total Expenses	982	817	(17%)	743	10%
Major Expenses:					
Operating Expenses	168	141	(16%)	142	(1%)
Exploration Expenses	23	3	(87%)	1	>100%
DD&A	436	408	(6%)	420	(3%)
Income Tax Expense	64	5	(92%)	(8)	>100%
(Gain)/Loss on FX	(14)	(25)	79%	(3)	>100%
Net Income from Continuing Operations	289	423	46%	349	21%
Profit (Loss) from Discontinued Operations	(0.35)	-	100%	-	-
Net Income	289	423	46%	349	21%
Recurring Net Income	240	304	27%	211	44%
Non-Recurring*	49	119	>100%	138	(14%)

Note: * Includes 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.



Note: Excludes Hybrid bonds

Unit: USD Millions or equivalent after cross currency swap

Priority on Safety and Sustainability

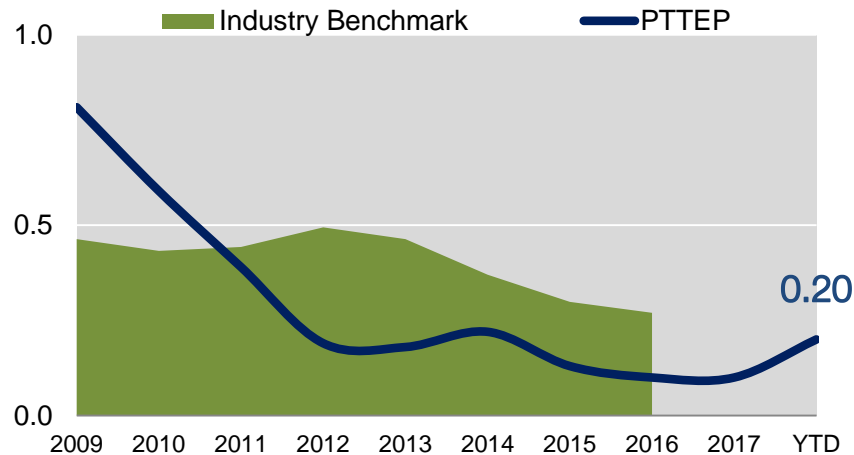
Deliver high safety performance and ensure our commitment to all stakeholders

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 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



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2017 DJSI Listed Company

PTTEP has been selected as a member of the 2017 Dow Jones Sustainability Indices (DJSI) in the DJSI World Oil and Gas Upstream & Integrated Industry for its fourth consecutive year.

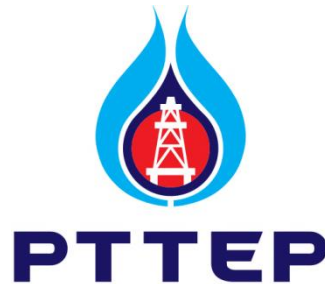


Proven business integrity

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



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



FTSE4Good

FTSE4Good Emerging Index 2017

PTTEP becomes a constituent of the FTSE4Good Emerging Index 2017 for a second consecutive year



