

Analyst Meeting Q1/2018

PTT Auditorium
16 May 2018



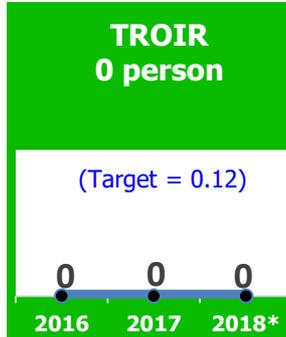
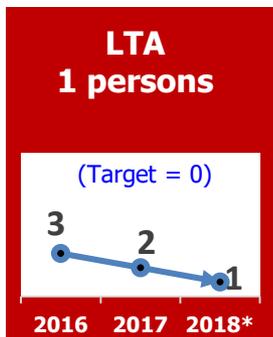
- **Overview**
- Q1/2018 Performance
- Outlook 2018

Health & Safety Performance 2018



Employee

Personal Safety



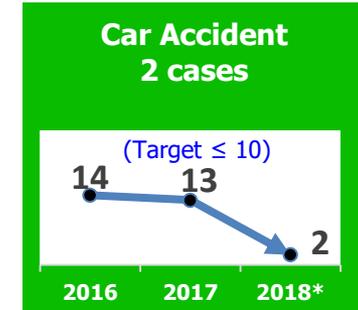
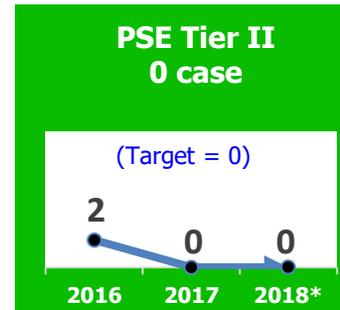
Process Safety



Road Safety



Contractor



2018* = Q1/2018

LTA (Loss Time Accident)
PSE Tier 1 (Process Safety Event Tier 1)

TRIR (Total Recordable Injury Rate)
TROIR (Total Recordable Occupational Illness)



Rewards & Recognitions



Corporate Governance Asia Recognition Awards

- Asia's Icon in Corporate Governance (13rd consecutive years)
- Asian Corporate Director Recognition (6th consecutive years)



Thailand's Most Admired Brand

- Brand Maker 2018



Executive of the Year 2018

จากโครงการหนึ่งล้านกล้าความดีตอบแทนคุณแผ่นดิน โดยมูลนิธิเพื่อสังคมไทย



Popular Stock Award of year 2017 (6th consecutive years)



Overview

Performance

Outlook

1) PTT Peer Selection

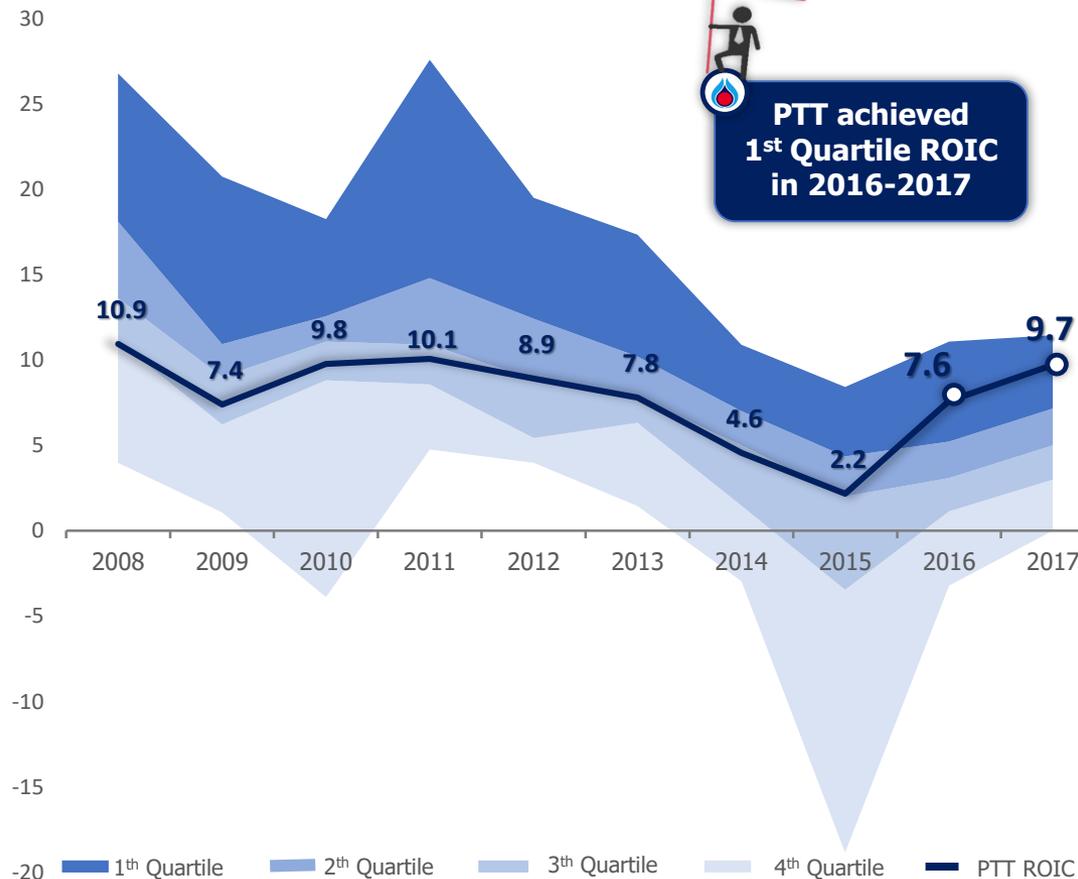
2) PTT ROIC vs Peers



The first 20 ranking integrated Oil & Gas companies 2017⁽¹⁾
+ Petronas (comparable Co.)

| Platts rank | Company |
|-------------|--------------------|
| 1 | Gazprom |
| 5 | Sinopec |
| 6 | LUKOIL Oil |
| 9 | Exxon Mobil |
| 10 | TOTAL |
| 12 | PTT |
| 22 | Rosneft Oil |
| 23 | Royal Dutch Shell |
| 35 | Repsol |
| 57 | PetroChina |
| 65 | MOL Hungarian O&G |
| 83 | Husky Energy Inc |
| 86 | PGNiG |
| 87 | Ecopetrol SA |
| 99 | BP |
| 101 | Suncor Energy |
| 121 | Chevron |
| 138 | Eni |
| 141 | Petrobras |
| 145 | Galp Energia, SGPS |
| 155 | Statoil |
| N/A | Petronas |

% ROIC



Note: (1) Platts ranking base on: Asset, Revenues, Profits, ROIC
(2) Source from Bloomberg

Key Business Drivers:

Oil and gas prices surge substantially

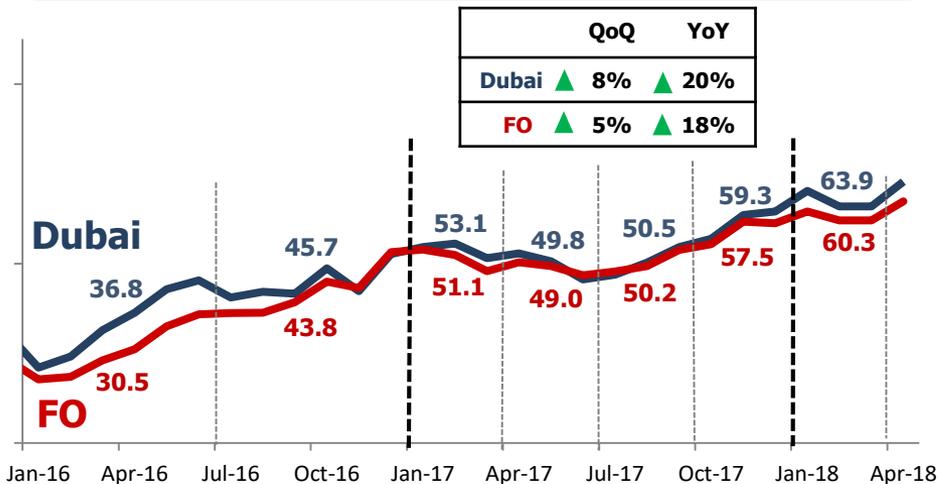


Overview

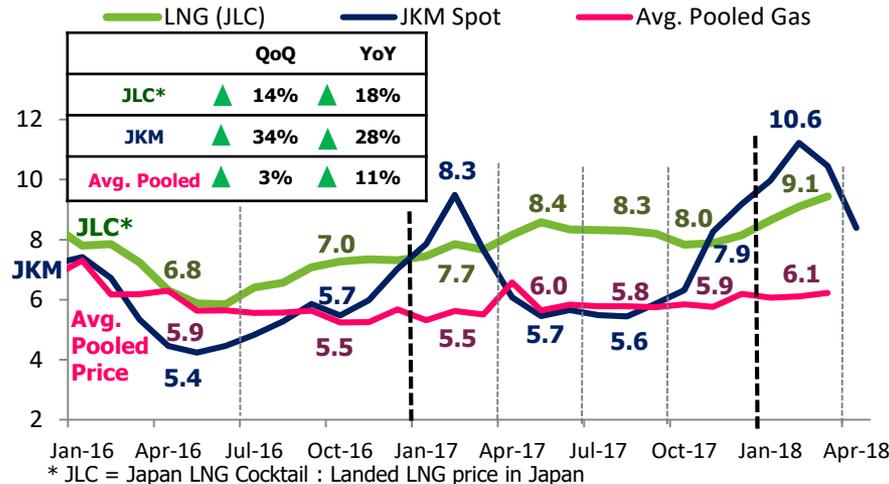
Performance

Outlook

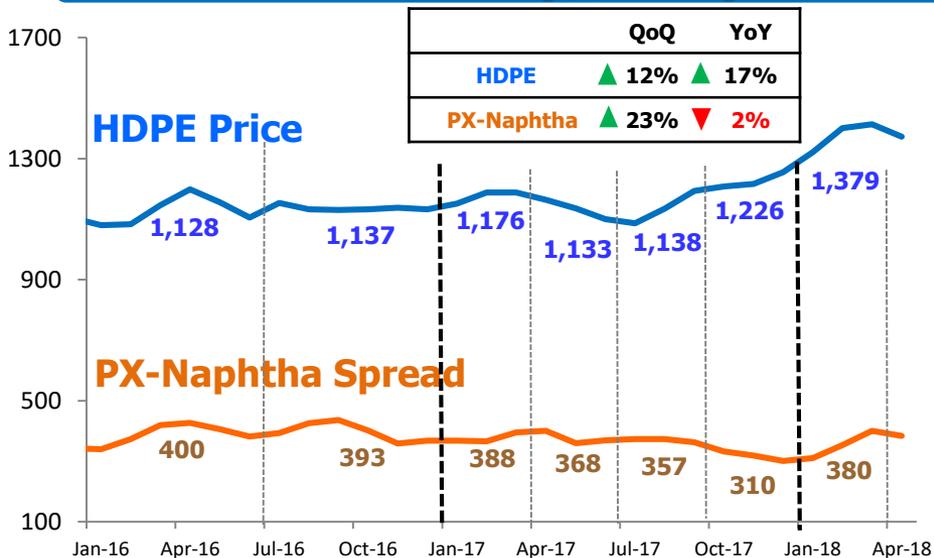
Dubai vs FO (\$/BBL)



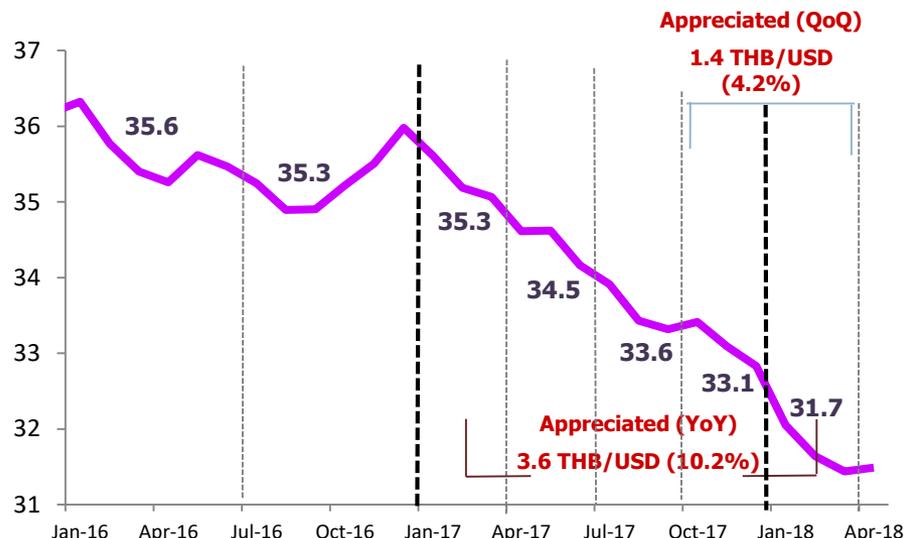
NG Prices (\$/MMBTU)



Petchem (\$/Ton)



FX (USD/THB)



Note: Figures are average & Naphtha (MOPJ)

Activities Highlights :



Key Events Update (Q1'18)



- **PTT**
 - Acquisition of IRPC shares to become 48.05%
 - Split Par (Baht 10 → Baht 1 per share)
 - NGV's price lifting in public sector (0.62 Bt./Kg.)
 - Approved to establish company to operate Café Amazon in Singapore
- **PTTEP**
 - Acquire Bongkot (22.22%)
 - Win 2 blocks in Mexico bidding
 - Win 2 blocks in Malaysia (SK417 & SK438)
- **PTTGC** EHIA for Olefins Reconfiguration Project

- **PTT**
 - GSP#2 (Planned T/A 16 days)
- **PTTGC**
 - BPE plant (Planned T/A 15 days)
- **IRPC**
 - Polyolefin (Planned T/A 10 days)
 - Polystyrenic (Planned T/A 14 days)

Performance (YoY)



| Business | | Performance |
|----------------|----------|-------------|
| Upstream | PTTEP | ▲ |
| | Coal | ▼ |
| Midstream | Gas | ▲ |
| Downstream | Oil | ▲ |
| | Trading | ▼ |
| | Petchem | ▼ |
| | Refinery | ▼ |
| Infrastructure | Power | ▲ |

Finance



Repayment (PTT Group)

- USD 310 MM of Clubloan (PTT)
- THB 2.5 Bn of Bond (PTTEP)
- THB 2.5 Bn of Loan /USD 10 MM of Loan/EUR 30.7 MM of Loan (PTTGC & Sub)
- USD 85 MM /Bt 0.7 Bn of Loan (IRPC)

Loan Drawdown

- THB 0.4 Bn (PTTGC sub.)
- THB 8.5 Bn (TOP Sub.)
- THB 0.6 Bn (GPSC Sub.)

