

PTT Exploration and Production Public Company Limited

Non-Deal Roadshow

Taipei, Taiwan

16-17 May 2017



PTTEP

MEMBER OF

**Dow Jones
Sustainability Indices**

In Collaboration with RobecoSAM





Company Overview

Key Achievement and
Financial Performance

Growth & Opportunities

Investment Plan & Outlook



As PTT's Upstream Flagship



Government of
Thailand

66.0%²



Thailand's national energy company

65.3%¹



Credit ratings equivalent to parent and country

S&P Moody's TRIS JCR

BBB+

Baa1

AAA

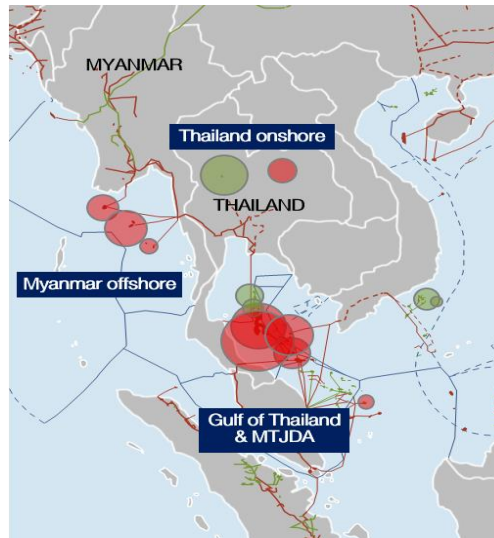
A-

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

95%

of PTTEP's total
sales volume

+99%

Reliability of plants
and field facilities*

83%

of PTTEP's sales volume
sold to PTT

12 USD/
BOE

Average regional
cash cost

* of PTTEP-operated projects in Gulf of Thailand, excl. planned shutdown
All figures are as of Q1 2017

Notes:

1. Ownership as of 10 February 2017

2. 51.1% is directly held by the Government of Thailand (Ministry of Finance), with the remaining 14.9% held by the state-controlled Vayupak Fund I

Overview

Achievement

Growth&Opp.

Outlook

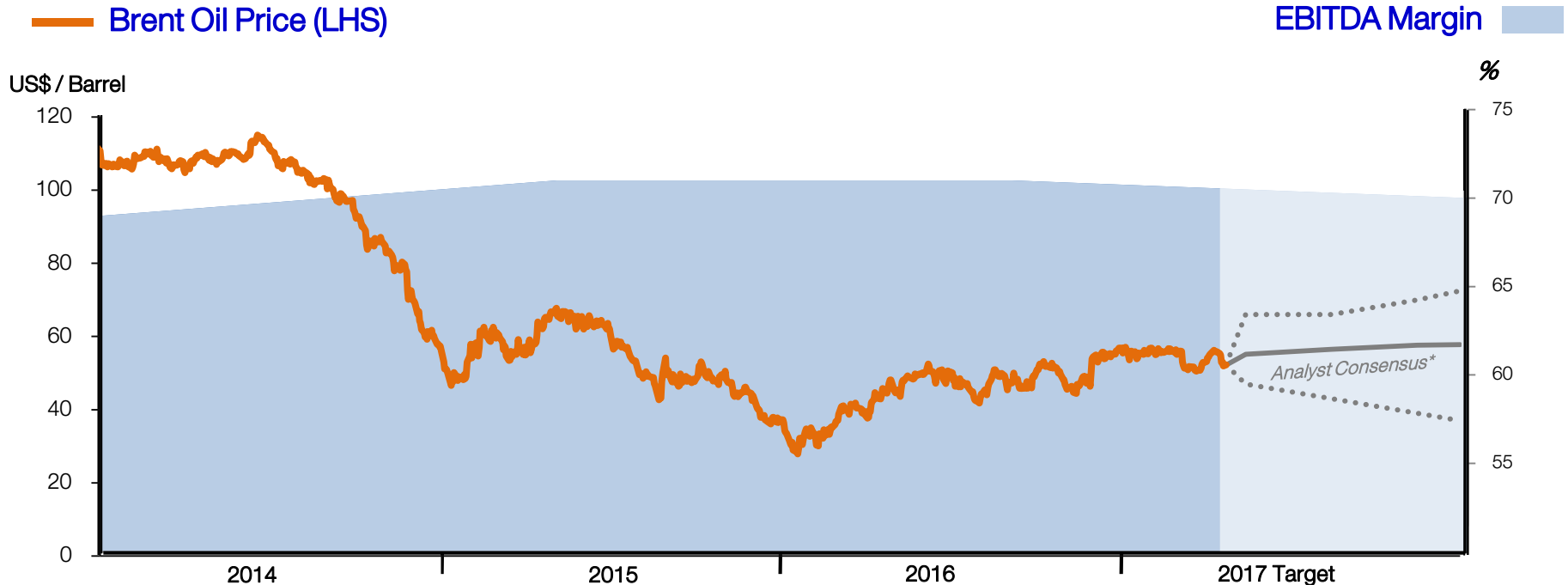


Company Overview

**Key Achievement and
Financial Performance**

Growth & Opportunities

Investment Plan & Outlook

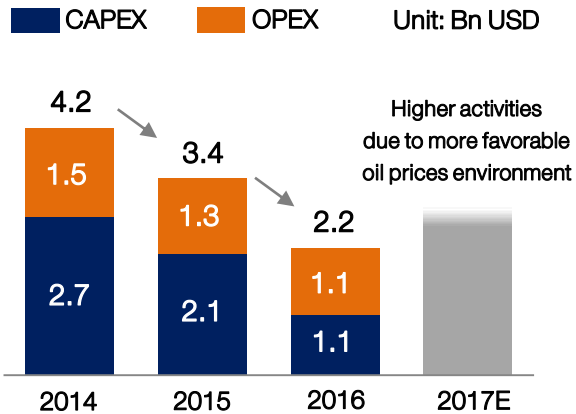


EBITDA Margin	Annual Operating Cash Flow	Cash on Hand	Outlook
69 – 71 %	2.3 – 2.9 \$ Billion	3.5 – 4.0 \$ Billion	Expect to maintain strong EBITDA margin throughout 2017 and beyond

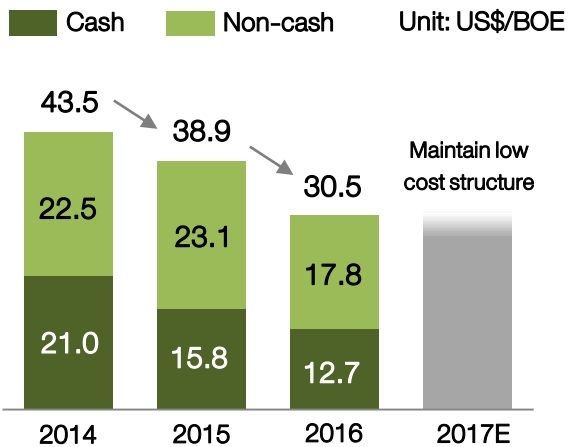
Remark * Brent oil prices consensus range: Bloomberg Analyst Consensus (CPFC) as of 24 April 2017



Expenditure (CAPEX + OPEX)

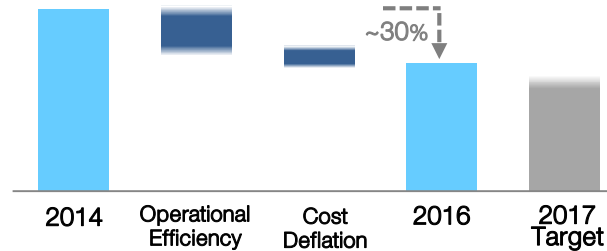


Maintain Low Unit Cost



Continuing Cost Improvement Momentum

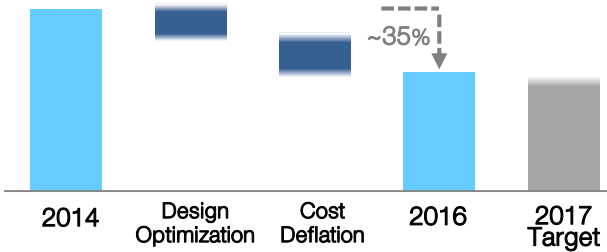
Development Drilling Cost per Well*



Reductions achieved through ...

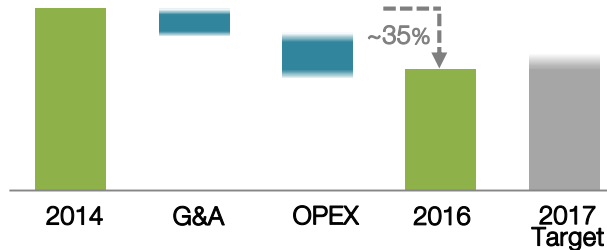
- Drilling performance improvement
- Drilling days reduction
- Standardizing well design

Wellhead Platform Cost per Unit*



- Platform design standardization
- Enhance more savings on marine costs related
- Contract renegotiation

OPEX and G&A per BOE



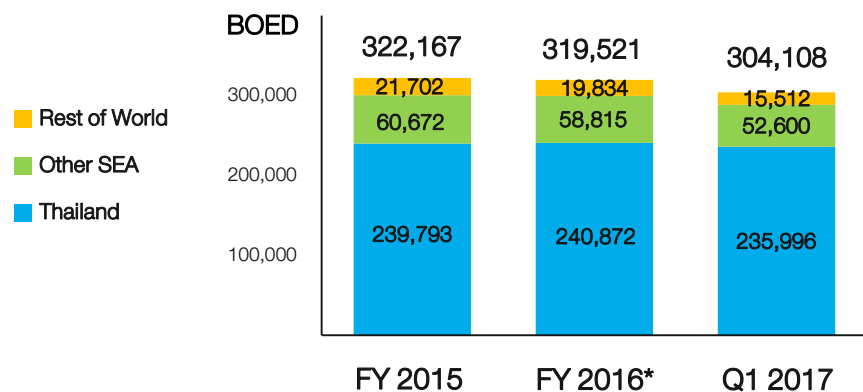
- Process streamline e.g. logistics, maintenance optimization
- Disciplined G&A policies
- Enhance procurement savings

Remark * Primarily applicable in PTTEP-operated projects in the Gulf of Thailand

Note : For Wellhead Platform Cost: Graph represents cost reduction captured but not yet fully realized

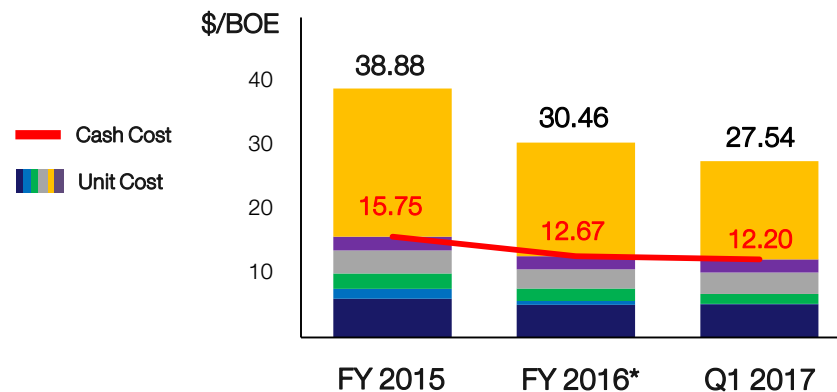


Sales Volume and Price



Gas (\$/MMBTU)	7.20	5.60	5.24
Liquid (\$/BBL)	50.05	41.17	52.79
Weighted Avg. (\$/BOE)	45.29	35.91	38.00
Avg. Dubai (\$/BBL)	50.91	41.27	53.03
Avg. HSFO (\$/BBL) (High Sulphur Fuel Oil)	44.86	35.48	48.72
Volume Mix (Gas : Liquid)	70 : 30	69 : 31	69 : 31
Revenue Mix (Gas : Liquid)	66 : 34	65 : 35	57 : 43

