



# **Analyst Meeting 1Q2022 18 May 2022**

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# Key Activities in 1Q2022

## Core Businesses

**Restructuring of Power Business by acquiring additional stakes from TOP (+10.78%)** 

**Restructuring PTGL to be 100% owned by PTT's subsidiary (SMH)** 

**A cap of NGV price at 15.59 baht/kg for private and other vehicles and 13.62 baht/kg for taxi until 15 Jun 22** 

**PTTEP-Signing of Gas, Condensate and Crude Sale Agreement of G1/61 and G2/61 Projects**



**Changing of the Operator of Yadana Project in Myanmar to PTTEP (37.0842% participating interest)**



**Awarding of Malaysia exploration block SB412**



**Acquisition of 25% stakes in the Concession Area C exploration block in UAE**



**Issuance and Offering of 275,120,000 Newly Issued Shares**



## Future Energy & Beyond




**Arun Plus JV (51%) with GPSC to establish "Nuovo Plus" to support battery business value chain** 



**JV (60%) with FOXCONN to establish "Horizon Plus" to operate the electric vehicle manufacturing business (FID in April 2022)** 



**Arun Plus and Contemporary Amperex Technology (CATL) announced a strategic collaboration in battery business** 



**Completed to acquire additional stakes in Lotus Pharmaceutical and investment in Adalvo, stakes increased to 37% and 60%, respectively. Profit contribution started in 2Q22** 



**Divestment of shares in Ichinoseki Solar Power 1 GK**



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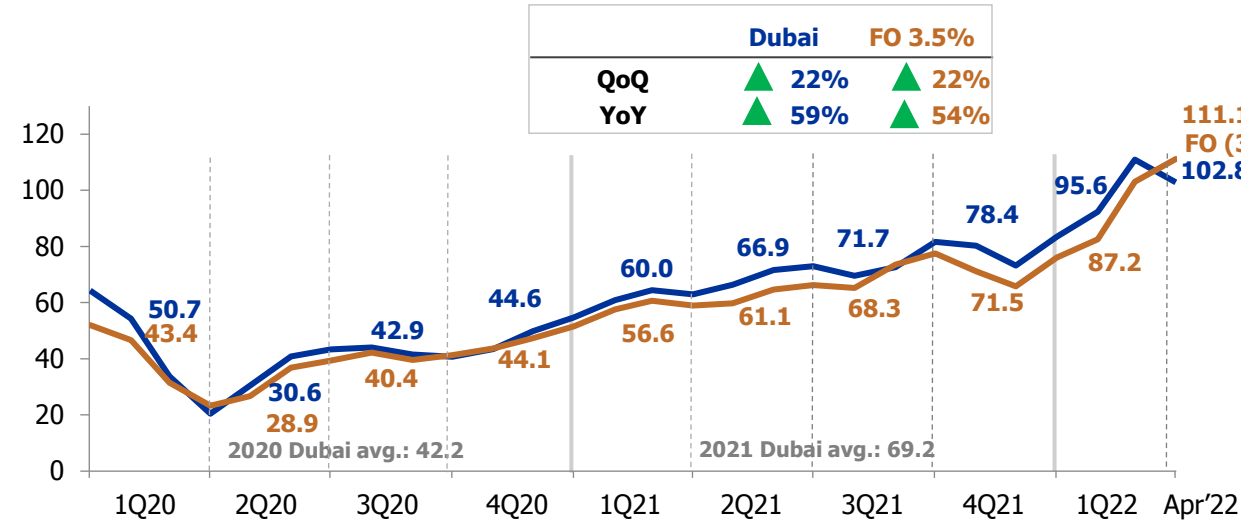
**04**

**Outlook/Guidance**

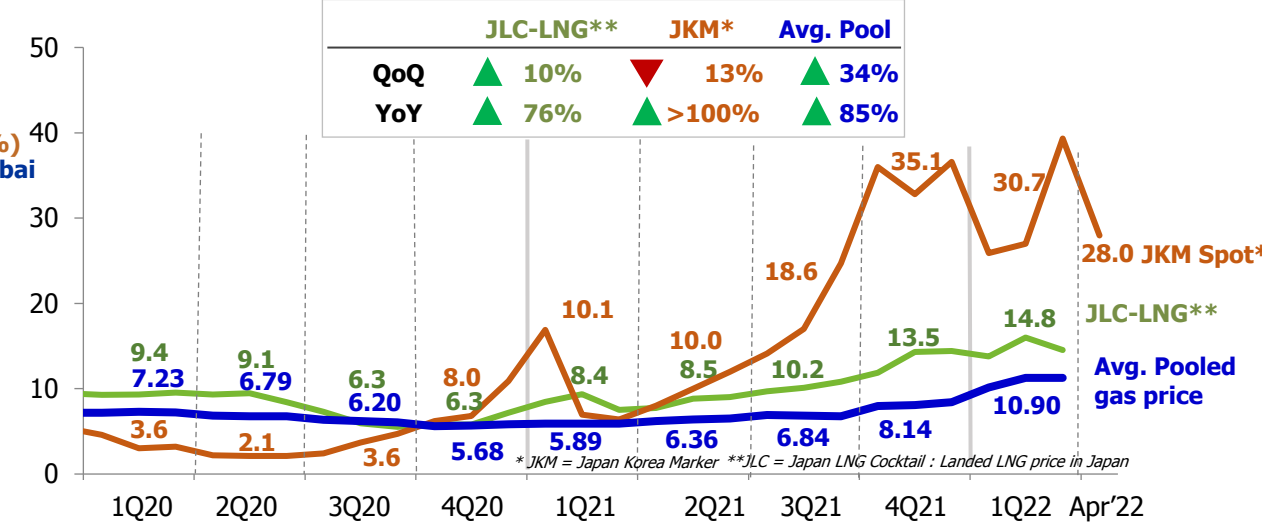
# Key Business Drivers:

Most of petroleum and petrochemical prices escalated due to demand recovery and impact from Russia-Ukraine tension

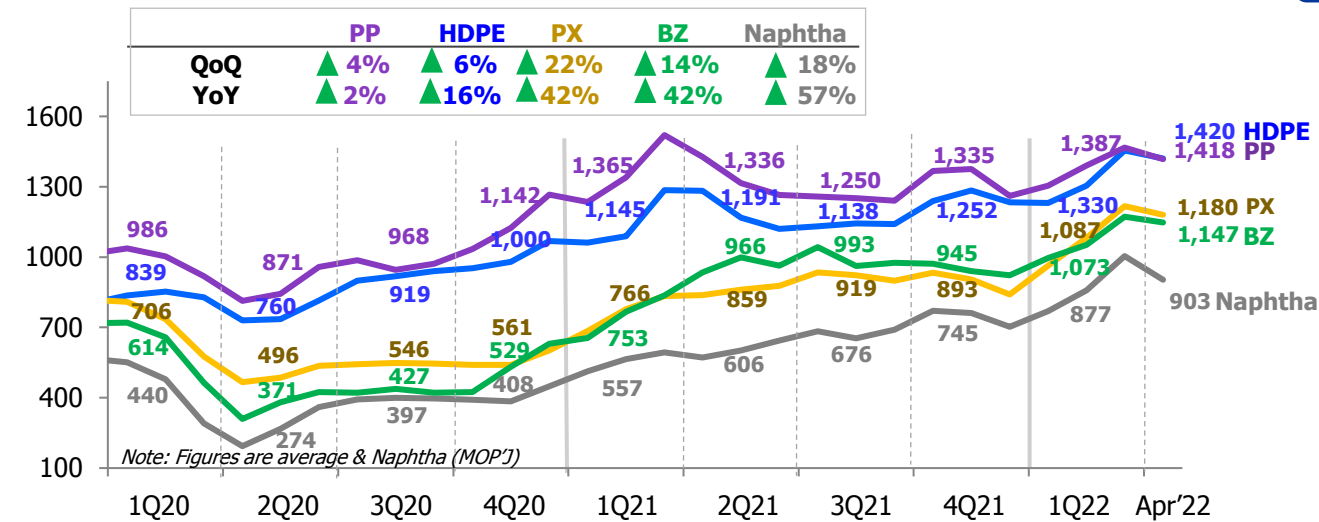
## AVG. Petroleum Prices (\$/bbl)



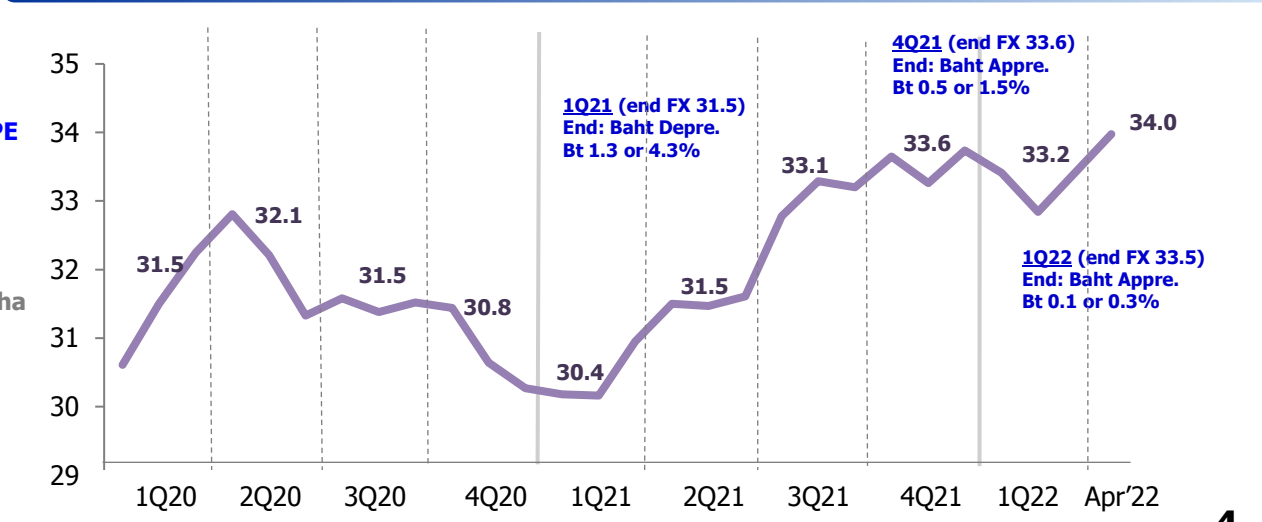
## AVG. NG Prices (\$/MMBTU)



## Avg. Petrochemical Prices (\$/ton)



## AVG. FX (THB/USD)



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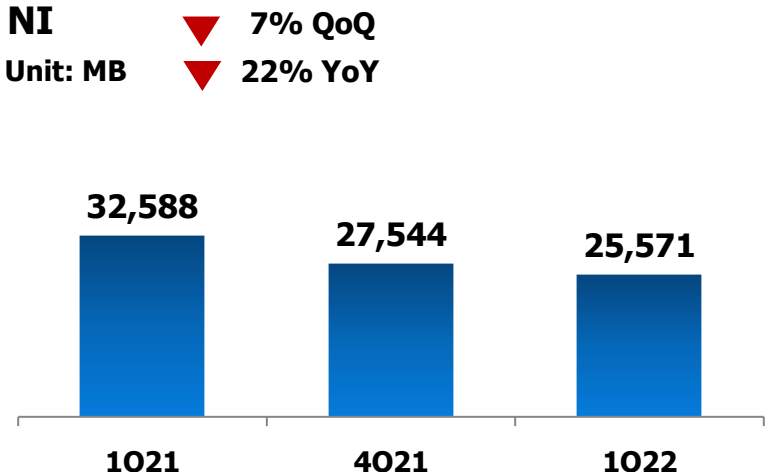
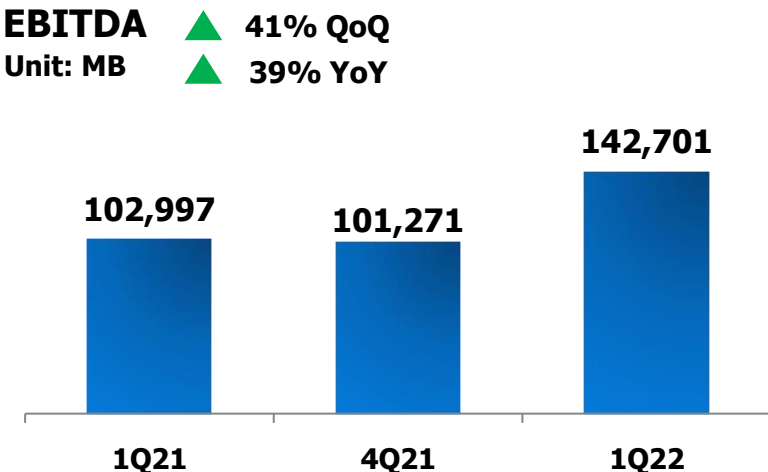
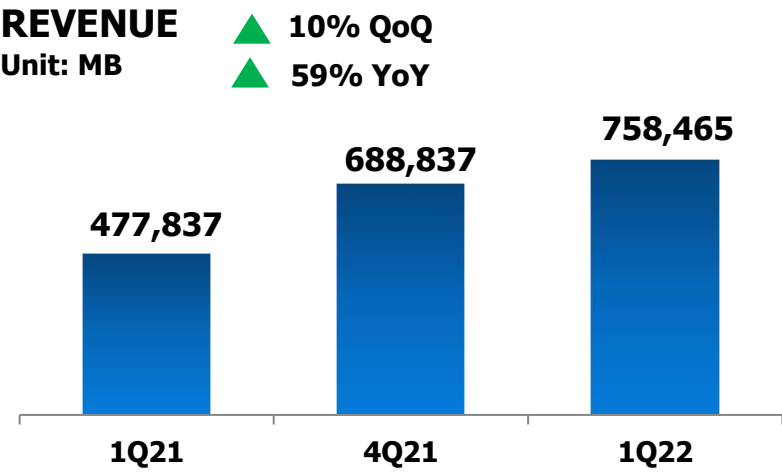
**1Q2022 Performance**

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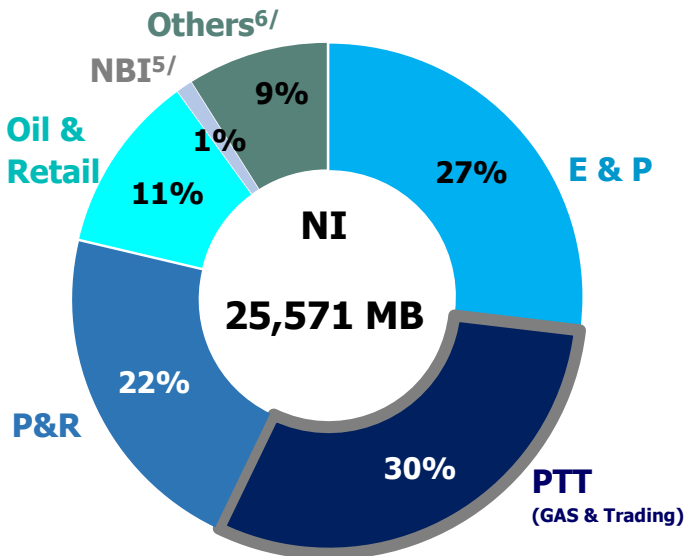
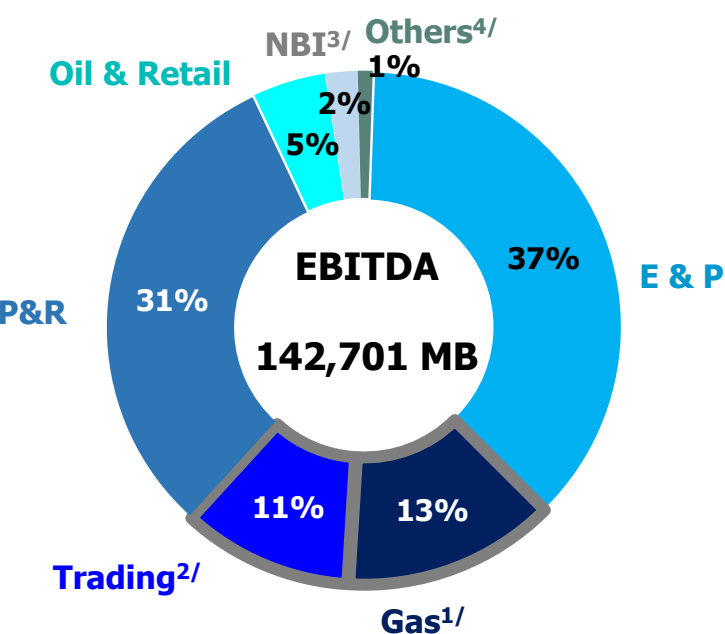
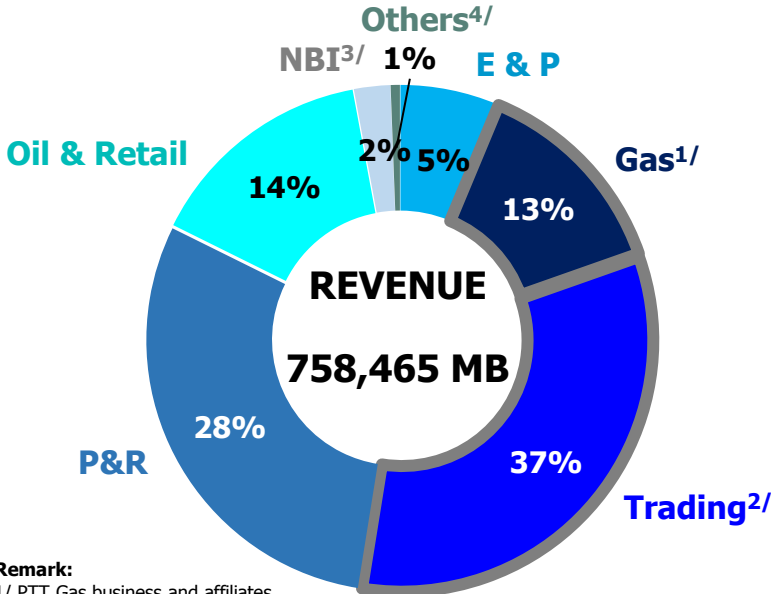
**Outlook/Guidance**

