### Supplementary information





### Summary of 2017 Financial Results

Strong core profits led by improved average selling price



Unit : MMUSD

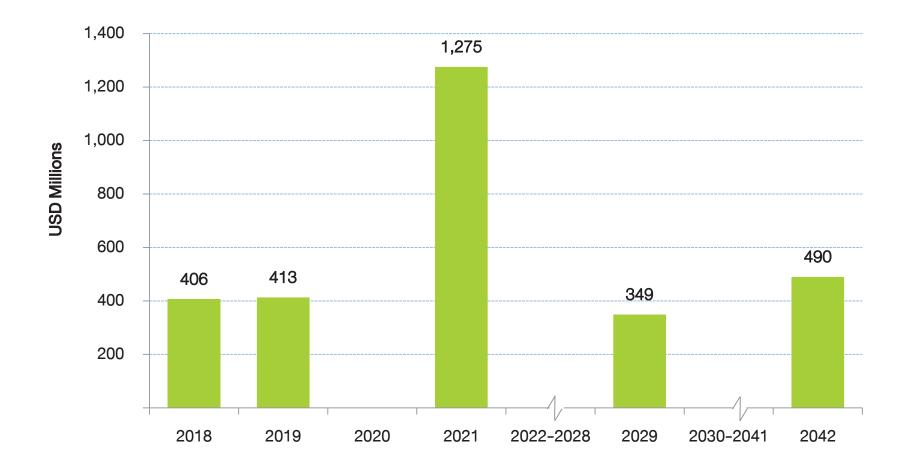
Statement of Income	2017	2016	% YTD	Q3 17	Q4 17	% QoQ	Q4 16	% YoY
Total Revenues	4,523	4,339	4%	1,134	1,271	12%	1,089	17%
Sales	4,281	4,190	2%	1,064	1,202	13%	1,038	16%
Others	242	149	62%	70	69	(1%)	51	35%
Sales Volume (BOED)	299,206	319,521*	(6%)	298,139	313,054	5%	316,307	(1%)
Sales Price (USD/BOE)	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.

## **Debt Maturity Profile**





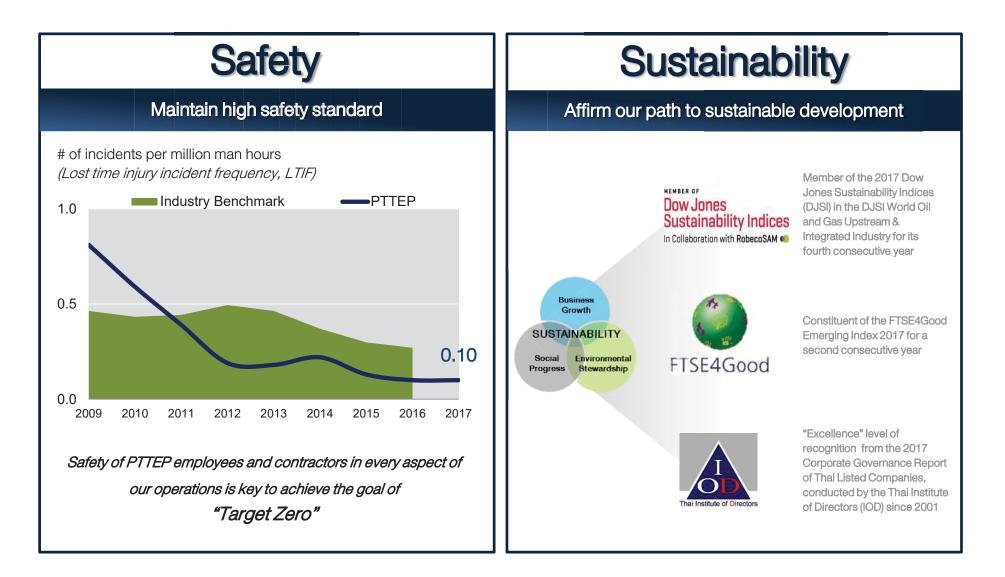
Note: Excludes Hybrid bonds

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





### Sustainable development

Pursue long-term growth with social and environmental wellness



### 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





Platinum Award for SIOLA Project:

Best Community Program the 9<sup>th</sup> Annual Global CSR Summit 2017

Bronze Stevie Award for SIOLA and Crab Hatchery Learning Center Project: *The 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

