

# PTT Exploration and Production Public Company Limited

## Thailand Focus 2015

2 December 2015



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





**Company Overview**



**Financial Results**



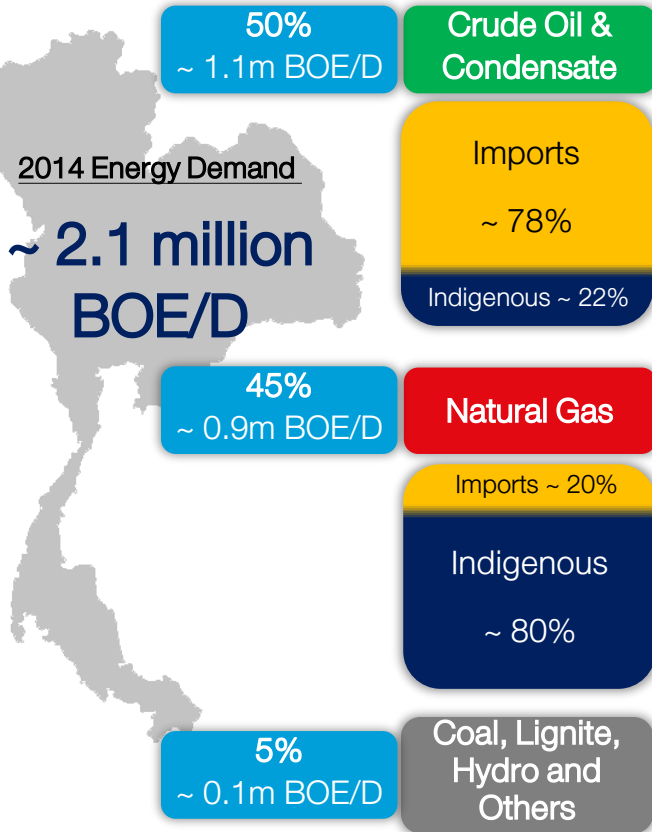
**Outlook**

# Thailand's Energy Value Chain

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

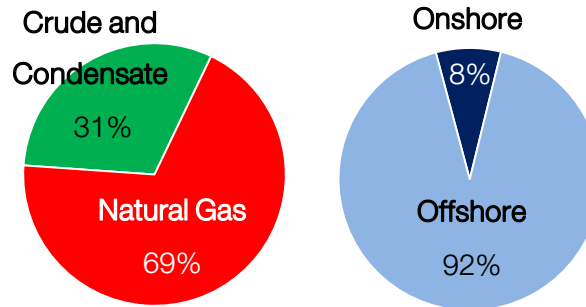


## Energy Demand and Sources

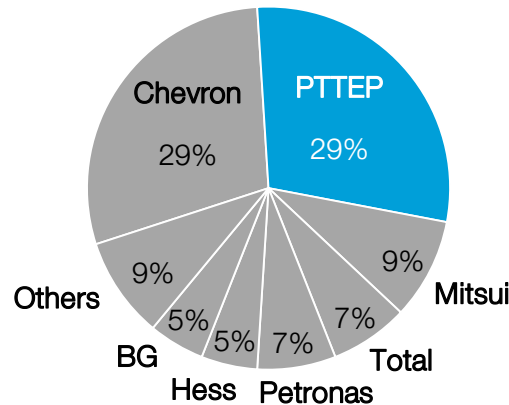


## Thailand Petroleum Production 2014

### % by Petroleum Type and Area



### % Production by Company



## Midstream and Downstream Value

### Midstream

Transmission Pipelines  
Gas Separation Plants

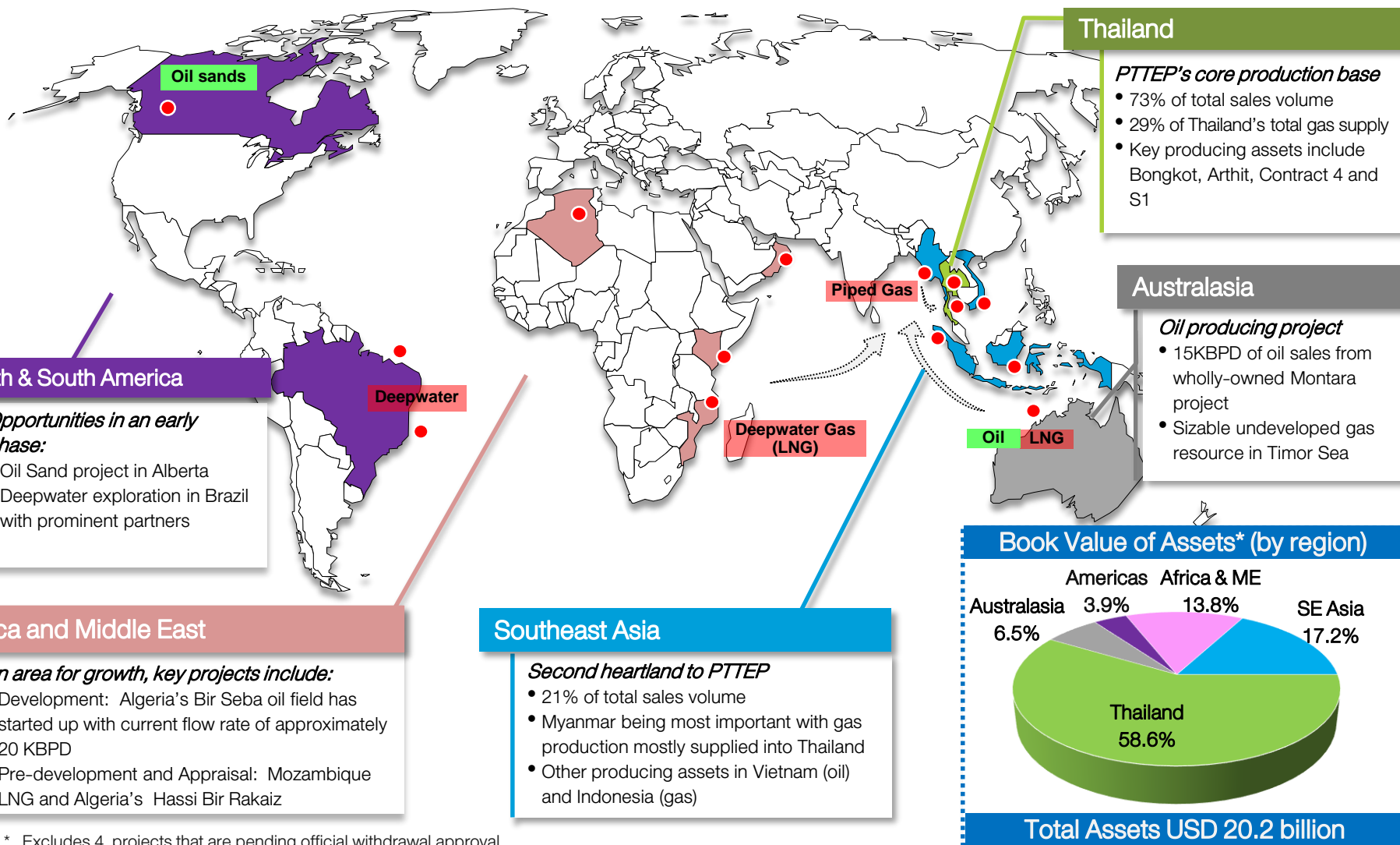
### Downstream & End User Products

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: 39 projects\* in 11 countries