# PTT Consolidated Performance: 1Q2022

Soften NI mainly from higher loss on derivatives despite strong operating performance resulted from demand and product prices' recovery



1Q2022

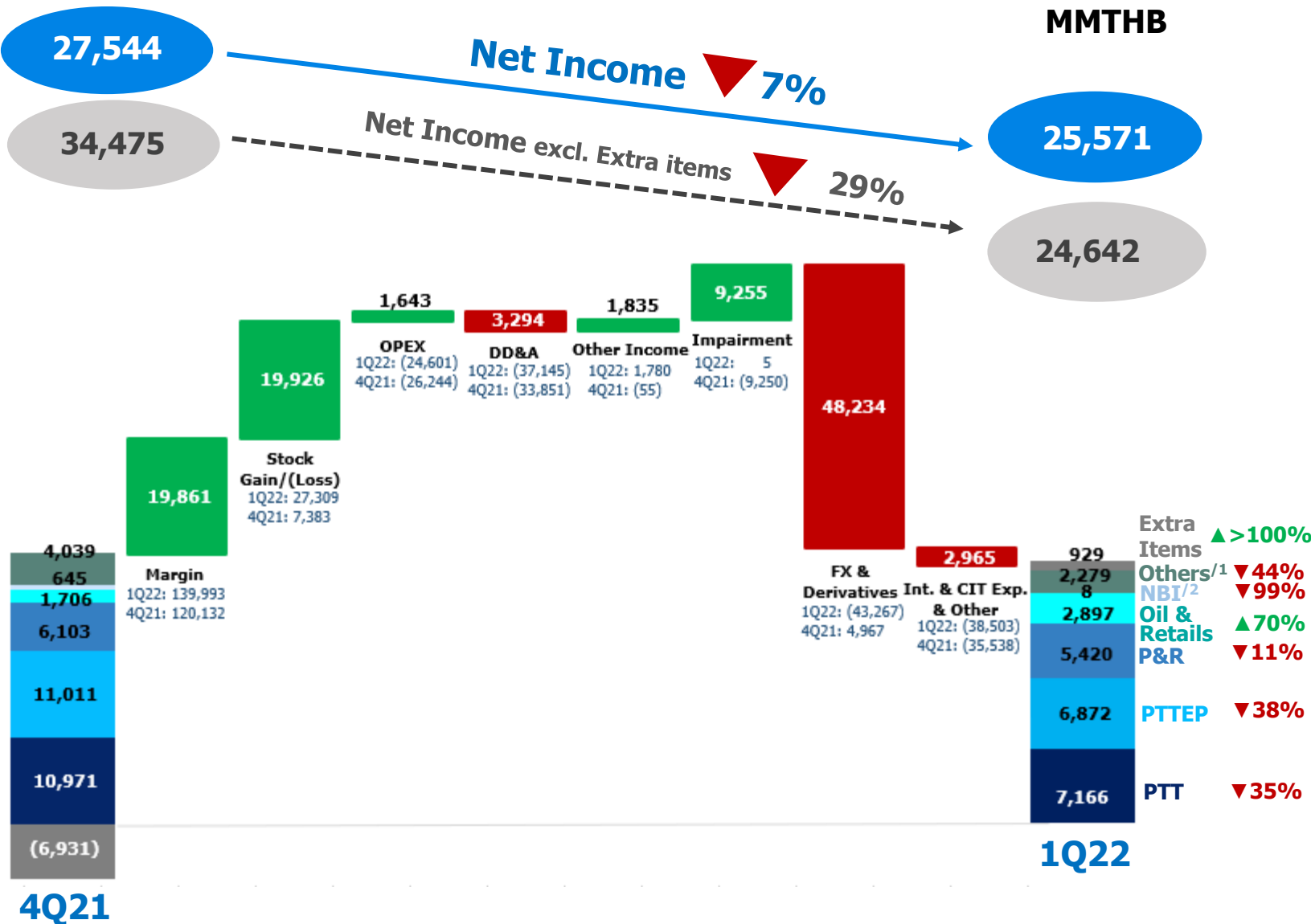


**Remark:**  
 1/ PTT Gas business and affiliates  
 2/ PTT Trading business and affiliates  
 3/ New Business and Infrastructure mainly contributed from power business  
 4/ Others business mainly contributed from coal business

**Remark:**  
 5/ New Business and Infrastructure mainly contributed from power business  
 6/ Others business mainly contributed from PTT LNG, PTT NGD, PTTT and PTTGM etc.

# 1Q22 vs 4Q21 PTT Consolidated Performance (QoQ):

NI decreased from higher loss on derivatives despite improved margin and higher stock gain



## Extra Items\*

(\*PTT's portion net tax amount)

**1Q22** : PTT's discounted benefit from gas production shortfall ~+700 MB and gain from Ichinoiseki share divestment of GPSC~+350 MB

**4Q21** : Impairment loss ~-7,000 MB (PTTEP's Mozambique and Yetagun projects, PTT's NGV, and GC's US project)

: Other items ~+100MB mainly from

- PTT: Take or pay of Myanmar gas returned to gov. ~-2,700 MB offset with gas discount from production shortfall ~+1,700 MB
- Gain on disposal of gas pipeline in Egypt ~+1,400 MB

## Others

- **Coal**: Decreased in sales volume and higher loss on derivatives
- + **PTTT**: Increased from higher spread margin

## NBI (mainly from power)

- Lower GPSC's performance from increased gas and coal cost

## Oil & Retail

- + Oil: Increased from both of sales volume and margin due to easing of lockdown
- Non-oil: Performance dropped from soften food and beverage sales

## Petrochemical & Refining

- Higher derivatives loss despite improved operating profit

## Refinery

- + Higher stock gain and Mkt GRM due to improved product prices and spreads

## Petrochemical

- Feed cost increased more than selling prices

## PTTEP

- Loss from oil price hedging following upward oil price trend
- + Higher avg. selling prices from higher liquid prices
- + Sales volume increased from Arthit and Zawtika project

## PTT

- Higher loss on Derivatives

## Gas

- + **GSP**: Higher avg. selling prices and sales vol.
- **S&M**: Higher pooled gas cost despite higher overall gas sales volume
- **NGV**: Higher gas cost while selling prices were capped

## Trading

- Margin dropped from mark-to market loss
- + Sales volume increased

## Remark:

1/ Others business mainly contributed from PTT LNG, PTT NGD, PTTT and PTTGM etc.

2/ New Business and Infrastructure business mainly contributed from power business

# PTT EBITDA Breakdown by Business



Unit: MMTHB

	1Q21	4Q21	1Q22	QoQ	YoY
<b>GAS</b>	21,775	19,200	19,520	▲ 2%	▼ 10%
<b>S&amp;M</b>	4,775	1,578	723	▼ 54%	▼ 85%
<b>TM</b>	8,120	7,911	8,457	▲ 7%	▲ 4%
<b>GSP</b>	6,220	8,443	10,343	▲ 23%	▲ 66%
<b>NGV</b>	(221)	(1,252)	(2,303)	▼ 84%	▼ >100%
<b>Others</b>	2,881	2,520	2,300	▼ 9%	▼ 20%
<b>Trading</b>	1,138	1,449	1,219	▼ 16%	▲ 7%
<b>Total</b>	22,913	20,649	20,739	↔	▼ 9%

# Financial Position

Strong Balance Sheets maintained credit ratings

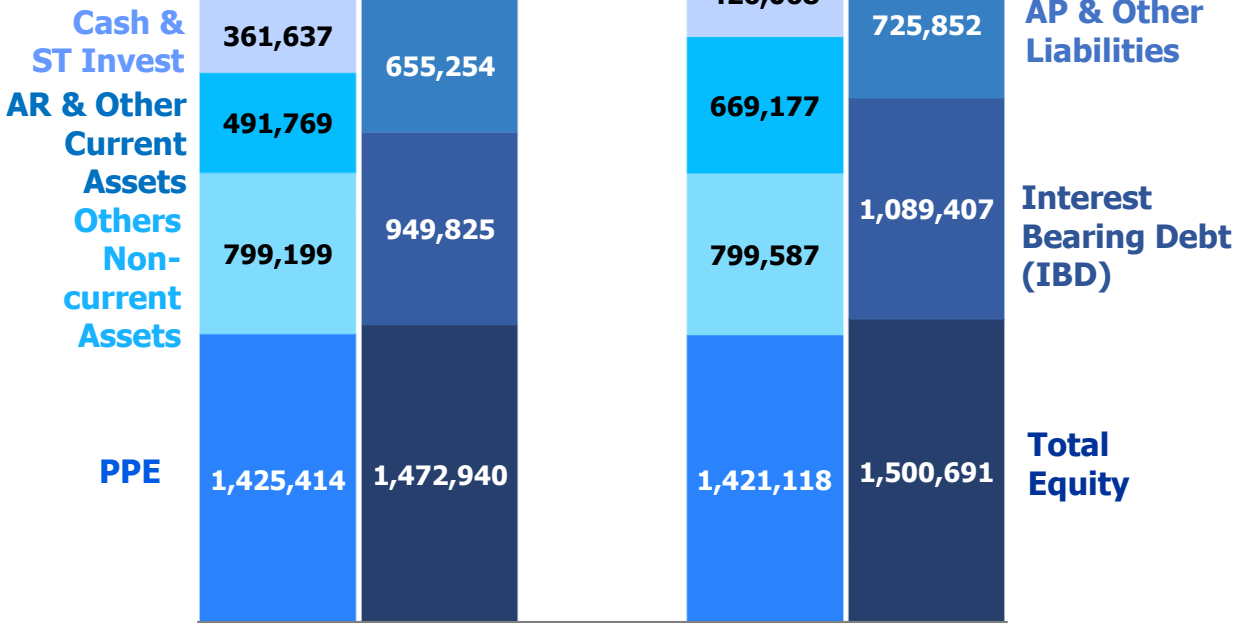
## Consolidated Balance Sheets

MMTHB

▲ 8%

3,078,019

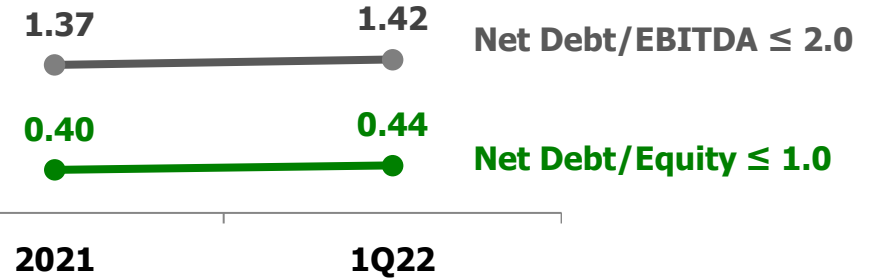
3,315,950



31 Dec 21

31 Mar 22

## Key Financial Ratios

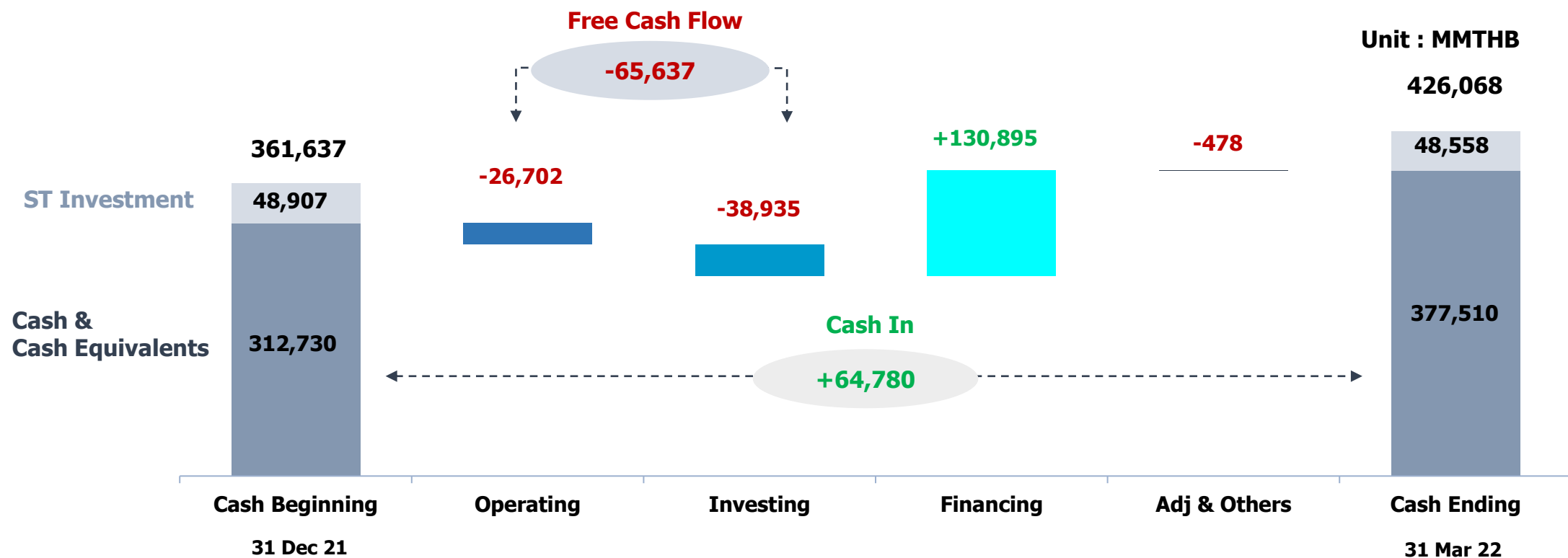


## PTT Ratings at Sovereign Level

	Moody's	S&P Global Ratings	Fitch Ratings
Foreign Currency	Baa1	BBB+	BBB+
Local Currency	Baa1	BBB+	BBB+

- + Increase in Inventories and Account Receivables from higher product prices and inventory volume
- + Increase in Cash & Short-term Investment mainly from the increase in long term borrowings primarily from GC PTT and TOP
- + Increase in IBD from short-term and long-term loans as well as bonds issuances from GC
- + Increase in AP & Other Liabilities from commodity derivatives following higher prices and volume

# PTT Consolidated Cash Flows



Operating	(26,702)
Changes in assets & liabilities	(146,250)
Income Tax	(7,082)
Non-Cash Adjustment	101,059
Net Income	25,571

Investing	(38,935)
CAPEX (PP&E, Intangible asset)	(34,646)
Investment (Sub. & Affiliates)	(6,577)
Others *	(469)
Dividend/Interest Received	1,417
Current investment	1,340

Financing	130,895
Received from loans/Bonds **	157,335
Loan Repayment	(18,553)
Ordinary share issuance of subsidiaries	3
Finance cost paid	(7,825)
Dividend paid	(50)
Derivatives	(15)

\*Investment in financial assets, ST/LT lending loans

\*\* Including net increase in bank overdrafts and short-term loan from financial institutes, and short-term borrowings approximately 5 billion Baht

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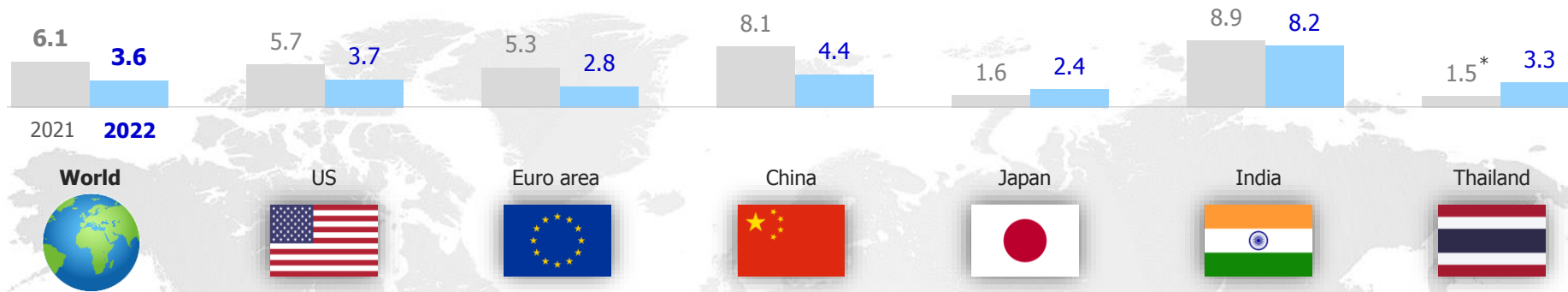
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# 2022 Global Economic Outlook:

## War Dims Global Economic Outlook as Inflation Accelerates

### IMF Forecast – GDP Growth (%)



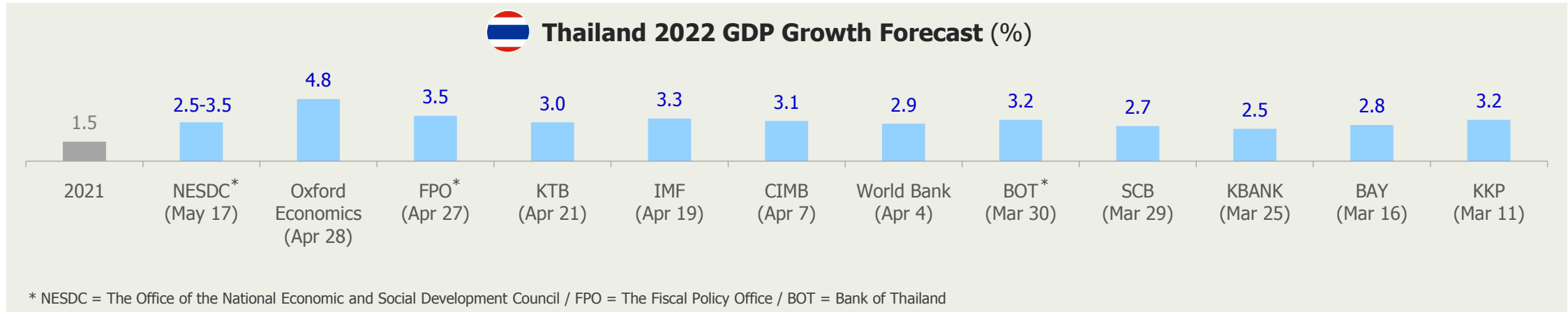
- + **Restrictions begin to ease** as the peak of Omicron wave passes and global weekly COVID deaths decline
- + **Improved adaptation, effective therapeutics, and increased immunity due to previous infection or vaccination**, with hospitalizations and deaths expected to decline to low levels in most countries by end-2022, but inequality persisting in access to COVID-19 tools across countries



- **Ongoing war in Ukraine and sanctions on Russia** to further increase commodity prices (fuel and food) and intensify supply disruptions **leading to higher and more persistent inflation**, with vulnerable populations most affected
- **China's self-inflicted slowdown, due to more widespread lockdowns as part of the strict zero-COVID strategy** and continued tight policies toward real estate sector, with negative implications for trading partners
- **Tightening monetary policy** to curb inflation, raising prospect of tighter global financial conditions
- **Eroding fiscal space**, with increase in commodity prices and borrowing costs to further reduce fiscal space, especially for oil- and food-importing developing economies

# 2022 Thailand Economic Outlook:

## Recovery to Continue amid Household Income Squeeze from High Inflation



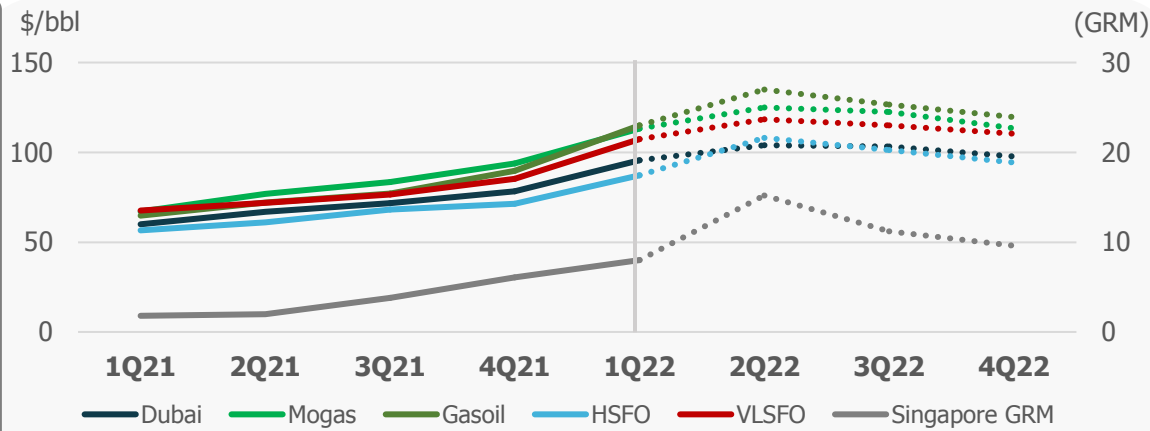
- + Continued progress in vaccine rollout and "living with COVID-19" policy (gearing up to treat the disease as endemic) to boost private consumption (expected growth of 1.7 to 4.4% in 2022 vs. 0.3% in 2021), despite a still high number of daily cases
- + With borders reopened from May 1, 2022, hoping for foreign tourists (number of foreign tourists expected at 4 to 7 mn in 2022 vs. 0.4 mn in 2021)
- + Merchandise exports to continue to grow (expected growth of 2.6 to 7.3% in 2022 vs. 18.8% in 2021), albeit at a slower rate as global outlook dims
- + Monetary policy to remain accommodative to help facilitate a sustained economic recovery



- Rising cost-push inflation amid Russia-Ukraine conflict to squeeze further household incomes and dampen demand recovery
- Fiscal support to decline following substantial stimulus earlier to pose difficult policy challenges to further support growth and offset the scarring impact of the pandemic
- GDP to not return to pre-pandemic level until 2023

# 2022 Petroleum and Gas Outlook

## Petroleum



Source: PTT, PRISM Petroleum Rolling as of April 2022

### ▲ Dubai

- + **Deepening crisis in Ukraine** as the U.S., Canada, the U.K., Australia, and Switzerland have banned imports of Russian oil
- + **Other outages such as Libya** shutting its largest oil field amid anti-government protests
- + **Recovered demand following the easing of lockdowns** however market still concerned about uncertainties of economic growth
- **Coordinated Strategic Petroleum Reserves Release from IEA member countries** to help ease the supply shortage
- **Increasing supply from OPEC+** (as planned), expect more supply from **U.S. Shale oil**, and **Iran** (if sanction lifted)

### ▲ Mogas

- + **Asian mobility levels continue to improve** amid the easing travel restrictions
- + **Restocking demand for U.S. summer driving season** in 3Q2022
- **Rising supply due to increasing refinery runs** after maintenance ended and new additional capacities in China

### ▲ Gasoil

- + **Strong demand recovery in Asia & low global inventory levels**
- + **Supply concern** over the Russia-Ukraine conflict
- **Low seasonal demand during monsoon season** in China and India during 3Q2022
- **Rising supply due to increasing refinery runs** as mentioned

### ▲ Fuel Oil

- HSFO:**
  - + **Rising seasonal power demand** in the Middle East during 3Q2022
  - + **Continued high NG prices** will encourage the use of fuel oil in the power sector
  - **Rising supply** from OPEC+, higher refinery utilization rate and Iran (if sanction lifted)
- VLSFO:**
  - + **Refiner tends to shift to produce more gasoil** with better crack spread than VLSFO
  - **Rising supply** from higher refinery utilization rate

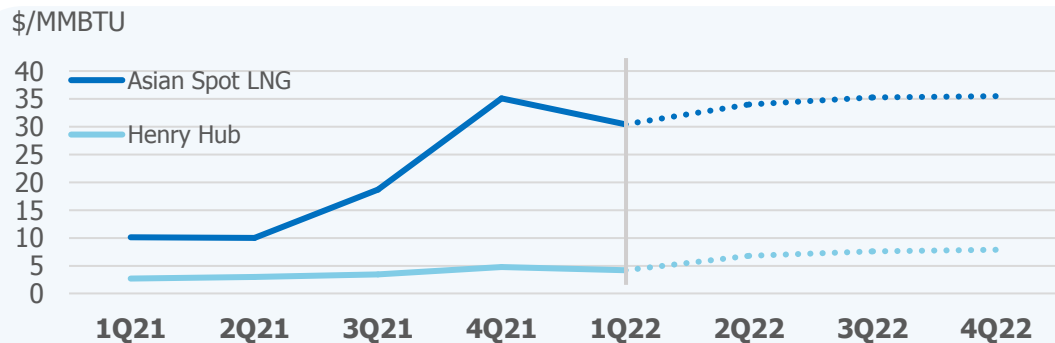
### ▲ Singapore GRM

- + **Improve** following the strong gasoline and middle distillates crack spreads

### ▲ Gas/LNG

- Asian Spot LNG:**
  - + **Geopolitical tensions** between Russia and Ukraine
  - + **European imported more LNG** in 2022 to substitute for gas imports from Russia
  - + **Russian LNG Supply projects delayed**
  - **COVID-19 outbreak and Lockdown in China**
- Henry Hub:**
  - + **Low U.S. Storage Level**
  - **U.S. gas production expected to increase** from gas support for accelerating investment

## Gas/LNG

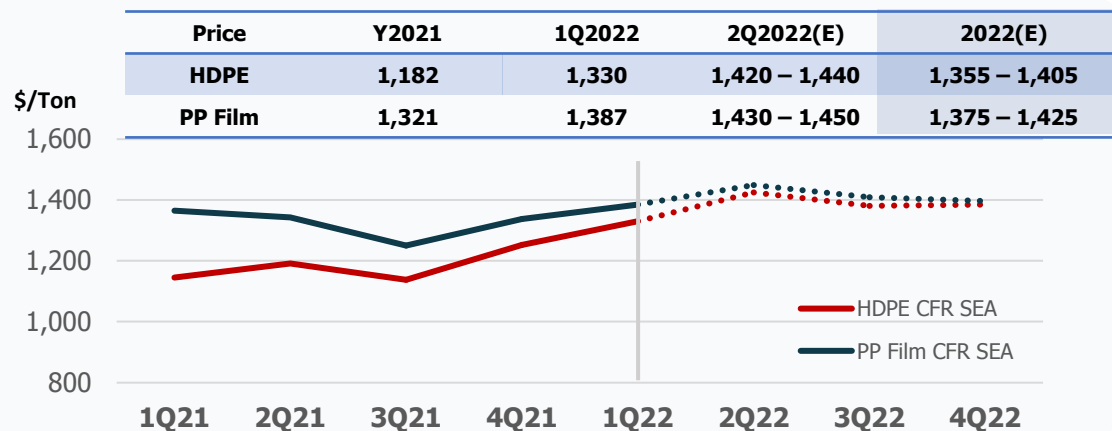


Price	Y2021	1Q2022	2Q2022(E)	2022(E)
Asian Spot LNG	18.5	31.2	34.0	33.8
Henry Hub (HH)	3.7	4.6	6.8	6.6

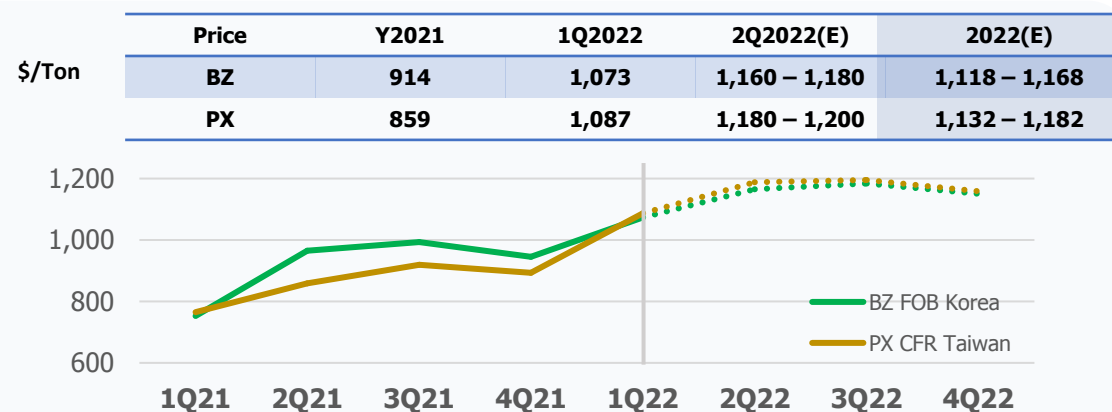
Source: EA (Apr. 22)

# 2022 Petrochemical Outlook

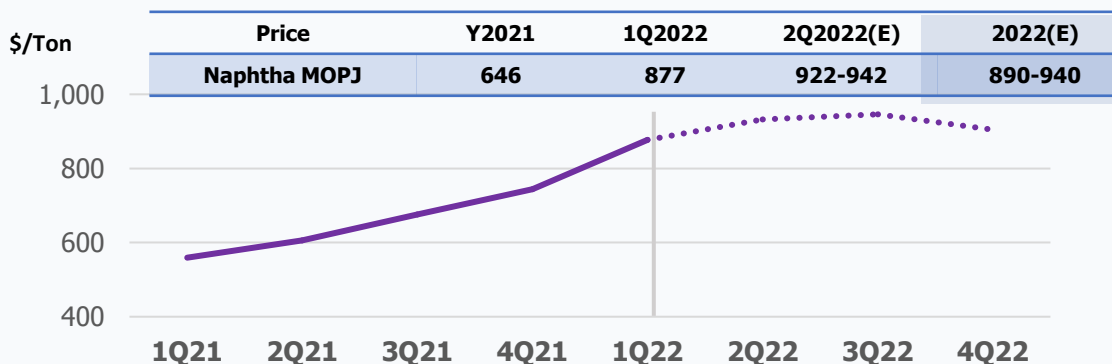
## Olefins



## Aromatics



## Naphtha



## Olefins

- + **Strong feedstock cost to support prices** amid ongoing geopolitical tension between Russia-Ukraine
- + **Tighten Asian supply** from production cuts according to squeezed margins at standalone units and seasonal turnarounds in 2Q22
- + **Expected downstream demand recovery** from easing lockdowns across major cities in China within late 2Q22
- **Competitively-priced Chinese cargoes** to dampen SEA sentiment
- **Incoming additional Asian capacities** from SEA and NEA, especially China, throughout 2022

## Aromatics

- + **Strong feedstock cost to support prices and Lower Asian supply** as mentioned
- + **Expected SM/PTA downstream demand recovery** from easing lockdowns as mentioned
- + **Opened benzene Asia-US arbitrage opportunities** and **Low Chinese inventories** to boost up sentiment
- **Elevated Chinese PX inventories** and **uneconomical downstream PTA margins** pressure on markets
- **Incoming additional Asian capacities** as mentioned

## Naphtha

- + **Expected petrochemical demand recovery** due to lower cracker maintenance and easing lockdowns
- + **Improved naphtha blending demand** ahead of the US driving season in 3Q22
- + **Additional demand from petrochemical plants** expected to start throughout 2022



## Business outlook 2022

## Upcoming project in 2022

### Upstream

↑ **E&P:** + Vol. ~12%  
↔ Unit cost

🔥 **GAS:**

↓ Domestic gas demand slightly decline and higher gas cost

↓ GSP's U-Rate 80 -85% in 2022

### Downstream

↑ **Oil:** Resuming domestic demand

↑ **P&R:**

Refinery:

- + Improving Singapore GRM
- Lower PTT Group U-Rate ~91-95%

Petchem:

- + Better petrochemical prices
- More capacities addition

↓ **Power:**

- Higher feed cost
- + Recovering domestic electricity consumption

### Future Energy & Beyond

↑ **Future Energy:**  
+ Expansion of EV charger

(Arun plus +1,350 units & OR +200 inside PTT stations, +150 outside PTT stations )

↑ **Beyond:**  
**Lotus:** starting to recognize NI contribution in 2Q2022



**5th Pipeline COD**

Phase I  
Mar'22  
99.6%

Phase II  
Oct'22  
91.0%

Phase III  
Dec'22  
39.8%



**LNG Terminal#2**  
97.8%

Fully COD Dec'22

1st phase : mid year 2.5 MTA

**FID - EV Platform(JV with Foxconn)**  
in April'22



**Non-Woven Fabric products: ~ 5.6 KTA**  
in 2Q22



**High-quality Circular Plastic Resin Plant: 45 KTA**  
in 2Q22



**Avaada Solar Power Platform in India : 4,608 MW**  
GPSC hold 42.9% (2,413 MW in operating / 2,195 MW in progress) COD: 4Q2021-2023

## Maintenance schedule in 2022

### Gas Separation Plants

2Q: ESP Major SD & GSP#2&3 TD : 23 days  
3Q: GSP#4 Major SD :20 days  
4Q: GSP#5 SD : 15 days

