

# PTT Exploration and Production Public Company Limited

Non-deal Roadshow  
Hong Kong  
19-20 May 2015



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





**Company Overview**

**Financial Results**

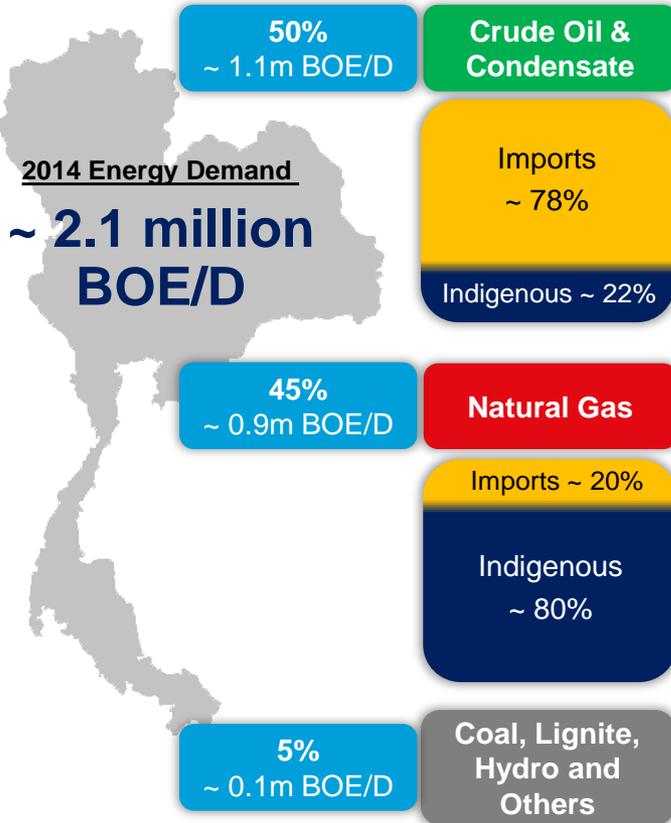
**Outlook**

# Supporting Thailand's Energy Value Chain

PTTEP contributes almost 1/3 of Thailand's petroleum production



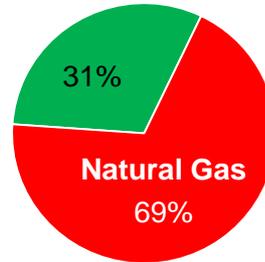
## Energy Demand and Sources



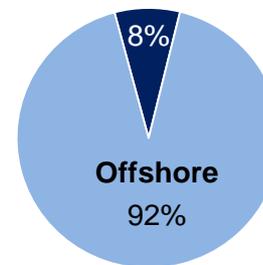
## Thailand Petroleum Production 2014

### % by Petroleum Type and Area

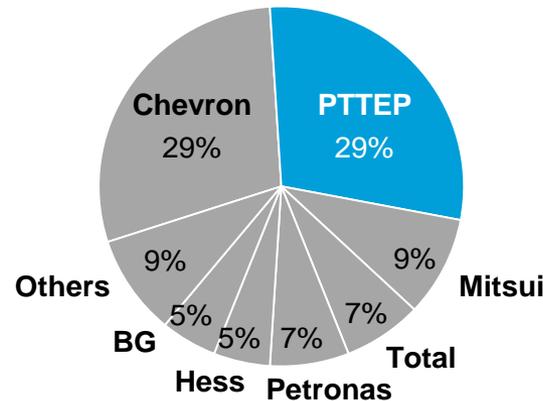
#### Crude and Condensate



#### Onshore



### % Production by Company



## Integration with Midstream and Downstream Value Chain

### Midstream

Transmission Pipelines  
Gas Separation Plants

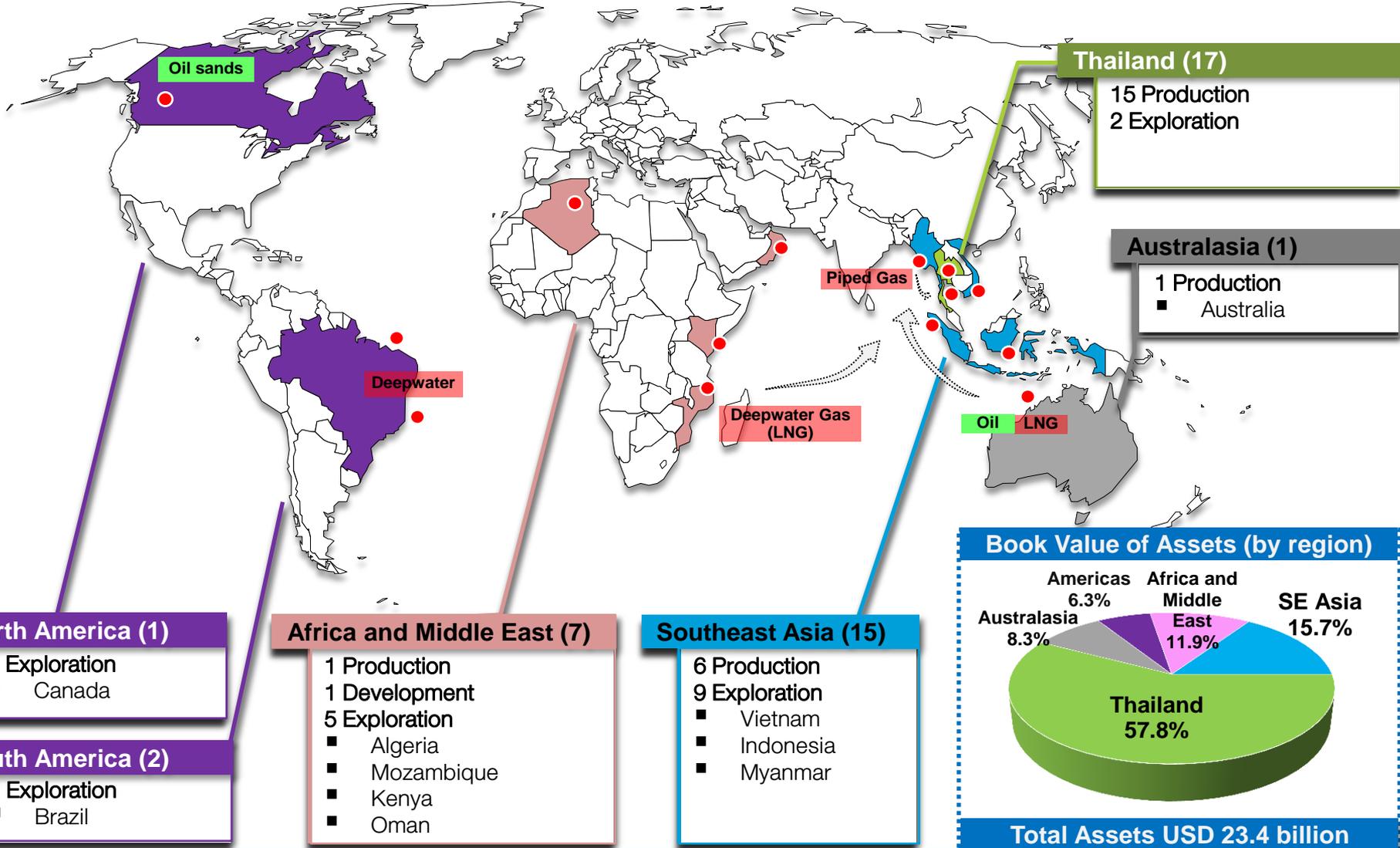
### Downstream & End User Products

Refineries  
Petrochemical Plants  
Power Plants  
*Electricity*  
Industrial Plants  
Transportation  
*Fuels, Lubes, NGV/CNG*  
Household Use and Products  
*LPG*  
*Chemical Products*

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

# Diversified International Portfolio

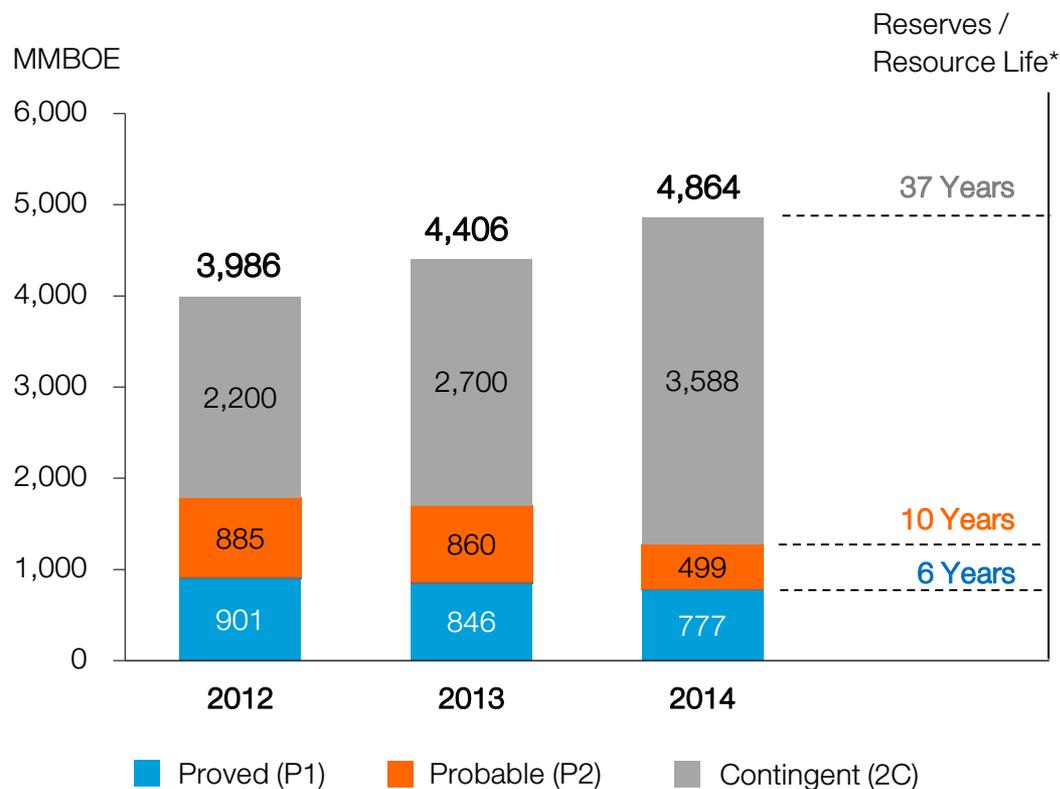
Worldwide operations: 43 projects\* in 11 countries



