

PTT Exploration and Production Public Company Limited

DBAccess Thailand PTT Group
Corporate day

12 June 2015



MEMBER OF
Dow Jones
Sustainability Indices
In Collaboration with RobecoSAM





Company Overview



Financial Results



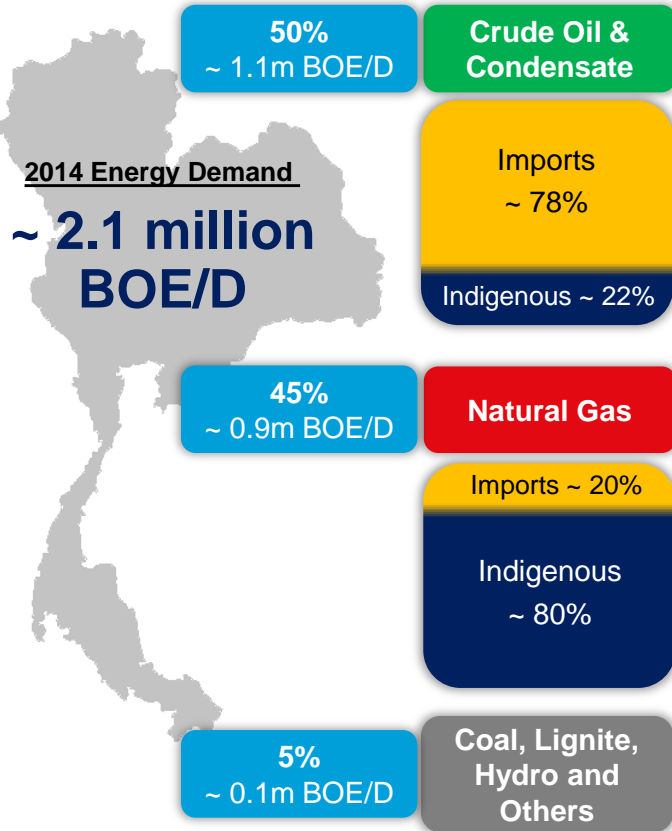
Outlook

Thailand's Energy Value Chain

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



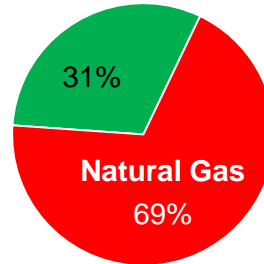
Energy Demand and Sources



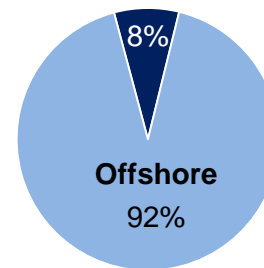
Thailand Petroleum Production 2014

% by Petroleum Type and Area

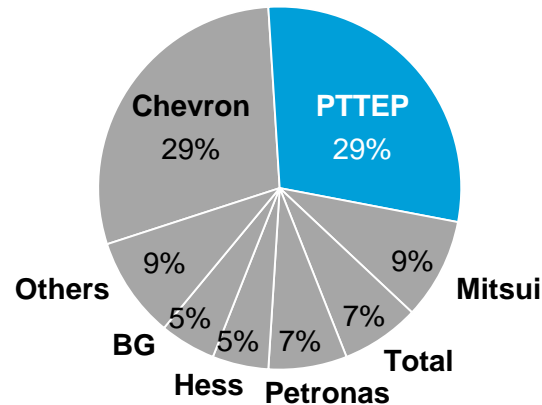
Crude and Condensate



Onshore



% Production by Company



Integration with Midstream and Downstream Value Chain

Midstream

Transmission Pipelines
Gas Separation Plants

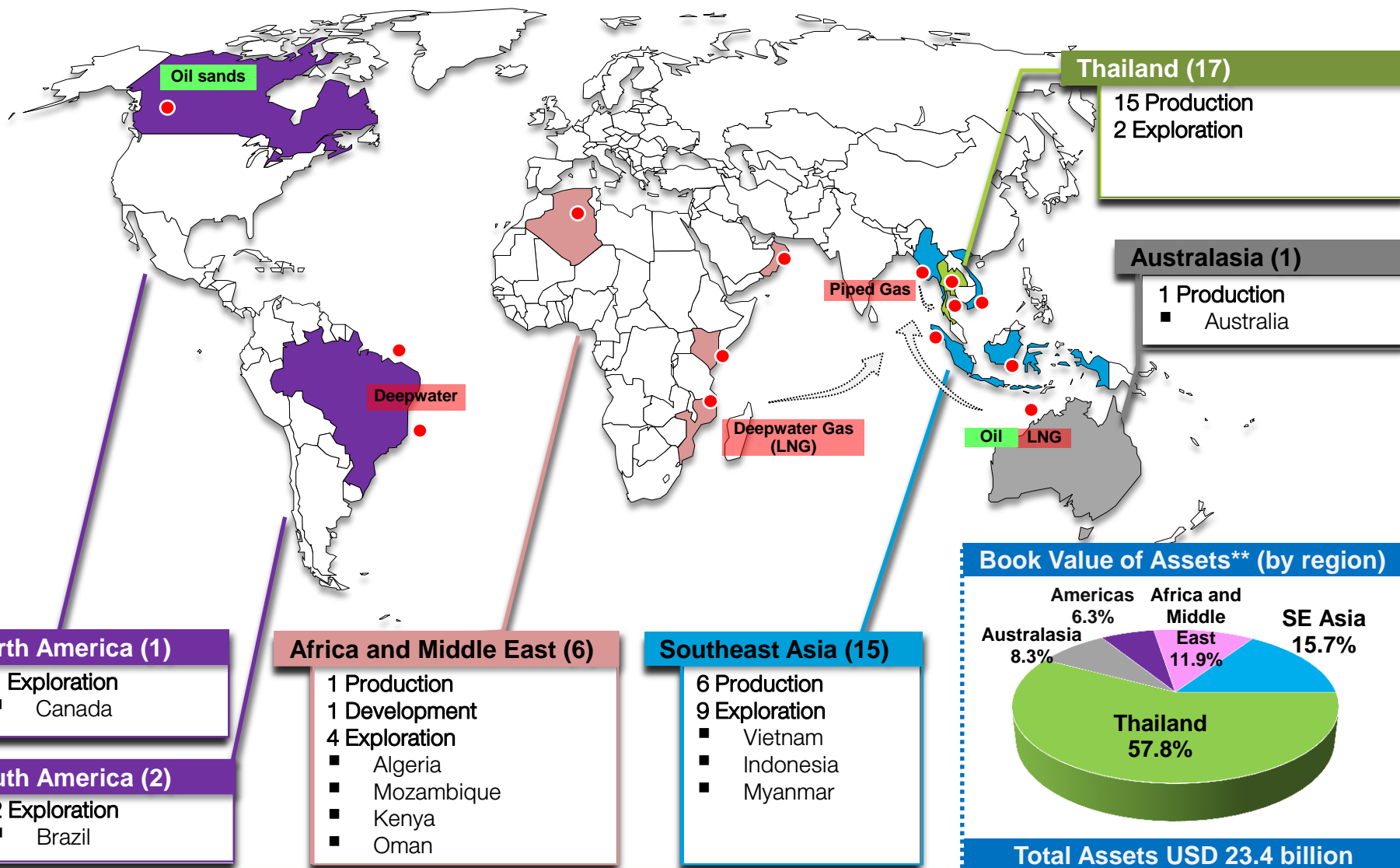
Downstream & End User Products

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: 42 projects* in 11 countries



