

# PTT Exploration and Production Public Company Limited

Q1 2016 Analyst Meeting

Bangkok

16 May 2016



**PTTEP**

MEMBER OF

**Dow Jones  
Sustainability Indices**

In Collaboration with RobecoSAM 





# Safety Performance

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Industry Highlights

Financial Results

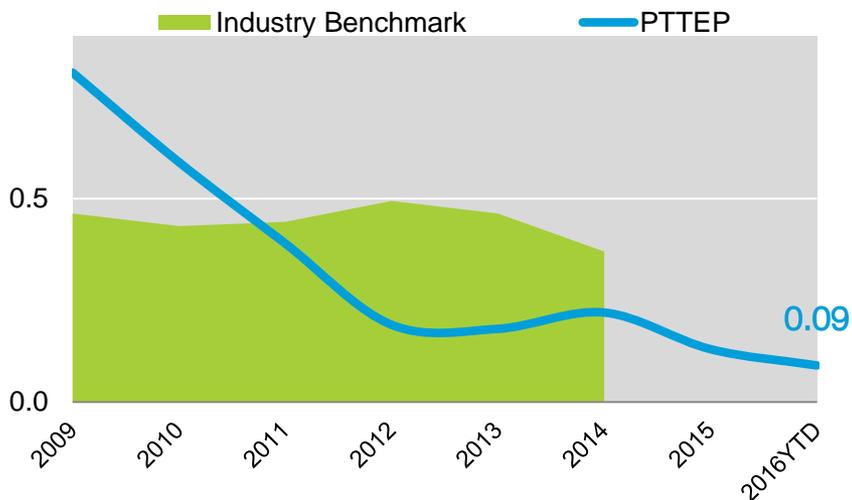
Outlook



## Safety

*Maintain high safety standard*

# of incidents per million man hours  
(Lost time injury incident frequency, LTIF)

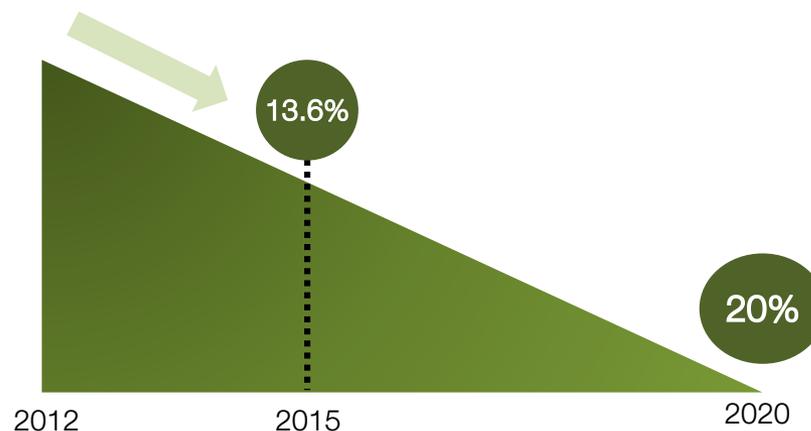


*Safety of PTTEP employees and contractors in every aspect of our operations is key to achieve the goal of "Target Zero"*

## Environment

*Target 20% GHG reduction by 2020*

% of GHG emission reduction comparing to 2012 base year figure



*PTTEP aims to become a Low Carbon Footprint organization, and has set a goal to reduce its greenhouse gas (GHG) emissions by not less the 20% in the year 2020 versus its 2012 base year figure.*



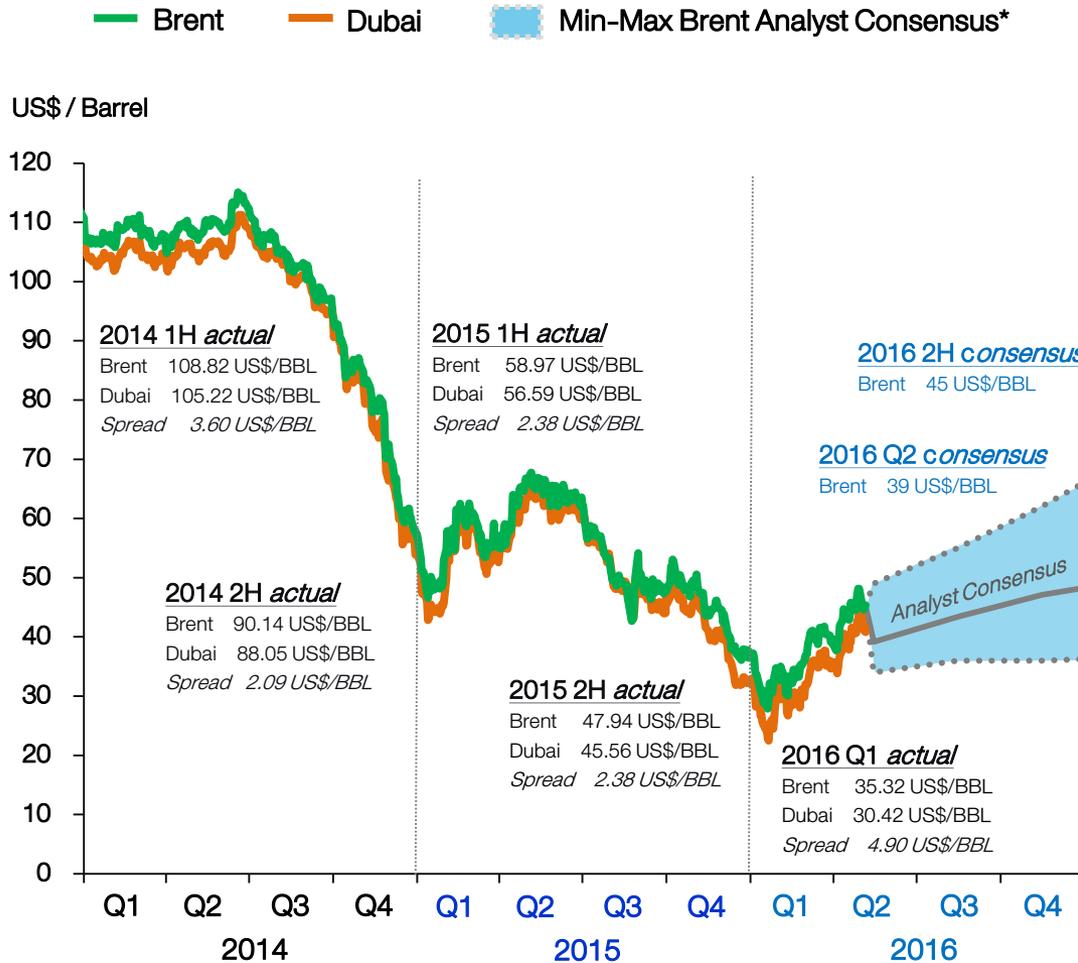
Safety Performance

**Industry Highlights**

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Financial Results

Outlook



Remark: \* Bloomberg Analyst Consensus (CPFC) as of 9 May 2016 (43 estimates)

