



2017 Financial Results and Strategy Update

*Analyst Meeting
21 February 2018*





Khun Somporn Vongvuthipornchai
Chief Executive Officer

Key Achievements

Industry Highlights

Financial Performance

Strategy and Growth



A Firm Core for Accretive Growth

Reflected in 2017's performance



Operation

- ✓ **299 KBOED**
Sales volume as target
- ✓ **29 \$/BOE**
Competitive unit cost
- ✓ Diversified into **MLNG Train 9**
- ✓ **0.1 LTIF**
Safety record in top quartile



Financials

- ✓ **Healthy margin and liquidity**
 - **70%** EBITDA Margin
 - **\$4.5Bn** Cash on hand
 - **0.25x** Gearing ratio
- ✓ **Dividend commitment**
 - **4.25 THB/Share** (90% Payout)

Unlocking value through concrete growth platforms



Bongkot

Acquired 22.2222% stake
from Shell



2 Deepwater
blocks in Mexico

Expanded to new prolific areas
with experienced partners



Khun Montri Rawanchaikul
EVP, Strategy and
Business Development Group

Key Achievements

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Oil Prices

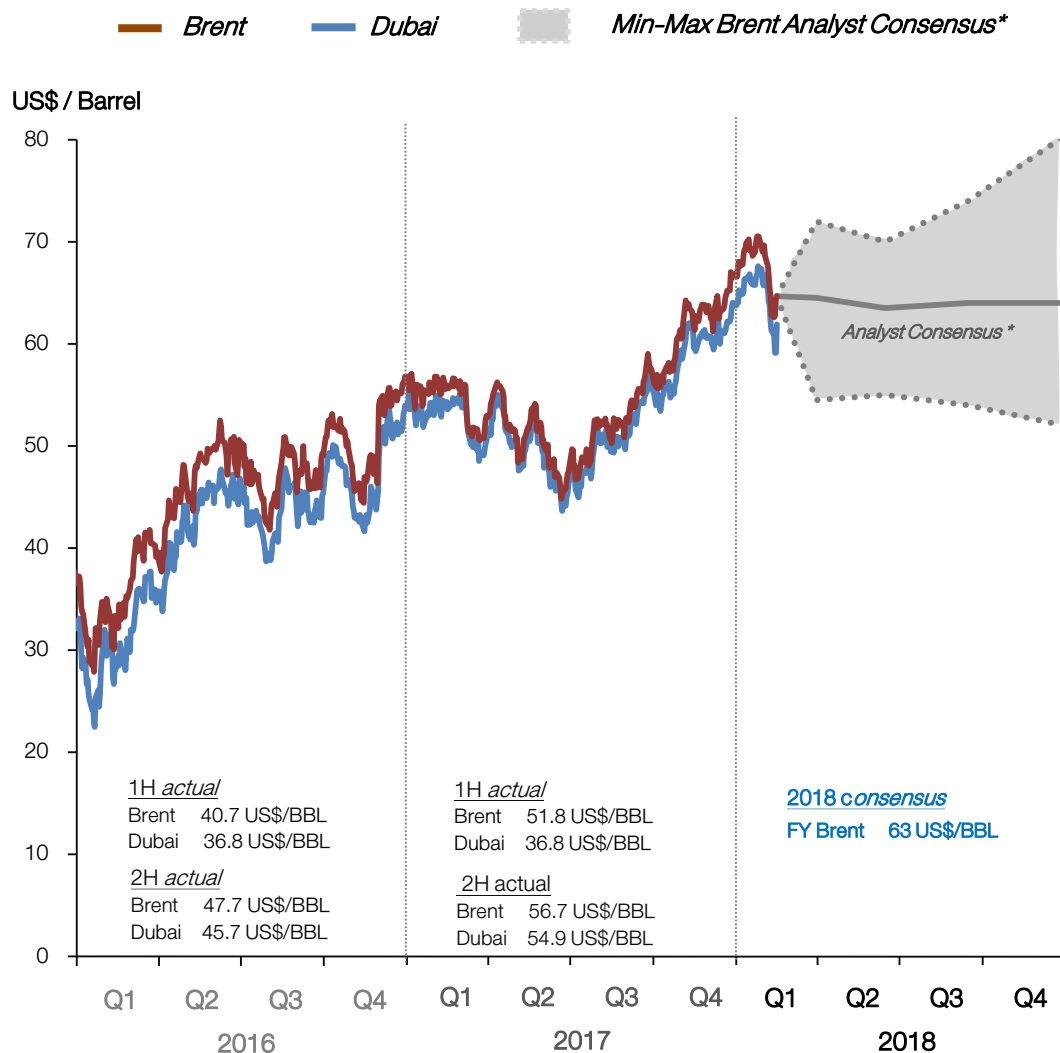
Market upturn despite facing the headwinds from the U.S. supply

2017 Highlights

-  OPEC and Non-OPEC supply cut extension
Compliance Rate Achieved
OPEC 95% | Non-OPEC 82%
-  Continued growth in the U.S. supply
-  Key facilities disruption
-  Crude demand growth from global economic expansion
-  Other factors: geopolitical tension and the U.S. crude stock decline

2018 Outlook

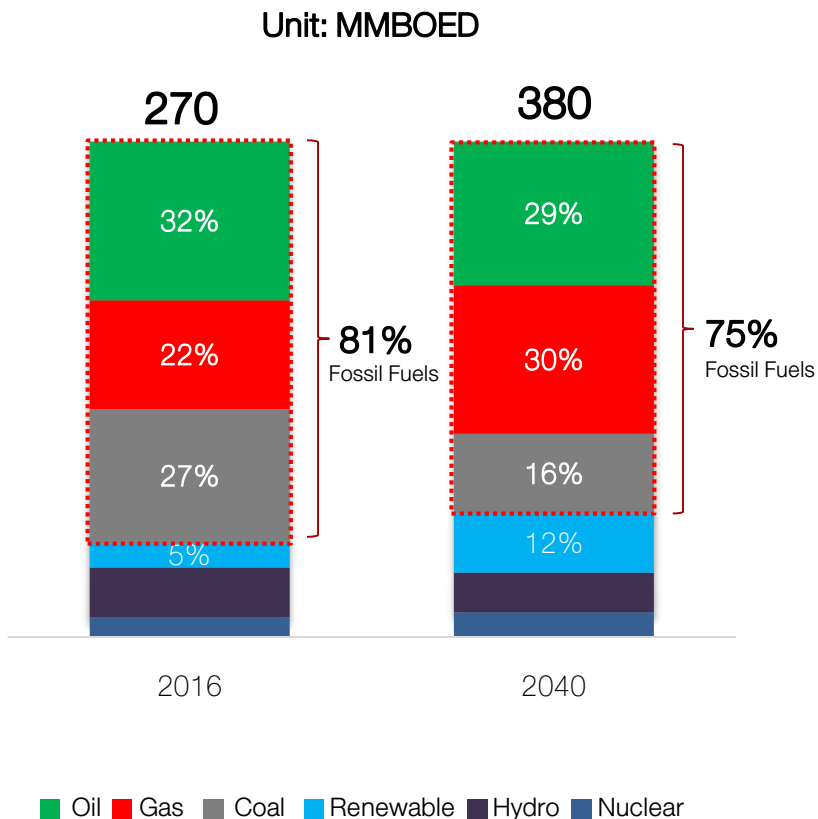
-  Growth in crude demand led by India and OECD countries
-  Increase in the U.S. production volume and Keystone XL expansion
-  Watching list: production policies of key producers and monetary policies of major economy countries



Remark: * Bloomberg Analyst Consensus (CPFC) as of 14 February 2018 and IEA (as of Jan 2018)

Global Energy Demand Overview

Changing landscape but fossil fuel remains dominant



- Fossil fuel remains primary source of energy
- Expected higher growth of natural gas which is considered as cleaner energy
- Rising use of alternative sources of energy as a result of cost deflation and pollution concern

Electricity Vehicle Trend

EV Cars
(Million units)

2016

2

2040

250



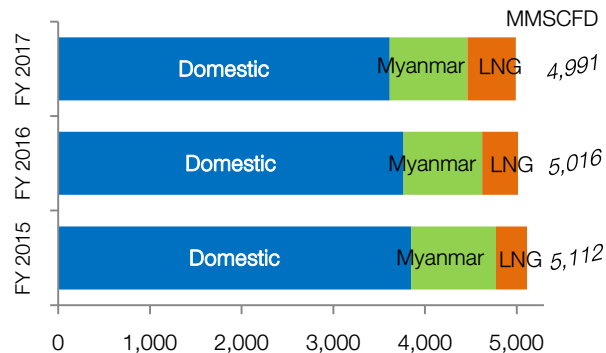
Significant increase of EV cars supported by government policy, change in consumer behavior and continuing decline in battery cost



Displace by around 1.3 million b/d of oil demand in 2040 as well as rising power demand

