



Non-Deal Roadshow Maybank/Kim Eng Malaysia June 5, 2012

**SUSTAINABILITY** 

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#### Oil Balance Thailand: Jan - Mar 2012

Adequate refining capacity maintains the stability of supply



Overview Q2/2012 Outlook **Production** Supply Sales **Domestic Import (85%) Imported Refined Petroleum Products 65 KBD** 1,013 KBD Crude/ Refined Condensate **Total Refining Capacity in Thailand: Products** 948 KBD 1,082 KBD 978 KBD\* Crude/ 832 KBD (\*\*) Condensate Indigenous (15%) **129 KBD** Refined PTT's Associated Refineries: 905 KBD (TOP, PTTGC, SPRC, IRPC, BCP) **Products** 179 KBD **Export 209KBD** ESSO = 177 KBD**Crude Export 50 KBD** 

Source: PTIT

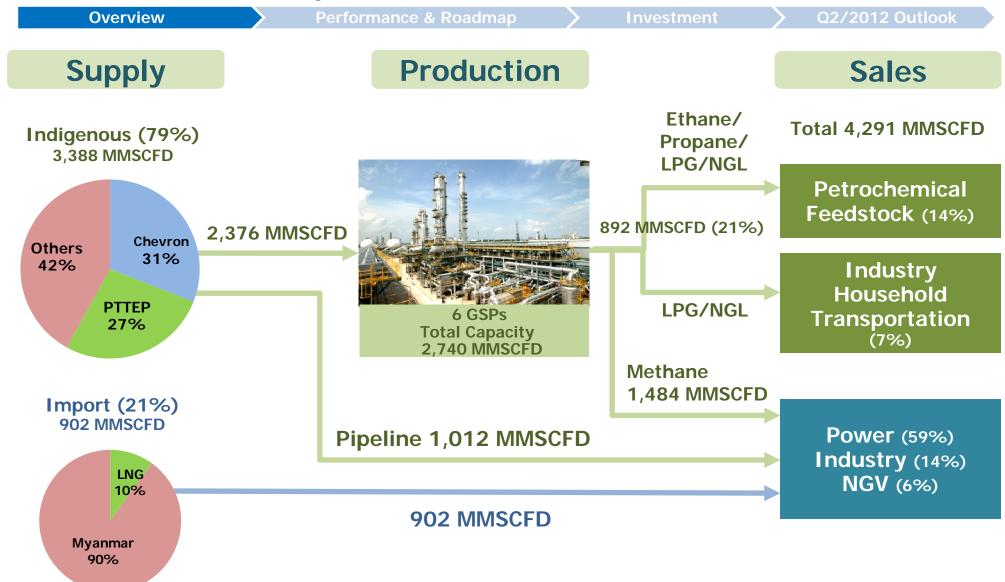
Remark: (\*)Refined product from refineries = 879 KBD, including domestic supply of LPG from GSPs and Petrochemical Plants = 99 KBD

(\*\*) Not included Inventory KBD = Thousand Barrels per day **259 KBD** 

## Natural Gas Balance: Jan – Mar 2012



Main driver of the Thai economy



Remark: MMSCFD = Million Cubic Feet @ Heating Value 1,000 Btu/ft<sup>3</sup>

# **Our Major Businesses & Activities**



Overview		Performance & Ro	padmap	Investment Q2/2012 Outlook
	<b>Business Areas</b>	Company P	TT's holding (%)	Activities
Upstream	E&P	PTTEP	65.29%	Exploration and Production
Intermediate	Gas	<ul><li>PTT PLC</li><li>Gas Pipeline</li><li>S&amp;M</li><li>GSP</li></ul>	100% 100% 100%	Sole owner/operator of the Transmission pipeline Supply & Marketing of Natural Gas Extracting Hydrocarbon contents in NG for Petrochemical's feedstock
	Oil Marketing	PTT PLC • Oil Marketing	100%	Retail service Stations and commercial Marketing
Downstream	Int'l Trading	• Int'l Trading	100%	Import/Export/Out-Out trading of petroleum and petrochemical products
str		PTTGC	48.91%	Petrochemical Flagship
S S		TOP	49.10%	Integrated Refinery & Petrochemical
O	Petrochemical	IRPC	38.51%	Integrated Refinery & Petrochemical
	& Refining	SPRC	36.00%	Stand alone Complex Refinery
		BCP	27.22%	Complex Refinery & Retail Stations
New Business	International	PTT Inter	100%	Overseas investment arm of PTT : Coal, New energy and related businesses

# **PTT Aspiration**



Strategic direction and target to achieve "Big-Long-Strong" aspiration

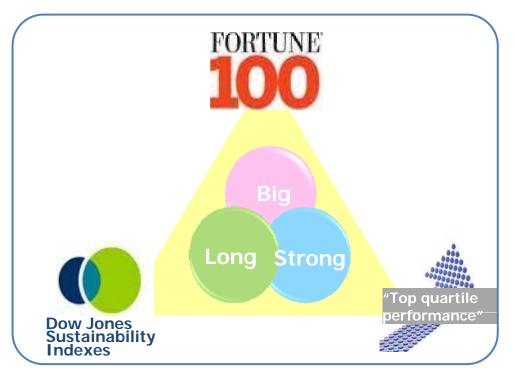
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# "Thai Premier Multinational Energy Company"



Big

- Expand resources
- Maximize value along the chain

- Balance stakeholder excellence

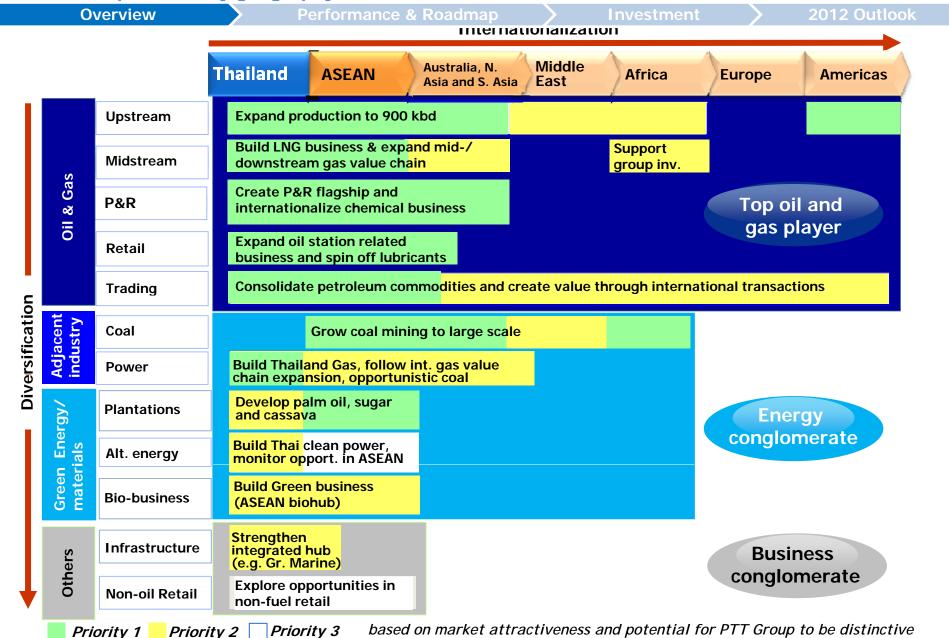
- Drive functional excellence and synergy
- Share best practice and knowledge management

Resource owners - Value creators -							Opti- mizer	Green Energy	
E&P	Coal	Plant- ation	Gas	Chem- Oil /					Green energy
-	W.		M					- Turky	

# **PTT Group Strategic Direction**



Investment priorities by geography and value chain



# Q1/2012 Highlights



**Overview** 

Performance & Roadmap

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#### **Operation Highlight**

- Record high quarterly income of THB 37,386 million in Q1/2012, primarily result of:
  - PTT performance increased by 7% YoY mainly from Oil Business both volume and margin
  - Affiliate performance increased by 5% YoY mainly from PTTEP while Petrochemical and Refinery affiliates realized soften stock gain
  - Lower CIT by 12% YoY due to taxes rate reduction from 30% to 23%
- Gas sales volume resumed to 4,284 mmcfd, increased by 9% QoQ with higher average gas cost from periodic price adjustment
- GSP 6 warranty shutdown for 30 days
- Termination of EMG Gas Supply and Purchase Agreement by EGPC/EGAS is under the arbitration process
- EPAC put on hold the planned increase in NGV and transport LPG