### Q1 2016 Highlights

-  Continued oversupply conditions
-  Additional supply from Iran after international sanctions lifted
-  Discussion between OPEC and non-OPEC members to limit production

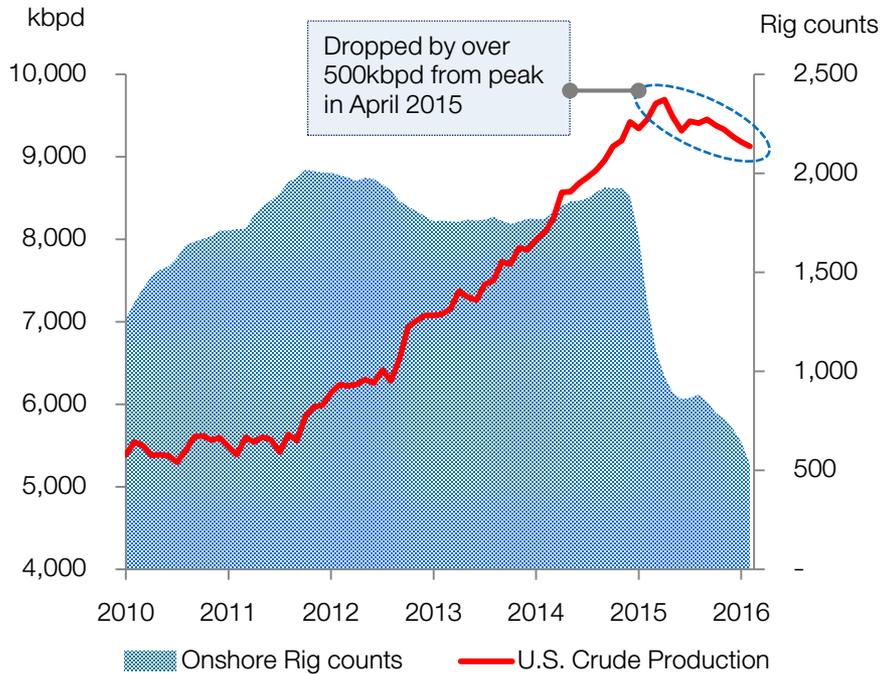
### Outlook for the Remainder of 2016

-  Increasing supply from Iran
-  New record of US crude inventory
-  Decline in US shale production
-  Continued growth in global crude oil demand
-  Recent supply disruption (mainly Canada)



## US Production

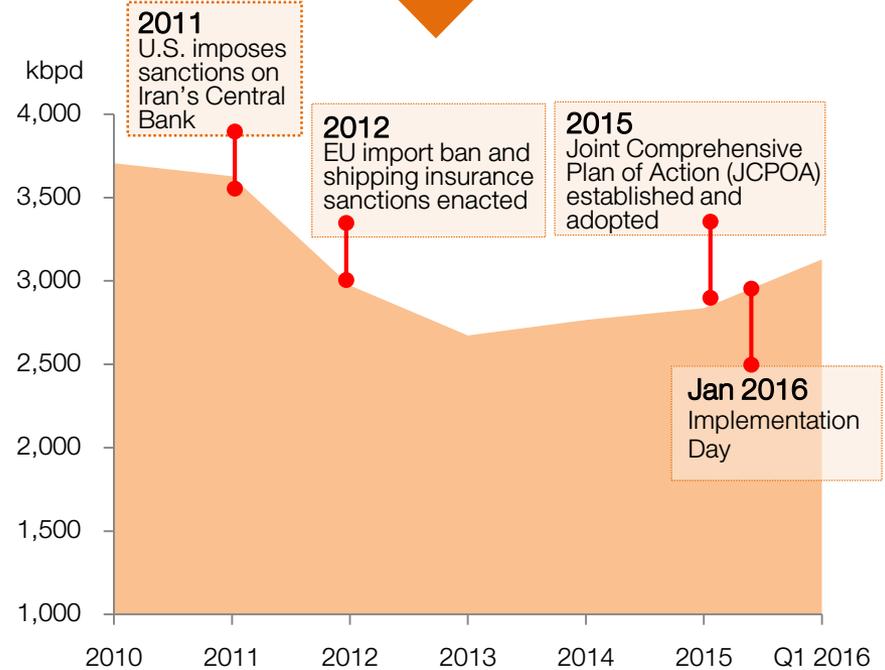
*Start to see an impact on US crude production following investment cuts since end 2014*



Source: Baker Hughes and EIA

## Iran Output

*Iran's crude output has risen by ~300 KBPD after sanctions removed in Jan 2016*



Source: OPEC Monthly Oil Market Report



### Thailand's Natural Gas Supply by Source



Source: EPPO

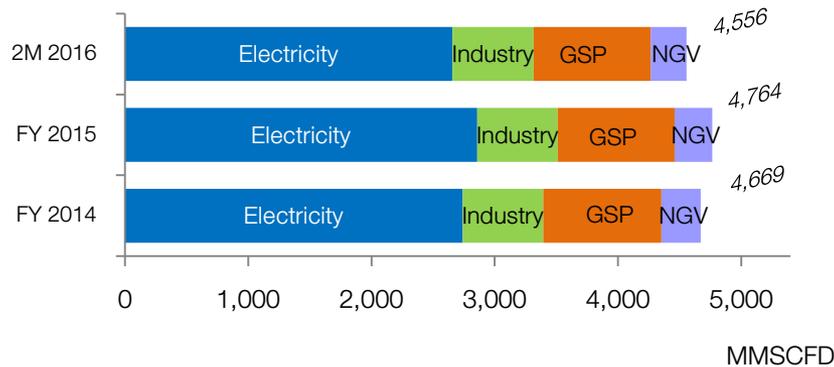
### Exchange Rate Movement (THB/USD)



Source: Bank of Thailand, Bloomberg

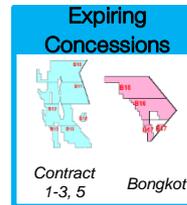
Forecast based on Bloomberg Consensus as of 4 May 2016

### Thailand's Natural Gas Consumption by Sector



Source: EPPO

### Upstream Energy Reform



- According to National Energy Policy Office meeting in May 2015, contractual management plan for expiring concessions to be concluded within one year



- Bidding round process could be resumed after amendments to Petroleum Act is finalized