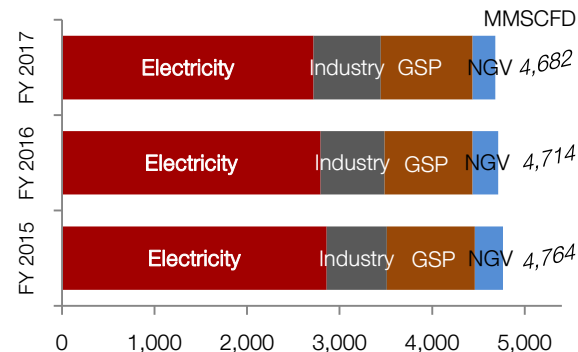
Thailand Energy Overview

Natural Gas Supply

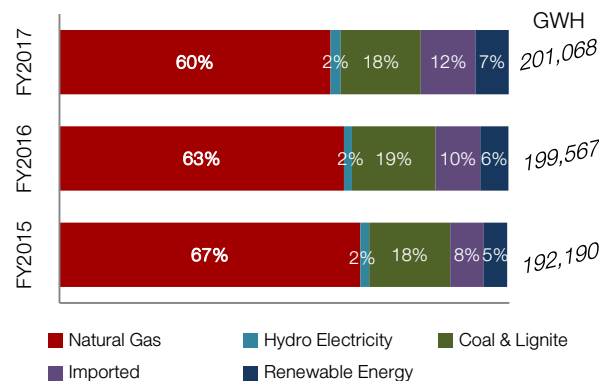


- Slight decline in domestic production and Myanmar piped gas imports while domestic demand remained flat
- Domestic volumes were pressured by low nomination due to growth in LNG import

Natural Gas Consumption



Electricity Generation



Source: EPPO

Exchange Rate Movement (THB/USD)



Consensus on the exchange rate mostly depends on

- Potential for inflation in the U.S.
- Continued uncertainty on the implementation of the U.S. Tax Reform, monetary policies of major global economies such as Europe
- Increasing geopolitical risks

Source: Bank of Thailand, Bloomberg
Forecast based on Bloomberg Consensus as of 15 February 2018



Khun Pannalin Mahawongtikul
EVP, Finance and Accounting Group

Key Achievements

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Financial Performance

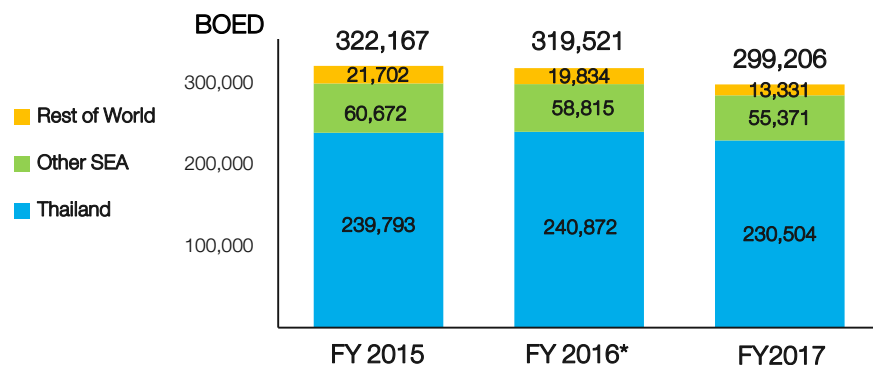
Strategy and Growth



Sales Volume & Unit Cost

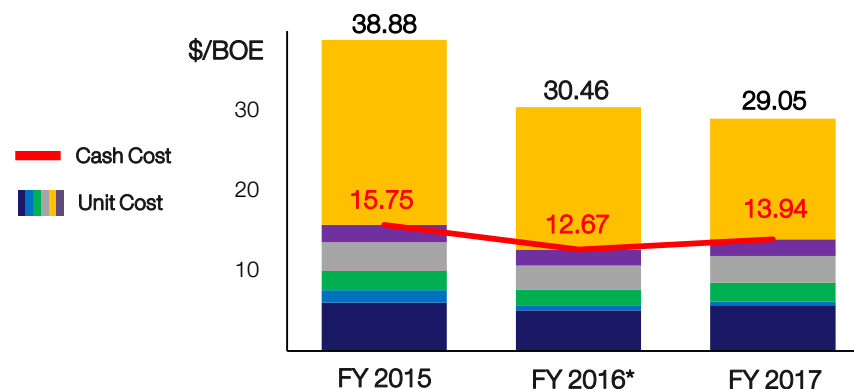
Achieved target sales volume with competitive cost

Sales Volume and Price



Gas (\$/MMBTU)	7.20	5.60	5.59
Liquid (\$/BBL)	50.05	41.17	52.26
Weighted Avg. (\$/BOE)	45.29	35.91	39.20
Avg. Dubai (\$/BBL)	50.91	41.27	53.14
Avg. HSFO (\$/BBL) (High Sulphur Fuel Oil)	44.89	35.48	49.64
Volume Mix (Gas : Liquid)	70 : 30	69 : 31	70 : 30
Revenue Mix (Gas : Liquid)	66 : 34	65 : 35	60 : 40

Unit Cost



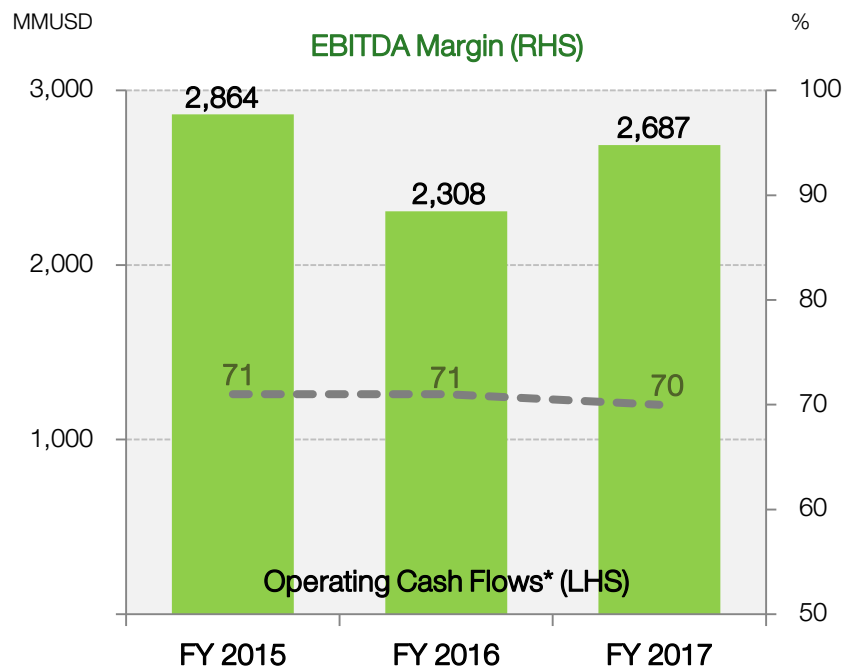
DD&A	23.13	17.79	15.11
Finance Cost	2.14	2.01	2.07
Royalties	3.62	3.02	3.37
G&A	2.39	1.93	2.30
Exploration Expenses	1.56	0.63	0.48
Operating Expenses	6.04	5.08	5.72
Lifting Cost	4.62	4.18	4.19

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

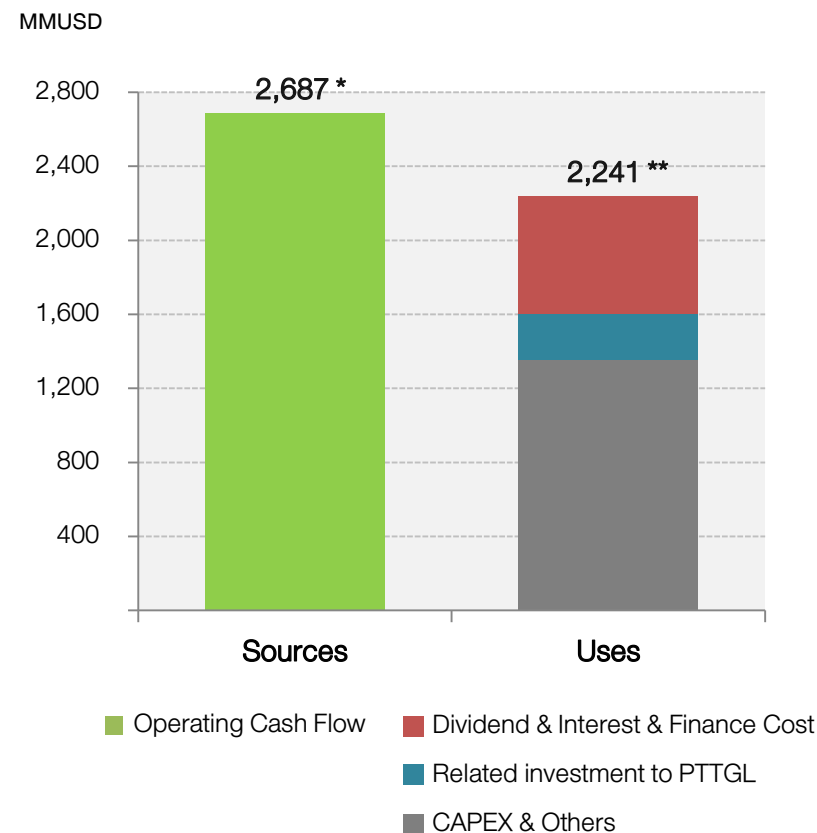
Solid cash flows and liquidity for future growth