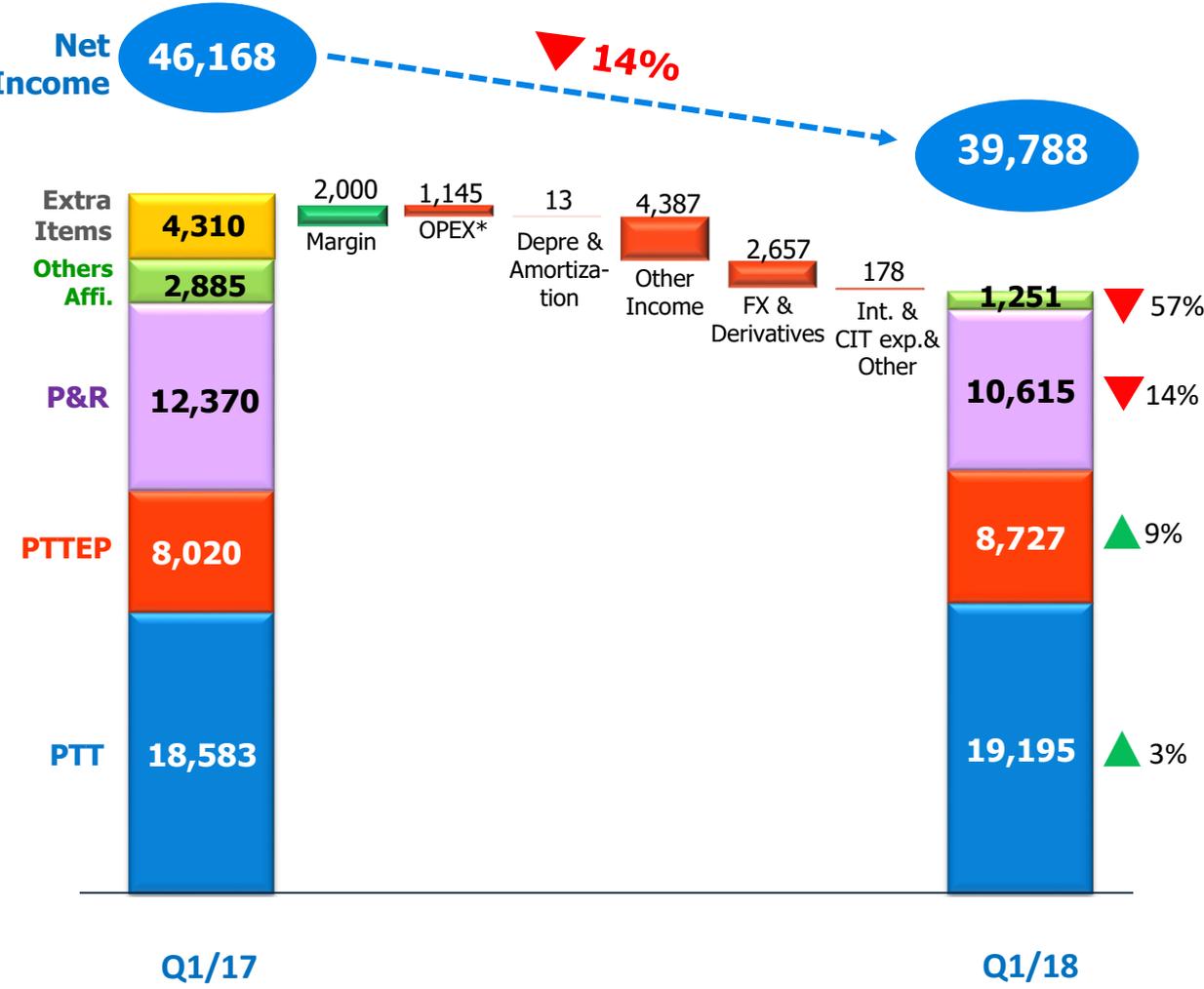
Q1/18 Performance:



Weaken performance mainly from P&R and no dividend from EPIF



MMTHB



Extra Items ▼

- Dividends from mutual fund (EPIF)

Others Affi ▼

- Coal BU from tax penalty
- PTTT's sales vol. declined

Petrochem & Refining ▼

- Aromatics decreased esp. BZ spreads
- Weaken Acc. GRM from lower stock gain
- Olefins drop from by-product price, despite better HDPE price

PTTEP ▲

- Improved ASP from oil price recovery
- Reduced sales volume

Gas ▲

- S&M margin rose
- TM increased from TDC vol.
- GSP increased vol. and LPG margin

Oil ▲

- Improved margin and volume
- Café Amazon expansion

Trading ▼

- Lower sales vol. due to higher market competition
- Fully CIT utilization under BOI privilege

* including petroleum exploration expenses and royalties

Overview

Performance

Outlook

- Overview
- **Q1/2018 Performance**
- Outlook 2018

Overview

Performance

Outlook

E & P

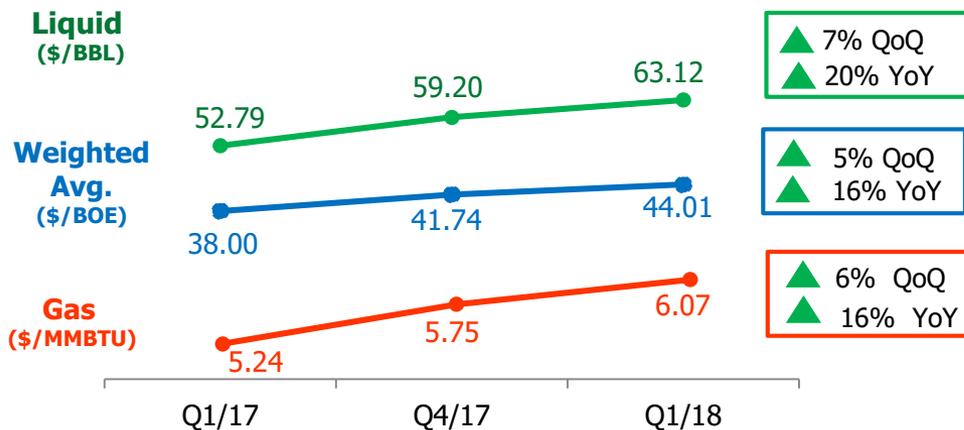
Gas

Oil & Trading

P&R

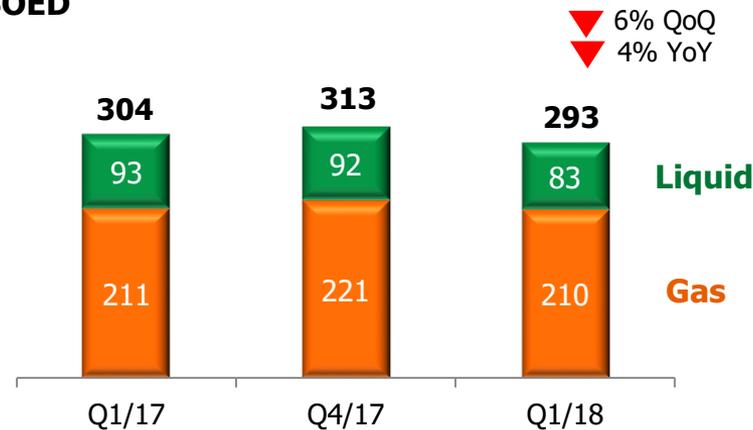
Others

Product Prices



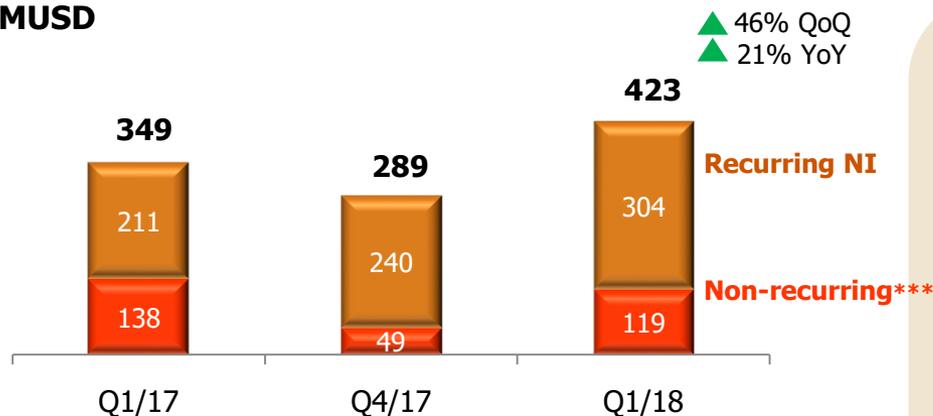
Sales Volume

KBOED



Net Income (100%)

MMUSD



Key Highlights

QoQ

- Selling price increased from the rise of oil and gas price
- Sales vol. dropped mainly from Bongkot and PTTEP Australasia Project
- NI increased was primarily due to a decrease in expenses (income tax expenses, G&A, and DD&A)

YoY

- Selling price increased from the rise in oil price
- Sales vol. decreased from Sinphuhorm & PTTEP Australasia
- NI rose from higher selling price, despite vol. decreased

*** Includes Deferred tax from Functional currency, Current Tax from FX Revaluation, Gain/loss from Financial instruments, Gain/(loss)on FX, H1 incident Insurance Claim, and etc.

Overview

Performance

Outlook

E & P

Gas

Oil & Trading

P&R

Others

Financial Outlook

| | Q2'18 | FY2018 |
|--------------------------------|--------|--------|
| Avg. Sales Vol. (KBOED) | ~297 | 300 |
| Avg. Gas Price (\$/MMBTU) | ~6.3 | ~6.3 |
| Unit Cost (\$/BOE) | ~31 | ~30-31 |
| EBITDA margin (% of Sale Rev.) | ~70-75 | |

*Based on FY2018 Dubai oil price at 63 \$/BBL

Priority on New Investments

M&A

Geographical: SEA, Middle East and other potential areas

Target: Focus on producing or near-producing

Size: 500 – 1,000 MMUSD

Sarawak Basin, Malaysia



PTTEP's Block: SK410B (42.5%), SK417 (80%) and SK438 (80%) with operatorship

Characteristic: Shallow-water with low operational risk

Exploration Strategy:

- Expect exploration drilling activities during 2018-2021
- "Cluster Model" synergy operations within basin to optimize costs

Exploration

- Expanded portfolio in high prolific areas: Malaysia and Mexico

Gulf of Mexico, Mexico



PTTEP's Block: Block 12 (20%) and Block 29 (16.67%), as non-operating partner

Characteristic: Deep-water with high petroleum potentials and attractive fiscal regime

Exploration Strategy:

- Joined with prudent operators: Petronas & Repsol
- Mexico still has high potential prospective resources with significant sizeable discoveries

1st Priority on the Bidding of Expiring Concessions

Process and Timeline



Bidding Obligations:

- **Production:** A min. production of 800 MMSCFD for G1/61 (Erawan) and 700 MMSCFD for G2/61 (Bongkot), for a period of 10 years
- **Gas Price:** Fixed gas price formula (linked to Dubai price)

Key Pre-Development Projects

| | Interest | Production | Operator | Status | Expected Start-up |
|--------------------------|----------|------------|---------------|---|-------------------|
| Mozambique Area 1 | 8.5% | 12 MTPA | Anadarko | progress on SPA negotiation with the execution of 1st SPA of 1.2MTPA with EDF | 2023 |
| Ubon (Contract 4) | 60% | 25-30 KBPD | Chevron | Preparing the POD with partners | 2021 |
| Algeria HBR | 24.5% | 50 KBPD | PTTEP | Approved POD, finalizing documents with partners for FID | 2023 |
| Southwest Vietnam | 7-8.5% | 490 MMSCFD | Petro Vietnam | Finalizing commercial agreements | 2021 |

PTT EBITDA Breakdown by BU's

Overview

Performance

Outlook

(Unit: MMTHB)

| Business Unit | Q1/17 | Q4/17 | Q1/18 | QoQ | YoY |
|-------------------------|---------------|---------------|---------------|---------------|---------------|
| Gas- EBITDA | 22,490 | 24,400 | 25,235 | ↑ 3% | ↑ 12% |
| • S&M | 3,602 | 4,718 | 4,274 | ↓ -9% | ↑ 19% |
| • TM | 8,737 | 8,306 | 9,294 | ↑ 12% | ↑ 6% |
| • GSP | 7,698 | 8,774 | 8,208 | ↓ -6% | ↑ 7% |
| • NGV | (1,009) | (855) | (812) | ↑ 5% | ↑ 20% |
| • Others | 3,462 | 3,457 | 4,271 | ↑ 24% | ↑ 23% |
| Oil- EBITDA | 5,931 | 4,513 | 6,318 | ↑ 40% | ↑ 7% |
| Trading*- EBITDA | 1,908 | 1,896 | 1,095 | ↓ -42% | ↓ -43% |
| Total** | 30,329 | 30,809 | 32,648 | ↑ 6% | ↑ 8% |