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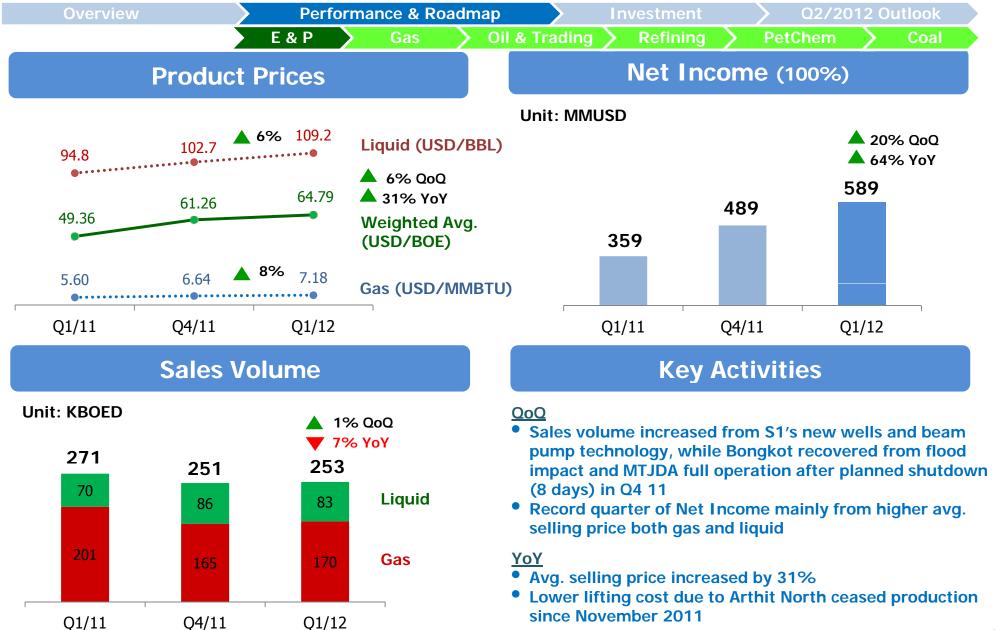
Performance & Roadmap

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# **Exploration & Production Performance: PTTEP (65.29%)**





# **Exploration & Production Roadmap: PTTEP**



**Total 969 MMBOE** 

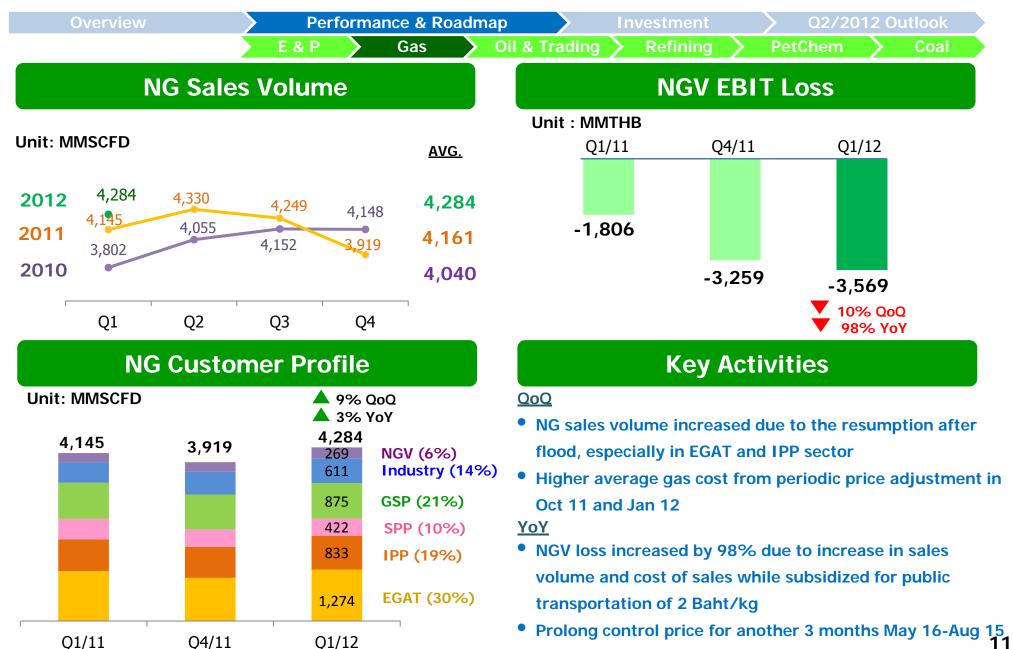


**Unit: KBOED** 

16% **Overseas** 345 330 326 324 7% **North America** 284 Middle East & Africa 265 44% Australia 56% **South East Asia Domestic Thailand Policy Reserves Replacement Ratio** 1.10 > 1 2011 CF 2012 2013 2014 2015 2016 Reserve Life Index (year) 9 BKT South. Zawtika **Algeria** Montara

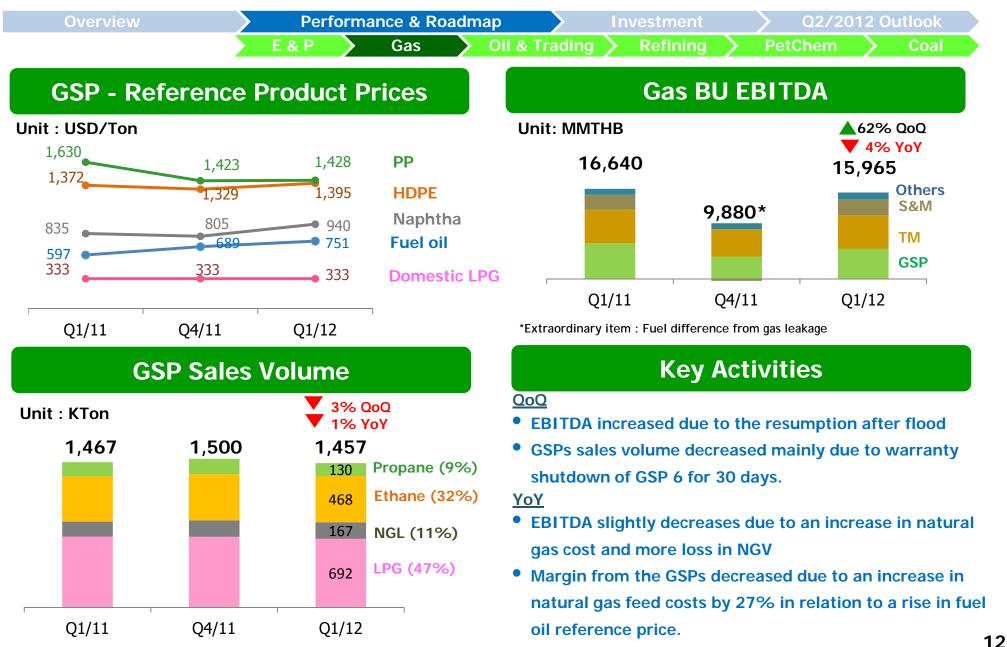
#### **Gas Business Performance: Natural Gas**