Unit Cost



DD&A	23.13	17.79	15.34
Finance Cost	2.14	2.01	2.08
Royalties	3.62	3.02	3.34
G&A	2.39	1.93	1.54
Exploration Expenses	1.56	0.63	0.05
Operating Expenses	6.04	5.08	5.19
Lifting Cost	4.62	4.18	3.83
Drilling Success Ratio**	31 : 47	6 : 8	0 : 2

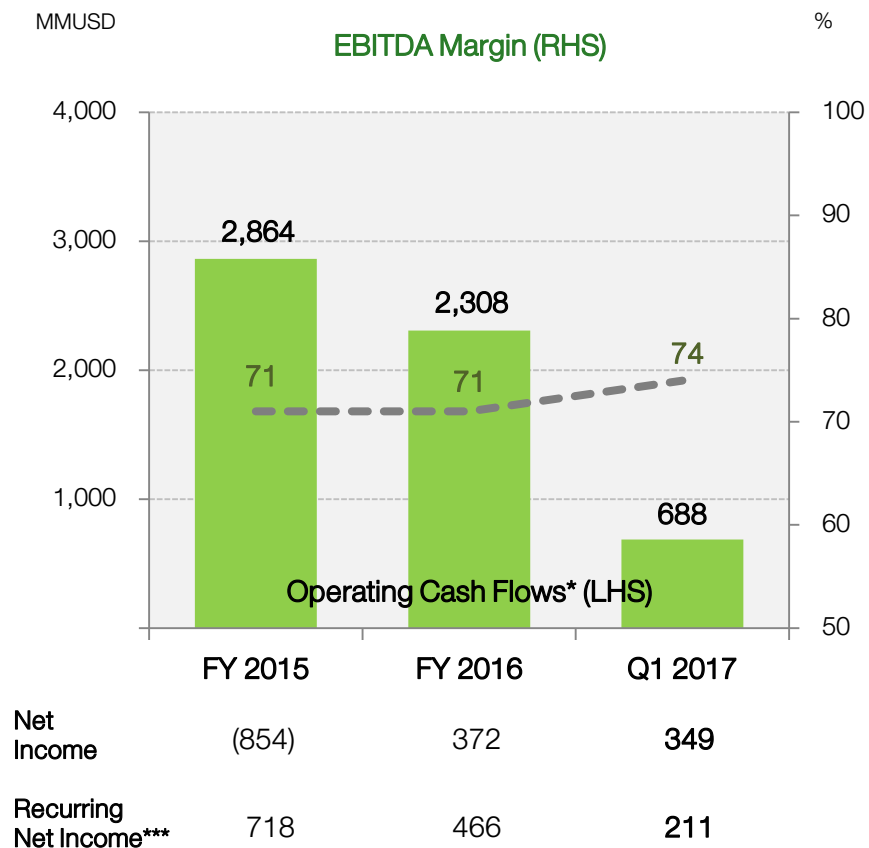
Remark: Sales Volume & Royalties: after reclassification of PSC royalty

* Represented and includes discontinued operations until end of August 2016

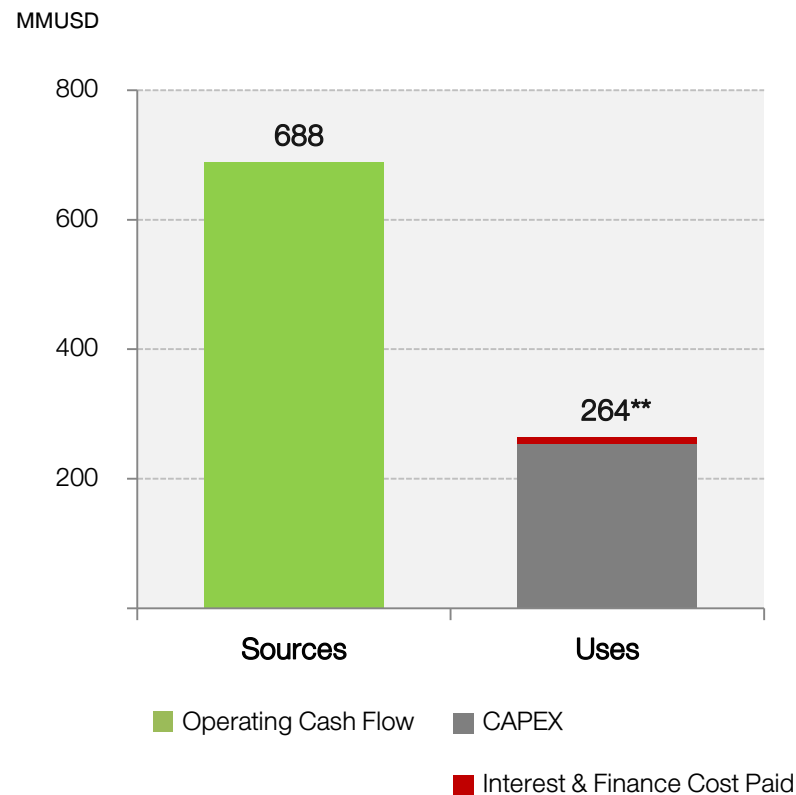
** Successful wells : Total wells (includes Exploration and Appraisal wells)



Cash Flow Performance



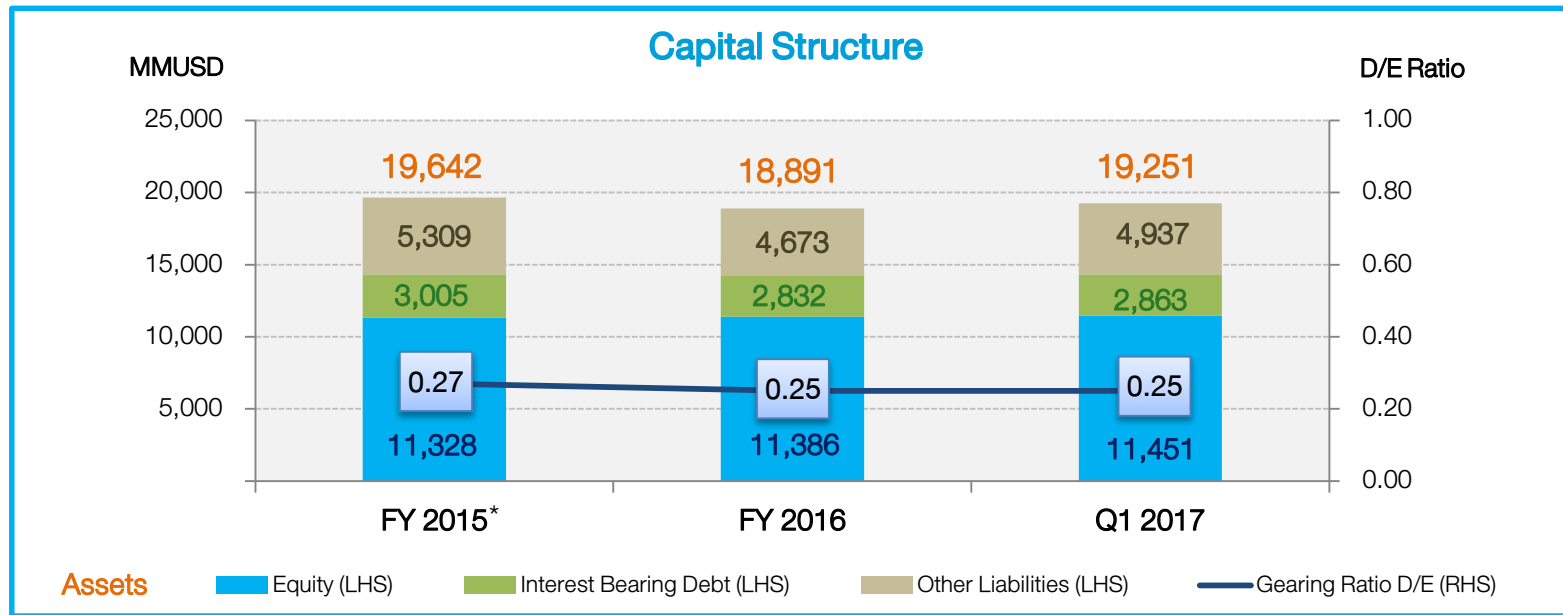
Source & Use of Funds in Q1 2017



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.



Debt Profile**



Weighted Average
Cost of Debt** (%)

4.32

4.41

4.44

[Fixed : Floating]

[82.18]

[80 : 20]

[80 : 20]

Average Loan Life** (Years)

8.17

8.15

7.90

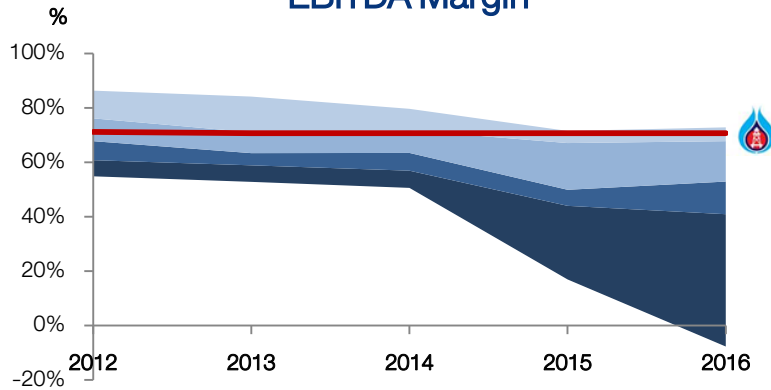
Remark: * Restated

** Excludes Hybrid bonds

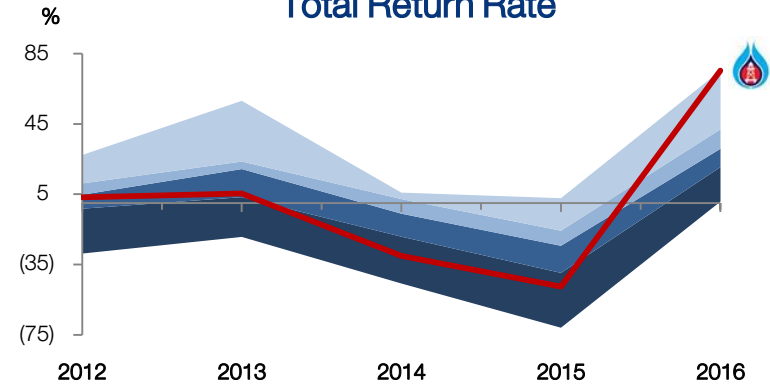


Deliver better performance...