Safety Performance

Industry Highlights

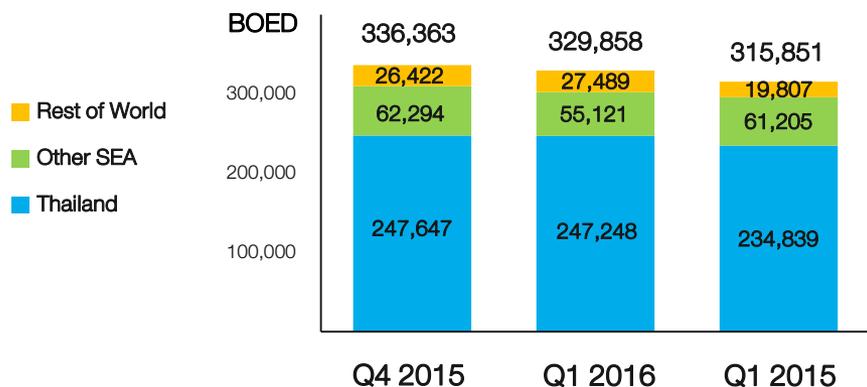
**Financial Results**

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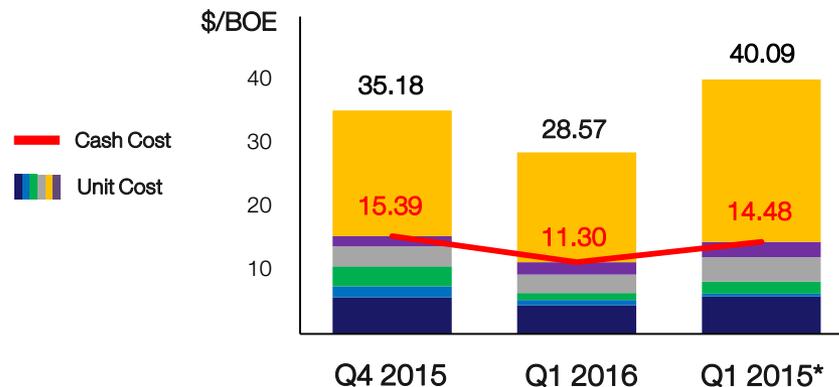
Outlook



## Sales Volume and Price



## Unit Cost



Gas (\$/MMBTU)	6.29	<b>6.09</b>	8.08
Liquid (\$/BBL)	42.22	<b>32.04</b>	50.06
Weighted Avg. (\$/BOE)	39.18	<b>35.08</b>	48.95
Avg. Dubai (\$/BBL)	40.71	<b>30.42</b>	51.89
Avg. HSFO (\$/BBL) (High Sulphur Fuel Oil)	33.39	<b>24.67</b>	48.90
Volume Mix (Gas : Liquid)	69 : 31	<b>68 : 32</b>	70 : 30
Revenue Mix (Gas : Liquid)	66 : 34	<b>71 : 29</b>	70 : 30

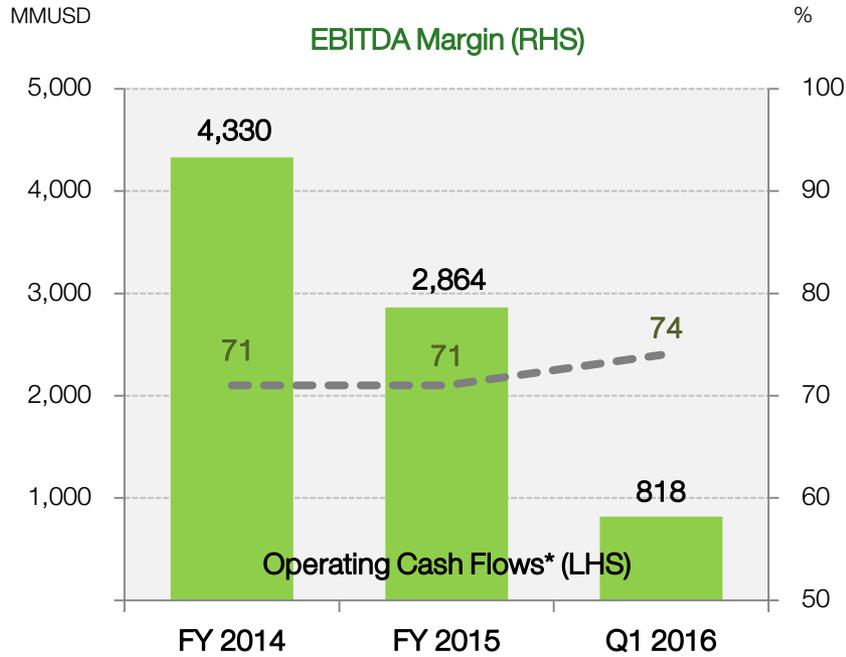
DD&A	19.79	<b>17.27</b>	25.61
Finance Cost	1.60	<b>1.94</b>	2.41
Royalties	3.14	<b>2.94</b>	3.84
G&A	3.16	<b>1.08</b>	1.88
Exploration Expenses	1.73	<b>0.86</b>	0.47
Operating Expenses	5.76	<b>4.48</b>	5.88
Lifting Cost	4.32	<b>3.90</b>	4.57
Drilling Success Ratio**	1 : 5	<b>2 : 3</b>	15 : 18