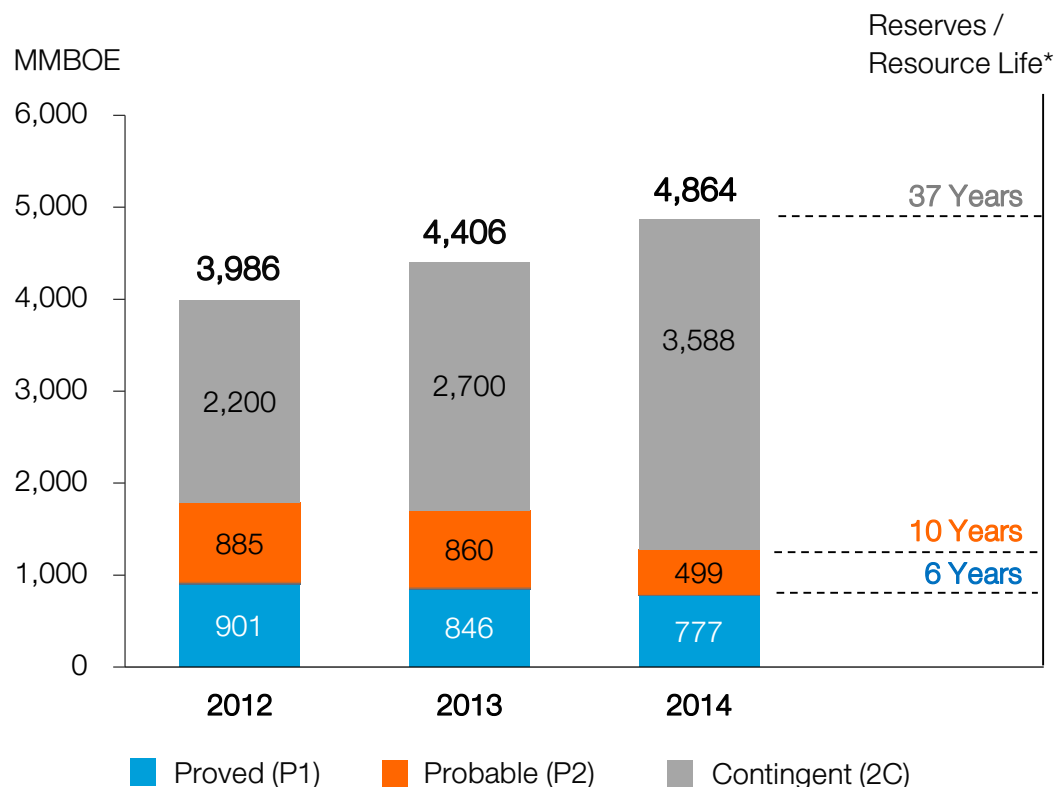


Notes: \* Excludes 4 projects that are pending official withdrawal approval

\*\* Information dated as of 30 September 2015

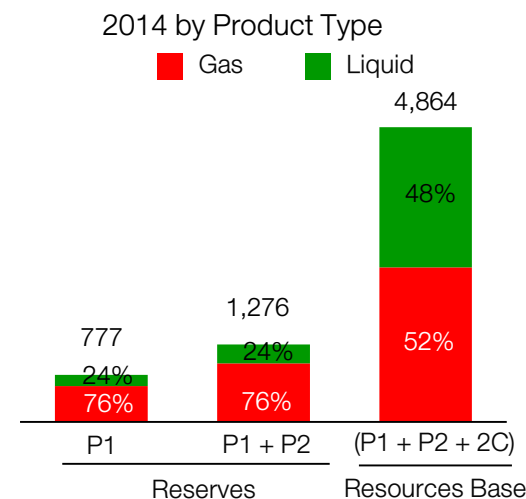
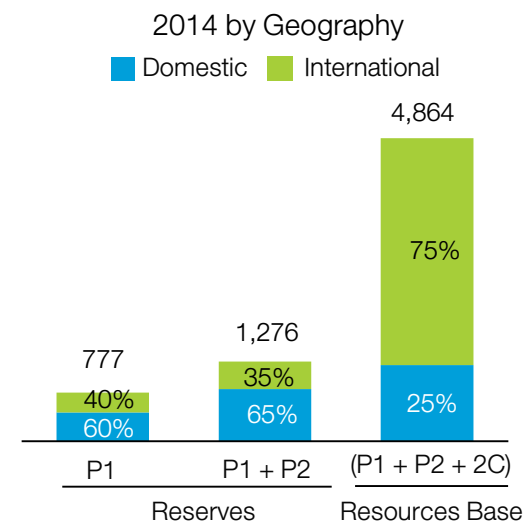
# Reserves and Resources

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**



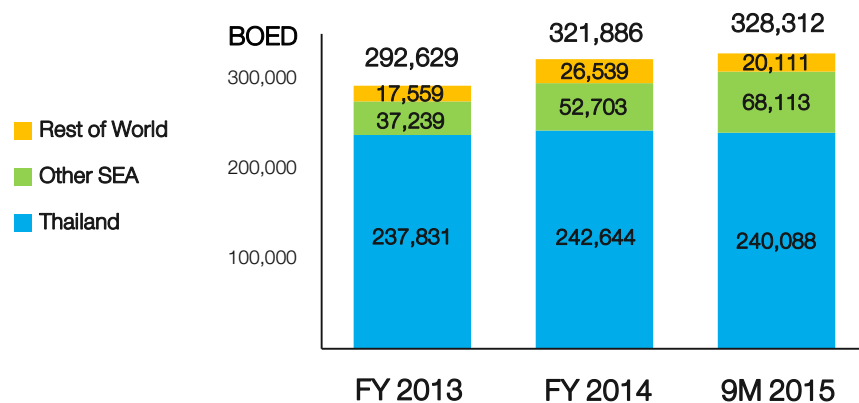
**Outlook**

# Sales Volume & Unit Costs

Continuing sales volume growth and improved unit cost performance

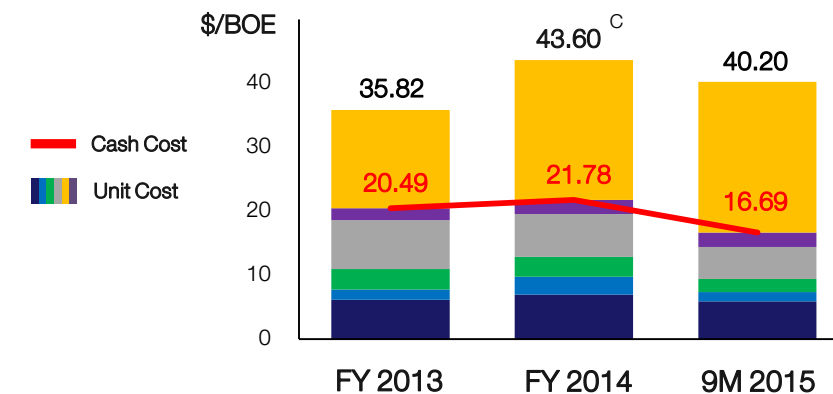


## Sales Volume and Price



Gas (\$/MMBTU)	7.92 <sup>A</sup>	8.03 <sup>A</sup>	7.47
Liquid (\$/BBL)	100.15	94.91	53.00
Weighted Avg. (\$/BOE)	65.58 <sup>B</sup>	63.38 <sup>B</sup>	47.22
Avg. Dubai (\$/BBL)	105.54	96.60	54.31
Avg. HSFO (\$/BBL) (High Sulphur Fuel Oil)	97.52	86.74	48.68
Volume Mix (Gas:Liquid)	66 : 34	67 : 33	71 : 29
Revenue Mix (Gas:Liquid)	47 : 53	51 : 49	67 : 33

## Unit Cost



DD&A	15.33	21.82	23.51
Finance Cost	1.88	2.21	2.26
Royalties	7.65	6.69	5.00
G&A	3.17	3.10	2.05
Exploration Exp	1.61	2.83	1.45
Operating Exp <sup>D</sup>	6.18	6.95 <sup>C</sup>	5.93
Lifting Cost	4.88	5.26	4.71
Drilling Success Ratio <sup>E</sup>	38 : 55	25 : 43	30 : 42

A) If Vietnam 16-1 retroactive sales are excluded, gas prices are \$8.01 (2013), \$8.07 (2014)  
 B) If Vietnam 16-1 retroactive sales are excluded, average selling prices are \$66.09 (2013), \$63.59 (2014)

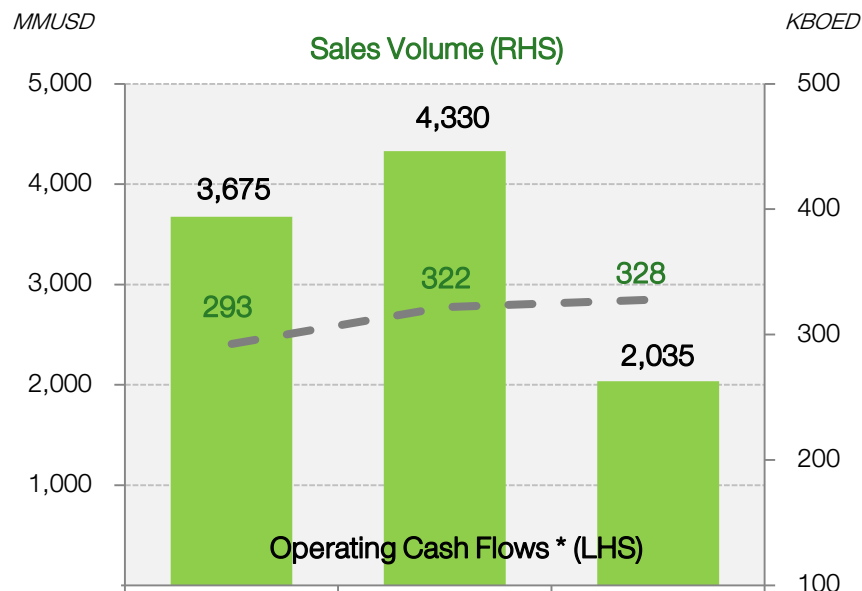
C) If exclude extra expense from Montara's Development well (H5),  
 2014 : Operating Exp : 6.53 \$/BOE / Unit cost : 43.18 \$/BOE  
 D) Exclude diluent cost for blending bitumen in KKD Oil Sands project  
 E) Successful wells : Total wells (includes Exploration and Appraisal wells)

# Cash Flow Performance

Robust liquidity to fund CAPEX and debt service



## Cash Flow Performance



	FY 2013	FY 2014	9M 2015
Net Income	1,847	677	(986)
Recurring Net Income***	2,114	1,538	705
EBITDA Margin	71 %	69 %	70 %

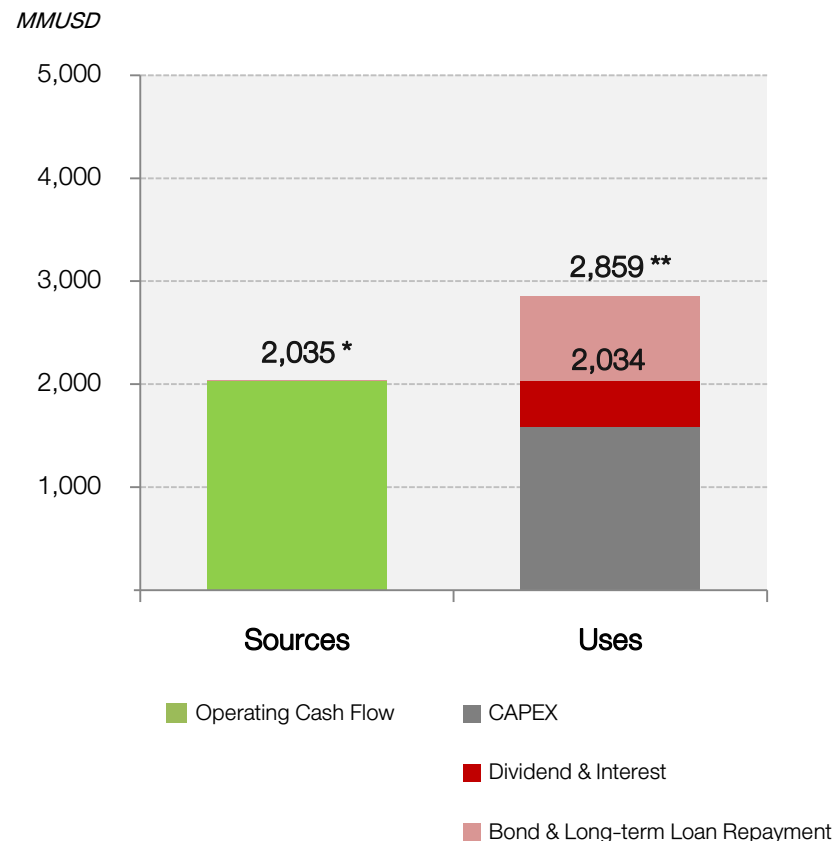
\* Net of adjustment for the effect of exchange rate changes on cash and cash equivalents. Operating cash flows before exchange rate effect adjustment is:

FY 2013 = 3,740 MMUSD ; FY 2014 = 4,320 MMUSD ; and 9M 2015 = 2,071 MMUSD

\*\* 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.