EBITDA Margin

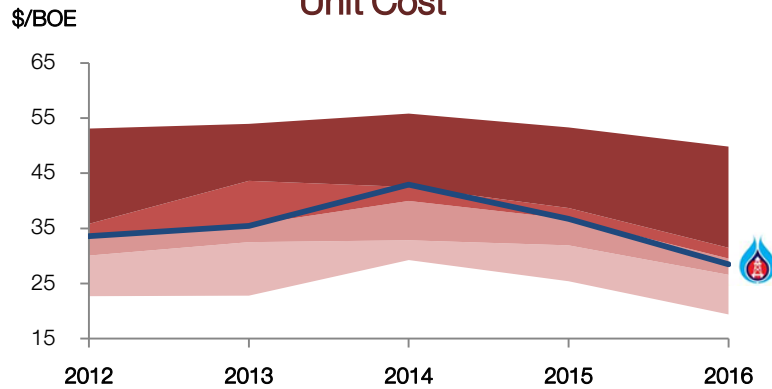


Total Return Rate



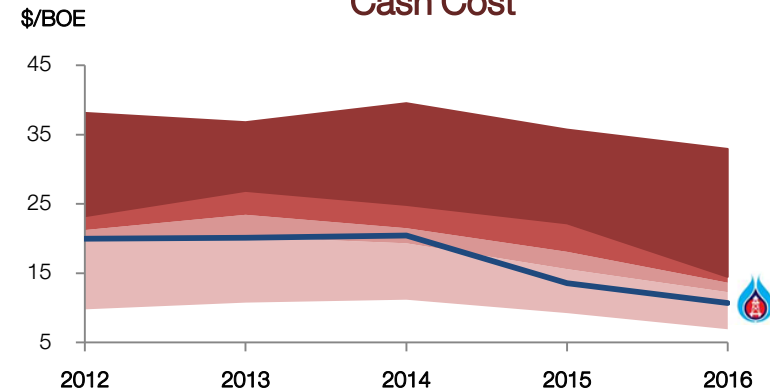
...with competitive cost structure

Unit Cost*



Remark: * Exclude Finance cost

Cash Cost



Peers includes Anadarko, BG, BP, Chevron, CNOOC, ConocoPhillips, ExxonMobil, Hess, Inpex, Marathon, Murphy Oil, PetroChina, Petronas, Premier Oil, Repsol, Shell, Sinopec, Total, and Woodside (Upstream division for Integrated firms) (only Total Return Rate: excludes BG, Petronas)

Source: Companies' annual report (except Total Return Rate from Bloomberg)

Overview

Achievement

Growth&Opp.

Outlook

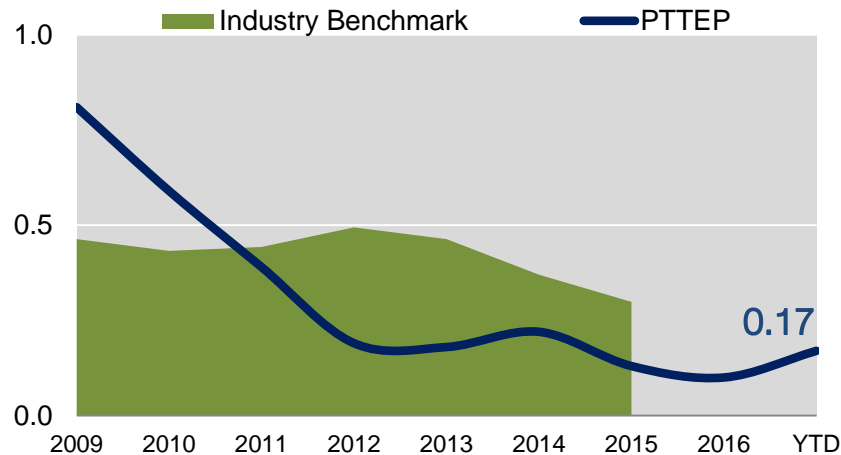


Safety

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"

DJSI

Listed for three consecutive years

MEMBER OF

Dow Jones Sustainability Indices

In Collaboration with RobecoSAM



ROBECOSAM
Sustainability Award
Industry Leader 2016



ROBECOSAM
Sustainability Award
Gold Class 2017

PTTEP is selected for the DJSI World Oil and Gas Upstream & Integrated Industry with the highest score in 2016 and also awarded the RobecoSAM Gold Class Sustainability Award 2017.



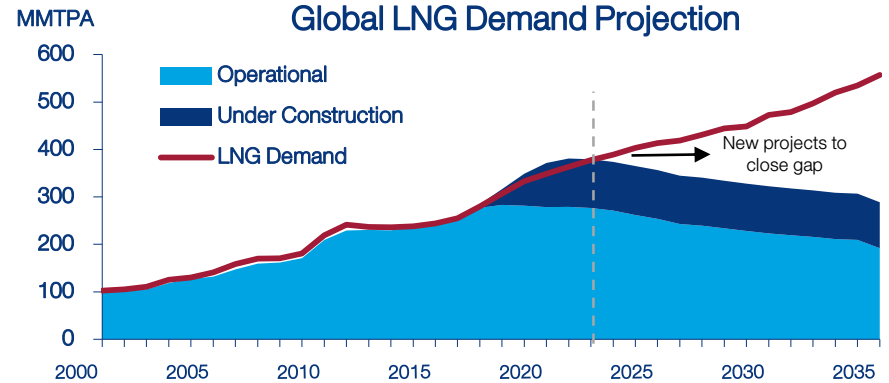
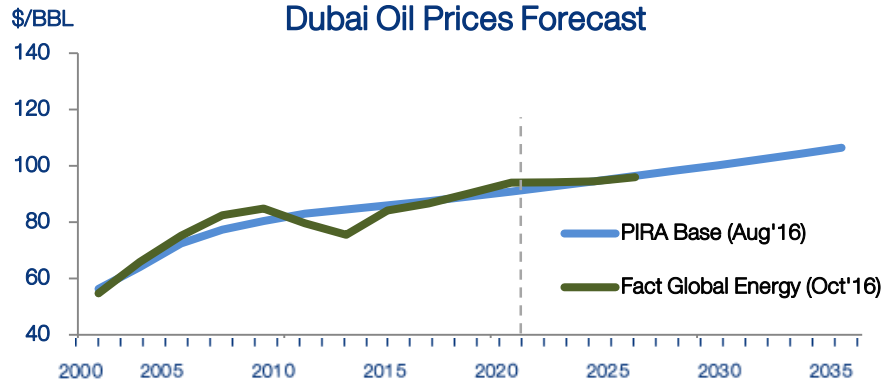


Company Overview

Key Achievement and
Financial Performance

Growth & Opportunities

Investment Plan & Outlook



Source: Wood Mackenzie

Good mix of LNG & Oil projects to start-up during 2021-2023 to capture the industry upturn

► Mozambique Rovuma Offshore Area 1



Production	Expected Start-up	Working Interest
12 MTPA	2022/23	8.5% (operated by Anadarko)
<ul style="list-style-type: none"> Substantial recoverable resources of 70+ TCF Initial development for 12 MTPA LNG (2 trains) 		

Key elements towards FID

Legal/Contractual: Key agreements are now finalized; working through formal approval.

Resettlement: Resettlement action plan was approved, which will enable contracts finalization and begin construction of new villages.

Marketing: Secured HOA with multiple customers. On process of turning HOA into SPA.

Project Financing: Lenders are keenly engaged and indicated a willingness to support.

► Ubon (Contract 4)



Production	Expected Start-up	Working Interest
25-30 KBPD	2021	60% (operated by Chevron)
<ul style="list-style-type: none"> Oil resources in the Gulf of Thailand Pursuing further cost rationalization 		

► Algeria HBR



Production	Expected Start-up	Working Interest
50 KBPD	2023	24.5% (operator)
<ul style="list-style-type: none"> Accelerate development plan with early production phase of 10-13 KBPD, targeting to submit development plan in Q3 2017 		



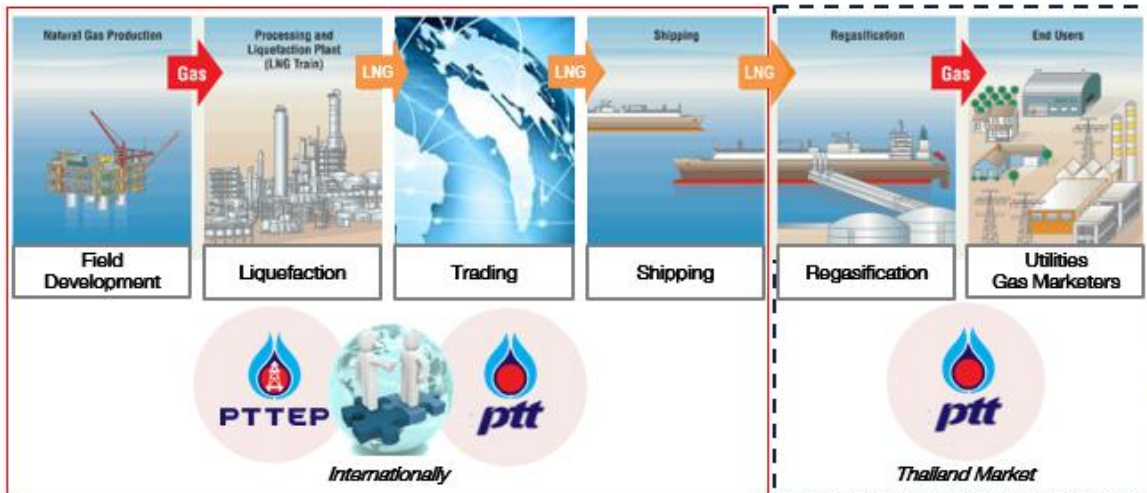
Exploration

Focus	Known area, acceptable risk and quick commercialization opportunity
Seismic Activity:	MOGE-3, Zawtika West Area, SK410B
2017/18 Drilling:	Onshore/offshore in Thailand/Myanmar

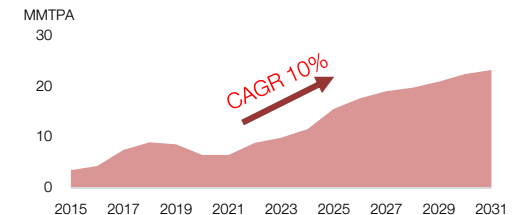
M&A

Geographical focus:	Thailand, SEA, Middle East
Financially well positioned:	\$ 4.4 Bn Cash on hand and low gearing (0.25x D/E)
Phase:	Producing or near-producing

Cooperation with PTT in LNG Opportunities



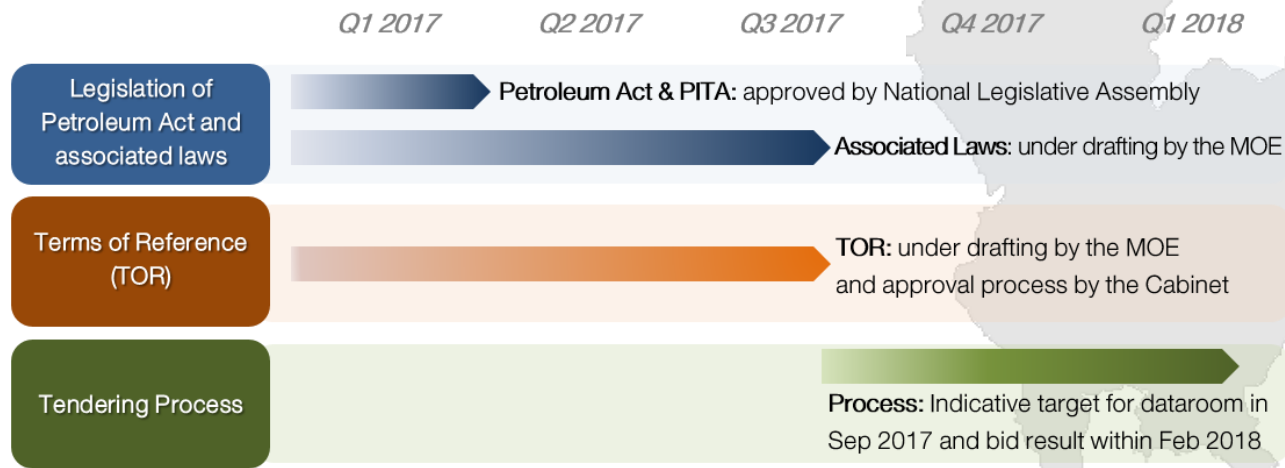
Growing Thailand's LNG Demand



- Create value from synergy between PTTEP's upstream expertise and PTT's midstream and gas business experiences



