### **PTT Exploration and Production Public Company Limited**

Credit Suisse Asian Investment Conference Hong Kong 5–6 April 2016



Dow Jones Sustainability Indices









# **Company & Financial Highlights**

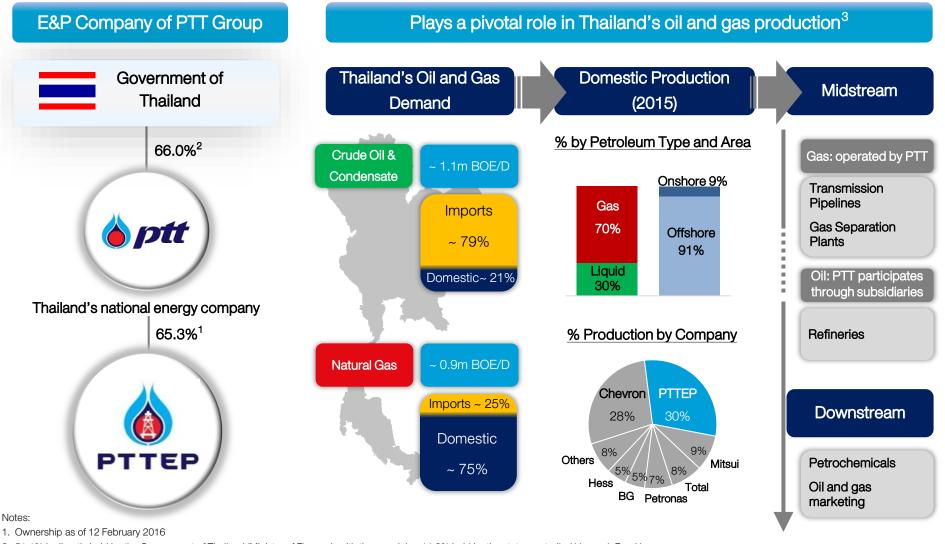
### Strategy & Outlook

Highlights

Strategies



PTTEP: the E&P company of PTT Group
 Contributes almost 1/3 of Thailand's petroleum production



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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

3. Source: Energy Policy and Planning Office (EPPO) and Department of Mineral Fuels (DMF)

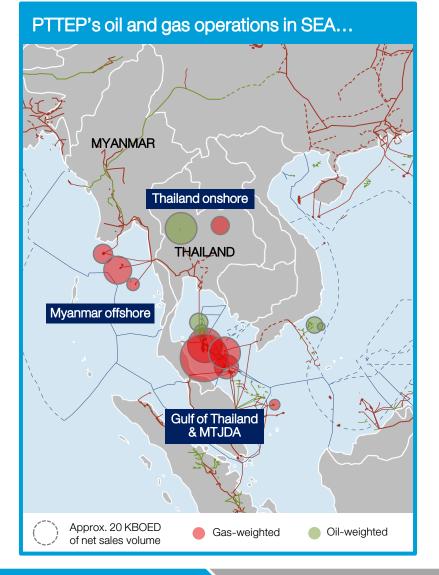
**Highlights** 

Strategies

Key Takeaways

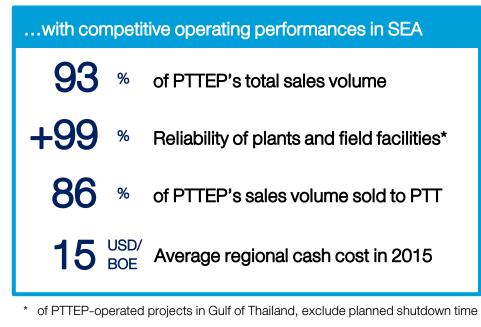






#### ... is uniquely positioned

- The 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 capability into regional investments



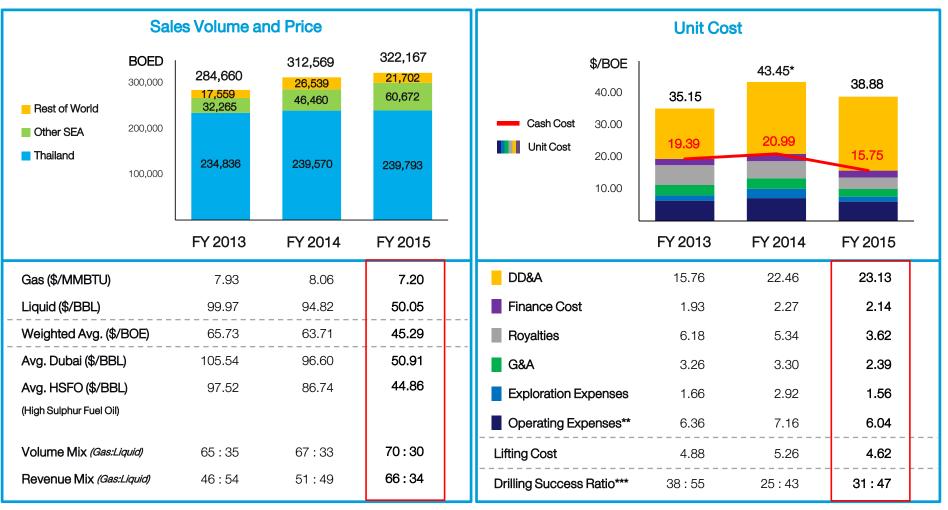
#### Highlights

Strategies

Key Takeaways



**PTTEP** Continuing sales volume growth and improved unit cost performance



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

If exclude extra expense from Montara's Development well (H5): For 2014, Operating Exp: 6.73 \$/BOE / Unit cost: 43.02 \$/BOE