**Notes:**  
• Excludes 3 projects that are pending official withdrawal approval

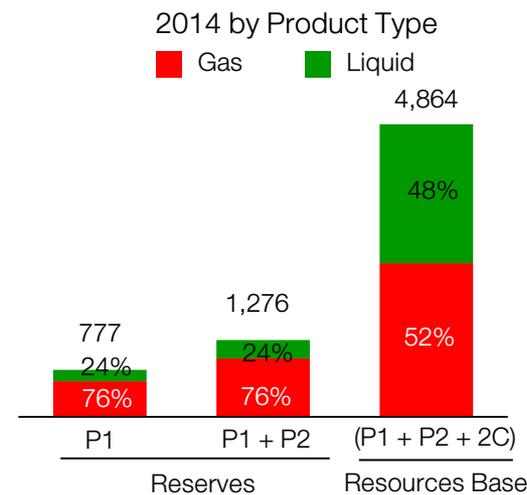
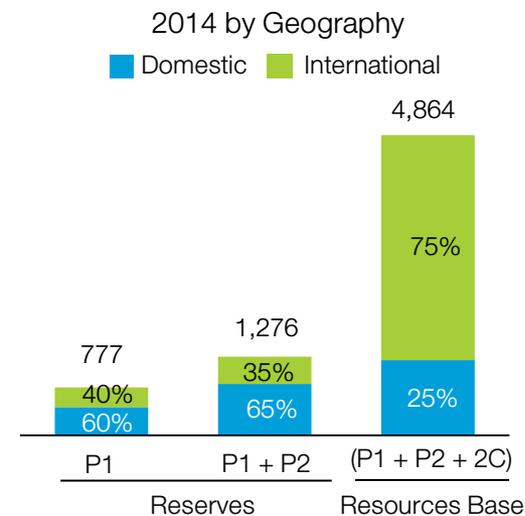
# Reserves and Resources

Target resource turnaround in the near future

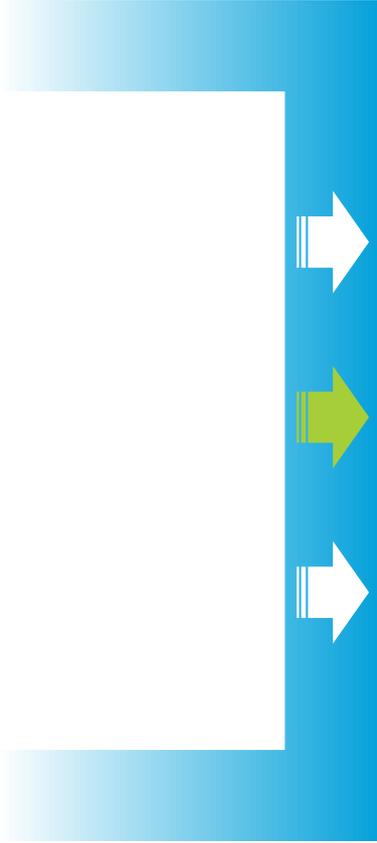


5-Year Average Proved Reserves Replacement Ratio (RRR)

2012	2013	2014
0.91x	0.82x	0.45x



\* Based on total production of natural gas, crude oil (including bitumen) and condensate of 359 KBOED for the year ended December 31, 2014



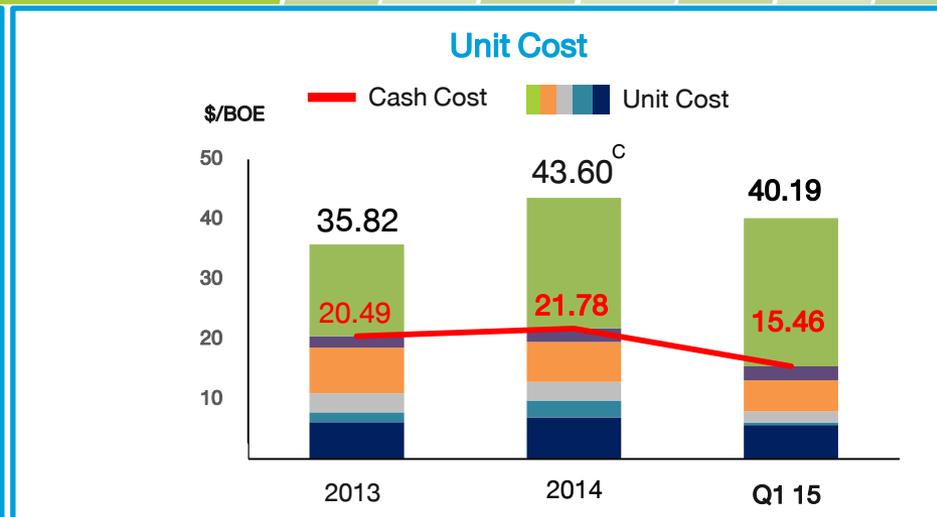
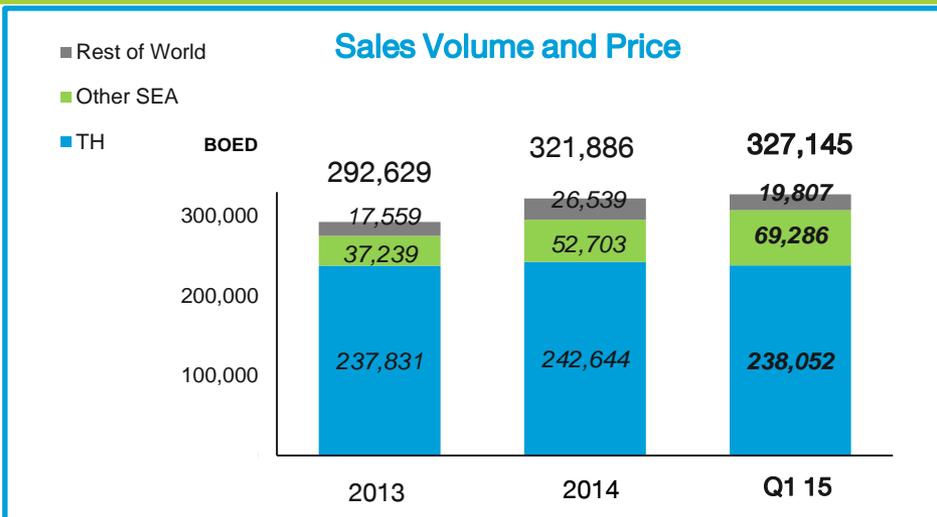
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# Sales Volume & Unit Costs

Strong gas price and healthy cash margin amidst low oil prices environment



Gas (\$/MMBTU)	7.92 <sup>A</sup>	8.03 <sup>A</sup>	8.03
Liquid (\$/BBL)	100.15	94.91	50.12
Weighted Avg. (\$/BOE)	65.58 <sup>B</sup>	63.38 <sup>B</sup>	48.74
Avg. Dubai (\$/BBL)	105.54	96.60	51.89
Avg. HSFO (\$/BBL) <i>High Sulfur Fuel Oil</i> )	97.52	86.74	48.90
Volume Mix ( <i>Gas:Liquid</i> )	66 : 34	67 : 33	71 : 29
Revenue Mix ( <i>Gas:Liquid</i> )	47 : 53	51 : 49	70 : 30

DD&A	15.33	21.82	24.73
Finance Cost	1.88	2.21	2.33
Royalties	7.65	6.69	5.18
G&A	3.17	3.10	1.82
Exploration Exp.	1.61	2.83	0.45
Operating Exp. <sup>D</sup>	6.18	6.95 <sup>C</sup>	5.68
Lifting Cost	4.88	5.26	4.57
Success Ratio <sup>E</sup>	38:55	25 : 43	15:18

A) If Vietnam 16-1 retroactive sales are excluded, gas price is \$ 8.01 for 2013 and 8.07 \$ for 2014

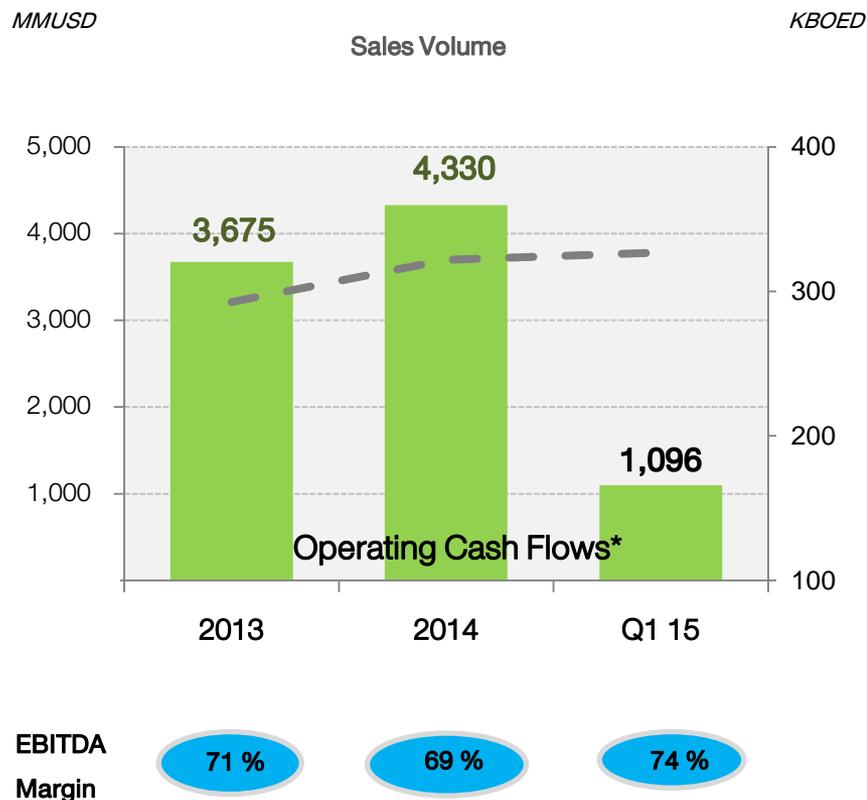
B) If Vietnam 16-1 retroactive sales are excluded, average selling price is 66.09 for 2013 and 63.59 for 2014