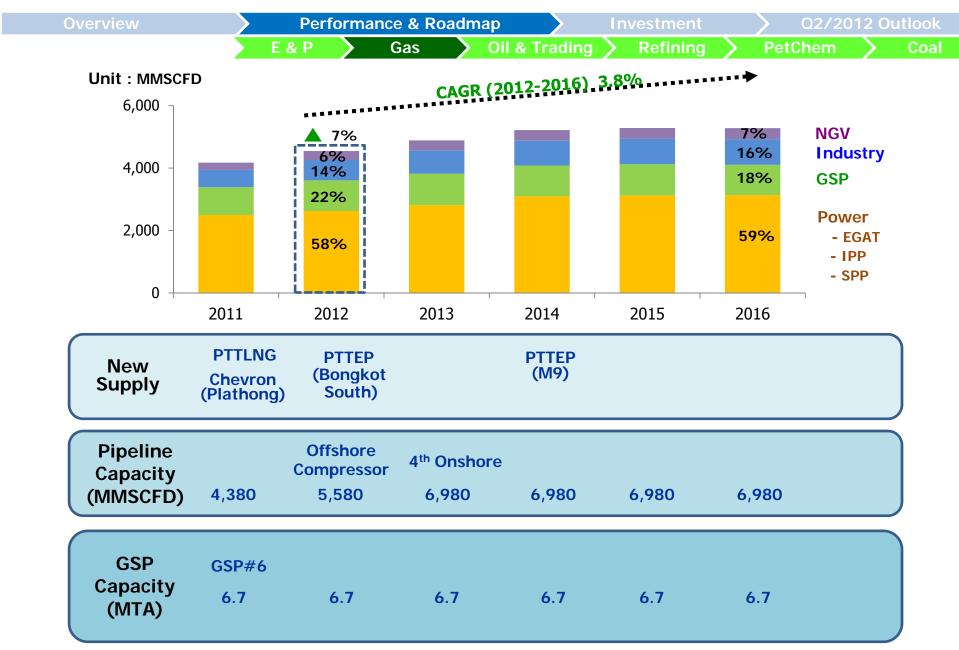
#### **Gas Business Performance**





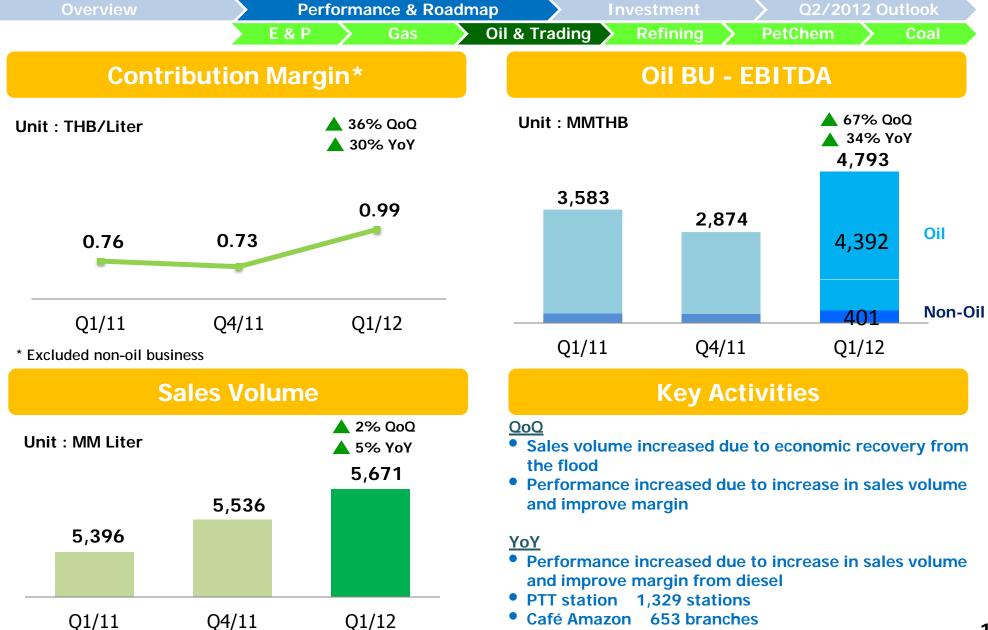
# **Gas Business Roadmap**





#### **Oil Business Performance: PTT**





# **International Trading Business Performance: PTT**

Q1/11

Q4/11

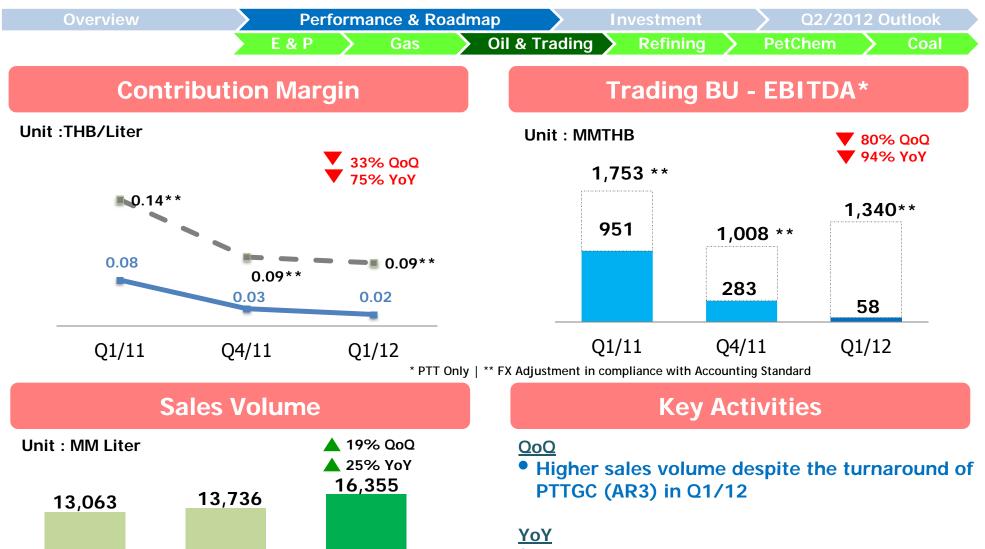
IRPC T/A 49 days

Q1/12

AR3 T/A 38 days



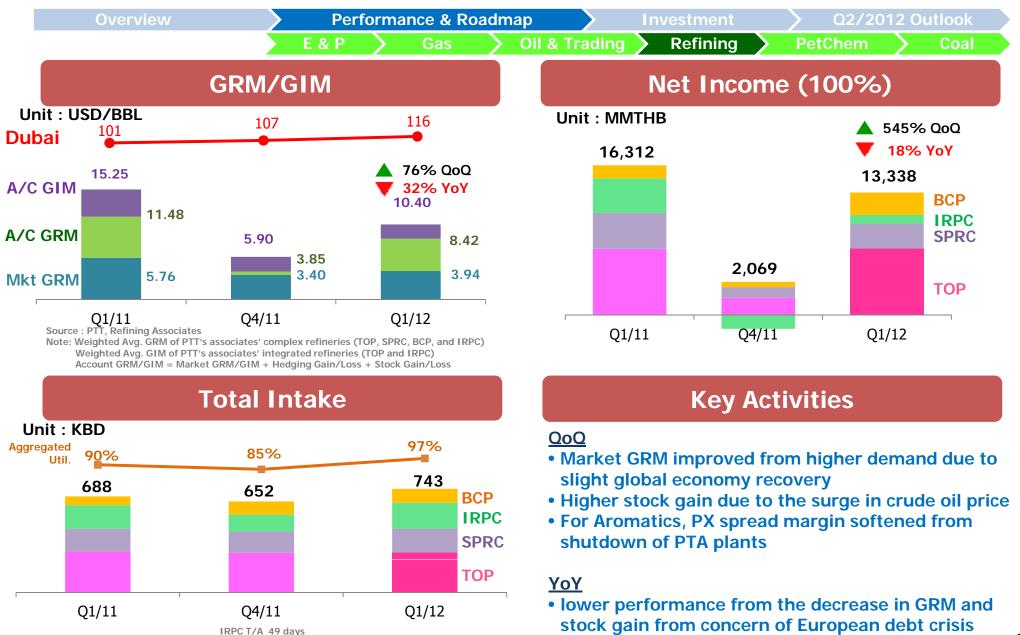
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- Higher sales volume due to the planned shutdown of PTTGC's & BCP's refineries in Q1/11
- Contribution margin slightly decreased due to the decrease in condensate margin

# **Refining Business Performance**





# **Refining Business Roadmap**



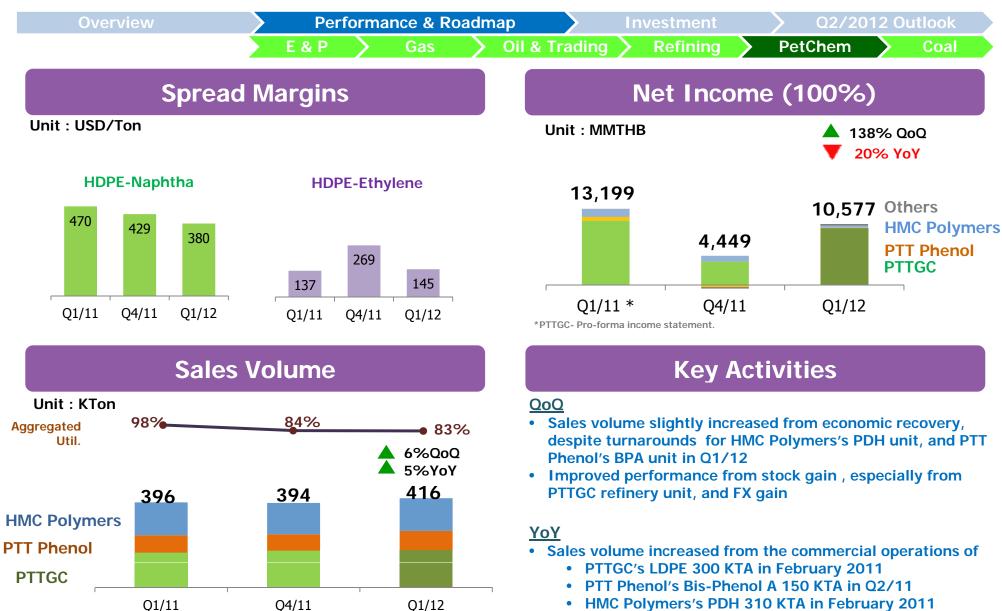
Overview	Performan	ce & Roadmap	Investmen	t ) Q2/2	2012 Outlook
	E&P	Gas Oil & T	rading Refinin	g PetChem	Coal
	2012	2013	2014	2015	2016
Refining Cap. 275 Kbpd PX 489 KTA MX 90 KTA BZ 177 KTA Tol 144 KTA	PX & BZ Upgrading PX 100 KTA BZ 100 KTA Ethanol UBE 400 KLiter/day	HCU Revamp Phase I & II PSA & HVU revamp		Power Plant 110 MW  Benzene Derivatives • LAB 100 KTA	Power Plant 110 MW
Refining Cap. 215 Kbpd Aromatic 367 KTA Olefin 728 KTA Polyolefin 615 KTA	Propylene Booster • Propylene 100 KTA	ABS/SAN Expansion • ABS/SAN 61 KTA	PP Compound and Specialties 100 KTA	Propylene 320 KTA	
Bangchak Refining Cap. 120 Kbpd	Solar Power Plant Ph I 38 MW  Solar Power Plant Ph II 32 MW  Ethanol UBE 400 KLiter/day	Tail Gas Treating Unit	Solar Power Plant Ph III 48 MW	Continuous Catalytic Reforming Unit (CCR) 12 KBD  Cogeneration Power Plant 15 MW	
	Palm Plantation 3,300 Rais				