Cash Flow Performance



Net Income	(854)	372	594
Recurring Net Income***	718	466	836

Source & Use of Funds in 2017



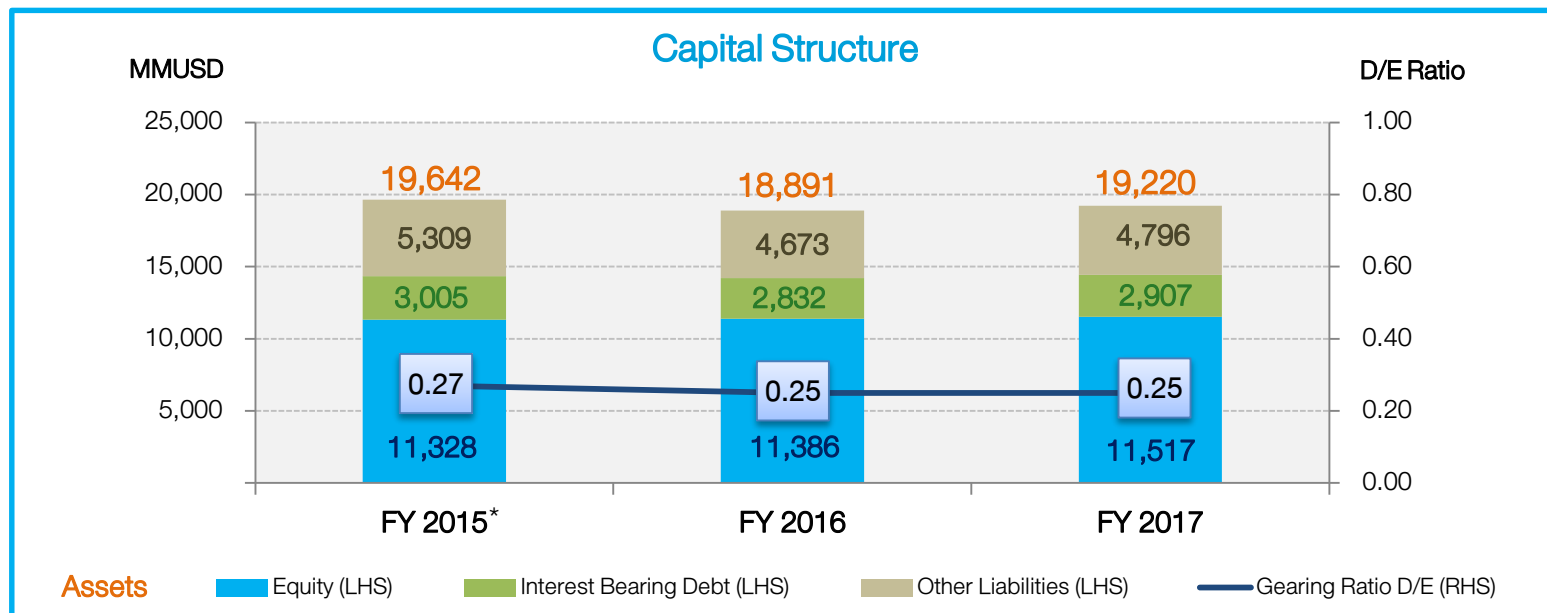
Remark: * Net of adjustment for the effect of exchange rate changes on cash and cash equivalents

** 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.

Financial Position

Strengthened balance sheet with net cash position

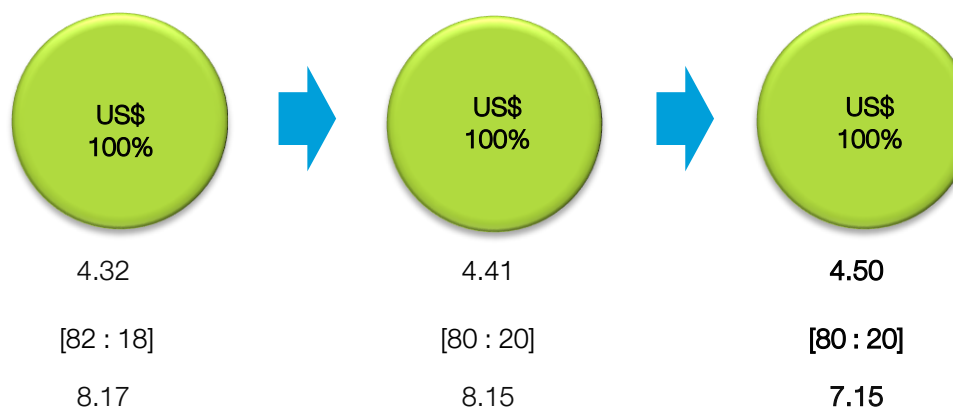


Debt Profile**

Weighted Average
Cost of Debt** (%)

[Fixed : Floating]

Average Loan Life** (Years)



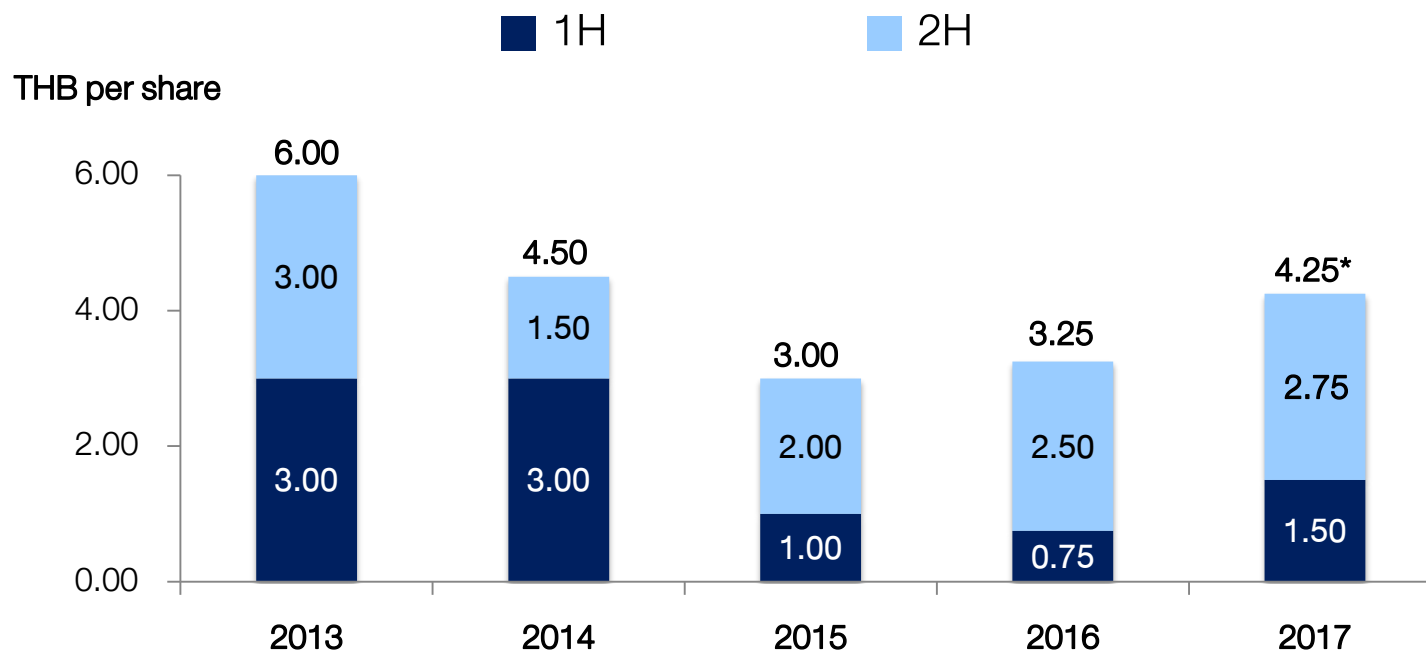
Remark: * Restated

** Excludes Hybrid bonds

Dividends

Assuring our dividend commitment to shareholders

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



Payout Ratio (%)