*MIS

** Included subsidiaries from all BUs

Gas BU: Pooled gas picked up, NG volume decreased from Power

Overview

Performance

Outlook

E & P

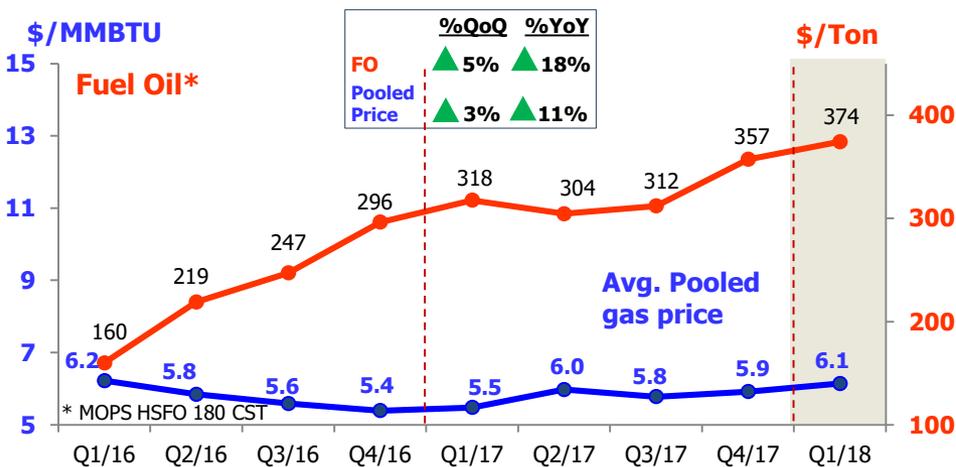
Gas

Oil & Trading

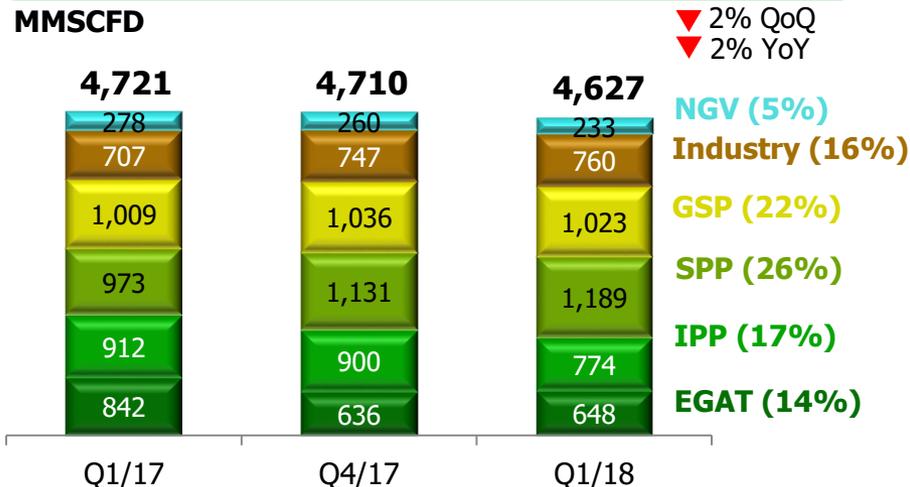
P&R

Others

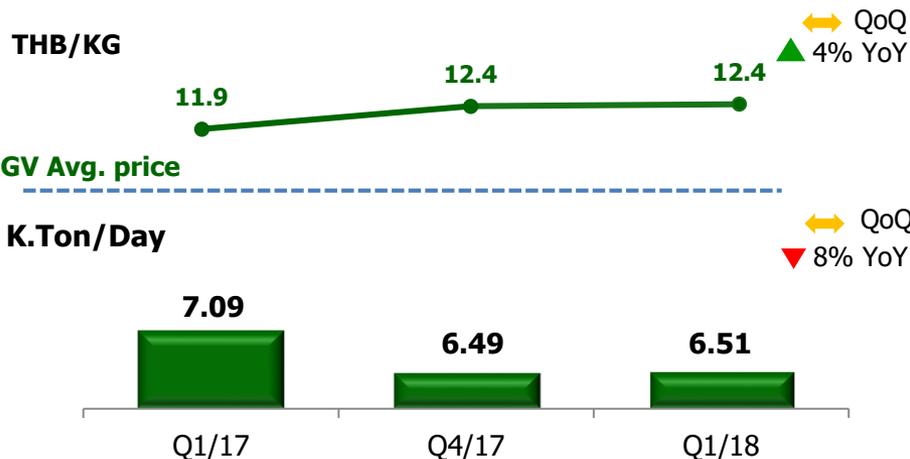
NG Price VS FO



NG Customer Breakdown



NGV Price/Sales Volume



Key Highlights

QoQ

- Gas cost slightly rose, while F/O price rose following crude oil price
- NG sales volume slightly decreased from power
- NGV sales volume maintained

YoY

- NG sales slightly decreased from lower power demand
- NGV vol. dropped from demand switching to diesel and gasoline

Gas BU: Performance improved in all segments



Overview

Performance

Outlook

E & P

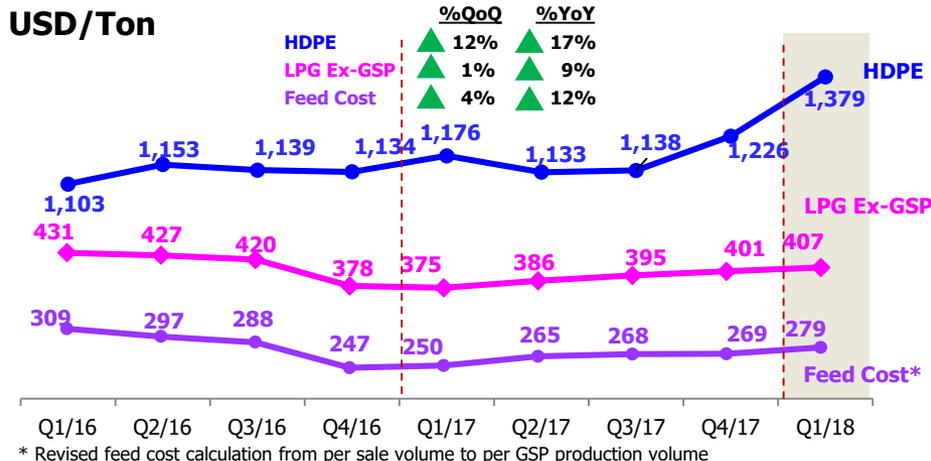
Gas

Oil & Trading

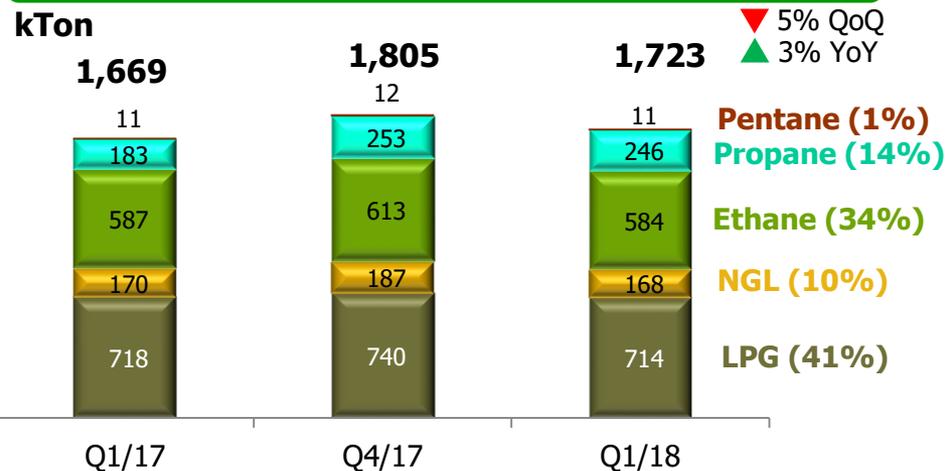
P&R

Others

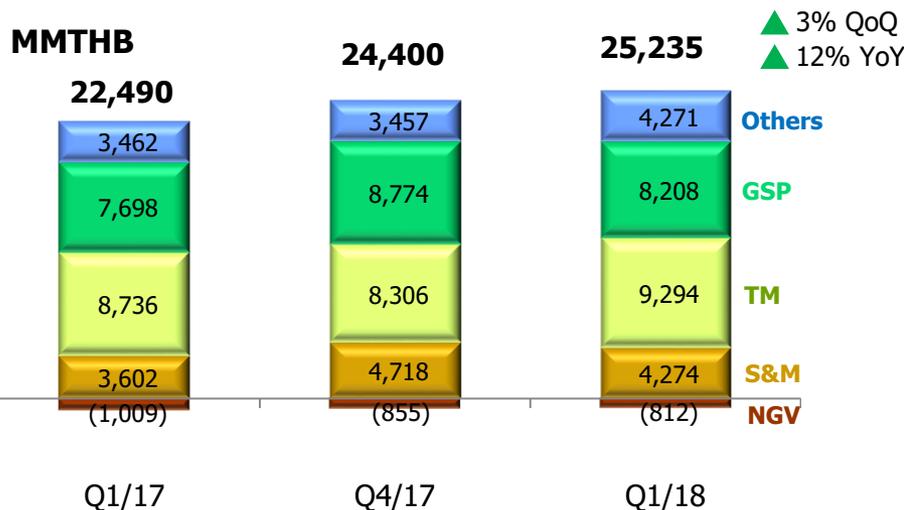
GSP Feed Cost vs Petchem price



GSP Sales Volume



Gas - EBITDA



Key Highlights

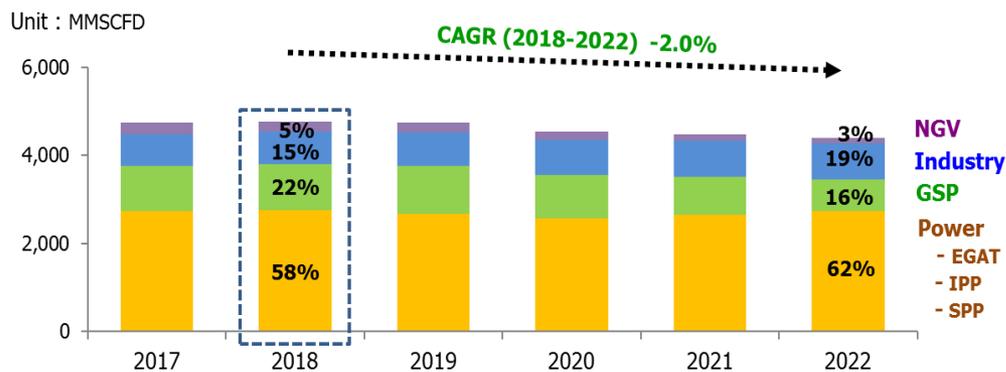
QoQ

- TM improved due to lower expenses
- GSP pressured by FX appreciation and decreased vol.
- NGV loss less from decreased public car vol. and lower expenses

YoY

- S&M margin increased from higher pooled price and SPP vol.
- TM increased due to rising TDC vol.
- GSP greatly improved from increased vol. and LPG margin
- NGV loss less from price lifting in gas quality adjustment in Sep 17

Country: Projected Gas Volume



Gas Facilities Expansion

| New Project | LNG Ph#2 | LNG Terminal#1 - Extension | | | LNG Terminal#2 | |
|--------------------|----------|----------------------------|------|------|----------------|------|
| LNG Capacity (MTA) | 10 | 10 | 11.5 | 11.5 | 11.5 | 19.0 |

| | | | | |
|-------------------|--|---|---|--|
| Major Project COD | <ul style="list-style-type: none"> 4th onshore Midline Comp. | <ul style="list-style-type: none"> Nakhon Ratchasima | <ul style="list-style-type: none"> Comp Wang noi | <ul style="list-style-type: none"> 5th Pipeline RA#6-Ratchburi Pipeline |
|-------------------|--|---|---|--|

LNG Projects

LNG Terminal 1 Phase 2 :

- Construction completed
- COD December 2017

New LNG projects :

1) LNG Terminal 1 phase 2 Extension : (Capacities expansion from 10 MTA to 11.5 MTA)

- Approved by Cabinet 12 Jul 2016
- Expansion capacity: 1.5 MTA
- Construction completed 95.10% (as of Mar 18)
- COD : 2019

2) LNG Terminal 2 (Onshore LNG Terminal No.2)

- Approved by Cabinet 11 Apr 2017
- Capacity: 7.5 MTA
- Approved by EIA
- EPC bidding process
- COD : 2022

• Additional LNG projects (submitted studies to CEPA and NEPC on July 2017)