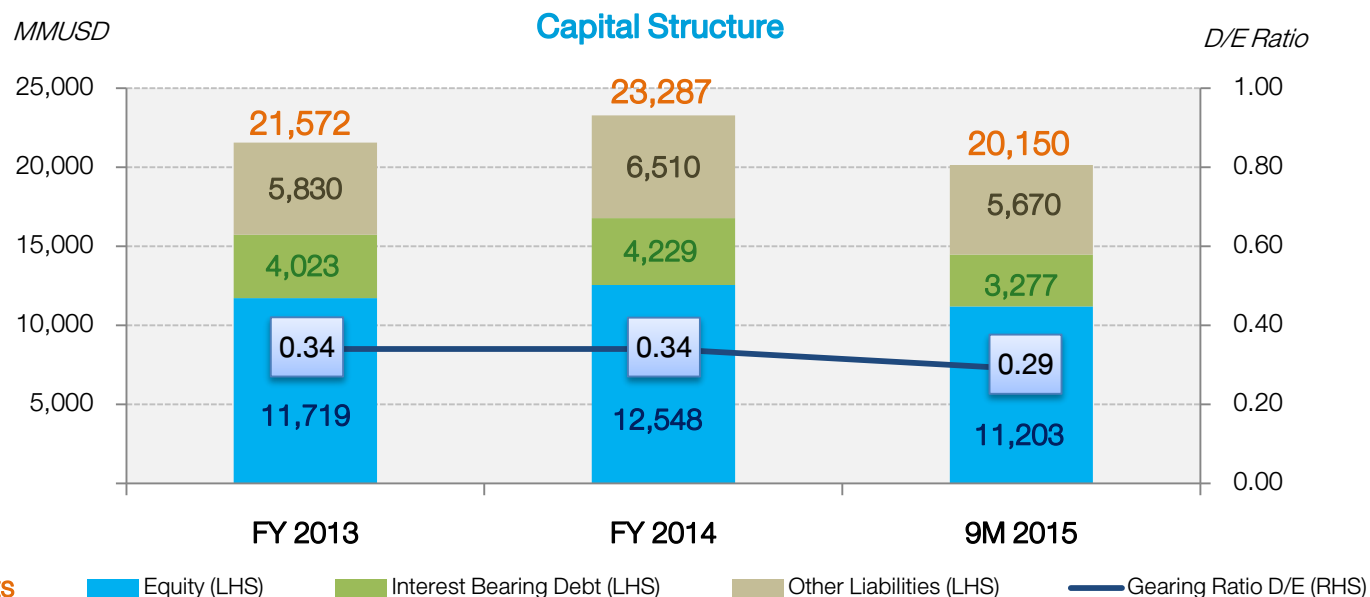
## Source & Use of Funds in 9M 2015



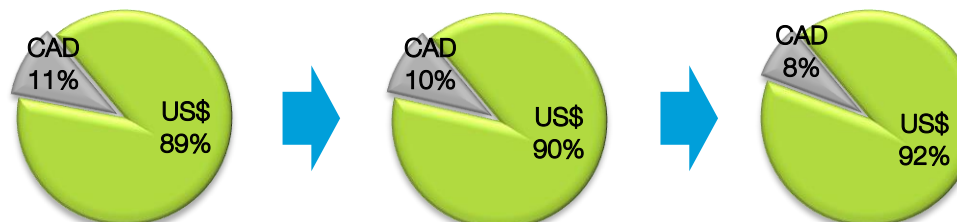


# Financial Position

Healthy balance sheet with low gearing ratio



## Debt Profile \*



Weighted Average  
Cost of Debt \* (%)

3.99

4.14

4.16

[Fixed : Floating]

[75 : 25]

[77 : 23]

[75 : 25]

Average Loan Life \* (Years)

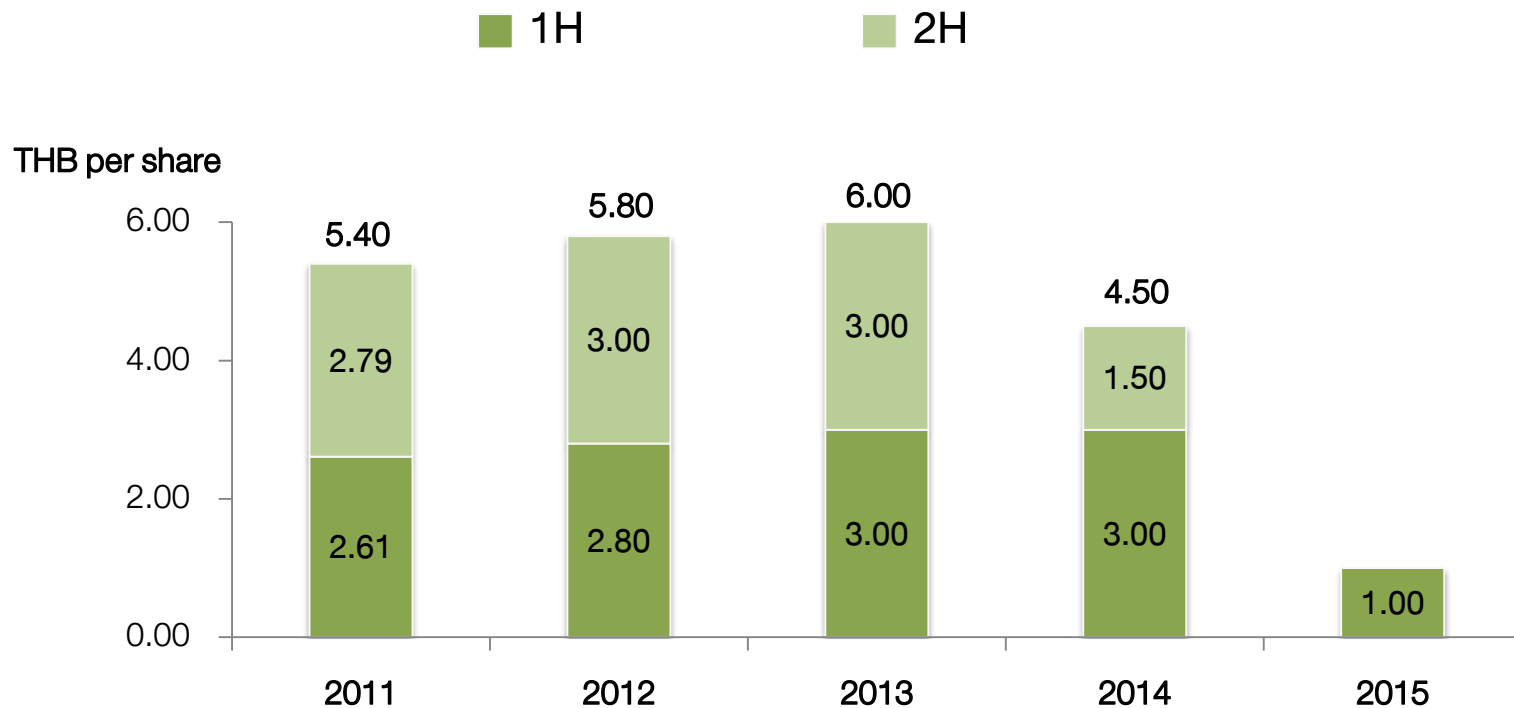
6.81

7.05

7.86

\* Excludes Hybrid bonds

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



Payout Ratio (%)