Remark: \* Restated

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

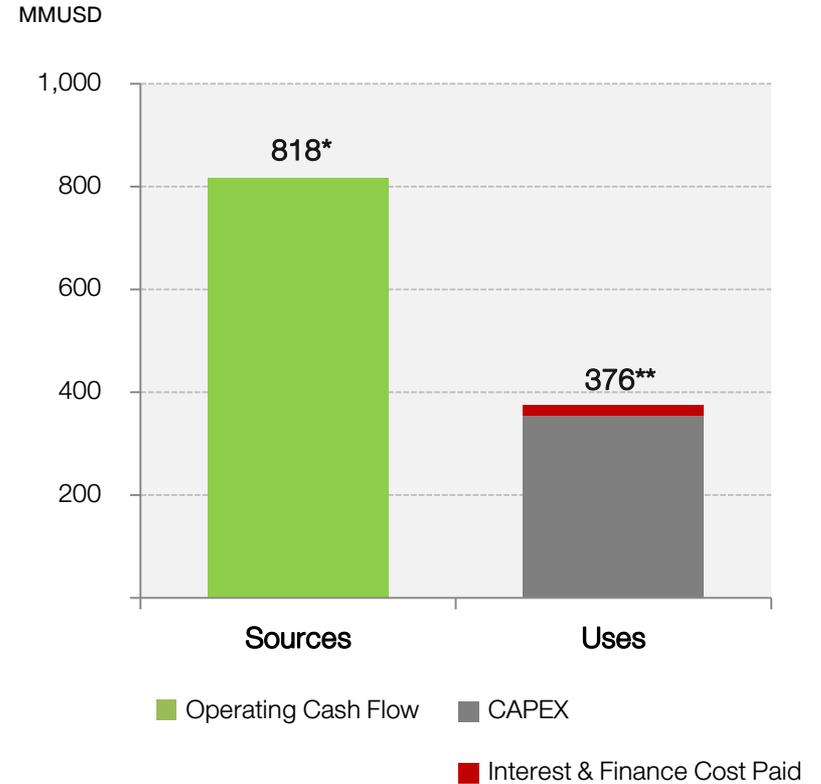


### Cash Flow Performance



Net Income	677	(854)	157
Recurring Net Income***	1,538	718	116

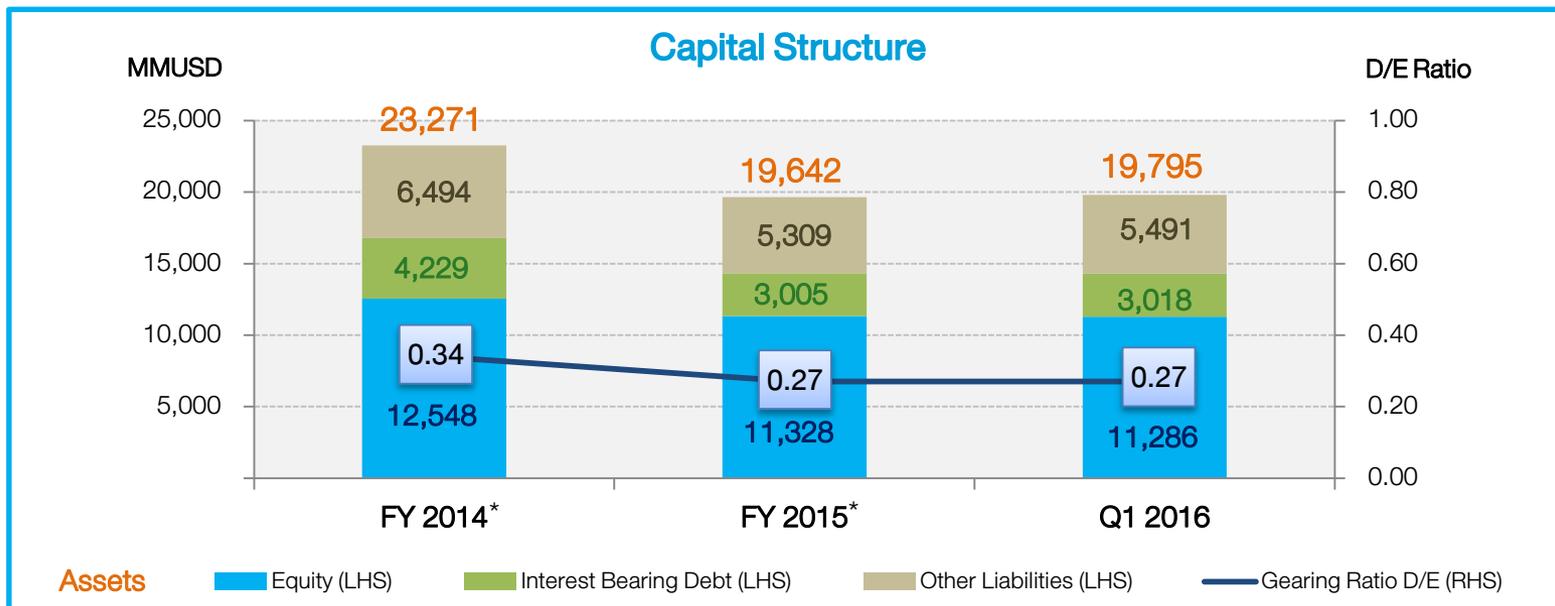
### Source & Use of Funds in Q1 2016



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\*\* (%)

4.14

4.32

4.42

[Fixed : Floating]

[77 : 23]

[82 : 18]

[82 : 18]

Average Loan Life\*\* (Years)

7.05

8.17

8.54

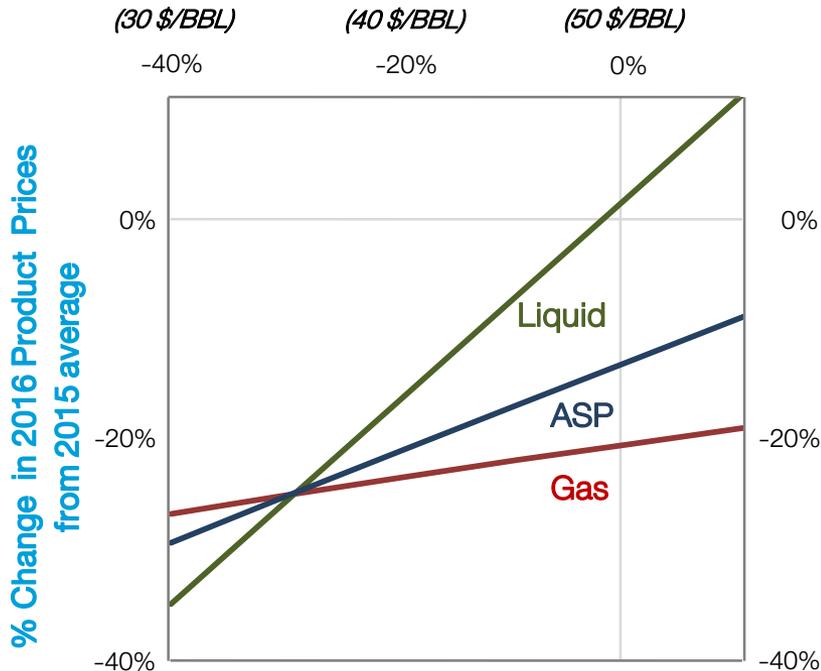
Remark: \* Restated

\*\* Excludes Hybrid bonds

## Product price sensitivity to oil price

- Liquid price largely moves in line with crude price
- Gas price impacted by last year's crude price due to lag time in price adjustment