- Myanmar-Thailand LNG Terminal
- FSRUs (domestic)
- Onshore LNG Terminal 3

Overview

Performance

Outlook

E & P

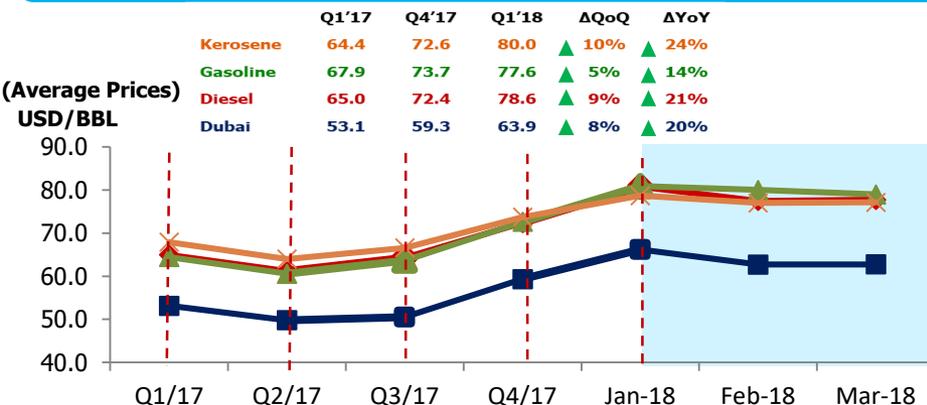
Gas

Oil & Trading

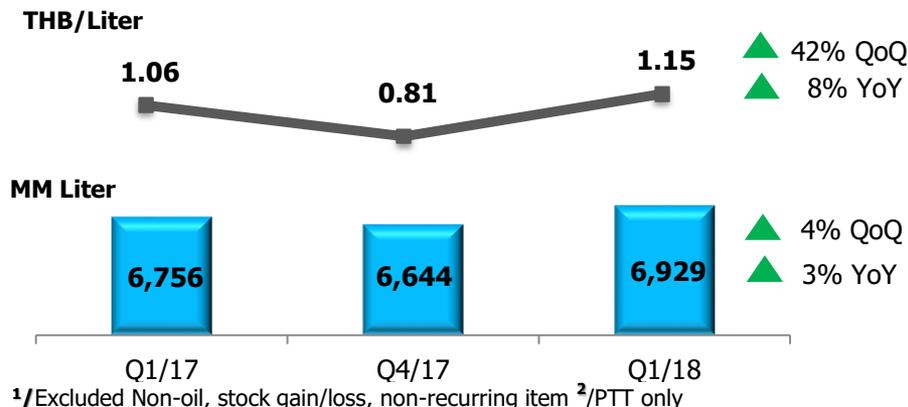
P&R

Others

Petroleum Prices

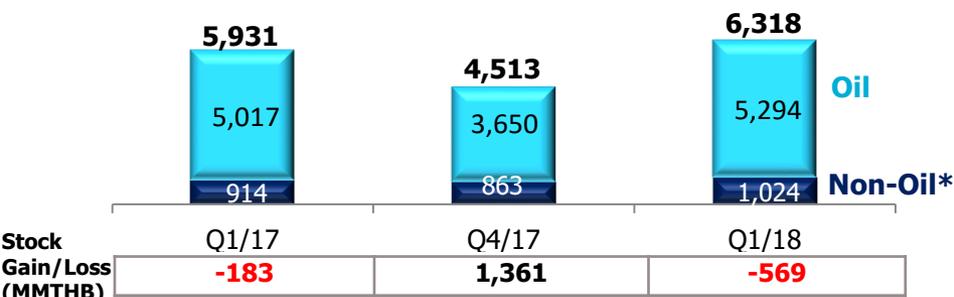


Gross margin¹/Sales volume²



Oil - EBITDA

| MMTHB | QoQ | YoY |
|---------|-------|-------|
| Oil | ▲ 45% | ▲ 6% |
| Non-oil | ▲ 19% | ▲ 12% |
| ToTal | ▲ 40% | ▲ 7% |



Key Highlights

QoQ

- Sales vol. increased from
 - Diesel mainly from sugar manufacturing
 - Aviation fuel due to seasonal demand
- Higher gross margin & EBITDA from
 - Diesel due to higher seasonal demand
 - Aviation fuel due to pricing structure

YoY

- Sales vol. increased from
 - Aviation fuel due to ICAO lifts red flag
 - Gasoline & Diesel from station expansion
- Higher gross margin & EBITDA from
 - Increased gasoline & LPG margin
 - Café Amazon expansion

* Domestic only

Trading BU: Soften performance from lower sales volume and margin

Overview

Performance

Outlook

E & P

Gas

Oil & Trading

P&R

Others

Gross Margin¹

Gross Margin (THB/Liter)

▼ 31% QoQ
▼ 25% YoY



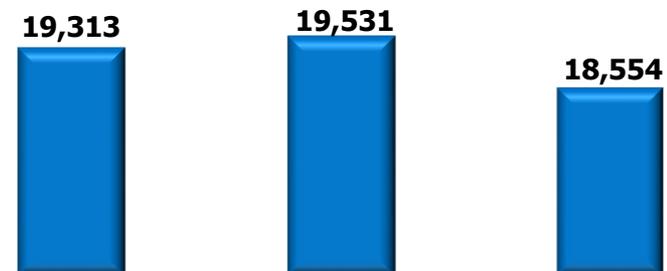
Q1/17 Q4/17 Q1/18

¹ PTT Trading BU + trading subsidiaries: FX Adjusted + derivatives

Sales Volume²

MM Liter

▼ 5% QoQ
▼ 4% YoY



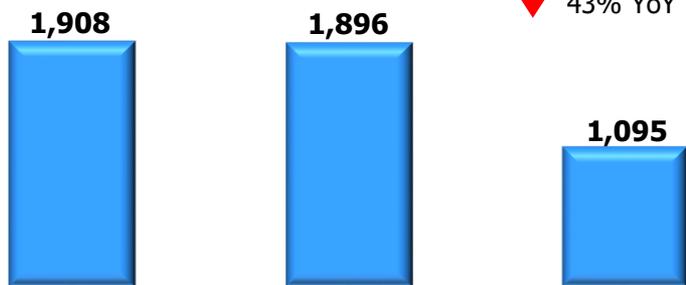
Q1/17 Q4/17 Q1/18

² PTT Trading BU + trading subsidiaries

Trading – EBITDA¹

MMTHB

▼ 42% QoQ
▼ 43% YoY



Q1/17 Q4/17 Q1/18

¹ PTT Trading BU + trading subsidiaries: FX Adjusted + derivatives

Key Highlights

QoQ

- Sales vol. decreased from crude oil and petroleum products due to higher market competition
- Gross margin & EBITDA decreased from lower margin due to oversupply market, and THB appreciation

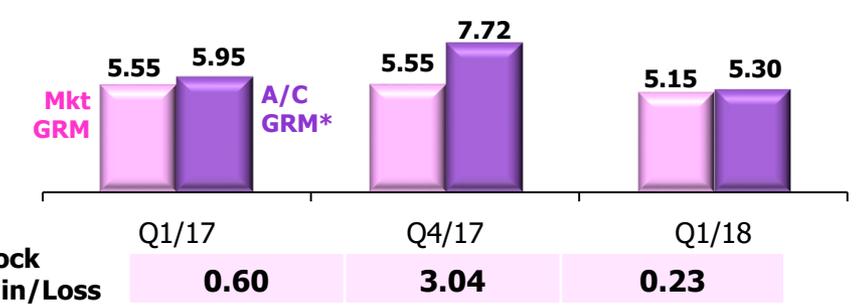
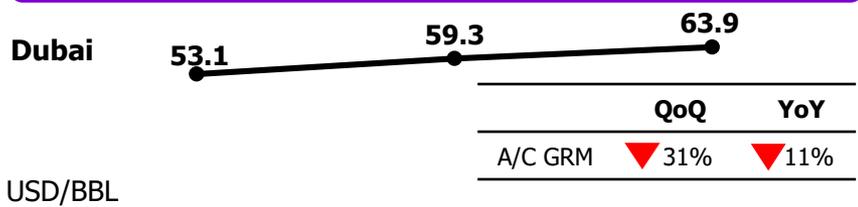
YoY

- Sales vol. decreased from petroleum & petrochemical products from oversupply market
- Gross margin & EBITDA decreased due to lower margin and THB appreciation as aforementioned

Overview **Performance** Outlook

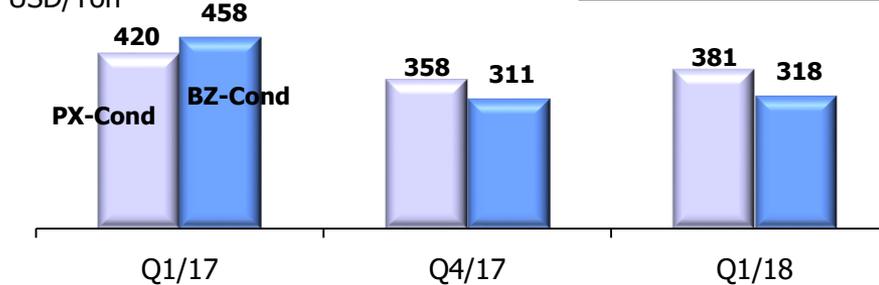
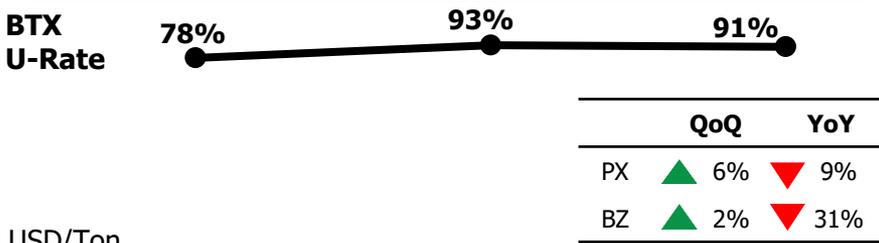
E & P Gas Oil & Trading **P&R** Others

GRM

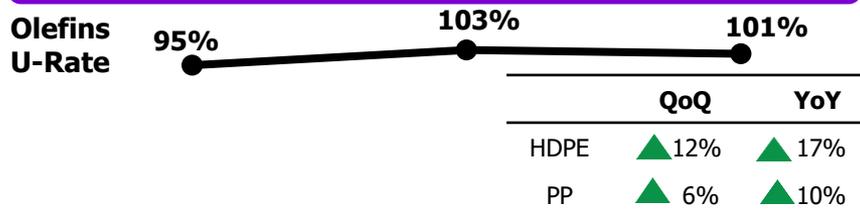


*A/C GRM and A/C GIM include effect from hedging gain/(loss)

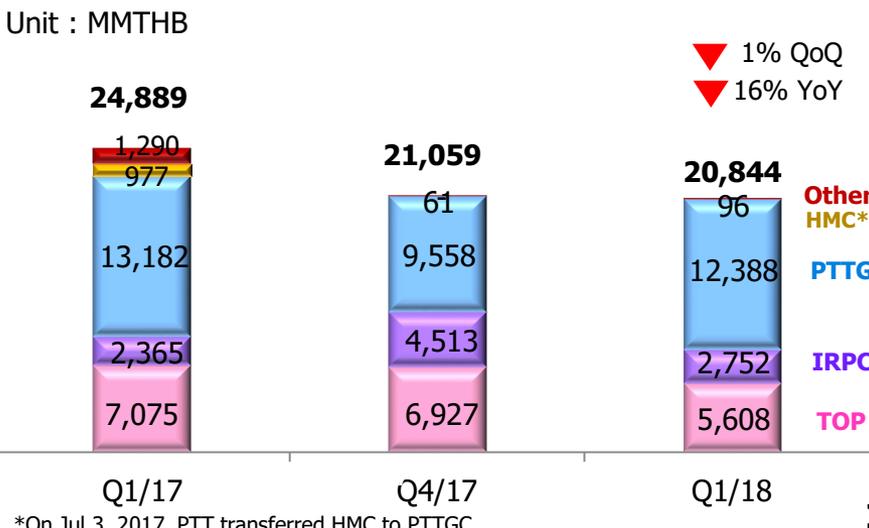
Aromatics



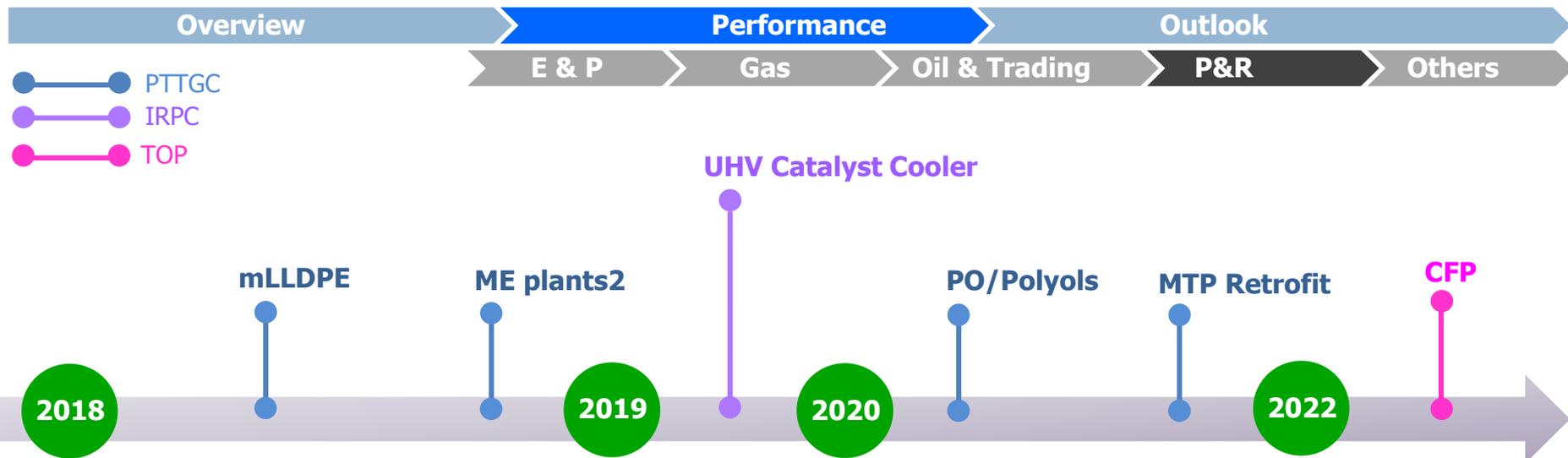
Olefins



Net Income (100%)



*On Jul 3, 2017, PTT transferred HMC to PTTGC



| | mLLDPE | ME plants2 | UHV Catalyst Cooler | PO/ Polyols | MTP Retrofit (Olefins Reconfiguration) | CFP (Clean Fuel Project) |
|----------------------------|--|--|--|---|---|--|
| Objective /Capacity | <ul style="list-style-type: none"> • Create value added in ethylene chain • mLLDPE (400 KTA) • Hexane -1 (34 KTA) | <ul style="list-style-type: none"> • Methyl Ester (200 KTA) | <ul style="list-style-type: none"> • Flexibility of crude selection • Lower utility cost from cracking heavy crude | <ul style="list-style-type: none"> • Create value added in Polyurethane chain • PO (200 KTA) • Polyols (130 KTA) | <ul style="list-style-type: none"> • Ethylene (500 KTA) • Propylene (250 KTA) | <ul style="list-style-type: none"> • Upgrade lower value product → higher value product • Ability to process heavier (cheaper) crude oil |
| CAPEX | 288 MUSD | 47 MMUSD | 1,320 MB | 888 MMUSD | 985 MMUSD | TBA |
| COD | Mar 1,2018 | Q4/18 | Q1/19 | 2020 (FID Aug'17) | 2H'20 (FID Jan'18) | 2022 (To be FID in 2018) |