40

38

40

82

39



**Company Overview**



**Financial Results**



**Outlook**

# Progressing with Near-term Priorities

Solid performances achieved on both operational and financial fronts



## PRIORITIES

## PROGRESS

Deliver sales volume growth as planned

On track for ~3% growth guidance

Focus on cost optimization and investment prioritization

Improved cost performance through SAVE to be SAFE

Deliver near-term start-up and cautiously approach pre-FID projects

Successful start-up of Algeria Bir Seba project

Leverage strong balance sheet for value-creating opportunities

Expected ~\$3 bn OCF and low D/E of 0.3x with ~\$3 bn cash on hand



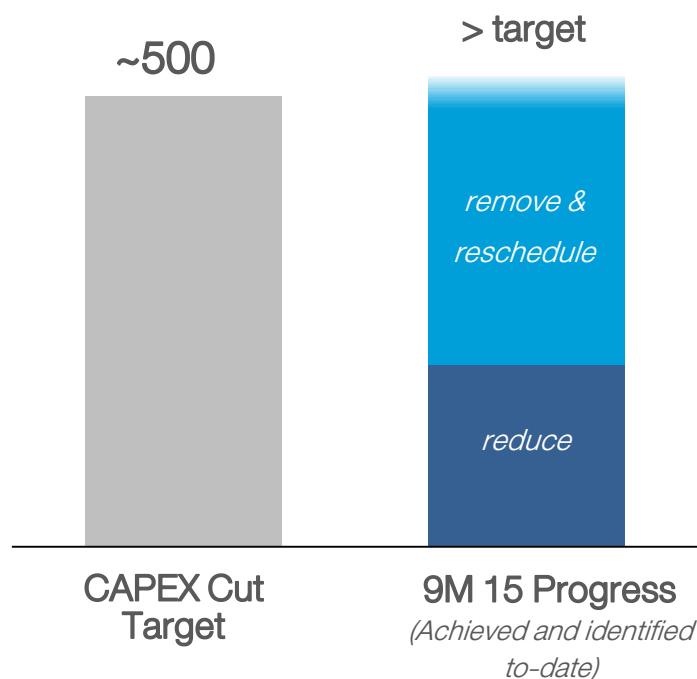
# Improved cost performance: CAPEX

Heading towards leaner, more cost conscious and efficient operations

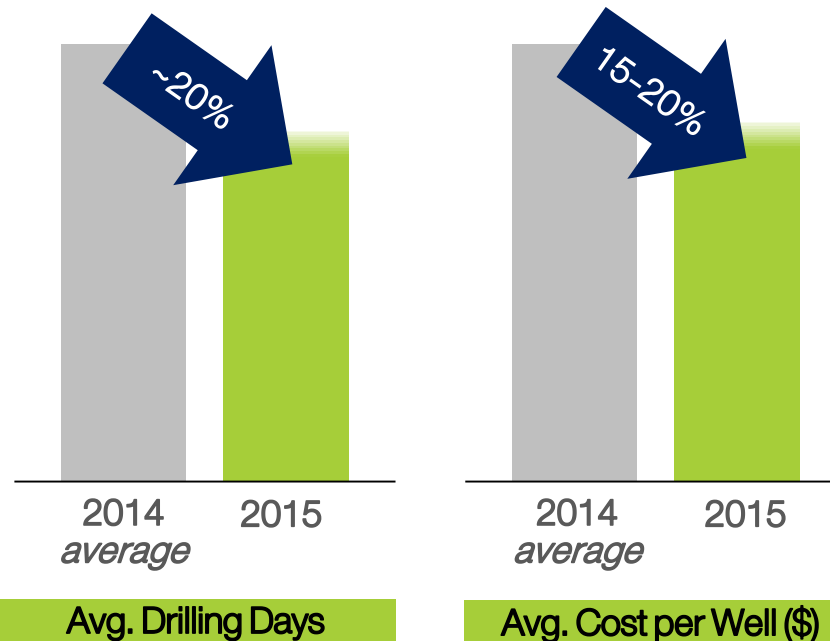


## 2015 CAPEX reduction to exceed plan

Unit : MMUSD



## Improved drilling performance in GoT



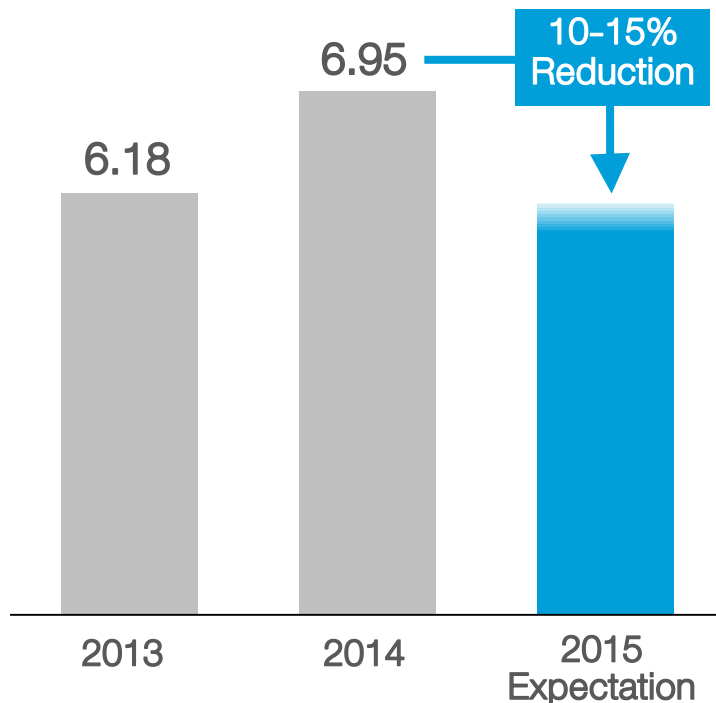
- Well operation and logistics optimization
- Renegotiated rig contracts

# Improved cost performance: cash cost

Prudent and disciplined cost reduction measures to both OPEX and G&A

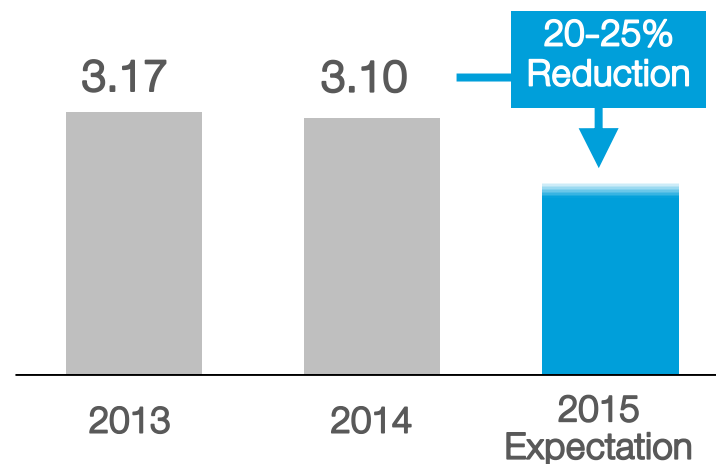


## Operating Expenses (\$/BOE)



- Optimizing maintenance program
- Synergizing logistics and inventory management

## G&A Expenses (\$/BOE)



- Tightening G&A expenditure policies  
(professional services, IT, conference, travelling, and etc.)
- Streamlining work process



# Progress continues to be made on key projects

## Bir Seba: PTTEP First Production in Africa

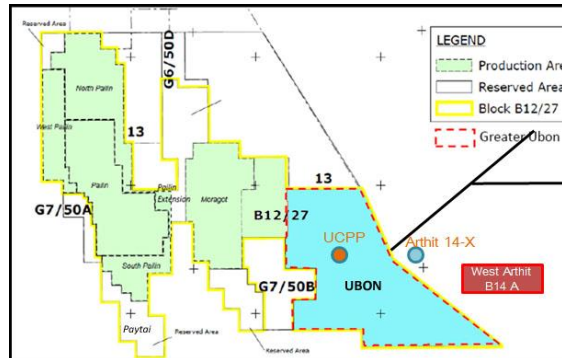


### Algeria Bir Seba



- 35% interest, jointly operated with PetroVietnam, and Sonatrach
- Gross production capacity of 20kbpd
- Project Status:
  - Commenced its first production and expected the first crude oil sales within Q4 2015.
- Future opportunities include possible expansion at Bir Seba and oil discovery at HBR

### Contract 4 (Ubon)



- 60% interest (operated by Chevron)
- Oil resources in the Gulf of Thailand
- Proposed production capacity in 30kbpd range

### Mozambique Area 1



- 8.5% interest (operated by Anadarko)
- Key attractions:
  - Massive gas resource
  - Competitive cost profile
- Initial development proposed for 12 MMTPA LNG (2 trains)
- Progress to FID with:
  - Decree law ratified
  - Onshore EPC contractor selected
  - 8MMTPA non-binding HOA signed with Asian buyers
  - Project financing



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

For more information, please visit our website at

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- 
- 1. Sustainable Development**
  - 2. Thailand Energy Updates**
  - 3. Shareholding Structure**
  - 4. Organization Structure**
  - 5. Key Project Highlights by Region**
  - 6. Project Details**
  - 7. Investment Plan and Sales Volume Guidance**
  - 8. 9M 2015 Net Income Breakdown**
  - 9. Ratios & Formula**

# Sustainable Development

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



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Sustainability Indices**

In Collaboration with RobecoSAM

## 2015 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*

GC Advanced level Certification  
*The United Nations Global Compact (UNGC)*

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

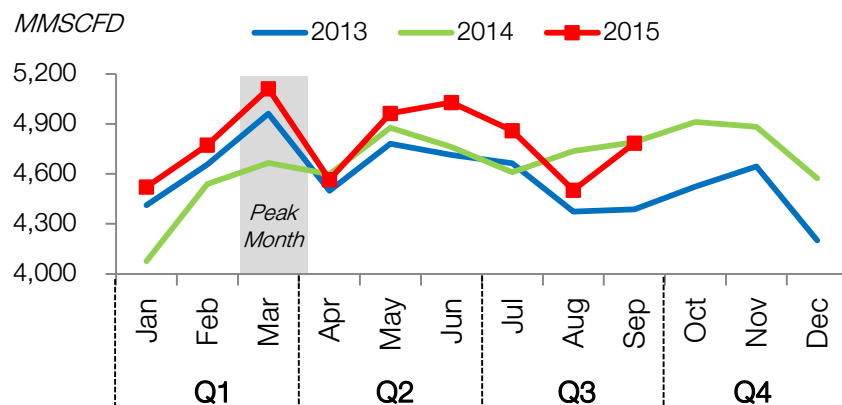
Best Environmental Responsibility  
*Corporate Governance Asia*

CDP's Climate A List  
*CDP*

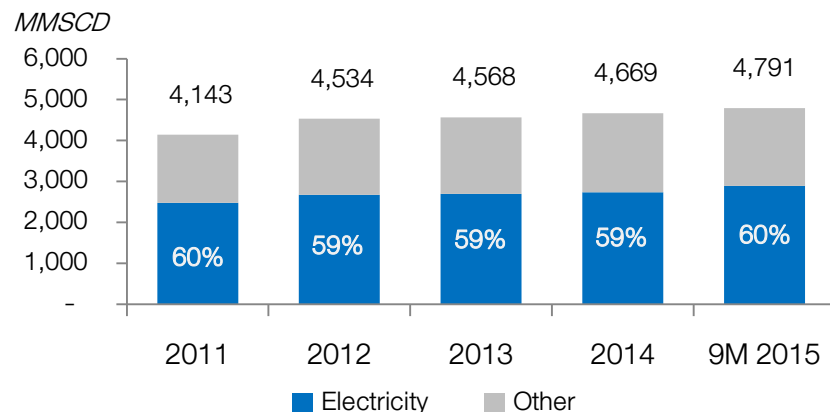
Participation in Thailand Voluntary Emission  
Reduction Program (T-VER)

### Thailand Gas Demand

#### Monthly Gas Consumption by Year



#### Annual Gas Consumption by Use



Source: EPPO

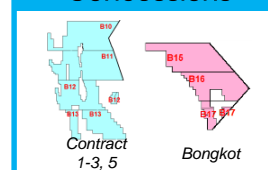
### Thai Upstream Energy Reform

#### 21st Bidding Round



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

#### 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%<sup>1</sup>



Notes:

1 Ownership as of 7 August 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

## 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

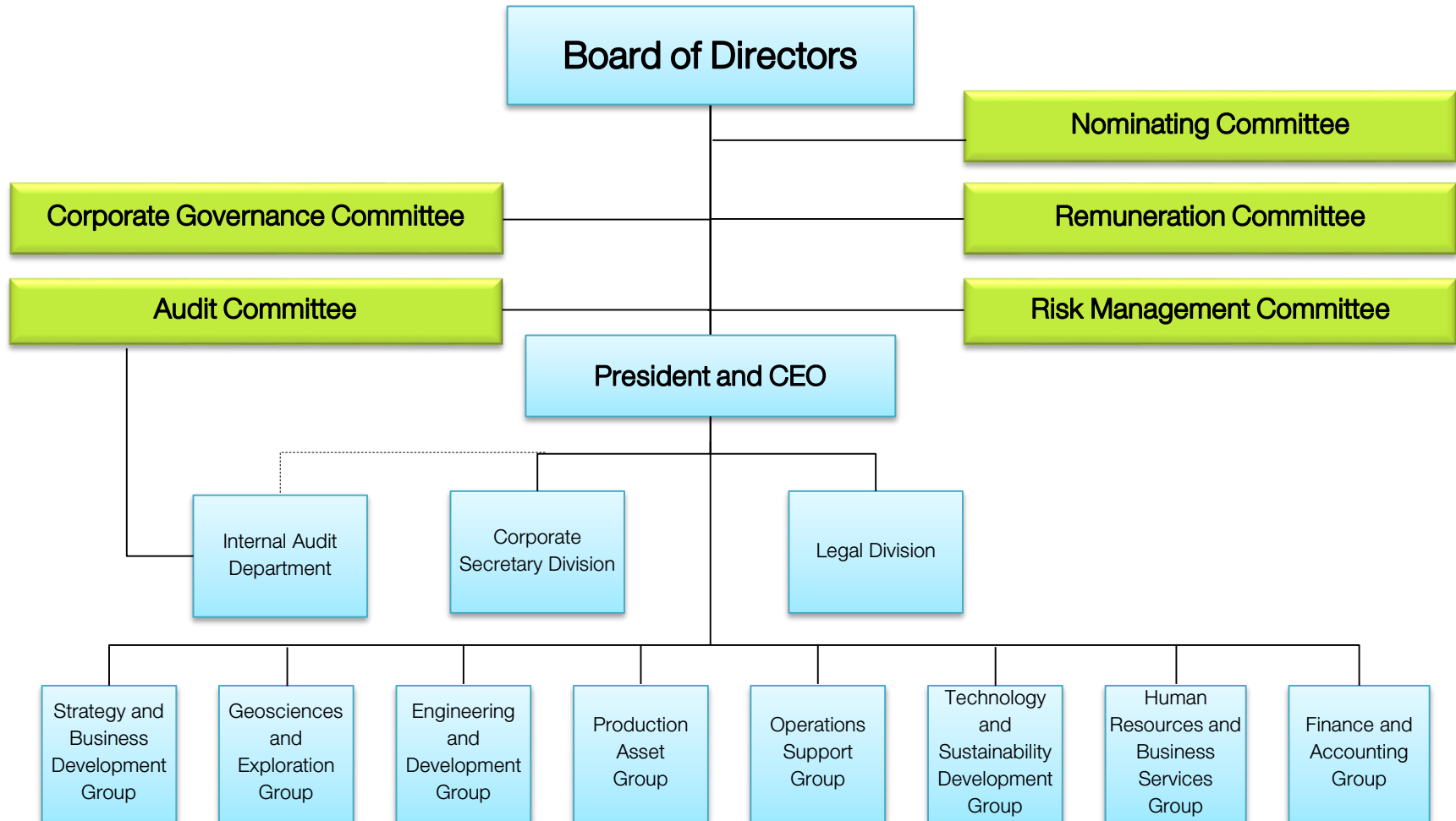
## Credit Ratings on par with Sovereign Rating

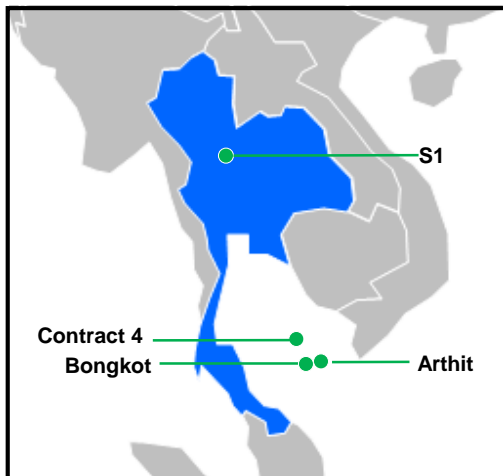
	PTTEP	Thailand
Moody's	Baa1	Baa1
S&P's	BBB+	BBB+
JCR	A-	A-
TRIS	AAA	N/A



# Organizational Structure

Ensuring Transparency, Integrity, and Good Corporate Governance practices





● Production / Ramp-up Projects

### Bongkot (44.4% interest)

- Bongkot's natural gas sales volume of 0.9 Bcf/d (9M 2015) represents approximately 20% of Thailand's natural gas supply
- Average condensate sales volume was 28.8 KBPD in 9M 2015

### S1 (100% interest)

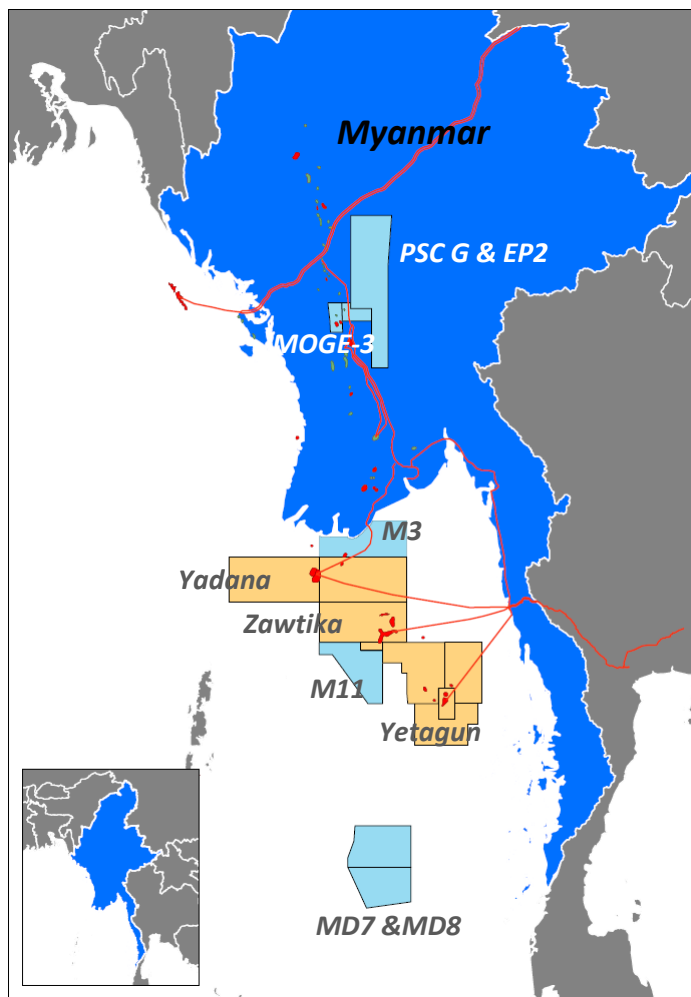
- S1 is the largest onshore crude oil production field in Thailand
- Average crude oil sales volume was 28.7 KBPD in 9M 2015

### Arthit (80% interest)

- Average sales volume in 9M 2015 was 210 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 303 MMSCD for natural gas and 13.9 KBPD for condensate in 9M 2015



Exploration block

Production block

- Participating 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

- Yadana  
(25.5% WI)
- Yetagun  
(19.31784% WI)
- Zawtika  
(80% WI)

#### Appraisal & Develop

- M3  
(80% WI)

#### Exploration

- PSC G & EP2  
(70% WI)
- MOGE-3  
(85% WI)
- M11  
(100% WI)\*
- MD7 & MD8  
(100% WI)

Note: WI – working interest

\* New participating interest subject to government approval



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

- Average crude oil sales volume of 30.4 KBPD in 9M 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 206 MMSCFD, and average sales volume of crude oil was 1.3 k BPD in 9M 2015