C) If exclude extra expense from Montara's Development well (H5) : 2014 Operating Exp. : 6.53 \$/BOE / Unit cost : 43.18 \$/BOE

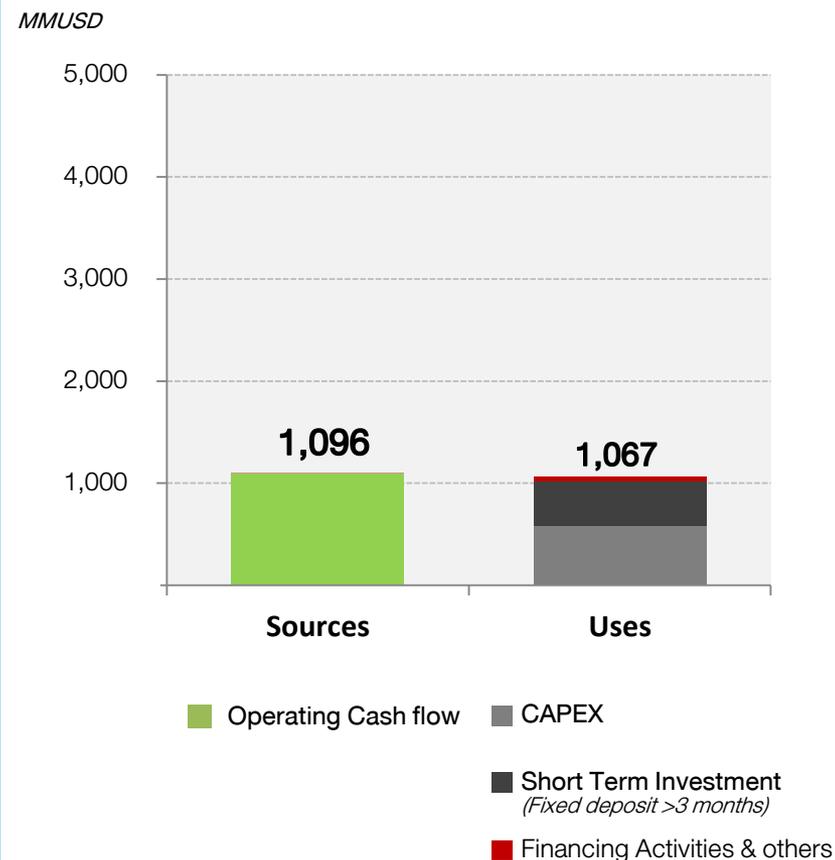
D) Exclude diluent cost for blending bitumen in KKD Oil Sands project

E) Exploration and Appraisal wells

### Cash Flow Performance



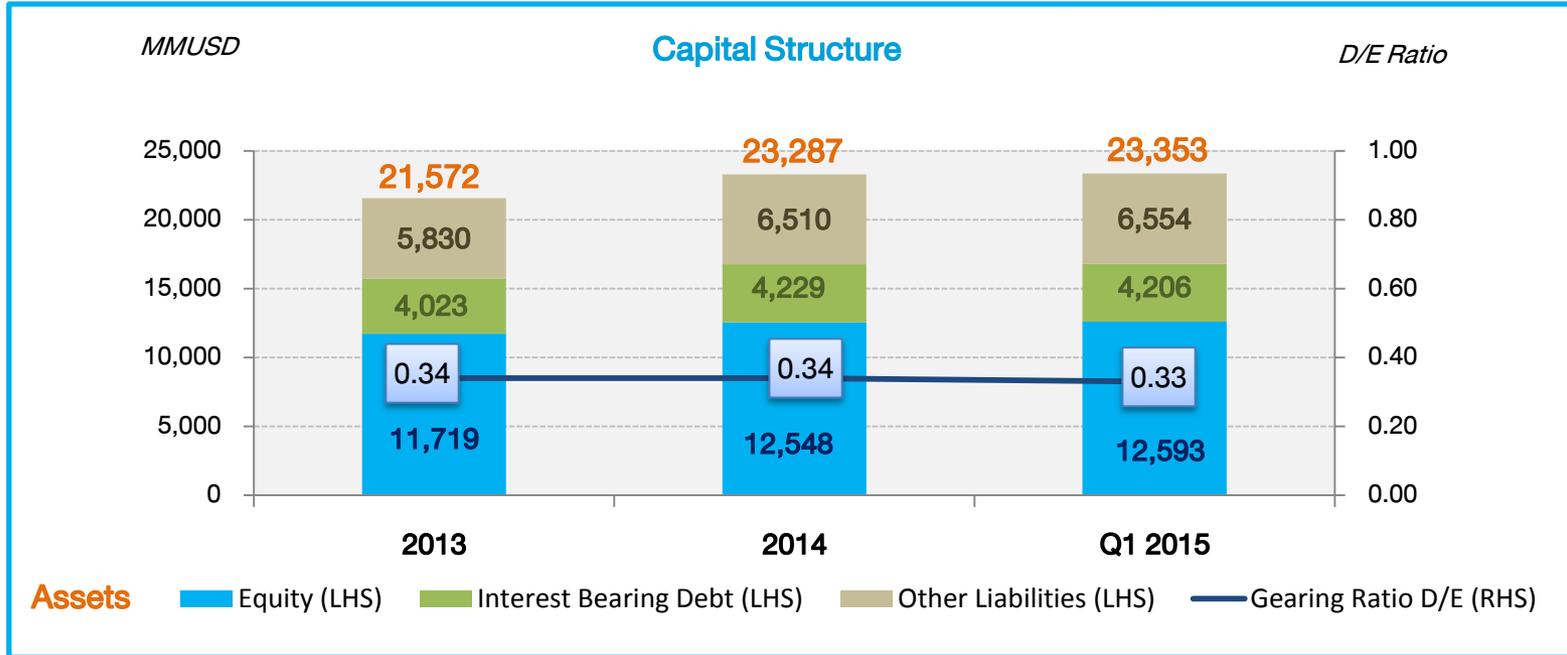
### Source & Use of Funds in Q1 2015



\* Net of adjustment for the effect of exchange rate changes on cash and cash equivalents. Operating cash flows before exchange rate effect adjustment is:

2013 = 3,740 MMUSD ; 2014 = 4,320 MMUSD ,and Q1 2015 = 1,094 MMUSD

\*\* Operating cashflow included in Source of fund in Q1 2015 is shown net of adjustment for the effect of exchange rate changes on cash and cash equivalents 1,094 MMUSD



### Debt Profile \*



Weighted Average

3.99

Cost of Debt\* (%)

4.14

[Fixed : Floating]

[75 : 25]

[77 : 23]

4.13

[78 : 22]

Average Loan Life\*(Years)