Green driver to environment

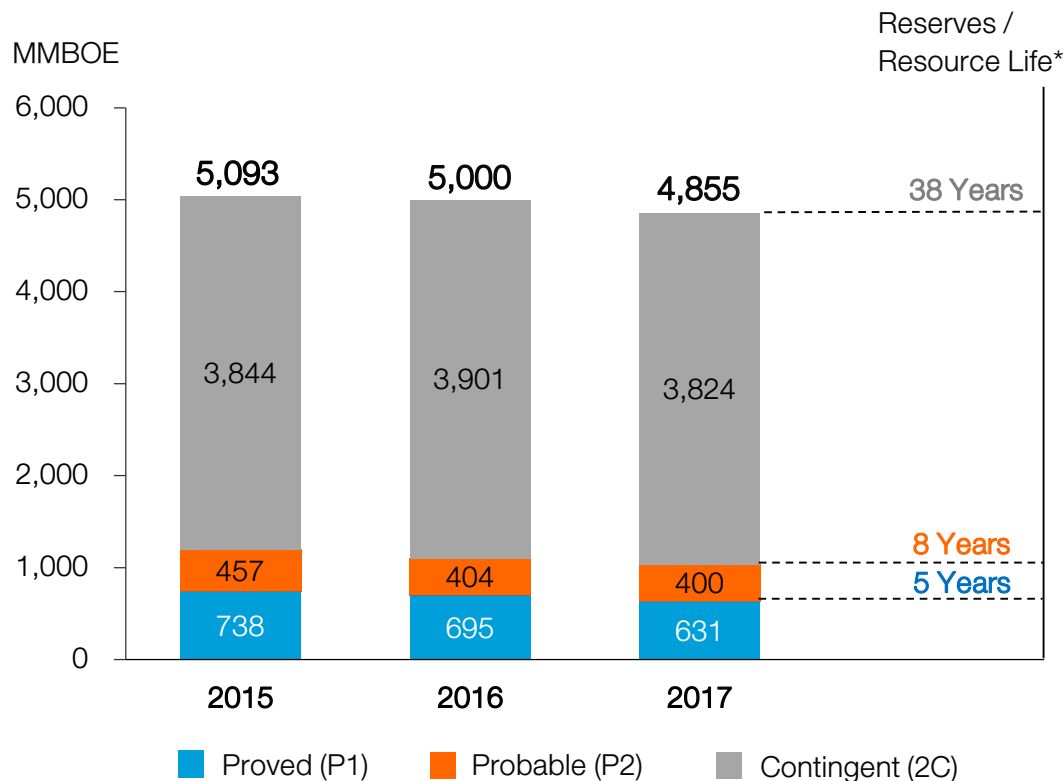
Water A List Award
Carbon Disclosure Project (CDP)

2017 LESS Award Letter of Recognition
Thailand Greenhouse Gas Management Organization

Thailand Occupational Safety and Health Awards
the Ministry of Labour

Reserves and Resources

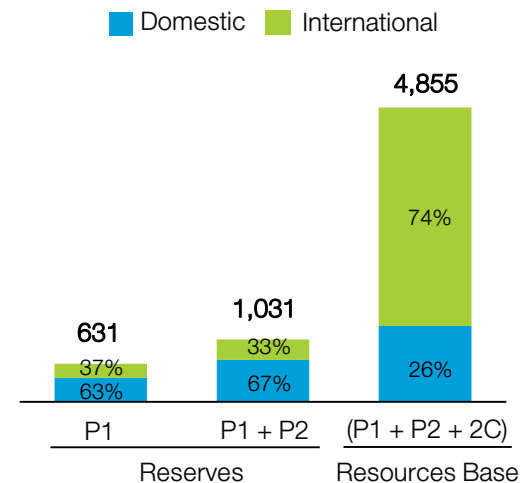
Maintained reserve life with majority of reserves base in SEA



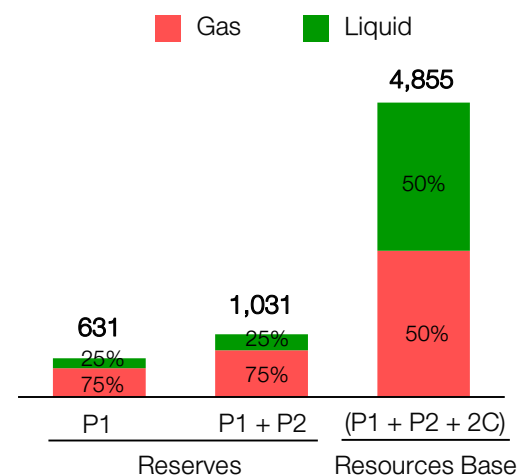
5-Year Average Proved Reserves Replacement Ratio (RRR)