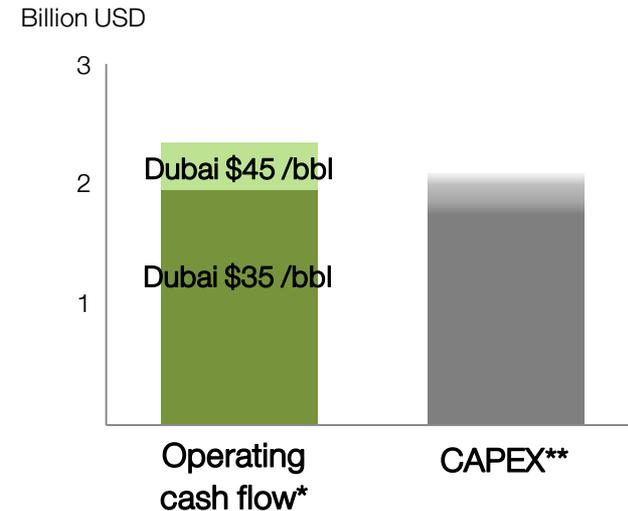
**% Change in 2016 Dubai from 2015 average**  
(average 2015 Dubai at \$50/BBL)



## 2016 liquidity outlook

- Solid cash flow from operations despite continued drop in gas price
- No debt maturity in 2016/17

### 2016 Projected Cash Flow



\* assumes various operational assumptions and modelled on varying Dubai prices

\*\* ranges from 1.9-2.1 billion USD based on the announced 2016 CAPEX and subsequent reduction target of 10%



Safety Performance

Industry Highlights

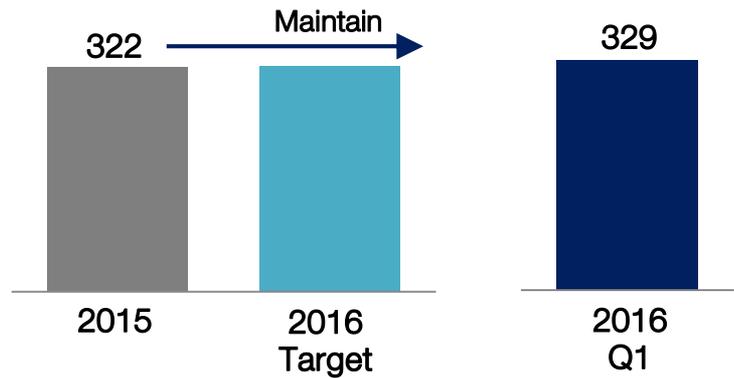
Financial Results

Outlook



## Maintain sales volume

Unit: KBOED



## 2016 full year guidance

Full Year
~5.5 USD/MMBTU
~322 KBOED
~65 % of sales revenue
< 34 USD / BOE



Average Gas Price \*



Average Sales Volume



EBITDA Margin

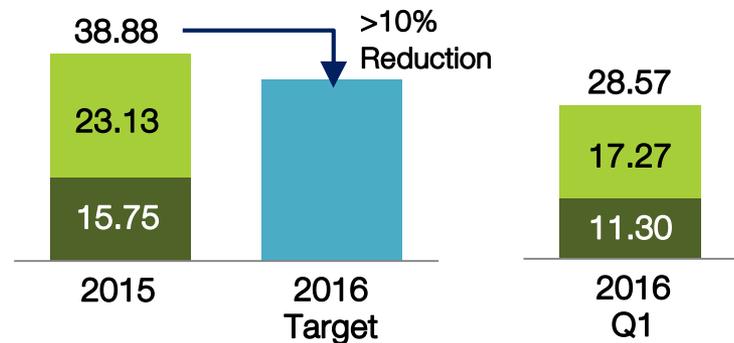


Unit Cost

## Bring down unit cost

Unit: USD/BOE

Cash Non-cash



\* Based on the average Dubai crude oil price of 39 USD/BBL in 2016 after taking into account the Q1 2016 average price of 30.42 USD/BBL



## RESET

## REFOCUS

## RENEW



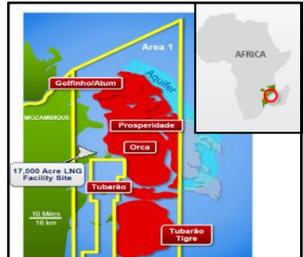
Progressing on pre-development candidates

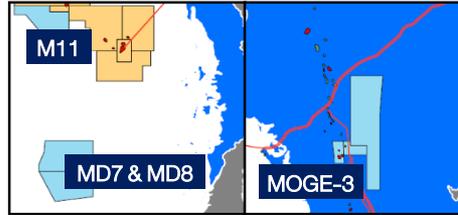
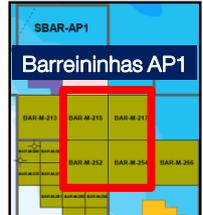


Exploration in new prospective areas



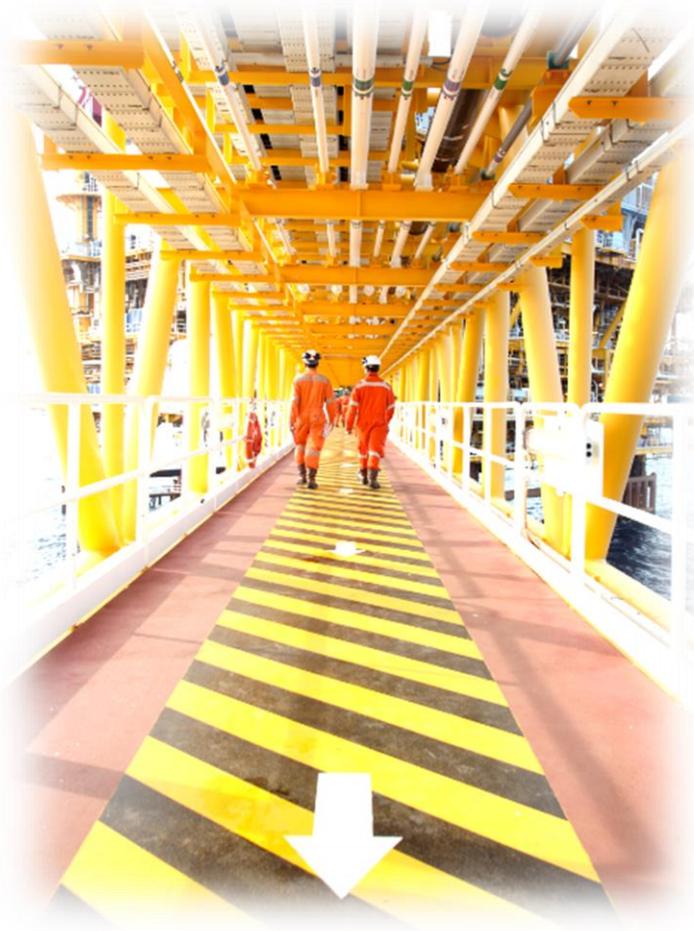
Evaluate new investment opportunities

Mozambique	Algeria
 <ul style="list-style-type: none"> <li>Focus on finalizing commercial agreements</li> </ul>	 <ul style="list-style-type: none"> <li>To complete exploration and appraisal program</li> <li>Assess resources and development concept</li> </ul>