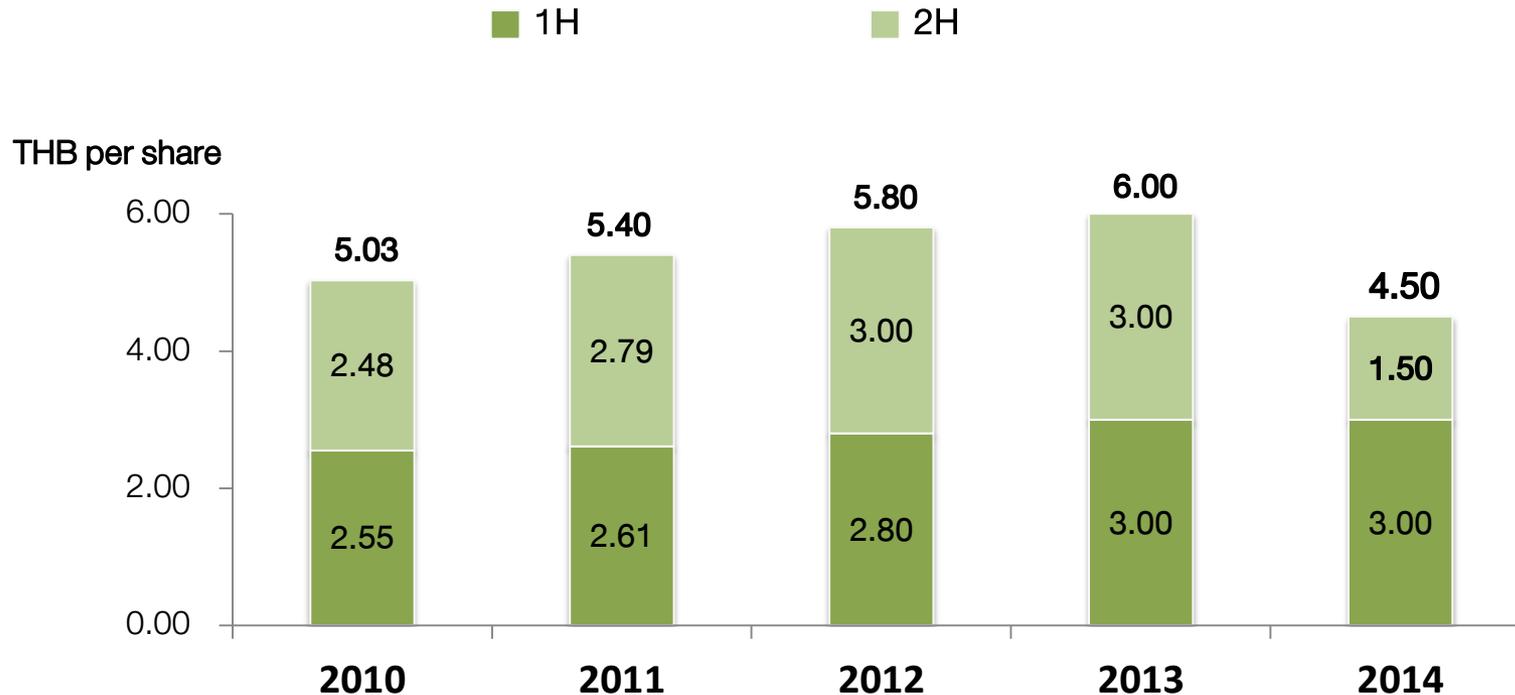
6.81

7.05

6.83

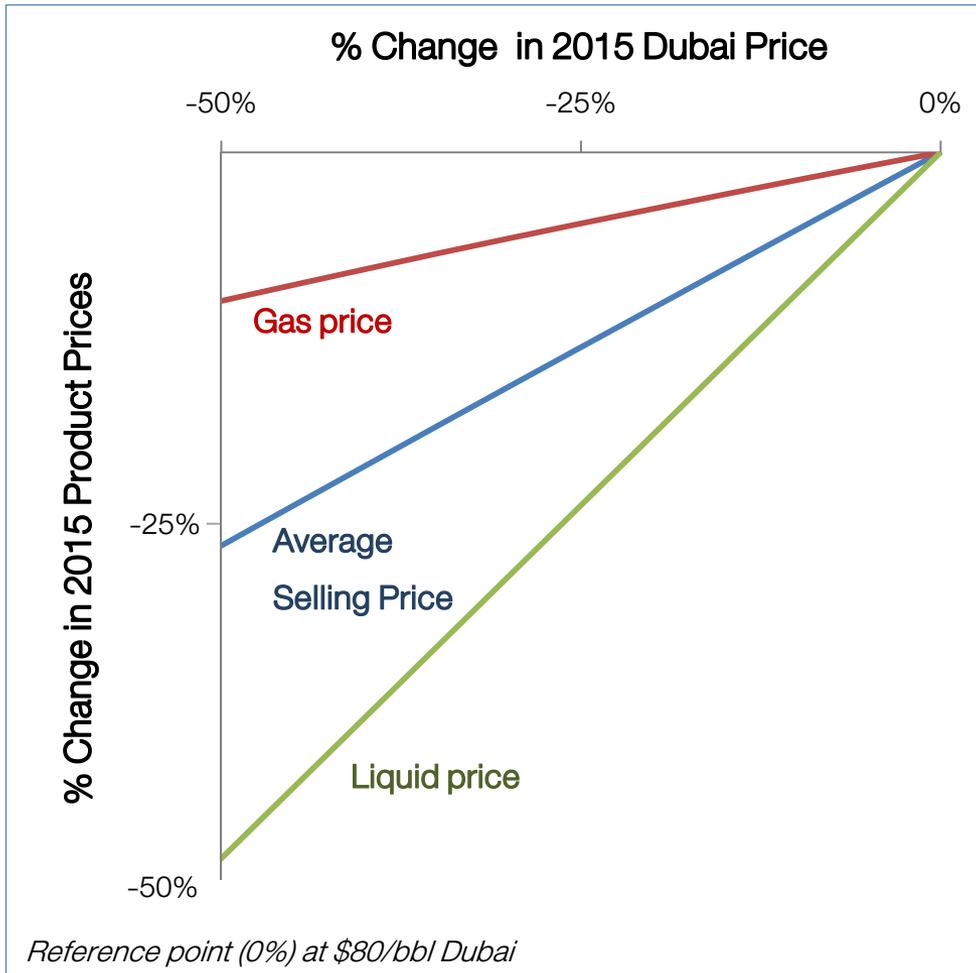
\* Excludes Hybrid bonds

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



Payout Ratio (%)	2010	2011	2012	2013	2014
	40	40	38	40	82

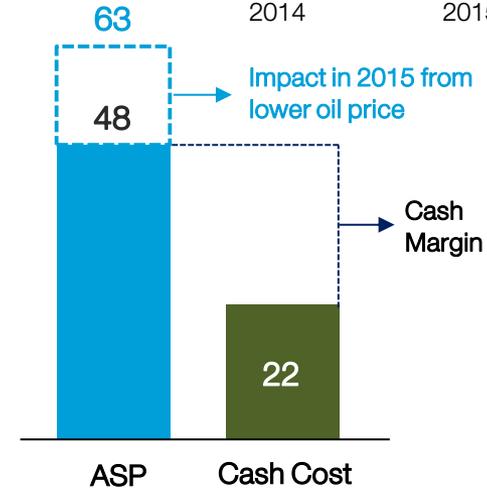
## Resilient gas price



## Protected cash margin

Unit : USD / BOE      Avg. Dubai Assumption

**97** → **55**  
2014      2015



- ✓ Strong gas portfolio limits oil price downside
- ✓ Competitive cash cost supports healthy operating cash flow



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## Near-term priorities : key objectives



Deliver 3-6% sales volume growth

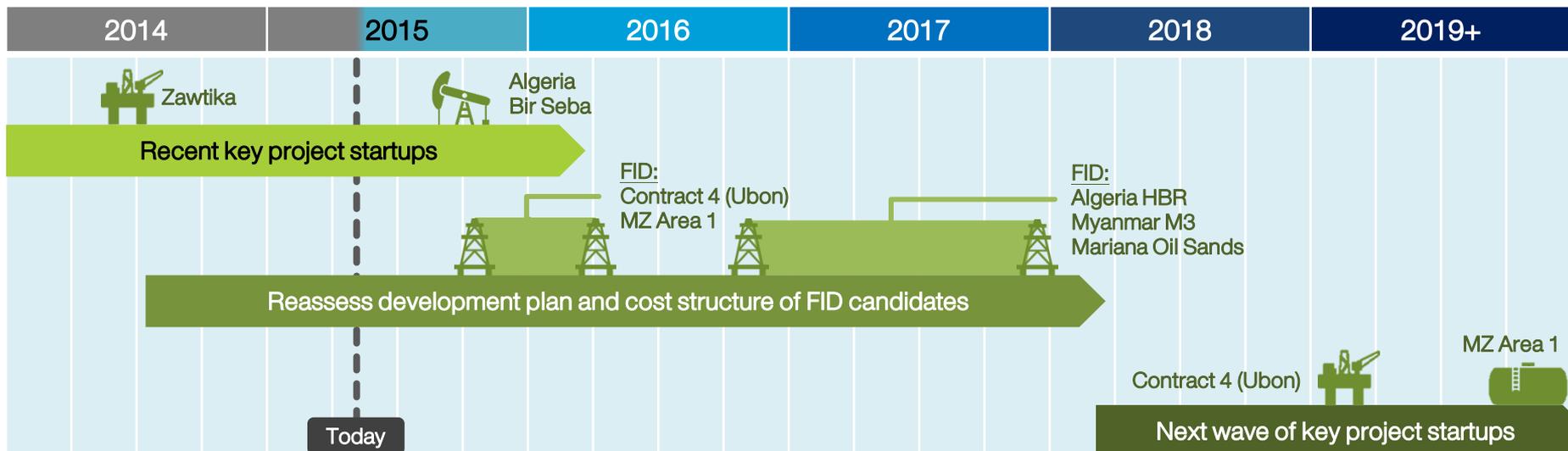


Focus on cost optimization and investment prioritization



Leverage strong balance sheet for value-creating growth opportunity

## Further down horizon : deliver near-term growth and reassess feasibility of medium-long term prospects



# SAVE to be SAFE

Four levers to manage our capital efficiency



## “Efficiency”

- Integrated activity planning
- Contract renegotiation and sourcing strategy
- Synergy & Standardization
- Inventory management

1

### Cost Optimization

- ✓ Operational Excellence
- ✓ Supply chain savings
- ✓ Development cost improvement

2

### Production Stabilization

- ✓ Operational reliability
- ✓ Field capacity vs nomination

## “Productivity”

- Minimize unplanned shutdown
- Close coordination with PTT on gas nomination

3

### Financial & Portfolio Management

- ✓ Investment prioritization
- ✓ Exploration prioritization
- ✓ Risk management & hedging program

4

### G&A Reduction & Culture

- ✓ G&A reduction
- ✓ Cost conscious culture

## “Awareness”

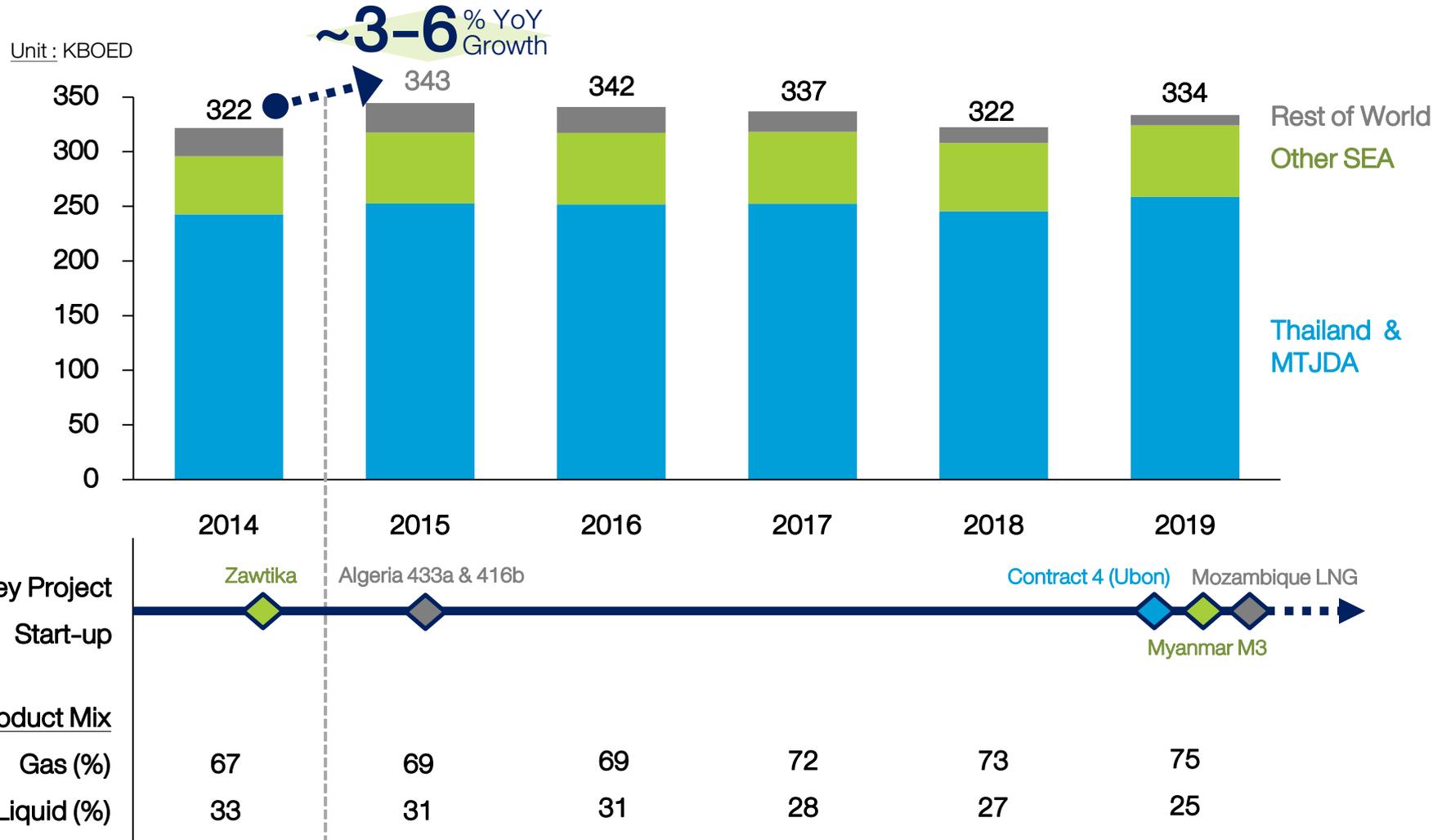
- Manpower optimization
- Travelling expense management
- Culture of “Fit for Purpose”, “Just-in-Time”

