# PTT Exploration and Production Public Company Limited

CLSA Investors' Forum 2015

16-17 September 2015





Dow Jones Sustainability Indices

In Collaboration with RobecoSAM (









# Thailand's Energy Value Chain

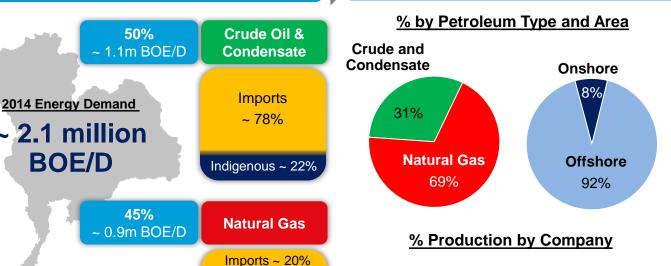








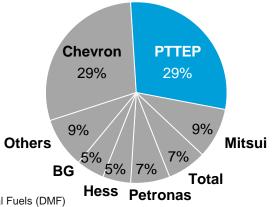
#### **Thailand Petroleum Production 2014**



# 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)

5%

~ 0.1m BOE/D

Indigenous

~ 80%

Coal, Lignite,

Hydro and

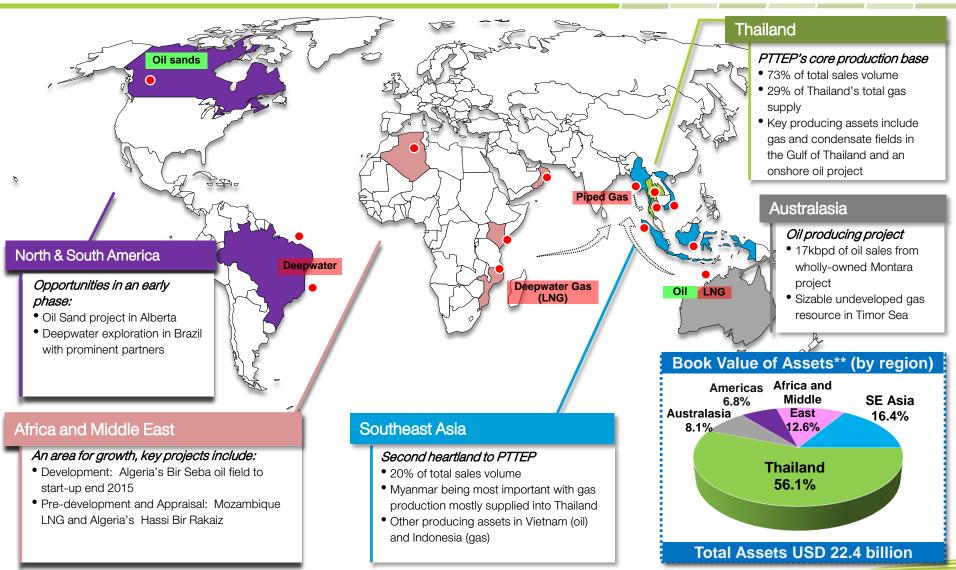
**Others** 

## Diversified International Portfolio





Worldwide operations: 39 projects\* in 11 countries



#### Notes:

Excludes 4 projects that are pending official withdrawal approval

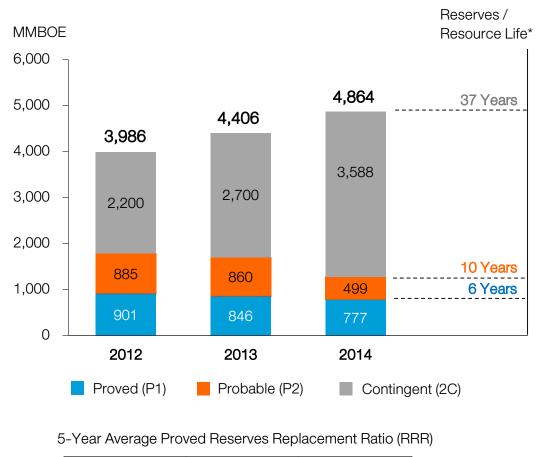
\*\* Information dated as of 30 June 2015

