

PTT Exploration and Production Public Company Limited

Inbound Roadshow by SCBS
21 April 2015



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





Company Overview



Financial Results



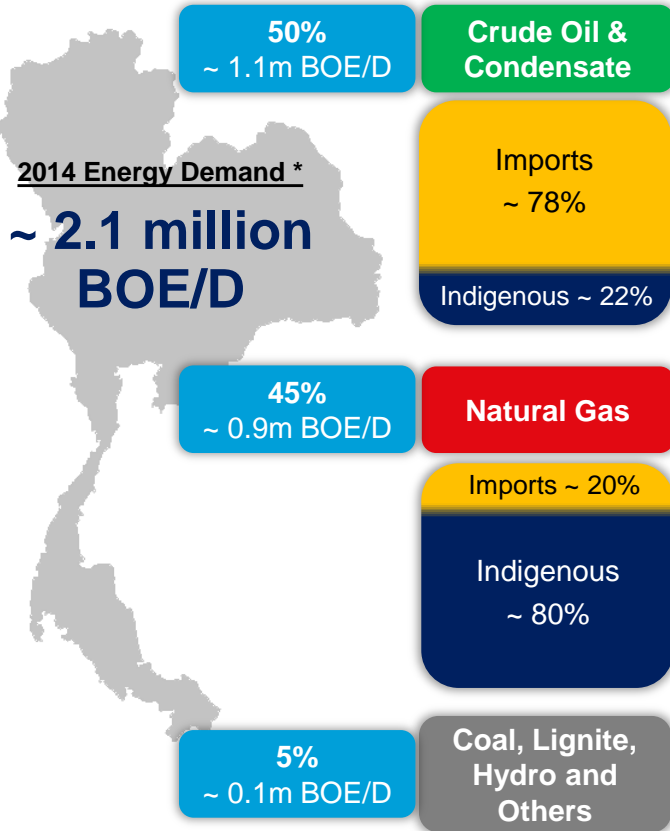
Outlook

Supporting Thailand's Energy Value Chain

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



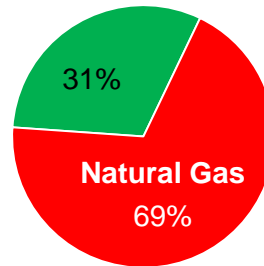
Energy Demand and Sources *



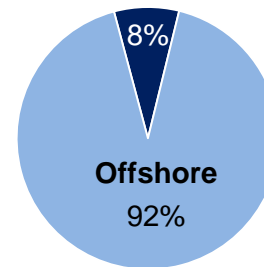
Thailand Petroleum Production 2014

% by Petroleum Type and Area

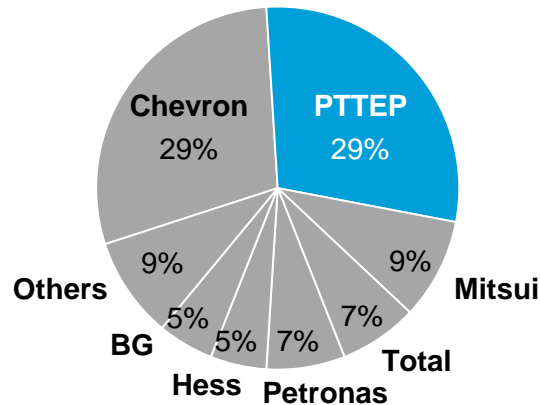
Crude and Condensate



Onshore



% Production by Company



Integration with Midstream and Downstream Value Chain

Midstream

Transmission Pipelines
Gas Separation Plants

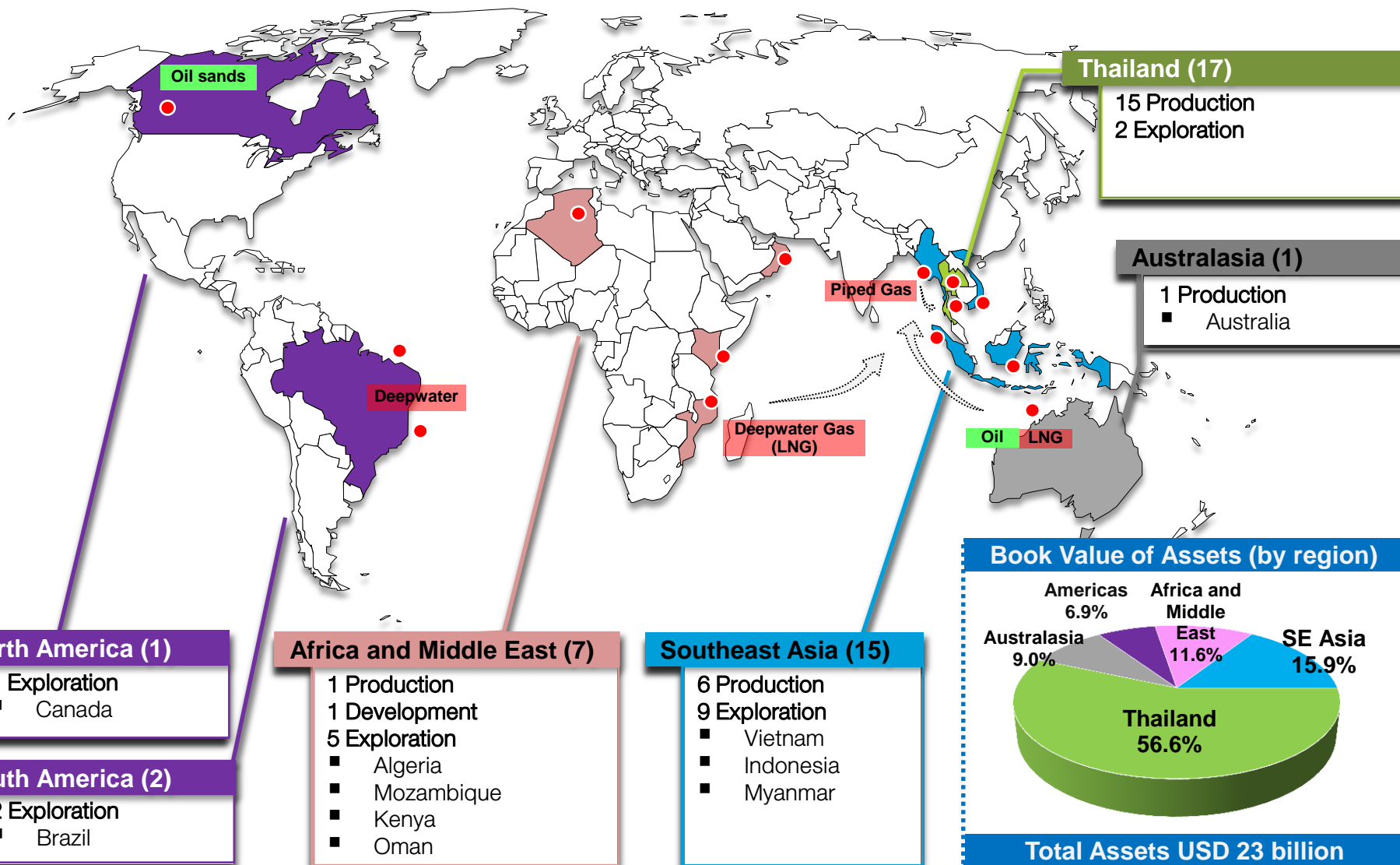
Downstream & End User Products

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

Highlights in 2014

Delivered growth from robust operations and strategic fine-tuning



Zawtika ZPQ

Strong production base from high-margin assets : 10% Growth

- ✓ Maintain domestic production to support energy demand
- ✓ Successfully commenced gas production from Zawtika
- ✓ Ramp-up production from Montara to full potential

Gaining clarity on resource potential through continued exploration

- ✓ Continued appraisal program in Zawtika, Myanmar M3 and Algeria HBR
- ✓ Kick-off Myanmar PSC-G & EP-2 exploration program
- ✓ Additional exploration discovery in Mozambique Area 1