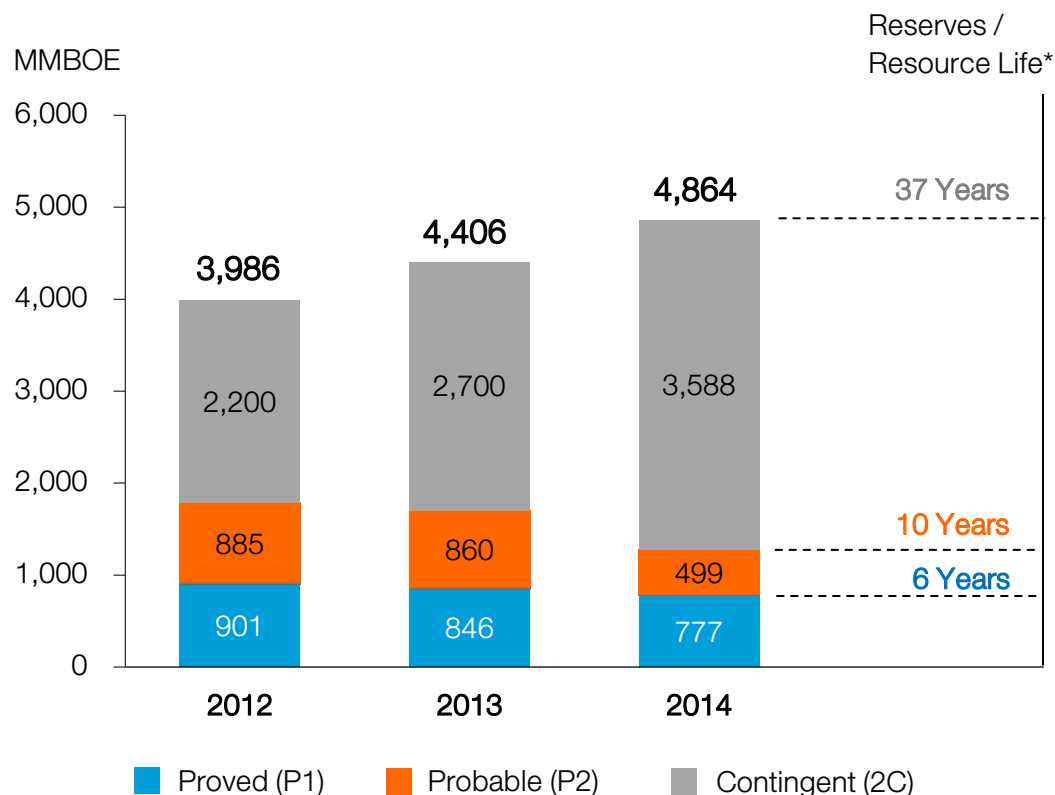
Notes:

* Excludes 4 projects that are pending official withdrawal approval

** Information dated as of 31 March 2015

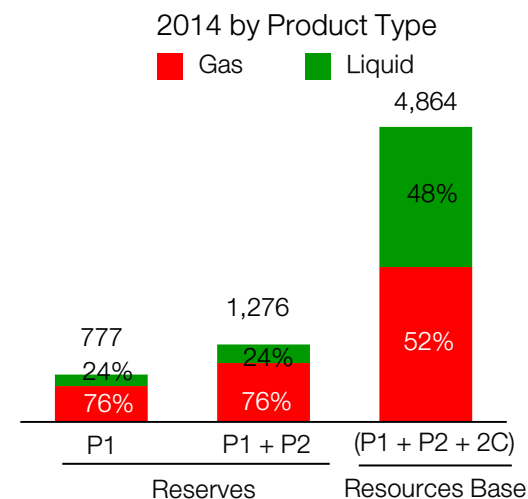
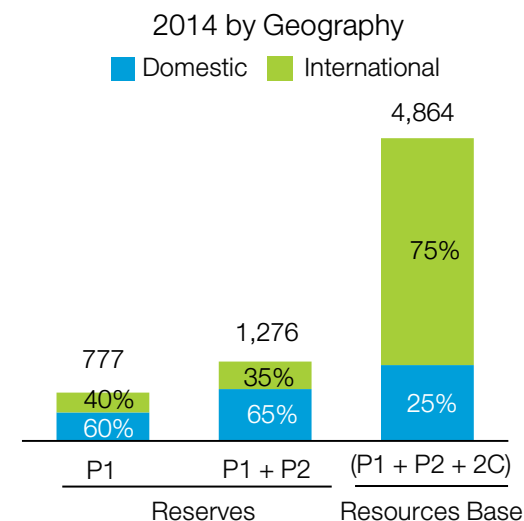
Reserves and Resources

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



Company Overview



Financial Results



Outlook

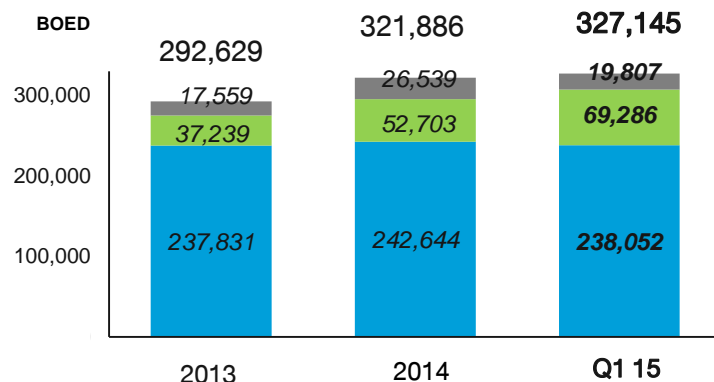
Sales Volume & Unit Costs

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

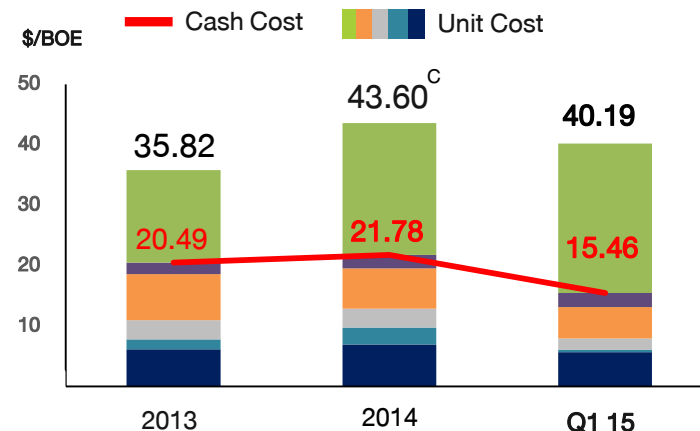


■ Rest of World
■ Other SEA
■ TH

Sales Volume and Price



Unit Cost



Gas (\$/MMBTU)	7.92 ^A	8.03 ^A	8.03
Liquid (\$/BBL)	100.15	94.91	50.12
Weighted Avg. (\$/BOE)	65.58 ^B	63.38 ^B	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. ^D	6.18	6.95 ^C	5.68
Lifting Cost	4.88	5.26	4.57
Success Ratio ^E	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