# Reserves and Resources

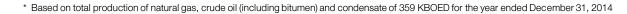
# PTTEP

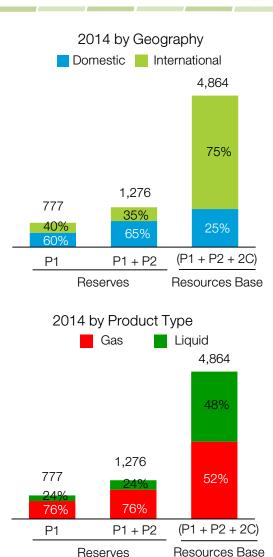


#### Target resource turnaround in the near future



2012	2013	2014		
0.91x	0.82x	0.45x		









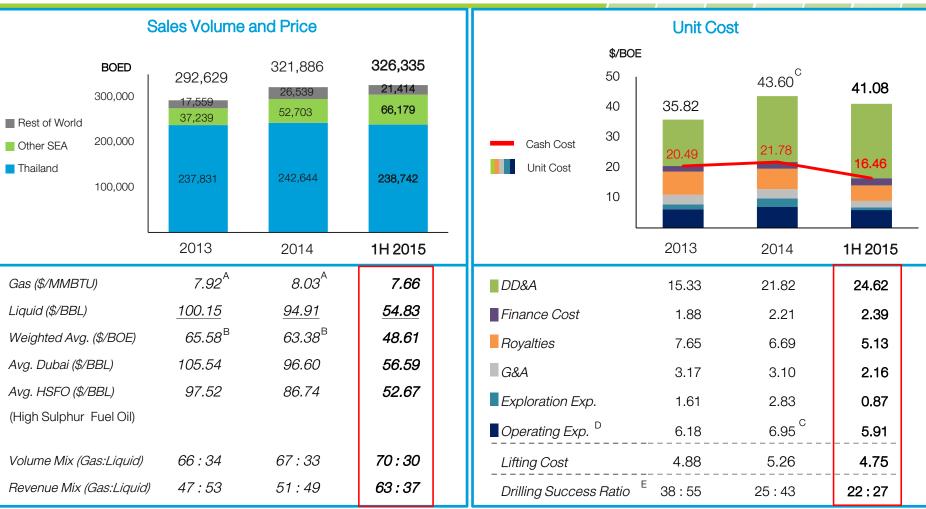


# Sales Volume & Unit Costs





#### Price stability and healthy cash margin amidst volatile environment



- A) If Vietnam 16-1 retroactive sales are excluded, gas price are \$8.01 for 2013 and \$8.07 for 2014
- B) If Vietnam 16-1 retroactive sales are excluded, average selling price are \$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) Drilling success ratio (successful wells : total wells):

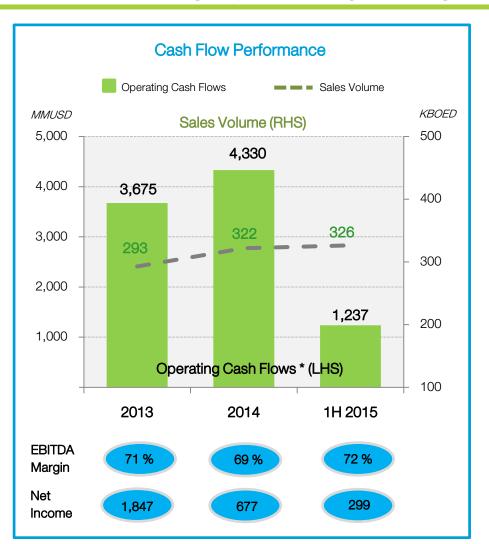
Exploration and Appraisal wells

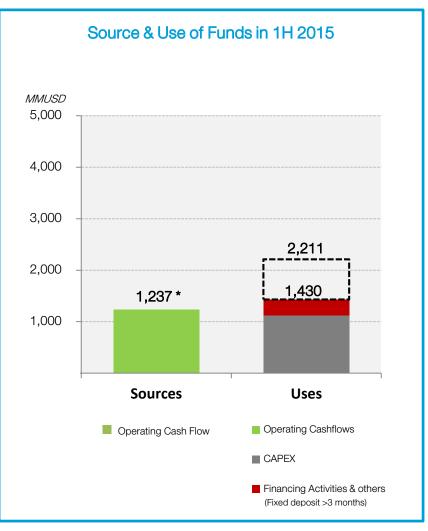
# Cash Flow Performance





Cash flow remains strong despite weakening NI resulting from non-cash items





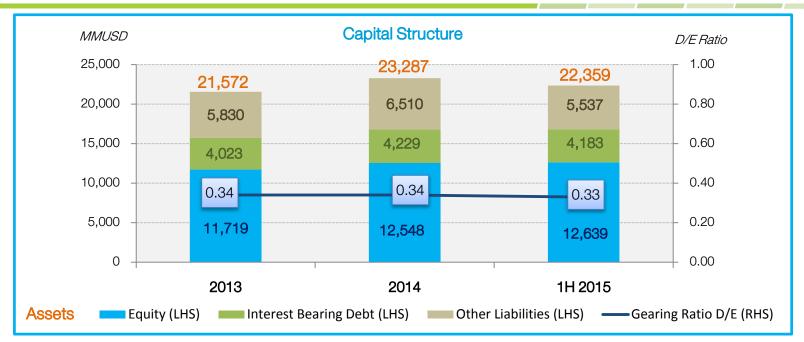
<sup>\*</sup> Net of adjustment for the effect of exchange rate changes on cash and cash equivalents. Operating cash flows before exchange rate effect adjustment is: 2013 = 3,740 MMUSD; 2014 = 4,320 MMUSD; and 1H 2015 = 1,256 MMUSD