2015	2016	2017
0.50x	0.57x	0.58x

2017 by Geography



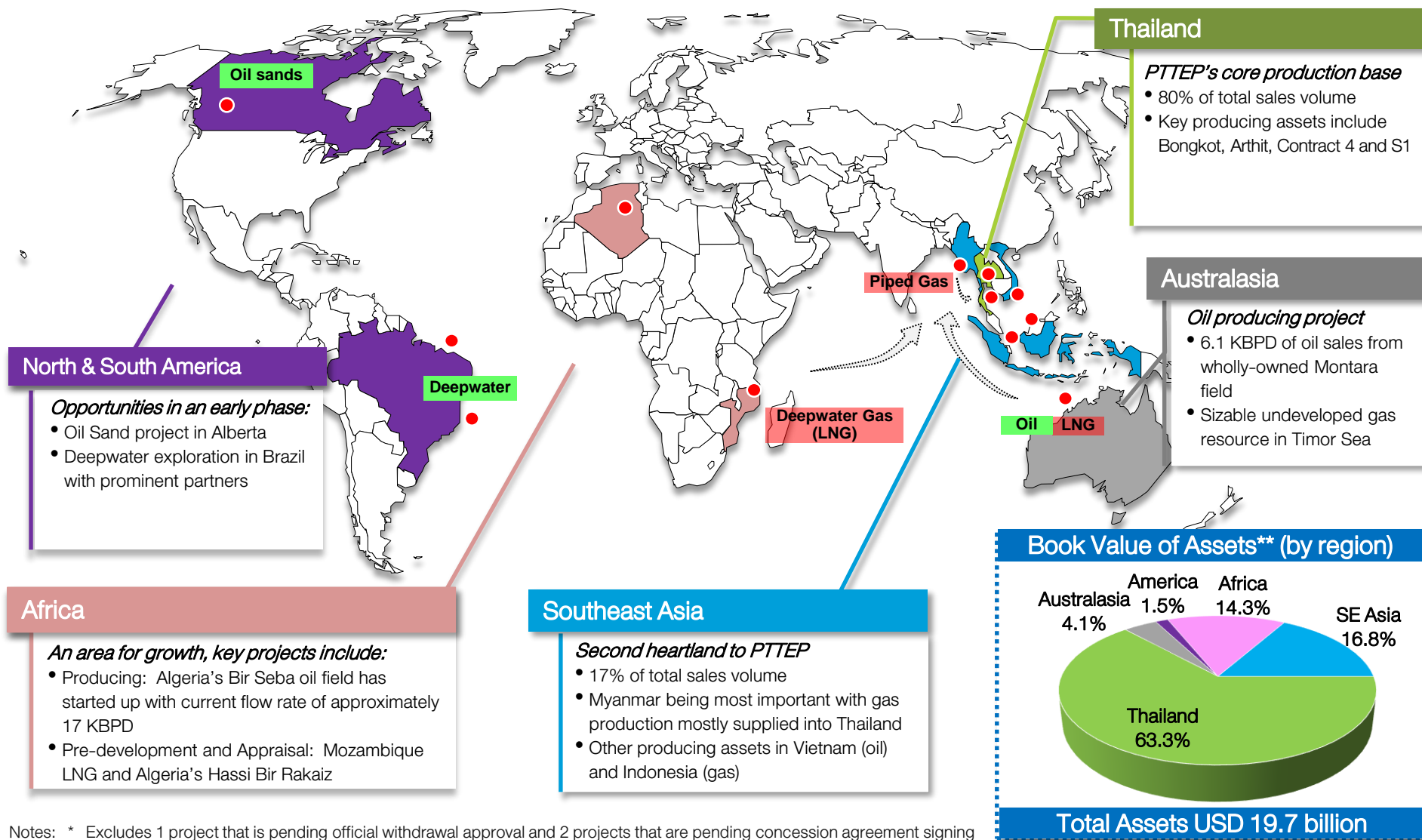
2017 by Product Type



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

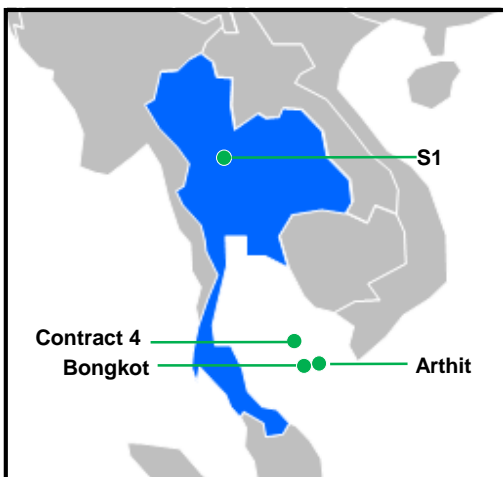
Diversified international portfolio

Worldwide operations: 38 projects* in 10 countries



Notes: * Excludes 1 project that is pending official withdrawal approval and 2 projects that are pending concession agreement signing

** Information dated as of 31 March 2018



● Production / Ramp-up Projects

Bongkot (44.4445% interest)

- Bongkot's natural gas sales volume of 841 MMSCFD in 3M2018.
- Average condensate sales volume was 27 KBPD in 3M2018.