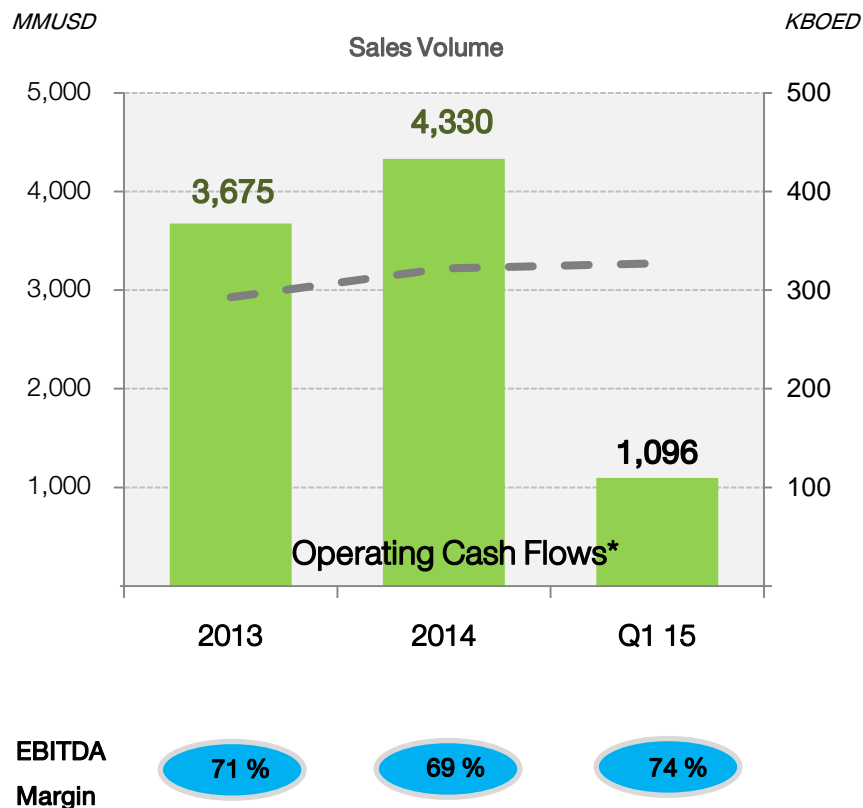
E) Exploration and Appraisal wells

Cash Flow Performance

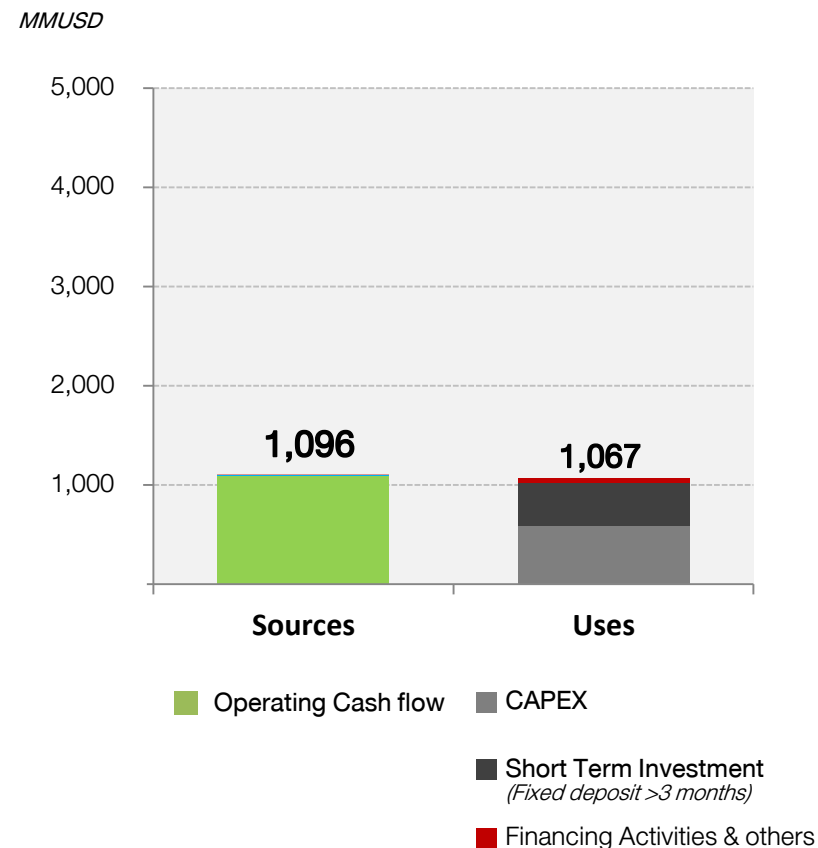
Robust liquidity to fund CAPEX and Debt Service



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

Financial Position

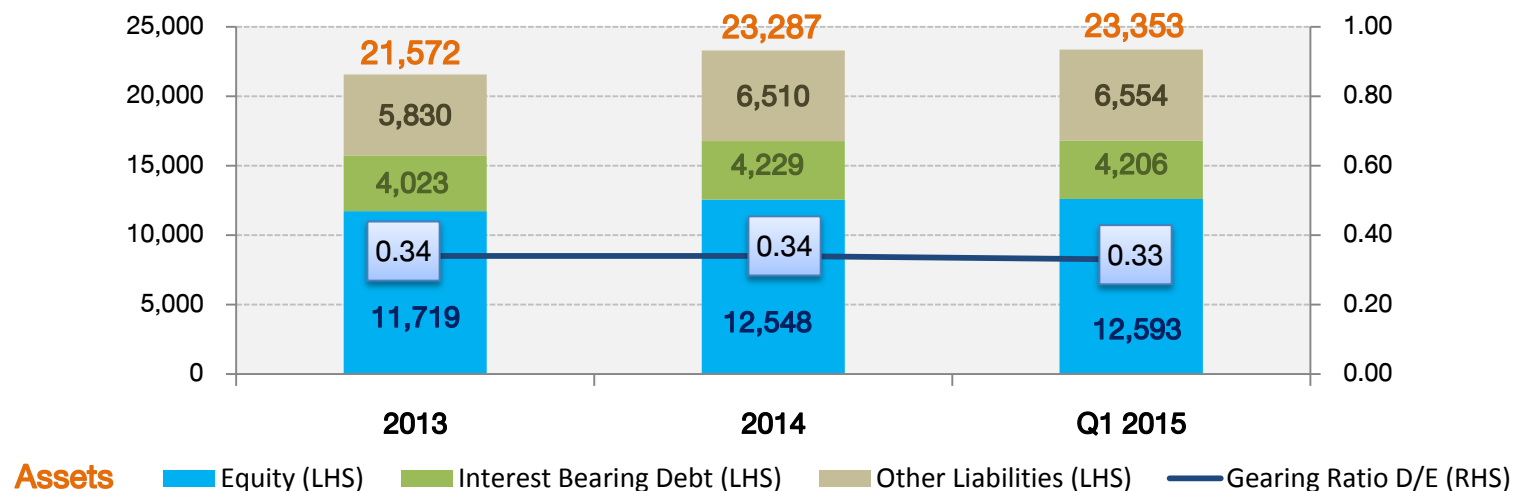
Strong Balance Sheet with Low Gearing



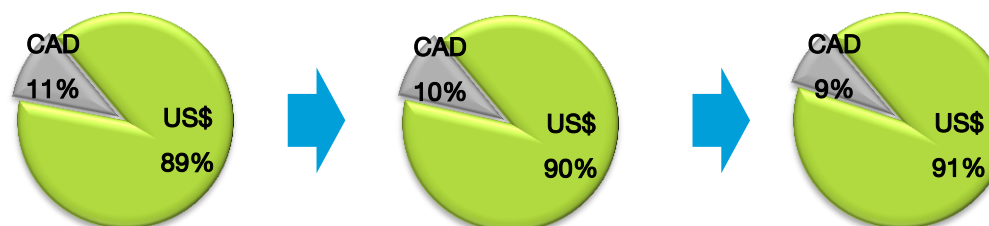
MMUSD

Capital Structure

D/E Ratio



Debt Profile *



Weighted Average

Cost of Debt* (%)