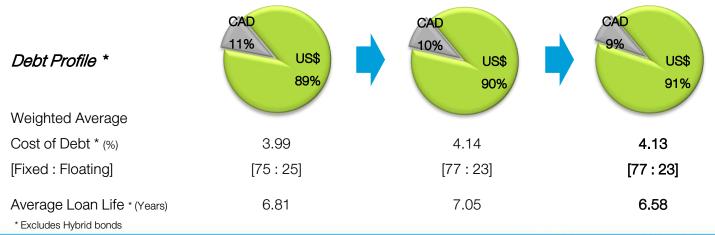
# Financial Position





#### Healthy balance sheet with low gearing ratio

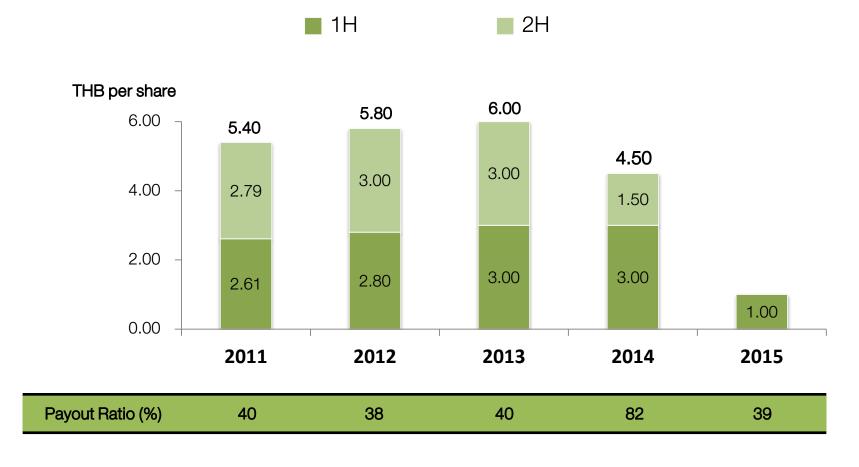






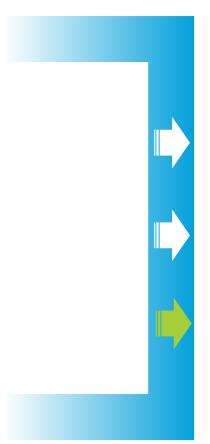


### Dividend Payment History (Policy: No Less Than 30% of Net Income)









**Company Overview** 

**Financial Results** 

**Outlook** 

# Company Outlook

#### Adaptive to industry fundamental change







#### Near-term priorities: key objectives



Deliver ~3% 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



# Progress continues to be made on key projects

Bir Seba on track to start-up by 2015



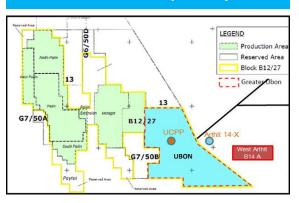


#### Algeria Bir Seba



- 35% interest, jointly operated with PetroVietnam, and Sonatrach
- Gross production capacity of 20kbpd
- Progress to start-up:
  - Began commissioning and testrun facilities
  - Start-up on track for late 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
- Progress to FID:
  - Finalize remaining commercial agreements