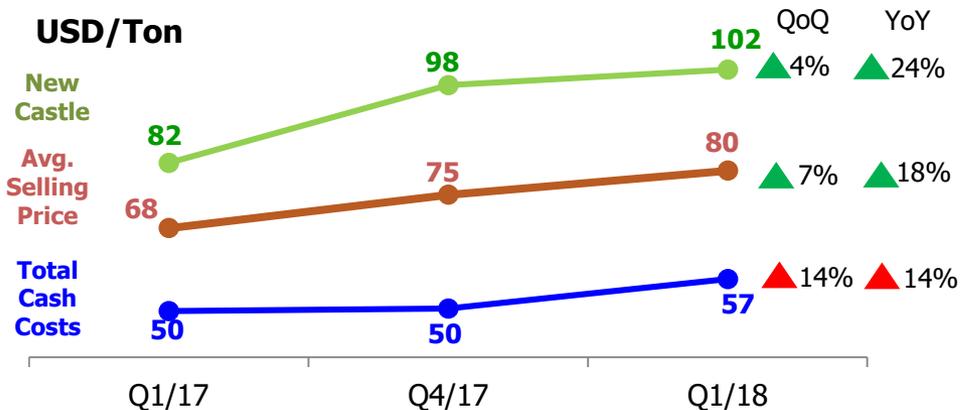
Other Businesses : Coal - SAR



Performance hurt from one-off tax penalty despite better coal price

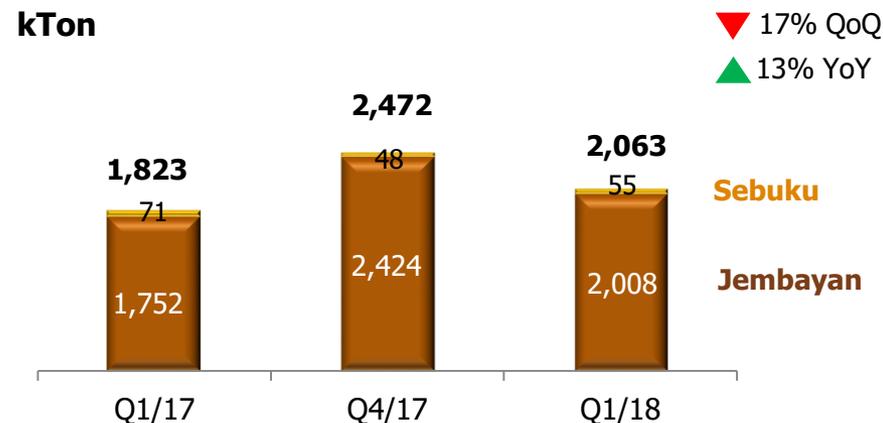


Avg. Selling Price* & Cash cost*

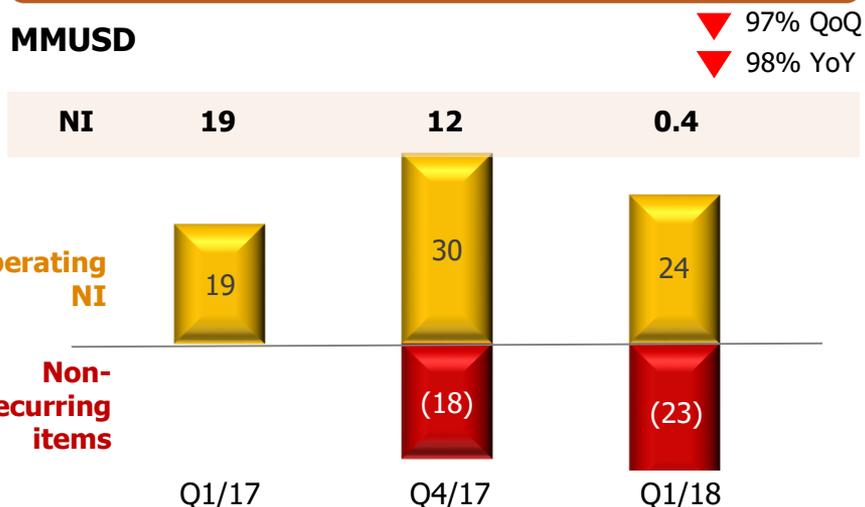


*Average Calorific value ~ 5,450 kcal/kg

Sales Volume



Net income



Key Highlights

QoQ

- Cash cost increased from higher mining cost and royalties
- Sales vol. drop from seasonal high demand in Q4/18
- Lower margin from higher cash cost & lower vol., despite rising price
- Performance decreased mainly from tax penalty

YoY

- Cash cost increased from royalties following coal price
- Sales volume increased from higher Jembayan's sales contracts
- Better margin from higher price & vol., despite increased cash cost
- Performance declined from tax issue, despite better margin

Other Businesses : Power - GPSC

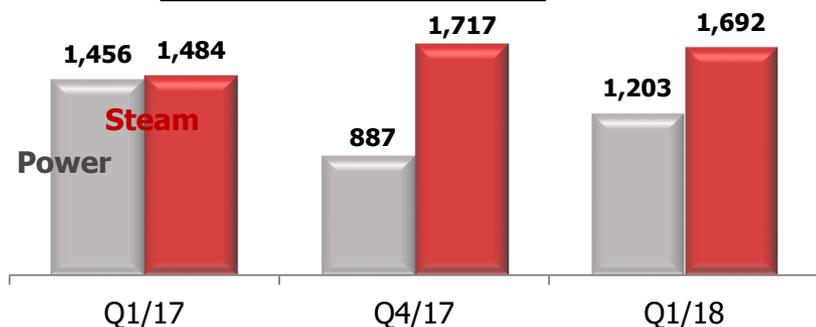


Enhanced Performance from IRPC-CP full operation and higher demand



Sales Volume*

| | QoQ | YoY |
|-------|-------|-------|
| Power | ▲ 36% | ▼ 17% |
| Steam | ▼ 1% | ▲ 14% |

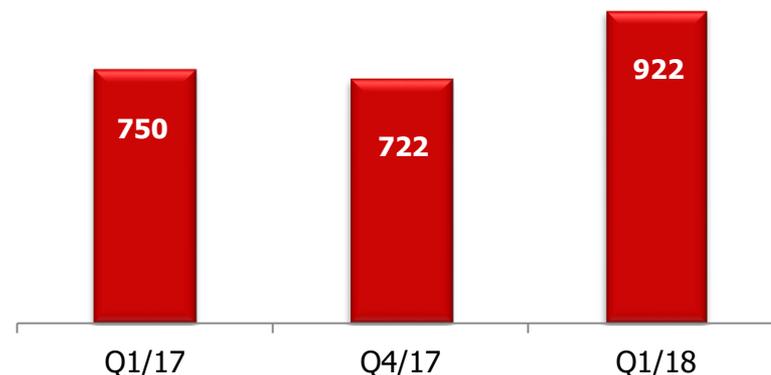


*sales vol. of Sriracha, Rayong & IRPC-CP plants

Net Income (100%)

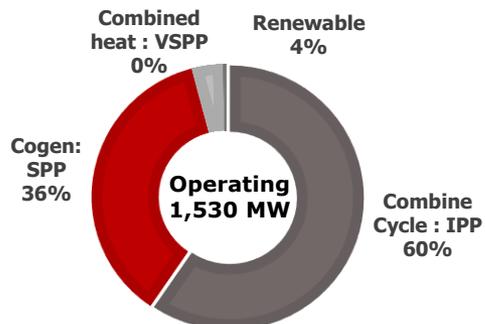
MMBaht

▲ 28% QoQ
▲ 23% YoY

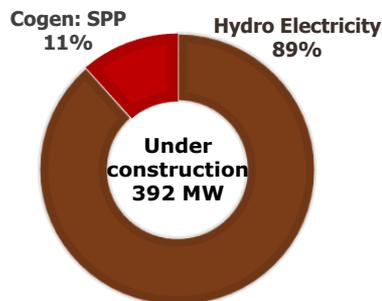


Committed Capacity

Present



2019



Key Highlights

QoQ

- Sales vol. increased from IRPC-CP full phases operation and from Sriracha plant's major maintenance in Q4/17.
- NI increased from higher income from IRPC-CP and Sriracha plant from the increase in AP.

YoY

- Lower power vol. from Sriracha power plant lower dispatch.
- Higher steam vol. from industrial users resumed operation after maintenance S/D in 1Q/17.
- NI increased from IRPC-CP first full operating quarter & higher demand at Rayong plant.

Overview

Performance

Outlook

E & P

Gas

Oil & Trading

P&R

Others

SCOD in 2019



Xayaburi Power Company Limited (XPCL)
Capacity: 1,220 MW
Progress: **92%**

Investment: THB 136,761 mm



Nam Lik 1 Power (NL1PC)
Capacity: 63.8 MW
Progress: **86%**

Investment: USD 136 mm

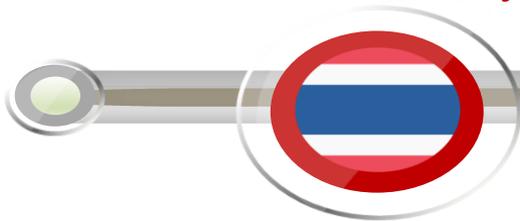


Central Utility Extended Project (CUP4)
Capacity: Power 45 MW & Steam 70 TPH (Phase1)
Progress: **34%**

Investment : THB 3,980 mm

Strategic Growth : 3 Growth Engines between 2018-2022

Thailand as Priority



- Focus in **MAPTAPHUT** and **EEC**
- Be **PTT Group's** power supplier of choice
- Contribute to **strategic priorities across the PTT group**
- Increase **new customers in Thailand**

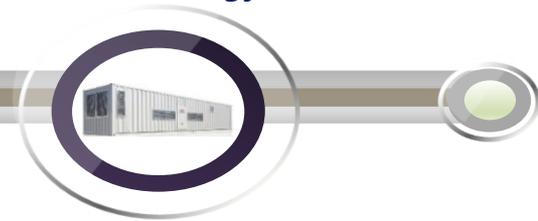
International Business



"Focus Countries"
Go into country where we can play multiple fuel to avoid risk.

- **Myanmar and Laos**
- Enhance **country knowledge** and **relationship**
- **Strategic partners**
- **Conventional and renewable energies**

Future Energy



- **Forefront of innovation** in energy sector
- **Leverage IP technology** license partnership
- **Leverage existing investments**, and PTT's asset base to deploy new technologies
- **EEC** as priority area
- **Smart grids** for smart cities

PTT Consolidated Performance: FY2017



Overview

Performance

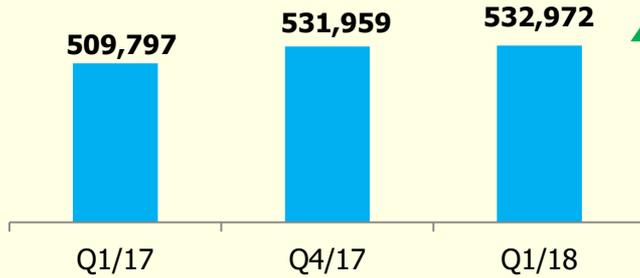
Outlook

**Avg. Dubai
(USD/BBL)**



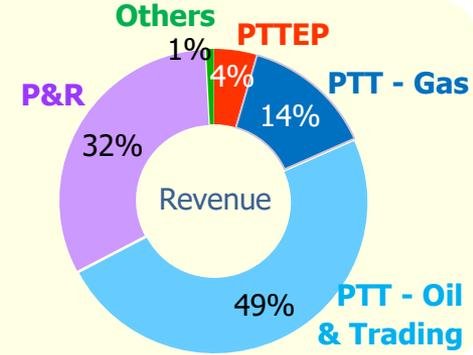
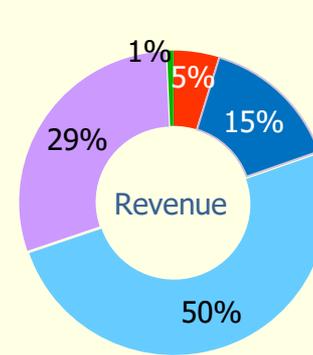
Unit : MMTHB

Revenue

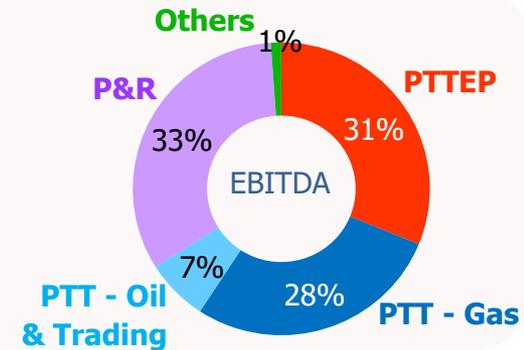
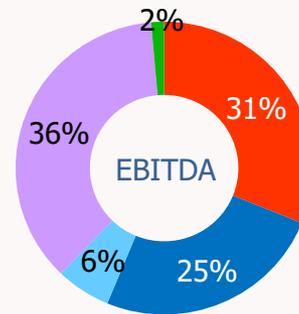
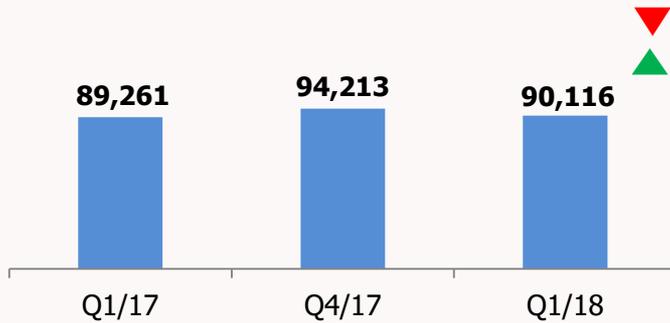