[Fixed : Floating]

Average Loan Life*(Years)

3.99

[75 : 25]

6.81

4.14

[77 : 23]

7.05

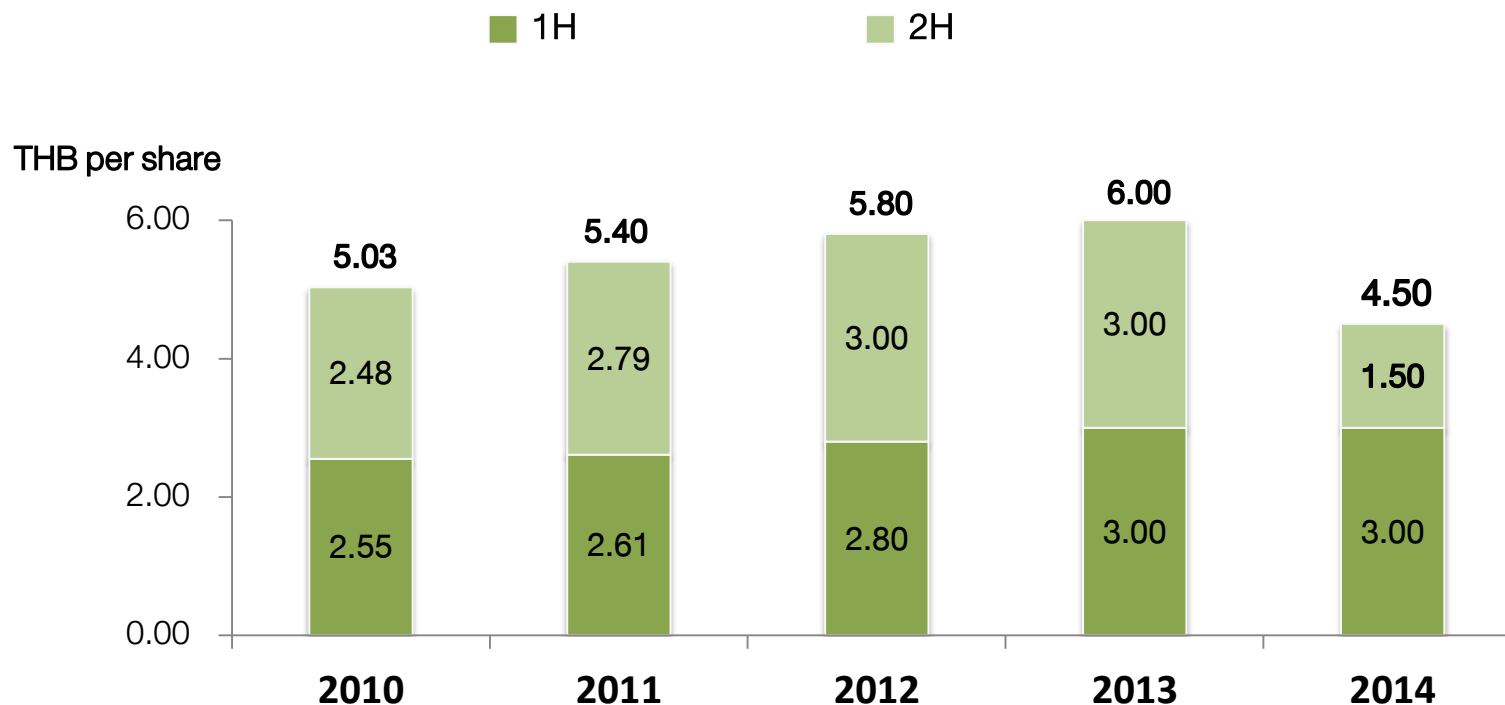
4.13

[78 : 22]