#### Mozambique Area 1







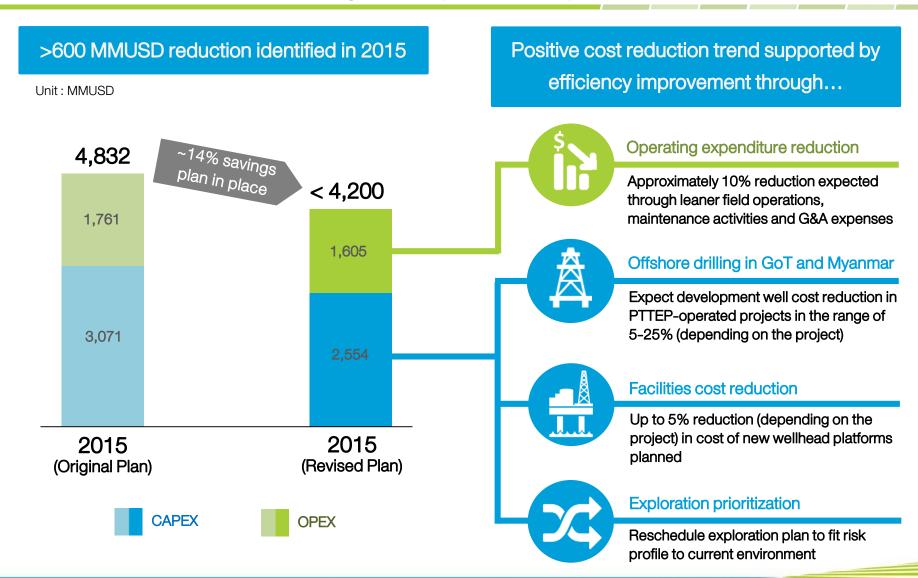
- 8.5% interest (operated by Anadarko)
- Key attractions:
  - Massive gas resource
  - Competitive cost profile
- Initial development proposed for 12
   MMTPA LNG (2 trains)
- Progress to FID with:
  - Decree law ratified
  - Onshore EPC contractor selected
  - 8MMTPA non-binding HOA signed with Asian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

# 2015 Budget Revision





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









# 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% 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







For more information, please visit our website at

http://www.pttep.com

OR

Contact us via email address at

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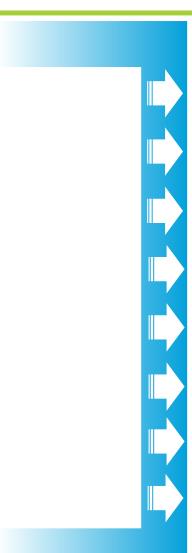
OR

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# Supplementary Index







- 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. Ratios & Formula

# Sustainable Development



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

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#### 2014 DJSI Listed Company

Dow Jones Sustainability World Index
Oil & Gas Sector



# PTTEP



#### **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

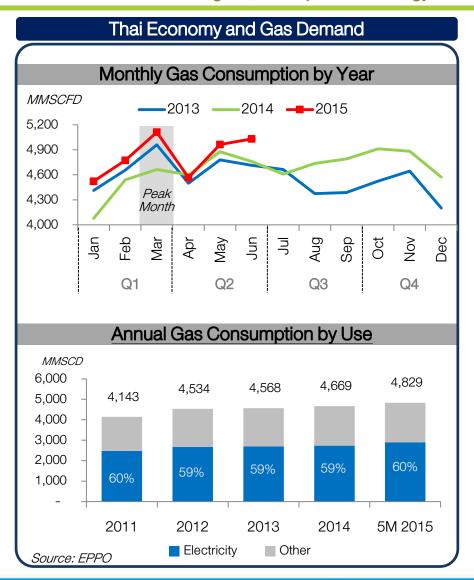
Participation in Thailand Voluntary Emission Reduction Program (T-VER)

# Thailand Energy Updates





Gas demand continues to grow, and upstream energy reform makes progress



#### Thai Upstream Energy Reform



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



- NEPC announced basic principles to concession renewal
- Target for definitive solution within 2017
- Gas supply stability continues to be 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%<sup>2</sup> Thailand's national energy company 65.3%<sup>1</sup>

#### 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.

<sup>1</sup> Ownership as of 7 August 2015

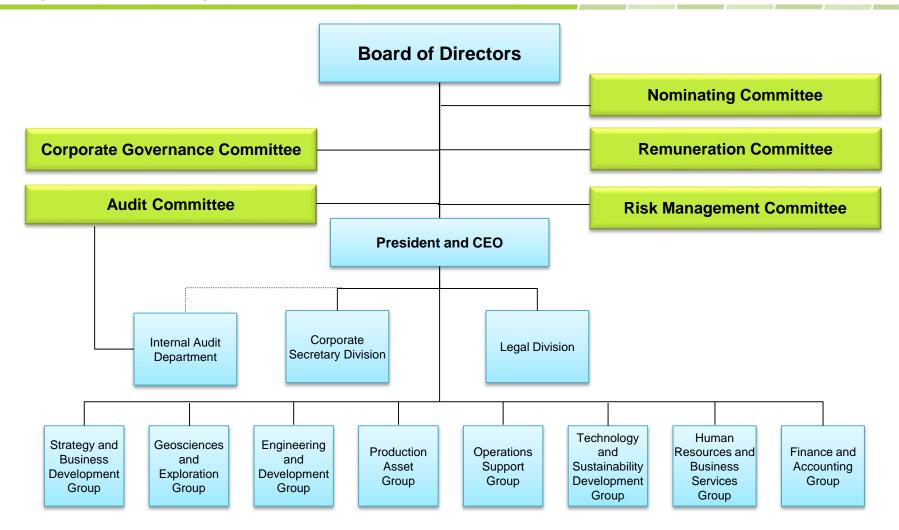
<sup>2 51.1%</sup> is directly held by the Government of Thailand (Ministry of Finance), with the remaining 14.9% held by the state-controlled Vayupak Fund I