S1 (100% interest)

- S1 is the largest onshore crude oil production field in Thailand.
- Average crude oil sales volume was 25 KBPD in 3M2018.

Arthit (80% interest)

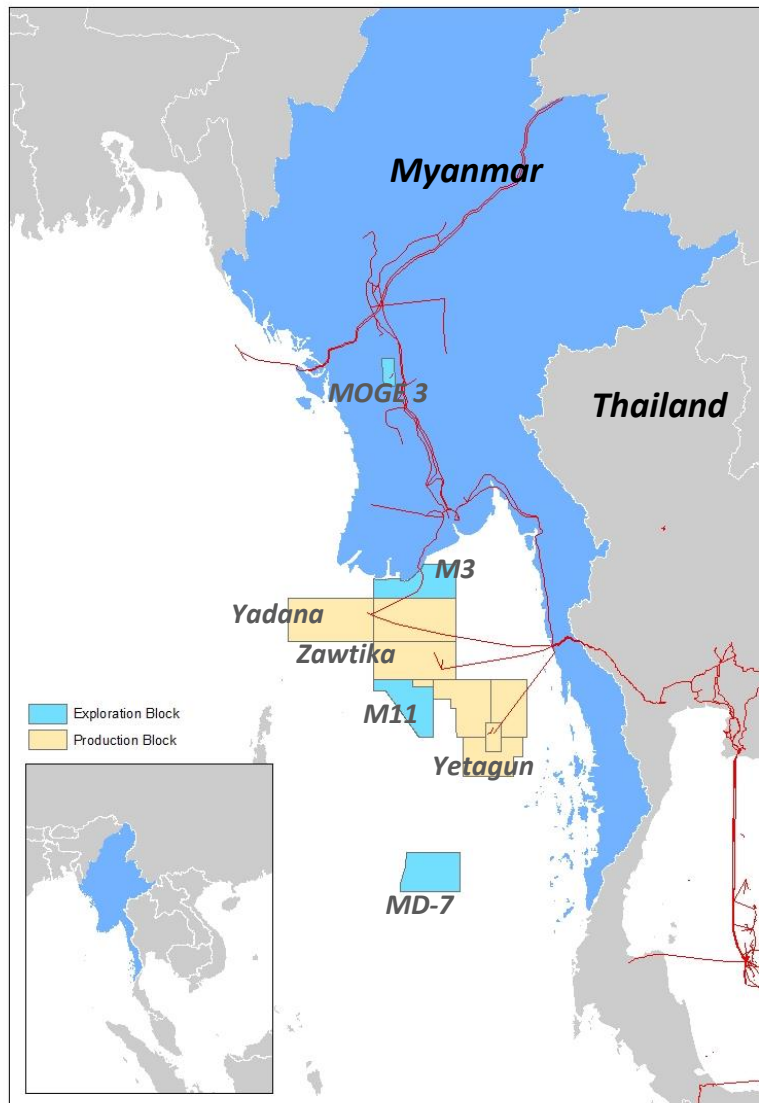
- Average sales volume in 3M2018 was 228 MMSCFD of natural gas and 11 KBPD of condensates.

Contract 4 (60% interest)

- Acquired from Hess Corporation in 2014.
- Contract 4 had an average sales rate of 385 MMSCFD for natural gas and 17 KBPD for condensate in 3M2018.

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 281 MMSCFD in 3M2018.
- 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)