6.83

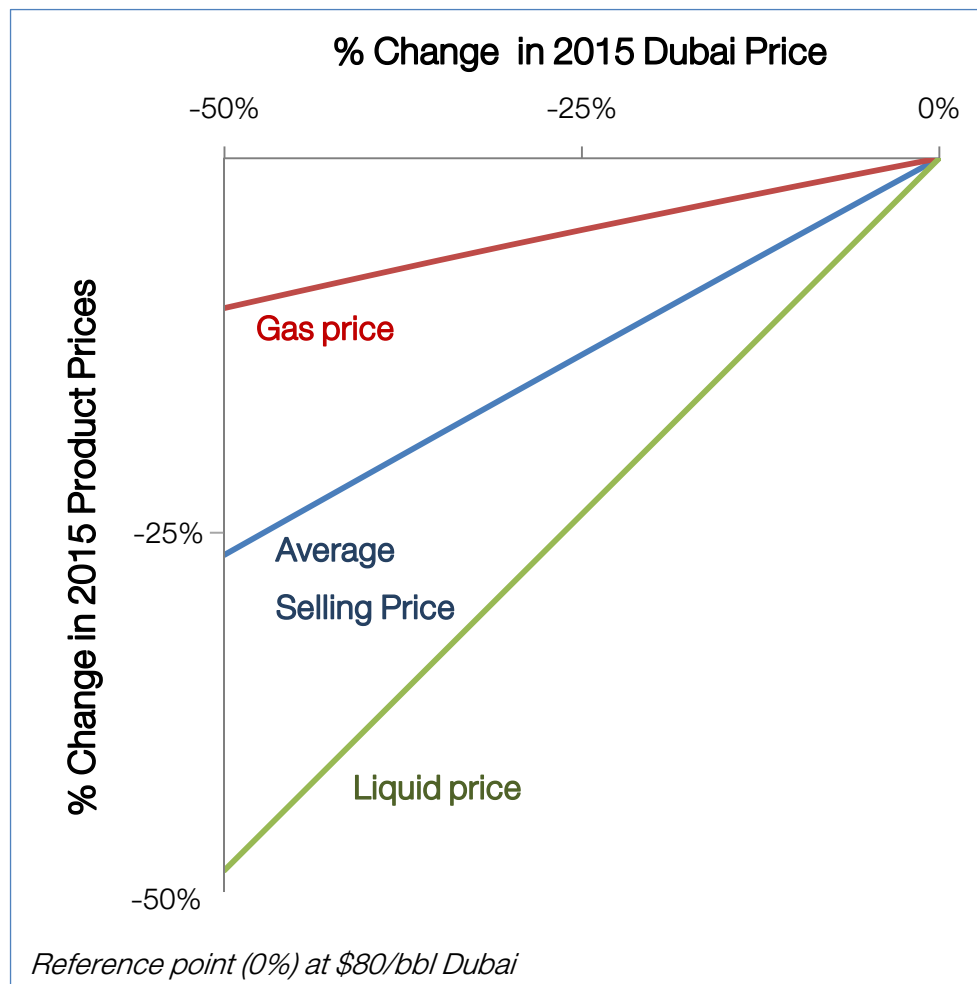
* Excludes Hybrid bonds

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



Payout Ratio (%)	40	40	38	40	82
------------------	----	----	----	----	----

Resilient gas price

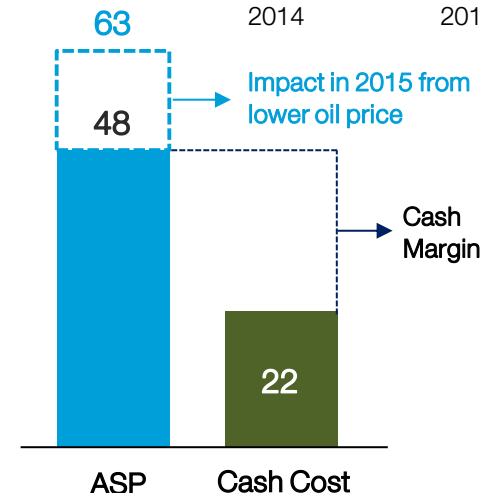


Protected cash margin

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



Company Overview



Financial Results



Outlook



Near-term priorities : key objectives



Deliver 3-6% sales volume growth

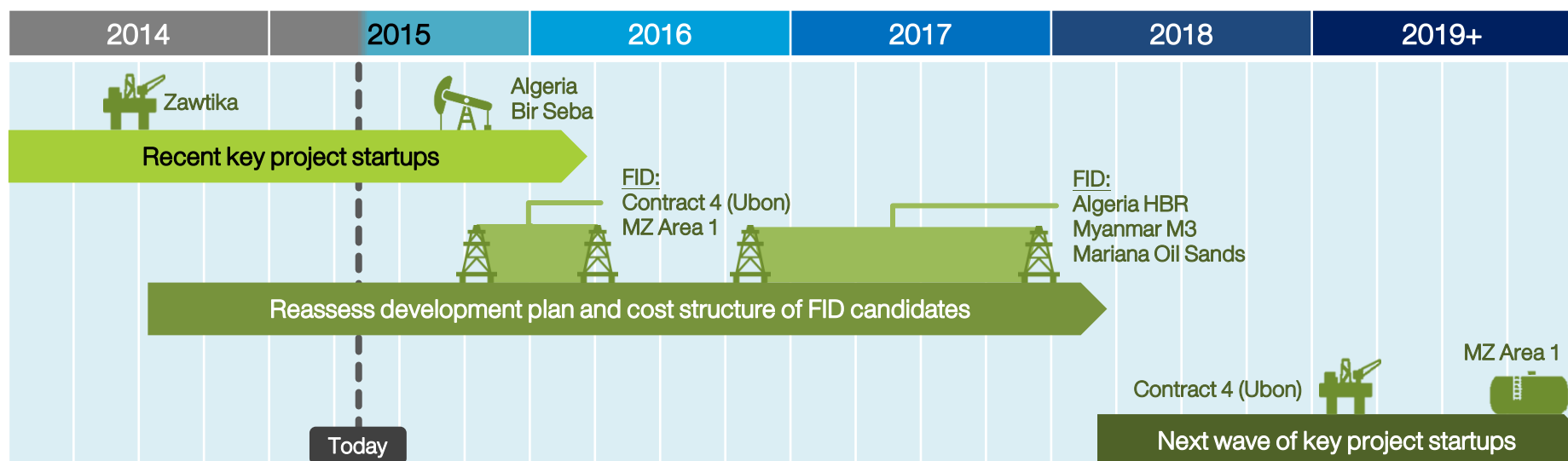


Focus on cost optimization and investment prioritization



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”

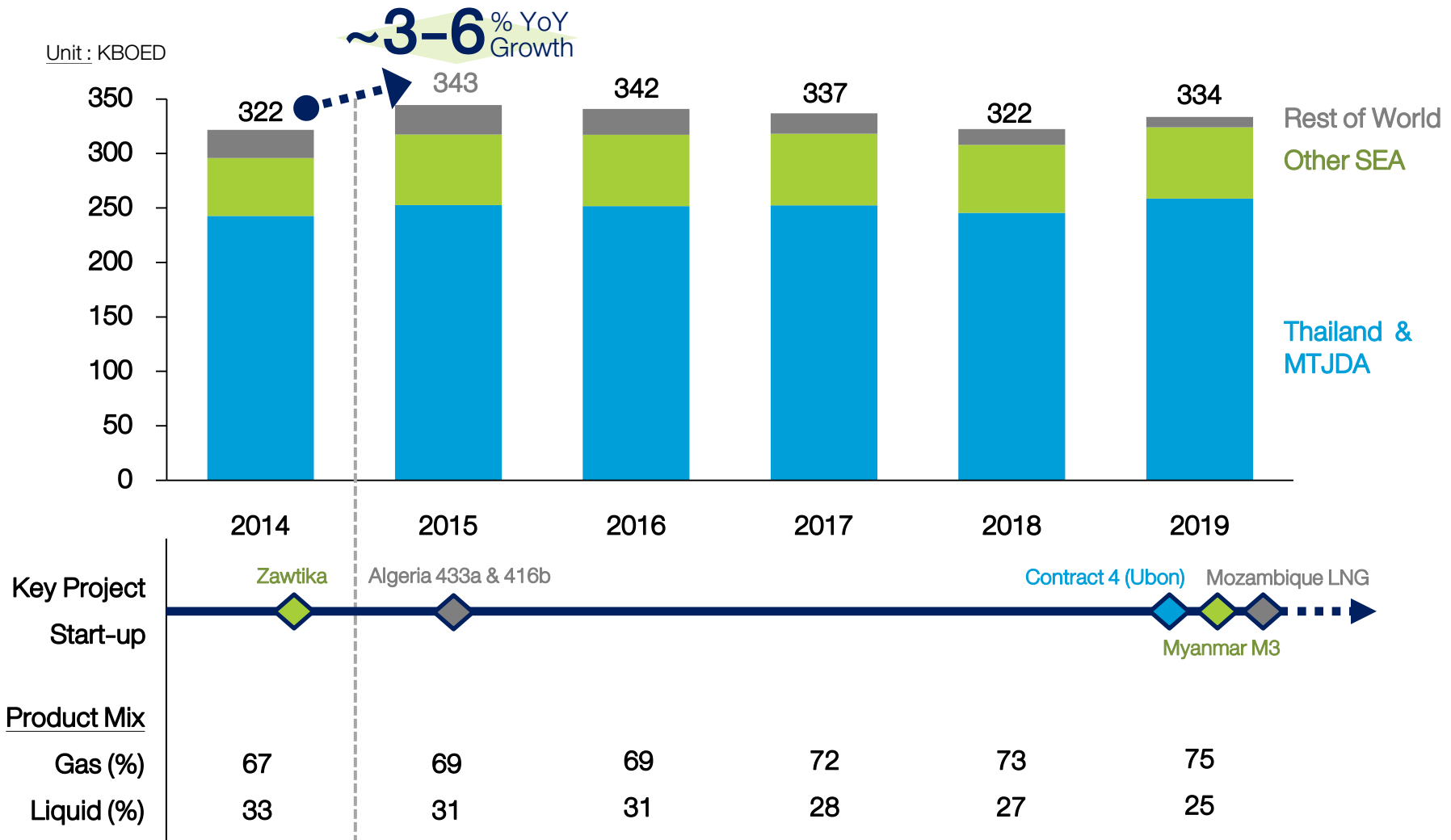
- Manpower optimization
- Travelling expense management
- Culture of “Fit for Purpose”, “Just-in-Time”

“Effectiveness”

- Capital allocation
- Strengthen project management process

Sales Volume Profile

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



2015 - 2019

~ 9.3 bn USD
 ~ 3.3 bn USD
 ~ 3.3 bn USD
~ 15.9 bn USD

Unit : MMUSD

CAPEX by 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%					

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
- Competitive cash cost profile ensures positive operating cash flow
- Strong capital structure with low gearing and high liquidity founded on stringent financial discipline