Path to re-tendering of expiring concessions



Source: Indicative timeline interpreted from the interview by Minister of Energy on 4 May 2017

PTTEP: Competitively positioned to continue as operator



- ***Experienced and reliable***
operated at average over 95%* field reliability
- ***Operational efficiency***
through 20 years of factory drilling and GoT synergies
- ***Deep subsurface understanding***
Key enabler to deliver optimum resource recovery

Remark: * Bongkot field's performance as of 2016



Company Overview

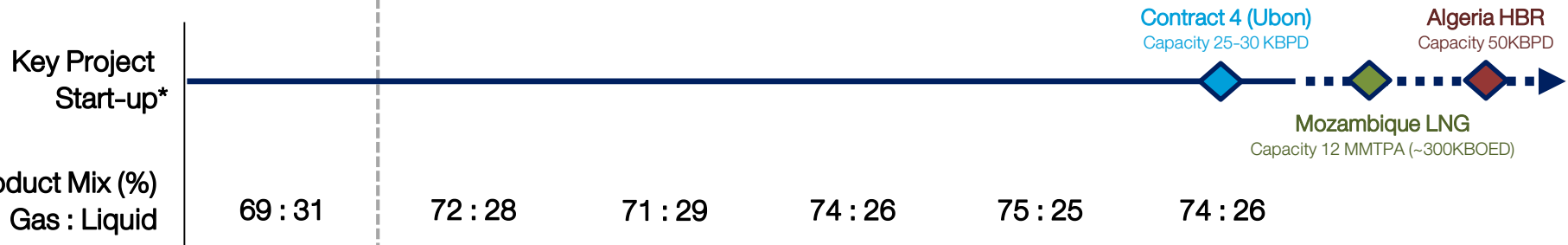
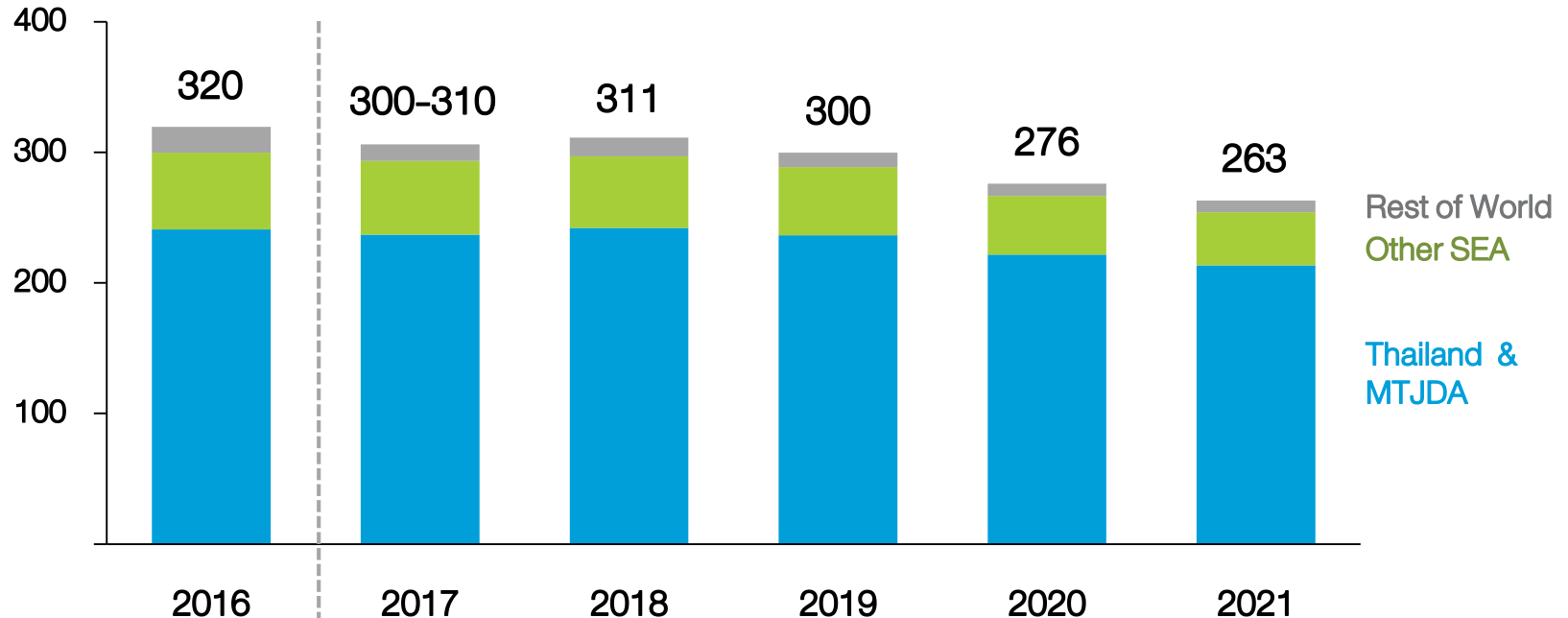
Key Achievement and
Financial Performance

Growth & Opportunities

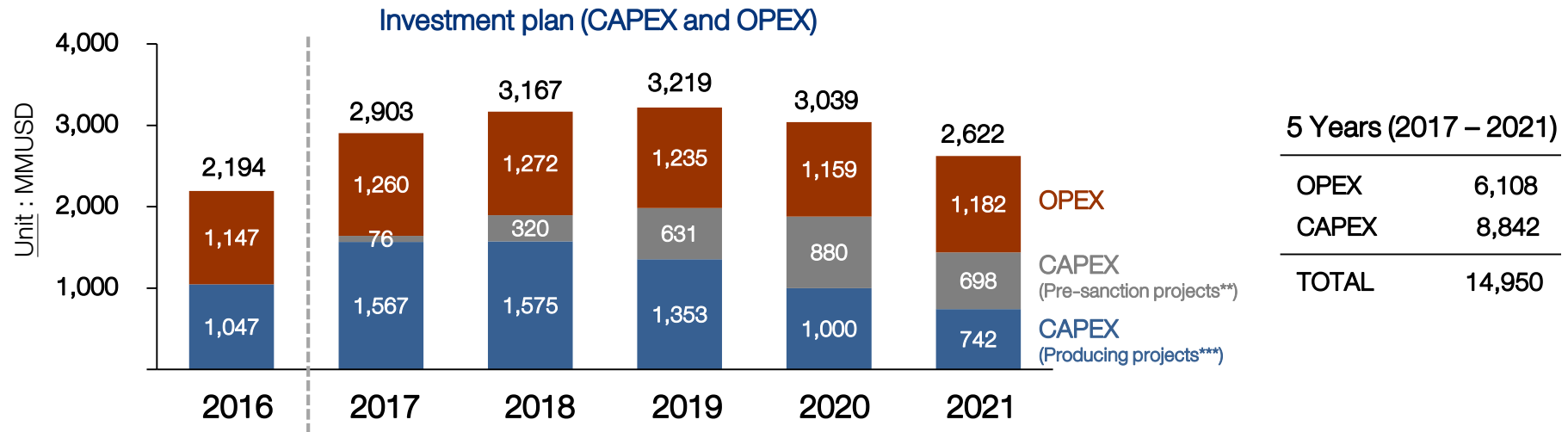
Investment Plan & Outlook



Unit : KBOED



Note: * Subject to FID timing

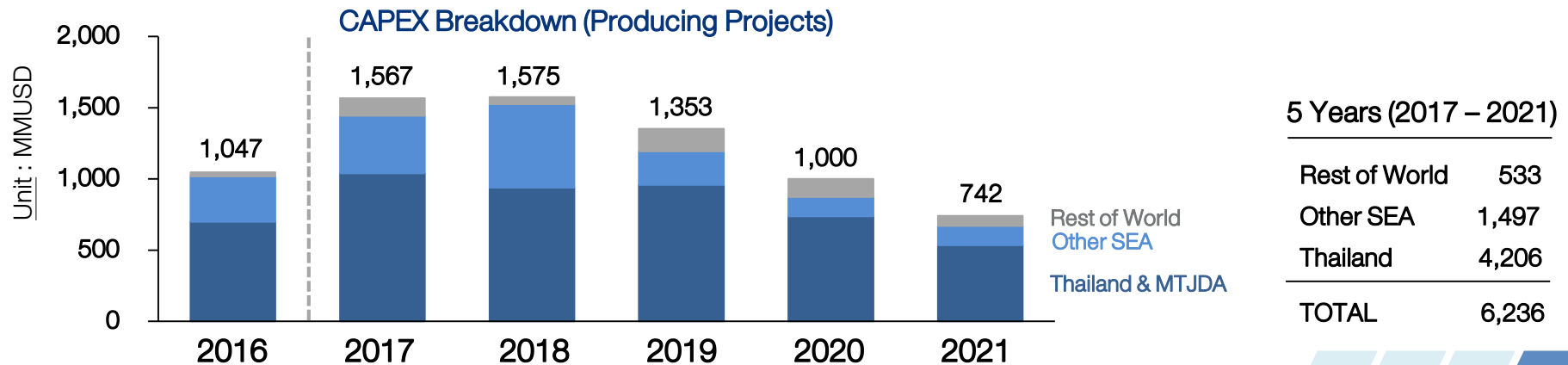


Key Project
Start-up*

Contract 4 (Ubon)
Capacity 25-30 KBPD

Algeria HBR
Capacity 50KBPD

Mozambique LNG
Capacity 12 MMTA (~300KBOED)



Note: * Subject to FID timing
 ** Pre-sanction projects include Mozambique LNG, Contract 4 (Ubon), Algeria HBR
 *** Includes exploration and appraisal in all projects and head office CAPEX

Overview

Achievement

Growth&Opp.

Outlook



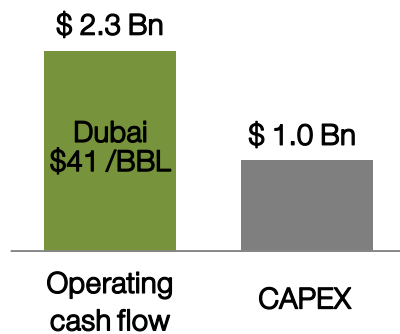
Strong Financial Capability in 2016

2.3 billion USD Operating cash flow

4.0 billion USD Cash on hand

2.0 billion USD Debt headroom

0.25 x Total debt/equity ratio



"Solid cash flow from operations in 2016 despite low oil price environment"

Financial Outlook

Average Sales Volume (KBOED)

Q2 2017	FY 2017
~ 300	300-310

Average Gas Price (USD/MMBTU)

Q2 2017	FY 2017*
~ 5.5	~ 5.5

Unit Cost (USD/BOE)

Q2 2017	FY 2017
~ 29	~29

EBITDA margin

FY 2017
~ 70 %

* Based on FY2017 Dubai oil price at 52 \$/BBL



Focused Portfolio with
revenue stability

Competitive Cost base
and strong margin

Best Balance sheet
and Capital
Management

Well positioned for
future growth

- +90% of sales volume concentrated in SEA
- Stable revenues from PTT +80% of sales volume via long term off-take contracts
- Gas-weighted portfolio to cushion oil price volatility

- Low cost operations in SEA with ~70% EBITDA margin amid the low oil prices
- Cost discipline and operation efficiency with over 30% Unit cost reduction

- \$4.4 Bn cash on hand and solid capital structure with low D/E ratio at 0.25x
- A consistent dividend-paying company for over 15 years