# Organizational Structure





Ensuring Transparency, Integrity, and Good Corporate Governance practices

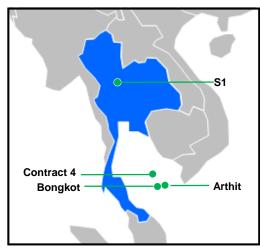


#### Strong home base with legacy assets maintaining production plateau









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 892 MMSCFD in 1H 2015
- Average condensate sales volume was 28.8 KBPD in 1H 2015

#### **S1 (100% interest)**

- S1 is the largest onshore crude oil production field in Thailand
- Average crude oil sales volume was 27.8 KBPD in 1H 2015

#### Arthit (80% interest)

 Average sales volume in 1H 2015 was 203 MMSCFD of natural gas and 8.9 KBPD of condensates

#### Acquisition of Hess Assets in Thailand

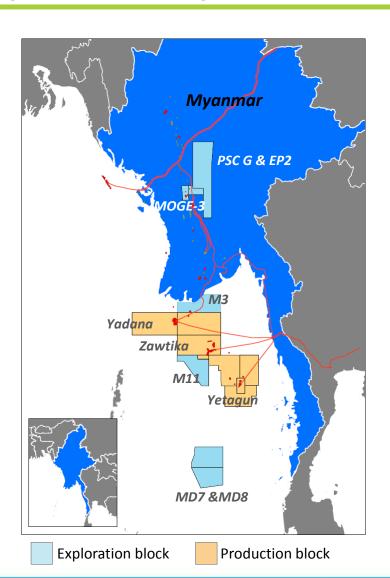
- PTTEP successfully acquired Hess Corporation's working interests in the Contract 4 project and Sinphuhorm project, and now holds 60% working interest in the Contract 4 project and 55% working interest in the Sinphuhorm project. PTTEP has also become the operator of the Sinphuhorm project
- The Contract 4 project had an average sales rate of 310 MMSCD for natural gas and 13.5
   KBPD for condensate in 1H 2015

# Southeast Asia : Myanmar

#### Significant contribution to growth







- 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.

#### **Producing**

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

# Project Status

#### **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

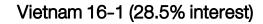
# Southeast Asia: Vietnam and Indonesia

#### Reinforcing regional exposure through strategic partnerships









- Average crude oil sales volume of 31.3 KBPD in 1H 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 197 MMSCFD, and average sales volume of crude oil was 853 BPD in 1H 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

Substantial recoverable resources of <u>70+ tcf</u> 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

- ✓ 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 MMTPA

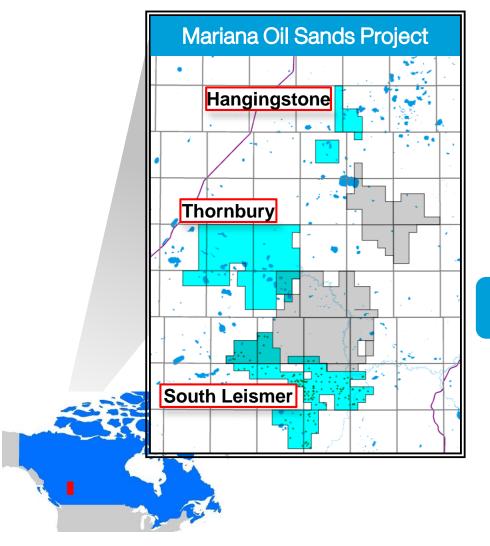
Source: Anadarko

# America : Canada Oil Sands









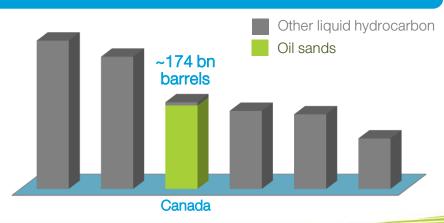
#### Key activities

- 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



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

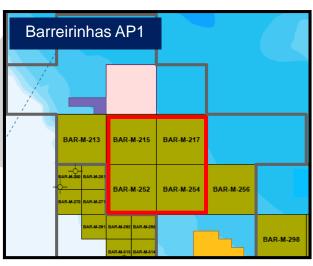
# America : Brazil Deepwater

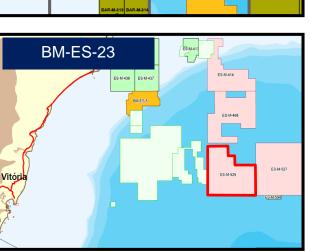
#### Entry into high potential petroleum province at exploration phase