## “Effectiveness”

- Capital allocation
- Strengthen project management process

# Target volume growth

Thailand and Southeast Asia continue to be the strong production base



Based on announced 5-year investment plan on 22 December 2014

# Investment Plan

Target at least 10% reduction from announced 2015 investment plan



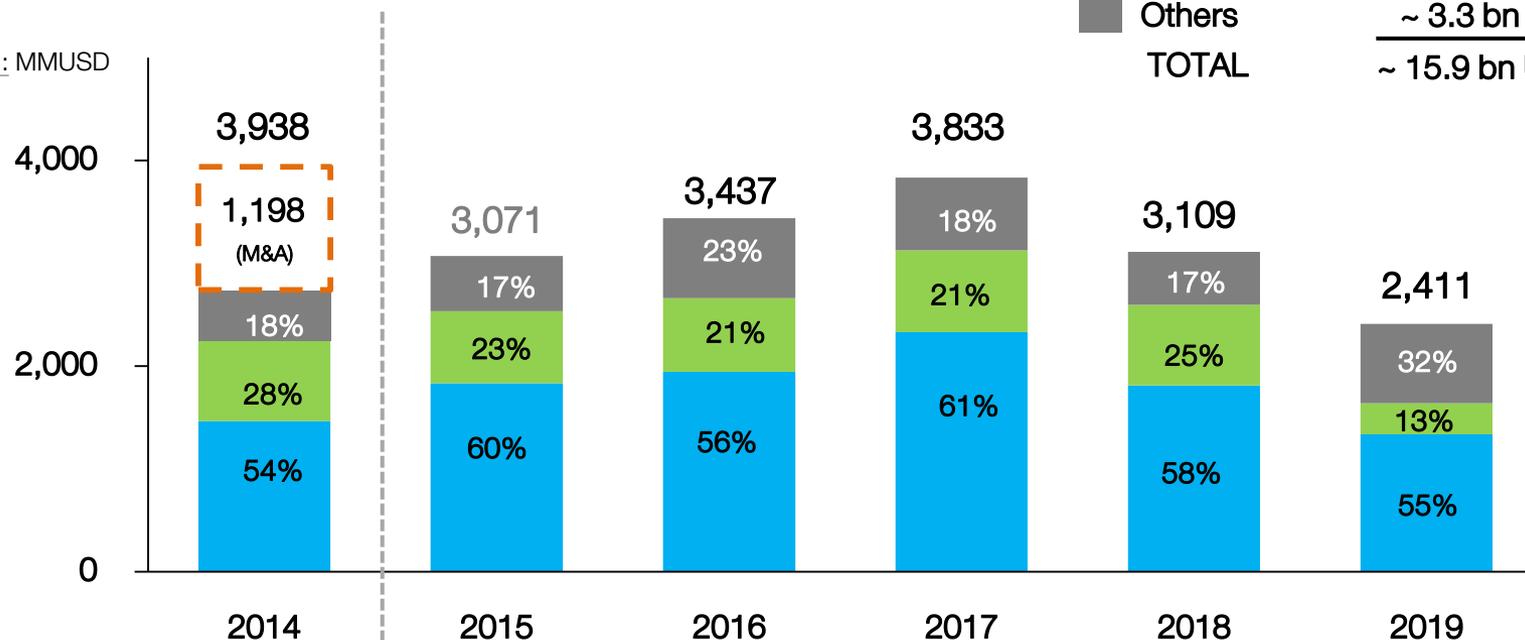
## Capex by Region

- Thailand
- Southeast Asia
- Others
- TOTAL**

## 2015 - 2019

- ~ 9.3 bn USD
- ~ 3.3 bn USD
- ~ 3.3 bn USD
- **~ 15.9 bn USD**

Unit : MMUSD



## CAPEX by Activity Type

Activity Type	2014	2015	2016	2017	2018	2019
Exploration	14%	18%	11%	14%	8%	3%
Development	56%	82%	89%	86%	92%	97%
Investments (M&A)	30%	0%	0%	0%	0%	0%

Based on announced 5-year investment plan on 22 December 2014



## Fundamental change in E&P industry

- U.S. shale output re-shaping balance and dynamics of the oil market
- Expect market forces to rebalance but the path to price recovery is still uncertain
- The uncertainty also presents opportunities for industry's cost adjustment



## Well prepared to weather downturn in oil price

- Cushion from gas-weighted volumes secured through long-term contracts
- Maintain competitive cash cost profile ensures positive operating cash flow
- Stringent financial discipline to ensure strong capital structure with low gearing and high liquidity



## Our priorities for 2015

- Target 3-6% sales volume growth
- Focus on further cost optimization
- Prioritize investment in our exploration and pre-development portfolio
- Leverage strong balance sheet for value-creating M&A opportunity



*Exploring new horizons, we take every step as learning*

**For more information, please visit our website at**

<http://www.pttep.com>

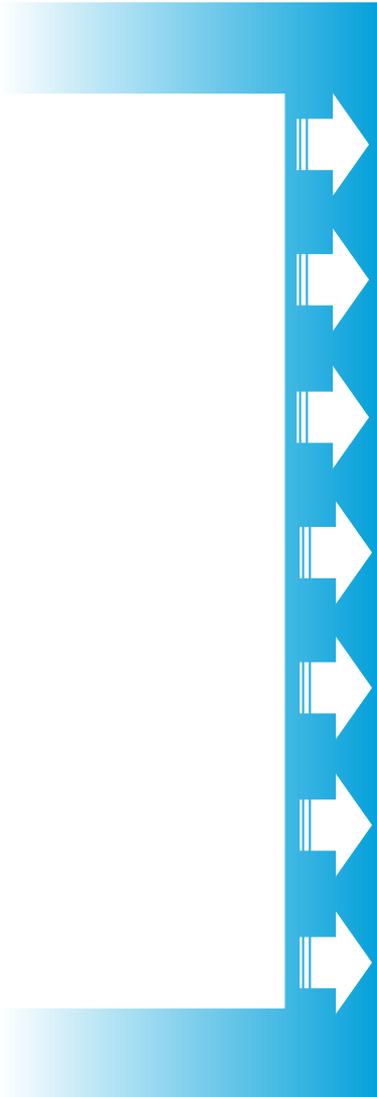
**OR**

**Contact us via email address at**

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**Call us at +66 2 537 4000**

- 
- 1. Sustainable Development**
  - 2. Thailand Energy Updates**
  - 3. Shareholding Structure**
  - 4. Organization Structure**
  - 5. Key Project Highlights by Region**
  - 6. Project Details**
  - 7. Ratios & Formula**

# Sustainable Development

Pursuing long-term growth hand-in-hand with social and environmental well-being



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Sustainability Indices**

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## 2014 DJSI Listed Company

Dow Jones Sustainability World Index  
Oil & Gas Sector



## Proven business integrity

NACC Integrity Awards  
*The National Anti-Corruption Commission*

Thailand's Top Corporate Brand Value  
Industrial Resources Sector  
*Chulalongkorn University*

Best Public Company in Resources Sector  
*Money & Banking Magazine*



## Certified Member

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



## Exemplary social contributor

CSR Excellence Award  
*Ministry of Social Development and Human Security*

Best Strategic Corporate CSR  
*Alpha Southeast Asia Magazine*

Global CSR Award :  
Best Community Program  
*Pinnacle Group International Singapore*

## Green driver to environment

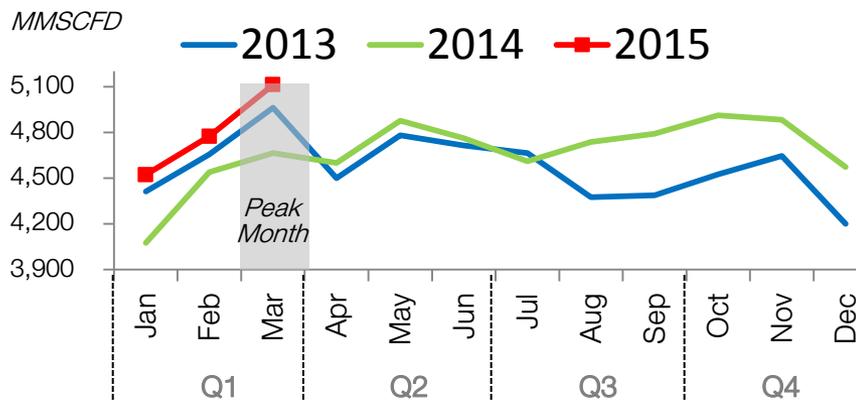
Best Environmental Responsibility  
*Corporate Governance Asia*

Joint research project with HITZ for CO2 to  
methane conversion

Participation in Thailand Voluntary Emission  
Reduction Program (T-VER)