### Petrochemical & Refinery Plants

2Q: Ole 3 & ARO I Major TA : ~1 month  
4Q: Ole 2/2 & HDPE Major TA : ~1 month  
Refinery Plant Major TA : 50 days  
4Q: Refinery Plant Major TA : ~1 month



# Thank you



## PTT Public Company Limited Investor Relations Department

### Questionnaire



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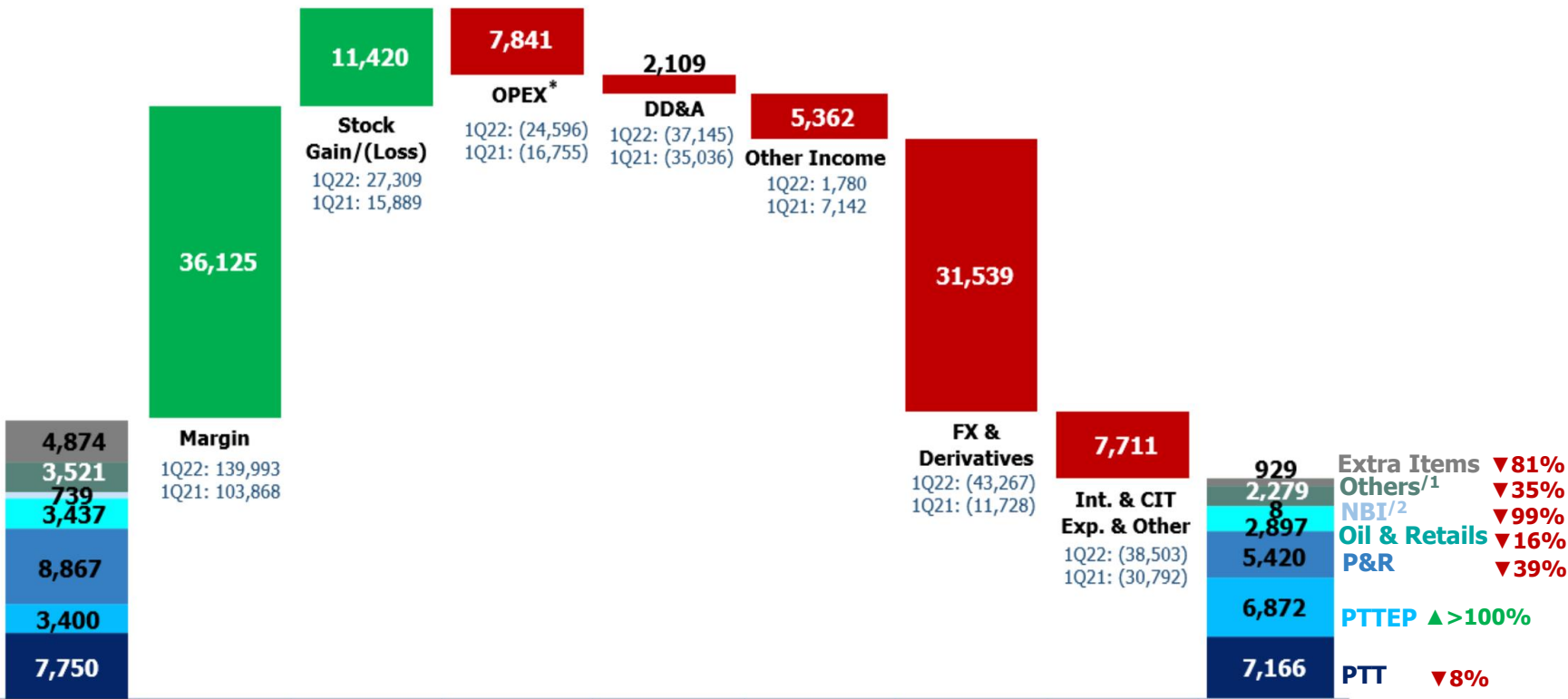
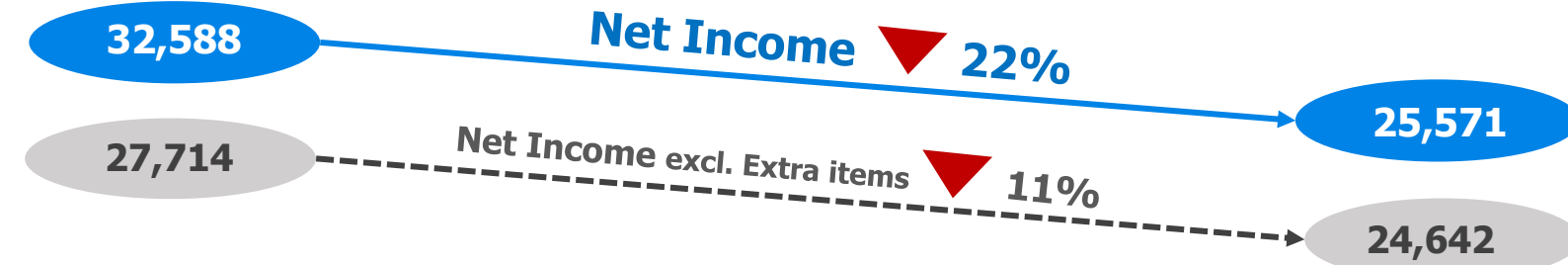
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# 1Q22 vs 1Q21 PTT Consolidated Performance (YoY):

Lower NI from higher loss on derivative despite better margin and stock gain

MMTHB



1Q21

1Q22

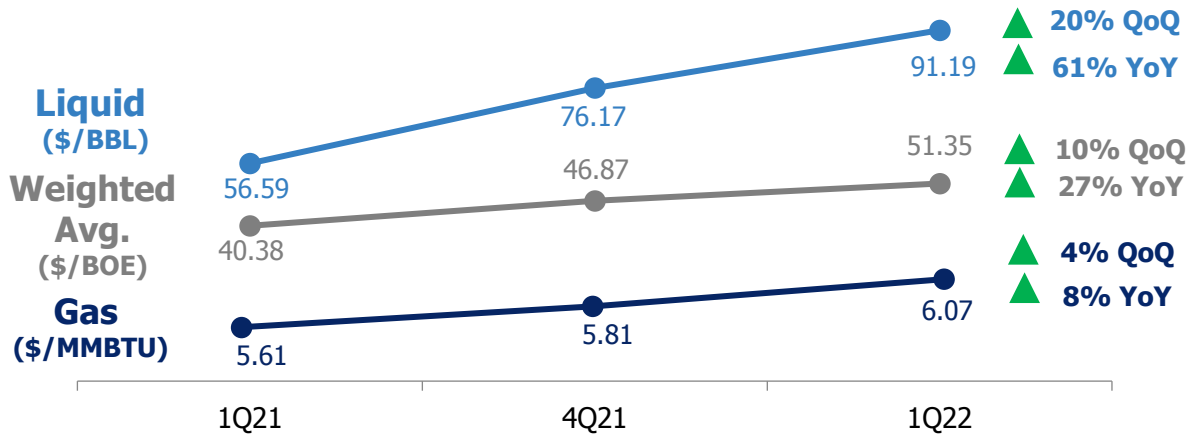
**Remark:**  
 \* Included impairment  
 1/ Others business mainly contributed from PTT LNG, PTT NGD, PTTT and PTTGM etc.  
 2/ New Business and Infrastructure mainly contributed from power business

- Extra Items\*** (\*PTT's portion net tax amount)
- 1Q22 :** PTT's discounted benefit from production shortfall ~+700 MB and GPSC's gain on Ichinoseki Solar Power 1 GK divestment ~+350 MB
- 1Q21 :** EP's gain on bargain purchase of Oman Block 61 ~+7,000 MB offset with write-off assets in Brazil ~-2,900 MB
- Others**
- ▼ **Coal:** Higher hedging loss from escalated Newcastle price and lower sales vol. despite avg. selling prices improved
  - ▼ **NBI** (mainly from power)
    - Lower profit margin of electricity sales to industrial customers as natural gas and coal costs significantly increased
  - ▼ **Oil & Retail**
    - Lower oil margin; especially diesel from a cap on retail price
    - + Higher oil sales volume from easing of lockdown measures
    - + Non-oil: better sales vol. due to the recovery of economic activities and stores expansion
  - ▼ **Petrochemical & Refining**
    - Higher derivative loss despite improved operating profit
  - ▲ **Refinery**
    - + Higher Acc. GRM from higher stock gain and product spreads
  - ▼ **Petrochemical**
    - Olefins & Aromatics: Lower product spreads
  - ▲ **PTTEP**
    - + Higher avg. selling prices from liquid price increased
    - + Higher avg. sales vol. from Oman Block 61 acquisition, Malaysia Block H, and Arthit projects.
  - ▼ **PTT**
  - ▼ **Gas**
    - **S&M:** Higher pooled gas cost and lower overall gas sales vol. due to lower gas supply
    - + **GSP:** Higher selling prices despite lower sales volume due to lower gas supply and higher feed gas cost
  - ▲ **Trading**
    - + Higher sales volume
    - Decreased margin from MTM loss despite higher domestic condensate margin

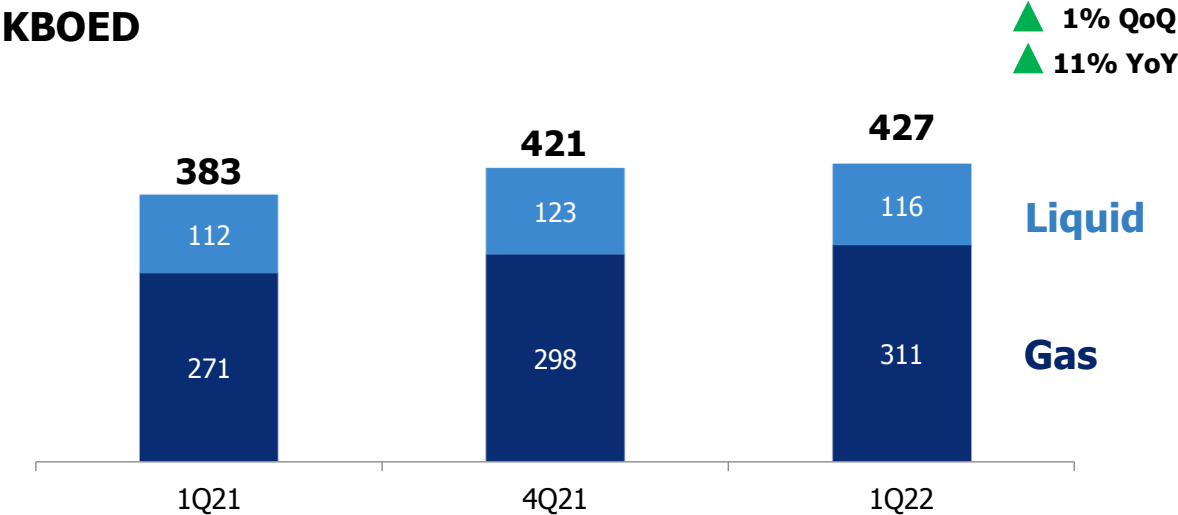
# E&P Performance

QoQ & YoY: Soften Net income mainly from higher oil price hedging losses despite improved operating performance

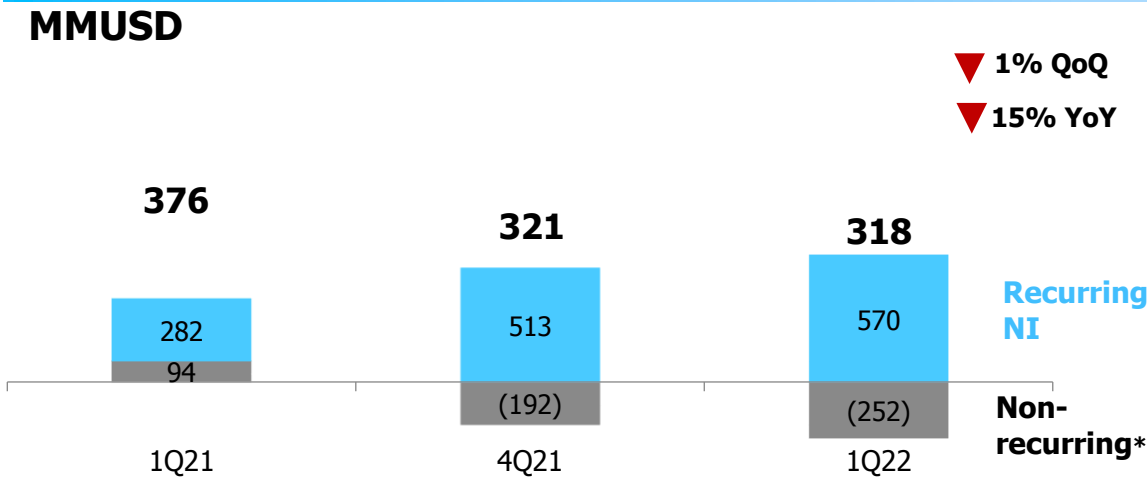
## Product Prices



## Sales Volume



## Net Income (100%)



### QoQ ▼

- + Normal operation: increased due to higher selling prices & sales volume and lower unit cost
- Non-operating items: primarily from higher oil price hedging losses

### YoY ▼

- + Normal operation: significantly enhanced from higher selling prices & sales volume with lower unit cost
- Non-operating items: mainly from higher loss on oil price hedging and no recognition of gain on a bargain purchase of Oman Block 61

\* Includes Gain/(Loss) on FX, Deferred tax from Functional currency, Current Tax from FX Revaluation, Gain/(Loss) from Financial Instruments, Impairment loss on assets and etc.

# Gas Business

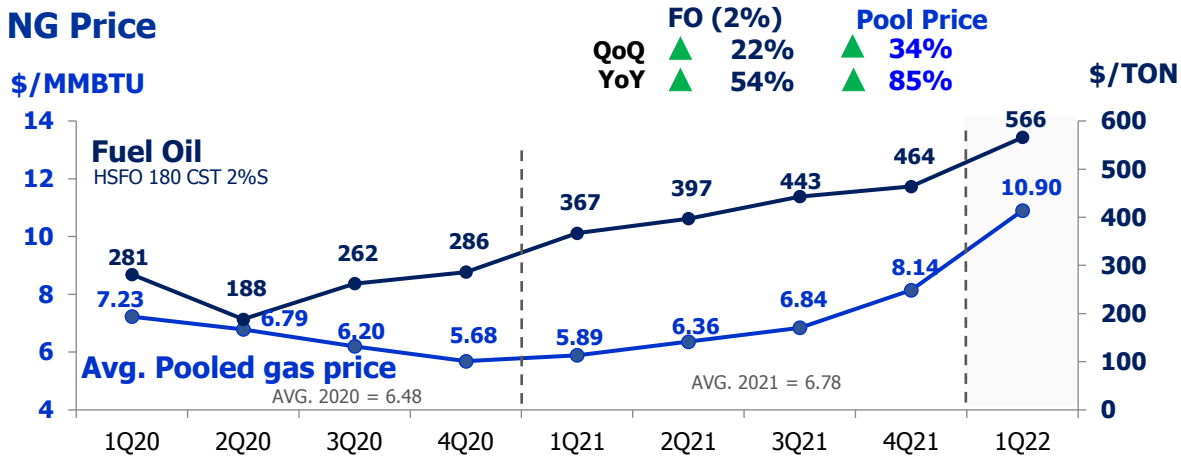
QoQ : Gas pool price surged from LNG import while overall gas volume improved

YoY : Higher pool price and lower gas sales vol.