Active portfolio management for short-term and long-term growth

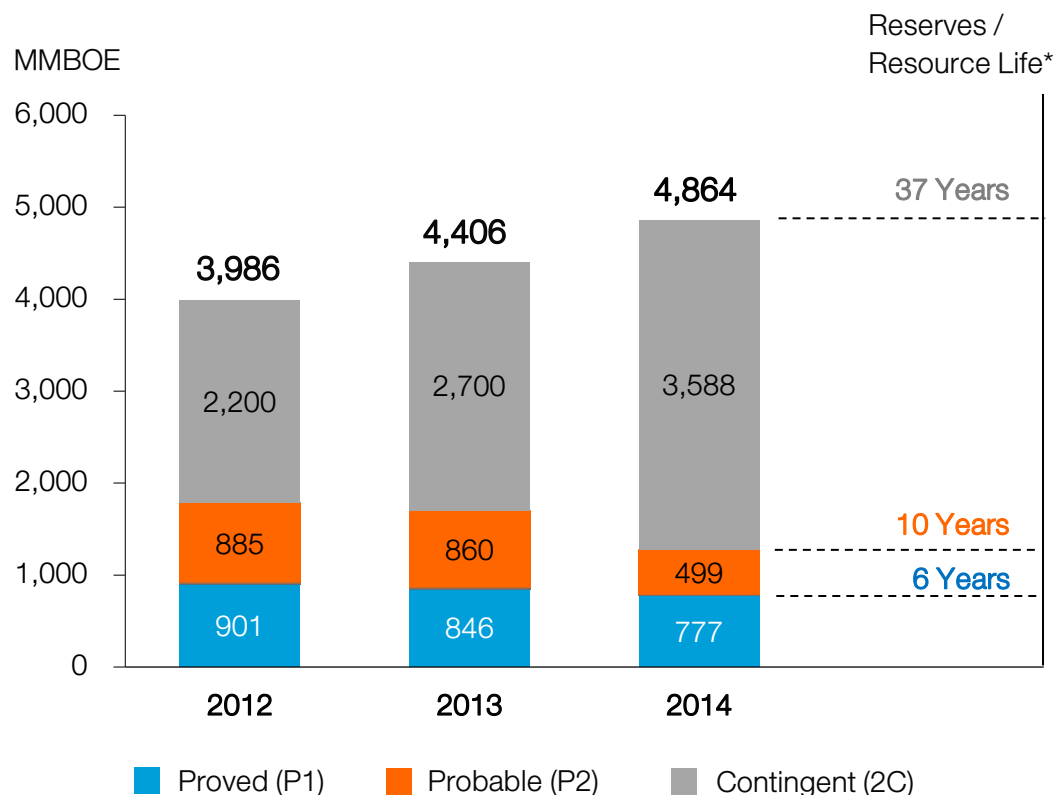
- ✓ Strengthen domestic base through Hess Thailand acquisition
- ✓ Restructured oil sands business through KKD asset swap
- ✓ Expanding exploration horizon into Brazil high-potential areas

Financially well-positioned against the oil price headwind

- ✓ Recorded >4 bn USD operating cash flow from higher sales volume
- ✓ Strategic funding of 1.6 bn USD to strengthen capital structure
- ✓ Balance dividend payment and cash flow with 4.50 THB/share dividend

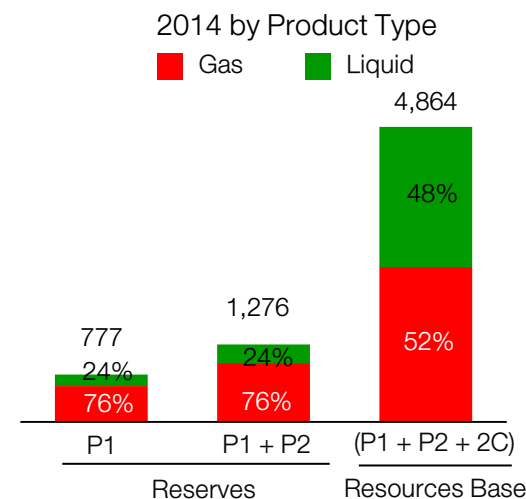
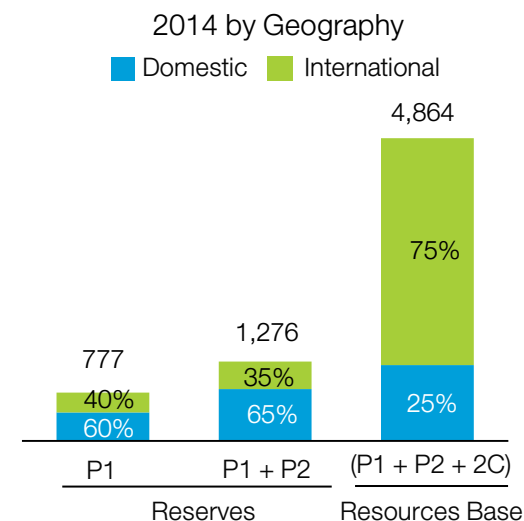
Reserves and Resources

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



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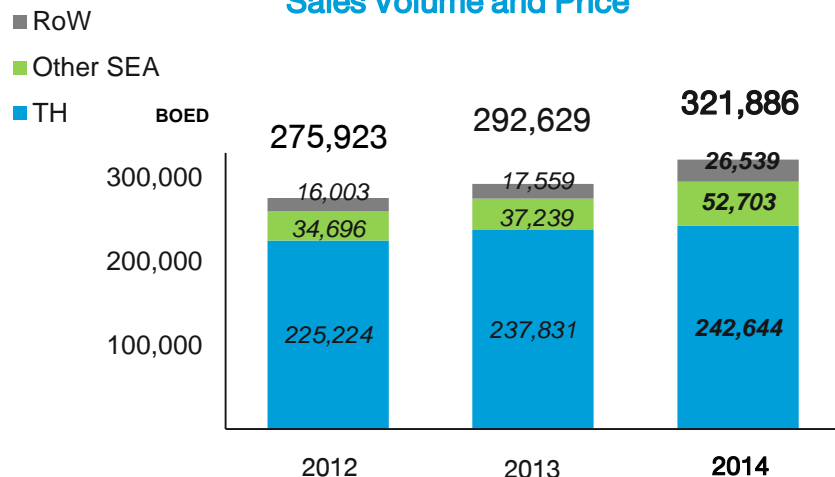
Outlook

Sales Volume & Unit Costs

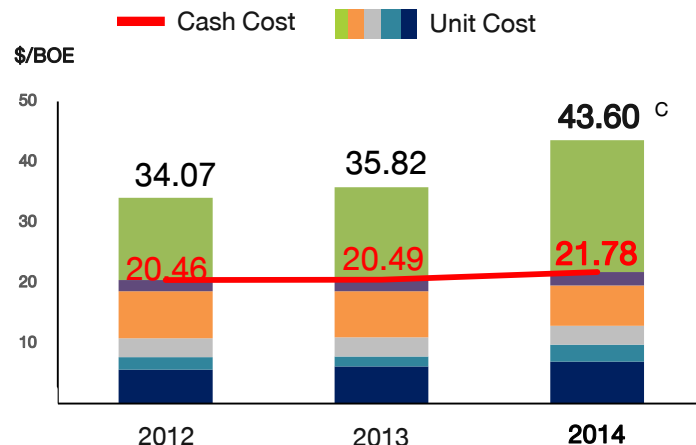
Gas-weighted portfolio and healthy cash margin to weather low oil prices



Sales Volume and Price



Unit Cost



Gas (\$/MMBTU)	7.59	7.92 ^A	8.03 ^A
Liquid (\$/BBL)	103.27	100.15	94.91
Weighted Avg. (\$/BOE)	64.86	65.58 ^B	63.38 ^B
Avg. Dubai (\$/BBL)	109.03	105.54	96.60
Avg. HSFO (\$/BBL)	103.26	97.52	86.74
<i>High Sulfur Fuel Oil</i>			
Volume Mix (Gas:Liquid)	66 : 34	66 : 34	67 : 33
Revenue Mix (Gas:Liquid)	46 : 54	47 : 53	51 : 49