Myanmar (offshore, onshore)	Brazil
 <ul style="list-style-type: none"> <li>Conduct 2D / 3D seismic surveys</li> </ul>	 <ul style="list-style-type: none"> <li>Prepare for 3D seismic survey</li> </ul>

Southeast Asia	LNG value chain
 <ul style="list-style-type: none"> <li>Producing / near-term producing assets</li> <li>Prospective exploration blocks</li> </ul>	 <ul style="list-style-type: none"> <li>Evaluate feasibility to form LNG partnership with PTT</li> </ul>

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



- ✓ On track to achieve stable sales volume
- ✓ Competitive operating performance through better cost structure
- ✓ Ample liquidity with solid cash flow and significant cash on hand
- ✓ Options for long-term growth through organic and inorganic investments



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



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Detailed financial information	19-23
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Unit : MMUSD

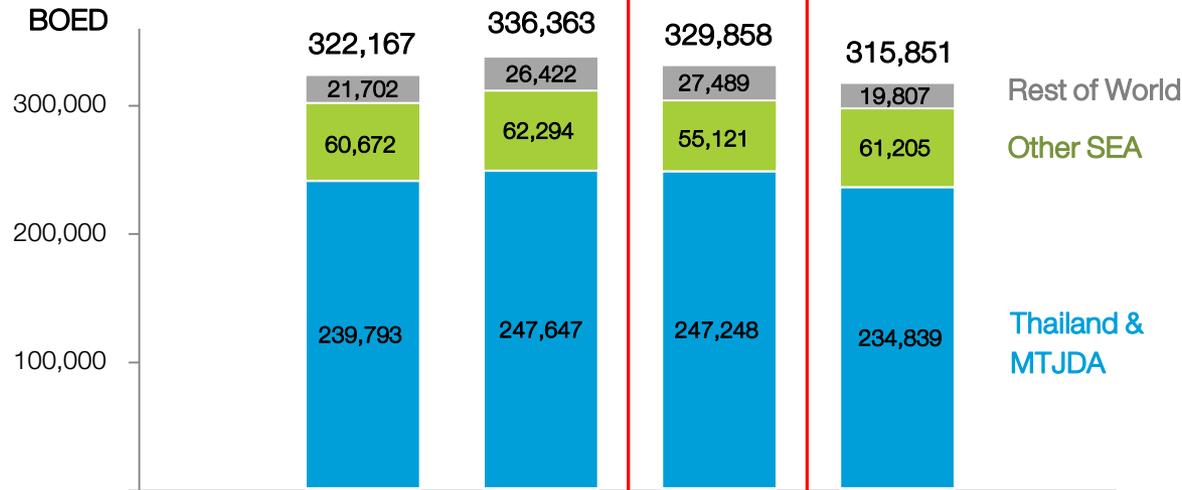
Statement of Income	Q4 15	Q1 16	% QoQ	Q1 15*	% YoY
<b>Total Revenues</b>	1,337	<b>1,093</b>	(18)	1,453	(25)
Sales	1,213	<b>1,053</b>	(13)	1,392	(24)
Others	124	<b>40</b>	(68)	61	(34)
Sales Volume (BOED)	336,363	<b>329,858</b>	(2)	315,851	4
Sales Price (USD/BOE)	39.18	<b>35.08</b>	(10)	48.95	(28)
<b>Total Expenses</b>	1,205	<b>936</b>	(22)	1,189	(21)
<b>Major Expenses:</b>					
Operating Expenses	178	<b>135</b>	(24)	167	(19)
Exploration Expenses	53	<b>26</b>	(51)	13	100
DD&A	612	<b>518</b>	(15)	728	(29)
Income Tax Expense	119	<b>30</b>	(75)	18	67
(Gain)/Loss on FX	(4)	<b>(6)</b>	(50)	34	>(100)
<b>Net Income</b>	<b>132</b>	<b>157</b>	<b>19</b>	<b>264</b>	<b>(41)</b>
Recurring Net Income	13	<b>116</b>	>100	248	(53)
Non-Recurring**	119	<b>41</b>	(66)	16	>100

\* Restated

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



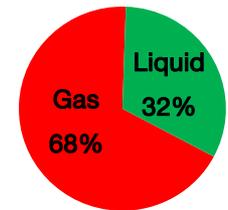
## Sales Volume



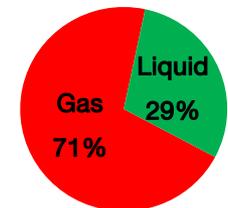
Sales Price	2015	Q4 15	Q1 16	Q1 15
Gas (\$/MMBTU)	7.20	6.29	6.09	8.08
Liquid (\$/BBL)	50.05	42.22	32.04	50.06
Weighted Avg. (\$/BOE)	45.29	39.18	35.08	48.95
Avg. Dubai (\$/BBL)	50.91	40.71	30.42	51.89
Avg. HSFO (\$/BBL) (High Sulphur Fuel Oil)	44.86	33.39	24.67	48.90