- Farm-in 25% from BG Group 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 1 exploration well in 2015

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

# Project Information 1/4

# PTTEP



#### Production Phase: Thailand and JDA

	Project	Status*	PTTEP's	Partne	rs	6M 2015 Ave	erage Sales Volume **	2015 Key Activities	
				<b>Share</b> (as of Q2 2015)		Gas	Oil and Other		
Pro	duction Phas	<u>se</u>							
Tha	ailand and JD	<u>A</u>							
1	Arthit	OP	80%	Chevron MOECO	16% 4%	203 MMSCFD	Condensate: 8.9 k BPD	<ul> <li>Ensure gas deliverability level at DCQ***</li> <li>Drill Exploration / Appraisal wells/ Development well</li> <li>Install wellhead platforms</li> </ul>	
2	B6/27	OP	100%***			N/A	N/A	Evaluate further potential of reservoir	
3	B8/32 & 9A		25%	Chevron MOECO KrisEnergy PSTL	51.66% 16.71% 4.63% 2%	92 MMSCFD	Crude: 26 k BPD	Drill development wells	
4	Bongkot	OP	44.4445 %	TOTAL British Gas	33.3333% 22.2222%	892 MMSCFD	Condensate: 28.8 k BPD	Ensure gas deliverability level at DCQ****     Drill Exploration / Appraisal / Development wells     Install wellhead platforms	
5	Contract 3 (Formerly Unocal III)		5%	Chevron MOECO	71.25% 23.75%	558 MMSCFD	Crude: 20.2 k BPD Condensate: 20.5 k BPD	Drill Exploration / Appraisal / Development wells     Install wellhead platforms	
6	Contract 4 (Formerly Pailin)		60%	Chevron MOECO	35% 5%	310 MMSCFD	Condensate: 13.5 k BPD	<ul> <li>Ensure gas deliverability level at DCQ****</li> <li>Drill Exploration / Appraisal / Development wells</li> <li>Install wellhead platforms</li> <li>Review development plan of Ubon field</li> </ul>	
7	E5		20%	ExxonMobil	80%	12 MMSCFD	-		
8	G4/43		21.375%	Chevron MOECO PSTL	51% 21.25% 6.375%	3 MMSCFD	Crude: 6.7 k BPD	Drill Exploration / Development wells     Install wellhead platform	
9	G4/48		5%	Chevron MOECO	71.25% 23.75%	5.5 MMSCFD	Crude: 797 BPD		
10	L53/43 & L54/43	OP	100%				Crude: 147 BPD	Drill Exploration Wells	
11	PTTEP1	OP	100%			-	Crude: 347 BPD	Drill Appraisal / Development wells     Perform waterflood activities	
12	S1	OP	100%			27 MMSCFD	Crude: 27.8 k BPD	Continue Exploration appraisal and development activities	
13	Sinphuhorm	OP	55%	Apico ExxonMobil	35% 10%	124 MMSCFD	Condensate: 480 BPD	Drill development wells	
14	MTJDA	JOC	50%	Petronas-Carigali	50%	320 MMSCFD	Condensate: 6.7 k BPD	<ul> <li>Drill Exploration / Appraisal / Development wells</li> <li>Install wellhead platforms</li> </ul>	
15	L22/43	OP	100%			-	Crude: 71 BPD	Drill Exploration / Appraisal / Development wells	

<sup>\*</sup>Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship

<sup>\*\*</sup> Sales volume stated at 100% basis.