Expansion project

#### **Petrochemical Business Performance**

PTTGC refinery unit T/A 47 days





14-2 T/A for 49 days

HMC Polymerss PDH Unit T/A 75 days

PTT Phenol's BPA Unit T/A 33 days

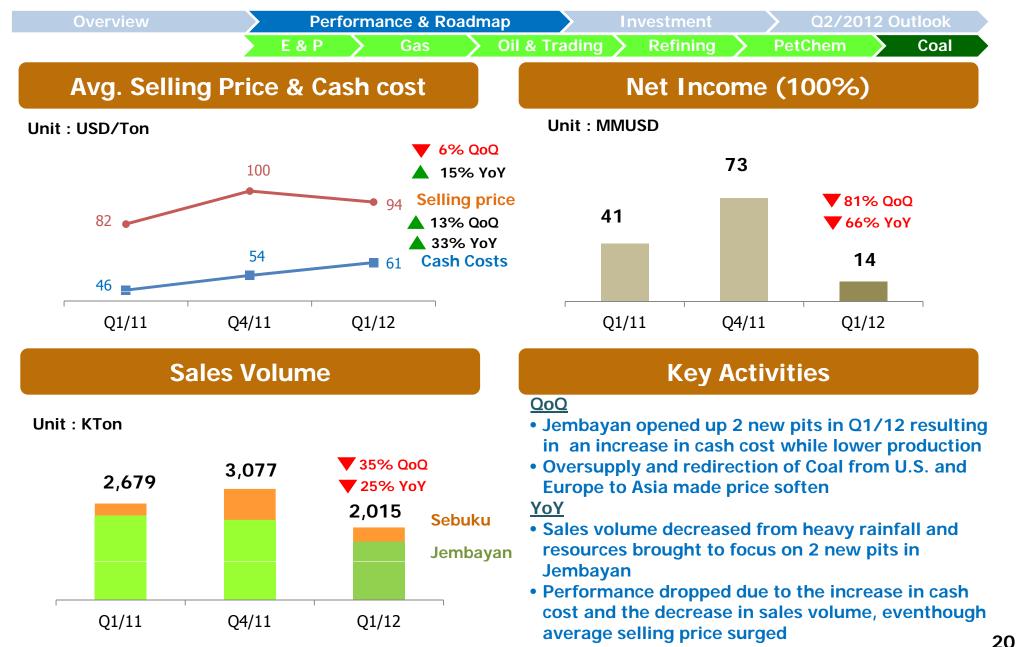
# **Petrochemical Business Roadmap**



Overview	Performa	ance & Roadmap	Investme	ent D2/2	012 Outlook
	E & P	Gas Oil 8	& Trading 🔪 Refin	ing PetChem	Coal
	2012	2013	2014	2015	2016
Refining 280 KTA Olefins 2,888 KTA Aromatics 2,259 KTA Polymers 1,590 KTA Specialty 826 KTA	NatureWorks 50% PLA 70 KTA Perstorp 51% TDI 125 KTA HDI 45 KTA				
PHENOL  Phenol 200 KTA  Acetone 125 KTA  BPA 150 KTA			Phenol 250 KTA Acetone 154 KTA		
PP 750 KTA Propylene 310 KTA					
PTT 48.50% Asahi	AN 200 KTA MMA 70 KTA AMS 160 KTA				
ptt PTT 50.00%  MCC  Biochem			PBS 20 KTA		

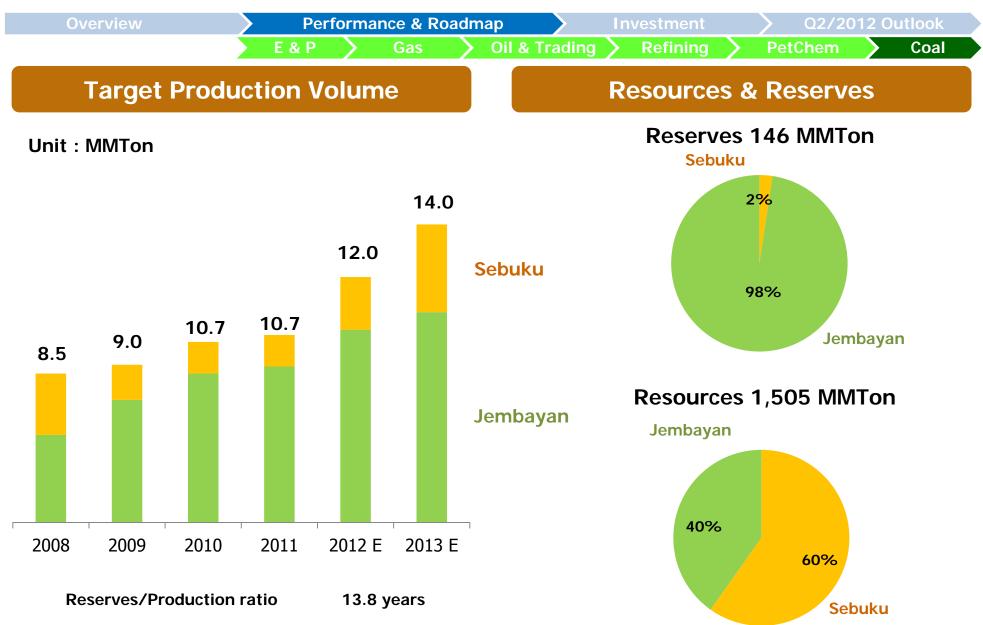
# Other Businesses: Coal - SAR (45.4%)