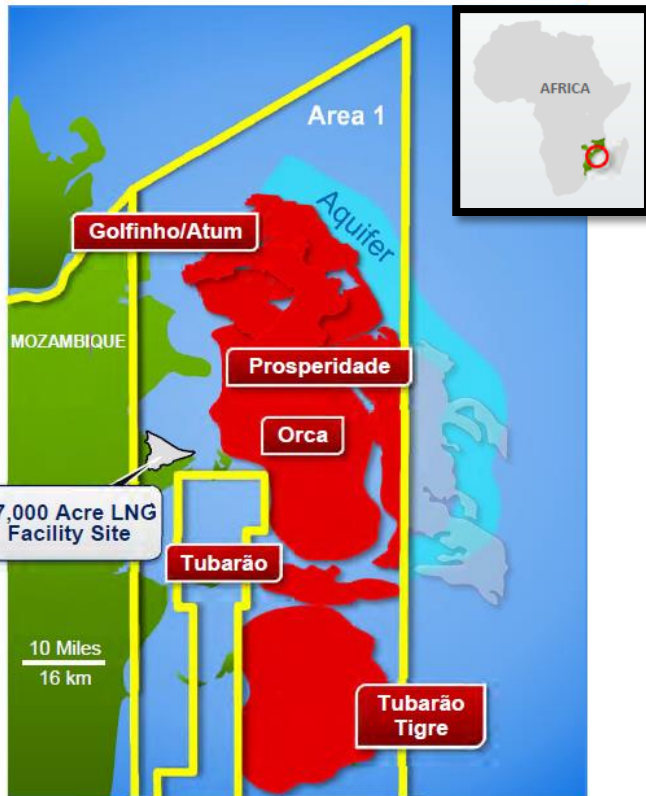
- Average sales volume of crude oil was 17 KBPD in 3M2018.
- The project is preparing further production drilling plan aiming to maintain production plateau.

Natuna Sea A (11.5% interest)

- Average sales volume of natural gas was 222 MMSCFD in 3M2018.

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

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)

Regulatory

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

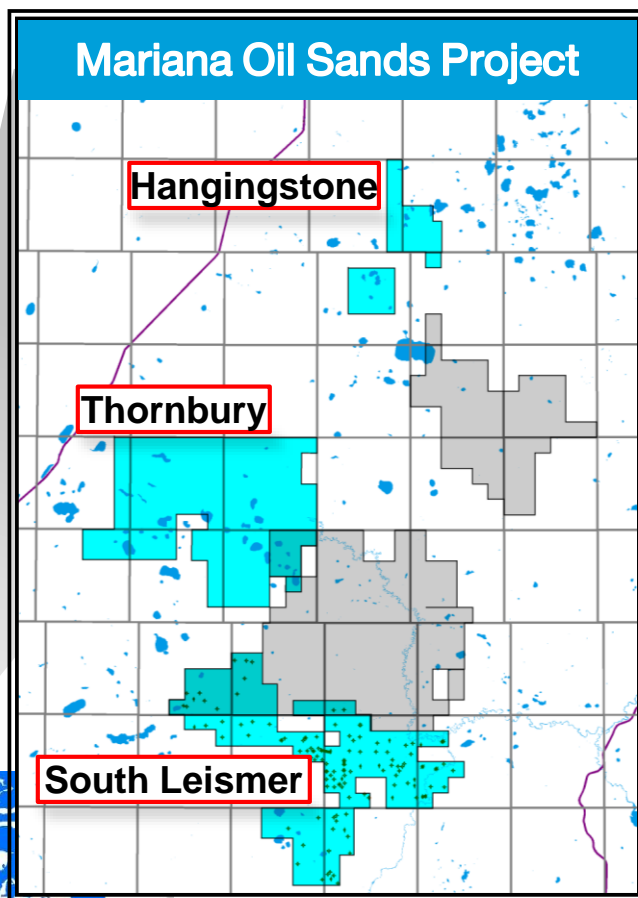
Financing

- ✓ On-going negotiation for project financing

Onwards to initial phase of 12 MMTPA

America: Canada Oil Sands

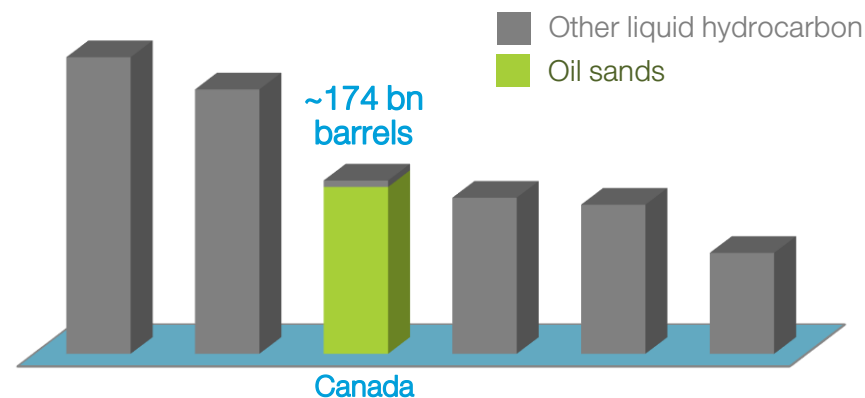
Flexibility to pursue long-term investment from the oil sands project