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

DD&A	13.61	15.33	21.82
Finance Cost	1.85	1.88	2.21
Royalties	7.80	7.65	6.69
G&A	3.09	3.17	3.10
Exploration Exp.	2.11	1.61	2.83
Operating Exp. ^D	5.61	6.18	6.95 ^C
Lifting Cost	4.28	4.88	5.26
Success Ratio ^E	43:54	38:55	25 : 43

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

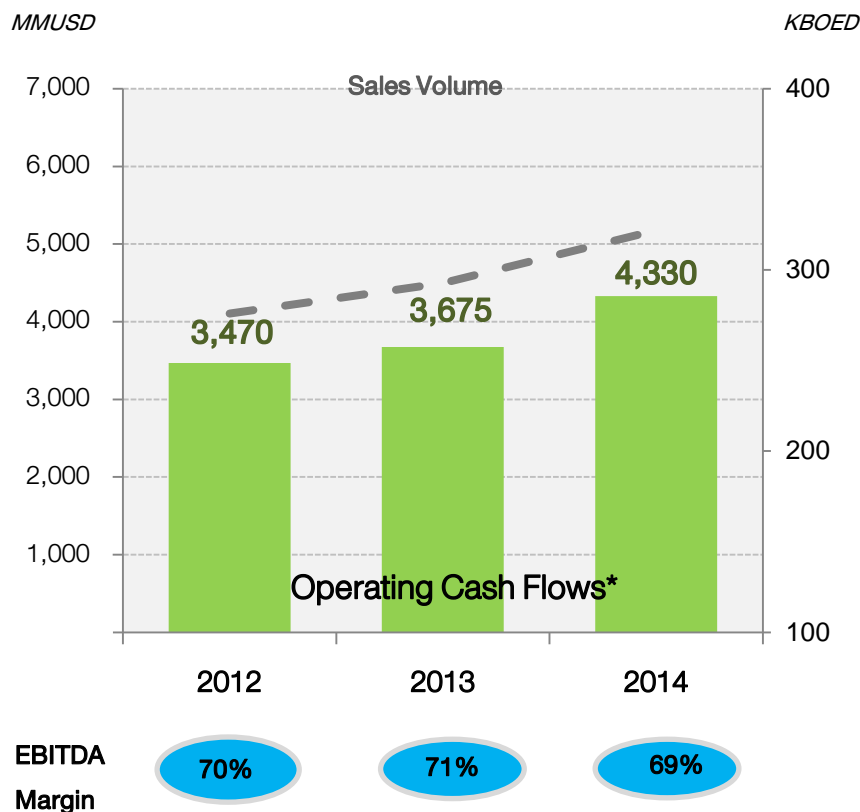
E) Exploration and Appraisal wells

Cash Flow Performance

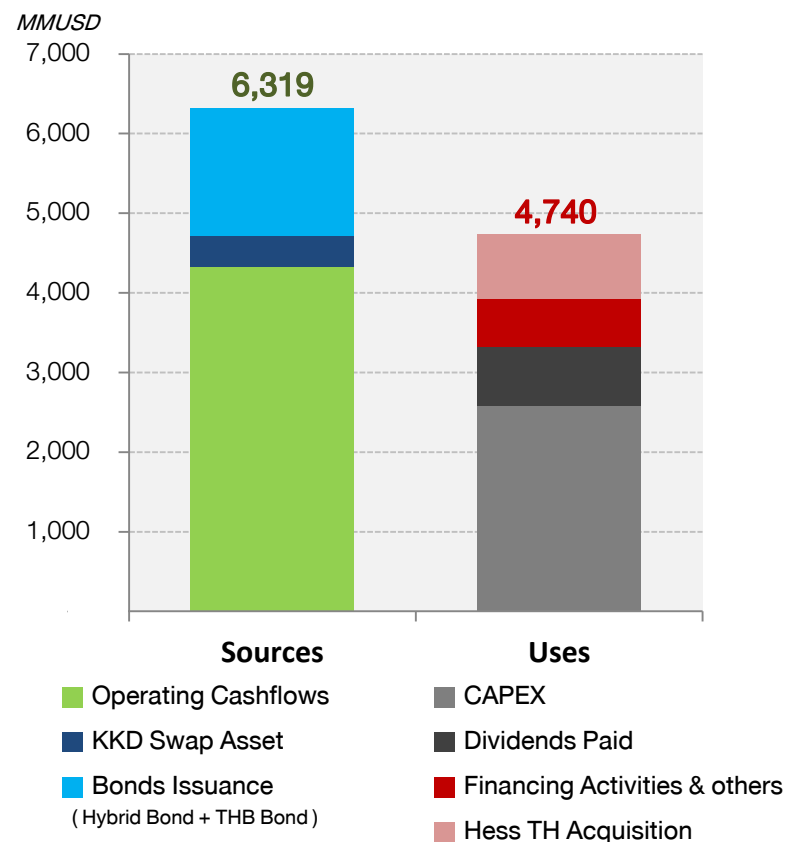
Robust liquidity to fund CAPEX and Debt Service



Cash Flow Performance



Source & Use of Funds in 2014



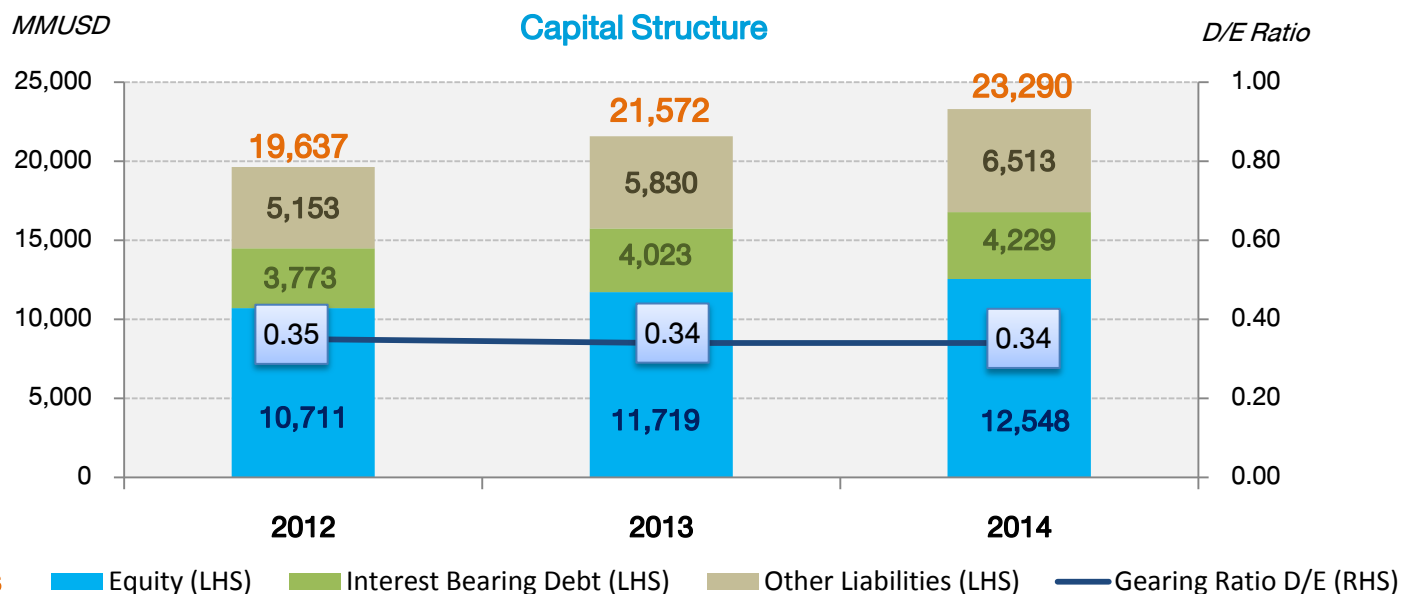
* Net of adjustment for the effect of exchange rate changes on cash and cash equivalents. Operating cash flows before exchange rate effect adjustment is:

2012 = 3,455 MMUSD ; 2013 = 3,740 MMUSD ; 2014 = 4,320 MMUSD

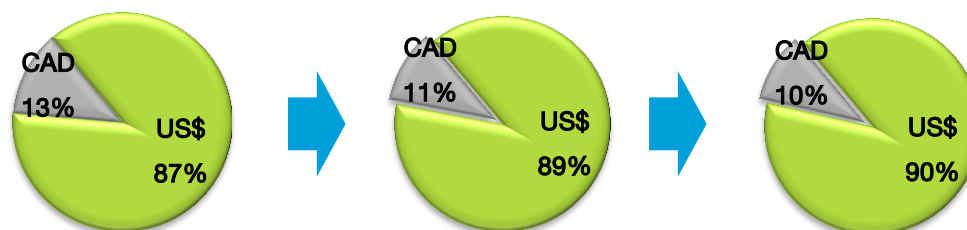
** Operating cashflow included in Source of fund in 2014 is shown net of adjustment for the effect of exchange rate changes on cash and cash equivalents 4,320 MMUSD

Financial Position

Strong Balance Sheet with Low Gearing to support growth



Debt Profile *



Weighted Average

Cost of Debt* (%)

[Fixed : Floating]

Average Loan Life*(Years)

3.99

[79 : 21]

7.50

3.99

[75 : 25]

6.81

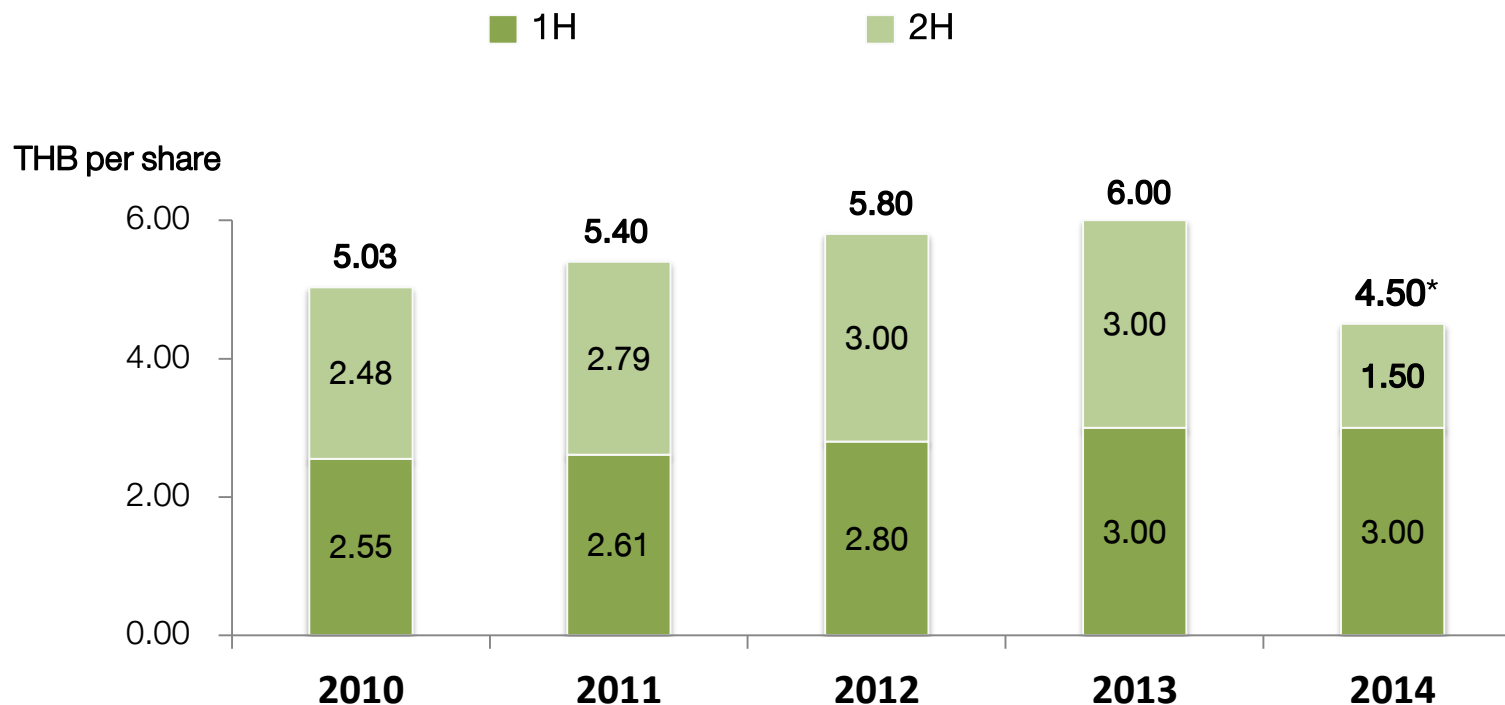
4.14

[77 : 23]

7.05

* Excludes Hybrid bonds

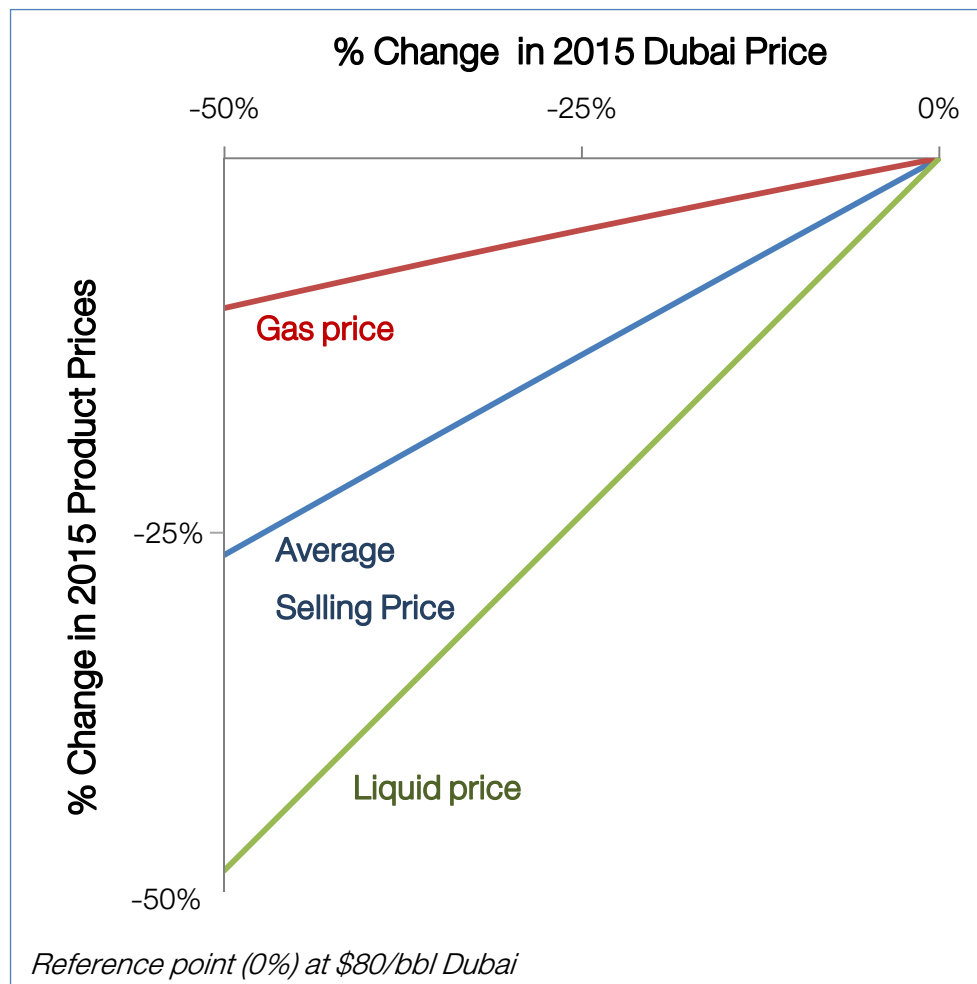
Dividend Payment History (Policy : No Less Than 30% of Net Income)