40

82

N/A

98

90

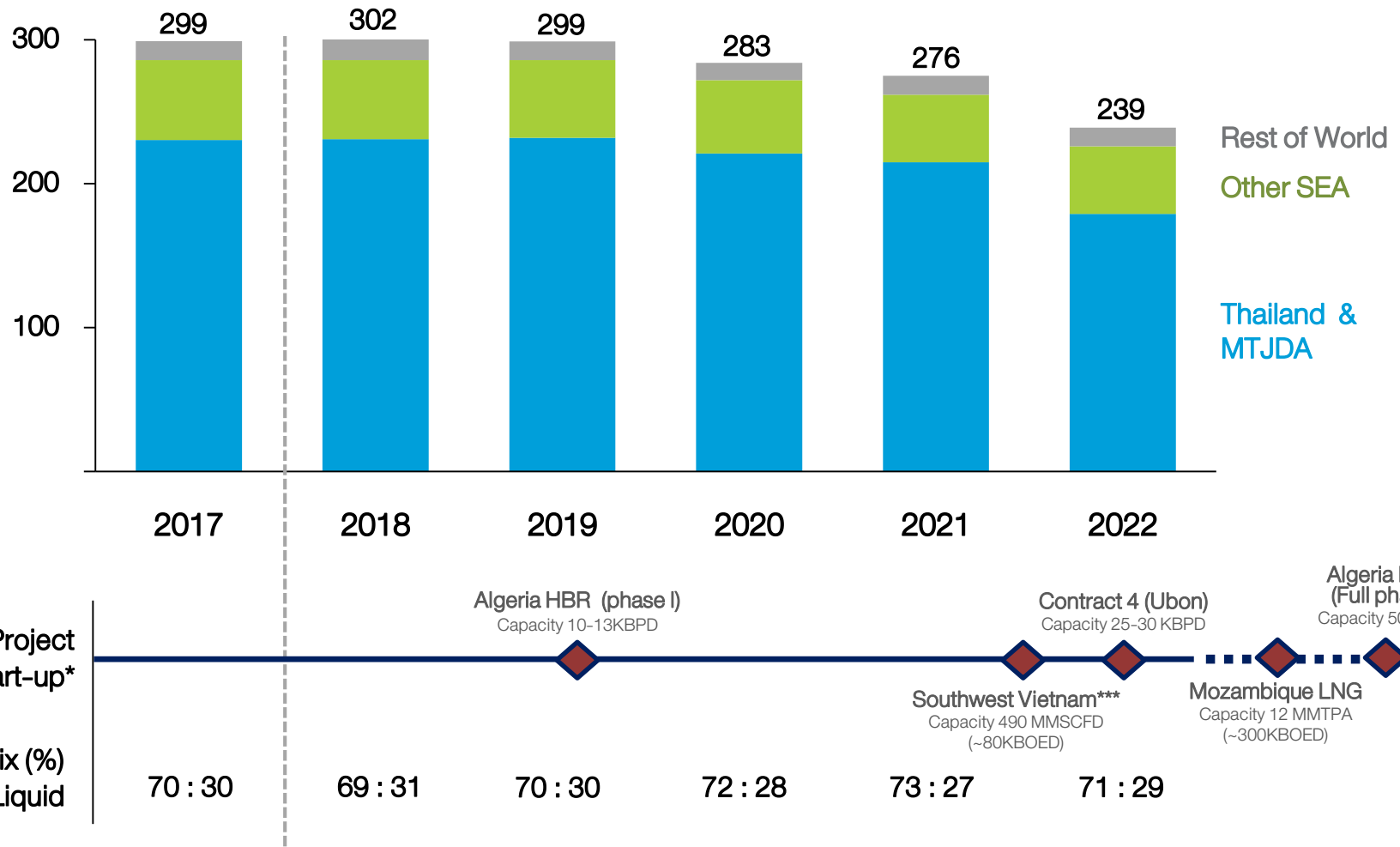
* Subject to 2018 AGM's approval

Sales Volume (excluding additional stakes in Bongkot)

M&As and concession bidding remain key upside



Unit : KBOED



Note: Excludes the sales volume contribution from the acquisition of additional 22.2222% stakes in Bongkot from Shell

* Subject to FID timing

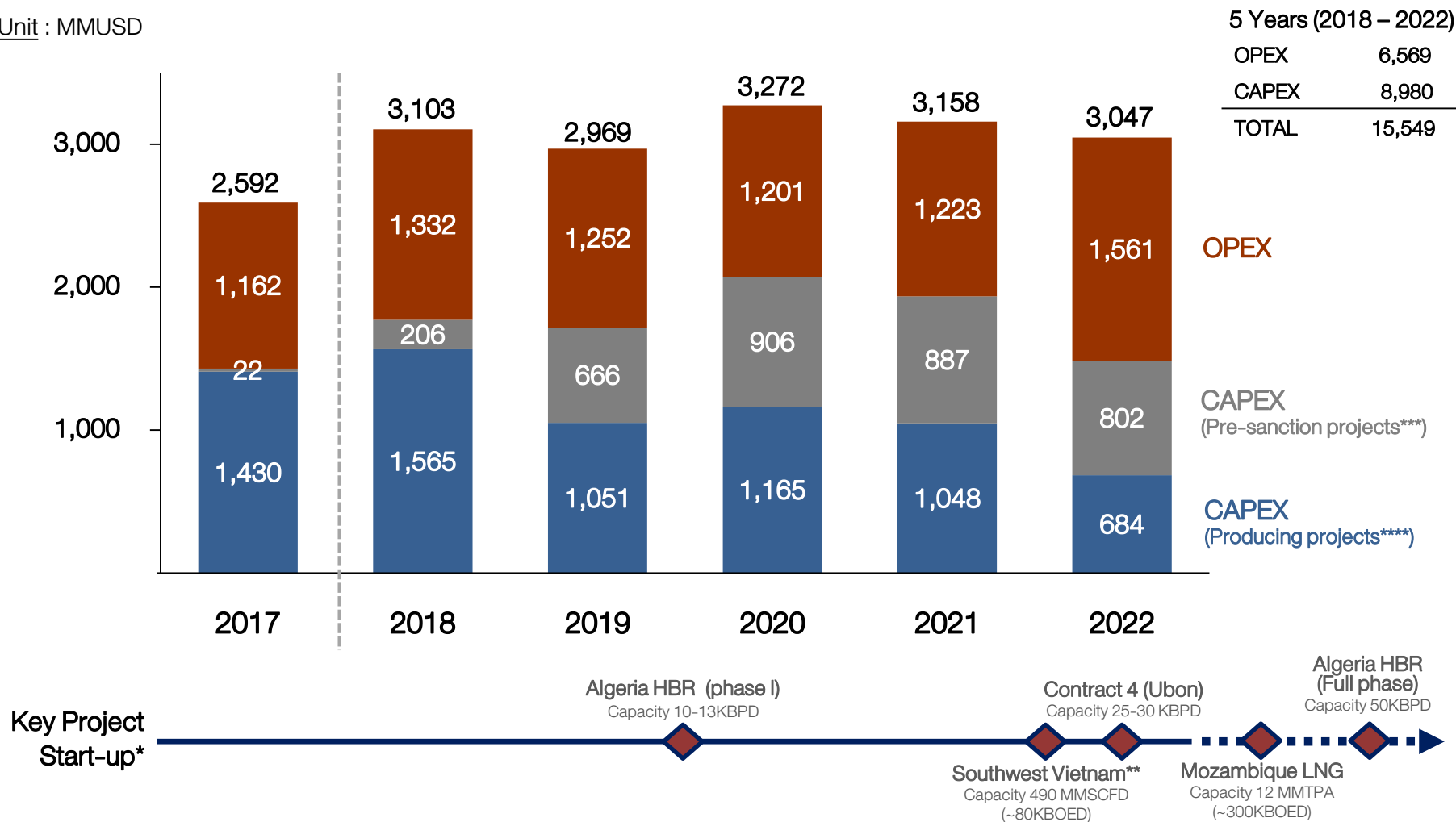
** Expected project start-up in late 2021

Investment Plan (excluding additional stakes in Bongkot)

Disciplined spending on core assets for future production growth



Unit : MMUSD



Note: Excludes the related investment from the acquisition of additional 22.2222% stakes in Bongkot from Shell

* 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 revenue growth and robust financial performance



**Average
Sales Volume***
KBOED

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

Unit Cost
USD/BOE

EBITDA Margin
% of sales volume

Q1 2018

FY 2018

~300

302

~6.0

~6.2

~30

30-31

~70

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

** Based on FY2018 Dubai oil price at 60 \$/BBL



Khun Somporn Vongvuthipornchai
Chief Executive Officer

Key Achievements

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Financial Performance

Strategy and Growth



A Firm Core Sustained by 3Rs Strategy

RESET to optimize cost level and uphold competitiveness

Ways

Optimizing Producing Projects



Capital Management



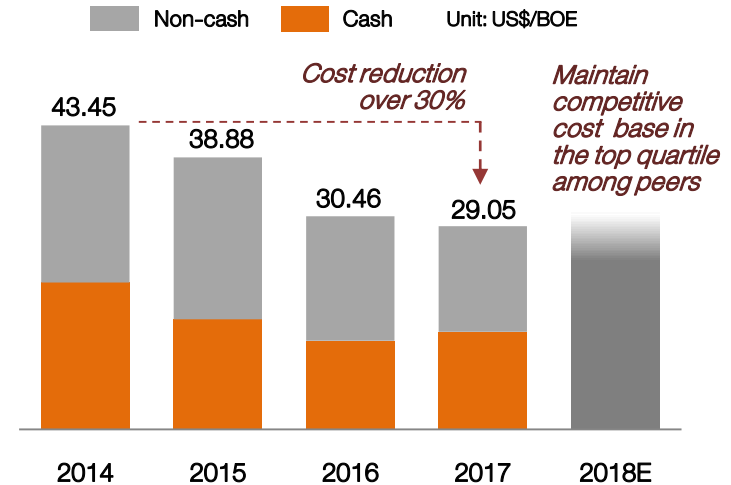
Organizational Restructuring
to cope with changing E&P landscape



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

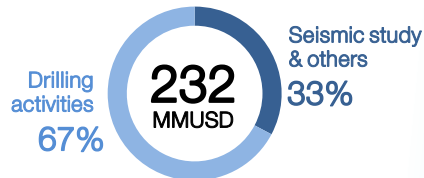
A Firm Core Sustained by 3Rs Strategy

REFOCUS for sustainable future growth

Exploration

Reinforce activities in prolific areas

2018 Budgets



Expanded to Mexico

New 2 Blocks in Gulf of Mexico

- ✓ **Materiality:** Prolific area in major prospective resources
- ✓ **Optimize Value:** Attractive fiscal terms and entry cost, Decreasing cost trend
- ✓ **Infrastructure:** Well-established market and infrastructure
- ✓ **Consortium:** Partnership with experienced operators



M&A

*Target producing assets
in focus areas; SEA and Middle East*

Thailand

Additional 22.2222%
in Bongkot*

Daily Production

👍 Add 35 KBOED

Cash Flow

👍 Immediate
cash-generation

LNG Value Chain

*Join-hand with PTT
to capture LNG demand growth in Asia*

1st step in Malaysia

10% in MLNG Train 9 in Malaysia



Marked as first step into midstream LNG business and in vicinity of current and future upstream opportunities