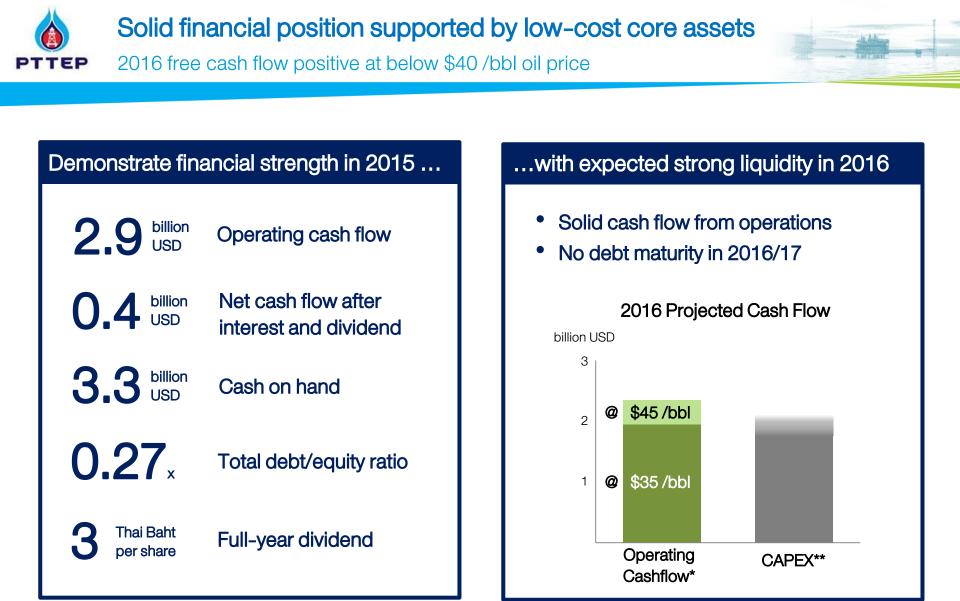
\*\* Exclude diluent cost for blending bitumen in KKD Oil Sands project

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

#### Highlights

Strategies

Key Takeaways



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\* 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%

Highlights

Key Takeaways







## **Company & Financial Highlights**

### Strategy & Outlook

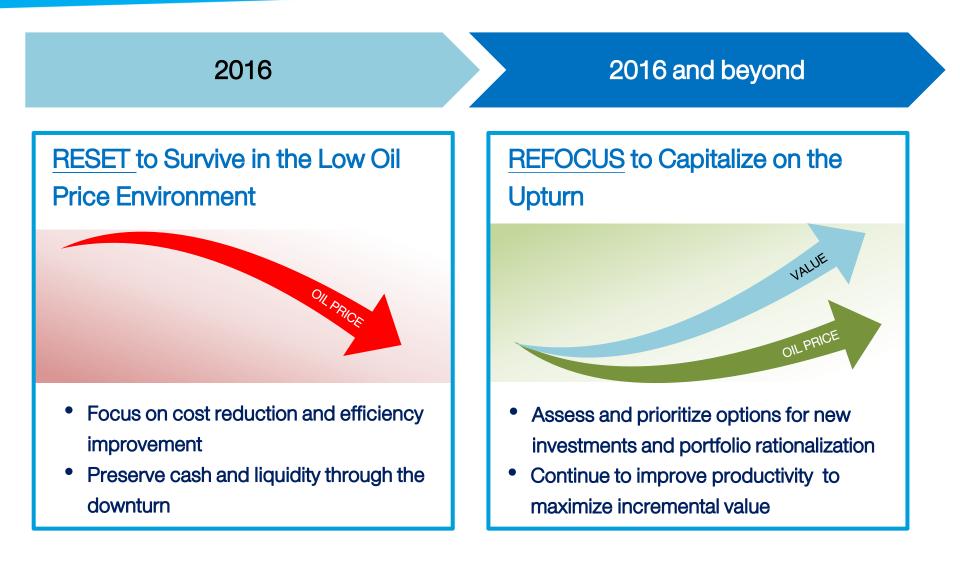
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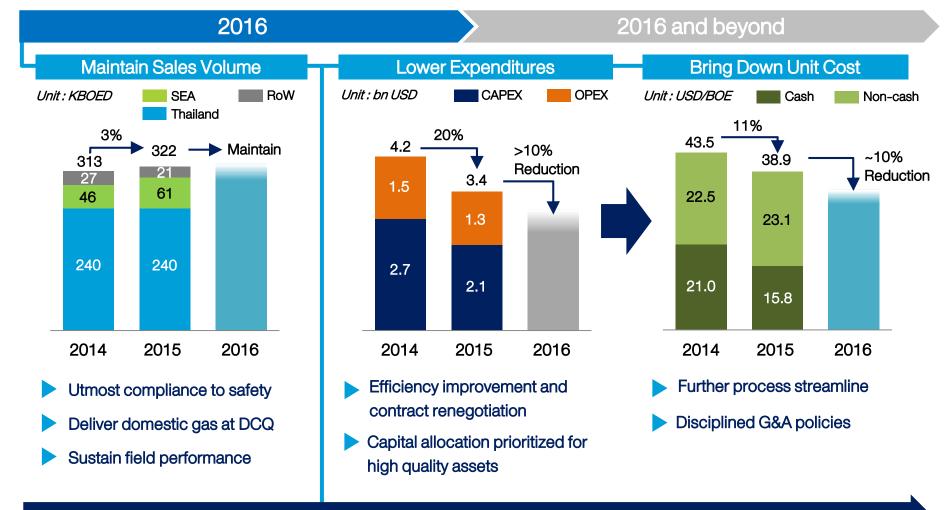