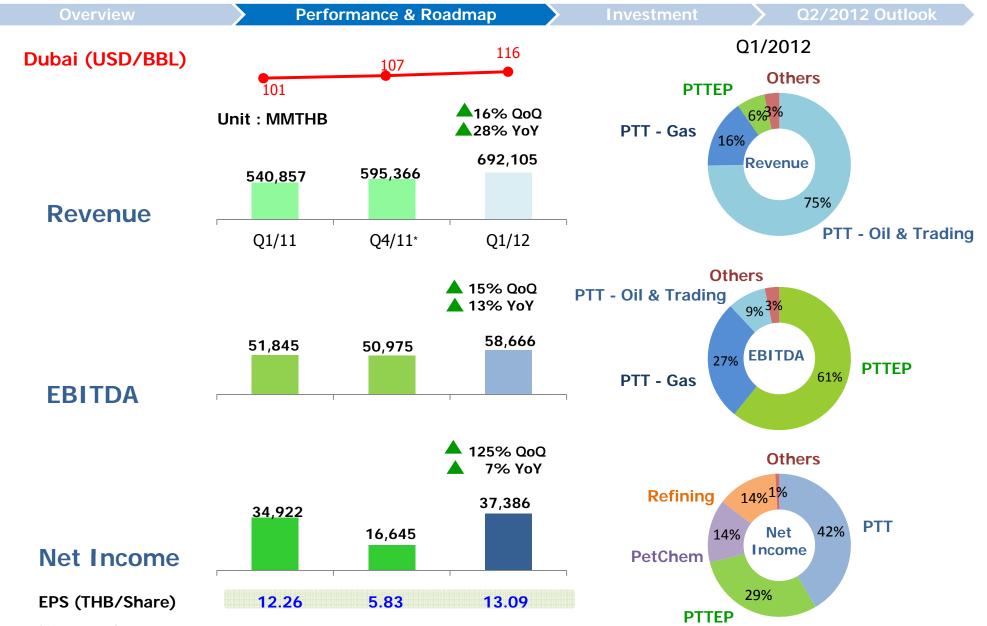
# **Coal Mining Roadmap**





## PTT Consolidated Performance: Q1/2012





<sup>\*</sup> Not restated

# **PTT Group Performance : Q1/2012**



Overview

Performance & Roadmap

nvestment

		Performance 100%			% share Equity Method % P			PTT
Unit: MMTHB		<u>Q1/11</u>	<u>Q1/12</u>	<u>YoY</u>		<u>Q1/11</u>	<u>Q1/12</u>	<u>YoY</u>
PTT Net Operating Income		14,162	15,536	10%		14,162	15,536	10%
<u>E&amp;P</u>	- РТТЕР	10,979	18,288	67%	65.29%	7,244	11,057	53%
Petro. Busines	<u>s</u>	13,204	10,577	-20%		6,136	5,337	-13%
	- PTTGC*	11,162	9,852	-12%	48.91%	5,188	4,868	-6%
	- HMC/PPCL/PTTPL/PTTPM/PTTAC / PTTME/PTTTANK	2,042	725	-64%	40-48%	948	469	-51%
<u>Refining</u>		16,312	13,338	-18%		5,665	5,124	-10%
	- TOP	7,228	7,226	0%	49.10%	2,525	3,177	26%
	- IRPC	3,773	944	-75%	38.51%	1,460	339	-77%
	- SPRC	3,887	2,730	-30%	36.00%	1,374	934	-32%
	- BCP	1,424	2,438	71%	27.22%	306	674	120%
Others Busines	<u>ss</u>	2,236	911	n.m.		1,715	332	-81%
<u>Inter</u>	- PTTI group (PTTAPM,EMG,PTTML,FLNG),PTTGE	-186	-608	n.m.	100%	-186	-608	n.m.
<u>Gas &amp;</u> Utilities	-TTM/PTTNGD/IPT/TP/DCAP/CHPP	832	789	-5%	20-100%	349	319	-9%
Oil & Oth.	- PTTRB/PTTT/SBECL/THAPPLINE/ /PTTCL/TLBC/ICT/EnCo	1,590	730	-54%	33-100%	1,552	621	-60%
Shared of Net Income from Affiliates		42,731	43,114	1%		20,760	21,850	5%
PTT Conso. Ne	t Income	56,893	58,650	3%		34,922	37,386	7%

<sup>\*</sup>PTTGC performance from Pro-Forma Statement

#### Statement of Financial Position: Solid and Secured



Overview

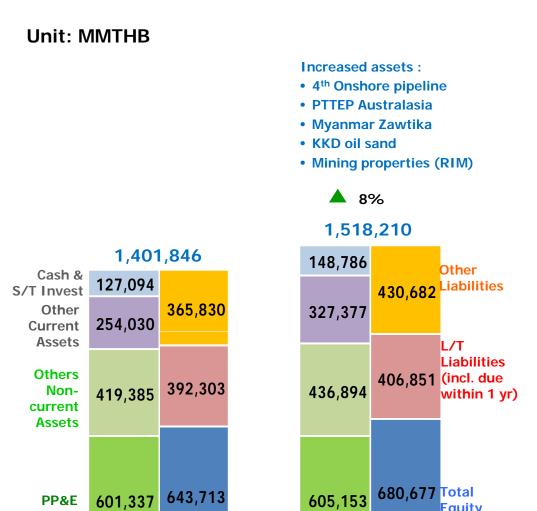
31 Dec11

Performance & Roadmap

Equity

31 Mar 12

Q2/2012 Outlook





#### **PTT Ratings at Sovereign Level**

- FC : Moody's (Baa1), S&P (BBB+),

JCR (A-), FITCH (BBB)

- LC : Moody's (Baa1), S&P (BBB+),

JCR (A), FITCH (A-)

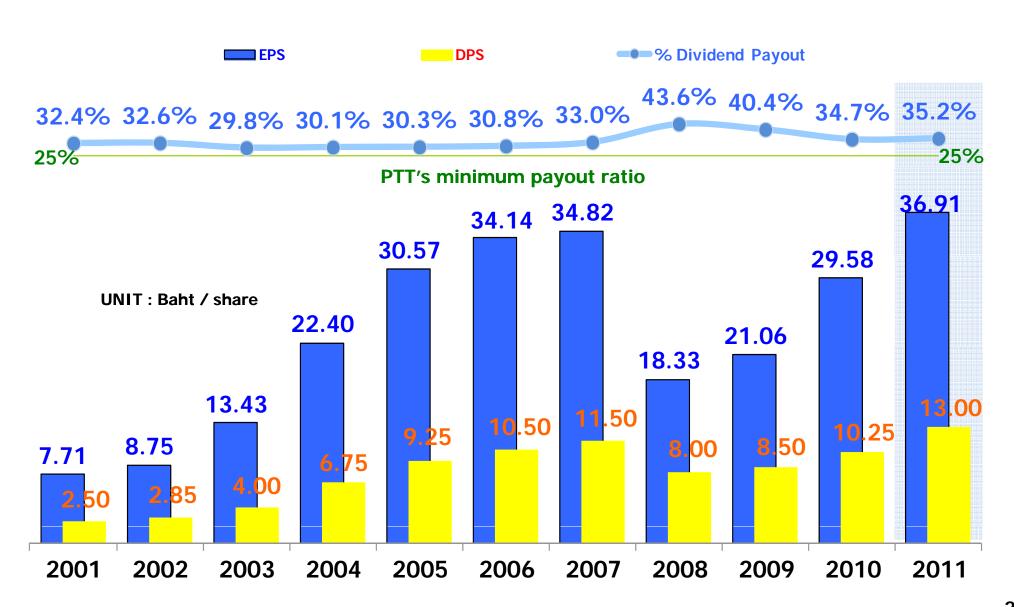
# **Dividend Policy & Historical Payments**



PTT is firmly committed to pay dividend at no less than 25% of net income

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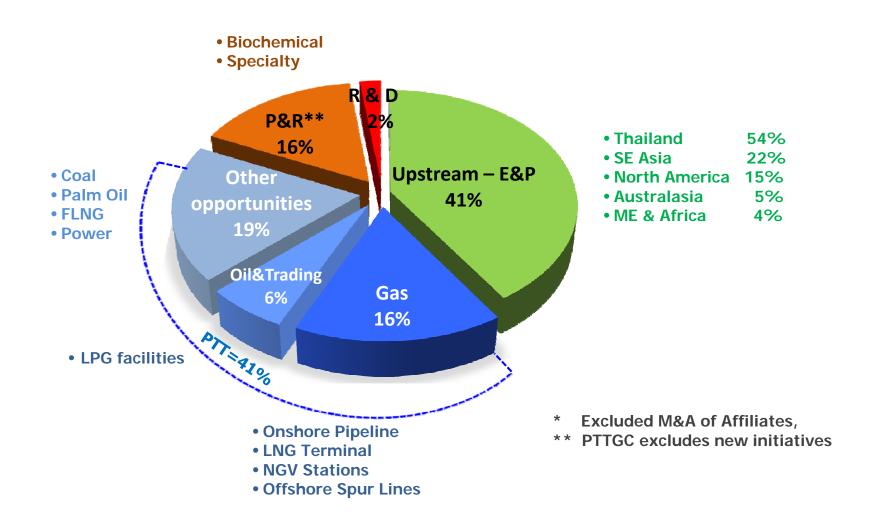
# PTT Group CAPEX 2012 - 2016 ~ THB 900 BN\*



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**Investment** 



# PTT: CAPEX (PTT and Wholly Owned Subsidiaries)

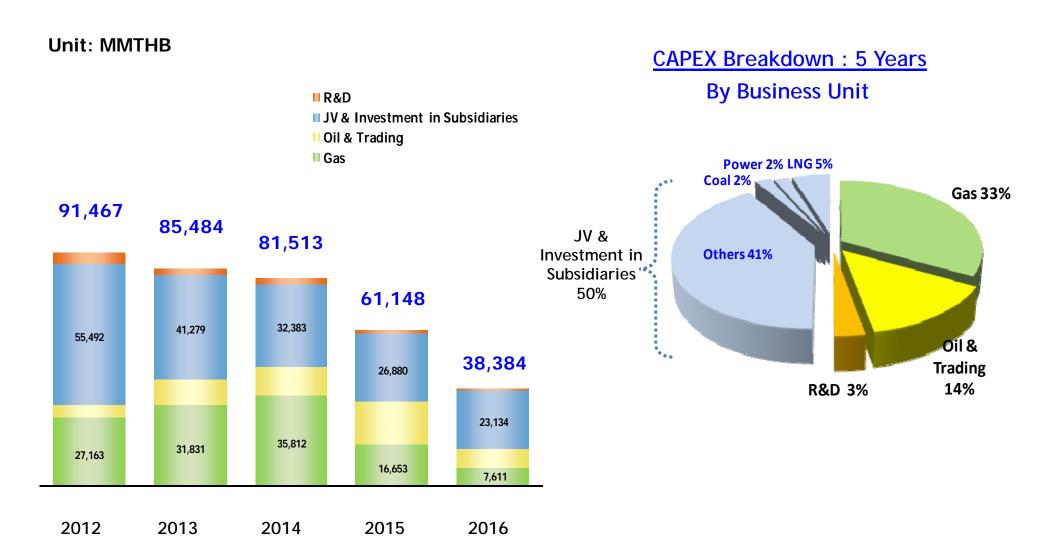


PTT plans to invest ~Bt 358 bn (\$12bn) during 2012-2016

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# **Economic Outlook: Q2/2012**