<sup>\*\*\*</sup> New participating interest subject to government approval

# Project Information 2/4

# PTTEP



#### **Production Phase: Overseas**

	Project St		· · · · · · · · · · · · · · · · · · ·				erage Sales Volume **	2015 Key Activities		
Pro	Share (as of Q2 2015) Gas Oil and Other Coduction Phase									
Ov	<u>erseas</u>									
16	Oman 44	OP	100%			21 MMSCFD	Condensate: 554 BPD	Drill Exploration / Appraisal / Development wells     Maintain production rate		
17	Vietnam 9-2	JOC	25%	PetroVietnam SOCO	50% 25%	13 MMSCFD	Crude: 5 k BPD	<ul><li>Drill development wells</li><li>Explore new reservoirs</li></ul>		
18	Yadana		25.5%	TOTAL Chevron MOGE	31.24% 28.26% 15%	774 MMSCFD	-	Drill Exploration / Appraisal wells		
19	Yetagun		19.3178 %	Petronas-Carigali MOGE Nippon Oil PC Myanmar(HK)	30.00140% 20.4541% 19.3178% 10.90878%	310 MMSCFD	Condensate: 5.8 k BPD	Reservoir Management     Well Intervention		
20	Vietnam 16-1	JOC	28.5%	PetroVietnam SOCO OPECO	41% 28.5% 2%	16 MMSCFD	Crude: 31.3 K BPD	Drill development wells     Complete H5 development project		
21	PTTEP Australasia (PTTEP AA)	OP	20%- 100% (varied by permits)			-	Crude: 17 k BPD	Drill an exploration well     Assess resource potential of exploration permits		
22	Natuna Sea A		11.5%	Premier Oil KUFPEC Petronas Pertamina	28.67% 33.33% 15% 11.5%	197 MMSCFD	Crude: 853 BPD	<ul> <li>Drill Exploration / Appraisal / Development wells</li> <li>Maximize gas exports</li> </ul>		
23	Zawtika (M9 & a part of M11)	OP	80%	MOGE	20%	292 MMSCFD	-	<ul> <li>Maintain production rate</li> <li>Drill Exploration / Appraisal wells</li> <li>Install wellhead platforms</li> </ul>		

<sup>\*</sup> Status: OP= PTTEP operatorship / JOC = PTTEP joint operatorship

# Project Information 3/4

### **Development & Exploration Phase**





	Project	Status*	PTTEP's Share	Partners (as of Q2 2015)			2015 Key Activities		
<u>De</u>	Development Phase :								
<u>Ov</u>	<u>erseas</u>								
24	Algeria 433a & 416b (Bir Seba)	JOC	35%	PetroVietnam Sonatrach	40% 25%		Continue Engineering, Procurement & Construction (EPC) work First oil expected in 2H of 2015		

	Project	Status*	PTTEP's Share	Partners (as of Q2 2015)		2015 Key Activities				
<u>Ex</u>	Exploration Phase									
<u>Th</u>	ailand and JDA									
25	G9/43	OP	100%			Acquire 3D seismic     Drill Exploration / Appraisal wells				
26	L28/48	OP	70%	Resourceful Petroleum (Thailand)	30%	<ul> <li>In process of plug and abandon (P&amp;A) Ratana-1 and Ratana-2 well</li> <li>G&amp;G Studies</li> </ul>				
<u>Ov</u>	erseas									
27	Myanmar M3	OP	80%	MOECO	20%	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%	Prepare for Final Investment Decision (FID)				
29	Algeria Hassi Bir Rekaiz	OP	24.5%	CNOOC Sonatrach	24.5% 51%					

# Project Information 4/4

### **Exploration Phase**





	Project	Status*	PTTEP's Share	<b>Partners</b> (as of Q2 2015)			2015 Key Activities
Ex	ploration Phase	(con't)					
Ov	erseas (con't)						
30	Myanmar M11	OP	100%**				
31	Vietnam B & 48/95		8.5%	PVN MOECO PVEP	42.38% 25.62% 23.5	•	Negotiate a GSA with the Vietnamese government
32	Vietnam 52/97		7%	PVN PVEP MOECO	43.4% 30% 19.6%	•	Negotiate a GSA with the Vietnamese government
33	Myanmar PSC-G and EP-2	OP	70%	Win Precious Resources MOECO Palang Sophon Offshore	10% 10% 10%	•	Drill 4 exploration wells (2 wells in PSC G & 2 wells in EP 2)
34	Kenya L5, L7 Kenya L11A, L11B, L12		10% 10%	Anadarko, Total Anadarko, Total, ENI	50%,40% 50%,30%,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 Win Precious Resources	10% 5%	•	Submit EIA in preparation for 2D&3D seismic survey
39	Brazil BM-ES-23		20%	Petrobras INPEX	65% 15%	•	Drill 2 exploration wells