Our priorities for 2015

- Target 3-6% sales volume growth
- Continued focus on cost optimization
- Prioritization of investments in exploration and pre-development portfolios
- Leverage of strong balance sheet for value-accretive M&A opportunities



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

IR@pttep.com

OR

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



MEMBER OF

**Dow Jones
Sustainability Indices**

In Collaboration with RobecoSAM

2014 DJSI Listed Company

Dow Jones Sustainability World Index
Oil & Gas Sector



Certified Member

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



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

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

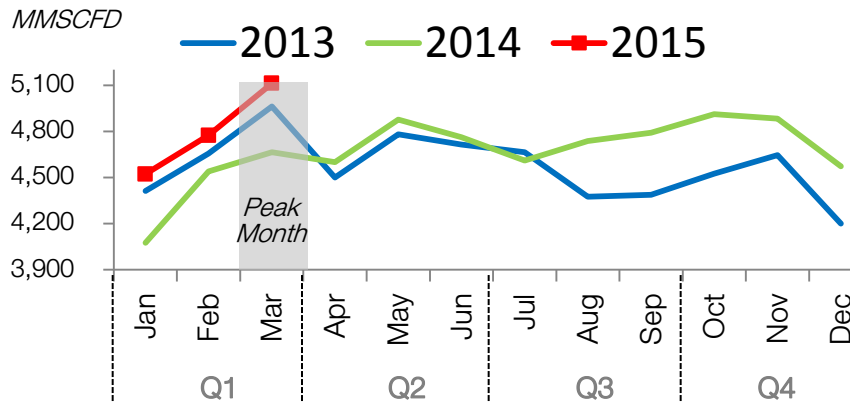
Best Environmental Responsibility
Corporate Governance Asia

Joint research project with HITZ for CO2 to
methane conversion

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

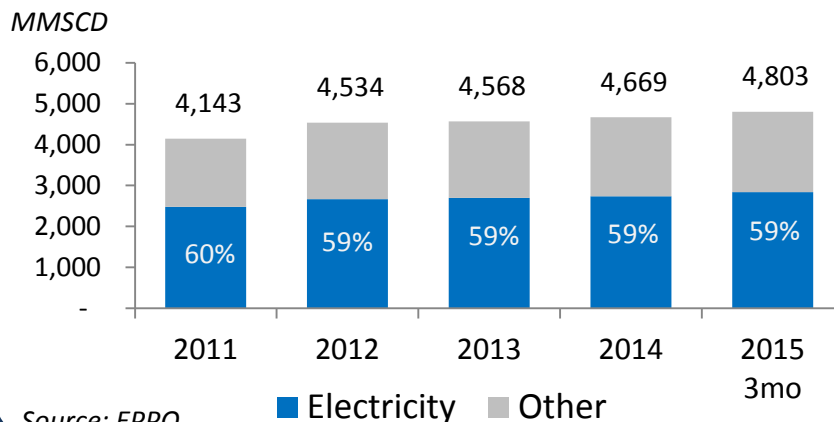
Thai Economy and Gas Demand

Monthly Gas Consumption by Year



Source: EPPO

Annual Gas Consumption by Use



Source: EPPO

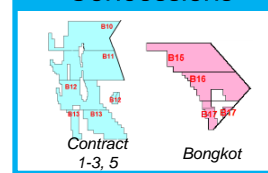
Upstream Energy Reform

21st Bidding Round



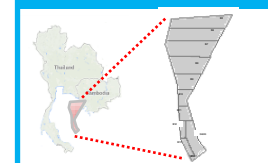
- Bidding round expected to resume later in 2015 after reaching a solution on an appropriate fiscal policy

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%²



Thailand's national energy company

65.3%¹



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

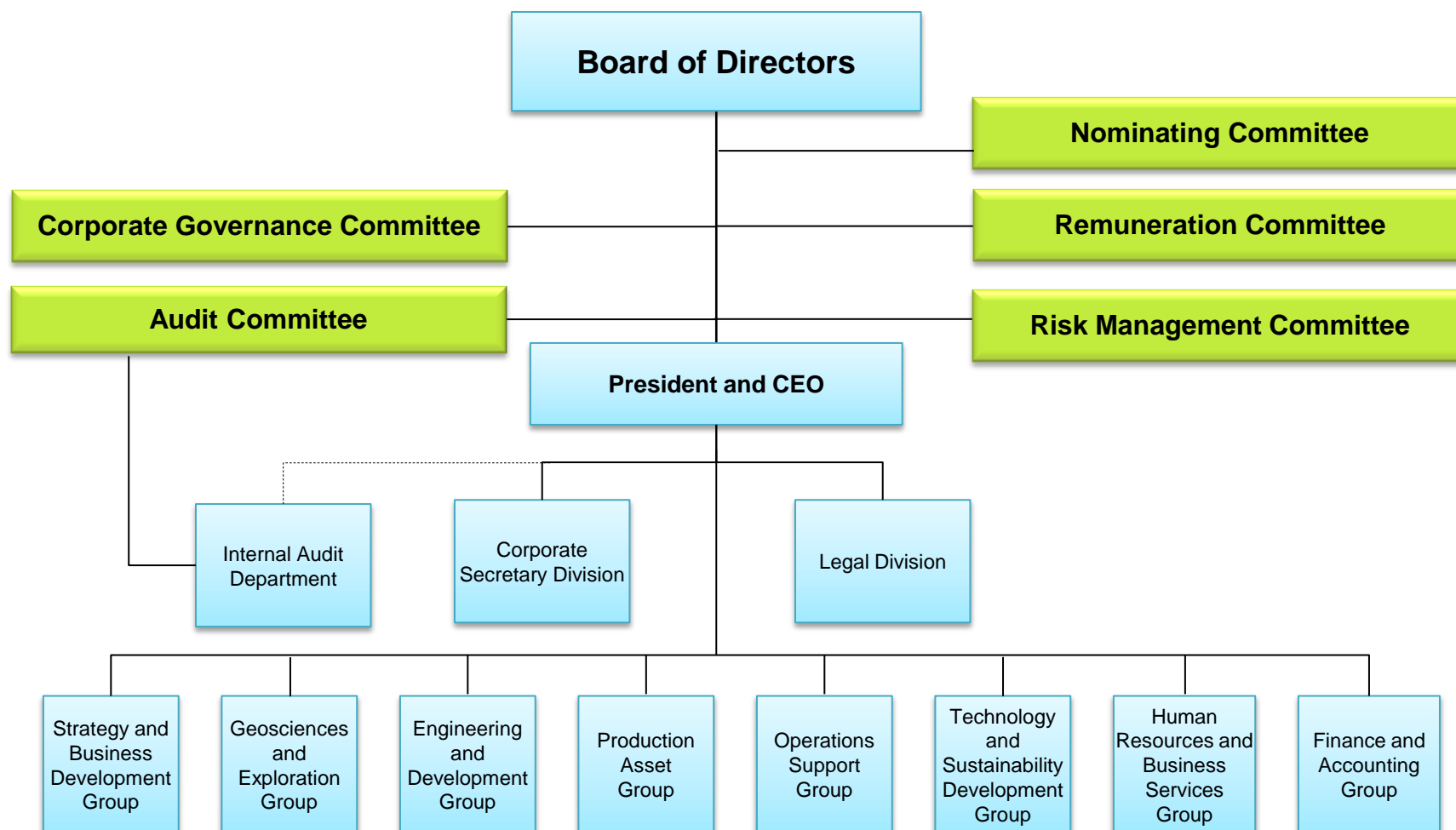
Notes:

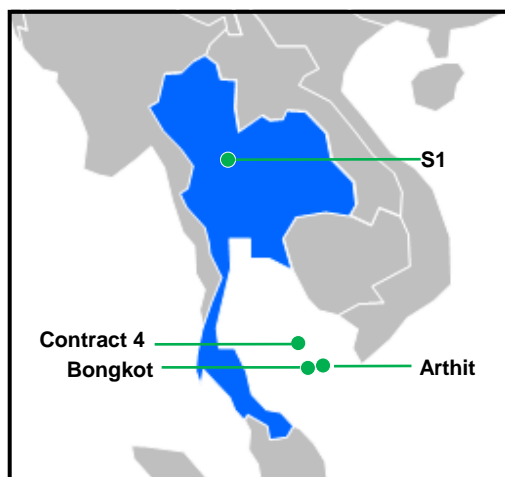
1 Ownership as of 13 February 2015

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)

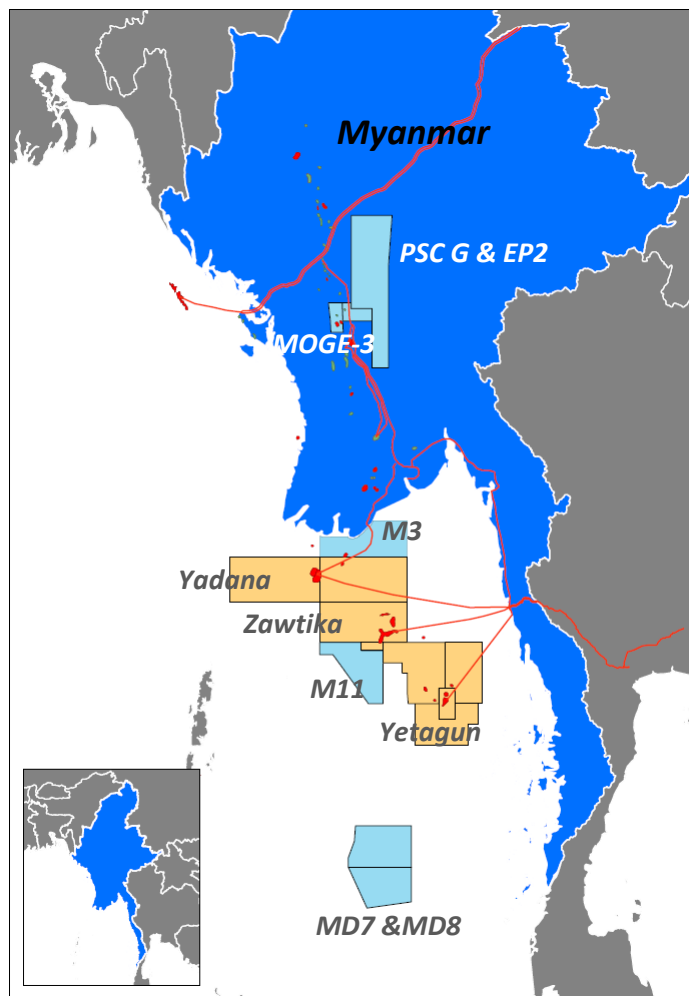
- S1 is the largest onshore crude oil production field in Thailand
- Average crude oil sales volume was 27 KBPD in Q1 2015

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



Exploration block
 Production block

- Participation in three producing gas fields which supply gas to both Thailand and Myanmar: Yadana, Yetagun, Zawtika,
- Successful exploration and development of the Zawtika gas field. Current operations delivering stable gas supply of 300 MMSCFD,
- Significant exploration acreage both onshore and offshore, in the Moattama Basin.

Project Status		
Producing	Appraisal & Develop	Exploration
<ul style="list-style-type: none"> • Yadana (25.5% WI) • Yetagun (19.31784% WI) • Zawtika (80% WI) 	<ul style="list-style-type: none"> • M3 (80% WI) 	<ul style="list-style-type: none"> • PSC G & EP2 (90% WI) • MOGE-3 (85% WI) • M11 (52.9% WI) • MD7 & MD8 (100% WI)

Note: WI – working interest



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

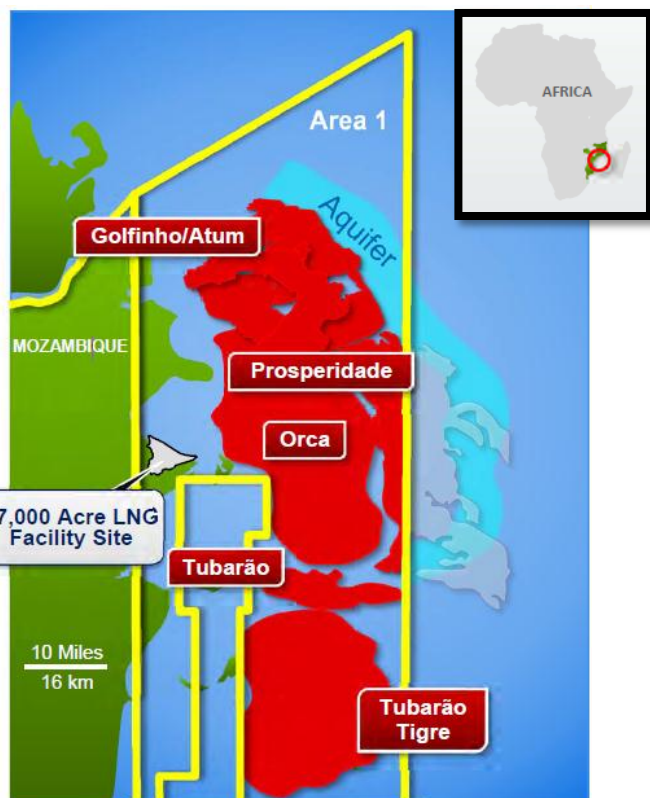


● Production / Ramp-up Projects

Source : Premier Oil

East Africa : Mozambique

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



Location and Cost Advantage

- Close proximity to shore
- High quality reservoirs
- Access to Asian markets

Source: Anadarko

*Substantial recoverable resources of **70+ tcf** with scalable offshore development of **more than 6 LNG trains***

Key Milestones to Final Investment Decision

Technical

- ✓ Certified reserves to support initial trains
- ✓ Announced selection of contractor for onshore LNG facilities construction

Commercial

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

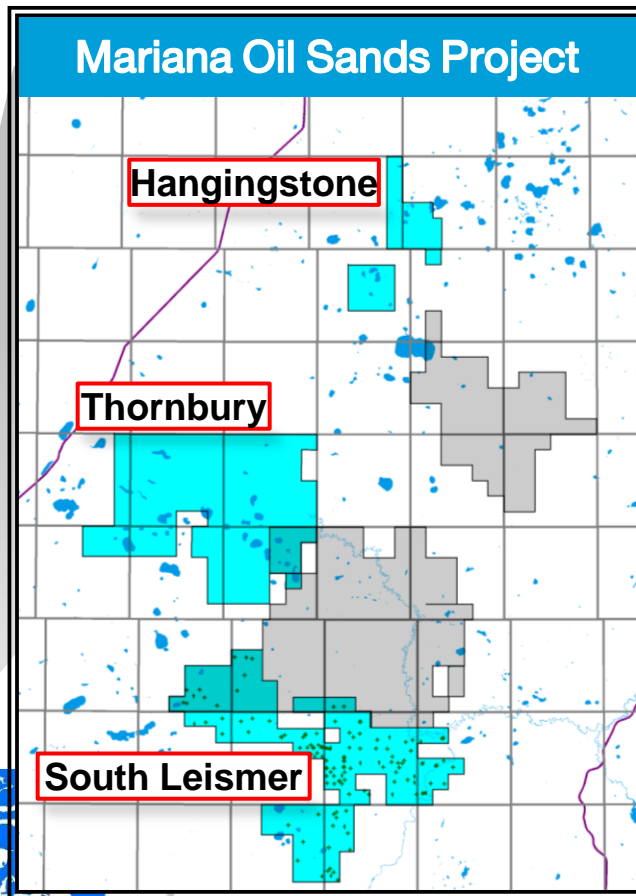
Regulatory

- ✓ Substantial engagement with government to progress on remaining agreements and approvals to support investment