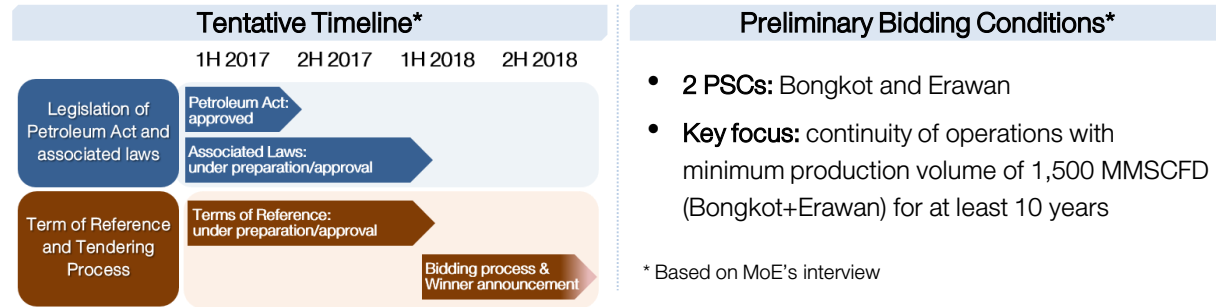
Note: * Subject to deal closing

A Firm Core Sustained by 3Rs Strategy

REFOCUS for sustainable future growth



Strive to win Bongkot and Erawan bidding



PTTEP is well-positioned to bid for Bongkot and Erawan

- ✓ Experienced and reliable
- ✓ Operational efficiency
- ✓ Synergies in the Gulf of Thailand
- ✓ Deep subsurface understanding

Progressing towards FID of key pre-development projects

◆ Mozambique Rovuma Offshore Area 1



8.5%
(operated by Anadarko)

Production 12MMTPA Expected Start-up 2023

- ☒ Approval of key legal framework and development plan
- ☒ Commencement of the resettlement action plan
- ☐ Significant progress on SPA negotiation with the execution of 1st SPA of 1.2MTPA
- ☐ Project finance is ongoing as planned

◆ Southwest Vietnam

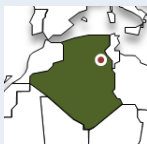


Block B&48/95 8.5%
Block 52/97 7.0%
(operated by PetroVietnam)

Production 490MMSCFD Expected Start-up 2021

- ☒ Signed letter of agreement on wellhead gas prices and pipeline tariff in Q3 2017
- ☐ Finalizing commercial agreements and FID once government approval on FDP is received

◆ Algeria HBR



24.5%
(operator)

Production 50KBPD Expected Start-up 2023

- ☒ Submitted development plan in Q4 2017
- ☐ FID once government approval is received

Note: First phase production of 10-13 KBPD, expected in 2019

◆ Ubon (Contract 4)



60%
(operated by Chevron)

Production 25-30KBPD Expected Start-up 2021

- ☐ In process of FEED
- ☐ During development preparation with current partners

A Firm Core Sustained by 3Rs Strategy

RENEW to adapt in response to changing industry landscape

Enhancing Core Capability in Exploration & Production



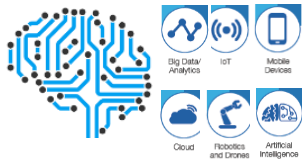
ORGANIZATIONAL TRANSFORMATION

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
e.g. decommissioning*



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

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
- \$4.5 Bn cash on hand and solid capital structure with 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



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



YE 2017 Financial Results

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Ratio and Formula

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Summary of 2017 Financial Results

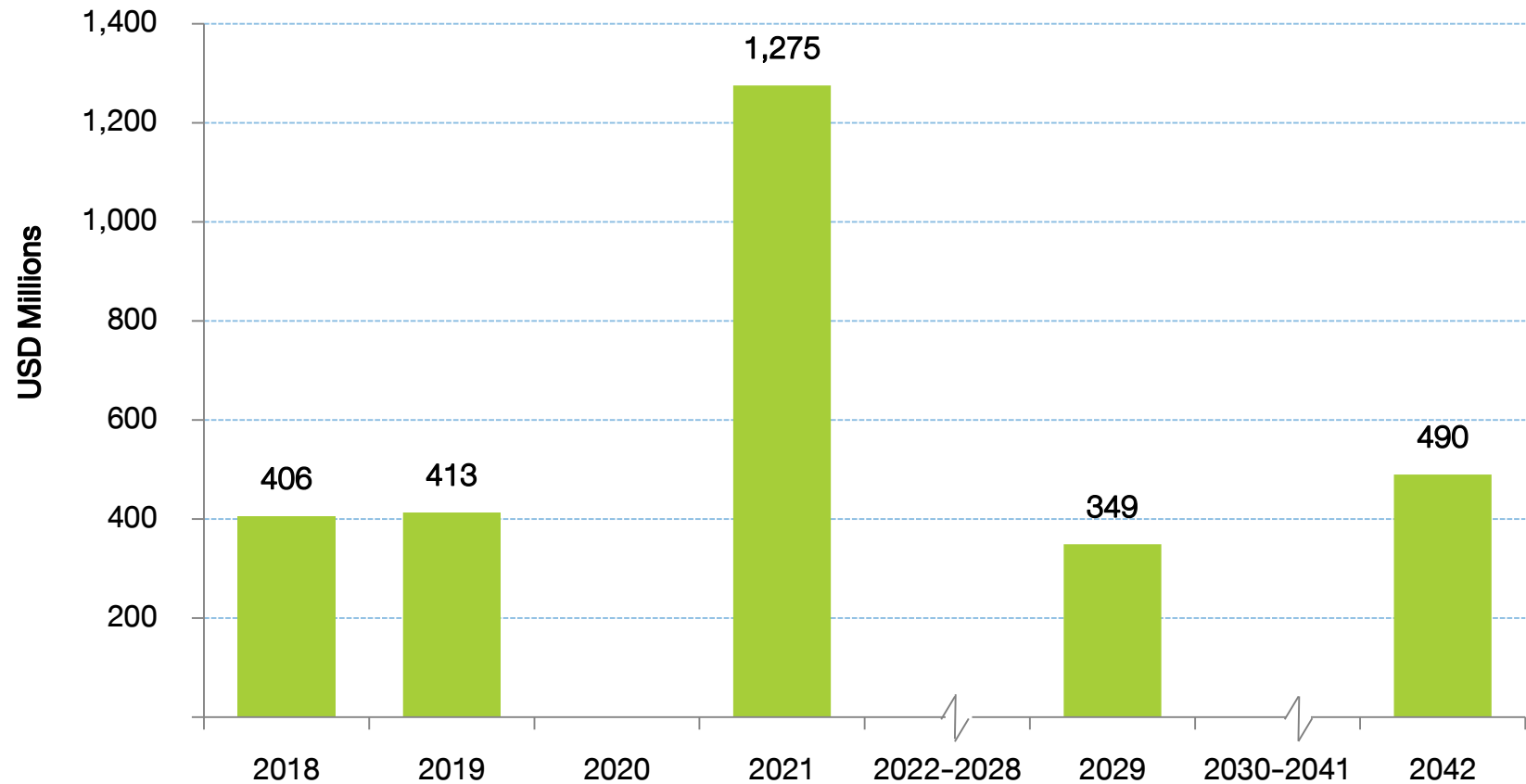
Strong core profits led by improved average selling price

Unit : MMUSD

Statement of Income	2017	2016	% YTD	Q3 17	Q4 17	% QoQ	Q4 16	% YoY
Total Revenues	4,523	4,339	4%	1,134	1,271	12%	1,089	17%
Sales	4,281	4,190	2%	1,064	1,202	13%	1,038	16%
Others	242	149	62%	70	69	(1%)	51	35%
Sales Volume (BOED)	299,206	319,521*	(6%)	298,139	313,054	5%	316,307	(1%)
Sales Price (USD/BOE)	39.20	35.91	9%	38.78	41.74	8%	35.65	17%
Total Expenses	3,929	3,987	(1%)	1,398	982	(30%)	1,122	(12%)
Major Expenses:								
Operating Expenses	625	582	7%	162	168	4%	167	1%
Exploration Expenses	52	73	(29%)	9	23	>100%	12	92%
DD&A	1,650	2,079	(21%)	413	436	6%	509	(14%)
Impairment Loss on Assets	558	47	>100%	558	-	(100%)	47	(100%)
Income Tax Expense	180	285	(37%)	57	64	12%	133	(52%)
(Gain)/Loss on FX	(51)	(12)	(>100%)	(23)	(14)	39%	16	(>100%)
Net Income from Continuing Operations	594	352	69%	(264)	289	>100%	(33)	>100%
Profit (Loss) from Discontinued Operations	-	20	(100%)	-	-	-	17	(100%)
Net Income	594	372	60%	(264)	289	>100%	(16)	>100%
Recurring Net Income	836	466	79%	218	240	10%	123	95%
Non-Recurring**	(242)	(94)	(>100%)	(482)	49	>100%	(139)	>100%

Note: * Sales volume includes discontinued operations

** 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

Top quartile safety performance; Fourth consecutive year as a DJSI listed company