- Series of project developments in the pipeline and M&A
- Current gas-weighted portfolio in line with global trend towards gas
- Cooperation with PTT in LNG Value Chain investments



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



<http://www.pttep.com>



IR@pttep.com



+66 2 537 4000



Detailed Financial Results	23-26
----------------------------	-------

Sustainable Development	27
-------------------------	----

Reserves and Resources	28
------------------------	----

Thailand Economic Update	29
--------------------------	----

Key Project Highlights by Region	30-36
----------------------------------	-------

Project Details	37-40
-----------------	-------

Organization Structure	41
------------------------	----

Ratios and Formula	42
--------------------	----



Unit : MMUSD

Statement of Income	Q4 16	Q1 17	% QoQ	Q1 16*	% YoY	2016	2015*	% YTD
Total Revenues	1,089	1,092	0	1,085	1	4,339	5,614	(23)
Sales	1,038	1,040	0	1,045	0	4,190	5,287	(21)
Others	51	52	2	40	30	149	327	(54)
Sales Volume (BOED)	316,307	304,108	(4)	329,858***	(8)	319,521	322,167	(1)
Sales Price (USD/BOE)	35.65	38.00	7	35.08	8	35.91	45.29	(21)
Total Expenses	1,122	743	(34)	929	(20)	3,987	6,437	(38)
Major Expenses:								
Operating Expenses	167	142	(15)	130	9	582	685	(15)
Exploration Expenses	12	1	(92)	25	(96)	73	183	(60)
DD&A	509	420	(17)	518	(19)	2,079	2,708	(23)
Impairment loss on assets	47	-	(100)	-	-	47	1,350	(97)
Income Tax Expense	133	(8)	(>100)	30	(>100)	285	495	(42)
(Gain)/Loss on FX	16	(3)	(>100)	(6)	50	(12)	69	(>100)
Net income from Continuing Operations	(33)	349	>100	156	>100	352	(823)	>100
Profit (loss) from Discontinued Operations	17	-	(100)	1	(100)	20	(31)	>100
Net Income	(16)	349	>100	157	>100	372	(854)	>100
Recurring Net Income	123	211	72	116	82	466	718	(35)
Non-Recurring **	(139)	138	>100	41	>100	(94)	(1,572)	94

Note: * Represented

** 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.

*** Sales volume includes discontinued operations



Income Statement	2016	2015*	Q1 2017	Q4 2016	Q1 2016*
Sales Revenue** (MMUSD)	4,274	5,444	1,053	1,054	1,070
EBITDA** (MMUSD)	3,027	3,844	776	690	789
Net Income (MMUSD)	372	(854)	349	(16)	157
Recurring Net Income (MMUSD)	466	718	211	123	116
Earning Per Share (USD)	0.08	(0.22)	0.09	(0.01)	0.04

Key Financial Ratios

EBITDA Margin (%)	71	71	74	65	74
Return on Equity (%) (LTM)	3	(7)	5	3	(8)
Return on Capital Employed (%) (LTM)	3	(4)	5	3	(5)
Return on Equity (%) (LTM, Recurring Net Income)	4	6	5	4	5
Return on Capital Employed (%) (LTM, Recurring Net Income)	4	5	5	4	5

Balance Sheet	2016	2015*	Q1 2017
Total Assets (MMUSD)	18,891	19,642	19,251
- Cash & cash equivalents* (MMUSD)	4,022	3,260	4,446
Total Liabilities (MMUSD)	7,505	8,314	7,800
- Interest bearing debt (MMUSD)	2,832	3,005	2,863
Equity (MMUSD)	11,386	11,328	11,451

Key Financial Ratios

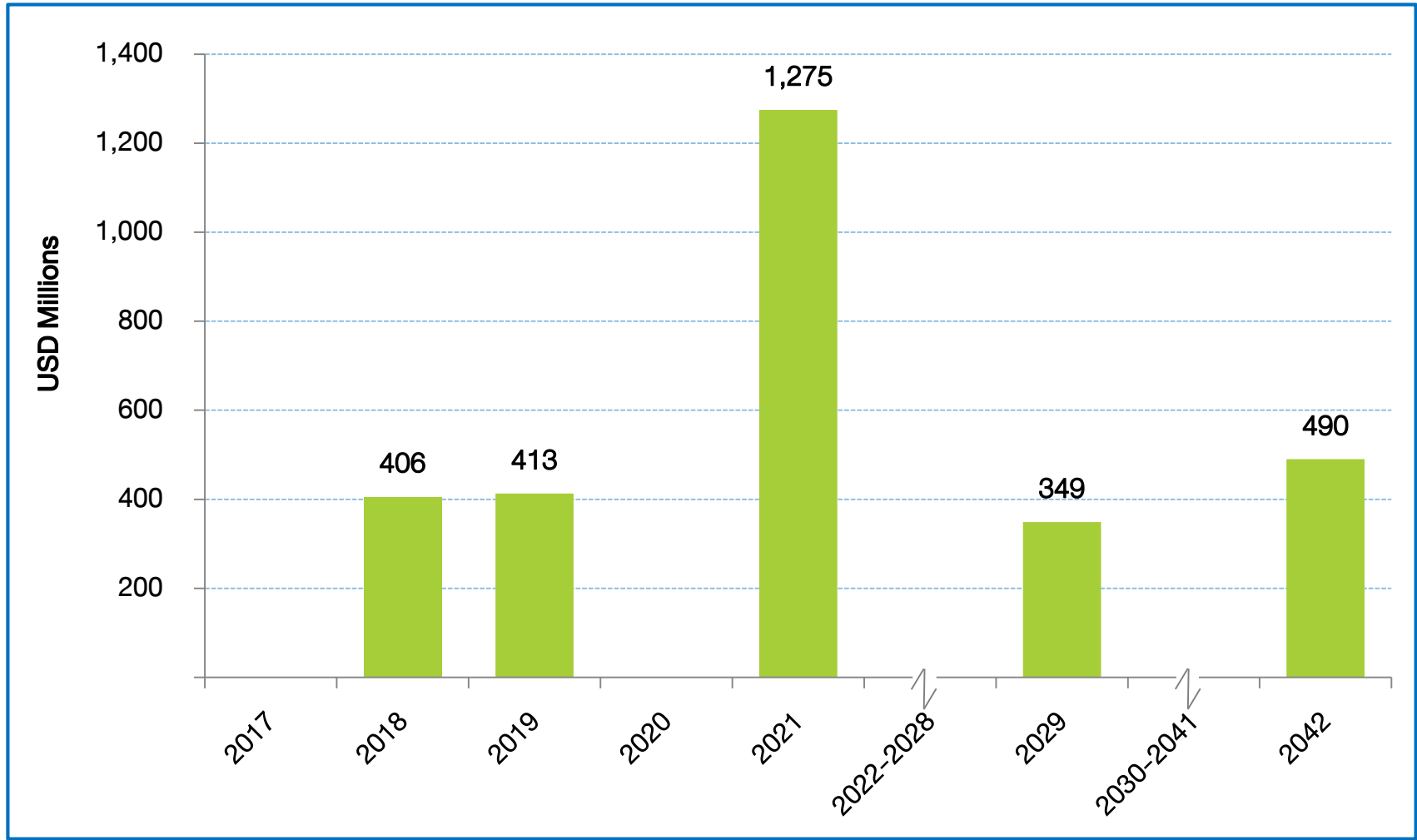
Total Debt to Equity (X)	0.25	0.27	0.25
Net Debt* to Equity (X)	(0.11)	(0.02)	(0.14)
Total Debt to Capital (X)	0.20	0.21	0.20
Total Debt to EBITDA (X)	0.94	0.78	0.95
Net Debt* to EBITDA (X)	(0.40)	(0.07)	(0.53)
EBITDA Interest Coverage (X)	22	24	22

Note: Includes discontinued operations until end of August 2016

* Restated/Represented

** Sales and revenue from pipeline transportation

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

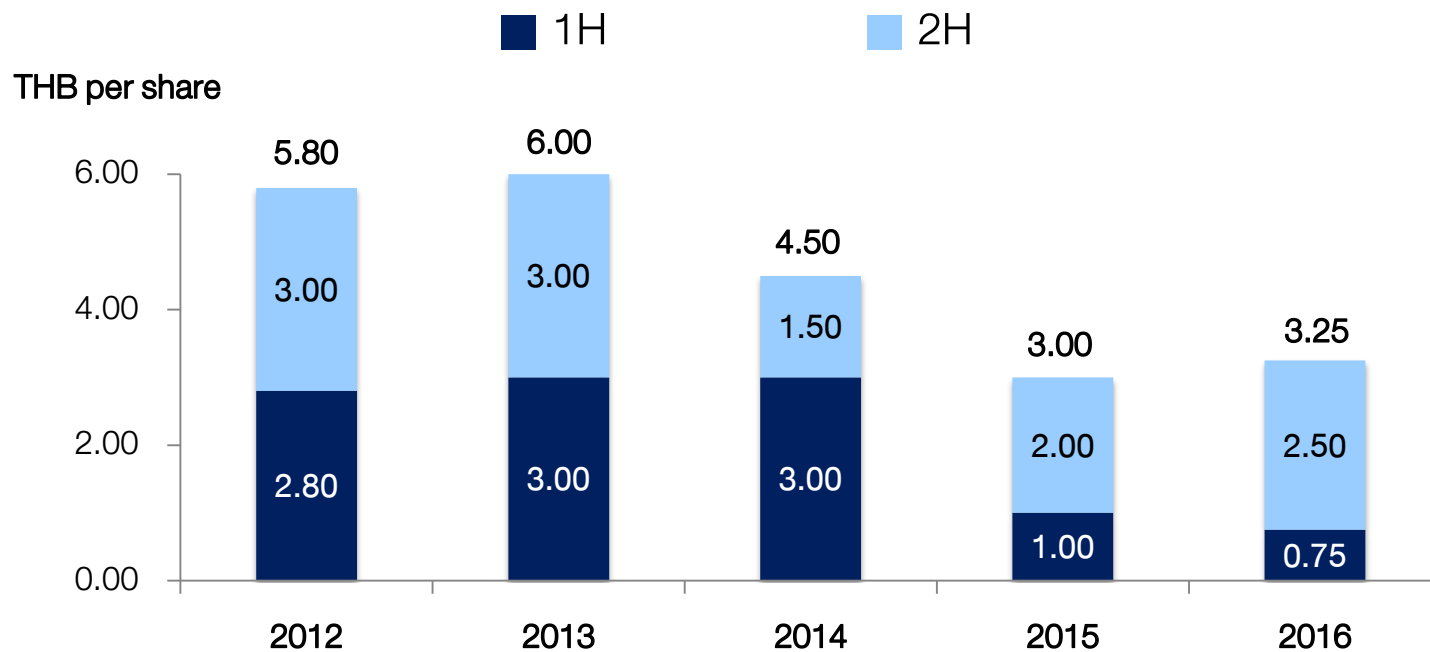


Note: Excludes Hybrid bonds

Unit: USD Millions or equivalent after cross currency swap



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



Payout Ratio (%)	38	40	82	N/A	98
------------------	----	----	----	-----	----

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



2016 DJSI Listed Company

PTTEP is selected for the DJSI World Oil and Gas Upstream & Integrated Industry with the highest score and also awarded the RobecoSAM Gold Class Sustainability Award 2017.