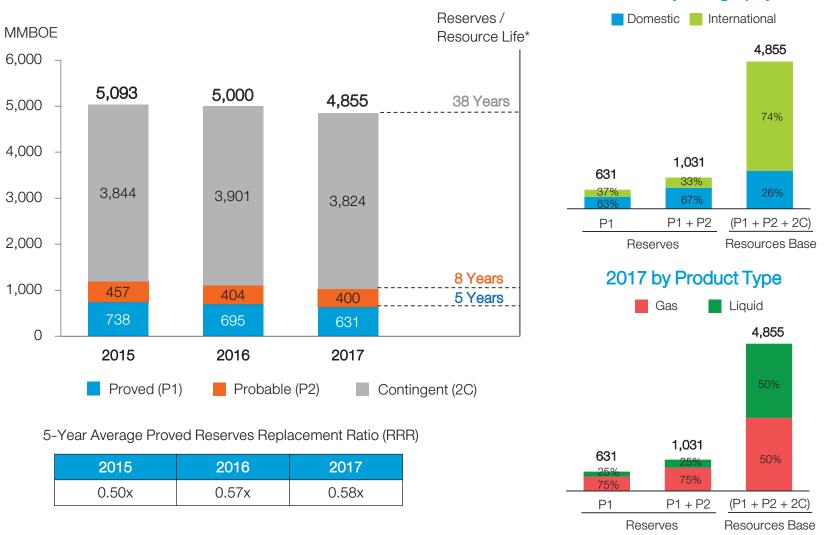
Thailand Occupational Safety and Health Awards the Ministry of Labour

### **Reserves and Resources**

#### Maintained reserve life with majority of reserves base in SEA



2017 by Geography

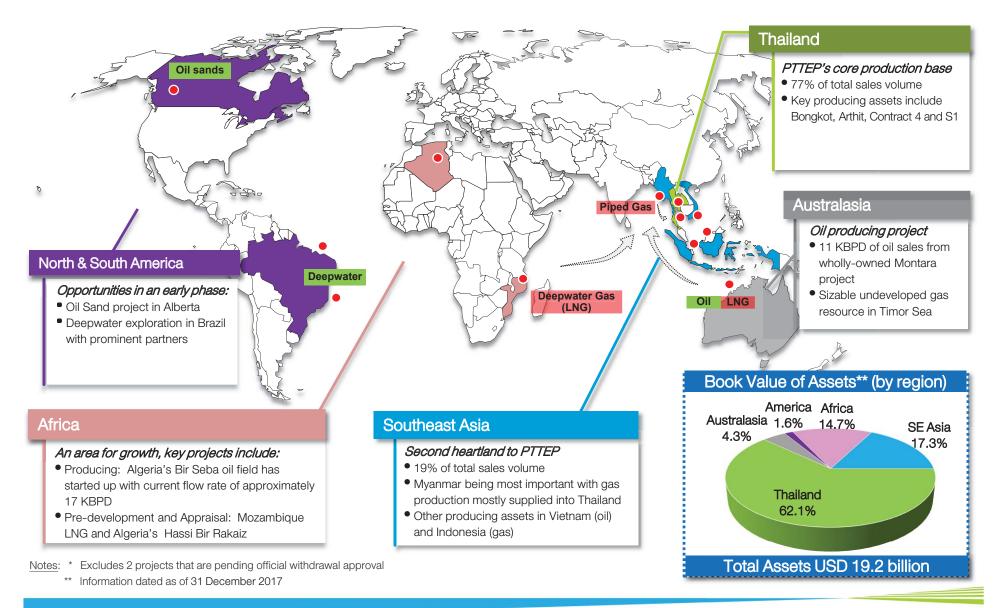


\* Based on total production of natural gas, condensate, and crude oil (including LPG) of 347 KBOED for the year ended December 31, 2017

### **Diversified international portfolio**

Worldwide operations: 36 projects\* in 10 countries



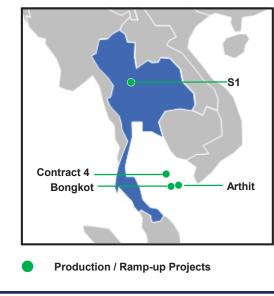


### Thailand

Strong home base with legacy assets maintaining production plateau







#### 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

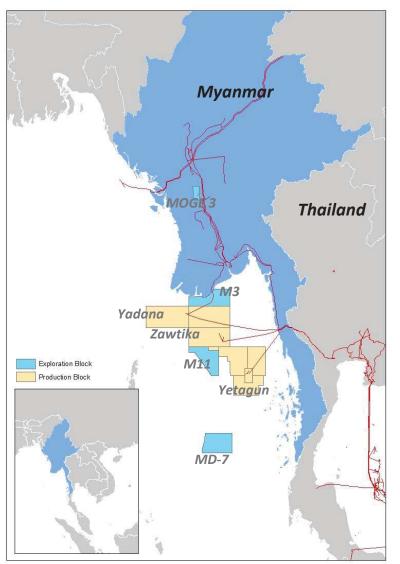
#### Contract 4 (60% interest)