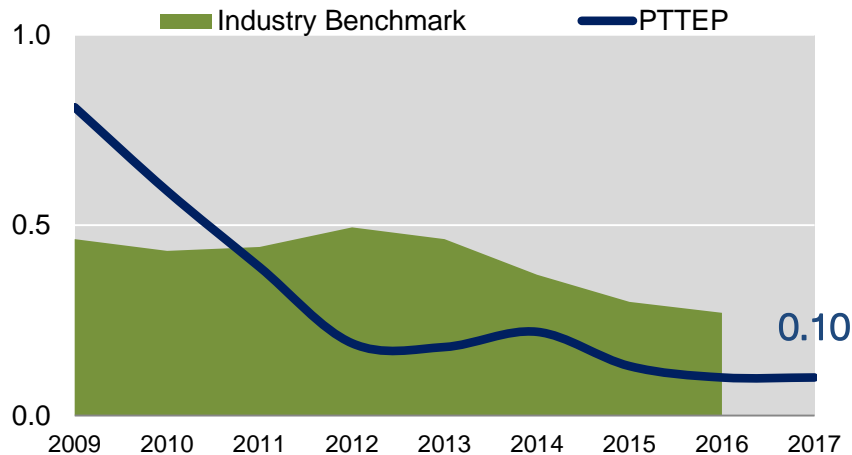


Safety

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

Affirm our path to sustainable development



Sustainable development

Pursue long-term growth with social and environmental wellness



MEMBER OF

**Dow Jones
Sustainability Indices**

In Collaboration with RobecoSAM

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

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



FTSE4Good

FTSE4Good Emerging Index 2017

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



Exemplary social contributor

Platinum Award for SIOLA Project:
Best Community Program
the 9th Annual Global CSR Summit 2017

Bronze Stevie Award for SIOLA and Crab
Hatchery Learning Center Project:
The Asia-Pacific Stevie Awards Program

Green driver to environment

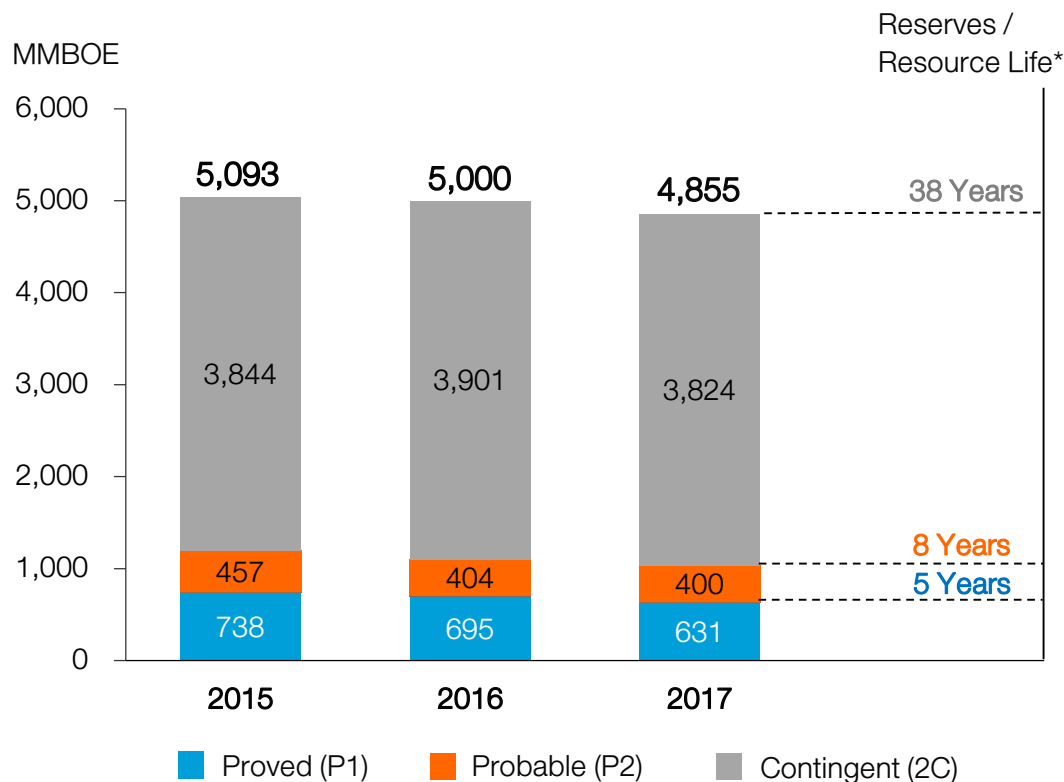
Water A List Award
Carbon Disclosure Project (CDP)

2017 LESS Award Letter of Recognition
Thailand Greenhouse Gas Management Organization

Thailand Occupational Safety and Health Awards
the Ministry of Labour

Reserves and Resources

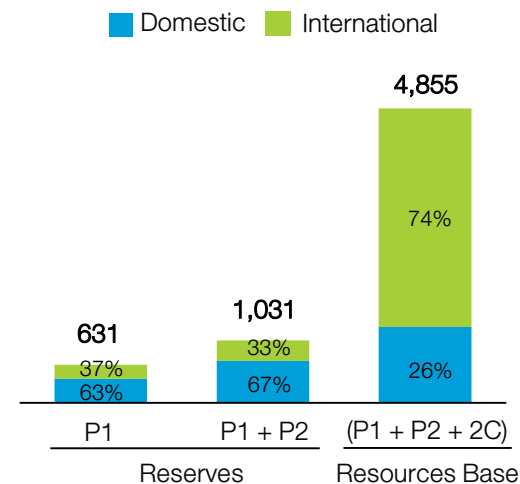
Maintained reserve life with majority of reserves base in SEA



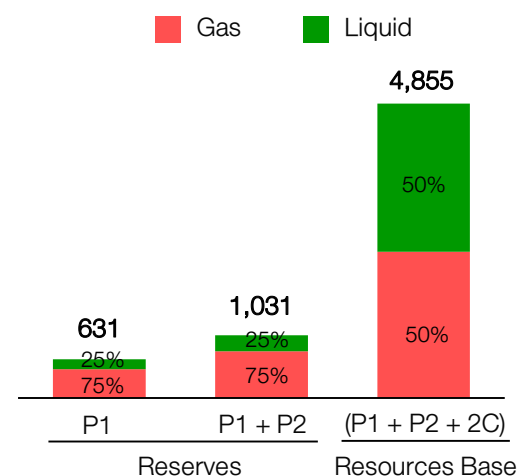
5-Year Average Proved Reserves Replacement Ratio (RRR)

2015	2016	2017
0.50x	0.57x	0.58x

2017 by Geography



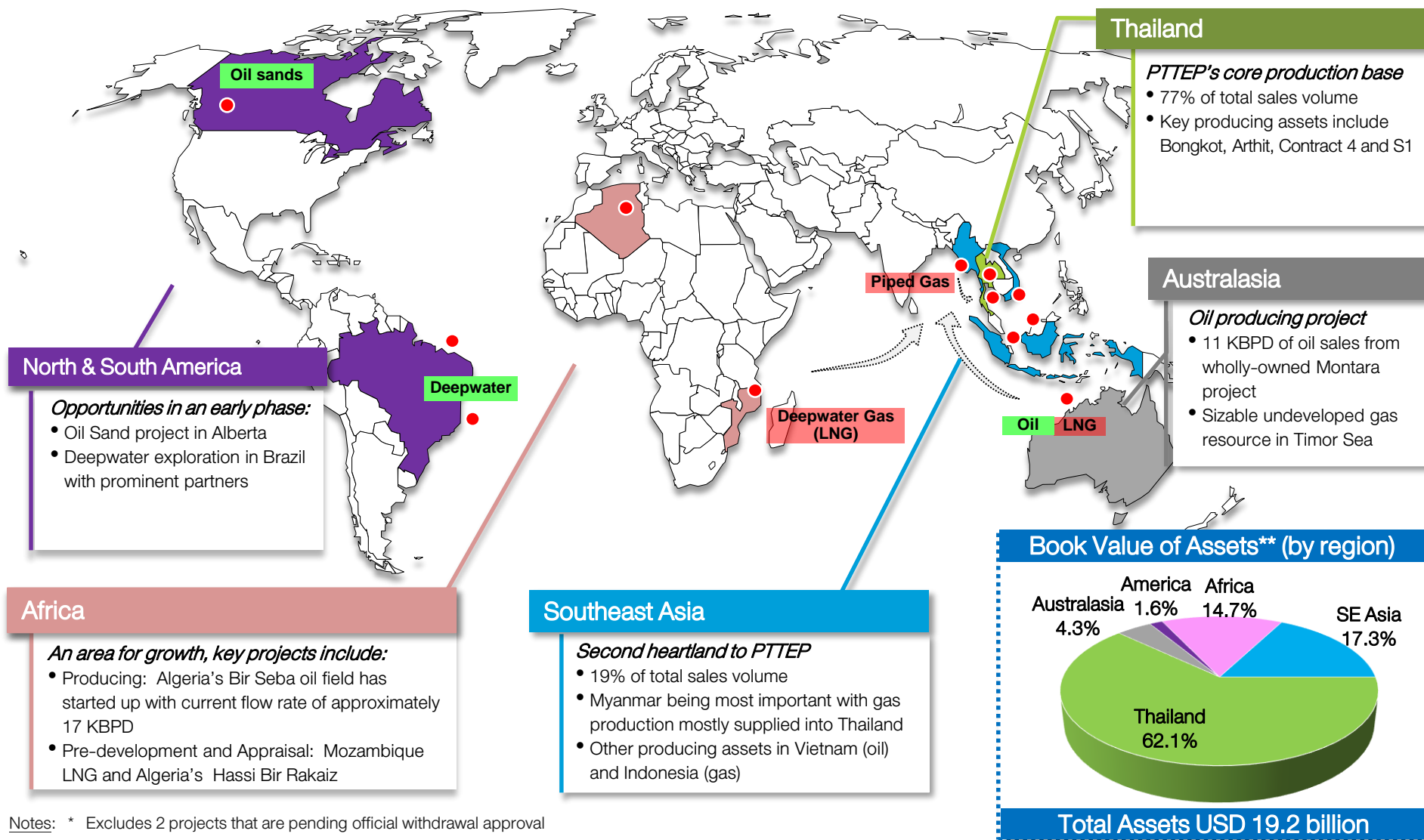
2017 by Product Type



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

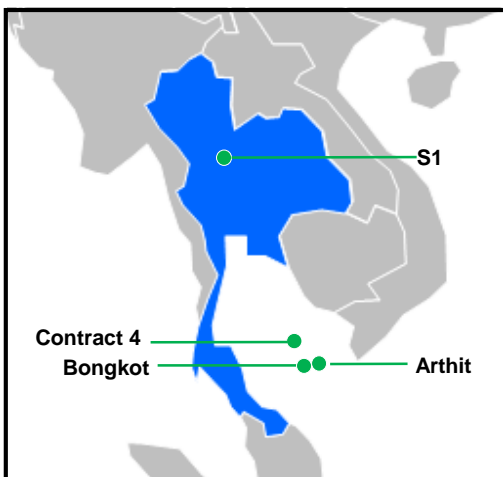
Diversified international portfolio

Worldwide operations: 36 projects* in 10 countries



Notes: * Excludes 2 projects that are pending official withdrawal approval

** Information dated as of 31 December 2017



● Production / Ramp-up Projects

Bongkot (44.4445% interest)