**RESET** to Survive in the Low Oil Price Environment

**PTTEP** Primary focus on cost reduction and maintain reliable operations



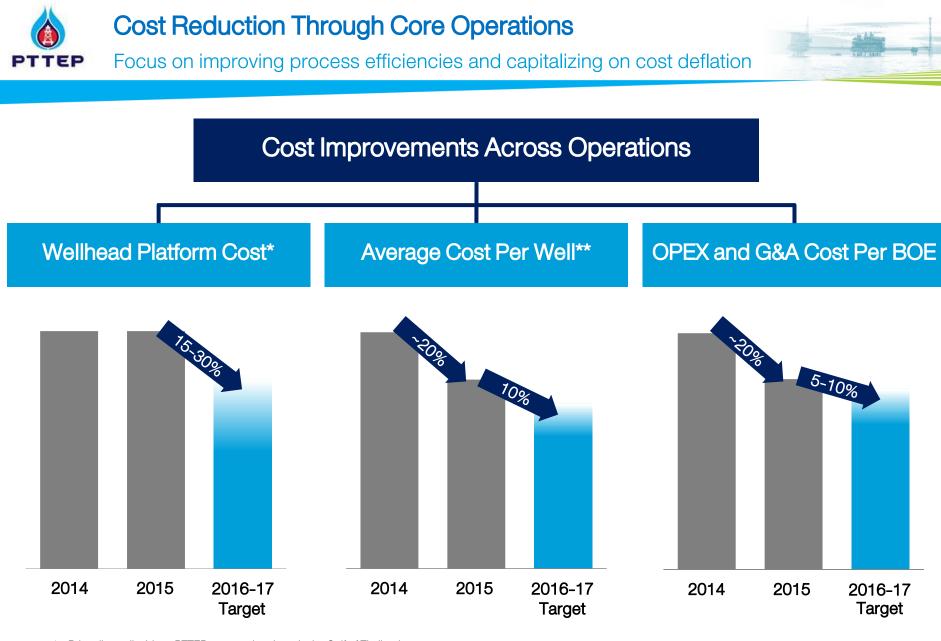


Preserve liquidity and financial flexibility in near-term

**Highlights** 

**Strategies** 

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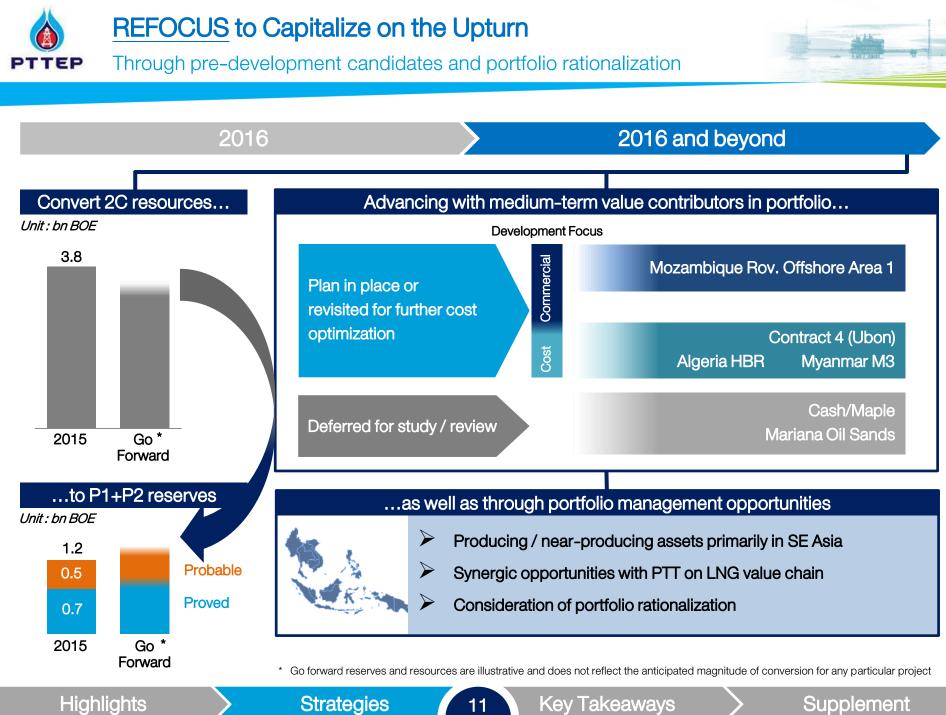
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\* Primarily applicable to PTTEP-operated projects in the Gulf of Thailand

\*\* Primarily applicable to development wells in PTTEP-operated projects in Southeast Asia

Highlights

Key Takeaways



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**Highlights** 

**Strategies** 



#### Uniquely positioned E&P company

- ✓ +90% of sales volume based in growing SE Asia oil and gas market
- Stable revenues from PTT for +80% of sales volume
- Strong ties with PTT / Thailand through direct / indirect ownership

#### Competitive operating performance

- ✓ Low cost operations in SE Asia contributory to ~70% EBITDA margin
- Demonstrated cost discipline with ~20% reduction in OPEX and G&A

#### Financially strong and flexible

- ✓ Well-positioned in downturn with ~3.3 bn USD liquidity available and a low-debt capital structure of 0.27x D/E ratio as of 2015
- A dividend-paying company for over 15 years

### Ample growth opportunities

- Sufficient funding capacity available to capitalize on market upturn through organic and inorganic investments
- LNG value chain opportunities to support growing Thailand market



Key Takeaways







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



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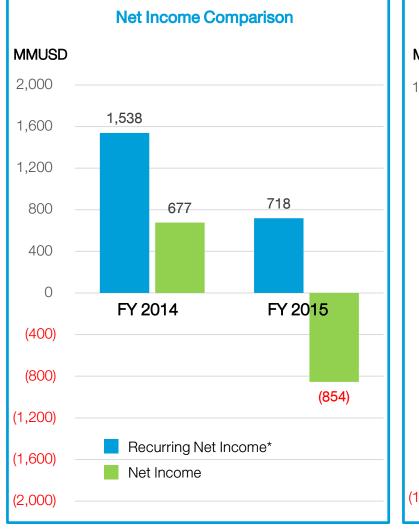
Key Takeaways

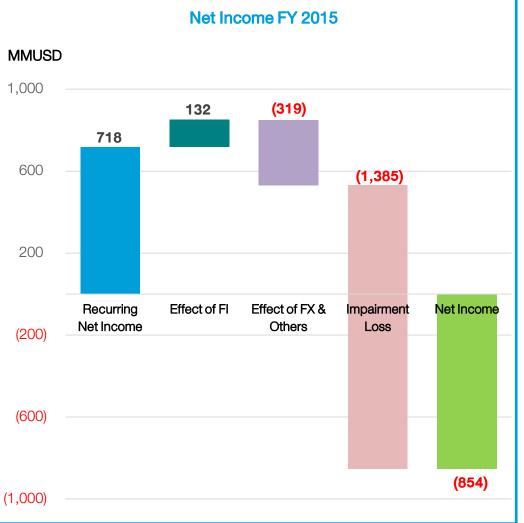
FY 2015 Net Income Breakdown

**PTTEP** Net income primarily hurt by impairment loss



Supplement





Remark: \* 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.

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**Highlights** 

**Cash Flow Performance** 

#### Robust liquidity to fund CAPEX and debt service PTTEP



3,534\*\*

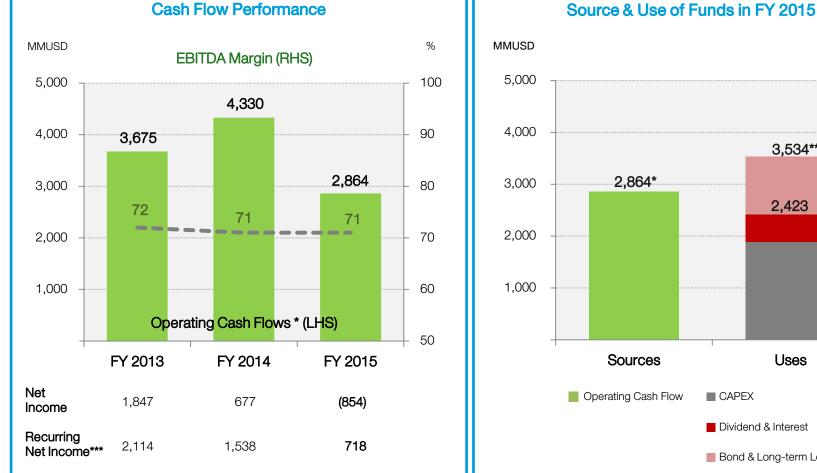
2,423

Uses

Bond & Long-term Loan Repayment

CAPEX

Dividend & Interest



Remark: Sales Volume and sales revenue: after reclassification of PSC royalty

- 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) of 782 MMUSD
- \*\*\* 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.