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

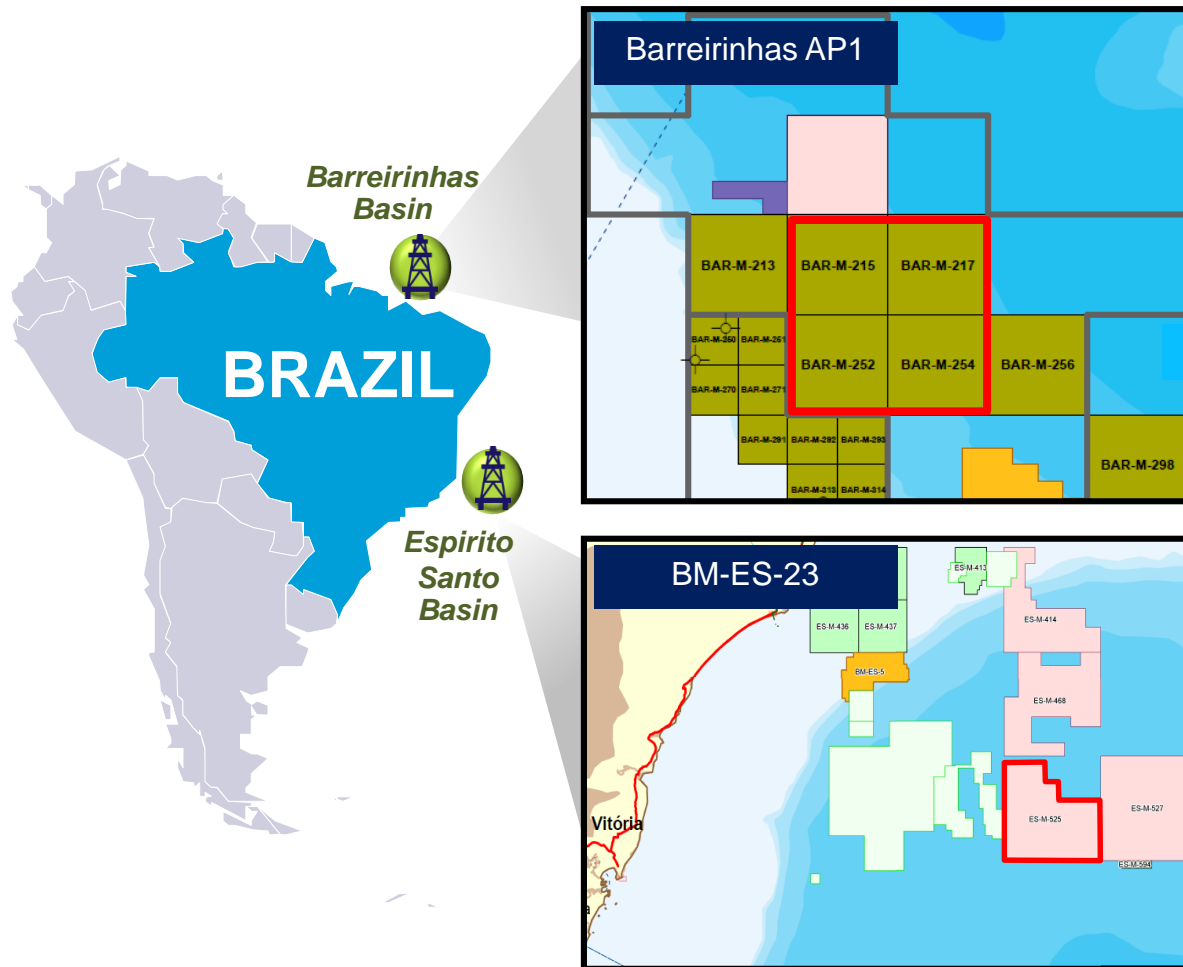
Approximately 96% of the reserves in Canada, the world's 3rd largest oil reserves, is oil sands