- Bongkot's natural gas sales volume of 856 MMSCFD in 2017
- Average condensate sales volume was 26 KBPD in 2017

S1 (100% interest)

- S1 is the largest onshore crude oil production field in Thailand
- Average crude oil sales volume was 26 KBPD in 2017

Arthit (80% interest)

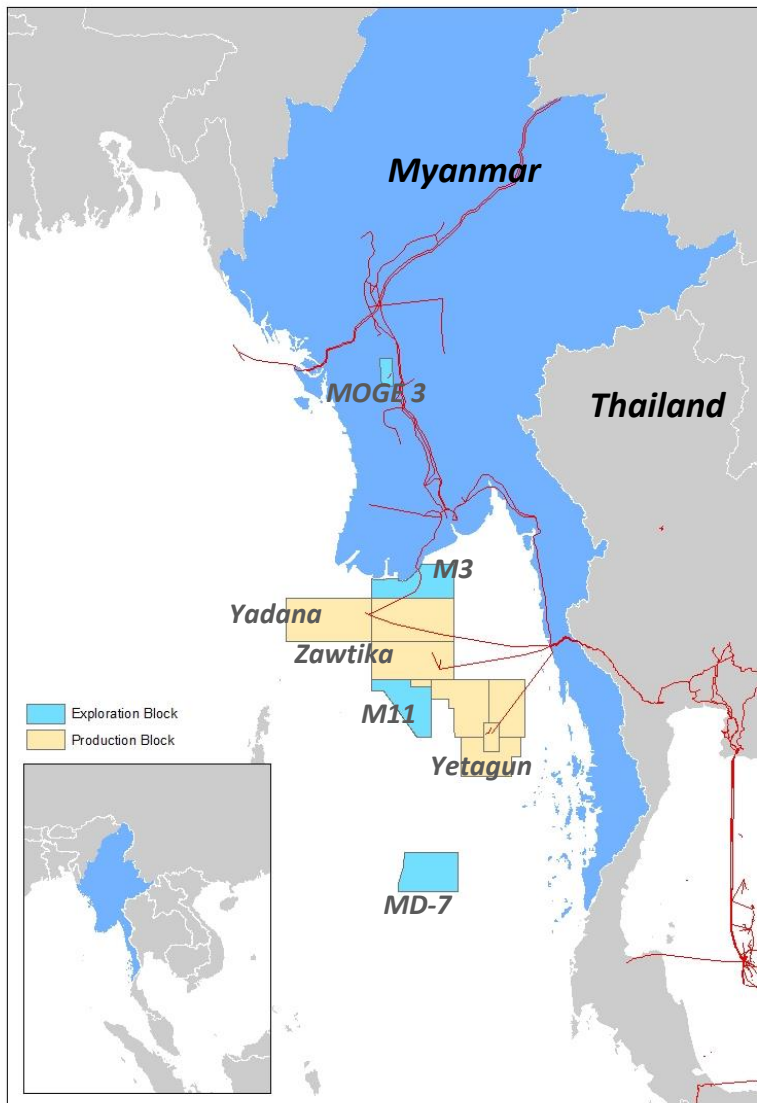
- Average sales volume in 2017 was 218 MMSCFD of natural gas and 9.8 KBPD of condensates

Contract 4 (60% interest)

- Acquired from Hess Corporation in 2014.
- The Contract 4 project had an average sales rate of 347 MMSCFD for natural gas and 16 KBPD for condensate in 2017

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 301 MMSCFD in 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">• 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)

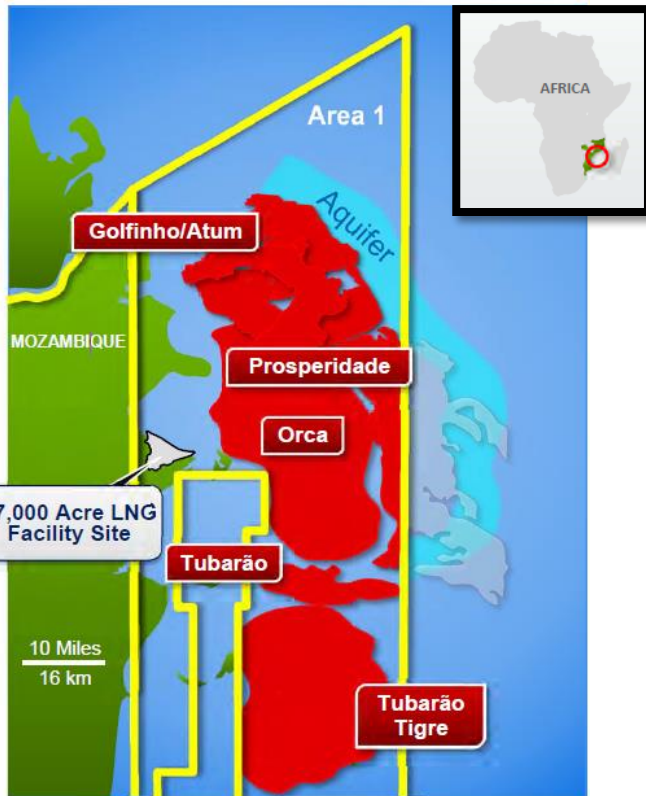
- Average crude oil sales volume of 21 KBPD in 2017
- Commissioned production platform in the H5 area to support current production level

Natuna Sea A (11.5% interest)

- Average sales volume of natural gas was 221 MMSCFD in 2017

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

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

Regulatory

- ✓ Received approval on marine concession
- ✓ Commenced the resettlement plan in Q4 2017

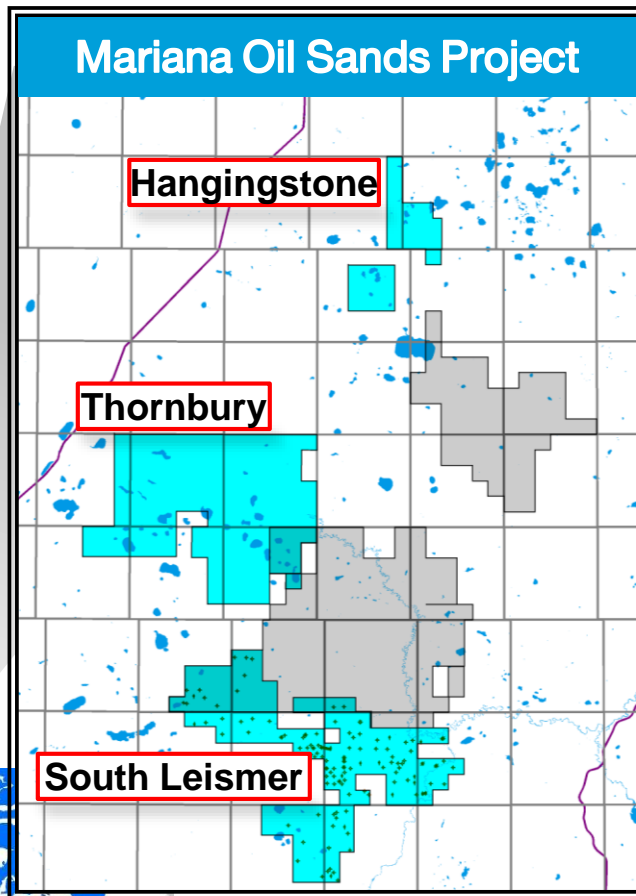
Financing

- ✓ On-going negotiation for project financing

Onwards to initial phase of 12 MTPA

America: Canada Oil Sands

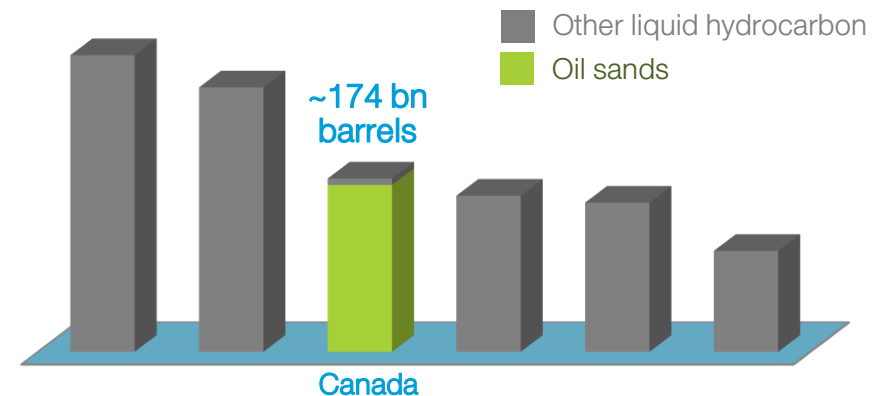
Flexibility to pursue long-term investment from the oil sands project