## NG Price VS FO & Customer Breakdown

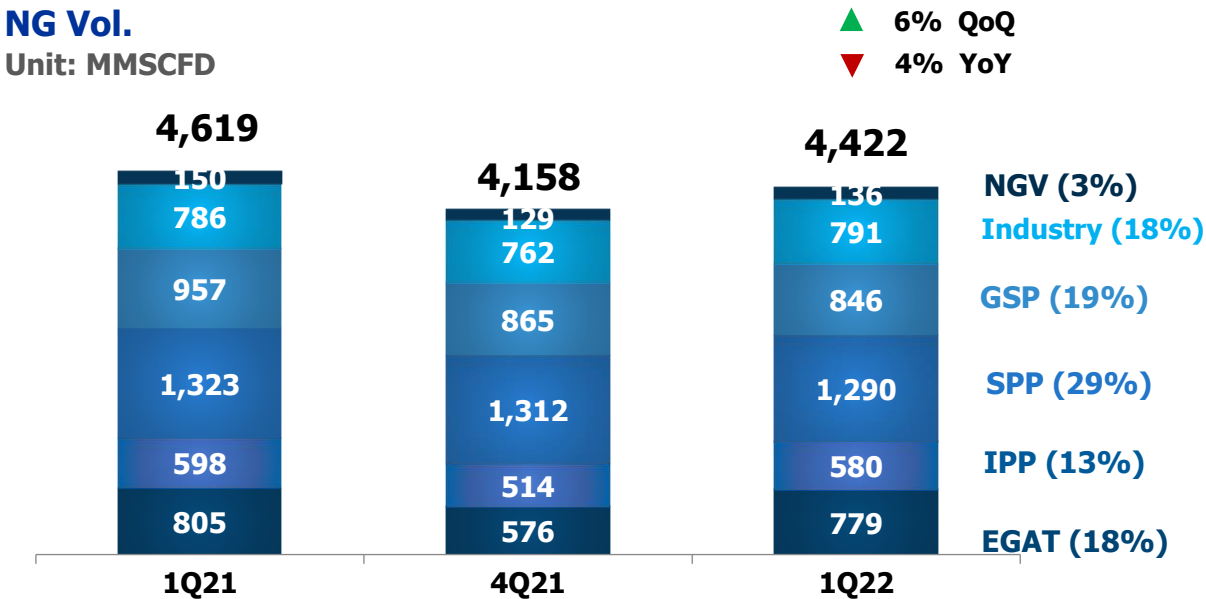
### NG Price

\$/MMBTU



### NG Vol.

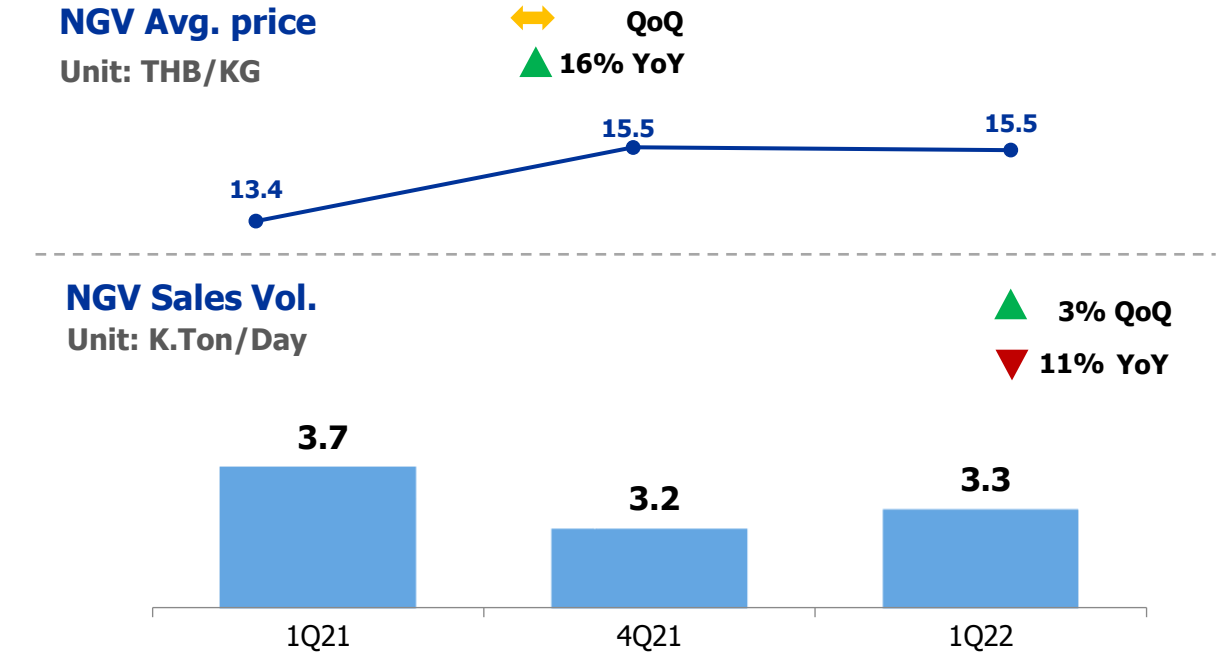
Unit: MMSCFD



## NGV Price & Sales Volume

### NGV Avg. price

Unit: THB/KG



## Key Highlights

### QoQ ▼

- Avg. pooled gas price surged from higher vol. of imported LNG during high price and increased Myanmar and gulf gas prices
- + Increased overall NG sales volume mainly from power producers due to lower hydro import
- + Industrial selling prices linked to FO increased following oil price

### YoY ▼

- Avg. pooled gas price significantly increased
- NG sales vol. dropped due to lower gas supply from the gulf gas field during the end of concession
- Higher NGV's loss as the selling price is capped while the gas cost increased

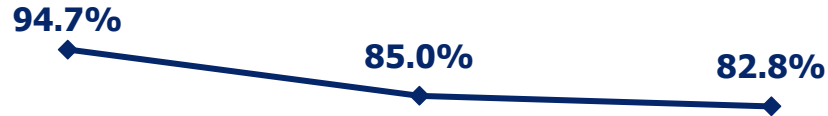
# Gas Business : Gas Separation Plant (GSP)

QoQ : Outperformed GSP performance due to higher average selling prices and higher sales volume

YoY : GSP performance enhanced from higher selling prices despite lower U-Rate

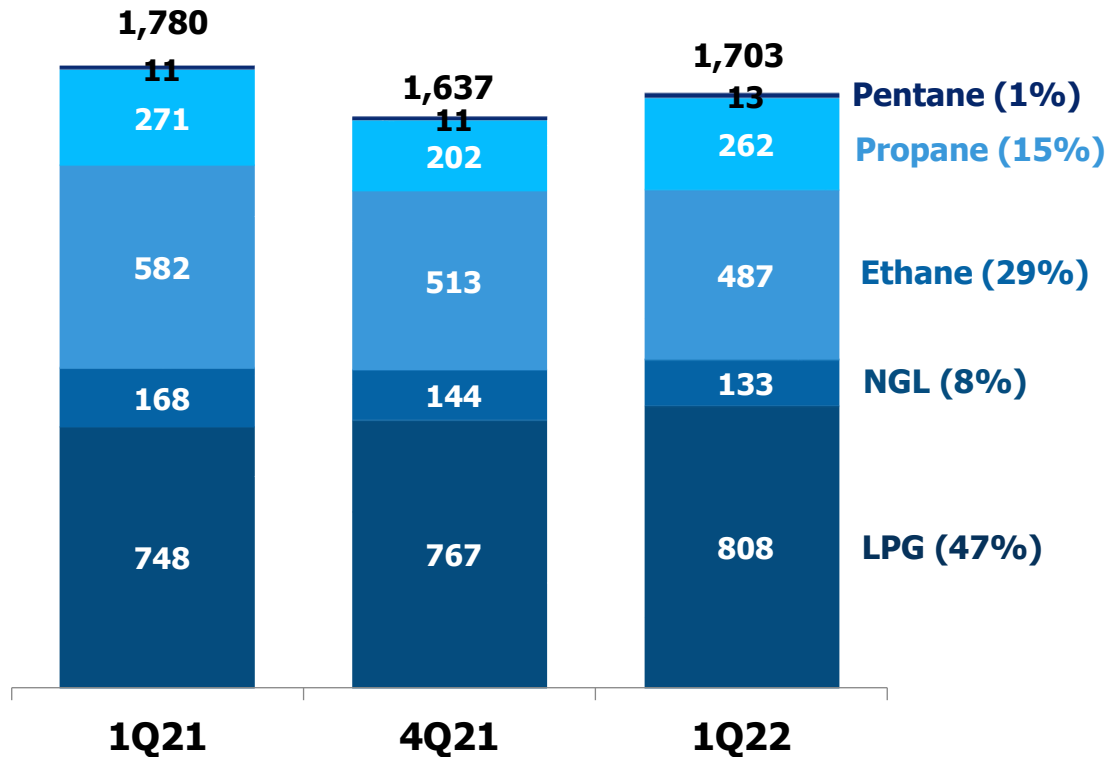
## GSP Sales Vol. & U-Rate

U-Rate



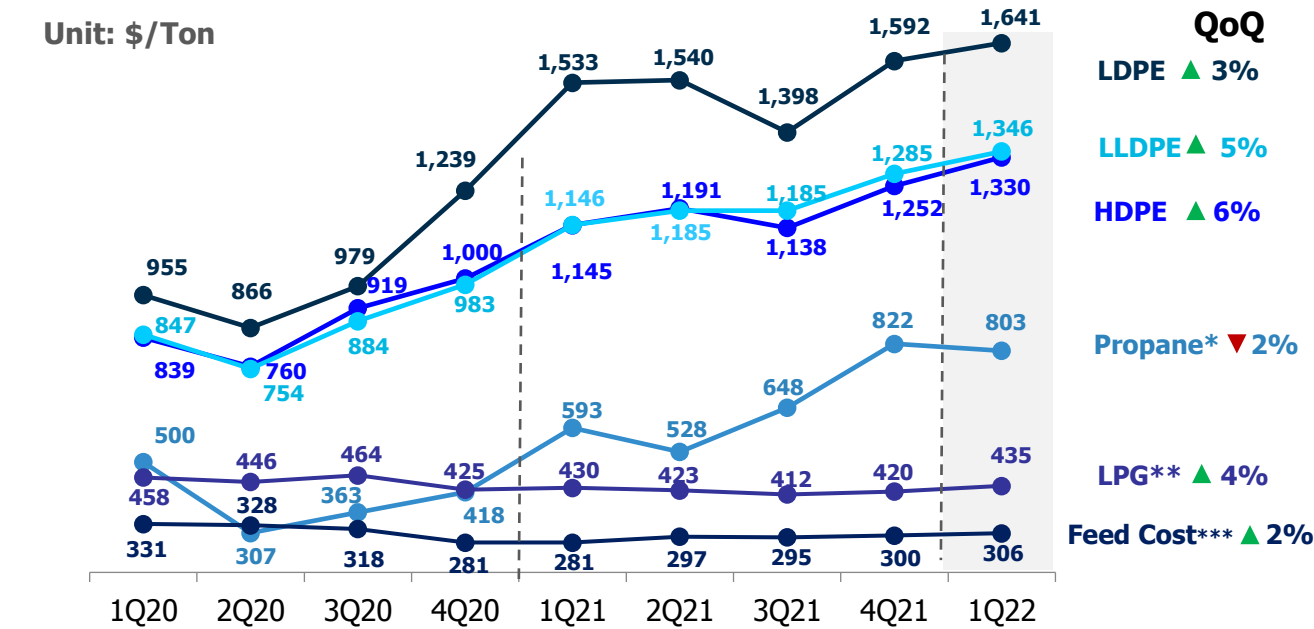
Unit : kTon

▲ 4% QoQ  
▼ 4% YoY



## GSP Feed Cost vs Petchem. Prices

Unit: \$/Ton



\* LPG price selling to Petro customers close to propane \*\*LPG Domestic \*\*\*feed cost calculation per GSP production volume

## Key Highlights

QoQ ▲

- + Higher average GSP's selling prices following referenced global petrochemical prices
- + Increased sales volume due to higher demand from petrochemical customers
- Feed cost slightly increased

YoY ▲

- + Increased GSP's selling prices following global petrochemical prices
- Lower sales volume according to lower gulf gas supply
- Higher feed gas cost

# Trading Business:

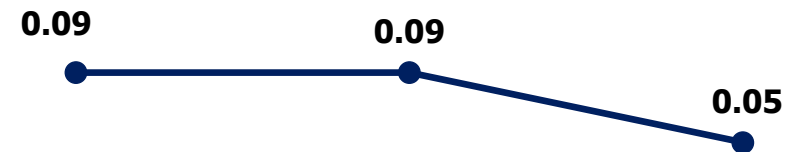
QoQ: Soften EBITDA due to lower gross margin despite increased sales volume

YoY: Enhanced EBITDA due to improved sales volume and domestic condensate margin

## Gross Margin<sup>1</sup>

Unit: THB/Liter

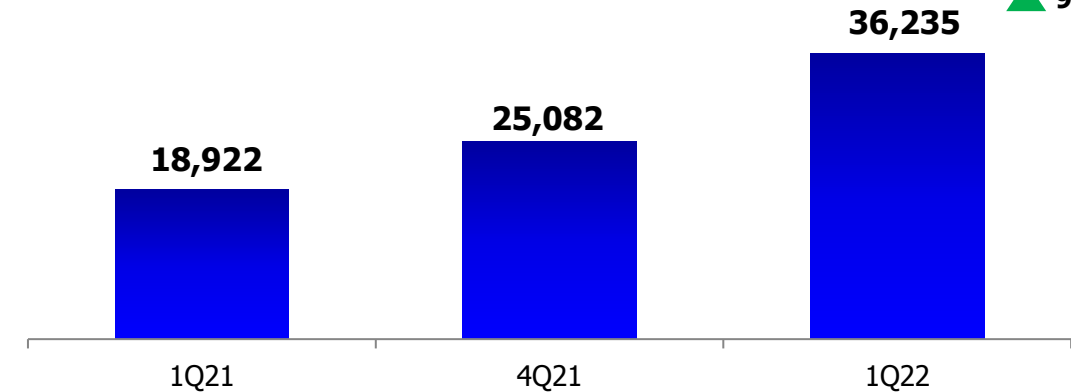
▼ 44% QoQ  
▼ 44% YoY



## Sales Volume<sup>2</sup>

Unit: MM Liter

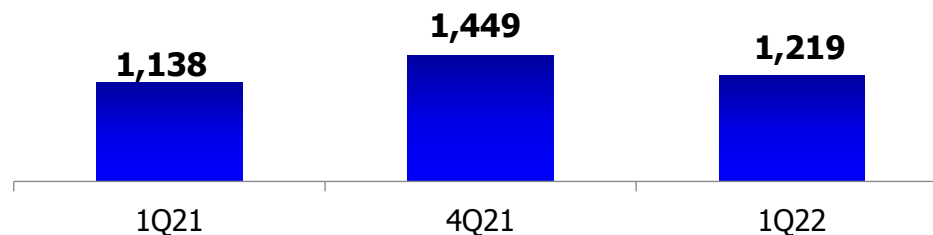
▲ 44% QoQ  
▲ 91% YoY



## Trading – EBITDA<sup>3</sup>

Unit: MMTHB

▼ 16% QoQ  
▲ 7% YoY



## Key Highlights

### QoQ ▼

- Margin decreased due to significantly loss from mark to market in 1Q22 following upward oil price trend
- + Increased sales vol. from higher crude as well as LNG import to fulfill lower gulf gas supply
- EBITDA dropped following lower gross margin

### YoY ▲

- + Volume increased due to demand recovery from the easing of lockdown
- Lower gross margin mainly from mark to market loss despite higher domestic condensate margin
- + EBITDA improved from higher sales volume as well as contribution profit from PTTTUSA first trade in 3Q21

<sup>1</sup> PTT Trading BU + trading subsidiaries: FX Adjusted + gain/loss on derivatives + Joint Trade Agreement (JTA)

<sup>2</sup> PTT Trading BU + trading subsidiaries + JTA

<sup>3</sup> PTT Trading BU + trading subsidiaries: FX Adjusted + gain/loss on derivatives

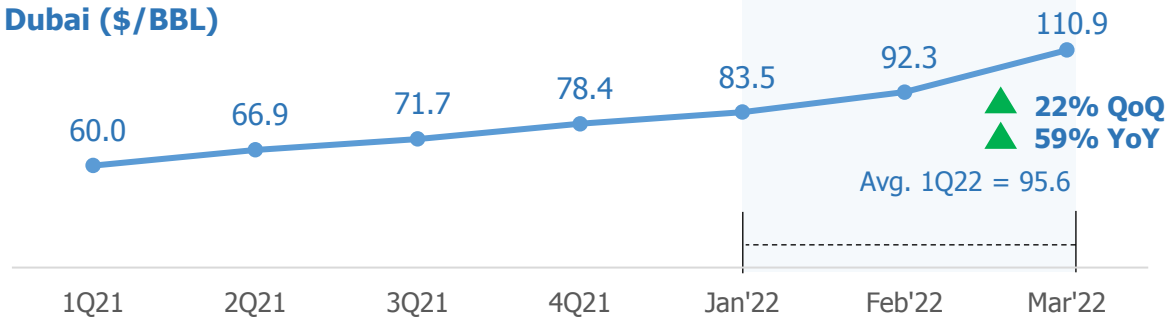
# Oil Business : OR Group

**QoQ** : Better performance from Oil as rising sales volume and oil margin, Non-oil is also better due to an efficient cost management

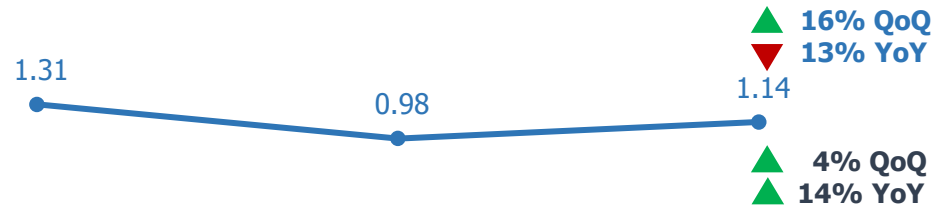
**YoY** : Softer Oil performance from squeeze oil margin despite improved sales volume both Oil and Non-oil as economic recovery