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)

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 Q1 2018)	3M2018 Average Sales Volume **		2018 Key Activities	
					Gas	Oil and Other		
Production Phase								
Thailand and JDA								
1	Arthit	OP	80%	Chevron MOECO	16% 4%	228 MMSCFD	Condensate: 11 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%	77 MMSCFD	Crude: 21 k BPD	<ul style="list-style-type: none">Drill development wellsPerform waterflood activities
4	Bongkot	OP	44.4445%	TOTAL Shell	33.3333% 22.2222%	841 MMSCFD	Condensate: 27 k BPD	<ul style="list-style-type: none">Ensure gas deliverability level at DCQ****Drill development wellsInstall wellhead platforms
5	Contract 3 (Formerly Unocal III)		5%	Chevron MOECO	71.25% 23.75%	659 MMSCFD	Crude: 23 k BPD Condensate: 24 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%	385 MMSCFD	Condensate: 17 k BPD	<ul style="list-style-type: none">Ensure gas deliverability level at DCQ****Drill development wellsInstall wellhead platformsReview development plan of Ubon field
7	E5		20%	ExxonMobil	80%	7.4 MMSCFD	-	
8	G4/43		21.375%	Chevron MOECO Palang Sophon	51% 21.25% 6.375%	1.7 MMSCFD	Crude: 5.4 k BPD	<ul style="list-style-type: none">Drill development wellsPerform waterflood activities
9	G4/48		5%	Chevron MOECO	71.25% 23.75%	3.9 MMSCFD	Crude: 1.2 k BPD	
10	L53/43 & L54/43	OP	100%			-	Crude: 1.0 k BPD	<ul style="list-style-type: none">Drill exploration / appraisal / development wells
11	PTTEP1	OP	100%			-	Crude: 224 BPD	<ul style="list-style-type: none">Drill development wellsPerform waterflood activities
12	S1	OP	100%			15 MMSCFD	Crude: 25 k BPD	<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%	51 MMSCFD	Condensate: 177 BPD	<ul style="list-style-type: none">Drill development wells
14	MTJDA	JOC	50%	Petronas-Carigali	50%	361 MMSCFD	Condensate: 7.0 k BPD	<ul style="list-style-type: none">Drill development wellsInstall wellhead platforms
15	L22/43	OP	100%			-	Crude: 44 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 Q1 2018)	3M2018 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: 2.8 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%	752 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)	169 MMSCFD	Condensate: 2.0 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%	4.0 MMSCFD	Crude: 17 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: 6.1 k BPD	<ul style="list-style-type: none">Maintain production operation
21	Natuna Sea A		11.5%	Premier Oil 28.67% KUFPEC 33.33% Petronas 15% Pertamina 11.5%	222 MMSCFD	Crude: 1.6 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%	281 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: 1.8 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