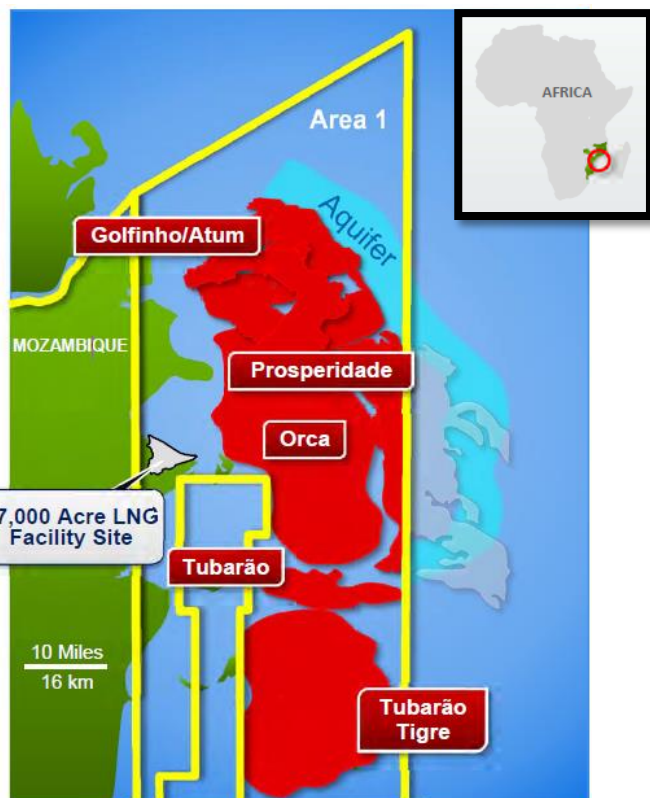


● Production / Ramp-up Projects

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 MTPA of non-binding HOAs

### Regulatory

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

### Financing

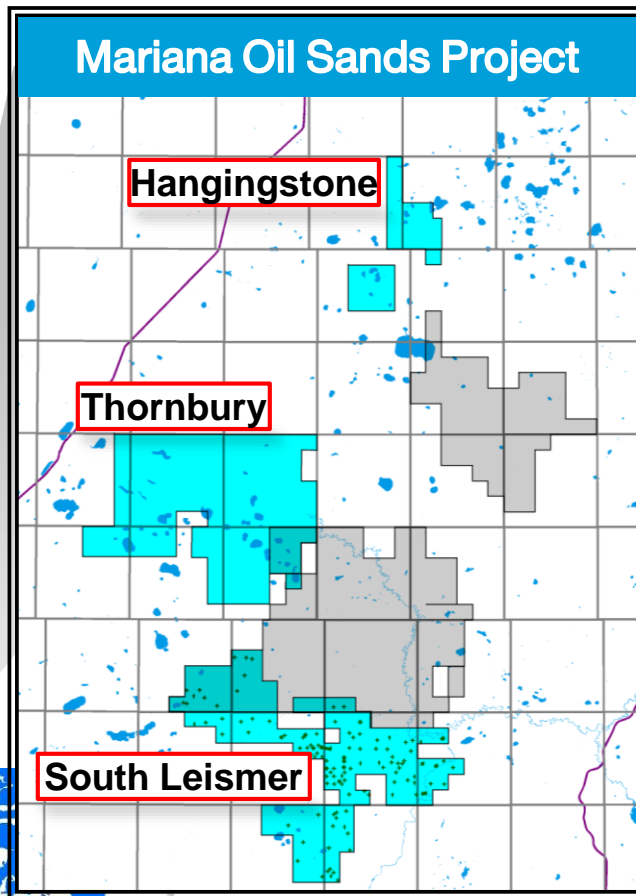
- ✓ Positive indications on project financing

**Onwards to initial phase of 12 MTPA**



# America : Canada Oil Sands

Flexibility to pursue long-term from the oil sands project



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

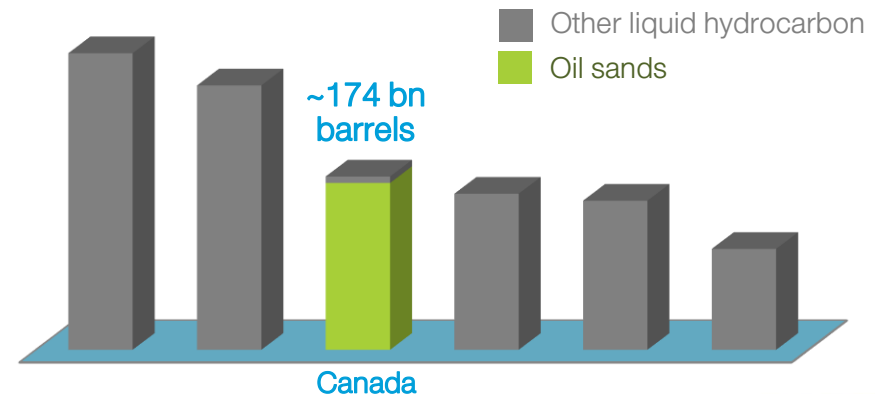
## Key activities

- Completed the Winter Delineation Program and continue to assess development potential of the Thornbury field.
- Submitted the development proposal for Thornbury Phase 1 to the government of Alberta.

## 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

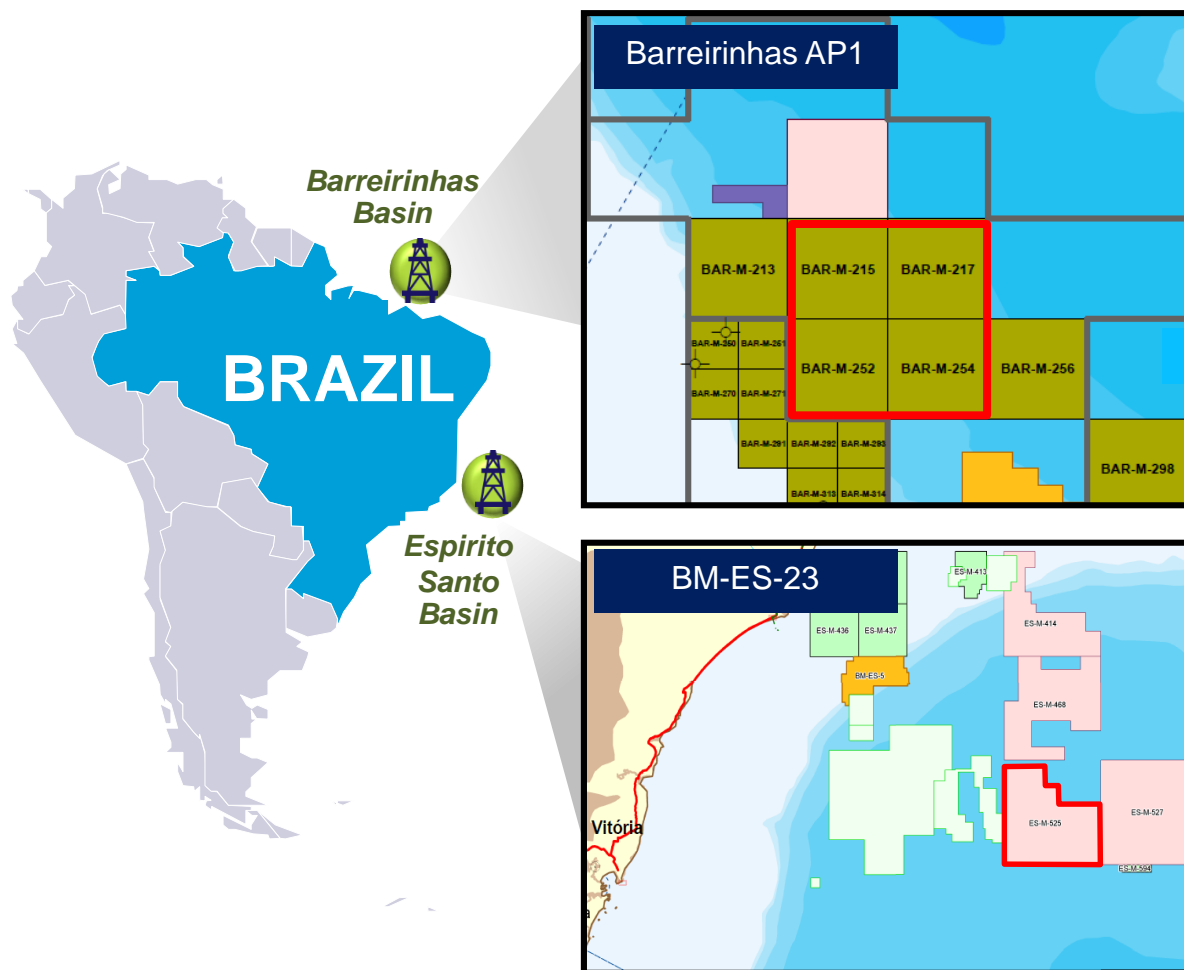
Approximately 96% of the reserves in Canada, the world's 3<sup>rd</sup> largest oil reserves, is oil sands





# America : Brazil Deepwater

Entry into high potential petroleum province at exploration phase



- Farm-in 25% from BG Group in 2014
- 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 well 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 Q3 2015)	9M 2015 Average Sales Volume **		2015 Key Activities	
					Gas	Oil and Other		
Production Phase								
Thailand and JDA								
1	Arthit	OP	80%	Chevron MOECO	16% 4%	210 MMSCFD	Condensate: 9 KBPD	<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	B6/27	OP	100%***			N/A	N/A	<ul style="list-style-type: none"><li>• Evaluate further potential of reservoir</li></ul>
3	B8/32 & 9A		25%	Chevron MOECO KrisEnergy PSTL	51.66% 16.71% 4.63% 2%	90 MMSCFD	Crude: 25 KBPD	<ul style="list-style-type: none"><li>• Drill development wells</li></ul>
4	Bongkot	OP	44.4445%	TOTAL British Gas	33.3333% 22.2222%	898 MMSCFD	Condensate: 28.8 KBPD	<ul style="list-style-type: none"><li>• Ensure gas deliverability level at DCQ****</li><li>• Drill Exploration / Appraisal / Development wells</li><li>• Install wellhead platforms</li></ul>
5	Contract 3 (Formerly Unocal III)		5%	Chevron MOECO	71.25% 23.75%	558 MMSCFD	Crude: 19.3 KBPD Condensate: 19.3 KBPD	<ul style="list-style-type: none"><li>• Drill Exploration / Appraisal / Development wells</li><li>• Install wellhead platforms</li></ul>
6	Contract 4 (Formerly Pailin)		60%	Chevron MOECO	35% 5%	303 MMSCFD	Condensate: 13.9 k BPD	<ul style="list-style-type: none"><li>• Ensure gas deliverability level at DCQ****</li><li>• Drill Exploration / Appraisal / Development wells</li><li>• Install wellhead platforms</li><li>• Review development plan of Ubon field</li></ul>
7	E5		20%	ExxonMobil	80%	12 MMSCFD	-	
8	G4/43		21.375%	Chevron MOECO PSTL	51% 21.25% 6.375%	2 MMSCFD	Crude: 6.5 KBPD	<ul style="list-style-type: none"><li>• Drill Exploration / Development wells</li><li>• Install wellhead platform</li></ul>
9	G4/48		5%	Chevron MOECO	71.25% 23.75%	5.3 MMSCFD	Crude: 850 BPD	
10	L53/43 & L54/43	OP	100%			-	Crude: 297 BPD	<ul style="list-style-type: none"><li>• Drill Exploration Wells</li></ul>
11	PTTEP1	OP	100%			-	Crude: 385 BPD	<ul style="list-style-type: none"><li>• Drill Appraisal / Development wells</li><li>• Perform waterflood activities</li></ul>
12	S1	OP	100%			26 MMSCFD	Crude: 28.7 KBPD	<ul style="list-style-type: none"><li>• Continue Exploration appraisal / development activities</li></ul>
13	Sinphuhorm	OP	55%	Apico ExxonMobil	35% 10%	121 MMSCFD	Condensate: 467 BPD	<ul style="list-style-type: none"><li>• Drill development wells</li></ul>
14	MTJDA	JOC	50%	Petronas-Carigali	50%	321 MMSCFD	Condensate: 6.7 KBPD	<ul style="list-style-type: none"><li>• Drill Exploration/ Appraisal / Development wells</li><li>• Install wellhead platforms</li></ul>
15	L22/43	OP	100%			-	Crude: 47 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