## Oil Business

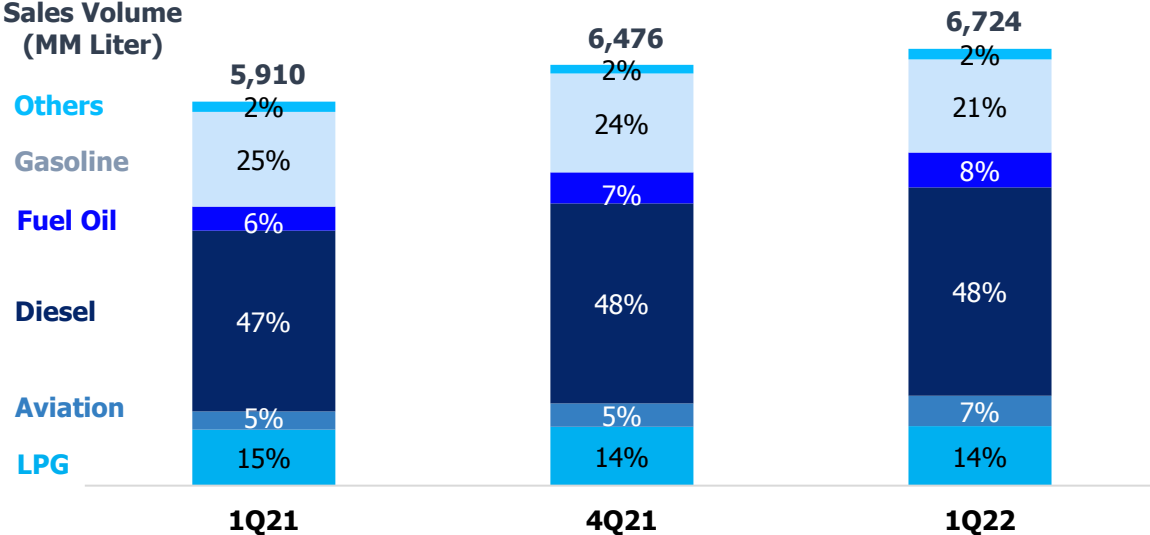
Dubai (\$/BBL)



Margin\* (THB/Litre)



Sales Volume (MM Liter)



\*Gross margin included stock gain/(loss)

## Non-oil Business

Amazon<sup>1/</sup>



	1Q21	4Q21	1Q22
Cups	73 MM Cups	87 MM Cups	83 MM Cups
Outlets	3,357 Outlets	3,628 Outlets	3,685 Outlets

Cups  
▼ 5% QoQ  
▲ 14% YoY

C-Store (7-11, Jiffy)<sup>2/</sup>



	1Q21	4Q21	1Q22
Outlets	1,995 Outlets	2,075 Outlets	2,081 Outlets

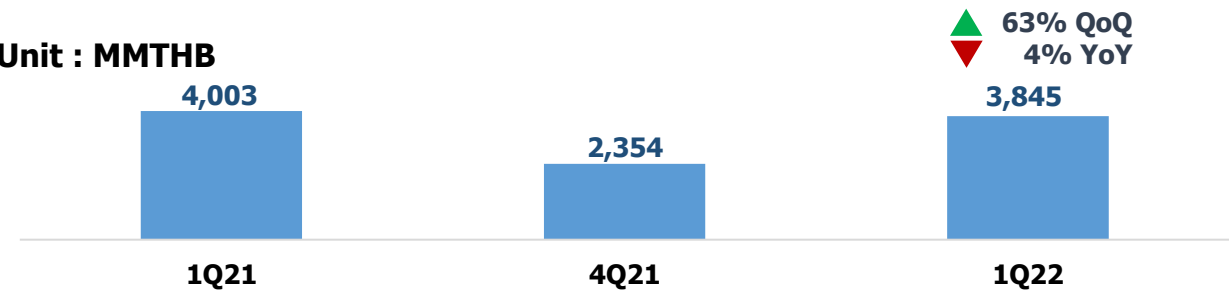
C-Store  
↔ QoQ  
▲ 4% YoY

<sup>1/</sup> Thailand, Japan, Oman, Myanmar, and Malaysia

<sup>2/</sup> Thailand

## Net Income

Unit : MMTHB



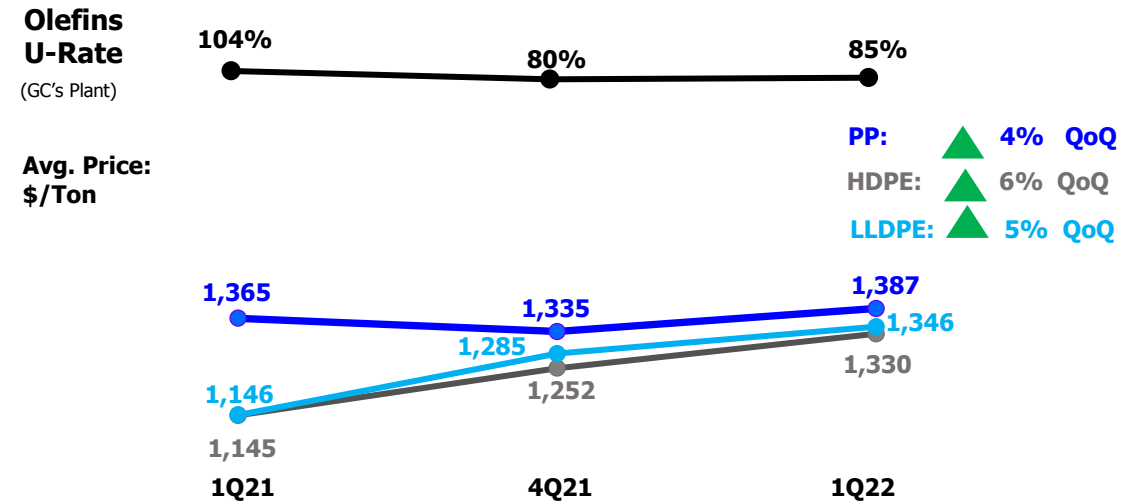
**QoQ** : ▲ Oil - Rising sales volume due to easing lockdown measure, together with wider oil margin  
▲ Non-Oil - More efficient cost management despite lower sales volume

**YoY** : ▼ Oil - Lower margin while sales volume increased from diesel, aviation, and fuel oil  
▲ Non-Oil - Better sales volume due to the recovery of economic activities and stores expansion

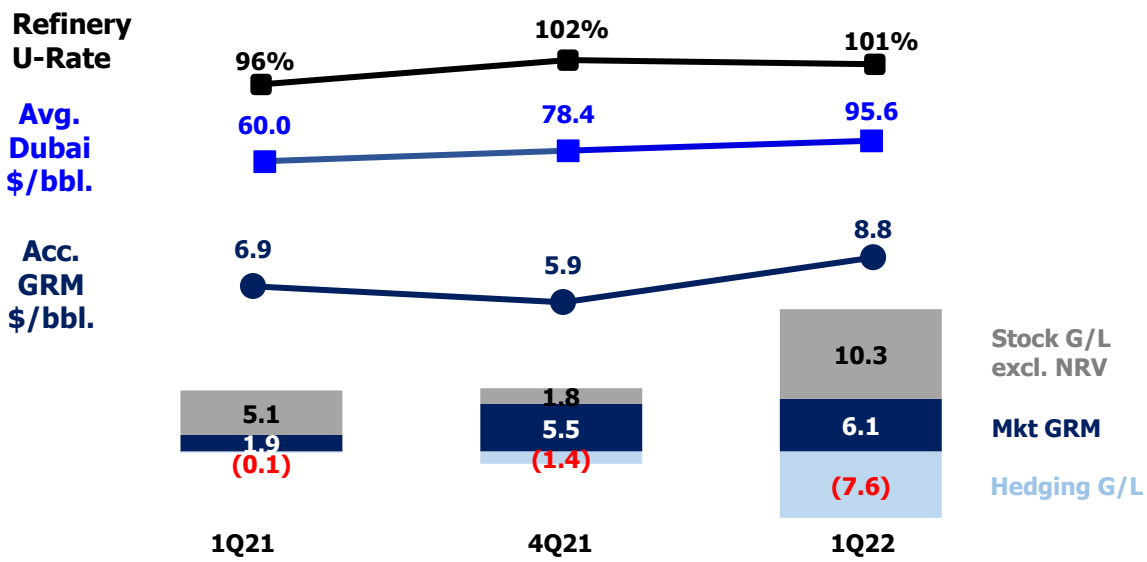
# P&R Businesses

**QoQ: Better performance primarily from refinery business with higher Mkt GRM and stock gain**  
**YoY: Soften performance from oil price hedging and lower petrochemical spread**

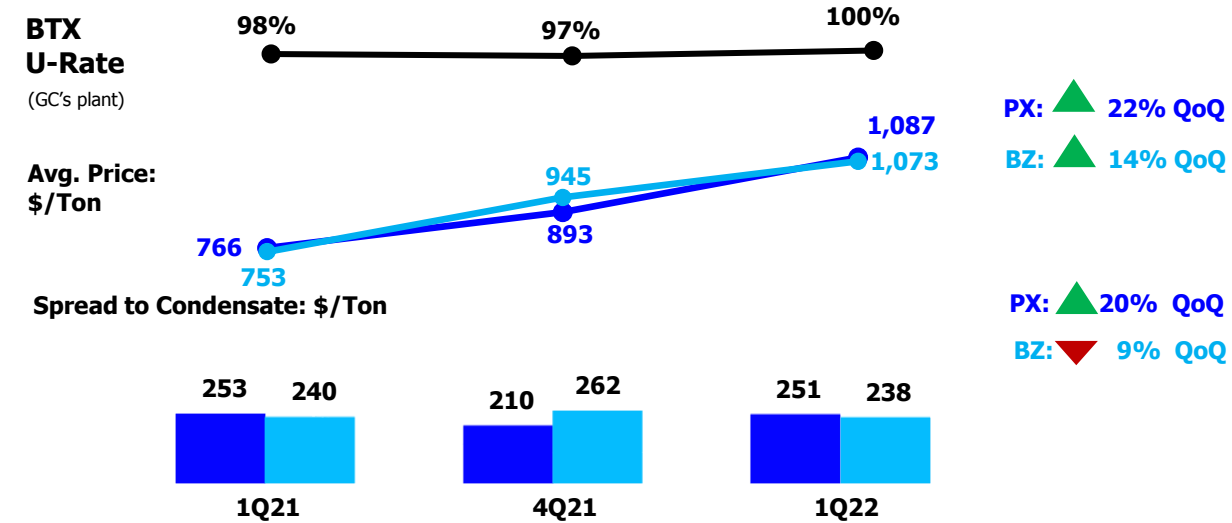
## Olefins



## Refinery

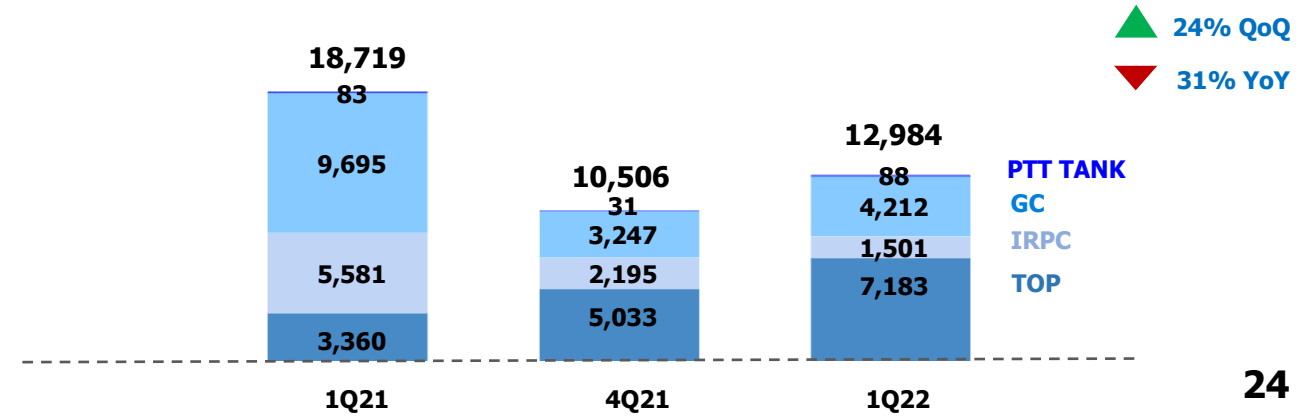


## Aromatics



## Net Income (100%)

Unit : MMTHB

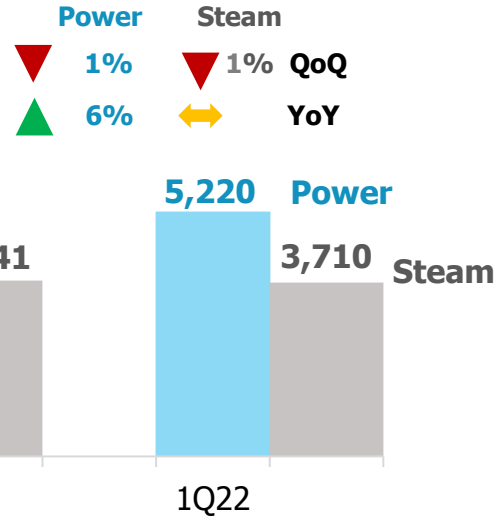


# NBI: Power - GPSC

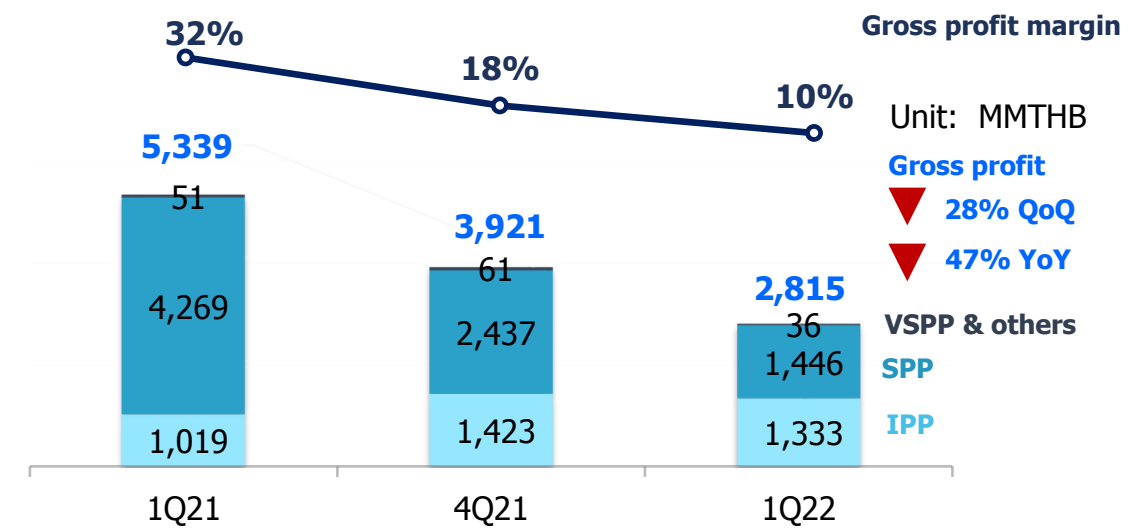
QoQ & YoY NI dropped significantly due to lower SPP's gross profit resulted from higher feed costs despite gain from ISP1 divestment

## Sales Volume

Unit: Power: GWh / Steam: '000 Ton

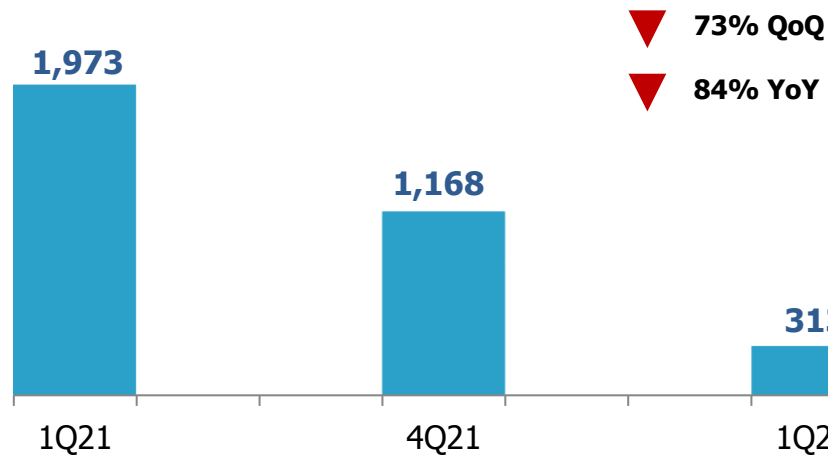


## Gross profit & Gross profit margin



## Net Income

Unit: MMTHB



### QoQ ▼

- Lower gross profit
  - SPP : Higher NG & coal costs and lower electricity sales volume
  - IPP : Lower AP mainly from GHECO-One's unplanned outage in 1Q22
- + Gain from selling all shares in Ichinoseki Solar Power 1 GK (ISP1) in 1Q22