Payout Ratio (%)	40	40	38	40	82
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* Subject to the 2015 Annual General Shareholders' Meeting approval

Resilient gas price

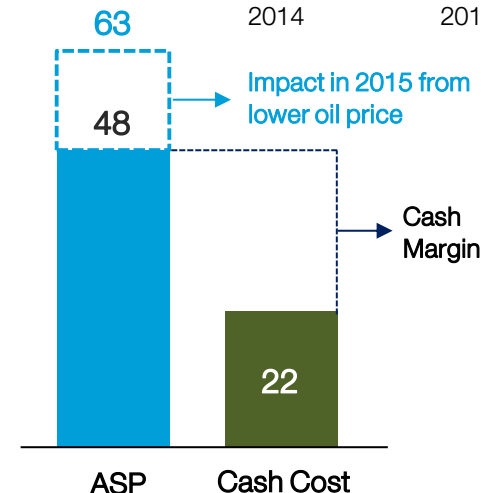


Protected cash margin

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

Implication

Priorities in changing industry environment

Short term



Deliver 6% volume growth as planned



Focus on cost optimization and investment prioritization



Leverage strong balance sheet for value-creating growth opportunity

Medium term



Adopt a cautious approach on our pre-development assets



Continue to focus on our core basins in the southeast Asia

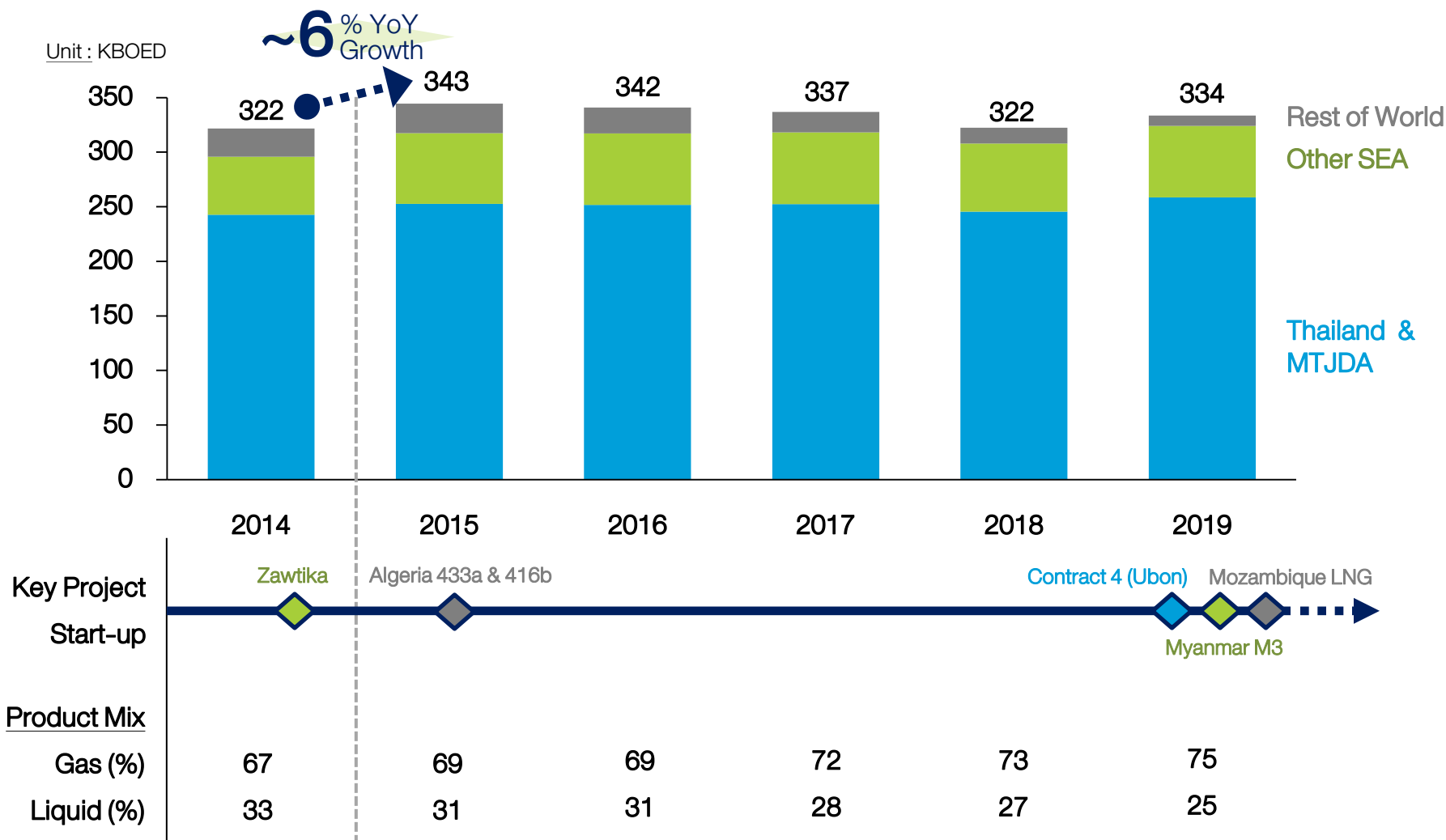
Long term



Reassess long term aspiration

Target volume growth

Thailand and Southeast Asia continue to be the strong production base



Investment Plan

Focus on Thailand and other Southeast Asia

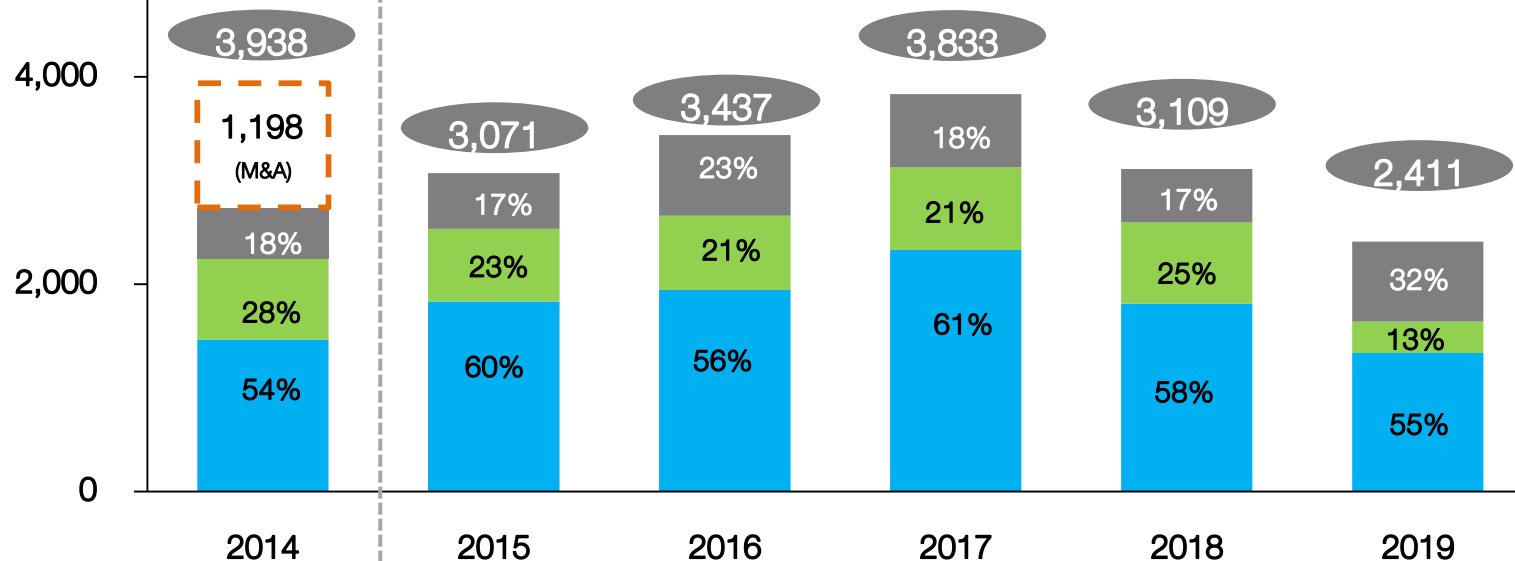
Capex by Region



2015 - 2019

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

Unit : MMUSD



CAPEX by Activity Type

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%					

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



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 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