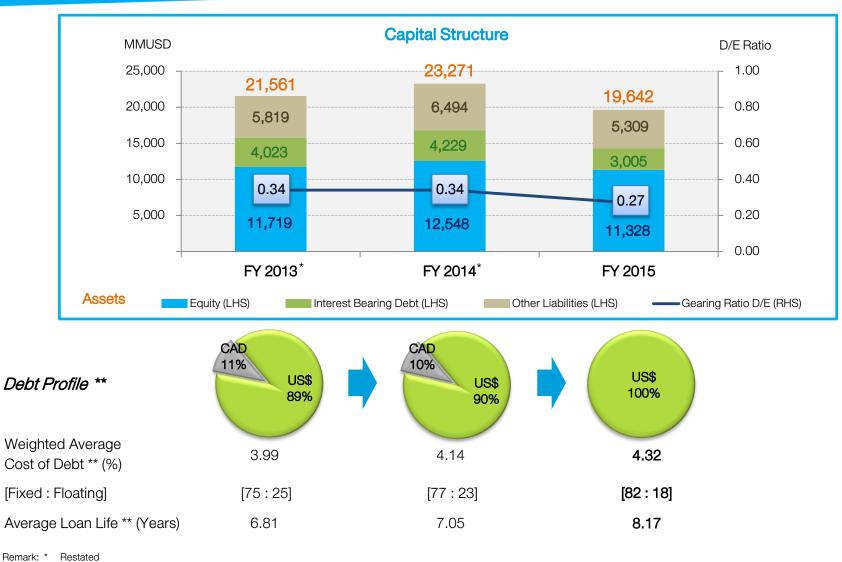
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**Highlights** 

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Key Takeaways





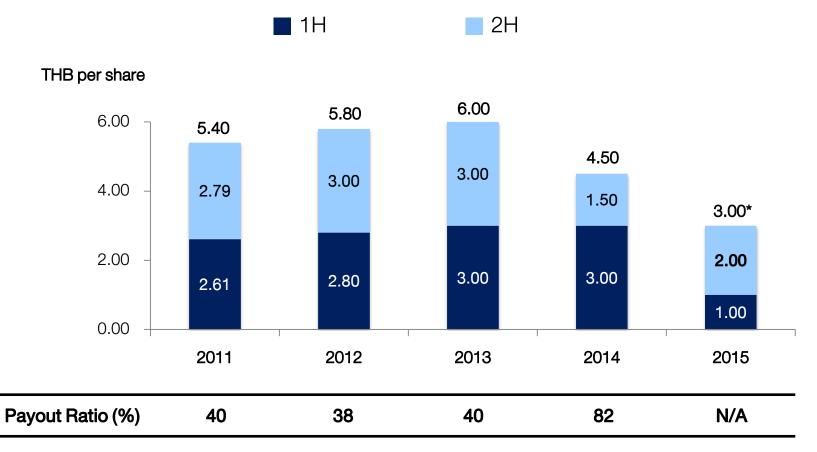
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\*\* Excludes Hybrid bonds

Η	iahl	lights	



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



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Remark: \* Subject to the Annual General Shareholders' Meeting approval

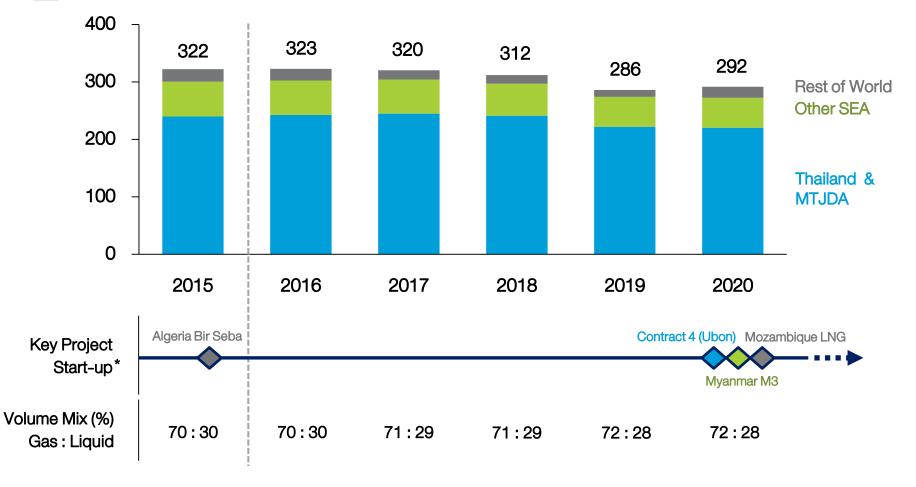
Highlights

Strategies

**Sales Volume Guidance** Stable volume outlook with new project start-up expected in 2020



Unit : KBOED



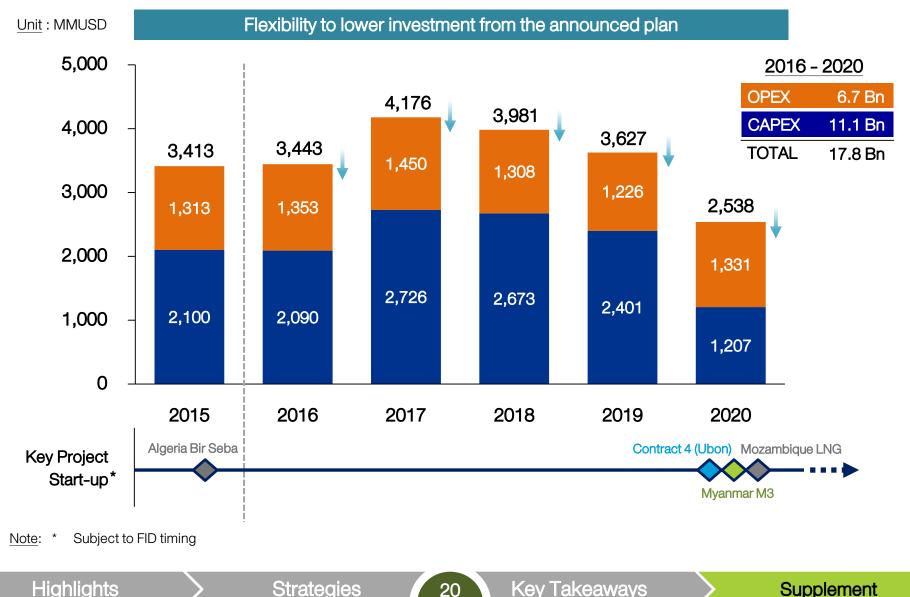
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Note: Sales volume after reclassification of PSC royalty