Proven business integrity

Outstanding Sustainability Report Award 2016
Thai Listed Companies Association

Certified Member
Thailand's Private Sector Collective Action Coalition Against Corruption (CAC)

CG Asia Recognition Awards
Corporate Governance Asia Magazine



Exemplary social contributor

Platinum Award for Best Community Program at the 9th Annual Global CSR Summit 2017

Stimulation, Intervention, Optimization of Services for Children (SIOLA) Program in Indonesia



FTSE4Good

FTSE4Good Emerging Index

PTTEP is a constituent of the FTSE4Good Emerging Index following its launch in December 2016

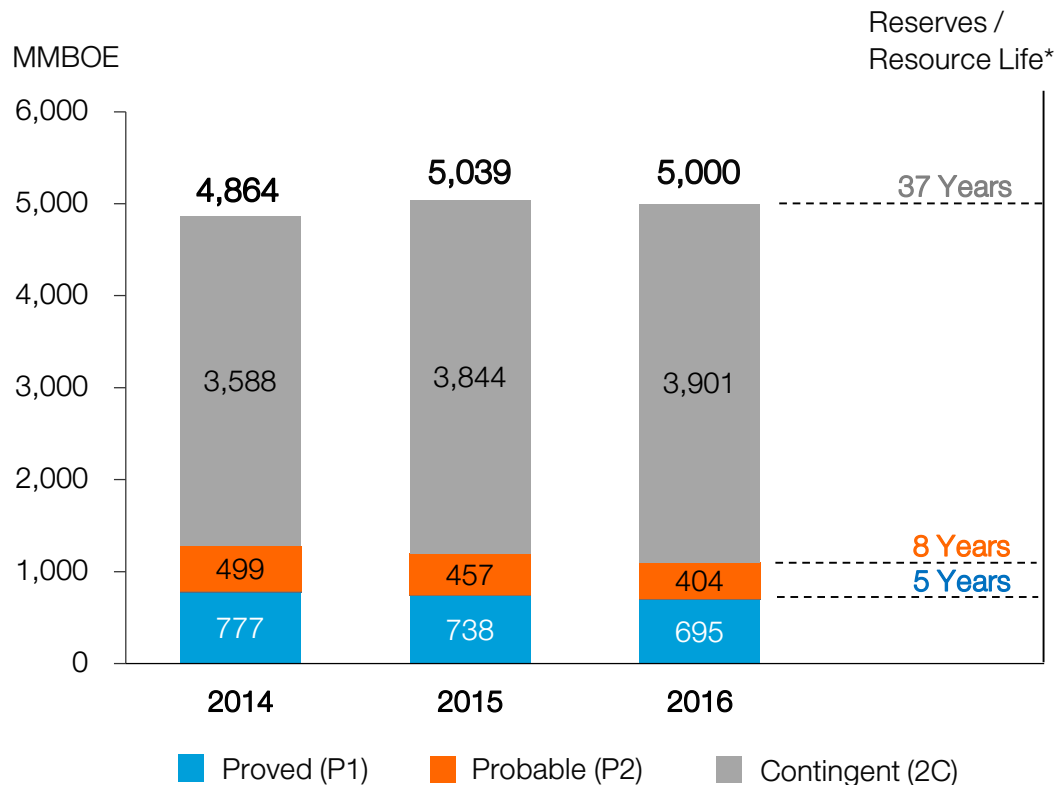


Green driver to environment

Best Initiative Environmental Responsibility Award
The Asset Magazine

CDP's Climate Leadership Level
CDP

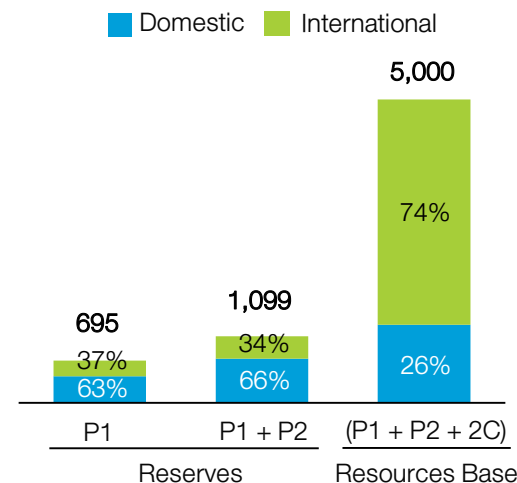
Excellence in the safety, health and environmental management awards
2016 SHE Award



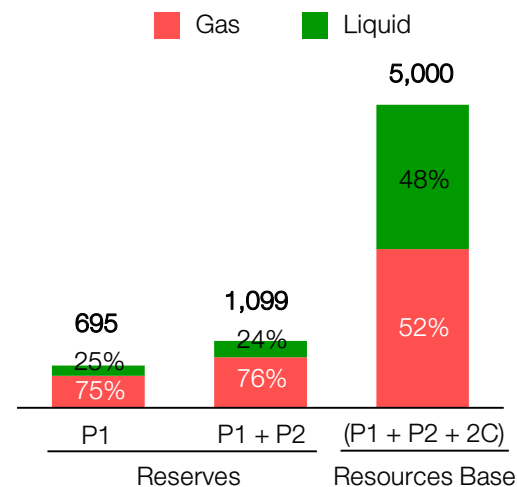
5-Year Average Proved Reserves Replacement Ratio (RRR)

2014	2015	2016
0.45x	0.50x	0.57x

2016 by Geography



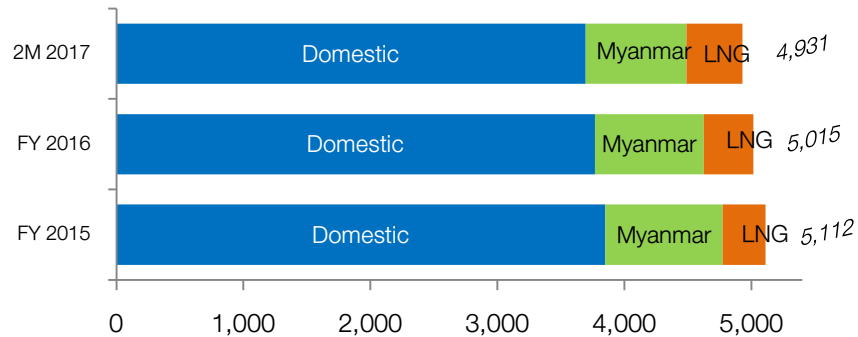
2016 by Product Type



* Based on total production of natural gas, condensate, and crude oil (including LPG) of 368 KBOED for the year ended December 31, 2016



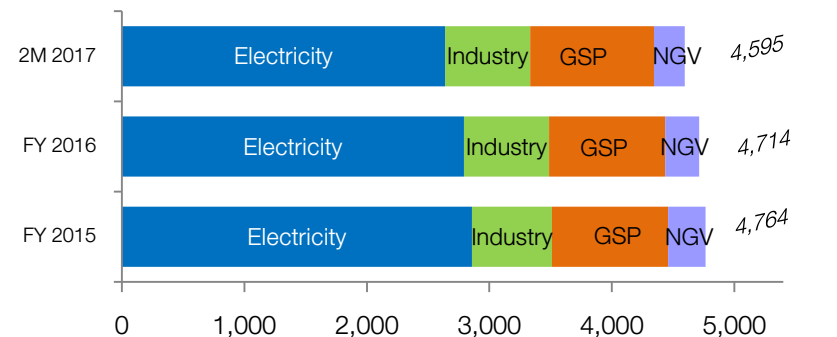
Thailand's Natural Gas Supply by Source



Source: EPPO

MMSCFD

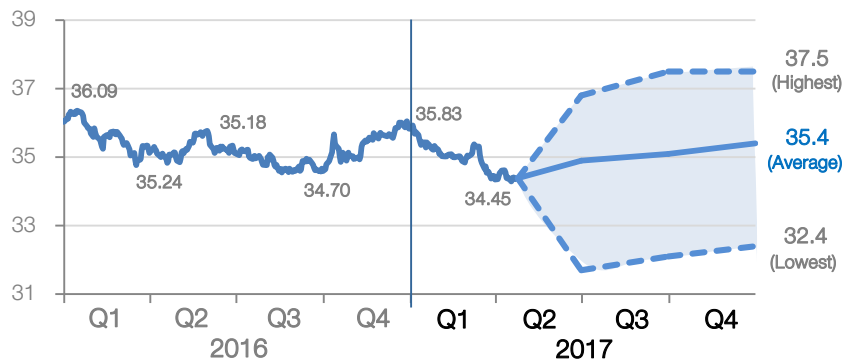
Thailand's Natural Gas Consumption by Sector



Source: EPPO

MMSCFD

Exchange Rate Movement (THB/USD)



Source: Bank of Thailand, Bloomberg

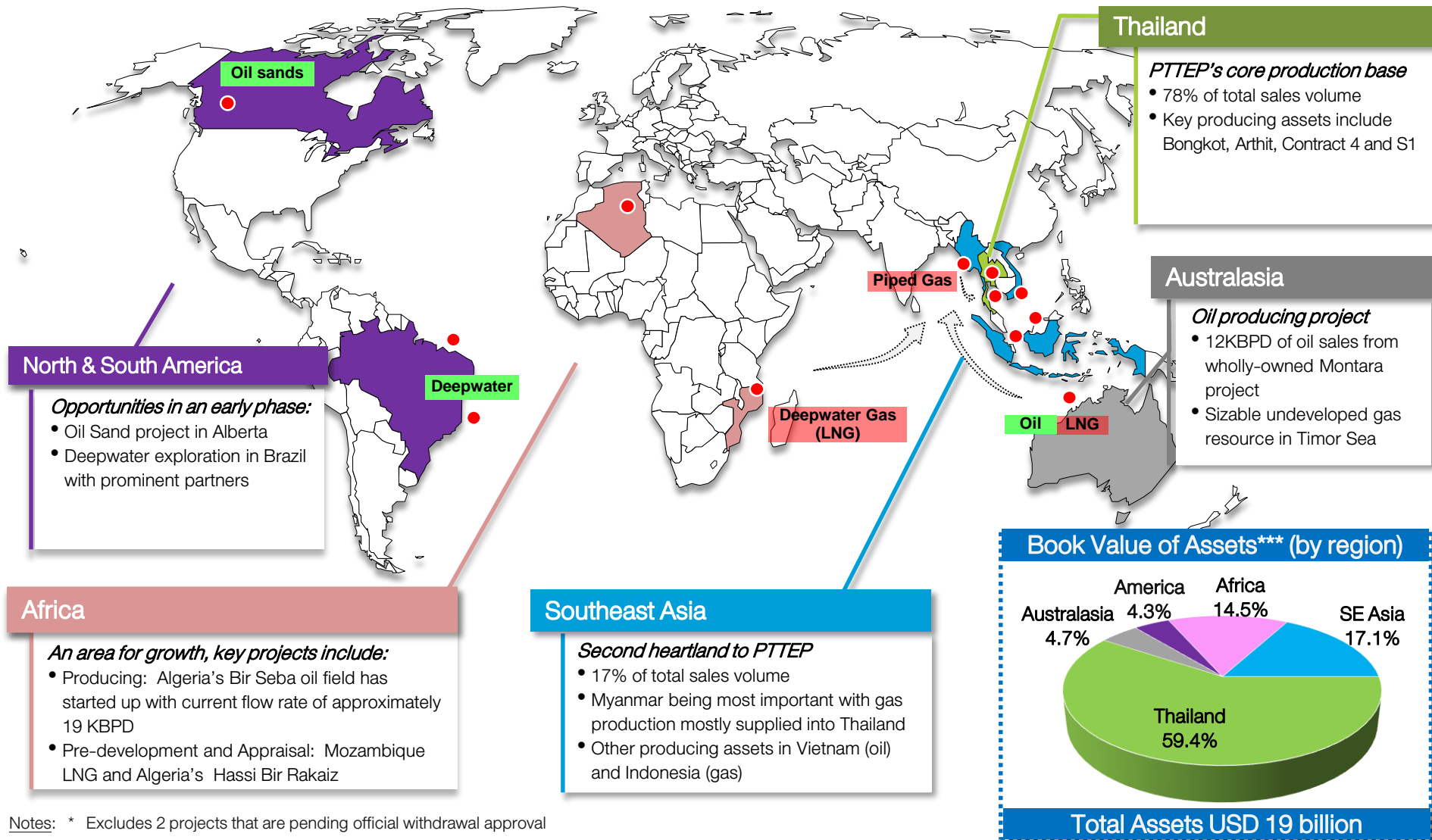
Forecast based on Bloomberg Consensus as of 24 April 2017

Thailand's Gas Market

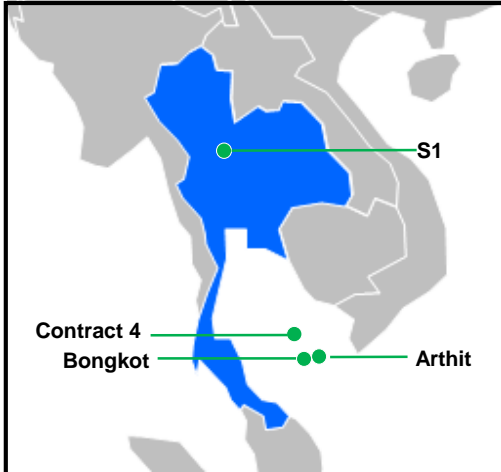
- In meeting stable domestic demand, saw a slight increase in LNG import and Myanmar volumes declined due to planned shutdown in 2M 2017.