### YoY ▼

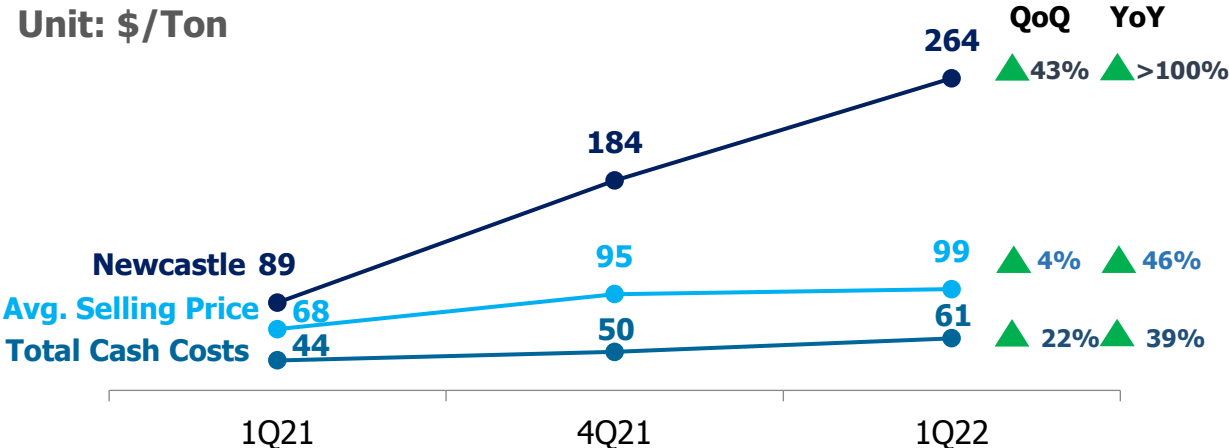
- Lower gross profit
  - SPP : Higher NG & coal costs and lower electricity sales volume
  - + IPP : Higher EP of Sriracha and GHECO-One Power Plants from higher electricity dispatch to EGAT
- + Gain from selling all shares in Ichinoseki Solar Power 1 GK (ISP1) in 1Q22

# Other Business : Coal business (SAR)

QoQ & YoY: NI dropped due to lower sales volume from export banned and hedging loss

## Avg. Selling Price<sup>1/</sup> & Cash cost<sup>1/</sup>

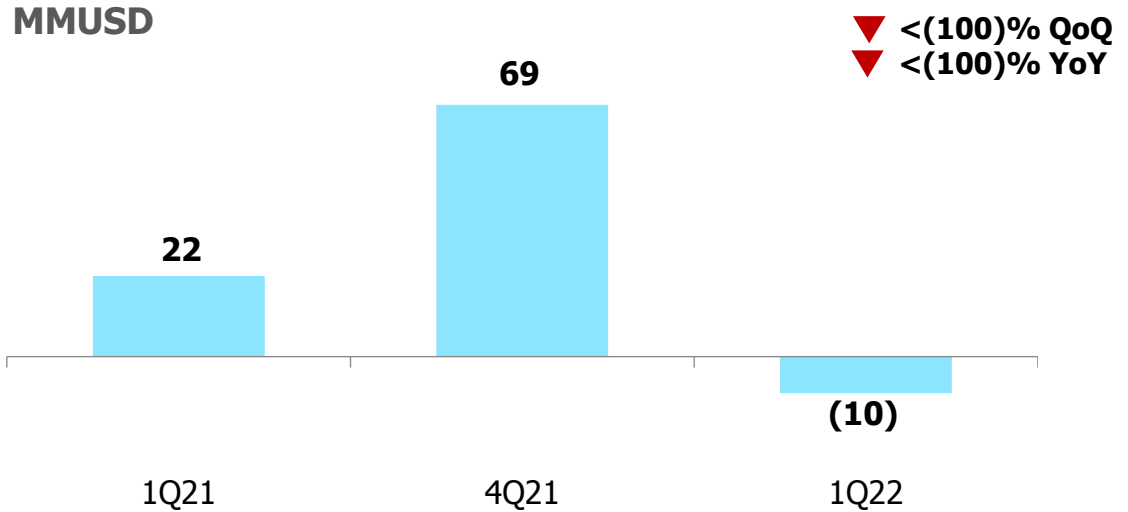
Unit: \$/Ton



<sup>1/</sup> Average Calorific value ~ 5,400 kcal/kg

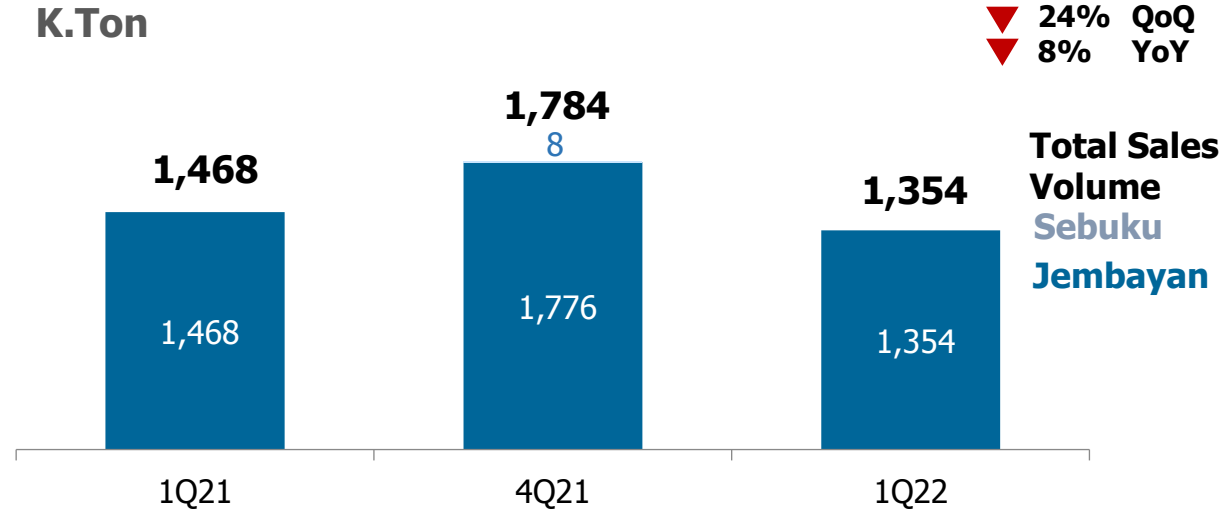
## Net Income (100%)

Unit: MMUSD



## Sales Volume

K.Ton



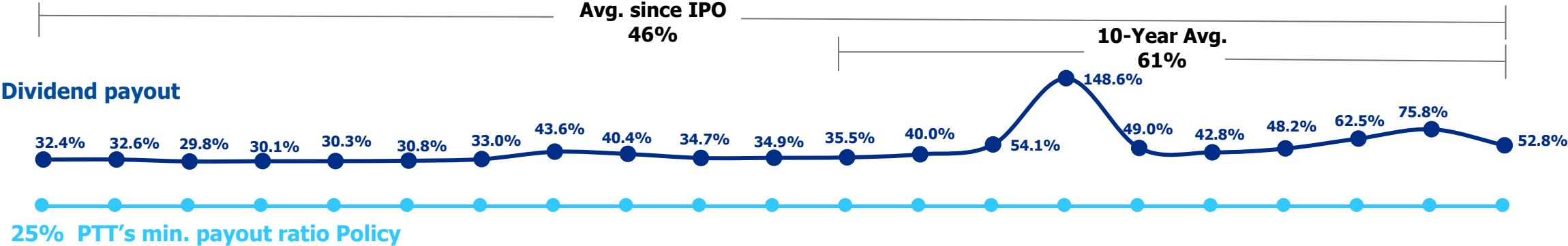
## Key Highlights

- QoQ ▼**
- Higher coal hedging loss following rising Newcastle price
  - Sales volume largely dropped from lower production plan and export banned from government in Jan'22 and postponed shipment to 2Q22
  - + Avg. selling prices increased due to escalated Newcastle price despite capped price for domestic sales
- YoY ▼**
- Higher coal hedging loss following rising Newcastle coal price
  - Sales volume dropped from export banned and postponed shipment as mentioned
  - + Avg. selling prices largely improved following referenced Newcastle price

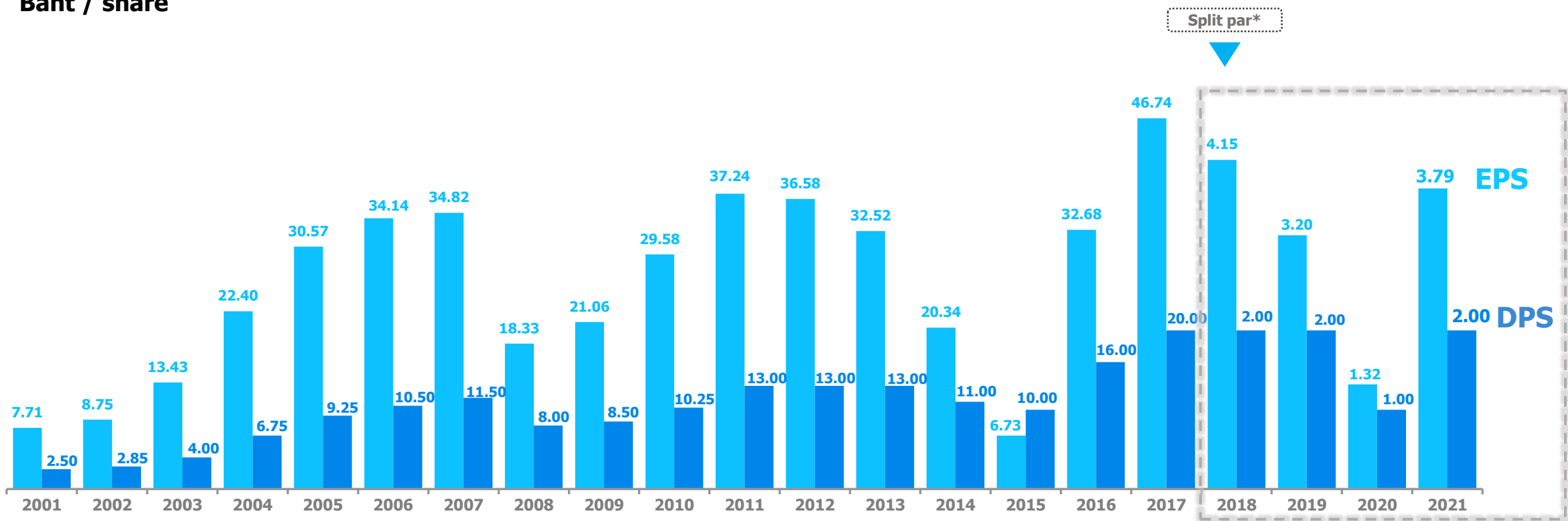
# Dividend Policy & Historical Payments



## 2021 Dividend payout at 52.8%

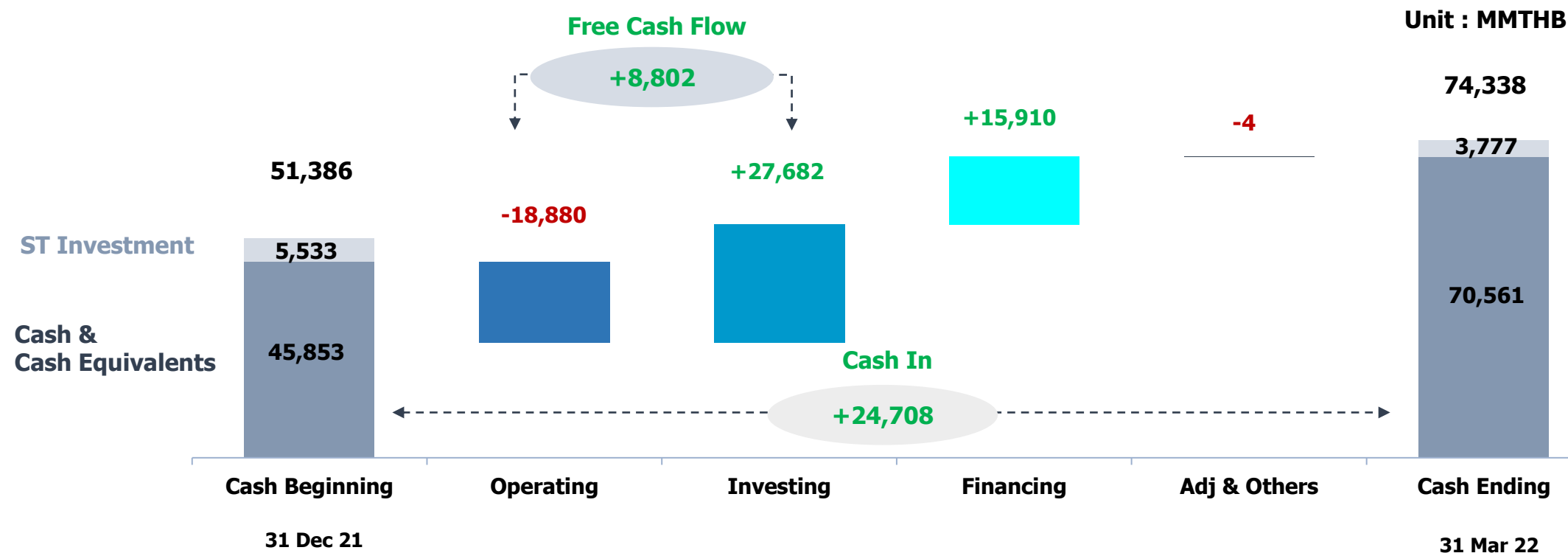


### Baht / share



\* Split par value from 10 to 1 Baht/share since 24 April 2018

# PTT Only Cash Flows



Operating	(18,880)
Changes in assets & liabilities	(37,092)
Income Tax	(397)
Net Income	15,547
Non-Cash Adjustment	3,062

Investing	27,682
Proceeds from lending	38,055
Current investment	2,998
Dividend/Interest Received	748
Others	157
Investment (Sub. &Affiliates)	(11,770)
CAPEX (PP&E, Intangible asset)	(2,506)

Financing	15,910
Received from loans/Bonds	22,290
Loan Repayment	(4,143)
Finance cost paid	(2,236)
Dividend paid	(1)

# PTT Group Performance : 1Q2022 (QoQ & YoY)



Unit : MMTHB	Performance 100%					% PTT holding	Equity Method % PTT				
	1Q21	4Q21	1Q22	QoQ	YoY		1Q21	4Q21	1Q22	QoQ	YoY
PTT Net Operating Income	8,498	7,683	7,743	1%	-9%		8,498	7,683	7,743	1%	-9%
<b>E&amp;P</b> - PTTEP	11,534	10,646	10,519	-1%	-9%	65.29%	7,524	6,950	6,872	-1%	-9%
<b>Petrochemical</b>	9,778	3,278	4,300	31%	-56%		4,675	1,064	2,055	93%	-56%
- GC	9,695	3,247	4,212	30%	-57%	48.18%	4,592	1,033	1,967	90%	-57%
- Other	83	31	88	>100%	6%		83	31	88	>100%	6%
<b>Refining</b>	8,941	7,228	8,684	20%	-3%		4,192	4,070	3,453	-15%	-18%
- TOP	3,360	5,033	7,183	43%	>100%	48.03%	1,615	3,000	2,799	-7%	73%
- IRPC	5,581	2,195	1,501	-32%	-73%	48.05%	2,577	1,070	654	-39%	-75%
<b>Oil</b> - OR	4,003	2,353	3,845	63%	-4%	75.00%	3,439	1,699	2,898	71%	-16%
<b>NBI</b> - GPSC/TP/DCAP/PTTES/PTTDIGITAL/ENCO	17,036	1,534	641	-58%	-96%		739	645	260	-60%	-65%
<b>Others Business</b>	3,485	5,705	3,696	-35%	6%		3,221	5,423	2,290	-58%	-29%
<b>Inter</b> - PTTER/PTTGM	531	3,298	738	-78%	39%	100.00%	493	3,348	(377)	<-100%	<-100%
<b>Gas</b> - PTTLNG/PTTNGD/PTTGL/TTM(T)/TTM(M)	2,255	2,316	2,150	-7%	-5%		2,029	1,971	1,857	-6%	-8%
<b>Other</b> - PTTT/Others <sup>1/</sup>	699	91	808	>100%	16%		699	104	810	>100%	16%
Shared of Net Income from Affiliates	54,777	30,744	31,685	3%	-42%		23,790	19,851	17,828	-10%	-25%
Tax Adjustment for Gain on Disposal of Investment and Asset	300	10	-	-100%	-100%		300	10	-	-100%	-100%
PTT Consolidated Net Income	63,575	38,437	39,428	3%	-38%		32,588	27,544	25,571	-7%	-22%