\* Subject to FID timing

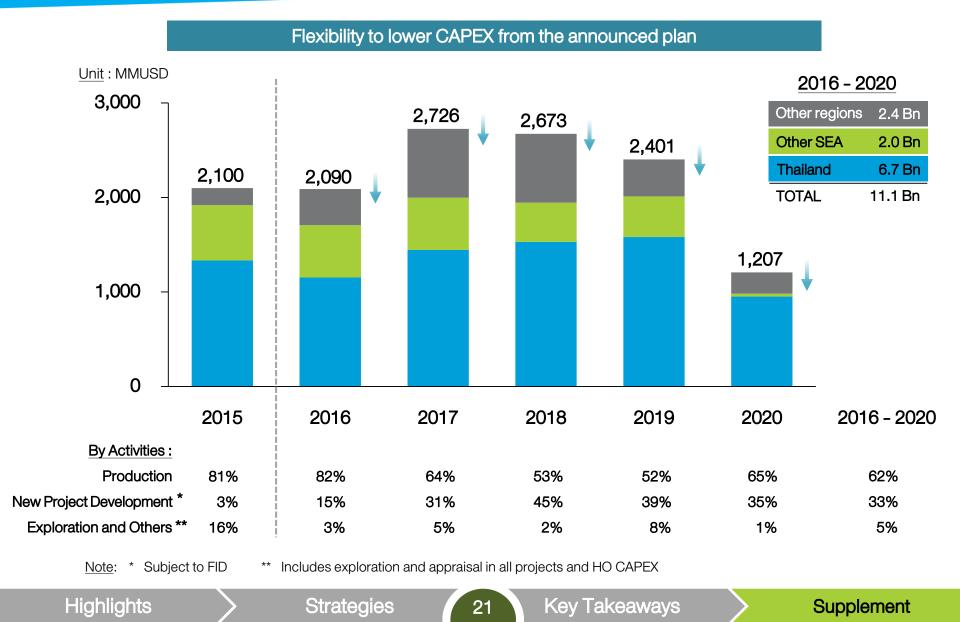
Highlights





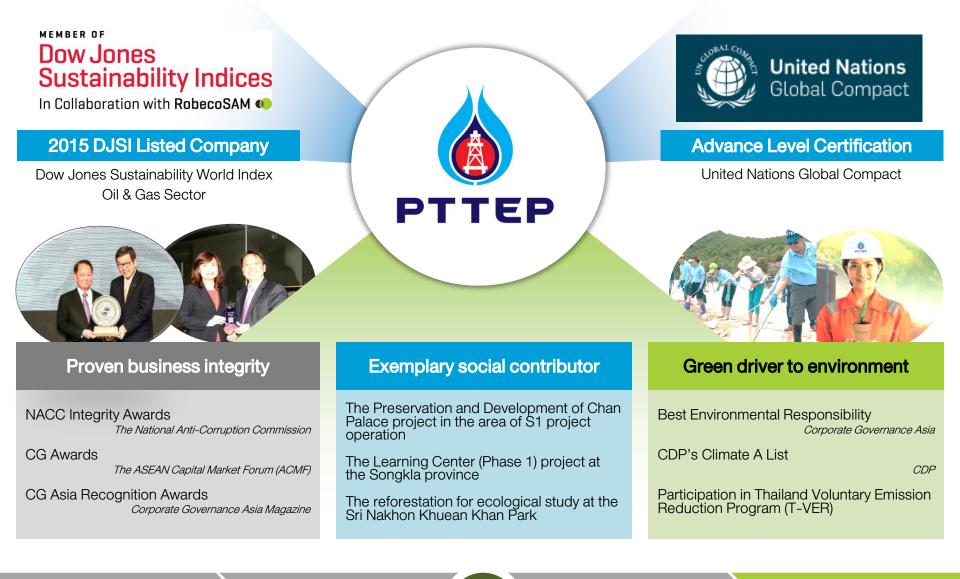
**PTTEP** Approx. two-thirds of CAPEX to maintain output from producing projects

**CAPEX Breakdown** 





**PTTEP** Pursue long-term growth with social and environmental wellness



Highlights

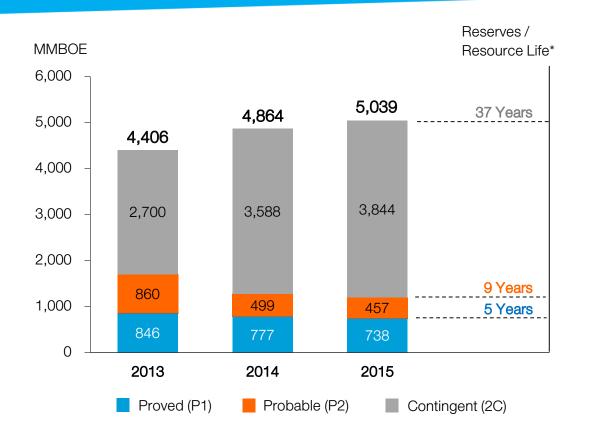
Strategies

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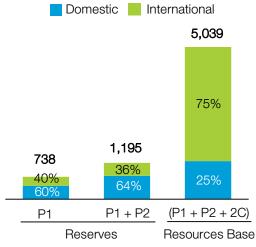
**Reserves and Resources** 

**PTTEP** Growing resources base to support future reserves addition

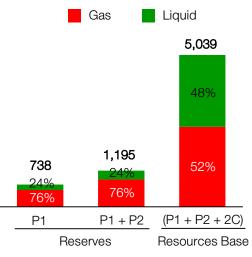




#### 2015 by Geography



#### 2015 by Product Type



Supplement

0.82x 0.45x 0.50x

Strategies

5-Year Average Proved Reserves Replacement Ratio (RRR)