Consensus on the exchange rate mostly depends on

- FOMC's interest rate hike decision may cause the USD to appreciate against the THB
- Uncertainties surrounding Trump's Fiscal and Monetary policies



*** Information as of 31 March 2017



● Production / Ramp-up Projects

Bongkot (44.4445% interest)

- Bongkot's natural gas sales volume of 928 MMSCFD in 3M 2017
- Average condensate sales volume was 26 KBPD in 3M 2017

S1 (100% interest)

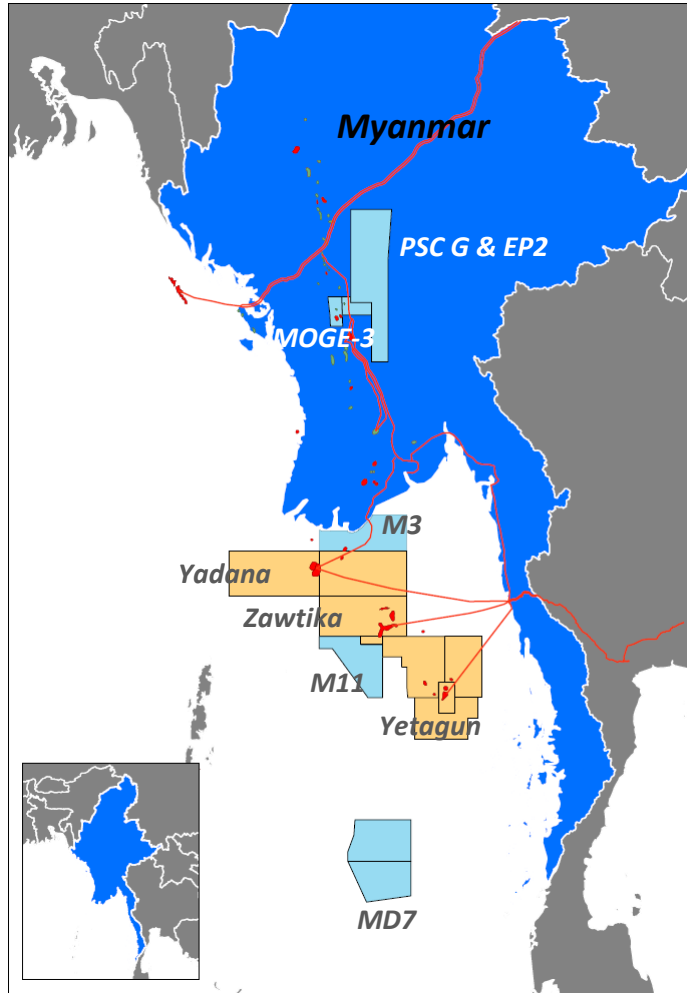
- S1 is the largest onshore crude oil production field in Thailand
- Average crude oil sales volume was 29 KBPD in 3M 2017

Arthit (80% interest)

- Average sales volume in 3M 2017 was 214 MMSCFD of natural gas and 9.4 KBPD of condensates

Acquisition of Hess Assets in Thailand

- PTTEP successfully acquired Hess Corporation's working interests in the Contract 4 project and Sinphuhorm project, and now holds 60% working interest in the Contract 4 project and 55% working interest in the Sinphuhorm project . PTTEP has also become the operator of the Sinphuhorm project
- The Contract 4 project had an average sales rate of 317 MMSCFD for natural gas and 13 KBPD for condensate in 3M 2017



Exploration block
 Production block

- Participating in three producing gas fields which supply gas to both Thailand and Myanmar: Yadana, Yetagun, Zawtika
- Operate Zawtika project, brought online in August 2014. Deliver gas supply of 272 MMSCFD in 3M 2017.
- 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"> • PSC G & EP2 (70% WI) • MOGE-3 (75% WI) • M11 (100% WI) • MD7 (50% WI)

Note: WI – working interest



Vietnam 16-1



● Production / Ramp-up Projects

Natuna Sea A

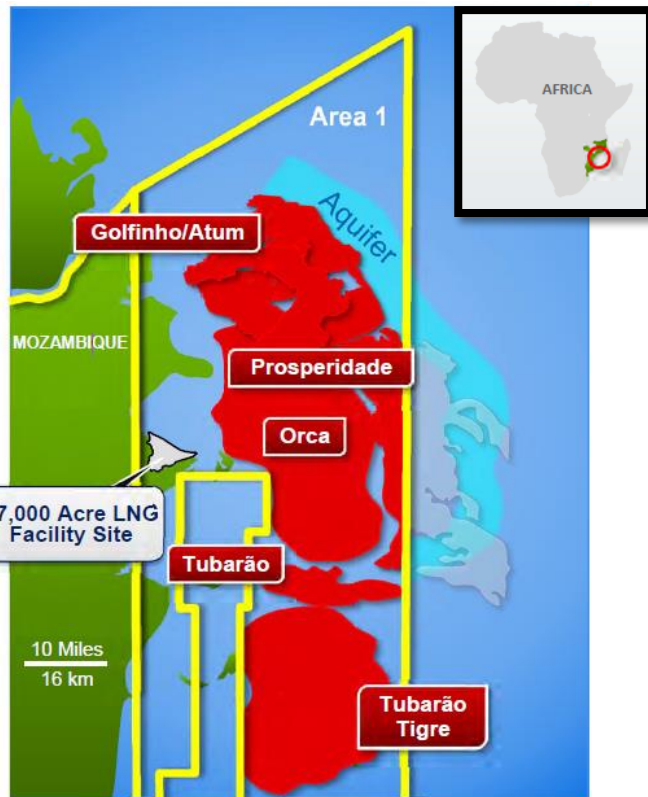


Vietnam 16-1 (28.5% interest)

- Average crude oil sales volume of 20 KBPD in 3M 2017
- Commissioned production platform in the H5 area to support current production level

Natuna Sea A (11.5% interest)

- Average sales volume of natural gas was 224 MMSCFD in 3M 2017



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

- ✓ Secured more than 8 MMTPA of non-binding HOAs

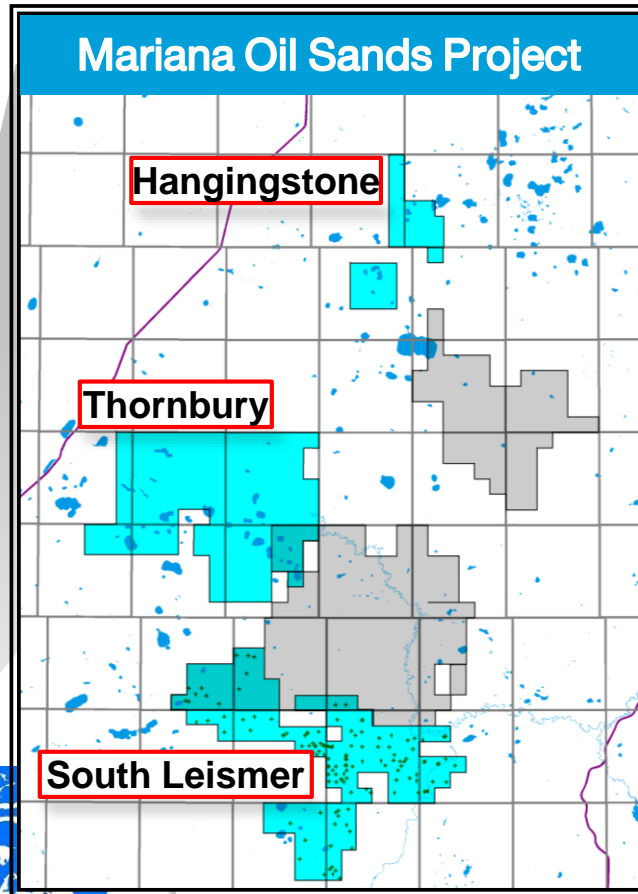
Regulatory

- ✓ Decree law ratified
- ✓ Substantial engagement with government to progress on remaining agreements and approvals to support investment

Financing

- ✓ Positive indications on project financing

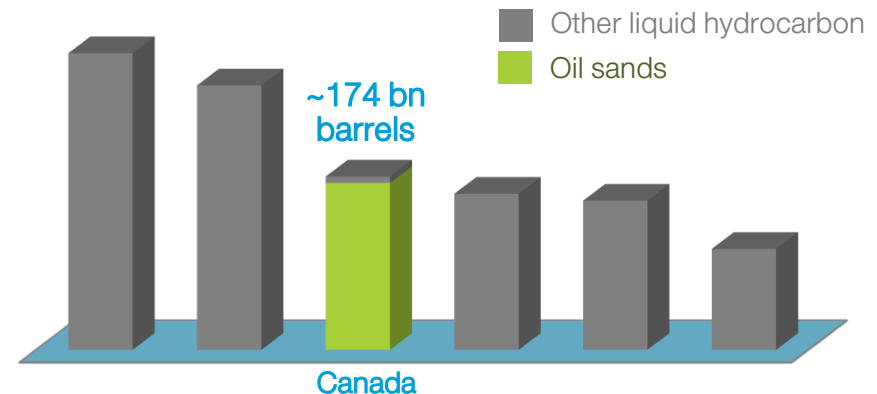
Onwards to initial phase of 12 MMTPA



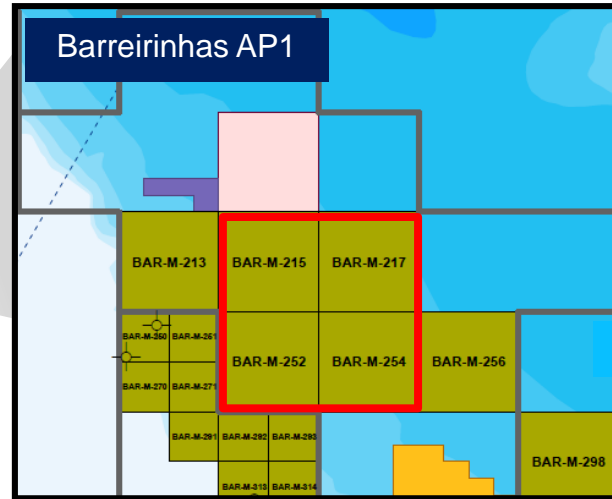
Project Overview

- 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
- Current focus on assessing cost reduction opportunity in light of low oil price environment.