\*\*\* New participating interest subject to government approval

\*\*\*\* DCQ = Daily Contractual Quantity

# Project Information 2/4

## Production Phase: Overseas



	Project	Status*	PTTEP's Share	Partners (as of Q3 2015)	9M 2015 Average Sales Volume **		2015 Key Activities
					Gas	Oil and Other	
Production Phase							
Overseas							
16	Oman 44	OP	100%		21 MMSCFD	Condensate: 1.1 KBPD	<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 50% SOCO 25%	13 MMSCFD	Crude: 4.3 KBPD	<ul style="list-style-type: none"><li>• Drill development wells</li><li>• Explore new reservoirs</li></ul>
18	Yadana		25.5%	TOTAL 31.24% Chevron 28.26% MOGE 15%	784 MMSCFD	-	<ul style="list-style-type: none"><li>• Drill Exploration / Appraisal wells</li></ul>
19	Yetagun		19.3178%	Petronas-Carigali 30.00140% MOGE 20.4541% Nippon Oil 19.3178% PC Myanmar (HK) 10.90878%	303 MMSCFD	Condensate: 6.5 KBPD	<ul style="list-style-type: none"><li>• Reservoir Management</li><li>• Well Intervention</li></ul>
20	Vietnam 16-1	JOC	28.5%	PetroVietnam 41% SOCO 28.5% OPECO 2%	16 MMSCFD	Crude: 30.4 KBPD	<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: 15.1 KBPD	<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 28.67% KUFPEC 33.33% Petronas 15% Pertamina 11.5%	206 MMSCFD	Crude: 1.3 KBPD	<ul style="list-style-type: none"><li>• Drill Exploration / Appraisal / Development wells</li><li>• Maximize gas exports</li></ul>
23	Zawtika (M9 & part of M11)	OP	80%	MOGE 20%	312 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 Information 3/4

## Development & Exploration Phase



	Project	Status*	PTTEP's Share	Partners (as of Q3 2015)	2015 Key Activities
<b>Development Phase</b>					
<b>Overseas</b>					
24	Algeria 433a & 416b (Bir Seba)	JOC	35%	PetroVietnam 40% Sonatrach 25%	<ul style="list-style-type: none"> <li>Continue Engineering, Procurement &amp; Construction (EPC) work</li> <li>Commenced its first production with current flow rate of approximately 20,000 BPD</li> </ul>
<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, 26.5% Mitsui 20% ENH 15% Bharat Petroleum 10% BREML 10% OVL 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 24.5% Sonatrach 51%	<ul style="list-style-type: none"> <li>Drill Appraisal wells</li> </ul>

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

	Project	Status*	PTTEP's Share	Partners (as of Q3 2015)	2015 Key Activities
<b>Exploration Phase</b>					
<b>Overseas (Cont'd)</b>					
30	Myanmar M11	OP	100 %**		
31	Vietnam B & 48/95		8.5%	Chevron 42.38% MOECO 25.62% PVEP 23.5%	• Negotiate a GSA with the Vietnamese government
32	Vietnam 52/97		7%	Chevron 43.4% PVEP 30% MOECO 19.6%	• Negotiate a GSA with the Vietnamese government
33	Myanmar PSC-G and EP-2	OP	70%	Win Precious Resources 10% MOECO 10% Palang Sophon Offshore 10%	• Drill 4 exploration wells (2 wells in PSC G & 2 wells in EP 2)
34	Kenya L11A, L11B, L12		10%	Anadarko 50% Total 30% ENI 10%	• Conduct G&G Studies
35	Myanmar MD 7 and MD 8	OP	100%		• Acquire 3D seismic
36	Mariana Oil Sands	OP	100%		• Conduct Winter Delineation Program • Prepare regulatory application to submit to the government of Alberta for Thornbury Phase 1 development
37	Barreirinhas AP1		25%	BG Brasil 75%	• Prepare EIA in preparation for 3D seismic survey
38	MOGE 3	OP	85%	Palang Sophon Offshore 10% WinPreciousResources 5%	• Submit EIA in preparation for 2D&3D seismic survey
39	Brazil BM-ES-23		20%	Petrobras 65% INPEX 15%	• Drill 2 exploration wells

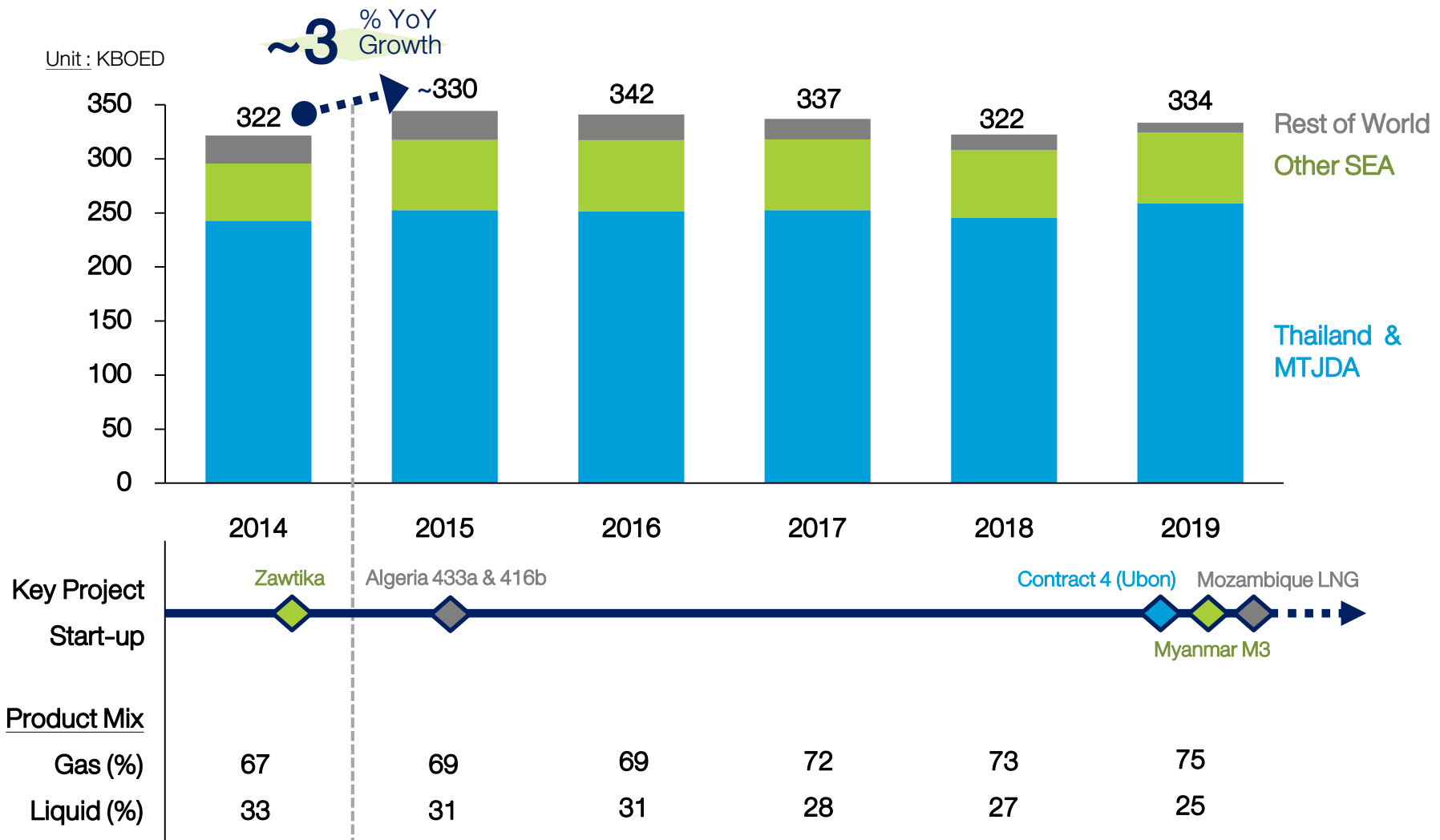
Remarks: 39 projects exclude 4 projects that are pending official withdrawal approval

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

\*\* New participating interest subject to government approval

# Sales Volume Profile

Thailand and SE Asia continue to be the strong production base



Note : \* closing forecast



# Investment Plan

2015 investment plan (as announced in Dec 2014)