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	Positive	Negative
Global	<ul> <li>U.S. and China began to stimulate their economies</li> <li>Easing monetary policy in emerging countries</li> <li>G-20 approved funding to IMF to add liquidity in European countries</li> </ul>	<ul> <li>Higher U.S. structural unemployment contrasting to overall economic growth</li> <li>Euro zone is on the brink of break up</li> <li>Prolonged controversy in the Strait of Hormuz</li> </ul>
Thailand	<ul> <li>Continuous effort in flood protection</li> <li>BOT keep policy rate unchanged at 3% p.a.</li> </ul>	<ul> <li>CPI increases following the rise in energy prices and minimum wages</li> <li>Concern on natural disasters such as tsunamis, earthquakes,</li> </ul>
	<ul> <li>Economic recovery supports number of tourist</li> </ul>	floods or drought

## **Market Outlook: Crude Oil**



Performance & Roadmap

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Q2/2012 Outlook

130
125
120
115
110
105
100

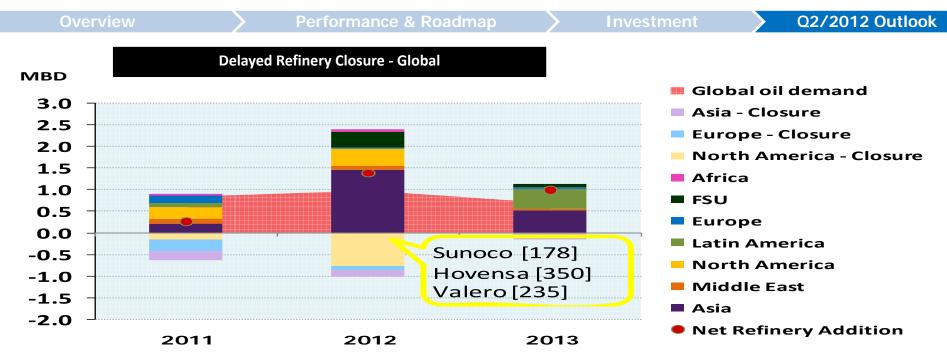
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- Dubai crude oil price in Q2/2012 is expected to be around US\$ 110 -120 per barrel
  - Supply disruption from Iran's reaction to the sanction
  - US economic data indicates upward momentum
  - Concern on economic recovery and SPR release
  - US unemployment rate remains high

Source: PRISM,PTT

#### Market Outlook: GRM



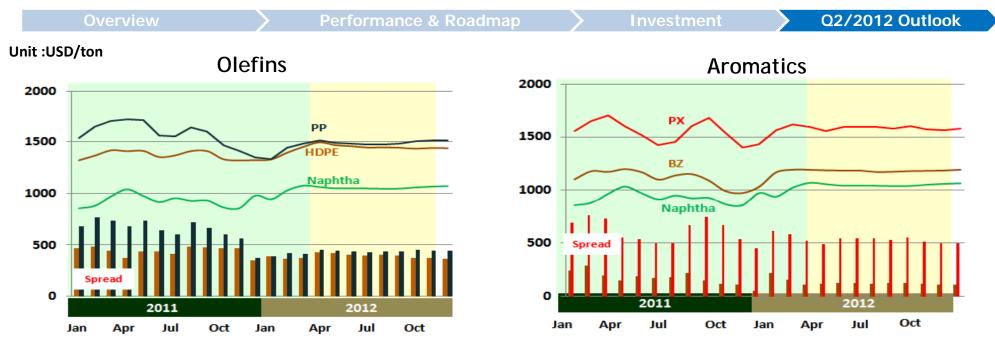


#### Singapore GRM in Q2/2012 is estimated to around 6 – 7 USD/BBL

- Stronger imports from Japan for power plant as nuclear power plants remain shutdown
- Expecting that approximately 1 MMBD of global refining capacity are likely to be closed this year, down from 1.7 MMBD which estimated in Feb12
- Refinery in U.S. and EU return from maintenance and additional capacity in Asia

#### Market Outlook: Petrochemical





#### Olefins price is on a declining trend

- HDPE –Naphtha expected to be around 387 USD/TON
- PP-Naphtha expected to be around 428 USD/TON
- Tight supply due to production problem and turnaround
- Lower demand caused by European debt crisis

#### Aromatics price tends to be improved

- Bz Naphtha forecasted to be around 139 USD/TON
- PX naphtha forecasted to be around 496 USD/TON
  - Turnaround in the region
  - Bz price in US increase creating the arbitrage cargo from Asia to US
- European debt crisis weight down Bz derivatives demand



# Thank you

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#### Disclaimer

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#### Data as of 31 March 2012

**Subsidiaries** 

## **E&P and Gas Business Group**

Consolidate

Subsidiaries	•	consonuate
PTT Exploration & Production Plc.	PTTEP	65.29%
PTT Natural Gas Distribution Co., Ltd.	PTTNGD	58.00%
PTT LNG Co., Ltd.	PTTLNG	100.00%
Combined Heat and Power producing Co.,Lt	td CHPP	100.00%
Joint Ventures	Pro	oportionate
Trans Thai-Malaysia (Thailand) Co., Ltd. T	TM (T)	50.00%
Trans Thai-Malaysia (Malaysia) Sdn. Bhd. T	TM (M)	50.00%
District Cooling System and Power Plant	DCAP	35.00%
Associates		Equity
Thai Oil Power Co., Ltd.	TP	26.00%
Independent Power (Thailand) Co., Lt	d. IPT	20.00%
PTT Utility Co., Ltd.	PTTUT	40.00%
B.Grimm BIP Power Co., Ltd. B.G	Frimm BIP	23.00%
Nava Nakorn Electricity Generation Co	o.,Ltd NNE	G 30.00%
Bangpa-in Cogeneration, Ltd	BIC	25.00%
Others		Cost
Ratchaburi Power Co., Ltd.	RPCL	15.00%

## **Oil Business Group**

Subsidiaries PTT (Cambodia) Co., Ltd. Subic Bay Energy Co., Ltd. PTT Retail Business Co., Ltd.	PTTCL SBECL PTTRB	100.00% 100.00% 100.00%
PTT Green Energy Pte. Ltd	PTTGE	100.00%
Thai Lube Blending Co., Ltd.	TLBC*	48.95%
Associates Keloil-PTT LPG Sdn. Bhd. Vietnam LPG Co., Ltd. Thai Petroleum Pipeline Co., Ltd. PetroAsia (Thailand) Co., Ltd.	KPL VLPG THAPPLINE PA(Thailand)	
Others		Cost
PetroAsia (Huizhou) Co., Ltd.	PA(Huizhou)	25.00%
PetroAsia (Maoming) Co., Ltd.	PA(Maoming)	20.00%
PetroAsia (Sanshui) Co., Ltd.	PA(Sanshui)	25.00%
Intoplane Services Co., Ltd.	IPS	16.67%
Fuel Pipeline Transportation Co., Ltd	J.FPT	2.76%
Others		Fair Value

#### Petrochemicals & Refining Business Group

Petrochemical Subsidiaries	C	onsolidate
PTT Polymer Marketing Co., Ltd.	PTTPM	50.00%
PTT Polymer Logistics Co., Ltd.	PTTPL	100.00%
PTT Tank Terminal Co., Ltd.	PTTTANK	100.00%
Associates		Equity
PTT Global Chemical Plc.	PTTGC	48.91%
PTT Phenol Co., Ltd.	PPCL	40.00%
PTT Maintenance and Engineering Co.,	Ltd.PTTMF	40.00%
Joint Ventures	Pro	portionate
HMC Polymers Co., Ltd.	HMC	41.44%
PTT Asahi Chemical Co., Ltd.	PTTAC	48.50%
PTT MCC Biochem Co., Ltd.	PMBC	50.00%
Refining Associates		Equity
Thai Oil Plc.	TOP	49.10%
IRPC Plc.	IRPC	38.51%
Star Petroleum Refining Co., Ltd.	SPRC	36.00%
Bangchak Petroleum Plc.	BCP	27.22%
PTT Energy Solutions Co., Ltd.	PTTES	40.00%
		1210010

## **International Trading Business Group**

7.06%

Bangkok Aviation Fuel Services Plc. BAFS

Subsidiaries Consolidate
PTT International Trading Pte. PTTT 100.00%

Others								
Subsidiaries PTT International Co., Ltd. Energy Complex Co., Ltd. Business Service Alliance Co., Ltd.	PTTI EnCo BSA *	Consolidate 100.00% 50.00% 25.00%	Associates PTT ICT Solutions Co., Ltd.	PTTICT	Equity 20.00%	Others Dhipaya Insurance Plc.	TIP	Fair Value 13.33%

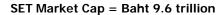
Remark: \* Subsidiaries that PTT holds less than 50% but being consolidated because PTT has the power to control the financial and operating policies.