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

- 
- 1. Sustainable Development**
 - 2. Thailand Economy, Gas Demand and Reform**
 - 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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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

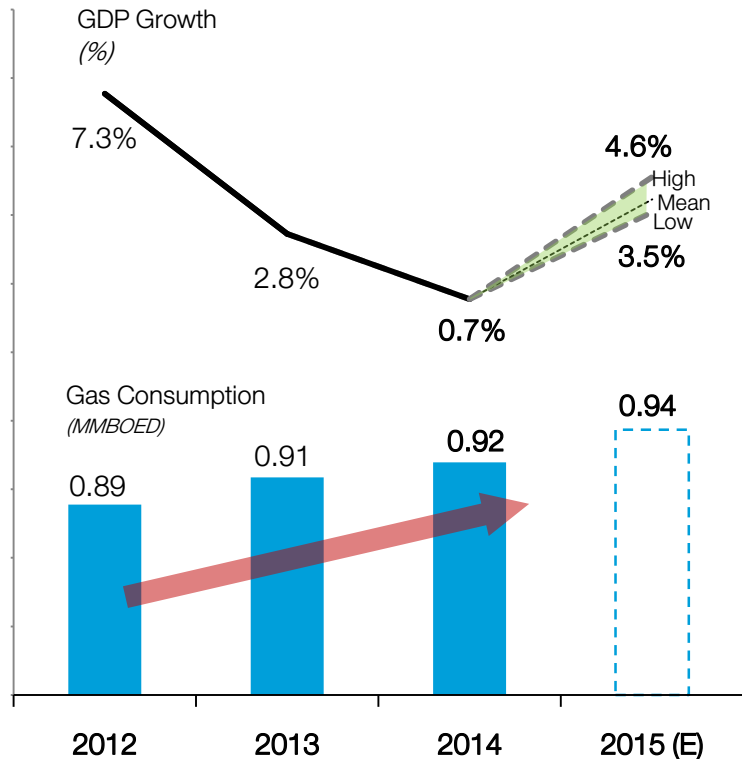
Participation in Thailand Voluntary Emission
Reduction Program (T-VER)

Thai Economy, Gas Demand, Reforms

Gas demand continues to grow; progress is being made with the reform agenda



Thai Economy and Gas Demand

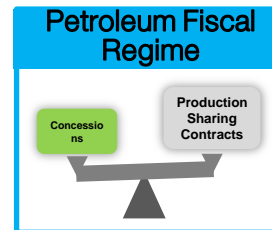


Source: EPPO, BOT, NESDB, FPO, IMF, World Bank, PTT Plc.

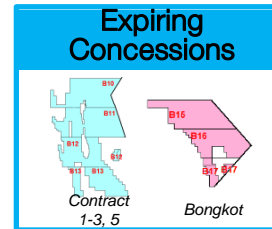
Upstream Energy Reform



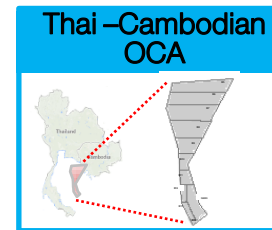
- Bidding round rescheduled, new timeline to be announced



- Fiscal regime for Bidding Round 21 subject to review



- Government targets to decide on framework in 2015
- Gas supply stability will be the key consideration



- 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%



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:

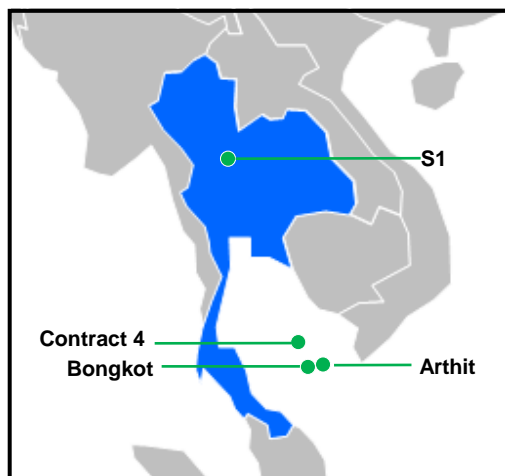
1 Ownership as of 31 October 2014

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 860 MMSCFD in 2014
- Average condensate sales volume was 29 KBPD in 2014

S1 (100% interest)

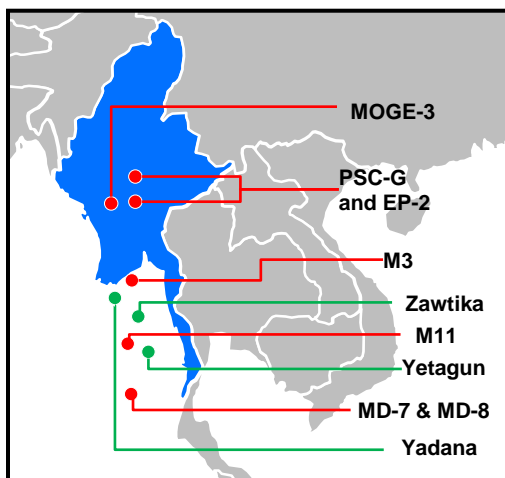
- S1 is the largest onshore crude oil production field in Thailand
- Average crude oil sales volume was 28 KBPD in 2014

Arthit (80% interest)

- Average sales volume in 2014 was 218 MMSCFD of natural gas and 9.4 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 374 MMSCD for natural gas and 17 KBPD for condensate in 2014



- 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 767 MMSCFD of natural gas in 2014

Yetagun (19.3% interest)

- Sales volume averaged 343 MMSCFD for natural gas and 7.9 KBPD for condensate in 2014

M3 (80% interest)

- Currently progressing with additional appraisal drilling with 5 wells planned during late 2014 – early 2015

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)

- Completed 2D seismic acquisition in December 2013
- Currently in the process of drilling 4 exploration wells during 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 34.2 KBPD in 2014
- Successfully appraised the H5 area with further development plan to install a production platform during 2015 to support current production level

Natuna Sea A (11.5%* interest)

- Jointly acquired interest from Hess Corporation through partnership with Pertamina in December 2013
- Average sales volume of natural gas was 219 MMSCFD, and average sales volume of crude oil was 1.5 KBPD in 2014



● Production / Ramp-up Projects

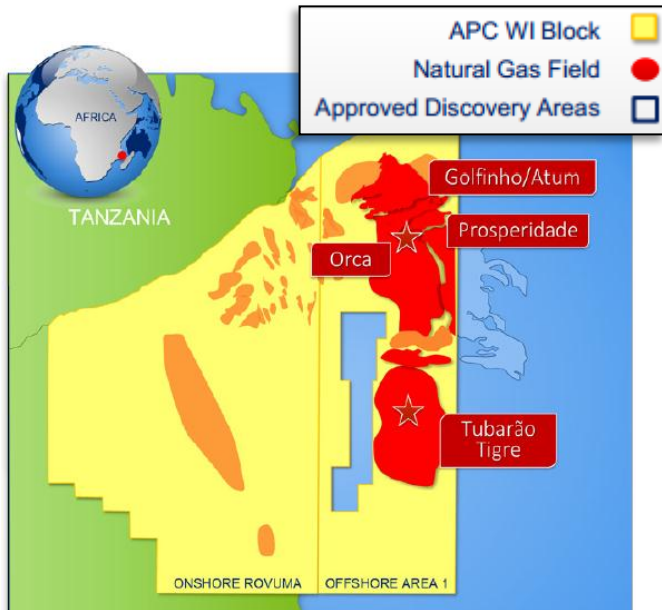
* Net participating interest from 50/50 joint partnership with Pertamina to acquire 23% interest in the project