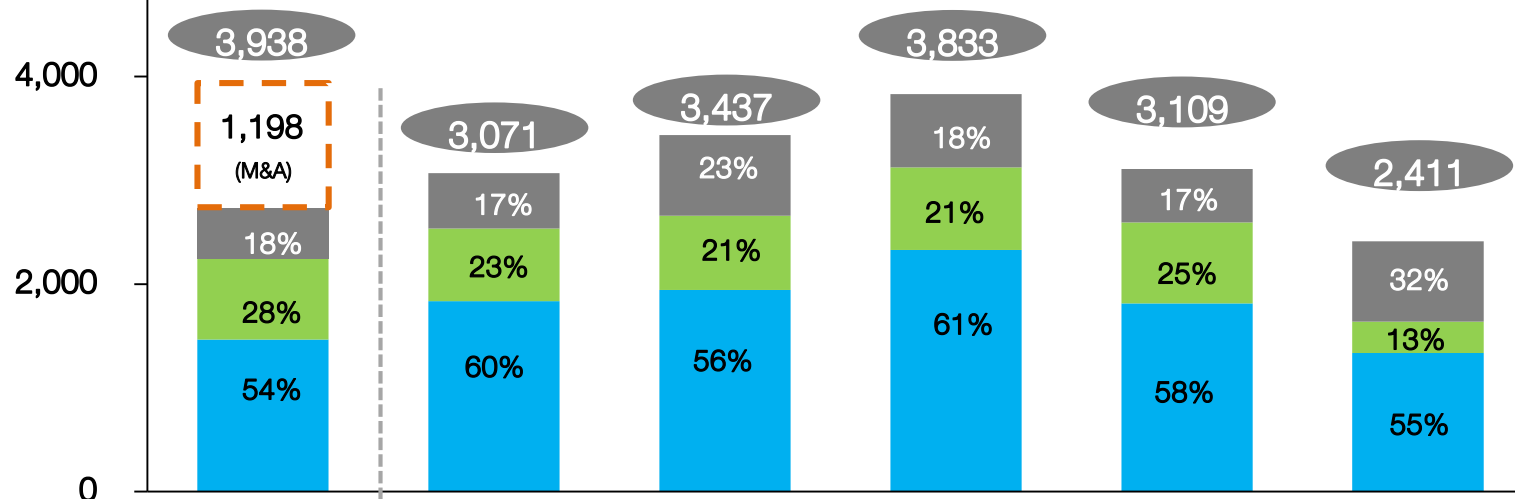
## Capex by Region



## 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%					

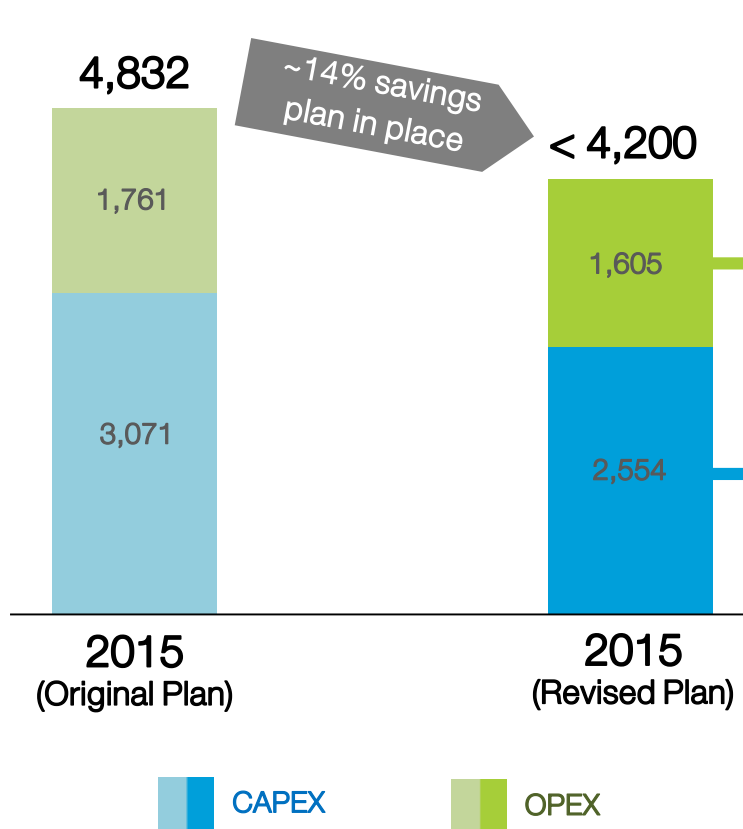
# 2015 Budget Revision

Groundwork set for both short-term and long-term cost performance improvement



>600 MMUSD reduction identified in 2015

Unit : MMUSD



Positive cost reduction trend supported by efficiency improvement through...



## Operating expenditure reduction

Approximately 10% reduction expected through leaner field operations, maintenance activities and G&A expenses



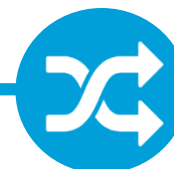
## Offshore drilling in GoT and Myanmar

Expect development well cost reduction in PTTEP-operated projects in the range of 5-25% (depending on the project)



## Facilities cost reduction

Up to 5% reduction (depending on the project) in cost of new wellhead platforms planned



## Exploration prioritization

Reschedule exploration plan to fit risk profile to current environment

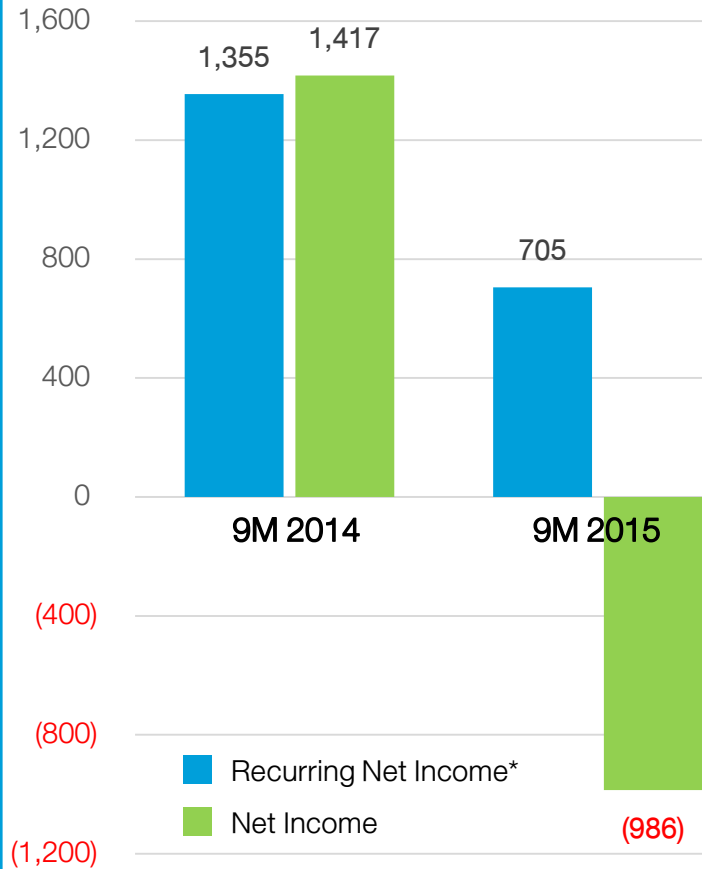
# 9M 2015 Net Income Breakdown

Net income primarily hurt by impairment loss



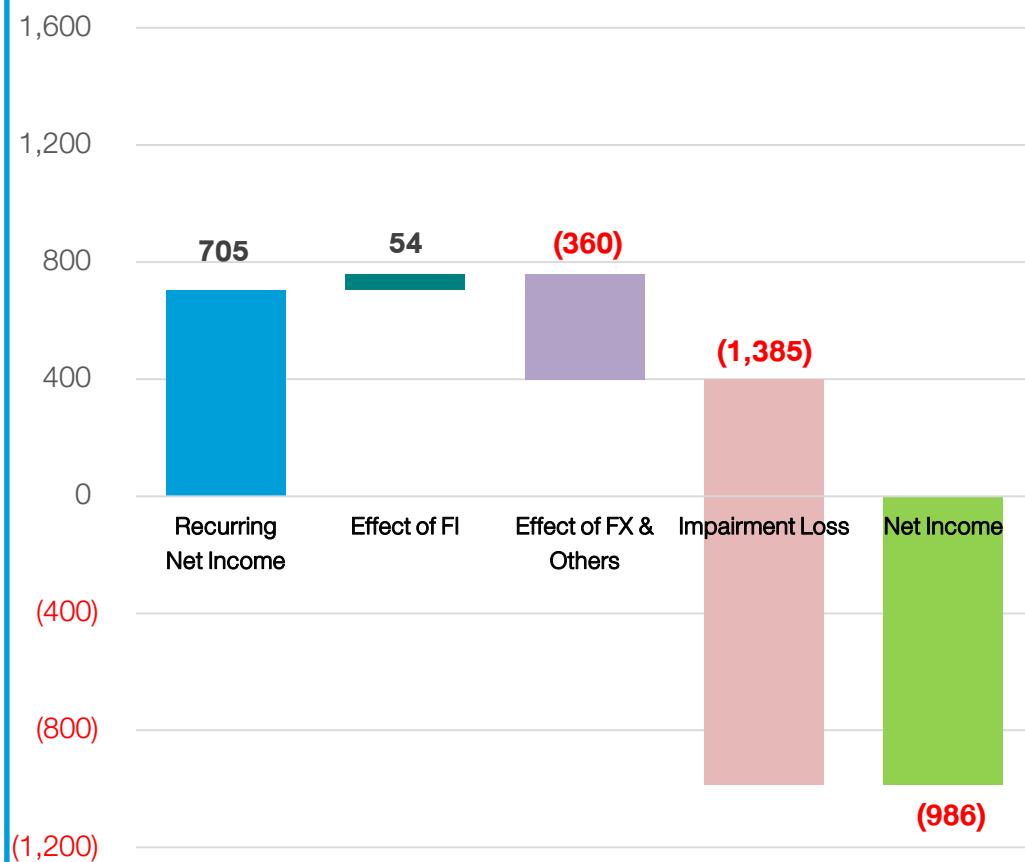
## Net Income 9M Comparison

MMUSD



## Net Income 9M 2015

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.

Ratio	Formula
Lifting Cost (\$/BOE)	$\frac{(\text{Operating Exp.} - \text{Transportation Cost} - \text{Stock Variation} - \text{Other expense not related to lifting})}{\text{Production Volume}}$
Cash Cost (\$/BOE)	$\frac{(\text{Operating Exp.} + \text{Exploration Exp.} + \text{SG\&A} + \text{Royalty \& SRB} + \text{Interest Expense})}{\text{Sales Volume}}$
Unit Cost (\$/BOE)	$\frac{(\text{Operating Exp.} + \text{Exploration Expense} + \text{SG\&A} + \text{Royalty} + \text{DD\&A})}{\text{Sales Volume}}$
Reserves Replacement Ratio	$\frac{5\text{-Yr Additional Proved Reserves}}{5\text{-Yr Production Volume}}$
Reserves Life Index (Year)	$\frac{\text{Proved Reserves}}{\text{Production Volume}}$
Success Ratio	$\frac{\text{Number of wells with petroleum discovery}}{\text{Total number of exploration and appraisal wells}}$
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	$\frac{\text{EBITDA}}{\text{Sales Revenue}}$
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	$\frac{\text{Total interest bearing debt}}{\text{Shareholders' equity}}$
Total Debt to EBITDA Ratio	$\frac{\text{Total interest bearing debt}}{\text{Trailing-12-month EBITDA}}$
Dividend Payout Ratio	$\frac{\text{Dividend Payment}}{\text{Net Profit}}$