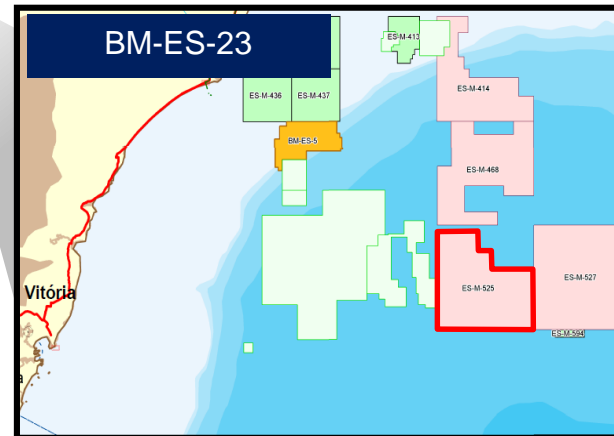
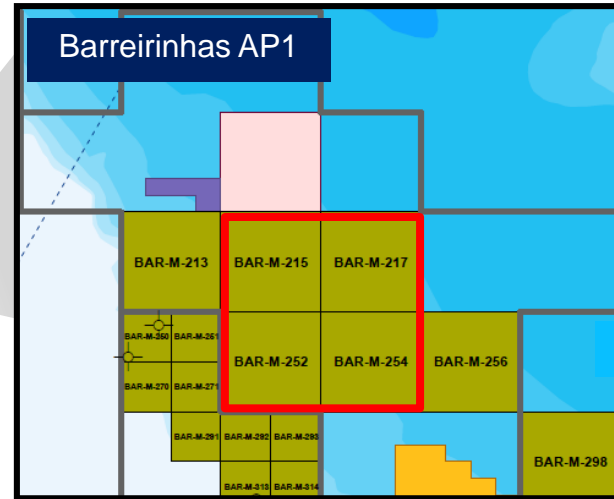
Project Overview

- 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



- 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 2017)	2017 Average Sales Volume **		2018 Key Activities	
					Gas	Oil and Other		
Production Phase								
Thailand and JDA								
1	Arthit	OP	80%	Chevron MOECO	16% 4%	218 MMSCFD	Condensate: 9.8 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 PSTL	51.66% 16.71% 4.63% 2%	94 MMSCFD	Crude: 25 k BPD	<ul style="list-style-type: none">Drill development wellsPerform waterflood activities
4	Bongkot	OP	44.4445%	TOTAL Shell	33.3333% 22.2222%	856 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 (Formerly Unocal III)		5%	Chevron MOECO	71.25% 23.75%	577 MMSCFD	Crude: 22 k BPD Condensate: 21 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%	347 MMSCFD	Condensate: 16 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%	9.1 MMSCFD	-	
8	G4/43		21.375%	Chevron MOECO PSTL	51% 21.25% 6.375%	2.2 MMSCFD	Crude: 6.1 k BPD	<ul style="list-style-type: none">Drill development wellsPerform waterflood activities
9	G4/48		5%	Chevron MOECO	71.25% 23.75%	5.4 MMSCFD	Crude: 1.3 k BPD	
10	L53/43 & L54/43	OP	100%			-	Crude: 627 BPD	<ul style="list-style-type: none">Drill exploration / appraisal / development wells
11	PTTEP1	OP	100%			-	Crude: 253 BPD	<ul style="list-style-type: none">Drill development wellsPerform waterflood activities
12	S1	OP	100%			21 MMSCFD	Crude: 26 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%	78 MMSCFD	Condensate: 250 BPD	<ul style="list-style-type: none">Drill development wells
14	MTJDA	JOC	50%	Petronas-Carigali	50%	263 MMSCFD	Condensate: 7.0 k BPD	<ul style="list-style-type: none">Drill development wellsInstall wellhead platforms
15	L22/43	OP	100%			-	Crude: 141 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 2017)	2017 Average Sales Volume **		2018 Key Activities
					Gas	Oil and Other	
Production Phase							
Overseas							
16	Vietnam 9-2	JOC	25%	PetroVietnam 50% SOCO 25%	12 MMSCFD	Crude: 4.2 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%	741 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)	215 MMSCFD	Condensate: 5.5 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%	2.0 MMSCFD	Crude: 21 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: 11 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%	221 MMSCFD	Crude: 1.5 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%	301 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: 2.8 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

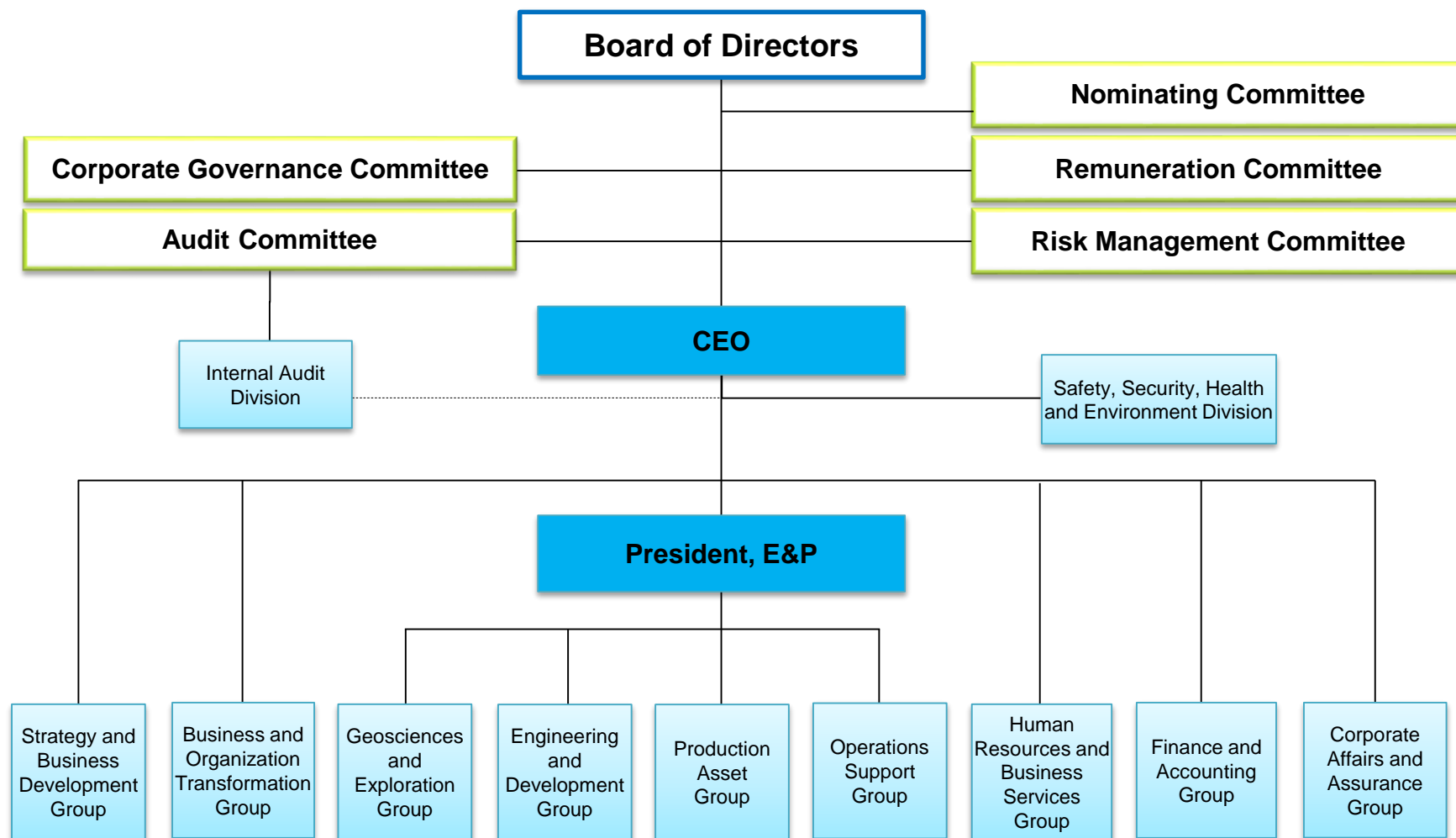
	Project	Status*	PTTEP's Share	Partners (as of 2017)	2018 Key Activities
Exploration Phase					
Thailand and JDA					
24	G9/43	OP	100%		
Overseas					
25	Myanmar M3	OP	80%	MOECO 20%	<ul style="list-style-type: none"> Negotiate the commercial framework with the Myanmar government
26	Mozambique Rovuma Offshore 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"> 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 MD-7	OP	50%	TOTAL 50%	<ul style="list-style-type: none"> Assess resource potential and prepare exploration drilling
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"> Assess petroleum potential and prepare exploration drilling plan
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% PSCB 15%	<ul style="list-style-type: none"> Assess petroleum potential and prepare exploration drilling plan

Remarks: 36 projects exclude 2 projects that are pending official withdrawal approval

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