2014

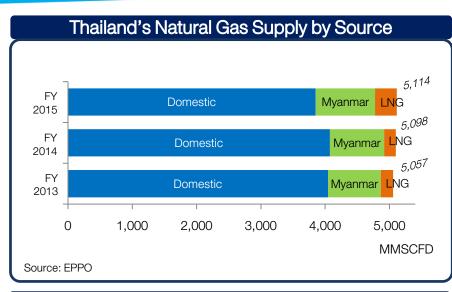
\* Based on total production of natural gas, condensate, and crude oil (including LPG) of 374 KBOED for the year ended December 31, 2015

2013

2015

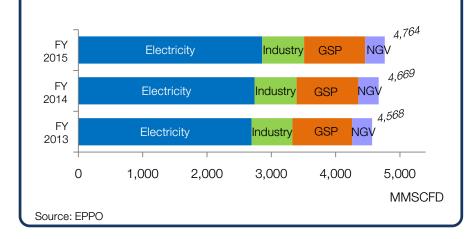
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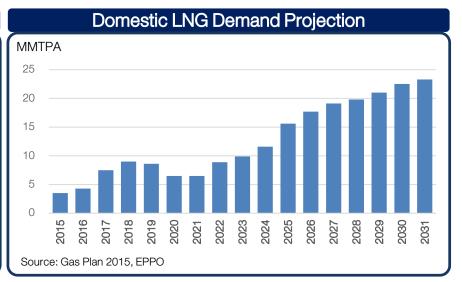
**TTEP** Continuing growth in gas demand whilst stagnant economy depreciated Baht



**Thailand Updates** 

#### Thailand's Natural Gas Consumption by Sector





#### **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

#### Highlights

Key Takeaways

Expiring

Concessions

21st Bidding

Round

Bongkot

Contract

1-3, 5

กระทรวงพลังงาน

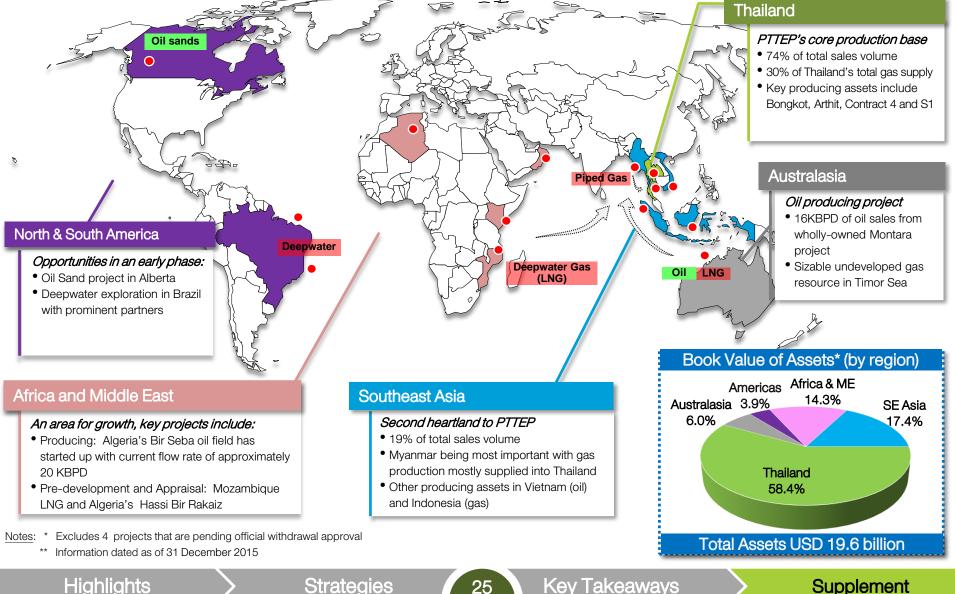
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PETROLEUM BIDDING BOUND

24







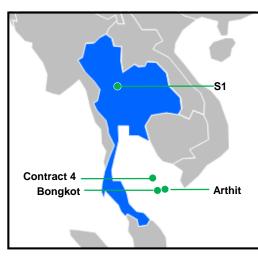
**Highlights** 

Strategies





Thailand



Production / Ramp-up Projects

#### Bongkot (44.4% interest)

- Bongkot's natural gas sales volume of 905 MMSCFD (2015) represents approximately 22% of Thailand's natural gas supply
- Average condensate sales volume was 27.68 KBPD in 2015

#### S1 (100% interest)

- S1 is the largest onshore crude oil production field in Thailand
- Average crude oil sales volume was 29 KBPD in 2015

#### Arthit (80% interest)

 Average sales volume in 2015 was 213 MMSCFD of natural gas and 9 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 305 MMSCD for natural gas and 14 KBPD for condensate in 2015

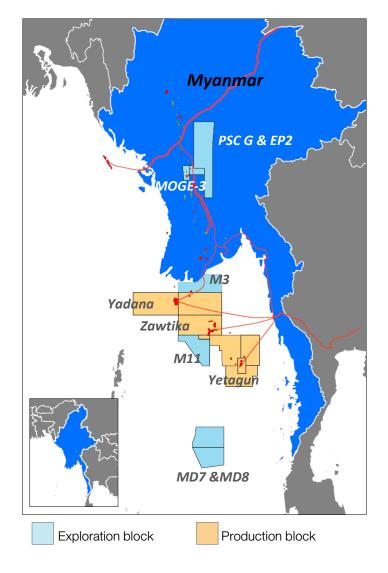
#### Highlights

Strategies

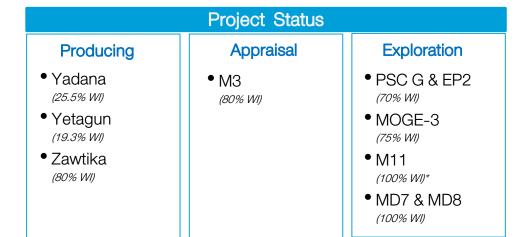




Supplement



- 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 314 MMSCFD in 2015.
- Significant exploration acreage both onshore and offshore in the Moattama Basin



Note: WI – working interest

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\* New participating interest subject to government approval

#### Highlights

Strategies





Supplement



#### Vietnam 16-1 (28.5% interest)

- Average crude oil sales volume of 31.3 KBPD in 2015
- 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 213 MMSCFD, and average sales volume of crude oil was 1.4 KBPD in 2015