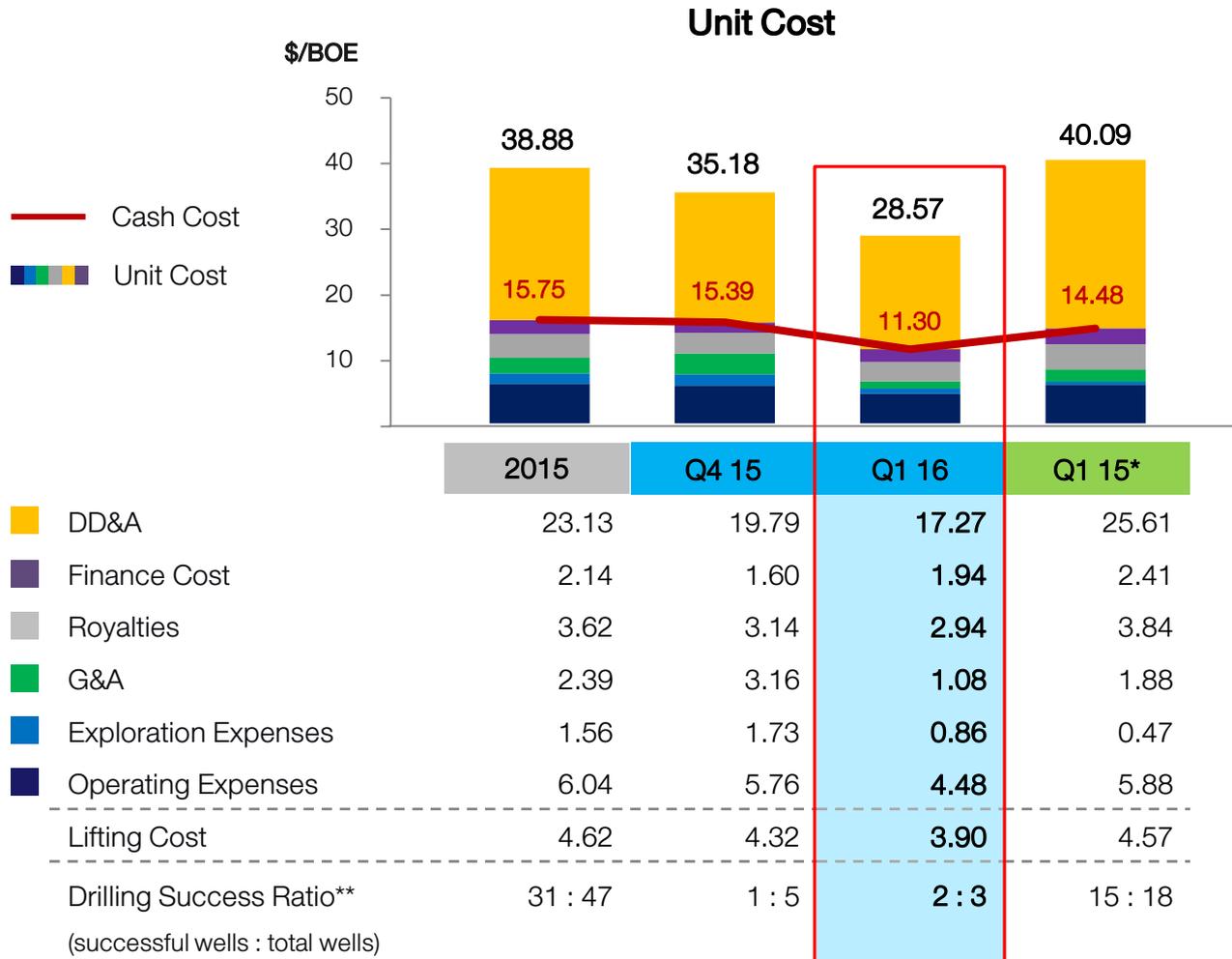
### Q1 2016 Sales Volume & Revenue By Product

#### Volume Mix



#### Revenue Mix





Note: \* Restated

\*\* Exploration and Appraisal Wells

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



	Q4 15	Q1 16	Q1 15*
Sales Revenue** (MMUSD)	1,236	1,070	1,427
EBITDA (MMUSD)	809	789	1,084
Net Income (MMUSD)	132	157	264
Recurring Net Income (MMUSD)	13	116	248
Earning Per Share (USD)	0.02	0.04	0.07
<b>Key Financial Ratios</b>			
EBITDA Margin (%)	65	74	76
Return on Equity (%) (LTM)	(7)	(8)	5
Return on Capital Employed (%) (LTM)	(5)	(5)	4
Return on Equity (%) (LTM, Recurring Net Income)	6	5	11
Return on Capital Employed (%) (LTM, Recurring Net Income)	5	5	10

Note: \* Restated

\*\* Sales and revenue from pipeline transportation

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



	Q4 15	Q1 16
Total Assets (MMUSD)	19,642	19,795
- Cash & cash equivalents* (MMUSD)	3,260	3,702
Total Liabilities (MMUSD)	8,314	8,509
- Interest bearing debt (MMUSD)	3,005	3,018
Equity (MMUSD)	11,328	11,286
<b>Key Financial Ratios</b>		
Total Debt to Equity (X)	0.27	0.27
Net Debt* to Equity (X)	(0.02)	(0.06)
Total Debt to Capital (X)	0.21	0.21
Total Debt to EBITDA (X)	0.78	0.85
Net Debt* to EBITDA (X)	(0.07)	(0.19)
EBITDA Interest Coverage (X)	24	24

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

**Weighted Average Cost of Debt\*\* :** 4.42%

**Average Loan Life\*\* :** 8.54 years

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

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

\*\* Excludes hybrid bonds

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



Project	Status*	PTTEP's Share	Partners (as of Q1 2016)	Q1 2016 Average Sales Volume **		2016 Key Activities	
				Gas	Oil and Other		
<b>Production Phase</b>							
<b>Thailand and JDA</b>							
1	Arthit	OP	80%	Chevron MOECO	16% 4%	234 MMSCFD Condensate: 9.2 k BPD	<ul style="list-style-type: none"> <li>• Ensure gas deliverability level at DCQ****</li> <li>• Drill development wells</li> <li>• Install wellhead platforms</li> </ul>
2	B6/27	OP	60%***			N/A N/A	<ul style="list-style-type: none"> <li>• Subsurface study</li> </ul>
3	B8/32 & 9A		25%	Chevron MOECO KrisEnergy PSTL	51.66% 16.71% 4.63% 2%	129 MMSCFD Crude: 30 k BPD	<ul style="list-style-type: none"> <li>• Drill development wells</li> <li>• Perform waterflood activities</li> </ul>
4	Bongkot	OP	44.4445%	TOTAL British Gas	33.3333% 22.2222%	901 MMSCFD Condensate: 31 k BPD	<ul style="list-style-type: none"> <li>• Ensure gas deliverability level at DCQ****</li> <li>• Drill Exploration / Appraisal / Development wells</li> <li>• Install wellhead platforms</li> </ul>
5	Contract 3 (Formerly Unocal III)		5%	Chevron MOECO	71.25% 23.75%	558 MMSCFD Crude: 25 k BPD Condensate: 20 k BPD	<ul style="list-style-type: none"> <li>• Drill exploration / appraisal / development wells</li> <li>• Install wellhead platforms</li> <li>• Perform waterflood activities</li> </ul>
6	Contract 4 (Formerly Pailin)		60%	Chevron MOECO	35% 5%	333 MMSCFD Condensate: 15 k BPD	<ul style="list-style-type: none"> <li>• Ensure gas deliverability level at DCQ****</li> <li>• Drill exploration / appraisal / development wells</li> <li>• Install wellhead platforms</li> <li>• Review development plan of Ubon field</li> </ul>
7	E5		20%	ExxonMobil	80%	12 MMSCFD -	
8	G4/43		21.375%	Chevron MOECO PSTL	51% 21.25% 6.375%	1.2 MMSCFD Crude: 7.2 k BPD	<ul style="list-style-type: none"> <li>• Drill development wells</li> <li>• Perform waterflood activities</li> </ul>
9	G4/48		5%	Chevron MOECO	71.25% 23.75%	5.2 MMSCFD Crude: 479 BPD	
10	L53/43 & L54/43	OP	100%			- Crude: 137 BPD	<ul style="list-style-type: none"> <li>• Drill exploration and development wells</li> </ul>
11	PTTEP1	OP	100%			- Crude: 397 BPD	<ul style="list-style-type: none"> <li>• Drill development wells</li> <li>• Perform waterflood activities</li> </ul>
12	S1	OP	100%			23 MMSCFD Crude: 28 k BPD	<ul style="list-style-type: none"> <li>• Drill exploration / appraisal / development wells</li> <li>• Enhance oil recovery program includes waterflooding and artificial lift</li> </ul>
13	Sinphuhorm	OP	55%	Apico ExxonMobil	35% 10%	124 MMSCFD Condensate: 482 BPD	<ul style="list-style-type: none"> <li>• Drill development wells</li> </ul>
14	MTJDA	JOC	50%	Petronas-Carigali	50%	314 MMSCFD Condensate: 6.3 k BPD	<ul style="list-style-type: none"> <li>• Drill development wells</li> <li>• Install wellhead platforms</li> </ul>
15	L22/43	OP	100%			- Crude: 82 BPD	<ul style="list-style-type: none"> <li>• Drill exploration / development wells</li> </ul>