Source : Premier Oil



East Africa : Mozambique

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



Area 1 (8.5% interest)

Advancing towards FID on the initial 10 MMTPA

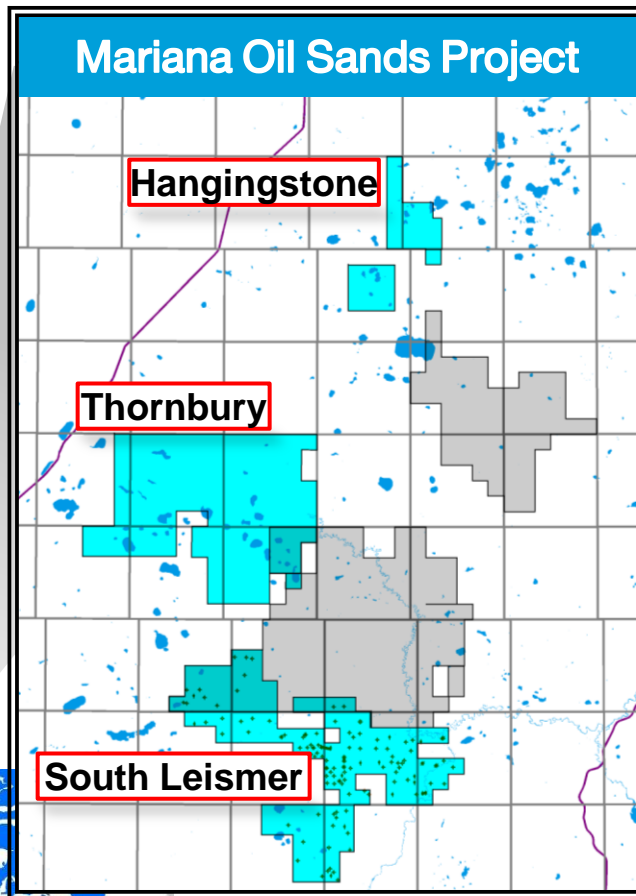
- Abundant resource base estimated at 50 to 70+ TCF of recoverable natural gas
- In December 2014, the Mozambican government gazetted a Decree Law, marking an important step for continued investments to deliver a world-class LNG project
- Secured more than 8 MMTPA of non-binding Heads of Agreement for long-term LNG sales at the end of 2014
- 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



The Asset Swap

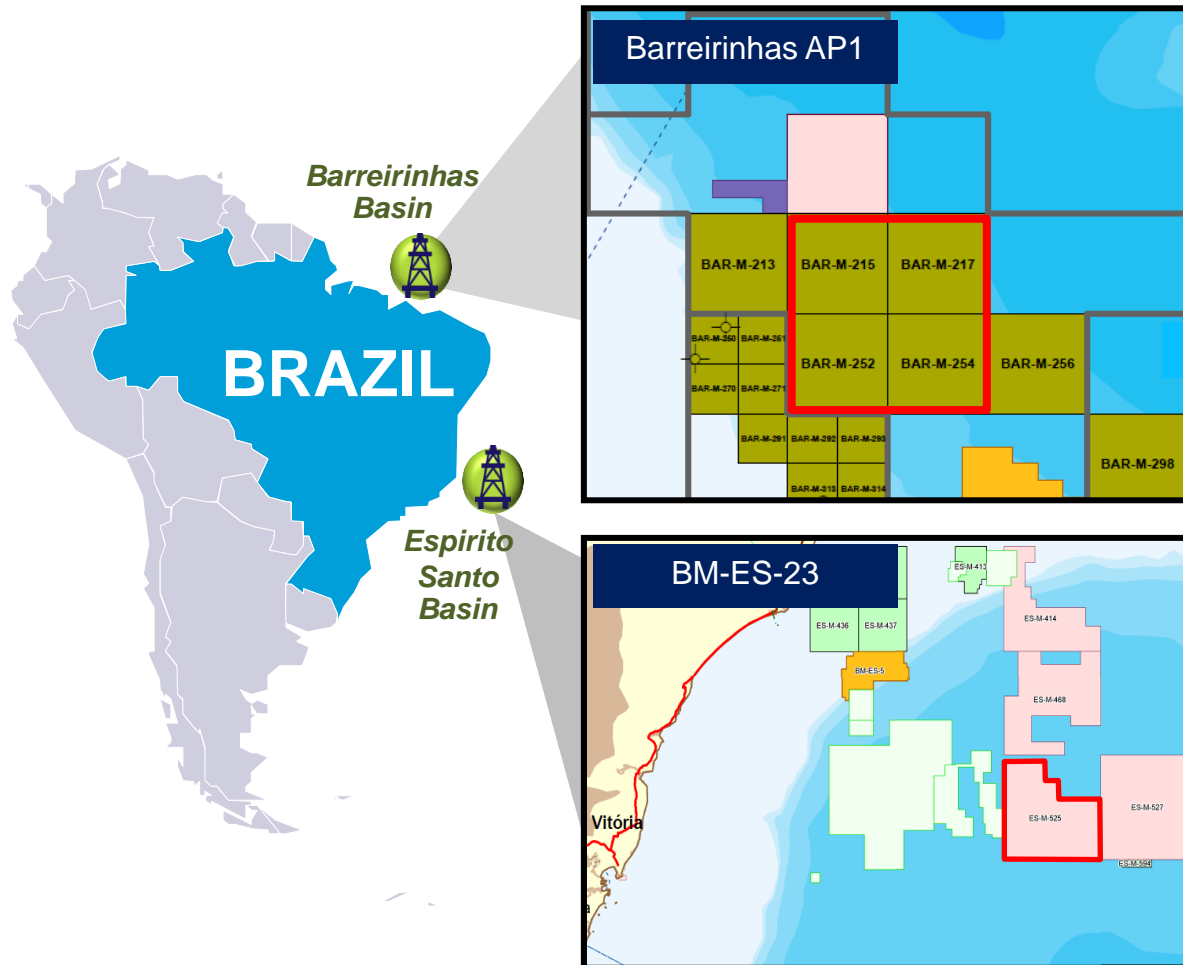
- The Partnership Unit Redemption Agreement (PURA) came into effect on 28 May 2014.
- Following such date, PTTEP Canada Limited now owns and operates 100% of the Thornbury, Hangingstone and South Leismer areas, and has received from Statoil Canada a total of 419 million US dollars.
- With PTTEP now having flexibility to set the project pace, the near term work plan will focus on delineation drilling as well as regulatory application and environmental review in preparation for the initial development phase of Mariana Thonbury



Oil Sands (Image courtesy of Suncor Energy)