Q1/17

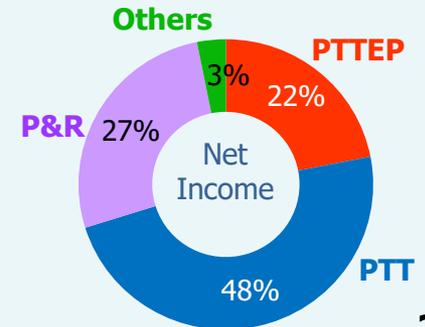
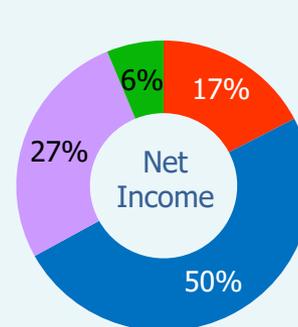
Q1/18



EBITDA



Net Income



Statement of Financial Position



Overview

Performance

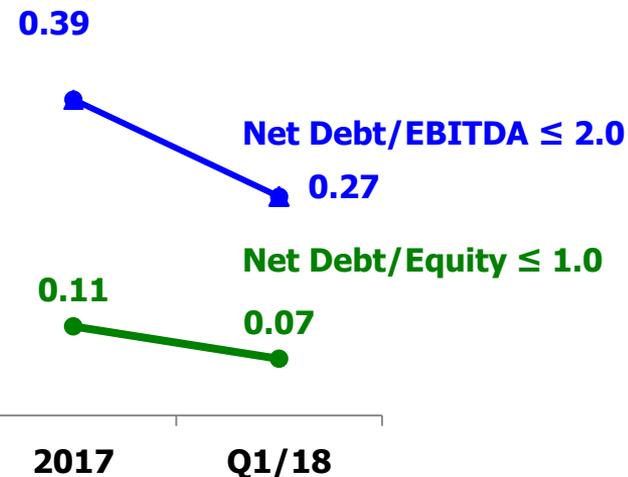
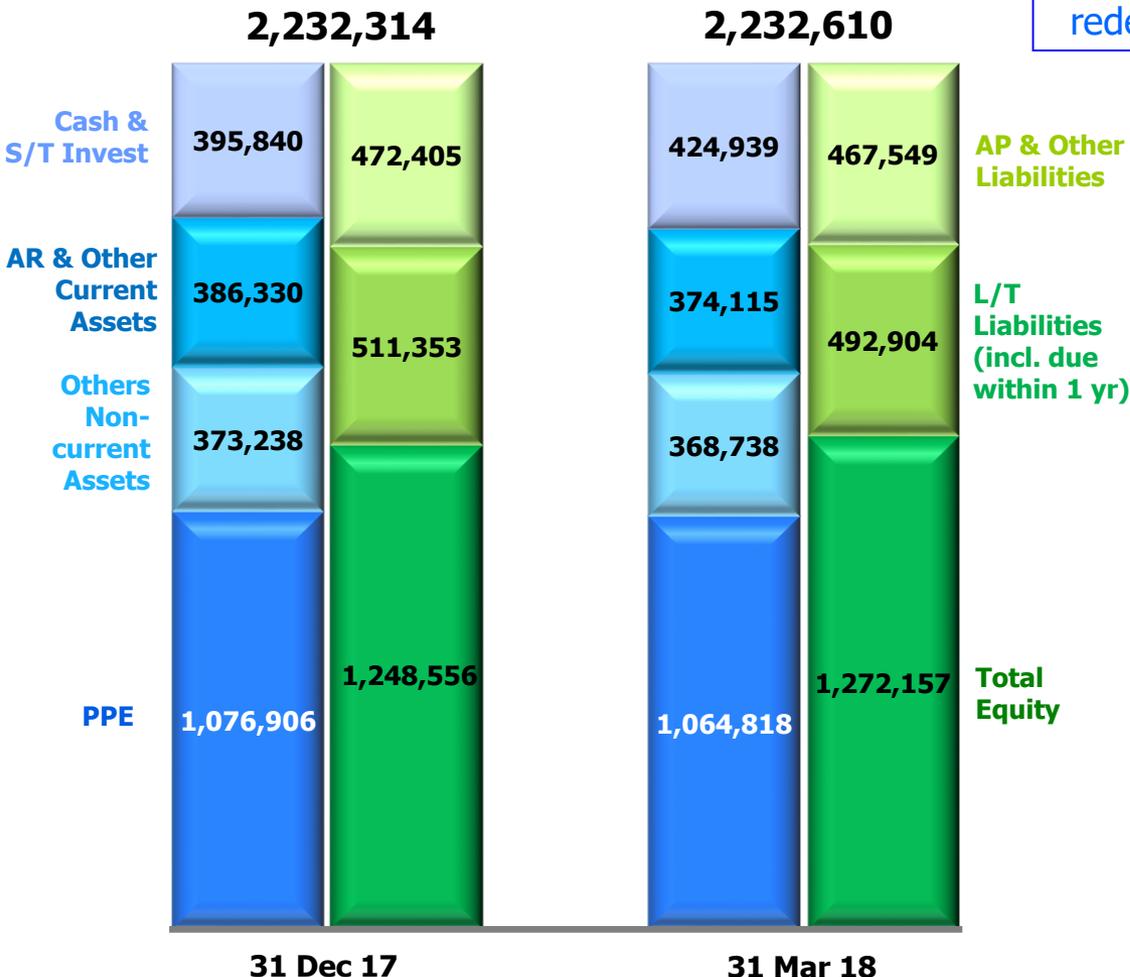
Outlook

MMTHB



Assets/Liabilities slightly increased :

- Increased in cash & cash equivalent due to higher operating cash flow
- Decreased in debt from repayments and bond redemption



PTT Ratings at Sovereign Level

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

Statements of Consolidated Cash Flows : Q1/2018

Overview

Performance

Outlook

| Operating | Q1/2017 | Q1/2018 |
|---------------------------------|---------------|---------------|
| | 61,885 | 80,958 |
| Net Income | 46,168 | 39,788 |
| Changes in assets & liabilities | (28,335) | (9,322) |
| Income Tax | (1,633) | (1,446) |
| Non-Cash Adjustment | 45,685 | 51,938 |

| Investing | Q1/2017 | Q1/2018 |
|---|-----------------|---------------|
| | (55,858) | 41,492 |
| CAPEX (PP&E, Intangible asset) | (26,209) | (28,676) |
| Investment (Sub. & Affiliates & others) | (5,657) | (1,652) |
| Current investment | (30,198) | 69,355 |
| Dividend/Interest Received | 6,226 | 2,583 |
| Others | (20) | (118) |

| Free Cash flow | |
|----------------|---------|
| 6,027 | 122,450 |



| Financing | (19,784) | (24,604) |
|---------------------------|----------|----------|
| Repayment Loans | (14,825) | (14,618) |
| Interest paid | (6,889) | (6,825) |
| Received from loans/Bonds | 1,853 | 9,929 |
| Others | 77 | (13,090) |

| Adjustment | |
|------------|-----|
| (4,174) | 604 |

| Beginning Cash and Cash Equivalents | |
|-------------------------------------|---------|
| 215,566 | 166,189 |



| Cash In/(Out) | |
|---------------|--------|
| (17,931) | 98,450 |



| | | |
|---|---------|---------|
| Ending Cash & Cash Equivalents | 197,635 | 264,639 |
| Ending cash incl. S/T investment | 404,646 | 424,939 |

Overview

Performance

Outlook

- Overview
- Q1/2018 Performance
- **Outlook 2018**



US economy : Robust Growth to Continue

- Bull** : - Strong labor market → support consumer spending
- Expansionary fiscal policy → stimulate economic activity
- Bear** : - Fed's rate hike → higher borrowing costs
- Uncertainty with Trump's economic and trade policies → drag on growth



China economy: Steady Growth

- Bull** : - Proactive fiscal & cautious monetary policies → support and stabilize growth
- Bear** : - Tightened housing debt and pollution rules → drag on growth
- Difficult trade problems with the US → drag on growth



Eurozone economy: Growth to remain solid and broad-based

- Bull** : - Favorable financial conditions amid low inflation → support growth
- Increasingly solid intra-European demand → more self-sustaining recovery
- Bear** : - Less expansionary fiscal stance in several economies → drag on growth
- Political issues in Spain and Italy → slower growth



Thai economy: Robust Economic Performance

- Bull** : - Continuous expansion in exports and tourism → stimulate growth
- Government spending : EEC → crowd in private investment
- Bear** : - High household debt → constrain domestic demand



Summary: Outlook 2018

| Overview | | Performance | | Outlook |
|--|--|--|--|---------|
| Business | Q1/2018 | 2018 (Forecast) | | Reason |
| Gas Price (\$/mmbtu) - Henry Hub - JKM | 2.85 10.55 | Range  2.7 – 3.1  7.8 – 8.8 | <u>HH:</u>  Rising US LNG export <u>JKM:</u>  High seasonal price in Q1/18 tend to normalize | |
| Oil Price (\$/bbl) Dubai Price | 63.9 | Range  66 – 71 |  Geopolitical risks: U.S. re-imposed sanction on Iran  Healthy global demand, especially in emerging Asia  OPEC/Non-OPEC maintain compliance to output cut throughout 2018  Surging US shale oil production | |
| Refinery Margin (\$/bbl) Singapore GRM | 7.00 | Range  6.8 – 7.0 |  Higher crude prices pressure crack spread  New refining capacity in China and Vietnam  Higher fuel demand from healthier economic growth  Lower FO demand in power plant (Pakistan, Egypt and Iran) | |
| Petrochemical (\$/ton) - Olefins (HDPE, PP) - Aromatics (PX, BZ) | HDPE=1379 PP = 1256 PX-Naphtha = 383 BZ-Naphtha = 310 |  HDPE = 1301  PP = 1228  PX-Naphtha = 360-370  BZ-Naphtha = 265-275 | <u>Olefins:</u>  More PE supply from US in 2H/18  New PP capacity from China and Vietnam  Continuous growth in global economy <u>Aromatics:</u>  Higher feedstock cost (Naphtha)  Additional BZ supply (Petro Rabigh, Nghi Son) and high inventory in China | |



Q1/2018

- Gas price start to increase following oil price
- PTTEP – Higher selling price despite lower vol.
- Gas – Improved performance from all segments
- Oil – Higher margins & vol.
- P&R – Weaken A/C GRM & Petchem spreads
- GPSC – Fully operated IRPC-Clean Power
- Coal – Weaken from tax issue

WHAT'S NEXT?

Outlook 2018



- Solid global economic growth
- Oil price 66 – 71 \$/bbl & higher gas price
- Bidding expiring concession to conclude end of 2018
- GSP 3 Major Turnaround in Q3/18
- Transfer Oil BU assets to PTTOR
- Weaken both Olefins & Aromatics
- NGV's price partially lifting
- Mozambique gas?

Thank you



PTT Public Company Limited – Investor Relations Department

Tel. +66 2 537-3518, Fax. +66 2 537-3948,

E-mail: ptt-ir@pttplc.com Website: <http://www.pttplc.com>

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The information contained in this presentation is subject to change without notice and PTT does not undertake any duty to update the forward-looking statements, and the estimates and assumptions associated with them, except to the extent required by applicable laws and regulations.

Statements of Cash Flows (PTT Only) : Q1/2018



| Operating | Q1/2017 | Q1/2018 |
|---------------------------------|--------------|---------------|
| | 7,868 | 25,256 |
| Net Income | 31,572 | 20,674 |
| Changes in assets & liabilities | (17,564) | (4,036) |
| Income Tax | (320) | (321) |
| Non-Cash Adjustment | (5,820) | 8,939 |

| Investing | Q1/2017 | Q1/2018 |
|--|--------------|---------------|
| | 2,801 | 14,725 |
| CAPEX (PP&E, Intangible asset) | (5,288) | (7,121) |
| Investment (Sub.& Affiliates & Others) | (4,287) | (35,432) |
| Current investment | 13,071 | 35,327 |
| Dividend/Interest Received | 5,212 | 1,251 |
| Others | (5,907) | 20,700 |

| Free Cash Flow | |
|----------------|--------|
| 10,669 | 39,981 |

| Financing | (5,868) | (12,192) |
|---------------------------|---------|----------|
| Repayment Loans | (6,148) | (10,111) |
| Interest paid | (2,299) | (2,081) |
| Received from loans/Bonds | 2,579 | - |

| Adjustment | |
|------------|-------|
| (118) | (243) |

| Beginning Cash and Cash Equivalents | |
|-------------------------------------|--------|
| 62,648 | 38,692 |

| Cash In/(Out) | |
|---------------|--------|
| 4,683 | 27,546 |

| Ending Cash & Cash Equivalents | 67,331 | 66,238 |
|----------------------------------|---------|---------|
| Ending cash incl. S/T investment | 112,637 | 103,868 |

PTT Group Performance : Q1/2018 (YoY)



Unit : MMTHB

| | Performance 100% | | | % PTT holding | Equity Method % PTT | | |
|---|------------------|--------|-------|---------------|---------------------|--------|-------|
| | Q1/17 | Q1/18 | YoY | | Q1/17 | Q1/18 | YoY |
| PTT Net operating Income | 22,893 | 19,195 | -16% | | 22,893 | 19,195 | -16% |
| E&P - PTTEP | 12,284 | 13,381 | 9% | 65.29% | 8,020 | 8,727 | 9% |
| Petrochemical | 15,449 | 12,484 | -19% | | 7,725 | 6,250 | -19% |
| - PTTGC | 13,182 | 12,388 | -6% | 48.73% | 6,617 | 6,152 | -7% |
| - PTTTANK/HMC/PTTPL/PTTPM/PTTAC/PTTMCC/PMMA* | 2,267 | 96 | -96% | | 1,108 | 98 | -91% |
| Refining | 9,440 | 8,360 | -11% | | 4,645 | 4,365 | -6% |
| - TOP | 7,075 | 5,608 | -21% | 49.06% | 3,674 | 2,850 | -22% |
| - IRPC | 2,365 | 2,752 | 16% | 48.05%** | 971 | 1,515 | 56% |
| Others Business | 4,520 | 9,256 | 105% | | 2,885 | 1,251 | -57% |
| Inter - PTTER, PTTGE, PTTGM | 201 | 5,477 | 2625% | 100% | 146 | (819) | -661% |
| Gas - PTTLNG/PTTINGD/ TTM(T)/ TTM (M) | 2,144 | 1,888 | -12% | | 1,676 | 1,489 | -11% |
| Utilities - GPSC/ TP/ DCAP/Others | 1,201 | 1,342 | 12% | | 295 | 342 | 16% |
| Oil & Oth. - PTTT/PTTOR/THAPPLINE/Others | 974 | 549 | -44% | | 768 | 239 | -69% |
| Shared of Net Income from Affiliates | 41,693 | 43,481 | 4% | | 23,275 | 20,593 | -12% |
| PTT Conso. Net Income | 64,586 | 62,676 | -3% | | 46,168 | 39,788 | -14% |