- 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

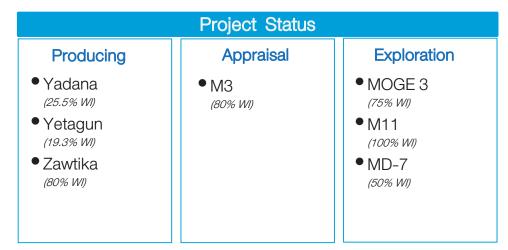
### Southeast Asia: Myanmar

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

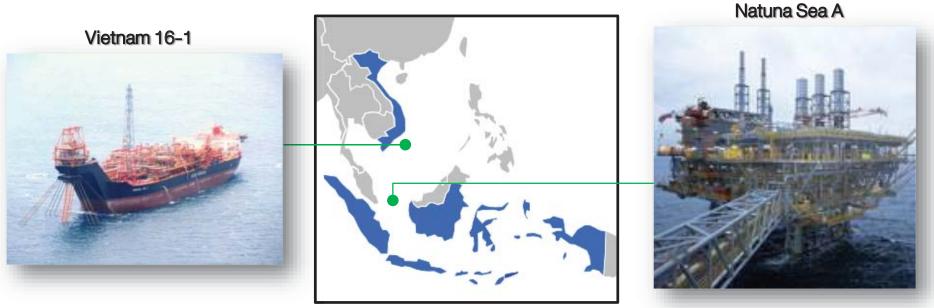


Note: WI – working interest

### Southeast Asia: Vietnam and Indonesia

Reinforcing regional exposure through strategic partnerships





Production / Ramp-up Projects

#### 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)

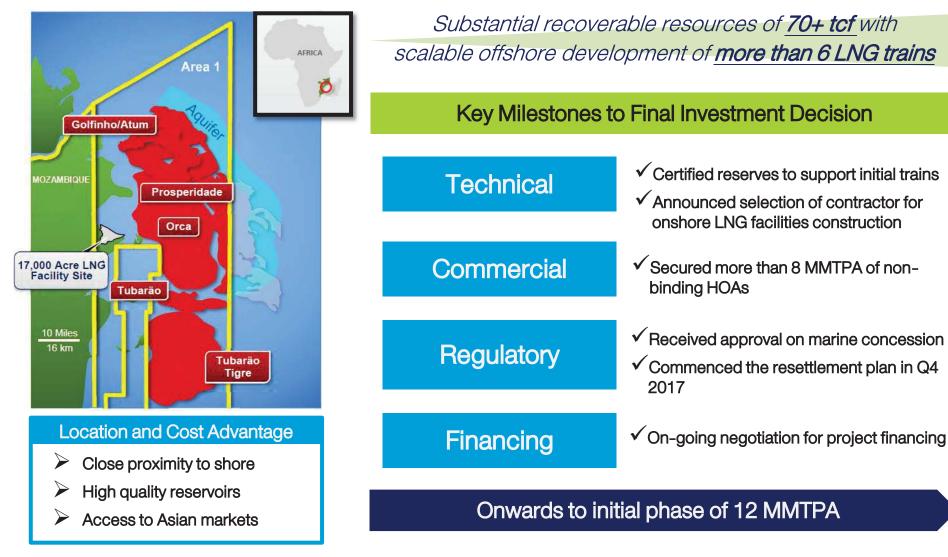
• Average sales volume of natural gas was 221 MMSCFD in 2017