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%)
- Planned for 2 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	PTTEP's Share	Partners (as of 2014)		2014 Average Sales Volume *		2014 Key Activities
					Gas	Oil and Other	
Production Phase							
Thailand and JDA							
1	Arthit	80%	Chevron MOECO	16% 4%	218 MMSCFD Condensate: 9.4 k BPD	-	<ul style="list-style-type: none">Ensure gas deliverability level above 220 MMSCFDDrill Exploration/Appraisal wells
2	B6/27	60%	JX NOEX	40%	N/A	N/A	<ul style="list-style-type: none">Completed 1 exploration well (Nok Kaew-1)
3	B8/32 & 9A	25%	Chevron MOECO KrisEnergy PSTL	51.66% 16.71% 4.63% 2%	93 MMSCFD	Crude: 28 k BPD	<ul style="list-style-type: none">Drill Development wells
4	Bongkot	44.4445%	TOTAL British Gas	33.3333% 22.2222%	860 MMSCFD Condensate: 28.8 k BPD	-	<ul style="list-style-type: none">Drill Exploration / Appraisal / Development wells
5	Contract 3 (Formerly Unocal III)	5%	Chevron MOECO	71.25% 23.75%	606 MMSCFD Condensate: 16.9 k BPD	Crude: 21 k BPD	<ul style="list-style-type: none">Drill Exploration / Development wells
6	Contract 4 (Formerly Pailin)	60%	Chevron MOECO	35% 5%	374 MMSCFD Condensate: 17.4 k BPD	-	<ul style="list-style-type: none">Drill Exploration / Appraisal / Development wells
7	E5	20%	ExxonMobil	80%	12 MMSCFD	-	
8	G4/43	21.375%	Chevron MOECO PSTL	51% 21.25% 6.375%	3.5 MMSCFD	Crude: 6.5 k BPD	<ul style="list-style-type: none">Drill Exploration / Development wells
9	G4/48	5%	Chevron MOECO	71.25% 23.75%	9.4 MMSCFD	Crude: 1.7 k BPD	
10	L53/43 & L54/43	100%			-	Crude: 123 BPD	<ul style="list-style-type: none">Drill Exploration/ Appraisal wells
11	PTTEP1	100%			-	Crude: 267 BPD	
12	S1	100%			27 MMSCFD	Crude: 27.8 k BPD	<ul style="list-style-type: none">Maintain production level above 30,000 BPDContinue Exploration and development activities
13	Sinphuhorm	55%	Apico ExxonMobil	35% 10%	105 MMSCFD Condensate: 415 BPD	-	<ul style="list-style-type: none">Drill 1 Development well
14	MTJDA	50%	Petronas-Carigali	50%	332 MMSCFD Condensate: 8.3 k BPD	-	<ul style="list-style-type: none">Drill 1 Appraisal well

* Sales volume stated at 100% basis.

Project Information 2/4

Production Phase: Overseas



	Project	PTTEP's Share	Partners (as of 2014)	2014 Average Sales Volume *		2014 Key Activities
				Gas	Oil and Other	
Production Phase						
Overseas						
15	Oman 44	100%		27 MMSCFD Condensate: 2.2 k BPD	-	<ul style="list-style-type: none">Drill Exploration / Appraisal wellsMaintain production rate
16	Vietnam 9-2	25%	PetroVietnam 50% SOCO 25%	15 MMSCFD	Crude: 5.8 k BPD	<ul style="list-style-type: none">In process of drilling 1 Development well
17	Yadana	25.5%	TOTAL 31.24% Chevron 28.26% MOGE 15%	767 MMSCFD	-	<ul style="list-style-type: none">Completed 3D Seismic acquisition of 3,335 sq.km.
18	Yetagun	19.3178%	Petronas- 30.00140% Carigali MOGE 20.4541% Nippon Oil 19.3178% PC Myanmar 10.90878% (Hong Kong)	343 MMSCFD Condensate: 7.9 k BPD	-	<ul style="list-style-type: none">Completed drilling 1 exploration well and 2 development wellsFirst gas from Yetagun North in August 14
19	Vietnam 16-1	28.5%	PetroVietnam 41% SOCO 28.5% OPECO 2%	38 MMSCFD	Crude: 34.3 K BPD	<ul style="list-style-type: none">Drill development wellsH5 development sanctioned in Q3 2014
20	PTTEP Australasia (PTTEP AA)	20%-100% (varied by permits)		-	Crude: 18.6 k BPD	<ul style="list-style-type: none">Completed 2 exploration well (Dillion South-1 & Maple East-1)
21	Natuna Sea A	11.5%	Premier Oil 28.67% KUFPEC 33.33% Petronas 15% Pertamina 11.5%	219 MMSCFD	Crude: 1.5 k BPD	
22	Zawtika (M9 & a part of M11)	80%	Myanma Oil and Gas Enterprise (MOGE) 20%	147 MMSCFD	-	<ul style="list-style-type: none">Successfully delivering gas to Myanmar since late March 2014Successfully delivering gas to Thailand since early August 2014Daily contractual quantity at 300 MMSCFD (80% to Thailand and 20% to Myanmar)
23	L22/43	100%				

* Sales volume stated at 100% basis.

	Project	PTTEP's Share	Partners (as of 2014)	2014 Key Activities
Development Phase :				
Overseas				
24	Algeria 433a & 416b (Bir Seba)	35%	PetroVietnam Sonatrach	40% 25% <ul style="list-style-type: none">• Drill 4 Development wells• Continue Engineering, Procurement & Construction (EPC) work• First oil expected in the second half of 2015

	Project	PTTEP's Share	Partners (as of 9M 2014)	2014 Key Activities	
<u>Exploration Phase</u>					
<u>Thailand and JDA</u>					
25	G9/43	100%			
26	L28/48	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
<u>Overseas</u>					
27	Myanmar M3	80%	MOECO	20%	<ul style="list-style-type: none">Drill 4 appraisal wells
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">Completed drilling 2 Exploration and in process of drilling 4 Appraisal wellsTo award FEED contract to vendors
29	Algeria Hassi Bir Rekaiz	24.5%	CNOOC Sonatrach	24.5% 51%	<ul style="list-style-type: none">In process of drilling 3 Appraisal wellsStudying and Preparing the Final Development Report (FDR)Completed 3D seismic acquisition of 1,000 sq.km
30	Indonesia South Mandar	50.75%*	TOTAL	49.25%	<ul style="list-style-type: none">G&G studiesContinue divestment effort

* Waiting for the official approval from Indonesian government to change the participation interest resulting from Talisman's withdrawal from the project.

	Project	PTTEP's Share	Partners (as of 2014)	2014 Key Activities
Exploration Phase (con't)				
Overseas (con't)				
31	Indonesia Malunda	100%		<ul style="list-style-type: none"> G&G studies Continue divestment effort
32	Myanmar M11	52.9412%	TOTAL 47.0588%	<ul style="list-style-type: none"> G&G Studies
33	Vietnam B & 48/95	8.5%	Chevron 42.38% MOECO 25.62% PVEP 23.5%	<ul style="list-style-type: none"> Negotiate a GSA with the Vietnamese government
34	Vietnam 52/97	7%	Chevron 43.4% PVEP 30% MOECO 19.6%	<ul style="list-style-type: none"> Negotiate a GSA with the Vietnamese government
35	Myanmar PSC-G and EP-2	90%	WinPreciousResources 10%	<ul style="list-style-type: none"> Drilled 1 Exploration well
36	Mozambique Rovuma Onshore	10%	Anadarko, Maurel&Prom, 35.7%,27.7% ENH, Wentworth Resources 15%,11.6%	<ul style="list-style-type: none"> In process of drilling 2 Exploration wells
37	Kenya L10A	31.25%	BG, Pan Cont. 50%,18.75%	<ul style="list-style-type: none"> Conduct G&G studies Completed 1 Exploration well (Sunbird-1)
38	Kenya L5, L7, L11, L11B, L12	10%	Anadarko, Total 50%,40%	<ul style="list-style-type: none"> Conduct G&G Studies
39	Myanmar MD 7 and MD 8	100%		<ul style="list-style-type: none"> Completed 2D seismic acquisition
40	Mariana Oil Sands	100%		<ul style="list-style-type: none"> Completion of asset swap on 28 May 2014 Pre-FEED for the first production phase of the Thornbury field
41	Barreirinhas AP1	25%	BG Brasil 75%	<ul style="list-style-type: none"> 3D seismic acquisition
42	MOGE 3	85%	Palang Sophon Offshore 10% WinPreciousResources 5%	<ul style="list-style-type: none"> Environmental Impact Assessment/ Social Impact Assessment
43	Concession BM-ES-23	20%	Petrobras 65% INPEX 15%	<ul style="list-style-type: none"> Completed drilling of 2 exploration and appraisal wells

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