\* 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 2016)	Q1 2016 Average Sales Volume **		2016 Key Activities	
					Gas	Oil and Other		
<b>Production Phase</b>								
<b>Overseas</b>								
16	Oman 44	OP	100%			23 MMSCFD	Condensate: 1.3 k BPD	<ul style="list-style-type: none"> <li>Maintain production operation</li> </ul>
17	Vietnam 9-2	JOC	25%	PetroVietnam 50% SOCO 25%		12 MMSCFD	Crude: 2.7 k BPD	<ul style="list-style-type: none"> <li>Maintain production operation</li> <li>Perform reservoir management</li> </ul>
18	Yadana		25.5%	TOTAL 31.24% Chevron 28.26% MOGE 15%		707 MMSCFD	-	<ul style="list-style-type: none"> <li>Drill exploration / development wells</li> <li>Acquire 2D seismic reprocessing</li> <li>Perform reservoir management</li> </ul>
19	Yetagun		19.3178%	Petronas-Carigali 30.00140% MOGE Nippon Oil 20.4541% PC Myanmar 19.3178% (Hong Kong) 10.90878%		233 MMSCFD	Condensate: 4 k BPD	<ul style="list-style-type: none"> <li>Drill development wells</li> <li>Perform reservoir Management</li> </ul>
20	Vietnam 16-1	JOC	28.5%	PetroVietnam 41% SOCO 28.5% OPECO 2%		15 MMSCFD	Crude: 27 k BPD	<ul style="list-style-type: none"> <li>Drill development wells</li> <li>Perform reservoir management</li> <li>Review feasibility for water handling facility upgrade</li> </ul>
21	PTTEP Australasia (PTTEP AA)	OP	20%-100% (varied by permits)			-	Crude: 20 k BPD	<ul style="list-style-type: none"> <li>Maintain production operation</li> <li>Assess resource potential of exploration permits</li> </ul>
22	Natuna Sea A		11.5%	Premier Oil 28.67% KUFPEC 33.33% Petronas 15% Pertamina 11.5%		218 MMSCFD	Crude: 2.2 k BPD	<ul style="list-style-type: none"> <li>Maintain production operation</li> </ul>
23	Zawtika (M9 & a part of M11)	OP	80%	Myanma Oil and Gas Enterprise (MOGE) 20%		276 MMSCFD	-	<ul style="list-style-type: none"> <li>Maintain production rate</li> <li>Drill development wells</li> <li>Install wellhead platforms</li> </ul>
24	Algeria 433a & 416b (Bir Seba)	JOC	35%	PetroVietnam 40% Sonatrach 25%		-	Crude: 2 k BPD (net entitlement)	<ul style="list-style-type: none"> <li>Maintain production operation</li> <li>Review field development plan for possible capacity expansion</li> </ul>

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

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



	Project	Status*	PTTEP's Share	Partners (as of Q1 2016)	2016 Key Activities
<b>Exploration Phase</b>					
<b>Thailand and JDA</b>					
25	G9/43	OP	100%		
<b>Overseas</b>					
26	Myanmar M3	OP	80%	MOECO 20%	• Access development options and commercial potential
27	Mozambique Rovuma Offshore Area 1		8.5%	Anadarko, Mitsui, ENH, Bharat Petroleum, BREML, OVL 26.5%,20%, 15%,10%, 10%,10%	• Preparatory work for Final Investment Decision (FID) including LNG marketing and finalization of remaining commercial contracts
28	Algeria Hassi Bir Rekaiz	OP	24.5%	CNOOC 24.5% Sonatrach 51%	• Drill Appraisal wells
29	Myanmar M11	OP	100%**		
30	Vietnam B & 48/95		8.5%	PVN 65.88% MOECO 25.62%	• Negotiate a GSA with the Vietnamese government
31	Vietnam 52/97		7%	PVN 73.4% MOECO 19.6%	• Negotiate a GSA with the Vietnamese government
32	Myanmar PSC G and EP 2	OP	70%	WinPreciousRes 10% ources 10% MOECO 10% Palang Sophon Offshore	• Conduct G&G studies
33	Kenya L11A, L11B, L12		10%	Anadarko 50% Total 30% ENI 10%	• Conduct G&G studies

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

\*\* New participating interest subject to government approval



	Project	Status*	PTTEP's Share	Partners (as of 2015)	2016 Key Activities
<b>Exploration Phase</b>					
<b>Overseas (Cont'd)</b>					
34	Myanmar MD 7 and MD 8	OP	100%		
35	Mariana Oil Sands	OP	100%		<ul style="list-style-type: none"> <li>Assess development approach and cost reduction opportunity</li> </ul>
36	Barreirinhas AP1		25%	BG Brasil 75%	<ul style="list-style-type: none"> <li>Acquire 3D seismic</li> </ul>
37	Myanmar MOGE 3	OP	75%	Palang Sophon Offshore 10% MOECO 10% WinPreciousResources 5%	<ul style="list-style-type: none"> <li>Acquire 3D seismic</li> </ul>
38	Brazil BM-ES-23		20%	Petrobras 65% INPEX 15%	<ul style="list-style-type: none"> <li>Drilling result and resource evaluation</li> </ul>

Remarks: 38 projects exclude 5 projects that are pending official withdrawal approval

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





Ratio	Formula
Lifting Cost (\$/BOE)	$(\text{Operating Exp.}) / \text{Production Volume}$
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	$\text{Trailing-12-month EBITDA} / \text{Trailing-12-month Interest Expenses \& Amortize Bond Issuing Cost}$