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

<sup>\*</sup> Status: OP= PTTEP operatorship / JOC = PTTEP joint operatorship

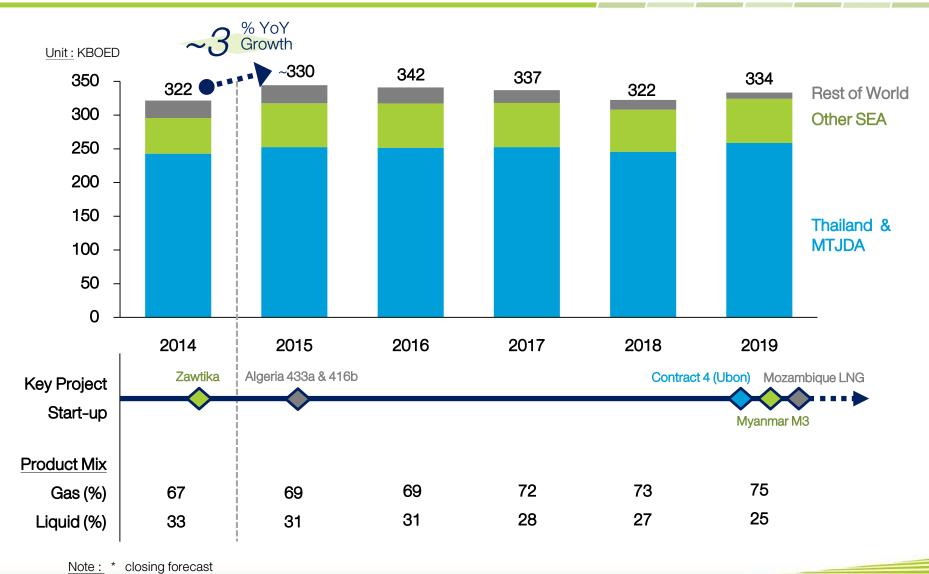
<sup>\*\*</sup> New participating interest subject to government approval

# Sales Volume Profile





Thailand and SE Asia continue to be the strong production base

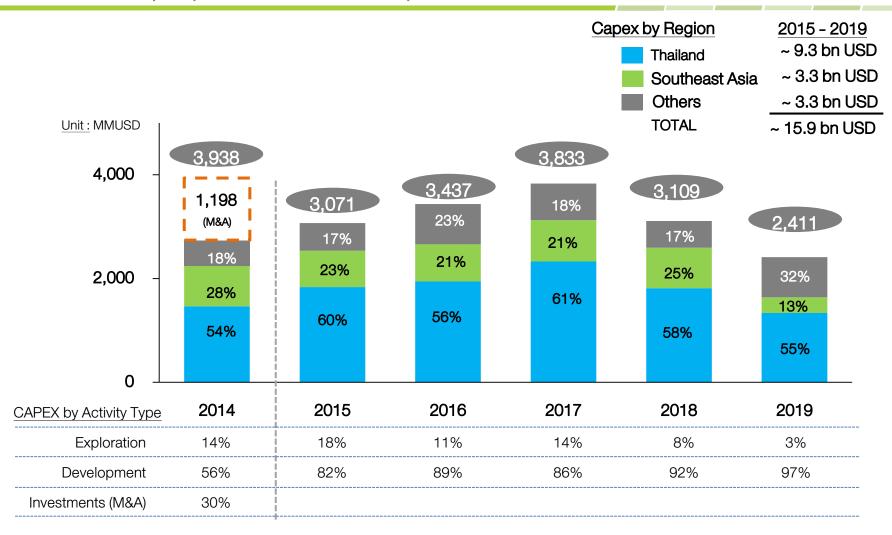


# Investment Plan





2015 investment plan (as announced in Dec 2014)







Ratio	Formula
Lifting Cost (\$/BOE)	(Operating Exp. – Transportation Cost – Stock Variation – Other expense not related to lifting) / Production Volume
Cash Cost (\$/BOE)	(Operating Exp. + Exploration Exp. + SG&A + Royalty & SRB + Interest Expense) / Sales Volume
Unit Cost (\$/BOE)	(Operating Exp. + Exploration Expense + SG&A + Royalty + DD&A) / Sales Volume
Reserves Replacement Ratio	5-Yr Additional Proved Reserves / 5-Yr Production Volume
Reserves Life Index (Year)	Proved Reserves / Production Volume
Success Ratio	Number of wells with petroleum discovery / Total number of exploration and appraisal wells
EBITDA	(Sales + Revenue from pipeline transportation) - (Operating expenses + Exploration expenses + Administrative expenses + Petroleum royalties and remuneration + Management's remuneration)
EBITDA Margin	EBITDA / Sales Revenue
Total Interest Bearing Debt	Short-term loans from financial institution + Current portion of long-term debts + Bonds + Long-term loans from financial institution
Total Debt to Equity Ratio	Total interest bearing debt/ Shareholders' equity
Total Debt to EBITDA Ratio	Total interest bearing debt / Trailing-12-month EBITDA
Dividend Payout Ratio	Dividend Payment / Net Profit