*On Jul 3, 2017 PTT transferred all stake in HMC/PTTPL/PTTPM/PTTAC/PTTMCC and the Projects' Study Results of PTTMMA to PTTGC

** Since Feb 21,2018, PTT hold 48.05% in IRPC

PTT Group Performance : Q1/2018 (QoQ)



Unit : MMTHB

| | Performance 100% | | | % PTT holding | Equity Method % PTT | | |
|---|------------------|---------------|-------------|-----------------|---------------------|---------------|-------------|
| | Q4/17 | Q1/18 | QoQ | | Q4/17 | Q1/18 | QoQ |
| PTT Net operating Income | 19,570 | 19,195 | -2% | | 19,570 | 19,195 | -2% |
| E&P - PTTEP | 9,441 | 13,381 | 42% | 65.29% | 6,160 | 8,727 | 42% |
| Petrochemical | 9,619 | 12,484 | 30% | | 4,762 | 6,250 | 31% |
| - PTTGC | 9,558 | 12,388 | 30% | 48.73% | 4,700 | 6,152 | 31% |
| - PTTTANK/HMC/PTTPL/PTTPM/PTTAC/PTTMCC/PMMA* | 61 | 96 | 57% | | 62 | 98 | 58% |
| Refining | 11,440 | 8,360 | -27% | | 5,496 | 4,365 | -21% |
| - TOP | 6,927 | 5,608 | -19% | 49.06% | 3,604 | 2,850 | -21% |
| - IRPC | 4,513 | 2,752 | -39% | 48.05%** | 1,892 | 1,515 | -20% |
| Others Business | 5,767 | 9,256 | 60% | | (624) | 1,251 | 300% |
| Inter - PTTER, PTTGE, PTTGM | 2,320 | 5,477 | 136% | 100% | (2,565) | (819) | 68% |
| Gas - PTTLNG/PTTNGD/ TTM(T)/ TTM (M) | 1,570 | 1,888 | 20% | | 1,227 | 1,489 | 21% |
| Utilities -GPSC/ TP/ DCAP/Others | 1,144 | 1,342 | 17% | | 296 | 342 | 16% |
| Oil & Oth. - PTTT/PTTOR/THAPPLINE/Others | 733 | 549 | -25% | | 418 | 239 | -43% |
| Shared of Net Income from Affiliates | 36,267 | 43,481 | 20% | | 15,794 | 20,593 | 30% |
| PTT Conso. Net Income | 55,837 | 62,676 | 12% | | 35,364 | 39,788 | 13% |

*On Jul 3, 2017 PTT transferred all stake in HMC/PTTPL/PTTPM/PTTAC/PTTMCC and the Projects' Study Results of PTTPMMA to PTTGC

** Since Feb 21,2018, PTT hold 48.05% in IRPC

Debt Profile : Control Cost & Manage Risk

Managed debt according to financial risk and policy

Debt Portfolio

Unit : MMTHB

PTT Only

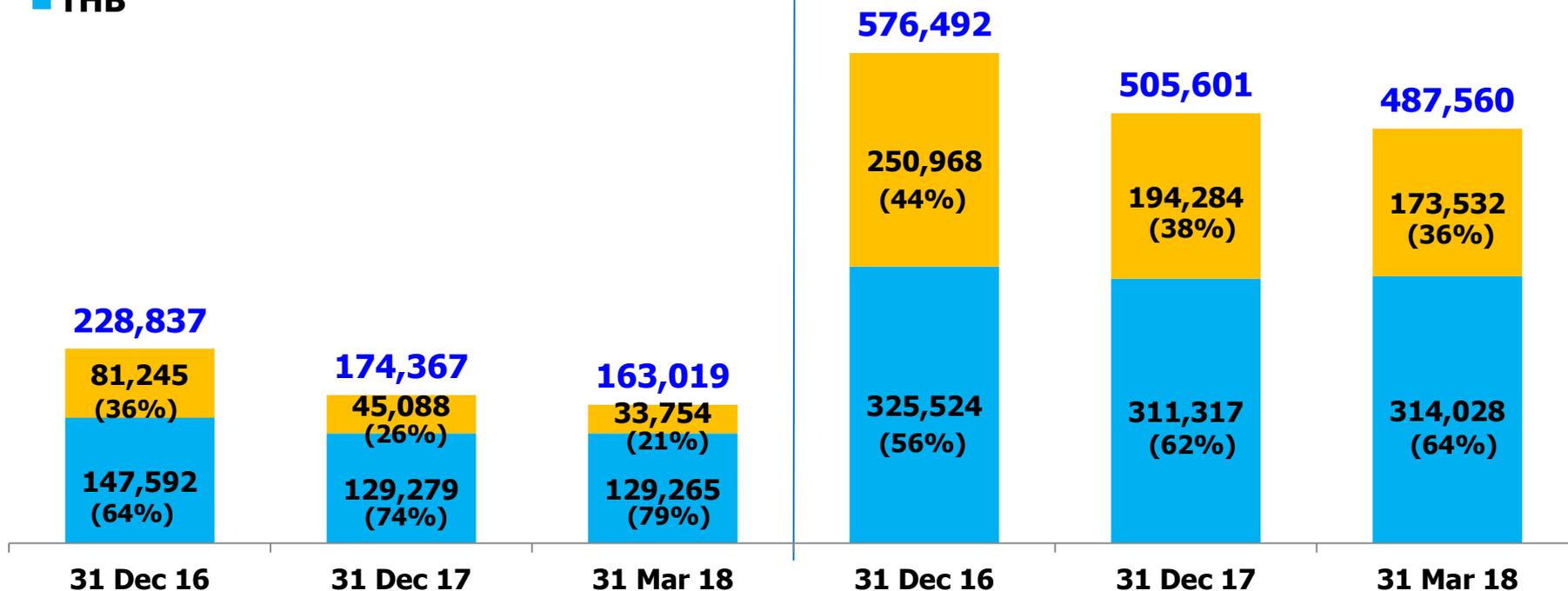
: Cost of debts ~ 5.16%
 : % fixed-rate ~ 74%
 : Avg. debt life ~ 9.01 years

■ USD&Other

■ THB

Consolidated

: Cost of debts ~ 4.52%
 : % fixed-rate ~ 69%
 : Avg. debt life ~ 6.71 years



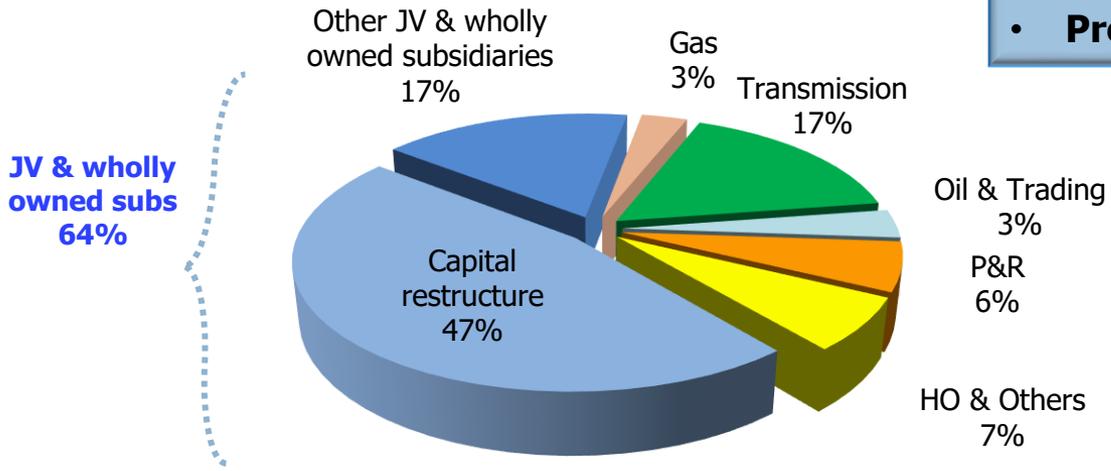
Note : Data as of 31 Mar 18 (THB/USD = 31.4063 THB/JPY = 0.297795 Excluding liabilities from finance leases; Cost of debts includes withholding tax. Cost of debts, % fixed rate, and avg. debt life took into account the derivative transactions. Debt outstanding is reconciled with accounting.

PTT: Committed CAPEX (PTT and Wholly Owned Subsidiaries)

PTT plans to invest ~Bt 342bn* (\$10bn) during 2018-2022

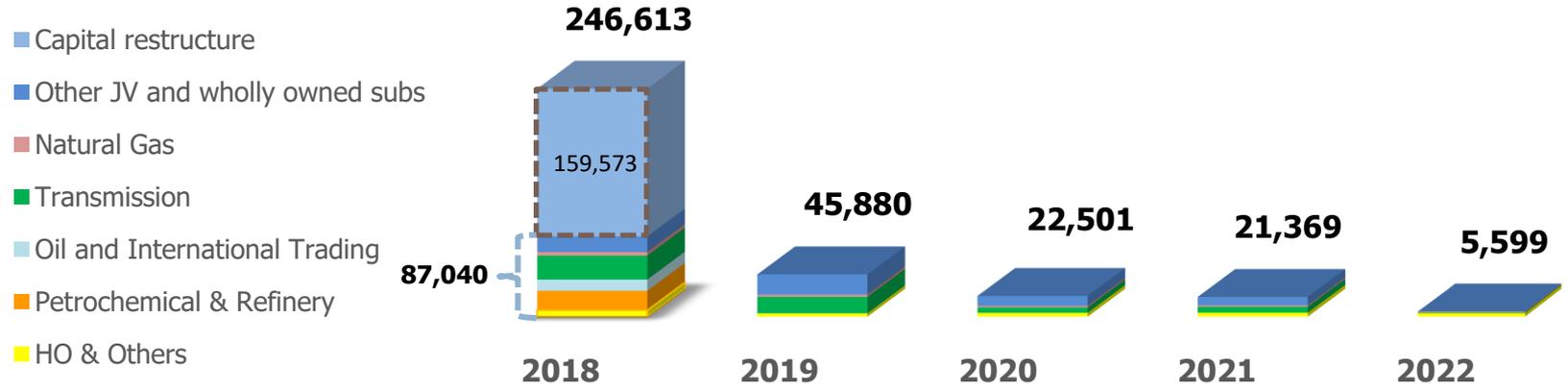
Additional Provisional CAPEX = Baht 245 bn

- Business expansions
- Prepare for the future (New S-Curve)



PTT 5-Years Committed CAPEX Plan ~Bt 342 bn

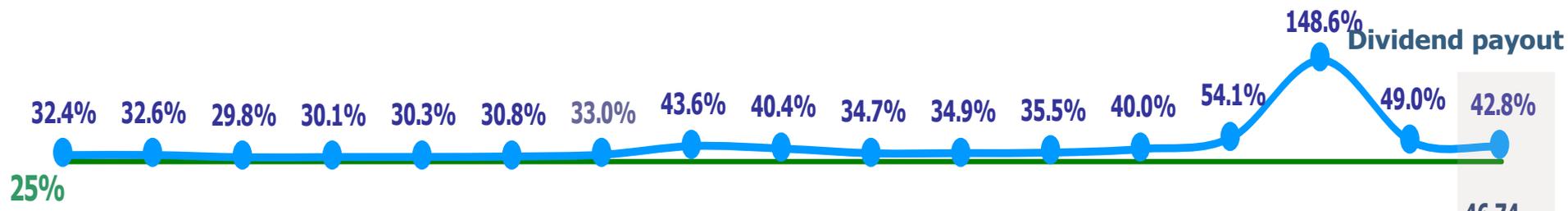
Unit: MMTHB



* 2018-2022 budget approved by BOD on 22 Dec 17

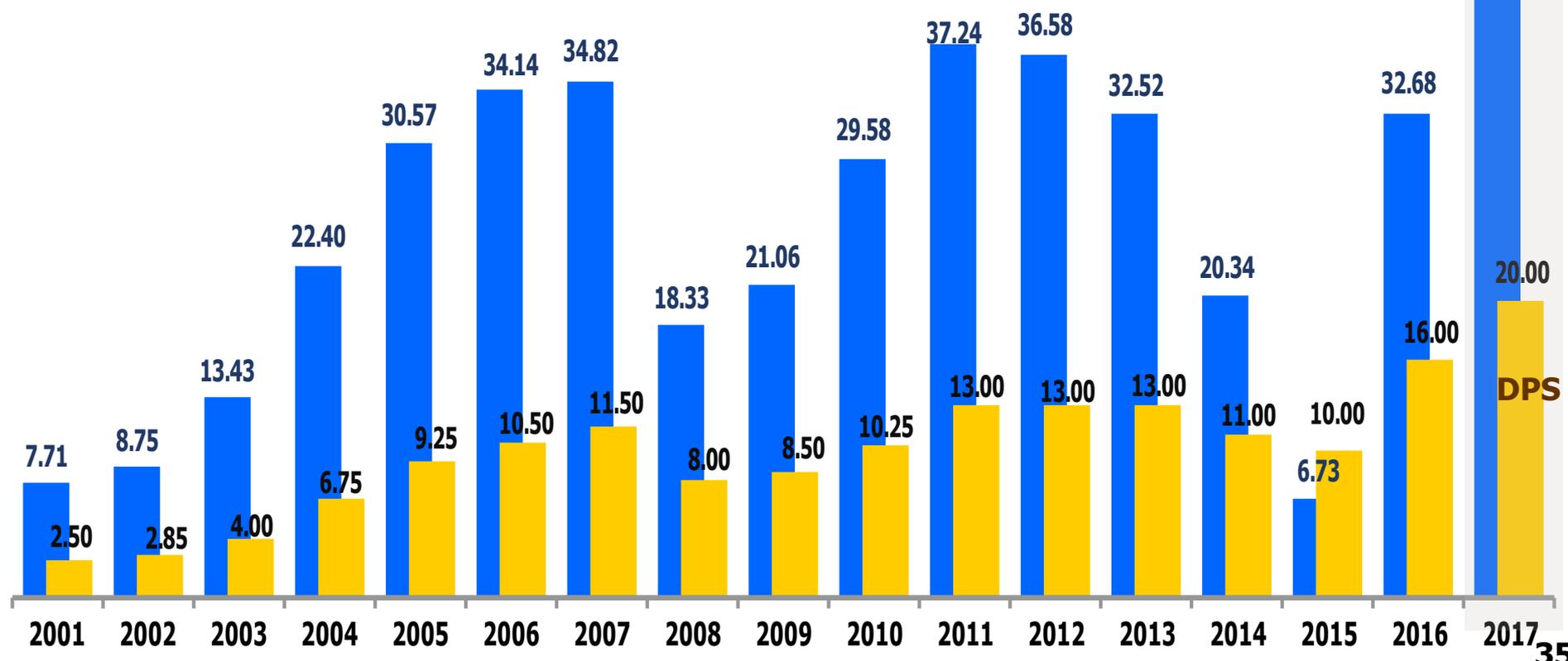
Dividend Policy & Historical Payments

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



Baht / share

PTT's minimum payout ratio



Data as of 31 Mar 2018

E&P and Gas Business Group

| Subsidiaries | | Consolidate |
|--|--------|-------------|
| PTT Exploration & Production Plc. | PTTEP | 65.29% |
| PTT Natural Gas Distribution Co., Ltd. | PTTNGD | 58.00% |
| PTT LNG Co., Ltd. | PTTLNG | 100.00% |
| Thai Oil Power Co., Ltd.* | TP | 26.00% |
| Global Power Synergy Co., Ltd.* | GPSC | 22.58% |
| PTT Global LNG Co., Ltd | PTTGL | 50.00% |