Source : Premier Oil

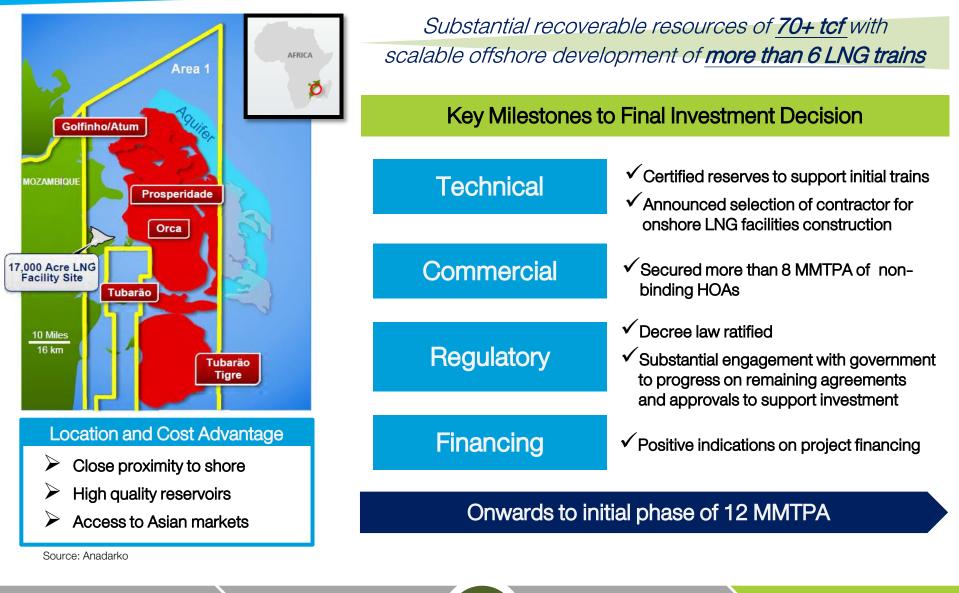


Production / Ramp-up Projects

Highlights

East Africa : Mozambique

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



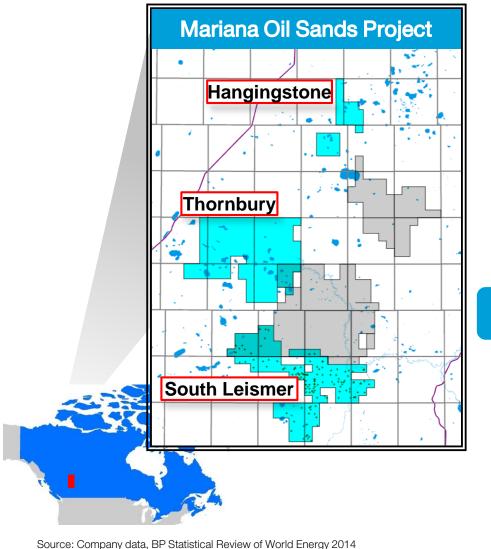
Highlights

Strategies

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Strategies

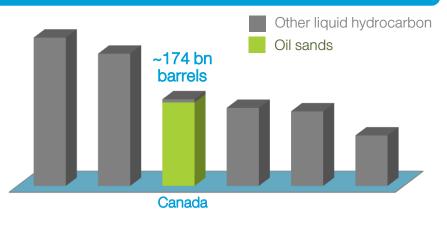


**Highlights** 

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

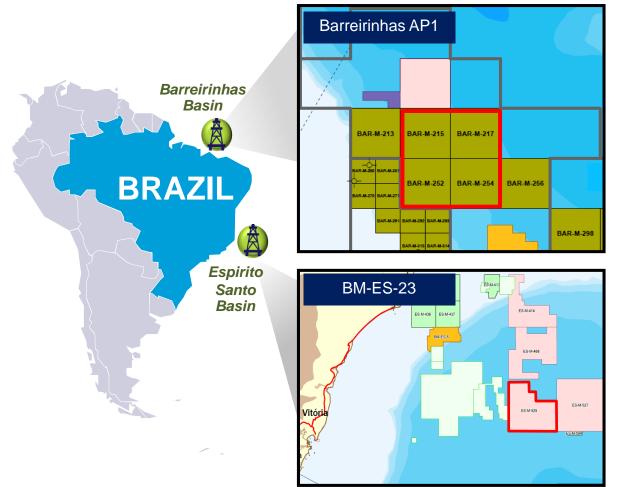


#### Key Takeaways

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Entry into high potential petroleum province at exploration phase PTTEP

America : Brazil Deepwater



- Farm-in 25% from BG Group in 2014 ٠
- Operated by BG Group (75% interest) •
- Four offshore exploration blocks: BAR-M-215, BAR-M-217, BAR-M-252 and BAR-M-254
- Currently preparing for seismic acquisition and ٠ conducting G&G studies

- Acquired 20% interest from Shell in Q3 2014
- Partnered with Petrobras (65%, operator) ٠ and INPEX (15%)
- Drilled 2 exploration wells in 2015 ٠

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

**Highlights** 

Strategies





Supplement

	Project	Status*	Status* PTTEP's Partners 2		2015 Avera	ge Sales Volume **	2016 Key Activities	
			Share	(as of 20	15)	Gas	Oil and Other	
Pro	oduction Phase							
Tha	ailand and JDA							
1	Arthit	OP	80%	Chevron MOECO	16% 4%	213 MMSCFD	Condensate: 9.4 k BPD	<ul> <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	Subsurface study
3	B8/32 & 9A		25%	Chevron MOECO KrisEnergy PSTL	51.66% 16.71% 4.63% 2%	98 MMSCFD	Crude: 26 k BPD	<ul> <li>Drill development wells</li> <li>Perform waterflood activities</li> </ul>
4	Bongkot	OP	44.4445%	TOTAL British Gas	33.3333% 22.2222%	905 MMSCFD	Condensate: 28 k BPD	<ul> <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%	561 MMSCFD	Crude: 20 k BPD Condensate: 19 k BPD	<ul> <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%	305 MMSCFD	Condensate: 14 k BPD	<ul> <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%	2 MMSCFD	Crude: 6.7 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 MMSCFD	Crude: 981 BPD	
10	L53/43 & L54/43	OP	100%			-	Crude: 297 BPD	Drill exploration and development wells
11	PTTEP1	OP	100%			-	Crude: 386 BPD	<ul> <li>Drill development wells</li> <li>Perform waterflood activities</li> </ul>
12	S1	OP	100%			26 MMSCFD	Crude: 29 k BPD	<ul> <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%	121 MMSCFD	Condensate: 460 BPD	Drill development wells
14	MTJDA	JOC	50%	Petronas-Carigali	50%	326 MMSCFD	Condensate: 7.3 k BPD	Drill development wells     Install wellhead platforms
15	L22/43	OP	100%			-	Crude: 50 BPD	Drill exploration / 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