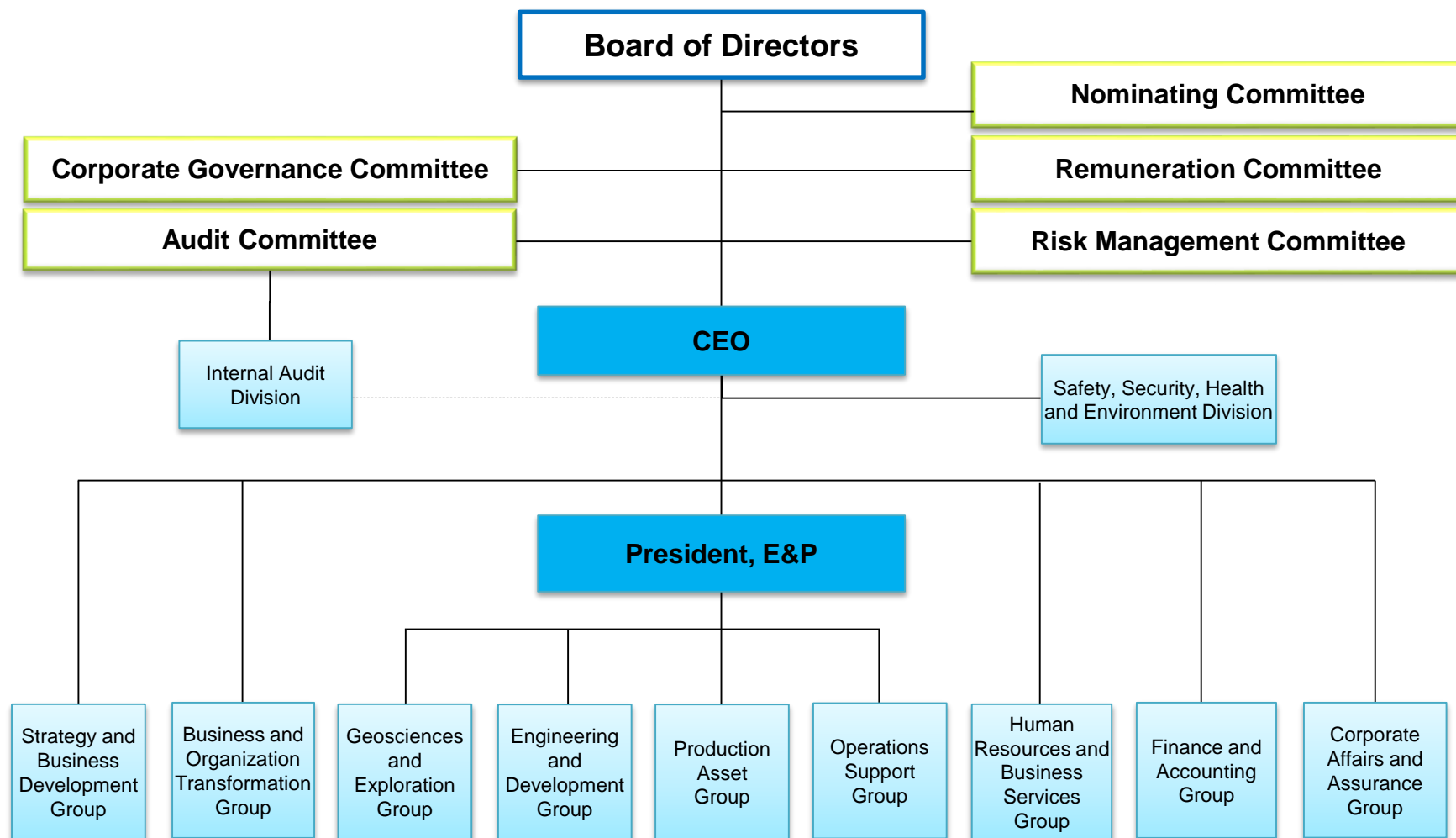
Exploration phase

	Project	Status*	PTTEP's Share	Partners (as of Q1 2018)	2018 Key Activities
Exploration Phase					
Thailand and JDA					
24	G9/43	OP	100%		
Overseas					
25	Myanmar M3	OP	80%	MOECO 20%	• 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%	• 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%	• Conduct pre-development study and prepare project development plan
28	Myanmar M11	OP	100%		• Acquire 3D seismic
29	Vietnam B & 48/95		8.5%	PVN 65.88% MOECO 25.62%	• Negotiate a GSA with the Vietnamese government
30	Vietnam 52/97		7%	PVN 73.4% MOECO 19.6%	• Negotiate a GSA with the Vietnamese government
31	Myanmar MD-7	OP	50%	TOTAL 50%	• Assess resource potential and prepare exploration drilling
32	Mariana Oil Sands	OP	100%		• Assess appropriated development approach
33	Barreirinhas AP1		25%	Shell Brasil 65% Mitsui E&P Brasil 10%	• Assess petroleum potential
34	Myanmar MOGE 3	OP	75%	Palang Sophon 10% MOECO 10% WinPreciousResources 5%	• Assess petroleum potential and prepare exploration drilling plan
35	Brazil BM-ES-23		20%	Petrobras 65% INPEX 15%	• Assess petroleum potential
36	Sarawak SK410B	OP	42.5%	KUFPEC 42.5% PCSB 15%	• Assess petroleum potential and prepare exploration drilling plan
37	Sarawak SK417	OP	80%	PCSB 20%	• Acquire 3D seismic
38	Sarawak SK438	OP	80%	PCSB 20%	• Acquire 3D seismic

* 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	$\text{Trailing-12-month EBITDA} / \text{Trailing-12-month Interest Expenses \& Amortization of Bond Issuing Cost}$