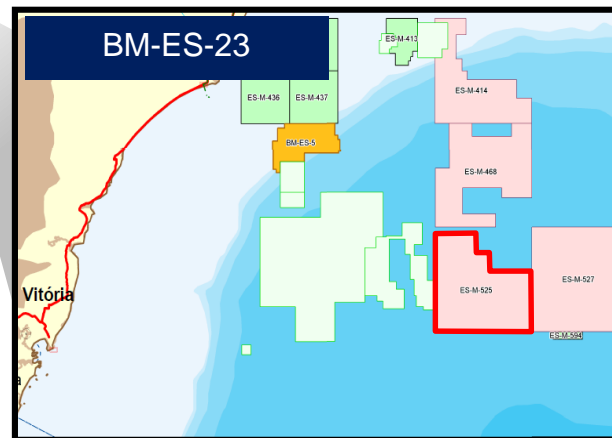
Approximately 96% of the reserves in Canada, the world's 3rd largest oil reserves, is oil sands



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



- 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%)



	Project	Status*	PTTEP's Share	Partners <i>(as of Q1 2017)</i>		3M 2017 Average Sales Volume **		2017 Key Activities
						Gas	Oil and Other	
Production Phase								
Thailand and JDA								
1	Arthit	OP	80%	Chevron MOECO	16% 4%	214 MMSCFD	Condensate: 9.4 k BPD	<ul style="list-style-type: none">Ensure gas deliverability level at DCQ****Drill development wells
2	B6/27	OP	60%***			N/A	N/A	<ul style="list-style-type: none">Subsurface study
3	B8/32 & 9A		25%	Chevron MOECO KrisEnergy PSTL	51.66% 16.71% 4.63% 2%	114 MMSCFD	Crude: 28 k BPD	<ul style="list-style-type: none">Drill development wellsPerform waterflood activities
4	Bongkot	OP	44.4445%	TOTAL British Gas	33.3333% 22.2222%	928 MMSCFD	Condensate: 26 k BPD	<ul style="list-style-type: none">Ensure gas deliverability level at DCQ****Drill development wellsInstall wellhead platforms
5	Contract 3 <i>(Formerly Unocal III)</i>		5%	Chevron MOECO	71.25% 23.75%	517 MMSCFD	Crude: 22 k BPD Condensate: 16 k BPD	<ul style="list-style-type: none">Drill exploration / appraisal / development wellsInstall wellhead platformsPerform waterflood activities
6	Contract 4 <i>(Formerly Pailin)</i>		60%	Chevron MOECO	35% 5%	317 MMSCFD	Condensate: 13 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%	10 MMSCFD	-	
8	G4/43		21.375%	Chevron MOECO PSTL	51% 21.25% 6.375%	2.5 MMSCFD	Crude: 5.8 k BPD	<ul style="list-style-type: none">Drill development wellsPerform waterflood activities
9	G4/48		5%	Chevron MOECO	71.25% 23.75%	7 MMSCFD	Crude: 2.6 k BPD	
10	L53/43 & L54/43	OP	100%			-	Crude: 633 BPD	<ul style="list-style-type: none">Drill exploration / appraisal / development wells
11	PTTEP1	OP	100%			-	Crude: 287 BPD	<ul style="list-style-type: none">Drill development wellsPerform waterflood activities
12	S1	OP	100%			24 MMSCFD	Crude: 29 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%	123 MMSCFD	Condensate: 424 BPD	<ul style="list-style-type: none">Drill development wells
14	MTJDA	JOC	50%	Petronas-Carigali	50%	229 MMSCFD	Condensate: 6.5 k BPD	<ul style="list-style-type: none">Drill development wellsInstall wellhead platforms
15	L22/43	OP	100%			-	Crude: 273 BPD	<ul style="list-style-type: none">Drill development wells

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

** Sales volume stated at 100% basis.

*** Pending the approval of the partner divestment from DMF

**** DCQ = Daily Contractual Quantity



	Project	Status*	PTTEP's Share	Partners (as of Q1 2017)	3M 2017 Average Sales Volume **		2017 Key Activities
					Gas	Oil and Other	
Production Phase							
Overseas							
16	Vietnam 9-2	JOC	25%	PetroVietnam 50% SOCO 25%	13 MMSCFD	Crude: 4.4 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%	693 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 (Hong Kong) 10.90878%	212 MMSCFD	Condensate: 3.9 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%	-	Crude: 20 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: 12 k BPD	<ul style="list-style-type: none">Drill development well in MontaraMaintain production operationAcquire 3D seismic reprocessing
21	Natuna Sea A		11.5%	Premier Oil 28.67% KUFPEC 33.33% Petronas 15% Pertamina 11.5%	224 MMSCFD	Crude: 2.4 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%	272 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: 3.3 k BPD (net entitlement)	<ul style="list-style-type: none">Maintain production operationReview field development plan for possible capacity expansion

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

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

*** Completion of divestment transaction in Dec 16

**** DCQ = Daily Contractual Quantity



	Project	Status*	PTTEP's Share	Partners (as of Q1 2017)	2017 Key Activities
Exploration Phase					
Thailand and JDA					
24	G9/43	OP	100%		
Overseas					
25	Myanmar M3	OP	80%	MOECO 20%	<ul style="list-style-type: none"> Assess resource potential and commercial feasibility
26	Mozambique Rovuma Offshore Area 1		8.5%	Anadarko, Mitsui, 26.5%, 20%, ENH, Bharat Petroleum, 15%, 10%, BREML, OVL 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"> Conduct pre-development study and prepare project development plan
28	Myanmar M11	OP	100%		<ul style="list-style-type: none"> Acquire 3D seismic
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 PSC G and EP 2	OP	70%	WinPreciousResources 10%, MOECO 10%, Palang Sophon Offshore 10%	<ul style="list-style-type: none"> Conduct G&G studies
32	Myanmar MD 7	OP	50%	TOTAL 50%	<ul style="list-style-type: none"> Assess resource potential
33	Mariana Oil Sands	OP	100%		<ul style="list-style-type: none"> Assess development approach and cost reduction opportunity
34	Barreirinhas AP1		25%	Shell Brasil 65%, Mitsui E&P Brasil 10%	<ul style="list-style-type: none"> Acquire 3D seismic

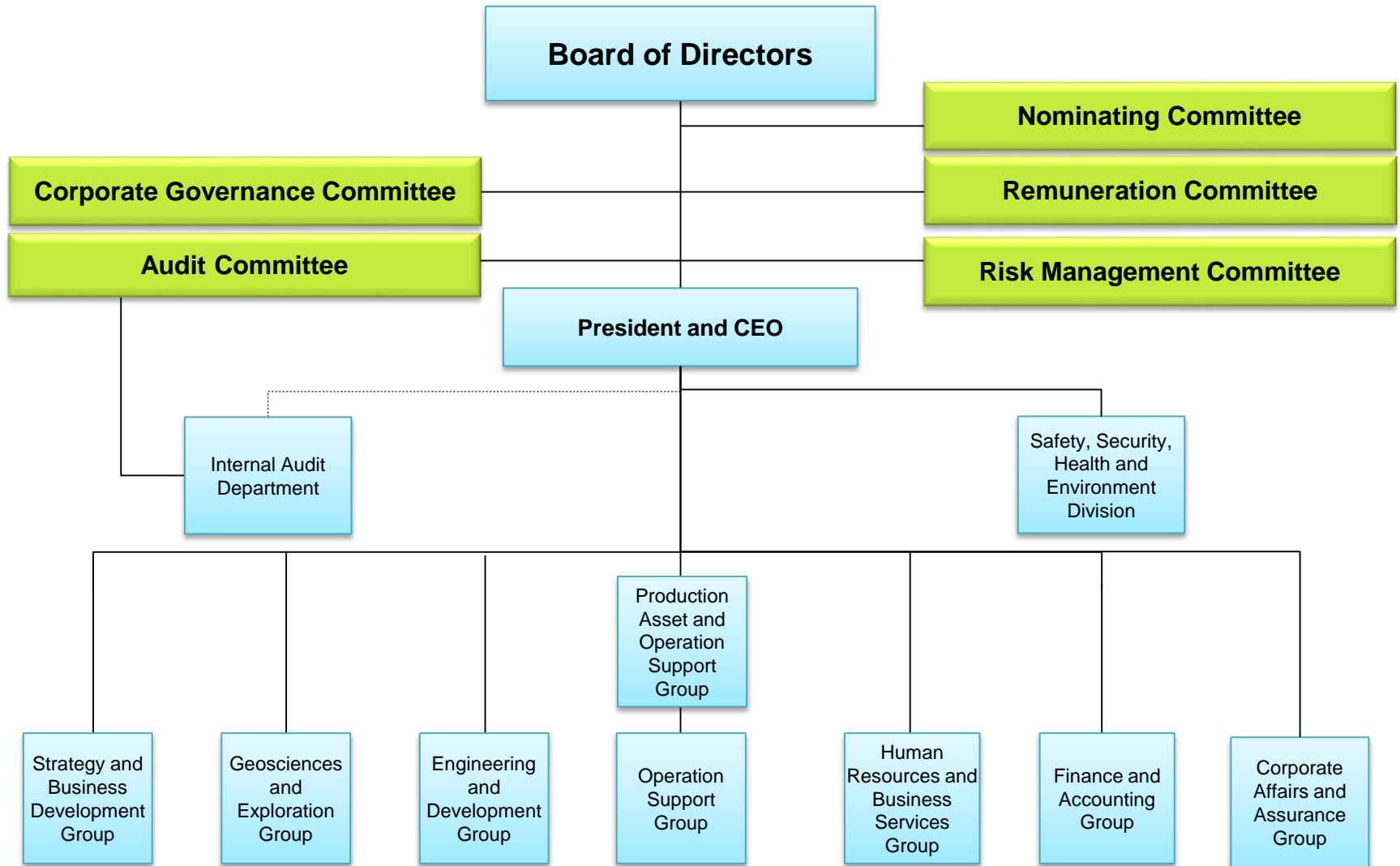
* Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship



	Project	Status*	PTTEP's Share	Partners (as of Q1 2017)	2017 Key Activities
Exploration Phase					
Overseas (Cont'd)					
35	Myanmar MOGE 3	OP	75%	Palang Sophon Offshore MOECO WinPreciousResources 10% 10% 5%	<ul style="list-style-type: none"> Acquire 2D and 3D seismic
36	Brazil BM-ES-23		20%	Petrobras INPEX 65% 15%	<ul style="list-style-type: none"> Assess petroleum potential
37	Malaysia SK410B	OP	42.5%	KUFPEC PSCB 42.5% 15%	<ul style="list-style-type: none"> Acquire 3D seismic

Remarks: 37 projects exclude 2 projects that are pending official withdrawal approval

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





Ratio	Formula
Lifting Cost (\$/BOE)	$(\text{Operating Exp.} - \text{Transportation Cost} - \text{Stock Variation} - \text{Other expense not related to lifting}) / \text{Production Volume}$
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	$(\text{Trailing-12-month net income} + \text{Trailing-12-month Interest Expenses \& Amortise Bond Issuing Cost}) / (\text{Average shareholders' equity and average total debt between the beginning and the end of the 12-month period})$
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	$\text{Trailing-12-month EBITDA} / \text{Trailing-12-month Interest Expenses \& Amortize Bond Issuing Cost}$