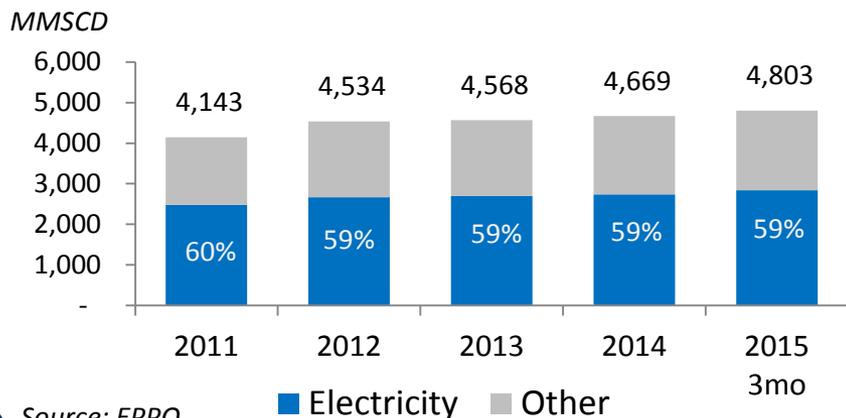
### Thai Economy and Gas Demand

#### Monthly Gas Consumption by Year



Source: EPPO

#### Annual Gas Consumption by Use



Source: EPPO

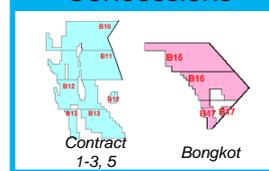
### Upstream Energy Reform

#### 21st Bidding Round



- Bidding round expected to resume later in 2015 after reaching a solution on an appropriate fiscal policy

#### Expiring Concessions



- NEPC announced basic principles to concession renewal
- Target for definitive solution within 2017
- Gas supply stability continues to be key consideration

#### Thai-Cambodian OCA



- Discussion resumes at the Government level to seek resolution on OCA

Source: MOE, DMF

# Integral support from major shareholder

PTTEP leverages its relationships with PTT Plc. and the Thai Government



## Ownership Structure



Government of  
Thailand

66.0%<sup>2</sup>



Thailand's national energy company

65.3%



## Oil & Gas exploration and production Flagship of PTT



**PTTEP supplies more than 80% of sales volume to PTT, a financially strong corporate and Thailand's main provider of natural gas**

- PTTEP is engaged in long-term gas off-take agreements (generally 25 to 30 years) with PTT, a major source of PTTEP's stable revenue stream



**Synergies between PTTEP and PTT in the natural gas value chain**

- PTTEP provides PTT with access to gas production
- PTT provides leverage and support for PTTEP's relationships with other government bodies and agencies
- The relationship with PTT provides PTTEP with a competitive position to offer integrated solutions to counterparties

## Credit Ratings on par with Sovereign Rating

	PTTEP	Thailand
Moody's	Baa1	Baa1
S&P's	BBB+	BBB+
JCR	A-	A-
TRIS	AAA	N/A

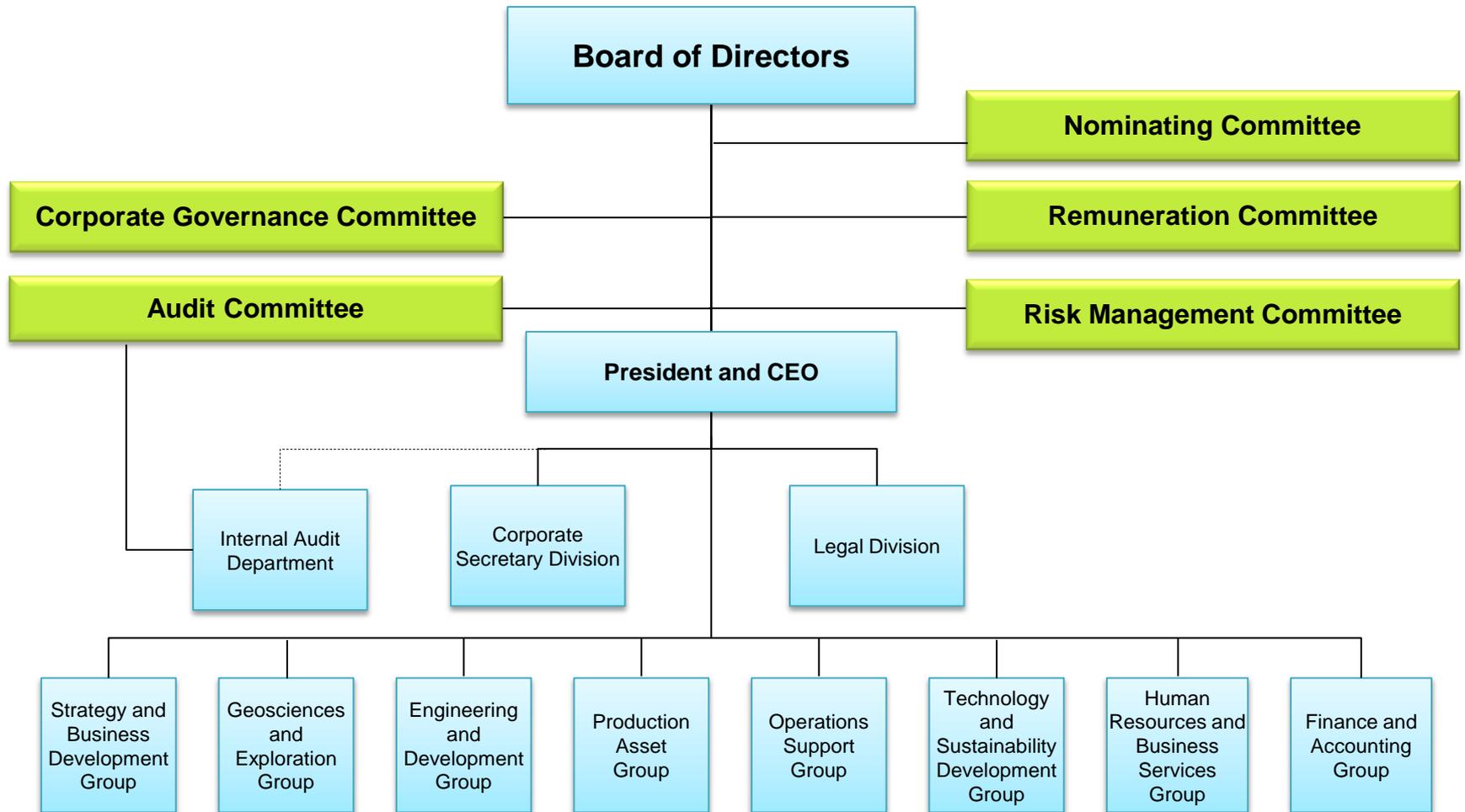
Notes:

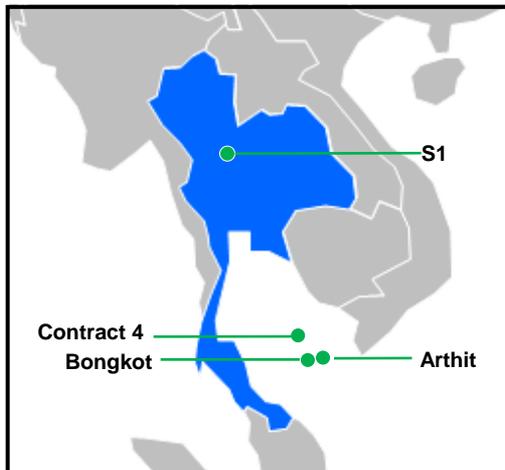
1 Ownership as of 13 February 2015

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

# Organizational Structure

Ensuring Transparency, Integrity, and Good Corporate Governance practices





● Production / Ramp-up Projects

### Bongkot (44.4% interest)

- Bongkot's production capacity of close to 1 Bcf/d represents approximately 20% of Thailand's natural gas supply
- Average natural gas sales volume from the Bongkot fields was 863 MMSCFD in Q1 2015
- Average condensate sales volume was 28.2 KBPD in Q1 2015

### S1 (100% interest)

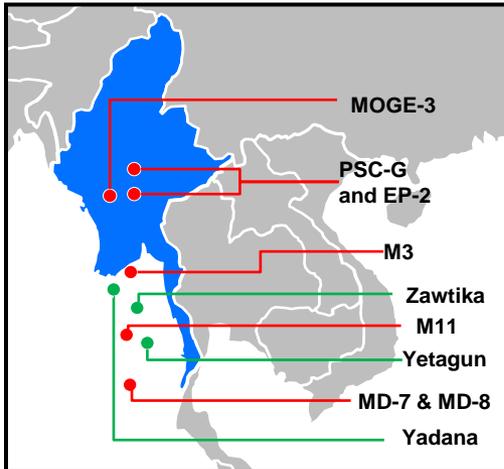
- S1 is the largest onshore crude oil production field in Thailand
- Average crude oil sales volume was 27 KBPD in Q1 2015

### Arthit (80% interest)

- Average sales volume in Q1 2015 was 208 MMSCFD of natural gas and 9.5 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 297 MMSCD for natural gas and 14.5 KBPD for condensate in Q1 2015



- Production / Ramp-up Projects
- Exploration / Appraisal Projects

### Zawtika (80% interest)

- Began delivering gas to Myanmar in March 2014, and to Thailand in August 2014
- Currently delivering the full DCQ of 300 MMSCFD

### Yadana (25.5% interest)

- Average sales volume of 797 MMSCFD of natural gas in Q1 2015

### Yetagun (19.3% interest)

- Sales volume averaged 331 MMSCFD for natural gas and 7.5 KBPD for condensate in Q1 2015

### M3 (80% interest)

- Completed the drilling of 5 additional appraisal wells and currently in the process of conducting post-well evaluation to determine the development potential

### M11 (52.9% interest)

- In the process of assessing potential in the remaining areas in order to plan for further exploration activities

### PSC-G and EP-2 (90% interest)

- Currently in the process of drilling 4 exploration wells for 2014 - 2015

### MD-7 and MD-8 (100% interest)

- Continue with 2D seismic interpretation and scope areas for 3D seismic survey

### MOGE-3 (85% interest)

- Signed a PSC in August 2014 with MOGE for exploration and production rights.