| Joint Ventures | | Equity |
|--|---------|--------|
| Trans Thai-Malaysia (Thailand) Co., Ltd. | TTM (T) | 50.00% |
| Trans Thai-Malaysia (Malaysia) Sdn. Bhd. | TTM (M) | 50.00% |
| District Cooling System and Power Plant | DCAP | 35.00% |

Oil Business Group

| Subsidiaries | | Consolidate |
|-------------------------------------|--------|-------------|
| PTT (Cambodia) Co., Ltd. | PTTCL | 100.00% |
| PTT Oil & Retail Business Co., Ltd. | PTTOR | 100.00% |
| Thai Lube Blending Co., Ltd. | TLBC** | 48.95% |
| PTT Oil Myanmar Co., Ltd. | PTTOM | 100.00% |

| Associates | | Equity |
|-----------------------------------|--------------|--------|
| Thai Petroleum Pipeline Co., Ltd. | THAPPLINE | 40.53% |
| PetroAsia (Thailand) Co., Ltd. | PA(Thailand) | 35.00% |

| Others | | Cost |
|--|-------------|------------|
| 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. | FPT | 0.0000090% |

| Others | | Fair Value |
|-------------------------------------|------|------------|
| Bangkok Aviation Fuel Services Plc. | BAFS | 7.06% |

Petrochemicals & Refining Business Group

| Petrochemical Subsidiaries | | Consolidate |
|---------------------------------|---------|-------------|
| PTT Global Chemical Plc.* | PTTGC | 48.73% |
| PTT Energy Solutions Co., Ltd.* | PTTES | 40.00% |
| PTT Tank Terminal Co., Ltd. | PTTTANK | 100.00% |

| Refining Subsidiaries | | Consolidate |
|-----------------------|------|-------------|
| Thai Oil Plc.* | TOP | 49.06% |
| IRPC Plc.* | IRPC | 48.05% |

International Trading Business Group

| Subsidiaries | | Consolidate |
|--------------------------------------|---------|-------------|
| PTT International Trading Pte. | PTTT | 100.00% |
| PTT International Trading London Ltd | PTTTLDN | 100.00% |

International Investment

| Subsidiaries | | Consolidate |
|---------------------------------|-------|-------------|
| PTT Energy Resources Co., Ltd. | PTTER | 100.00% |
| PTT Green Energy Pte. Ltd | PTTGE | 100.00% |
| PTT Global Management Co., Ltd. | PTTGM | 100.00% |

Others

| Subsidiaries | | Consolidate |
|--|-------------|-------------|
| Energy Complex Co., Ltd. | EnCo | 50.00% |
| Business Service Alliance Co., Ltd. | BSA * | 100.00% |
| PTT Regional Treasury Center Pte. Ltd. | PTTRTC | 100.00% |
| PTT Digital Solutions Co., Ltd.* | PTT DIGITAL | 20.00% |

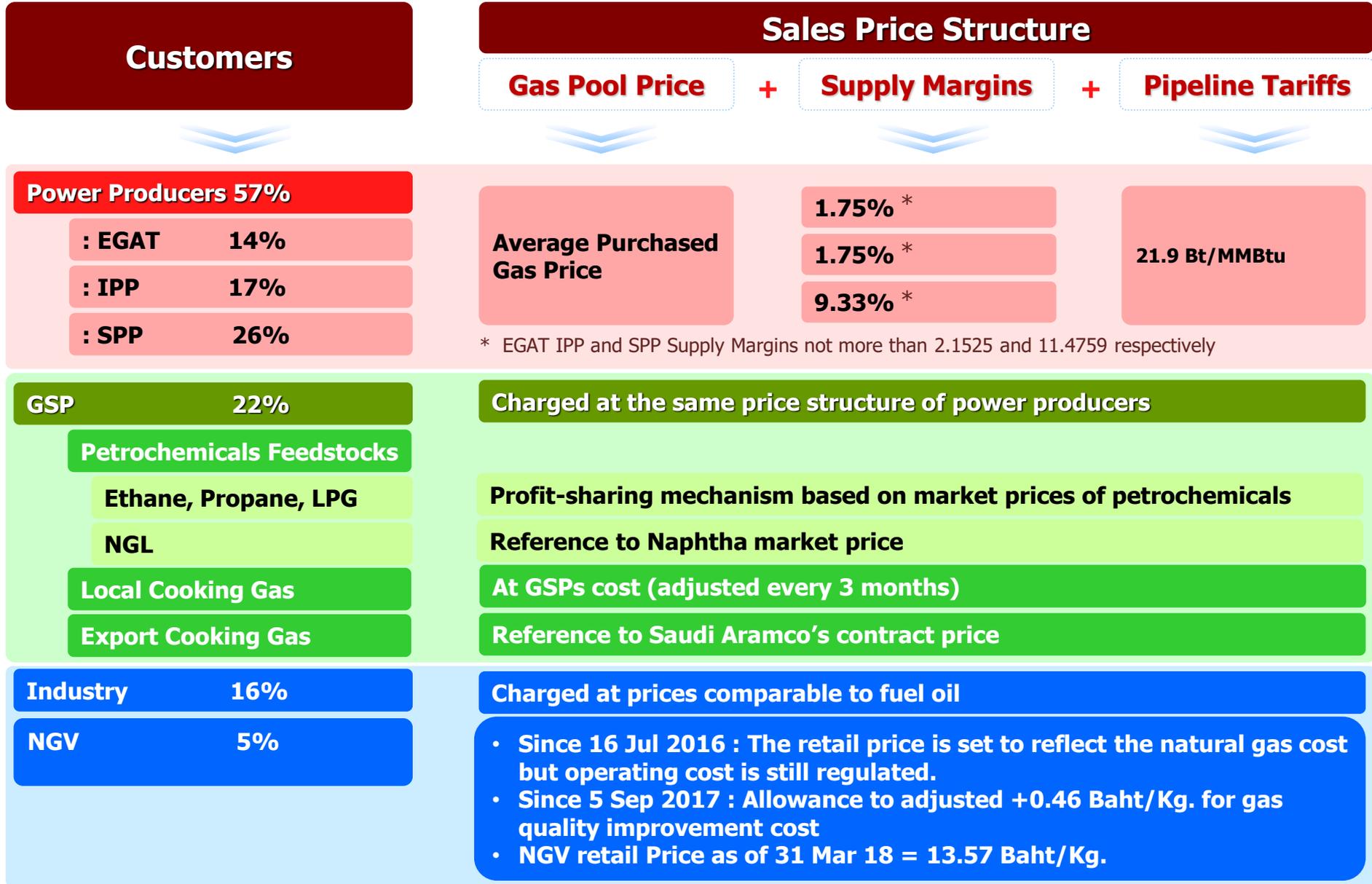
| Others | | Cost |
|--|-------|--------|
| Sarn Palung Social Enterprise Company Ltd. | PTTSE | 20.00% |

| Others | | Fair Value |
|------------------------|-----|------------|
| Dhipaya Insurance Plc. | TIP | 13.33% |

Remark : *The companies have changed their status to subsidiaries due to impact from PACK 5
 ** Subsidiaries that PTT holds less than 50% but being consolidated because PTT has the power to control the financial and operating policies.

Natural Gas Price Structure : Jan-Mar 2018

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



Contract periods are ~ 25-30 years or until depletion of gas fields or the expiration of concessions

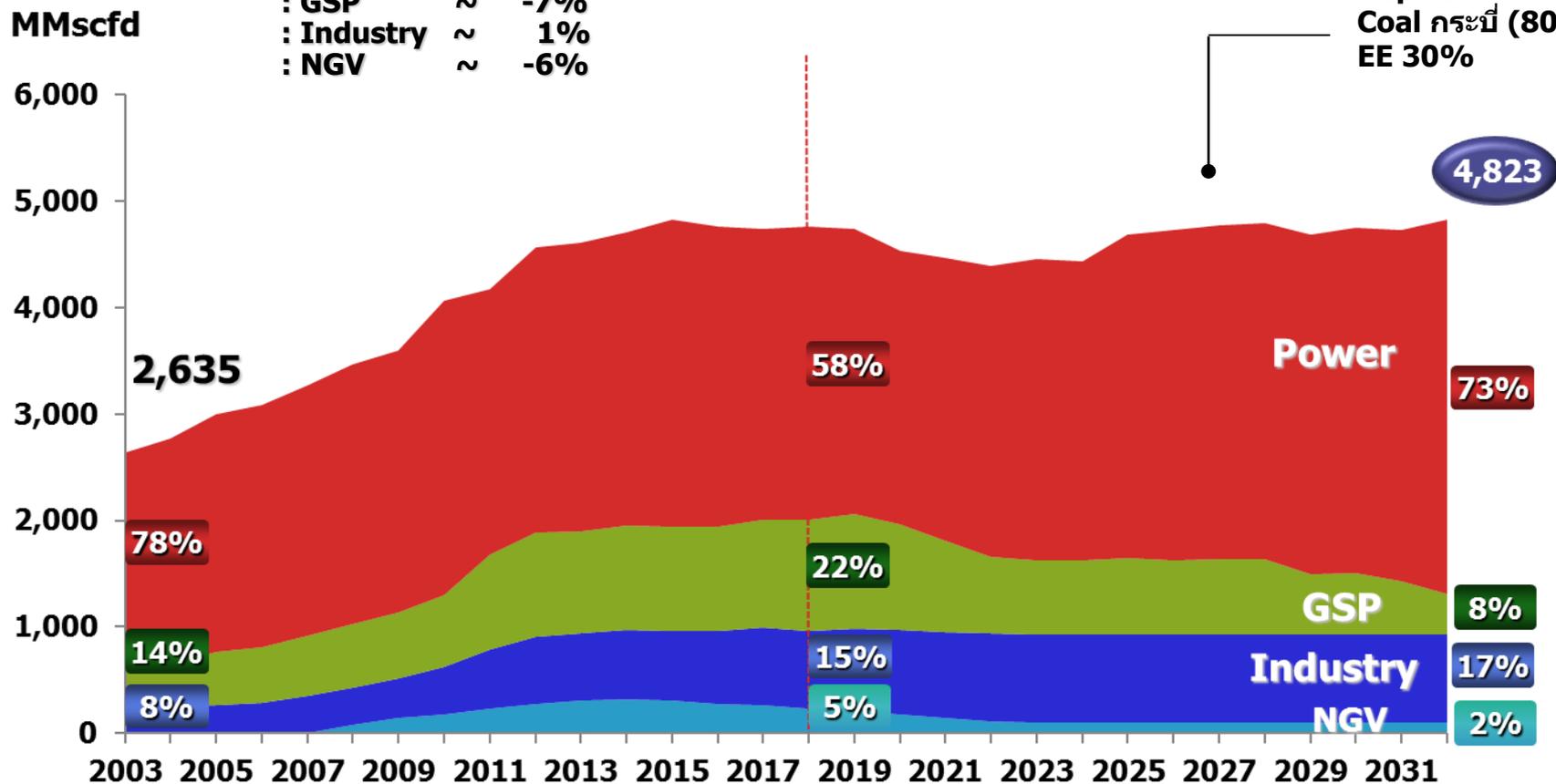
Natural Gas : Growth of natural gas upon Government fuel diversification policy for power generation



Thailand Gas demand forecast (CAGR during 2018-2032)

- : Total ~ 0.1%
- : Power ~ 2%
- : GSP ~ -7%
- : Industry ~ 1%
- : NGV ~ -6%

Thailand Gas Demand Replace :
Coal ๓๐๐๐ (800 MW),
EE 30%



Gas Business Generates Stable Returns

Overview

Gas transmission pipeline capacity

- ✔ **Sole owner and operator of entire gas transmission pipelines in Thailand (~ 4,000 km), a regulated business**
 - IRROE ranges between 12.5% - 18% for transmission pipeline investment
- ✔ **Supply & marketing of natural gas provides fixed margin with long-term contracts of 25-30 years**
- ✔ **6 Gas Separation Plants; Total production 6.7 MTA; are on petrochemical market price-linked profit sharing basis**