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Strategies





	Project	Status*	PTTEP's	P's Partners		2015 Average Sales Volume **		2016 Key Activities
			Share	(as of 20	)15)	Gas	Oil and Other	
<u>Pro</u>	duction Phase							
Ove	erseas							
16	Oman 44	OP	100%			22 MMSCFD	Condensate: 1.1 k BPD	Maintain production operation
17	Vietnam 9-2	JOC	25%	PetroVietnam SOCO	50% 25%	13 MMSCFD	Crude: 4.8 k BPD	Maintain production operation     Perform reservoir management
18	Yadana		25.5%	TOTAL Chevron MOGE	31.24% 28.26% 15%	751 MMSCFD	-	<ul> <li>Drill exploration / development wells</li> <li>Acquire 2D seismic reprocessing</li> <li>Perform reservoir management</li> </ul>
19	Yetagun		19.3178%	Petronas-Carigali MOGE Nippon Oil PC Myanmar (Hong Kong)	30.00140% 20.4541% 19.3178% 10.90878%	286 MMSCFD	Condensate: 5.8 k BPD	<ul> <li>Drill development wells</li> <li>Perform reservoir Management</li> </ul>
20	Vietnam 16-1	JOC	28.5%	PetroVietnam SOCO OPECO	41% 28.5% 2%	16 MMSCFD	Crude: 31 k BPD	<ul> <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: 16 k BPD	Maintain production operation     Assess resource potential of exploration permits
22	Natuna Sea A		11.5%	Premier Oil KUFPEC Petronas Pertamina	28.67% 33.33% 15% 11.5%	213 MMSCFD	Crude: 1.4 k BPD	Maintain production operation
23	Zawtika (M9 & a part of M11)	OP	80%	Myanma Oil and Gas Enterprise (MOGE)	20%	314 MMSCFD	-	Maintain production rate     Drill development wells     Install wellhead platforms
24	Algeria 433a & 416b (Bir Seba)	JOC	35%	PetroVietnam Sonatrach	40% 25%	-	215 BPD	<ul> <li>Maintain production operation</li> <li>Review field development plan for possible capacity expansion</li> </ul>

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

\*\* Sales volume stated at 100% basis







	Project	Status*	PTTEP's Share	Partners (as of 2015)	2016 Key Activities
Exp	oloration Phase				
Tha	iland and JDA				
25	G9/43	OP	100%		Acquire 3D seismic     Drill Exploration / Appraisal wells
Ov	erseas				
26	Myanmar M3	OP	80%	MOECO 20%	Access development options and commercial potential
27	Mozambique Rovuma Offshore Area 1		8.5%	Anadarko, Mitsui,         26.5%,20%           ENH, Bharat         15%,10%,           Petroleum,         10%,10%           BREML, OVL         10%,10%	finalization of remaining commercial contracts
28	Algeria Hassi Bir Rekaiz	OP	24.5%	CNOOC 24.5% Sonatrach 51%	
29	Myanmar M11	OP	100%**		
30	Vietnam B & 48/95		8.5%	PVN 65.88% MOECO 25.62%	5
31	Vietnam 52/97		7%	PVN 73.4% MOECO 19.6%	
32	Myanmar PSC G and EP 2	OP	70%	WinPreciousRes10%ources10%MOECO10%Palang SophonOffshore	
33	Kenya L11A, L11B, L12		10%	Anadarko50%Total30%ENI10%	

Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship New participating interest subject to government approval \*

\*\*

Highlights







	Project	Status*	PTTEP's Share	Partners (as of 2015)	2016 Key Activities			
<u>Ex</u>	Exploration Phase							
Ove	erseas (Cont'd)							
34	Myanmar MD 7 and MD 8	OP	100%					
35	Mariana Oil Sands	OP	100%		Assess development approach and cost reduction opportunity			
36	Barreirinhas AP1		25%	BG Brasil 75%	Acquire 3D seismic			
37	MOGE 3	OP	75%	Palang Sophon Offshore10%MOECO10%WinPreciousResources5%				
38	Brazil BM-ES-23		20%	Petrobras 65% INPEX 15%				

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

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

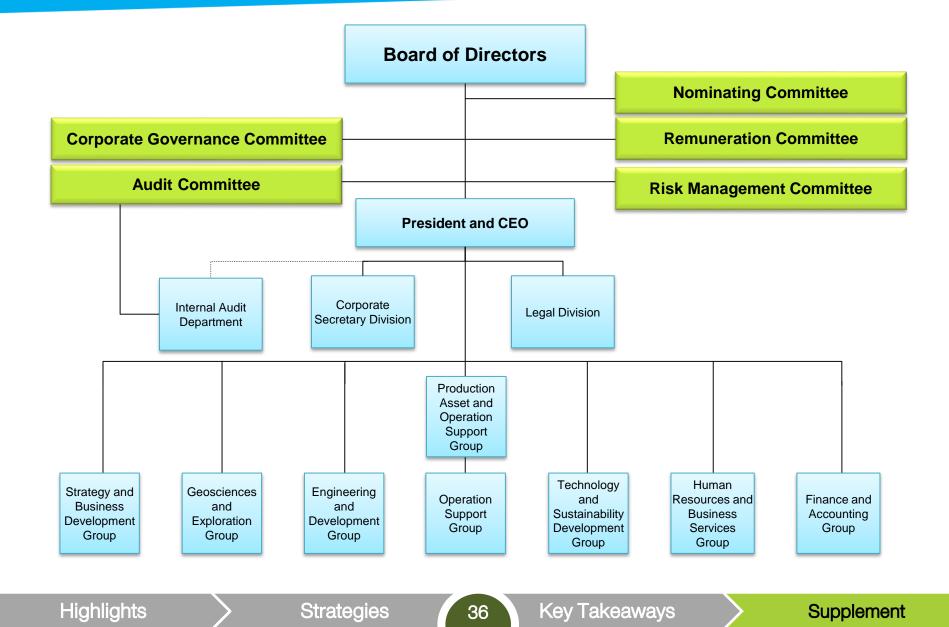
Highlights

Strategies



**PTTEP** Ensuring transparency, integrity and good corporate governance

**Organization Structure** 







Ratio	Formula
Lifting Cost (\$/BOE)	(Operating Exp.) / 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 & Amortise 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 & Amortize Bond Issuing Cost

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Key Takeaways