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

- Average crude oil sales volume of 31 KBPD in Q1 2015
- Currently in the process to install a production platform in the H5 area to support current production level

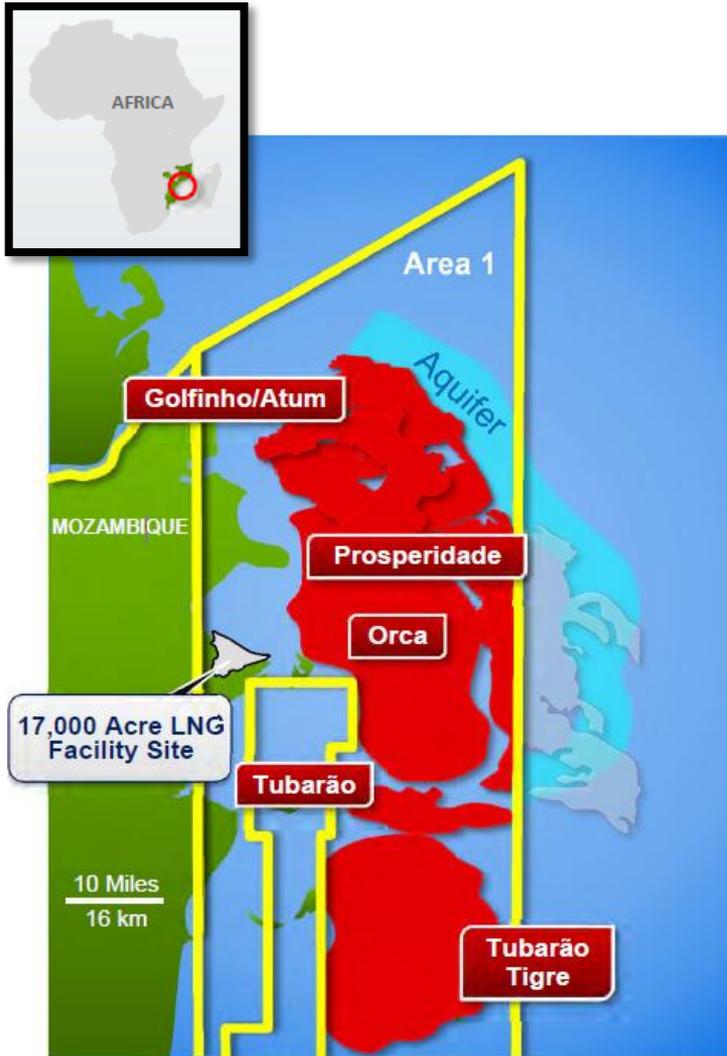
### Natuna Sea A (11.5% interest)

- Average sales volume of natural gas was 199 MMSCFD, and average sales volume of crude oil was 1.7 KBPD in Q1 2015



● Production / Ramp-up Projects

Source : Premier Oil



### Area 1 (8.5% interest)

### Advancing towards FID on the initial 10 MMTPA

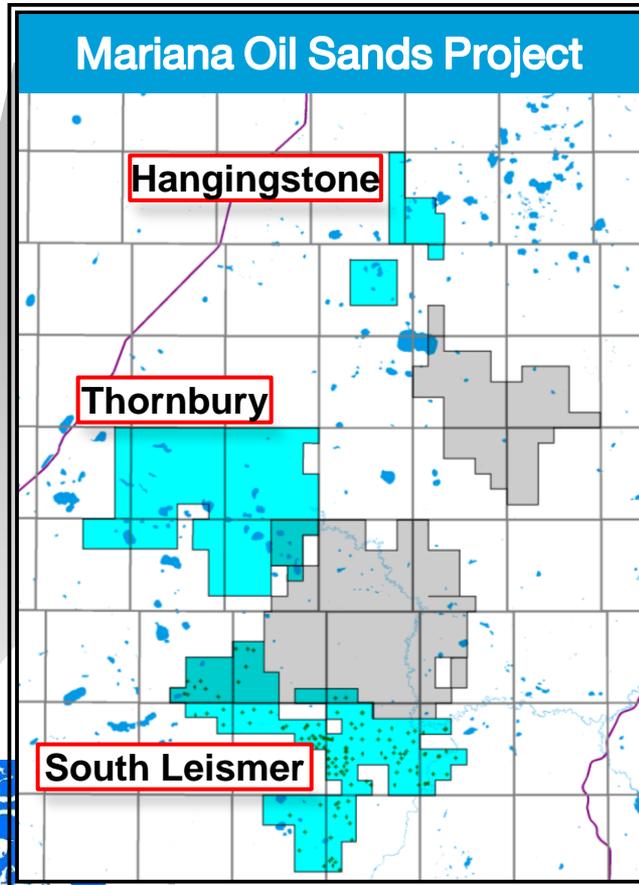
- Abundant resource base estimated at 50 to 70+ TCF of recoverable natural gas
- Continue to make progress with remaining agreements and approval with the government
- Secured more than 8 MMTPA of non-binding Heads of Agreement for long-term LNG sales
- Continued evaluation of onshore LNG contractor bids for the selection process

### Location and Cost Advantages

- High quality reservoirs
- Proximity to shore; 5 to 25 miles
- Scalable onshore development



Source: Anadarko



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

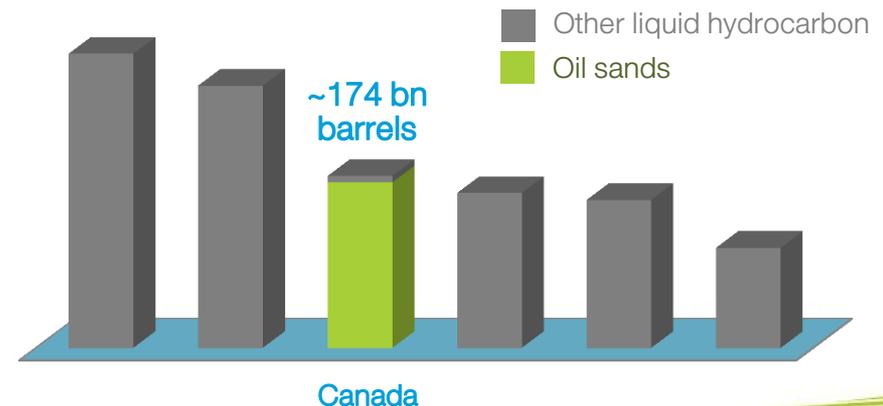
### Key activities

- Completed the Winter Delineation Program and continue to assess development potential of the Thornbury field

### The Asset Swap

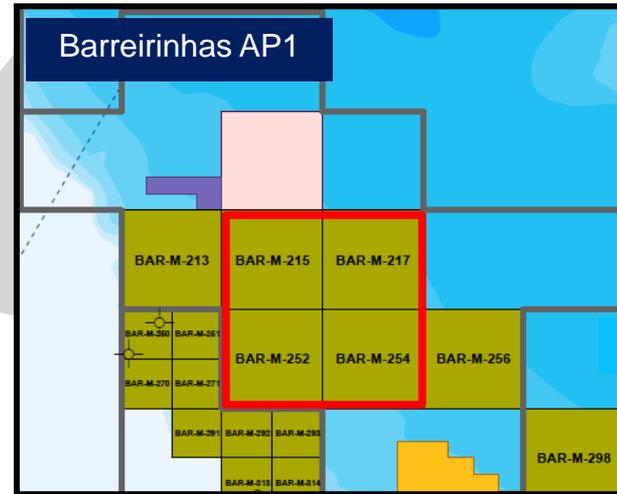
- The Partnership Unit Redemption Agreement (PURA) came into effect on 28 May 2014.
- Following such date, PTTEP Canada Limited now owns and operates 100% of the Thornbury, Hangingsstone and South Leismer areas, and has received from Statoil Canada a total of 419 million US dollars

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

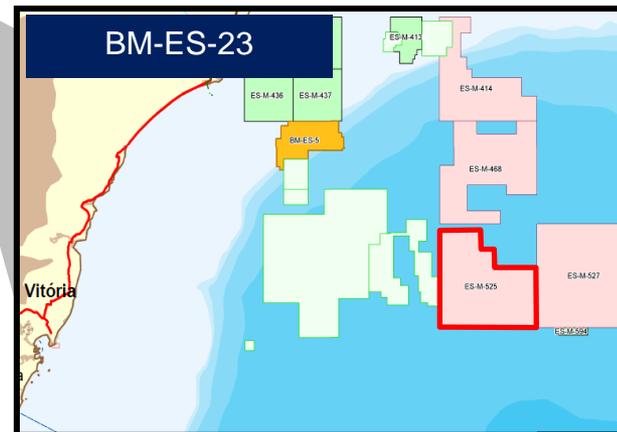


# America : Brazil Deepwater

Entry into high potential petroleum province at exploration phase



- Farm-in 25% from BG Group
- 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 conducting G&G studies



- Acquired 20% interest from Shell in Q3 2014
- Partnered with Petrobras (65%, operator) and INPEX (15%)
- Currently drilling the first of 2 planned exploration and appraisal wells in 2015