Financing

- ✓ Positive indications on project financing

Onwards to initial phase of 12 MMTPA



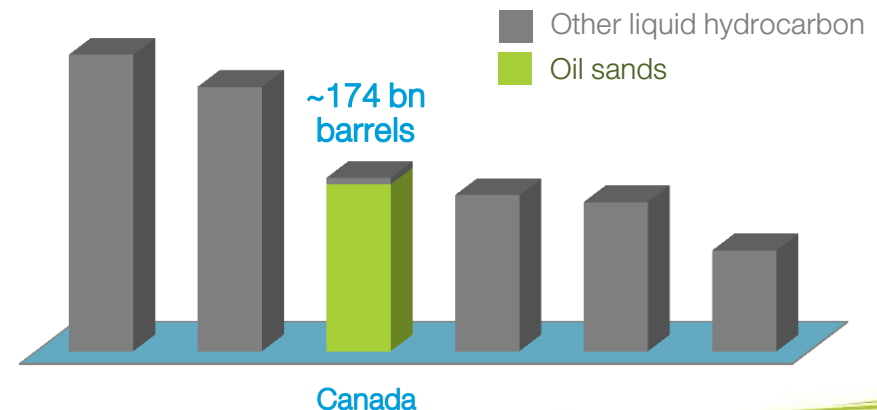
Key activities

- 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, Hangingstone and South Leismer areas, and has received from Statoil Canada a total of 419 million US dollars

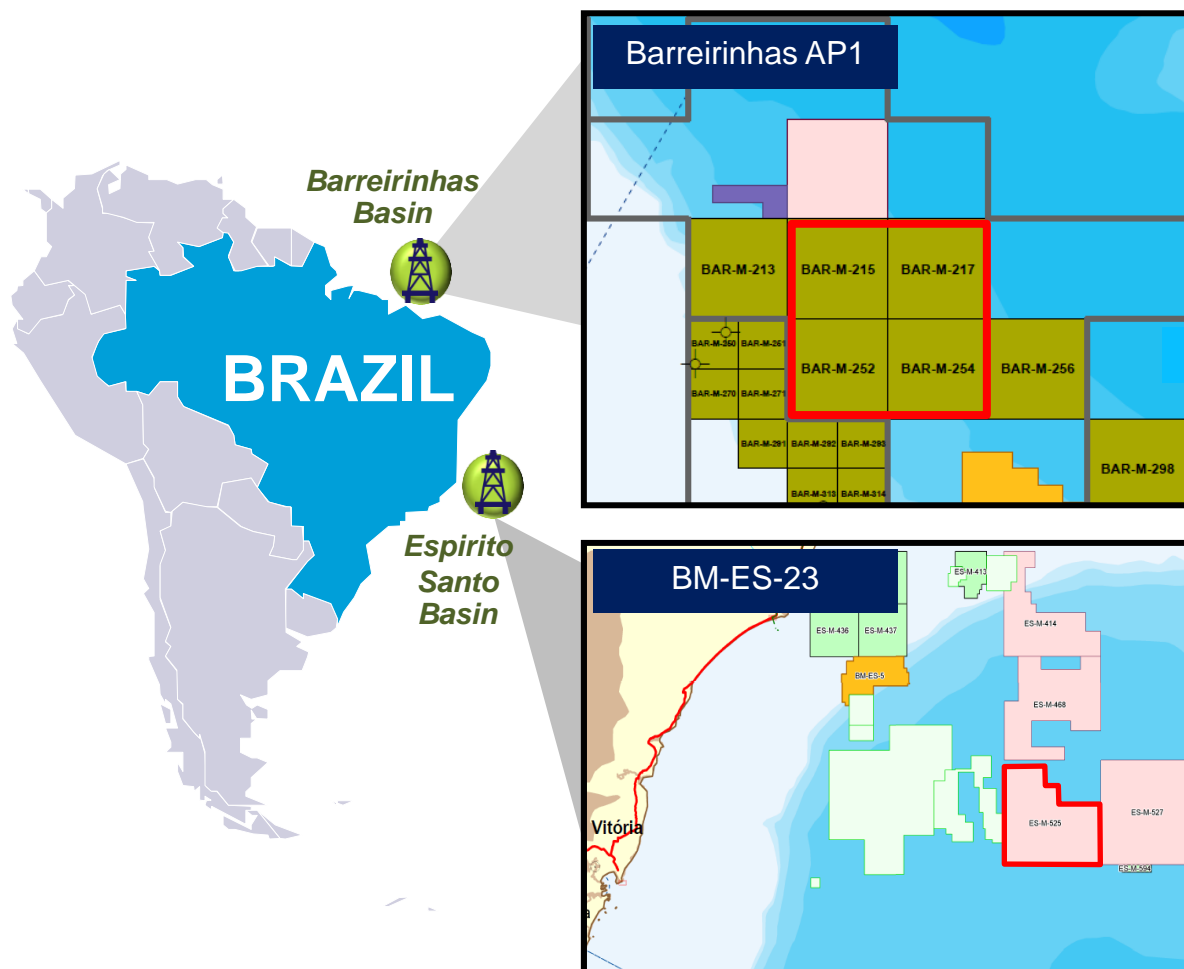
Approximately 96% of the reserves in Canada, the world's 3rd largest oil reserves, is oil sands



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
- 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 Information 1/4

Production Phase: Thailand and JDA



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

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

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

Project Information 2/4

Production Phase: Overseas



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

* 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
Development Phase :					
Overseas					
24	Algeria 433a & 416b (Bir Seba)	JOC	35%	PetroVietnam Sonatrach 40% 25%	<ul style="list-style-type: none"> Continue Engineering, Procurement & Construction (EPC) work First oil expected in 2H of 2015

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

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

	Project	Status*	PTTEP's Share	Partners (as of Q1 2015)	2015 Key Activities
Exploration Phase (con't)					
Overseas (con't)					
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, 35.7%,27.7% ENH, Wentworth 15%,11.6% Resources	• Drill an exploration well
37	Kenya L5, L7, L11, L11B, L12		10%	Anadarko, Total 50%,40%	• Conduct G&G Studies
38	Myanmar MD 7 and MD 8	OP	100%		• Acquire 3D seismic
39	Mariana Oil Sands	OP	100%		• Conduct Winter Delineation Program • Prepare regulatory application to submit to the government of Alberta for Thornbury Phase 1 development
40	Barreirinhas AP1		25%	BG Brasil 75%	• Prepare EIA in preparation for 3D seismic survey
41	MOGE 3	OP	85%	Palang Sophon Offshore 10% WinPreciousResources 5%	• Submit EIA in preparation for 2D&3D seismic survey
42	Brazil BM-ES-23		20%	Petrobras 65% INPEX 15%	• Drill 2 exploration wells

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

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	$\text{Dividend Payment} / \text{Net Profit}$