Source : Premier Oil

### East Africa: Mozambique

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



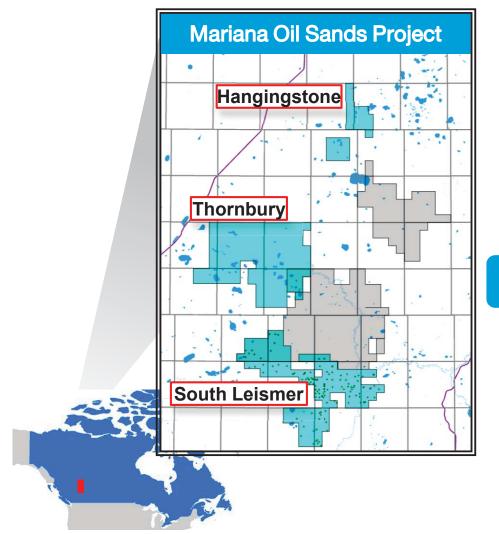


Source: Anadarko

### America: Canada Oil Sands

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

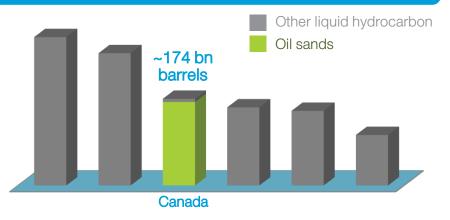




#### Project Overview

- 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 3<sup>rd</sup> largest oil reserves, is oil sands