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

	Project	Status*	PTTEP's Share	Partners (as of Q1 2015)		Q1 2015 Average Sales Volume **		2015 Key Activities
						Gas	Oil and Other	
<b>Production Phase</b>								
<b>Thailand and JDA</b>								
1	<b>Arthit</b>	OP	80%	Chevron MOECO	16% 4%	208 MMSCFD	Condensate: 9.5 k BPD	<ul style="list-style-type: none"> <li>Ensure gas deliverability level at DCQ***</li> <li>Drill Exploration / Appraisal wells/ Development wells</li> <li>Install wellhead platforms</li> </ul>
2	<b>B6/27</b>	OP	60%	JX NOEX	40%	N/A	N/A	<ul style="list-style-type: none"> <li>Evaluate further potential of reservoir</li> </ul>
3	<b>B8/32 &amp; 9A</b>		25%	Chevron MOECO KrisEnergy PSTL	51.66% 16.71% 4.63% 2%	93 MMSCFD	Crude: 26 k BPD	<ul style="list-style-type: none"> <li>Drill development wells</li> </ul>
4	<b>Bongkot</b>	OP	44.4445 %	TOTAL British Gas	33.3333% 22.2222%	863 MMSCFD	Condensate: 28.2 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	<b>Contract 3</b> (Formerly Unocal III)		5%	Chevron MOECO	71.25% 23.75%	550 MMSCFD	Crude: 21.5 k BPD Condensate: 19.8 k BPD	<ul style="list-style-type: none"> <li>Drill Exploration / Appraisal / Development wells</li> <li>Install wellhead platforms</li> </ul>
6	<b>Contract 4</b> (Formerly Pailin)		60%	Chevron MOECO	35% 5%	297 MMSCFD	Condensate: 14.5 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	<b>E5</b>		20%	ExxonMobil	80%	12 MMSCFD	-	
8	<b>G4/43</b>		21.375%	Chevron MOECO PSTL	51% 21.25% 6.375%	4 MMSCFD	Crude: 7.2 k BPD	<ul style="list-style-type: none"> <li>Drill Exploration / Development wells</li> <li>Install wellhead platform</li> </ul>
9	<b>G4/48</b>		5%	Chevron MOECO	71.25% 23.75%	6.6 MMSCFD	-	
10	<b>L53/43 &amp; L54/43</b>	OP	100%			-	Crude: 53 BPD	<ul style="list-style-type: none"> <li>Drill Exploration Wells</li> </ul>
11	<b>PTTEP1</b>	OP	100%			-	Crude: 348 BPD	<ul style="list-style-type: none"> <li>Drill Appraisal / Development wells</li> <li>Perform waterflood activities</li> </ul>
12	<b>S1</b>	OP	100%			27 MMSCFD	Crude: 26.7 k BPD	<ul style="list-style-type: none"> <li>Continue Exploration appraisal and development activities</li> </ul>
13	<b>Sinphuhorm</b>	OP	55%	Apico ExxonMobil	35% 10%	120 MMSCFD	Condensate: 456 BPD	<ul style="list-style-type: none"> <li>Drill development wells</li> </ul>
14	<b>MTJDA</b>	JOC	50%	Petronas- Carigali	50%	341 MMSCFD	Condensate: 9.4 k BPD	<ul style="list-style-type: none"> <li>Drill Exploration / Appraisal / Development wells</li> <li>Install wellhead platforms</li> </ul>
15	<b>L22/43</b>	OP	100%			-	Crude: 134 BPD	<ul style="list-style-type: none"> <li>Drill Exploration / Appraisal / Development wells</li> </ul>

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

\*\* Sales volume stated at 100% basis. \*\*\* DCQ = Daily Contractual Quantity

	Project	Status*	PTTEP's Share	Partners (as of Q1 2015)		Q1 2015 Average Sales Volume **		2015 Key Activities
						Gas	Oil and Other	
<b>Production Phase</b>								
<b>Overseas</b>								
16	Oman 44	OP	100%			23 MMSCFD	-	<ul style="list-style-type: none"> <li>Drill Exploration / Appraisal / Development wells</li> <li>Maintain production rate</li> </ul>
17	Vietnam 9-2	JOC	25%	PetroVietnam SOCO	50% 25%	15 MMSCFD	Crude: 3.3 k BPD	<ul style="list-style-type: none"> <li>Drill development wells</li> <li>Explore new reservoirs</li> </ul>
18	Yadana		25.5%	TOTAL Chevron MOGE	31.24% 28.26% 15%	797 MMSCFD	-	<ul style="list-style-type: none"> <li>Drill Exploration / Appraisal wells</li> </ul>
19	Yetagun		19.3178%	Petronas- Carigali MOGE Nippon Oil PC Myanmar (Hong Kong)	30.00140%  20.4541% 19.3178% 10.90878%	331 MMSCFD	Condensate: 7.5 k BPD	<ul style="list-style-type: none"> <li>Reservoir Management</li> <li>Well Intervention</li> </ul>
20	Vietnam 16-1	JOC	28.5%	PetroVietnam SOCO OPECO	41% 28.5% 2%	16 MMSCFD	Crude: 31.3 K BPD	<ul style="list-style-type: none"> <li>Drill development wells</li> <li>Complete H5 development project</li> </ul>
21	PTTEP Australasia (PTTEP AA)	OP	20%-100% (varied by permits)			-	Crude: 15.6 k BPD	<ul style="list-style-type: none"> <li>Drill an exploration well</li> <li>Assess resource potential of exploration permits</li> </ul>
22	Natuna Sea A		11.5%	Premier Oil KUFPEC Petronas Pertamina	28.67% 33.33% 15% 11.5%	199 MMSCFD	Crude: 1.7 k BPD	<ul style="list-style-type: none"> <li>Drill Exploration / Appraisal / Development wells</li> <li>Maximize gas exports</li> </ul>
23	Zawtika (M9 & a part of M11)	OP	80%	Myanma Oil and Gas Enterprise (MOGE)	20%	309 MMSCFD	-	<ul style="list-style-type: none"> <li>Maintain production rate</li> <li>Drill Exploration / Appraisal wells</li> <li>Install wellhead platforms</li> </ul>

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

\*\* Sales volume stated at 100% basis

	Project	Status*	PTTEP's Share	Partners (as of Q1 2015)	2015 Key Activities	
<b>Development Phase :</b>						
<b>Overseas</b>						
24	Algeria 433a & 416b (Bir Seba)	JOC	35%	PetroVietnam Sonatrach	40% 25%	<ul style="list-style-type: none"> <li>Continue Engineering, Procurement &amp; Construction (EPC) work</li> <li>First oil expected in 2H of 2015</li> </ul>

	Project	Status*	PTTEP's Share	Partners (as of Q1 2015)	2015 Key Activities	
<b>Exploration Phase</b>						
<b>Thailand and JDA</b>						
25	G9/43	OP	100%		<ul style="list-style-type: none"> <li>Acquire 3D seismic</li> <li>Drill Exploration / Appraisal wells</li> </ul>	
26	L28/48	OP	70%	Resourceful Petroleum (Thailand)	30%	<ul style="list-style-type: none"> <li>In process of plug and abandon (P&amp;A) Ratana-1 and Ratana-2 well</li> <li>G&amp;G Studies</li> </ul>
<b>Overseas</b>						
27	Myanmar M3	OP	80%	MOECO	20%	<ul style="list-style-type: none"> <li>Drill 5 appraisal wells</li> <li>Conduct Pre development Study</li> </ul>
28	Mozambique Rovuma Offshore Area 1		8.5%	Anadarko, Mitsui, ENH, Bharat Petroleum, BREML, OVL	26.5%,20% 15%,10%, 10%,10%	<ul style="list-style-type: none"> <li>Drill Appraisal wells for reserves certification</li> <li>Prepare for Final Investment Decision (FID)</li> </ul>
29	Algeria Hassi Bir Rekaiz	OP	24.5%	CNOOC Sonatrach	24.5% 51%	<ul style="list-style-type: none"> <li>Drill Appraisal wells</li> </ul>

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## Exploration Phase

	Project	Status*	PTTEP's Share	Partners (as of Q1 2015)	2015 Key Activities
<b>Exploration Phase (con't)</b>					
<b>Overseas (con't)</b>					
30	Indonesia South Mandar	OP	34%	Talisman TOTAL 33% 33%	• G&G studies
31	Indonesia Malunda	OP	100%		• G&G studies
32	Myanmar M11	OP	52.9412 %	TOTAL 47.0588%	
33	Vietnam B & 48/95		8.5%	Chevron 42.38% MOECO 25.62% PVEP 23.5%	• Negotiate a GSA with the Vietnamese government
34	Vietnam 52/97		7%	Chevron 43.4% PVEP 30% MOECO 19.6%	• Negotiate a GSA with the Vietnamese government
35	Myanmar PSC-G and EP-2	OP	90%	WinPreciousResources 10%	• Drill 4 exploration wells (2 wells in PSC G & 2 wells in EP 2)
36	Mozambique Rovuma Onshore		10%	Anadarko, Maurel&Prom, ENH, Wentworth Resources 35.7%,27.7% 15%,11.6%	• Drill an exploration well
37	Kenya L10A		31.25%	BG, Pan Cont. 50%,18.75%	• Conduct G&G studies
38	Kenya L5, L7, L11, L11B, L12		10%	Anadarko, Total 50%,40%	• Conduct G&G Studies
39	Myanmar MD 7 and MD 8	OP	100%		• Acquire 3D seismic
40	Mariana Oil Sands	OP	100%		• Conduct Winter Delineation Program • Prepare regulatory application to submit to the government of Alberta for Thornbury Phase 1 development
41	Barreirinhas AP1		25%	BG Brasil 75%	• Prepare EIA in preparation for 3D seismic survey
42	MOGE 3	OP	85%	Palang Sophon Offshore WinPreciousResources 10% 5%	• Submit EIA in preparation for 2D&3D seismic survey
43	Brazil BM-ES-23		20%	Petrobras 65% INPEX 15%	• Drill 2 exploration wells

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Ratio	Formula
Lifting Cost (\$/BOE)	$(\text{Operating Exp.} - \text{Transportation Cost} - \text{Stock Variation} - \text{Other expense not related to lifting}) / \text{Production Volume}$
Cash Cost (\$/BOE)	$(\text{Operating Exp.} + \text{Exploration Exp.} + \text{SG\&A} + \text{Royalty \& SRB} + \text{Interest Expense}) / \text{Sales Volume}$
Unit Cost (\$/BOE)	$(\text{Operating Exp.} + \text{Exploration Expense} + \text{SG\&A} + \text{Royalty} + \text{DD\&A}) / \text{Sales Volume}$
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	$\text{Number of wells with petroleum discovery} / \text{Total number of exploration and appraisal wells}$
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	$\text{EBITDA} / \text{Sales Revenue}$
Total Interest Bearing Debt	$\text{Short-term loans from financial institution} + \text{Current portion of long-term debts} + \text{Bonds} + \text{Long-term loans from financial institution}$
Total Debt to Equity Ratio	$\text{Total interest bearing debt} / \text{Shareholders' equity}$
Total Debt to EBITDA Ratio	$\text{Total interest bearing debt} / \text{Trailing-12-month EBITDA}$
Dividend Payout Ratio	$\text{Dividend Payment} / \text{Net Profit}$