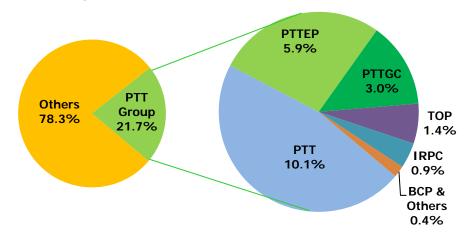
# PTT's Strategic Importance to the Thai Economy

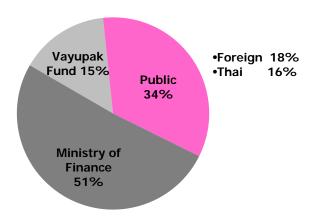


### PTT has the largest market cap on the SET

## Ministry of Finance holds majority stake in PTT







Data as of 9 May 2012

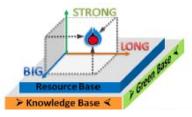
Data as of 9 March 2012

# **PTT Aspiration**



# NEW PTT GROUP AS SUSTAINED GLOBAL TOP 100 ENTERPRISE

To perform listed company role in high returns



Big-Long-Strong TAGNOC



To perform SOE role in public service



CG

Sustainable Growth
Strategy
Social
Environmental

To perform energy company role in caring society & environment





Governance & Compliance

Responsible Care for Social & Environment

# Statements of Cash Flows for Q1 2012 & 2011 (PTT Only)

Beginning

61,311



Operating	Q1/2011 21,262	Q1/2012 2,198		Investing	Q1/2011 -27,083	Q1/2012 -5,218
Net Income	19,628	22,009		CAPEX(PP&E, Intangible		
Changes in assets & liabilities	-271	-17,922		asset)	-6,370	-4,539
Income Tax	-286	-326		Investment (Sub. &Affiliates)	-19,511	-997
Non-Cash Adjustment	2,133	-1,743		,	·	
Interest-net	58	180		Dividend/Interest Received	1,297	1,081
				Others	-2,499	-763
				Financing	-8,611	15,485
	Free Cash flow		٠	Repayment Loans	-7,106	-2,077
	-5,821 -3,020			Interest paid	-2,560	-2,438
	-,-	-,		Dividend paid	0	0
				Received from share issue	719	0
				Received from loans/Bonds	336	20,000
	Adius	tment				
	-6	-40				
Cash and Cash ivalents	Cash In/(Out)			_		ash & Cash ralents
51,341	-14,438	-12,425			46,873	63,766



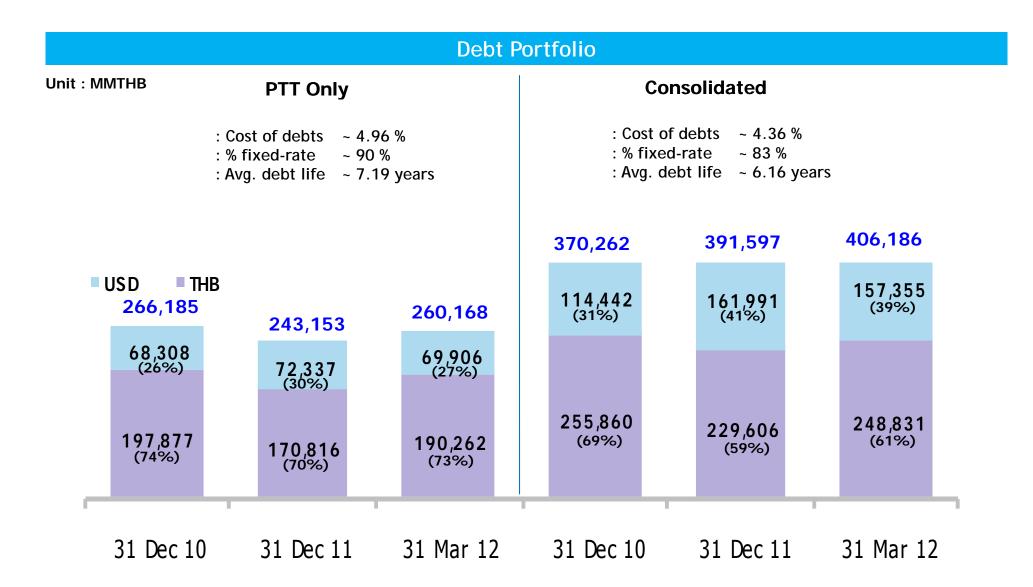


Operating	Q1/2011 47,899	Q1/2012 28,921	Investing	Q1/2011 -95,147	Q1/2012 -32,07
Net Income	34,922	37,386	CAPEX (PP&E, Intangible asset)	-22,850	-29,00
Changes in assets & liabilities	-5,173	-29,687	·	-72,514	-1,47
Income Tax	-2,027	-2,784	Investment (Sub. &Affiliates)	694	38
Non-Cash Adjustment	20,125	23,649	Dividend/Interest Received		
Interest - net	52	357	Others	-477	-1,97
			Financing	16,012	24,68
	Free Cash flow		Repayment Loans	-7,583	-2,19
	-47,248	-3,150	Interest paid	-3,926	-3,80
	,	,	Dividend paid	-91	-0
			Received from share issue	814	
			Received from loans/Bonds	26,798	30,7
	Adjust	tment	Received from loans/Bonds	26,798	30,73
	Adjust	tment -1,889	Received from loans/Bonds	26,798	30,7
			Received from loans/Bonds	26,798	30,73
g Cash and Cash Juivalents	430		Received from loans/Bonds	Ending Cas	sh & Cash

# **Debt Profile : Control Cost & Manage Risk**



Managed debt according to financial risk and policy



#### **2010-2011 Accolades**

# **b** ptt

#### PTT is widely recognized among business communities both international and local



Asia Talent Management 10<sup>th</sup> Asia Business Leaders Award 2011



8th Top Asia Overall Performance of 2011 3rd Top Asia Integrated Oil&Gas of 2011

### FORTUNE 500

128<sup>th</sup> Fortune Global 500 of 2011

- 155th in 2010
- 118th in 2009



167<sup>th</sup> The Biggest Listed Companies in the World 2012

- -171th in 2011
- -196th in 2010



Dow Jones Sustainability Index # 17

### **FinanceAsia**

Best CEO 2010/2011
Best CFO 2010/2011
Best Managed Company
2010/2011
Best Corporate Governance
2010/2011
Best Investor Relations
2010/2011
Best Corporate Social

Responsibility 2010/2011
Best Commitment to Strong
Dividend Policy 2010/2011

# CorporateGovernance<mark>Asia</mark>

Asian Corporate Director Recognition Awards 2010 & 2011

- Asia's Best CEO
- Asia's Best CFO
- Best IR Website/Promotion
- Best Environmental Responsibility
- Best Investor Relations
- Best Investor Relations Professional

# ThaiBMA THE THAI BOND MARKET ASSOCIATION

ThaiBMA Best Bond Awards 2011

• Best Investor Relations Issuer

ThaiBMA Best Bond Awards 2010

- Deal of the Year
- Most Creative Issue
- Best Investor Relations Issuer



The winners of The Asset's Platinum Awards in 2010 & 2011



Board of the year Award 2010 & 2011



#### **SET Awards**

- Top Corporate Governance Report Award 2010 & 2011
- Best Corporate Social Responsibility Awards 2011



Trusted Brand 2010 & 2011

- Thailand's Top Brand in Platinum Award for Service Station 2010 & 2011
- Thailand's Top Brand Gold Award for lubricant products