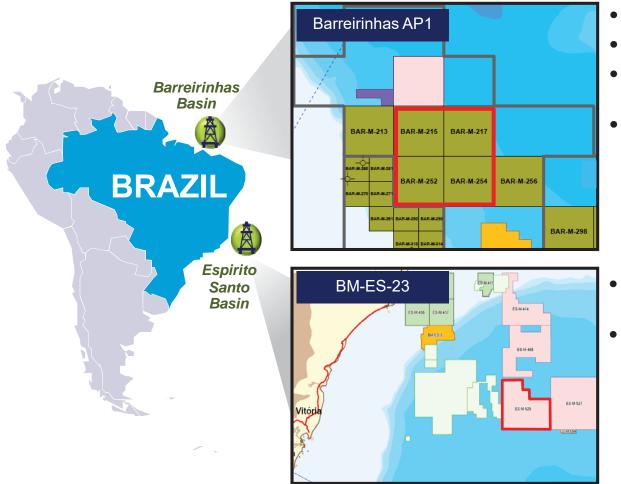


Source: Company data, BP Statistical Review of World Energy 2014

### 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)	Petronas80%JX Nippon10%PTT Global LNG10%						

#### **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				ge Sales Volume **	2018 Key Activities
			Share	(as of 20	17)	Gas	Oil and Other	20101109740411400
Pro	duction Phase							
Tha	ailand and JDA	-						
1	Arthit	OP	80%	Chevron MOECO	16% 4%	218 MMSCFD	Condensate: 9.8 k BPD	<ul> <li>Ensure gas deliverability level at DCQ****</li> <li>Drill development wells</li> </ul>
2	B6/27	OP	100%			-	-	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> <li>Drill development wells</li> <li>Perform waterflood activities</li> </ul>
4	Bongkot	OP	44.4445%	TOTAL Shell	33.3333% 22.2222%	856 MMSCFD	Condensate: 26 k BPD	<ul> <li>Ensure gas deliverability level at DCQ****</li> <li>Drill development wells</li> <li>Install wellhead platforms</li> </ul>
5	Contract 3 (Formerly Unocal III)		5%	Chevron MOECO	71.25% 23.75%	577 MMSCFD	Crude: 22 k BPD Condensate: 21 k BPD	<ul> <li>Drill exploration / appraisal / development wells</li> <li>Install wellhead platforms</li> <li>Perform waterflood activities</li> </ul>
6	<b>Contract 4</b> (Formerly Pailin)		60%	Chevron MOECO	35% 5%	347 MMSCFD	Condensate: 16 k BPD	<ul> <li>Ensure gas deliverability level at DCQ****</li> <li>Drill development wells</li> <li>Install wellhead platforms</li> <li>Review development plan of Ubon field</li> </ul>
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><li>Drill development wells</li><li>Perform waterflood activities</li></ul>
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	Drill exploration / appraisal / development wells
11	PTTEP1	OP	100%			-	Crude: 253 BPD	Drill development wells     Perform waterflood activities
12	S1	OP	100%			21 MMSCFD	Crude: 26 k BPD	<ul> <li>Drill exploration / development wells</li> <li>Enhance oil recovery program includes waterflooding and artificial lift</li> </ul>
13	Sinphuhorm	OP	55%	Apico ExxonMobil	35% 10%	78 MMSCFD	Condensate: 250 BPD	Drill development wells
14	MTJDA	JOC	50%	Petronas-Carigali	50%	263 MMSCFD	Condensate: 7.0 k BPD	<ul> <li>Drill development wells</li> <li>Install wellhead platforms</li> </ul>
15	L22/43	OP	100%			-	Crude: 141 BPD	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	Partne	rs	2017 Averag	ge Sales Volume **	2018 Key Activities
			Share	(as of 20	17)	Gas	Oil and Other	
Pro	roduction Phase							
Ov	erseas							
16	Vietnam 9-2	JOC	25%	PetroVietnam SOCO	50% 25%	12 MMSCFD	Crude: 4.2 k BPD	Maintain production operation     Perform reservoir management
17	Yadana		25.5%	TOTAL Chevron MOGE	31.24% 28.26% 15%	741 MMSCFD	-	Ensure gas deliverability level at DCQ***
18	Yetagun		19.3178%	Petronas-Carigali MOGE Nippon Oil PC Myanmar (Hong Kong)	30.00140% 20.4541% 19.3178% 10.90878%	215 MMSCFD	Condensate: 5.5 k BPD	<ul> <li>Drill appraisal / development wells</li> <li>Perform reservoir Management</li> </ul>
19	Vietnam 16-1	JOC	28.5%	PetroVietnam SOCO OPECO	41% 28.5% 2%	2.0 MMSCFD	Crude: 21 k BPD	<ul><li>Drill development wells</li><li>Maintain production operation</li></ul>
20	PTTEP Australasia (PTTEP AA)	OP	90%-100% (varied by permits)			-	Crude: 11 k BPD	Maintain production operation
21	Natuna Sea A		11.5%	Premier Oil KUFPEC Petronas Pertamina	28.67% 33.33% 15% 11.5%	221 MMSCFD	Crude: 1.5 k BPD	Maintain production operation
22	Zawtika (M9 & a part of M11)	OP	80%	Myanma Oil and Gas Enterprise (MOGE)	20%	301 MMSCFD	-	<ul> <li>Maintain production rate</li> <li>Drill development wells</li> <li>Install wellhead platforms</li> </ul>
23	Algeria 433a & 416b (Bir Seba)	JOC	35%	PetroVietnam Sonatrach	40% 25%	-	Crude: 2.8 k BPD (net entitlement)	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
<u>Exp</u>	oloration Phase			• • • •	
<u>Tha</u>	iland and JDA			1	
24	G9/43	OP	100%		
Ove	erseas			•	
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 Brasil65%Mitsui E&P Brasil10%	Assess petroleum potential
34	Myanmar MOGE 3	OP	75%	Palang Sophon10%MOECO10%WinPreciousResources5%	Assess petroleum potential and prepare exploration drilling plan
35	Brazil BM-ES-23		20%	Petrobras65%INPEX15%	Assess petroleum potential
36	Sarawak SK410B	OP	42.5%	KUFPEC         42.5%           PSCB         15%	Assess petroleum potential and prepare exploration drilling plan

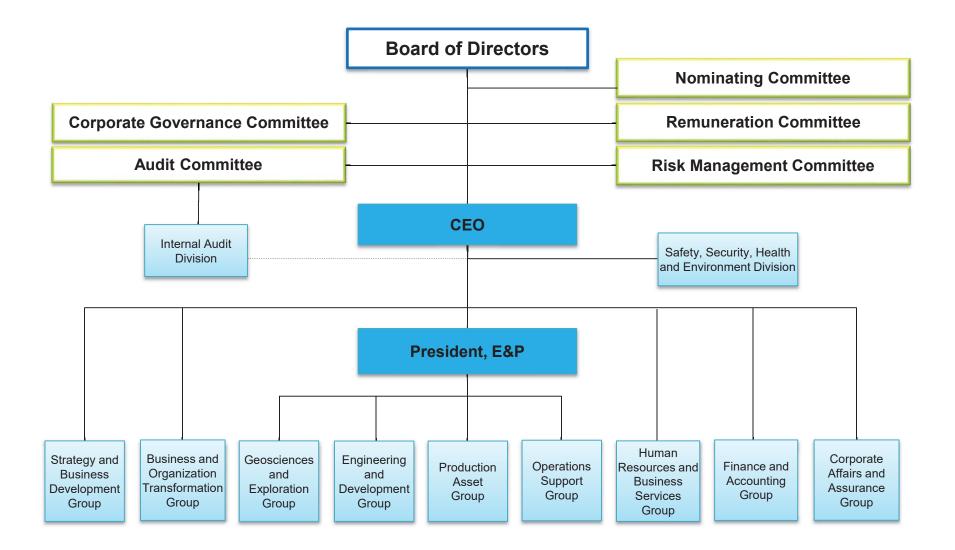
Remarks: 36 projects exclude 2 projects that are pending official withdrawal approval

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

### Organization structure

Ensuring transparency, integrity and good corporate governance







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