Best CEO 2010 Best CEO for Energy Sector 2011



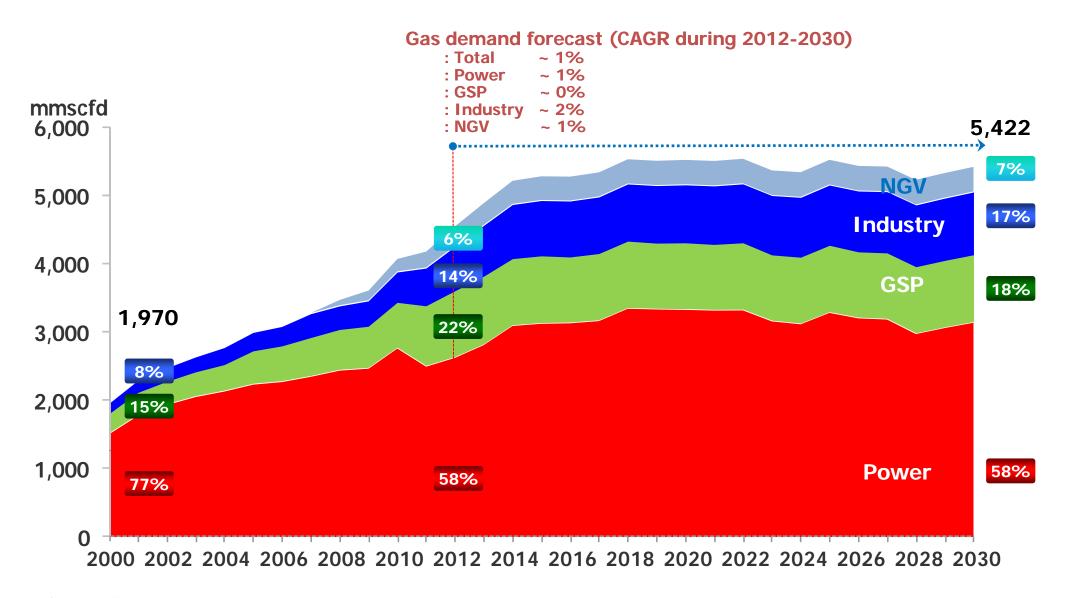
Outstanding State Enterprise Award 2010 & 2011

- Best State Enterprise of the Year, Best of the Best
- · Outstanding Leadership
- Outstanding Innovation

# Natural Gas: Strong and Increasing Demand over Long Term

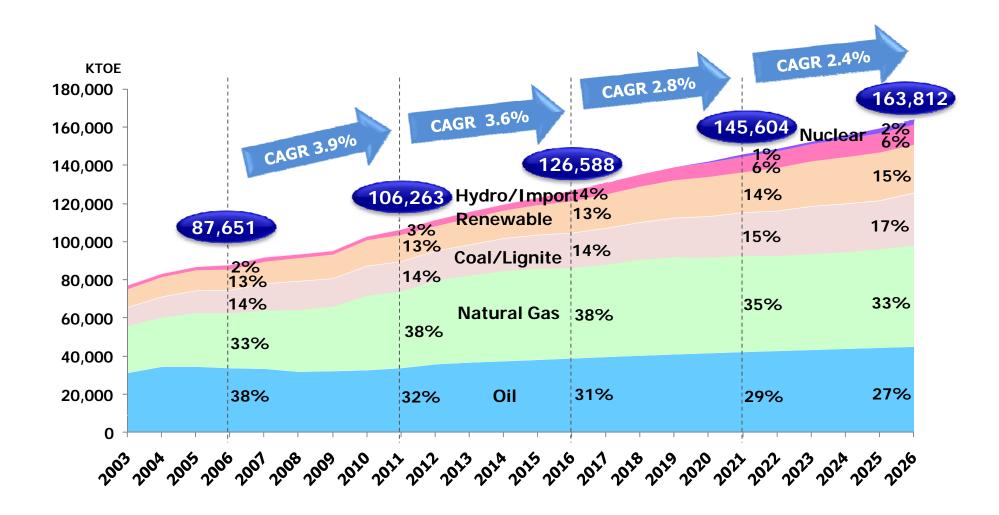


Natural gas is a fuel of choice for power producers and transportation industry



# **Thailand's Projected Energy Demand**





Source: EPPO/ PDP 2010/ PTT team analysis 2011

## **Natural Gas Price Structure**

Gas prices are mostly agreed under long-term contracts and volatility pass-through to ensure stable returns.



Customers		Sales Price Structure						
		Gas Pool Price	+ Supply Margins	+	Pipeline Tariffs			
Power Produ	ucers 59%							
: EGAT	30%		1.75%					
: IPP	19%	Average Purchased Gas Price	1.75%		21.8 Bt/MMBtu			
: SPP	10%		9.33%					
GSP	21%	Charged at the same pr	ice structure of power proc	lucers				
Petroch	nemicals Feedstocks							
Ethar	ne, Propane, LPG	Profit-sharing mechanis	sm based on market prices	of petro	ochemicals			
NGL		Reference to Naphtha r	Reference to Naphtha market price					
Local C	ooking Gas	Capped at 333 USD/tor	1					
Industry	14%	Charged at prices comp	Charged at prices comparable to fuel oil					
NGV	6%	Capped at 10.5 Baht/K	g*					

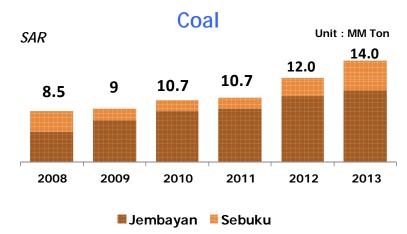
<sup>•</sup> Contract periods are ~ 25-30 years or until depletion of gas fields or the expiration of concessions

<sup>\*</sup> Government will increase NGV retail price Baht 0.50 /kg per month from January 16, 2012 until January 15, 2013. However, with inflation pressure, it was announced to suspend price increase for 3 months

### **PTT International**

#### **Future Growth of PTT**





- Expansion at Sebuku Northern Leases and Jembayan
- Potential development in Brunei & Madagascar projects

#### **Pipeline**

#### EMG (Egypt)

- Investing 25% in EMG
- Offshore natural gas pipeline system from Egypt to Israel
- 2011 Sales volume = 0.69 BCM/y (67 mmscfd) due to interrupted supply

#### **Palm Plantation**

#### PTT Green Energy

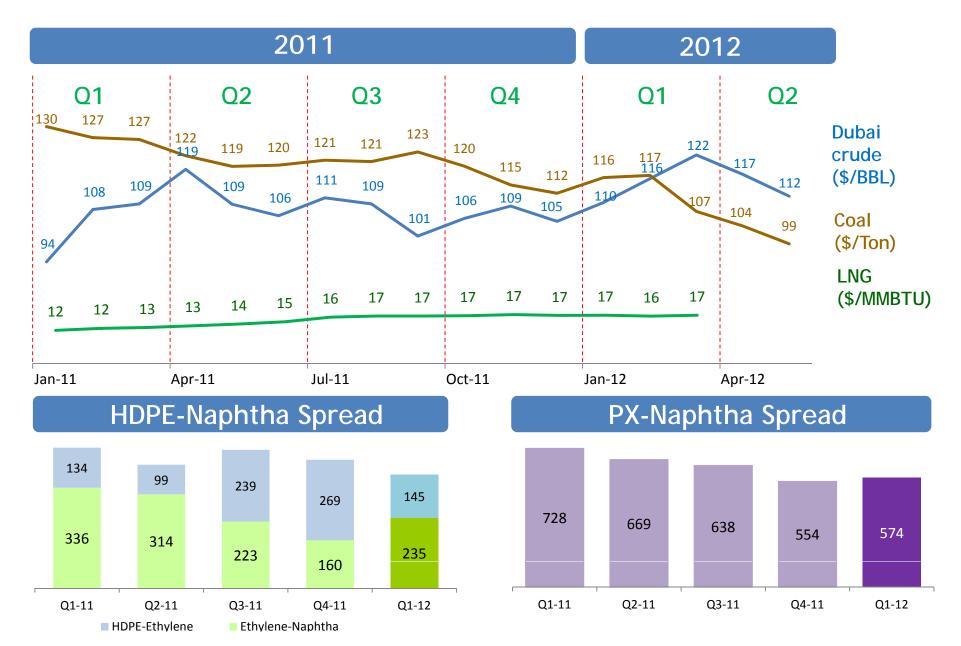
- 225,877 Ha land acquired
- 19,706 Ha planted • Additional 22,650 Ha has been prepared in 2012.
- 2 CPO Mills : 45 T/Hr & 30 T/Hr operated commercially in Mid 2011

#### **Power**

2011 Xayaburi Hydro 1,285 MW
 2012 Expanding in neighboring countries

# **Price & Spread Margin Movement**





# **Interest Rate and FX Movement**