1/Including PTTGE,BSA, and PTT TCC

# PTT Group Accounting Structure



Data as of 31 Mar 2022

E&P and Gas Business Group			International Trading Business Group			Petrochemicals & Refining Business Group		
<b>Subsidiaries</b> PTT Exploration & Production Plc. PTTEP 65.29% <sup>2/</sup> PTT Natural Gas Distribution Co., Ltd. PTTNGD 58.00% PTT LNG Co., Ltd. PTTLNG 100.00% PTT Global LNG Co., Ltd. PTTGL 50.00%			<b>Subsidiaries</b> PTT International Trading Pte. PTTT 100.00% PTT International Trading London Ltd PTTT LDN 100.00% PTT International Trading USA Inc. PTTT USA 100.00%			<b>Petrochemical Subsidiaries</b> PTT Global Chemical Plc. <sup>1/</sup> GC 48.18% <sup>2/</sup> PTT Tank Terminal Co., Ltd. PTTTANK 100.00%		
<b>Joint Ventures</b> Trans Thai-Malaysia (Thailand) Co., Ltd. TTM (T) 50.00% Trans Thai-Malaysia (Malaysia) Sdn. Bhd. TTM (M) 50.00% Map Ta Phut Air Products Company Limited MAP 49.00%			<b>Oil Business Group</b> <b>Subsidiaries</b> PTT Oil & Retail Business Co., Ltd. OR 75.00%			<b>Refining Subsidiaries</b> Thai Oil Plc. <sup>1/</sup> TOP 48.03% <sup>2/</sup> IRPC Plc. <sup>1/</sup> IRPC 48.05% <sup>2/</sup>		
New Business and Infrastructure Business Group			International Investment Business Group			Others		
<b>Subsidiaries</b> Global Power Synergy Plc. <sup>1/</sup> GPSC 75.23% <sup>2/</sup> PTT Digital Solutions Co., Ltd. <sup>1/</sup> PTT DIGITAL 20.00% PTT Energy Solutions Co., Ltd. <sup>1/</sup> PTTES 40.00% Energy Complex Co., Ltd. EnCo 50.00%			<b>Subsidiaries</b> PTT Energy Resources Co., Ltd. PTTER 100.00% PTT Green Energy Pte. Ltd. PTTGE 100.00% PTT Global Management Co., Ltd. PTTGM 100.00%			<b>Subsidiaries</b> Business Service Alliance Co., Ltd. <sup>1/</sup> BSA 25.00% <sup>3/</sup> PTT Treasury Center Co. Ltd. PTT TCC 100.00%		
<b>Joint Ventures</b> District Cooling System and Power Plant DCAP 35.00%			<b>Joint Ventures</b> Suez Environmental Services Co., Ltd. SES 40.00%			<b>Joint Ventures</b> Suez Environmental Services Co., Ltd. SES 40.00%		
<b>Others</b> Baania (Thailand) Company Ltd. Baania 2.73% HG Robotics Plc. HG Robotics 9.47% Innospace (Thailand) Innospace 13.61% Sunfolding, Inc. Sunfolding 5.59% Luminar Technologies, Inc. Luminar Technologies 0.07% Ample, Inc. AMPLE 1.13%			<b>Others</b> Sarn Palung Social Enterprise Company Ltd. SPSE 20.00% Dhipaya Group Holdings Pub Co., Ltd. TIPH 13.46%			<b>Others</b> Sarn Palung Social Enterprise Company Ltd. SPSE 20.00% Dhipaya Group Holdings Pub Co., Ltd. TIPH 13.46%		

Remark : <sup>1/</sup>Subsidiaries that PTT holds less than 50% but being consolidated because PTT has the power to control the financial and operating policies.  
<sup>2/</sup> Holding portion of PTT Group (direct & indirect)

<sup>3/</sup> PTT holds 100.00% of BSA's ordinary shares, PTT's ownership interest in BSA is 100%

# Debt Profile : Control Cost & Manage Risk



Managed debt according to financial risk and policy

## Debt Portfolio

Unit : MMTHB

PTT Only

: Cost of debts ~ 3.58%

: % fixed-rate ~ 70.79%

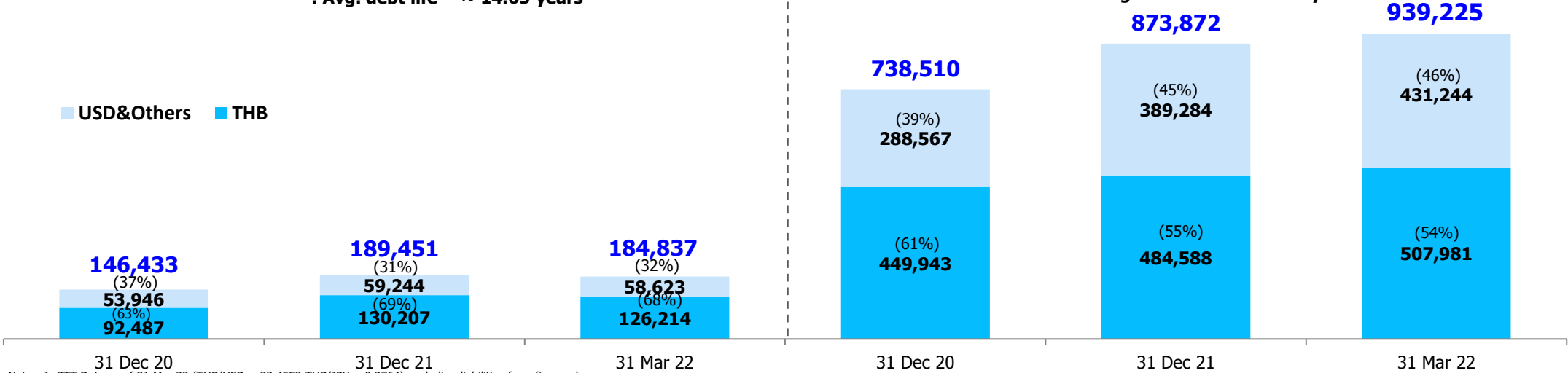
: Avg. debt life ~ 14.65 years

Consolidated

: Cost of debts ~ 3.28%

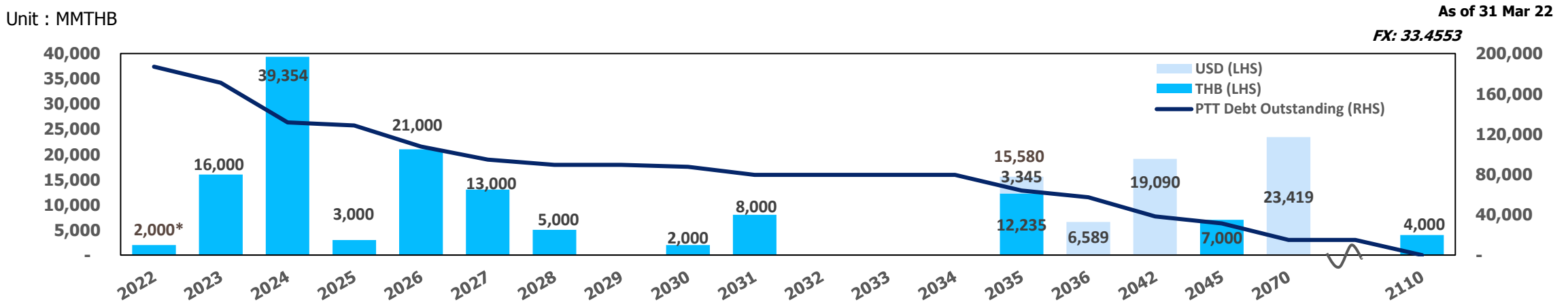
: % fixed-rate ~ 68.88%

: Avg. debt life ~ 10.56 years



Note : 1. PTT Data as of 31 Mar 22 (THB/USD = 33.4553 THB/JPY = 0.2764) excluding liabilities from finance leases.  
2. Debt Outstanding represents amount and portion before derivative swaps, and reconciled with accounting.  
3. Cost of debts, % fixed rate, and avg. debt life took into account the derivative transactions, including withholding tax (update as of 31 Mar 22).

## PTT Only : Debt Outstanding and Repayment Profile

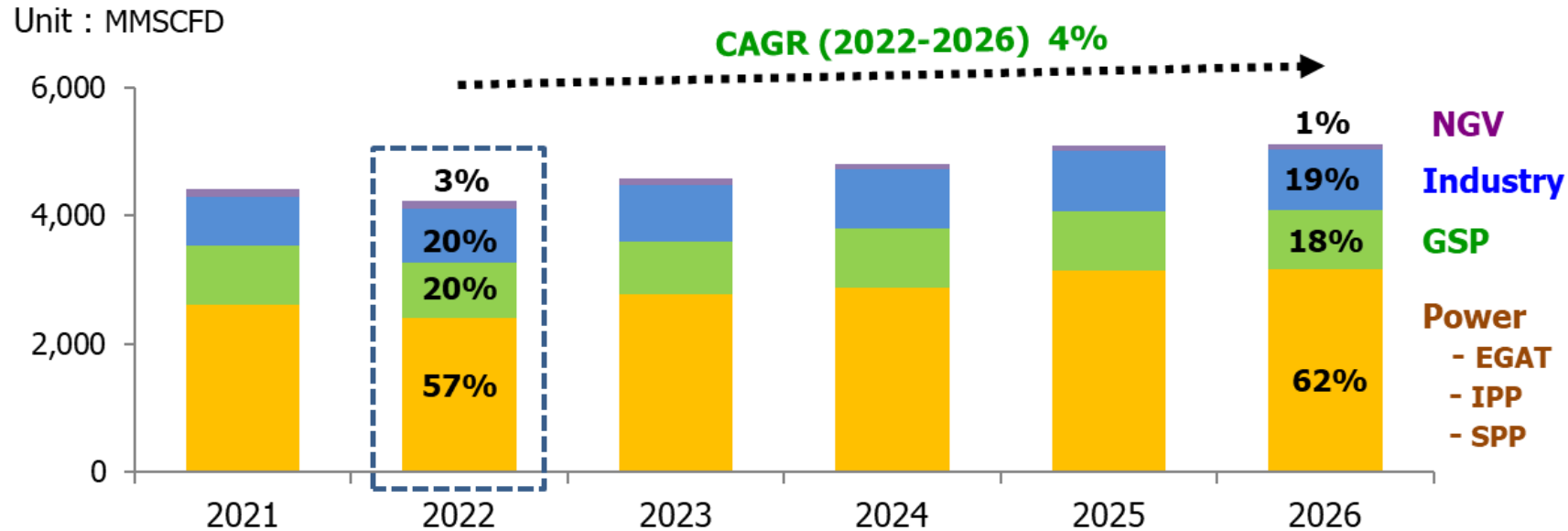


Note: 1. Debt Outstanding for Repayment Profile represents financial data and portion after derivative swaps  
2. Bond repayment amounting 6,236 MB in 2035 is USD swaps to THB  
\*Exclude BAY PN 4,000 MB  
\*PTTC10DA (Century Bonds) is due on 2 Dec 2110

# Gas Business Roadmap

Short term Gas Demand growth be maintained

## Thailand Gas Demand Outlook (Short Term – 5 year plan)



**New Supply  
Additional capacity  
(mmscfd)**

**Bongkot  
700**

**Erawan  
800**

**Major Project : COD  
& Capacity/  
Accumulate Pipeline distance**

**RA#6 Pipeline**

**5th pipeline**

**4,702 KM  
LNG Terminal 2  
+7.5 MTA**

**GSP#7\***

**460 mmscfd**

**GSP#8**

**BPK-SB\*\* pipeline  
~74 KM**

**4,776 KM**

*\*Replace GSP#1*

*\*\*Bang Pakong– South Bangkok  
Power Plant*

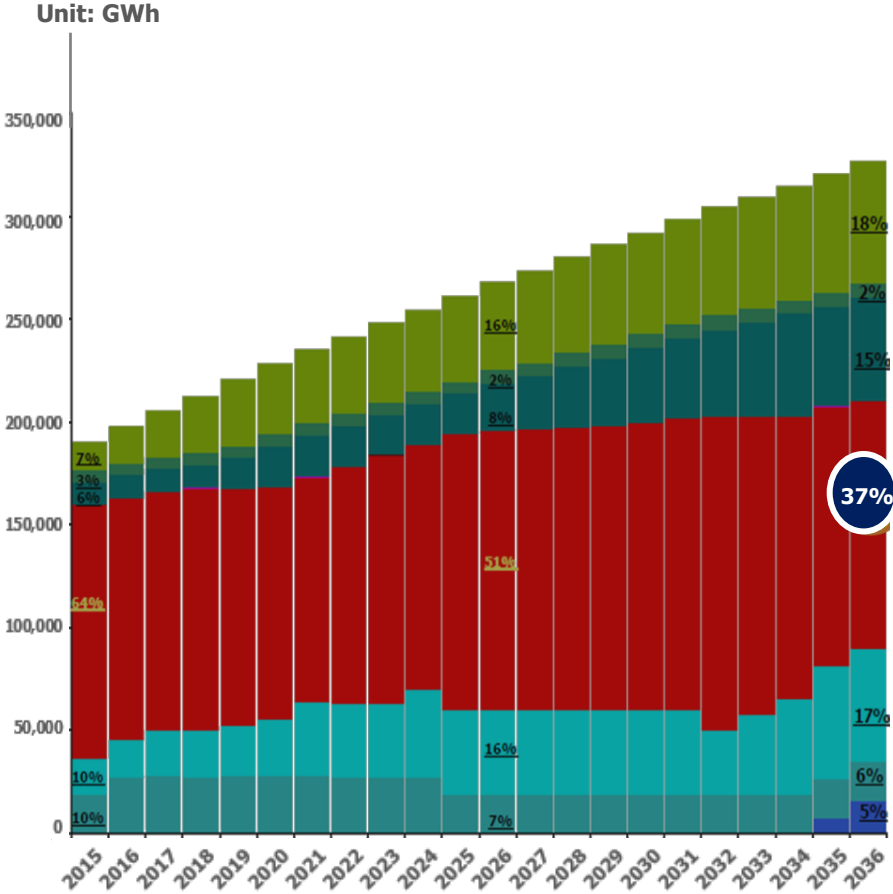
# Newly Thailand Power Development Plan



## Stronger demand of NG for power plants

PDP 2015\*

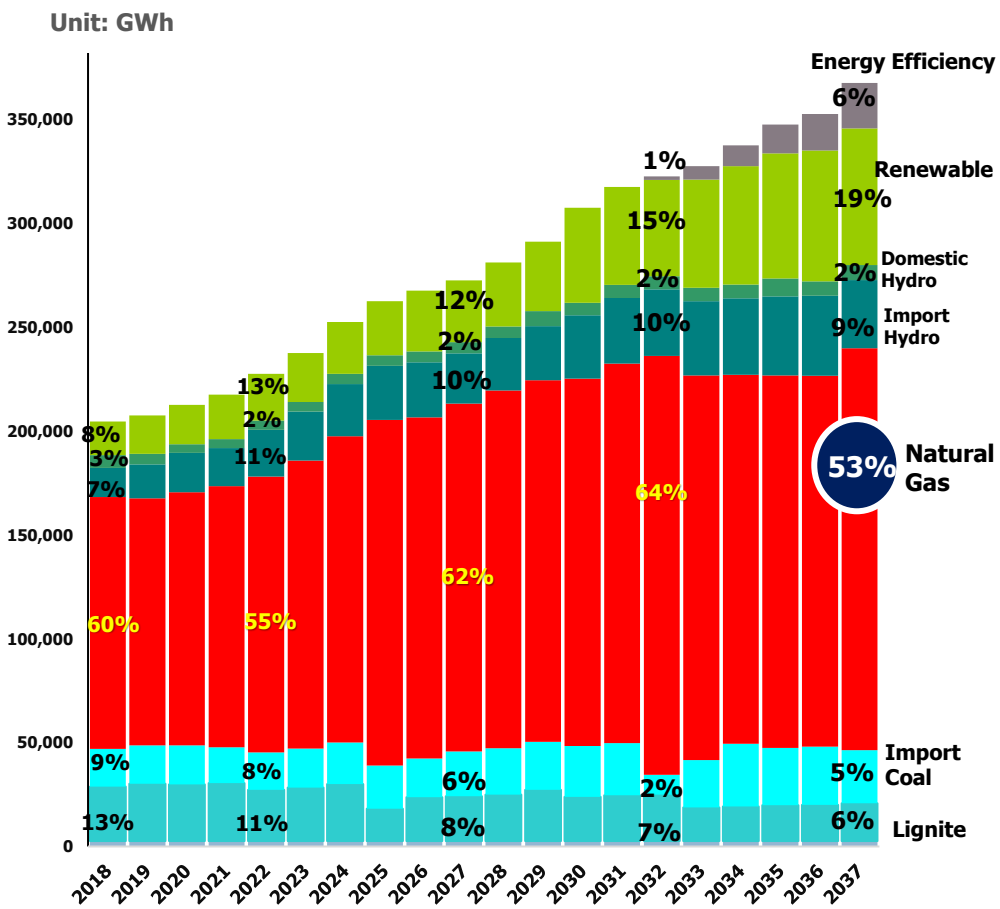
Natural Gas growth upon  
Government fuel diversification policy  
for power generation



\*Source: Ministry of Energy

PDP 2018 Rev.1\*\*

Natural Gas  
be the most important source of energy  
with highest portion among other fuels



\*\* Source : EPPO (Public Hearing presentation)

# Natural Gas Demand

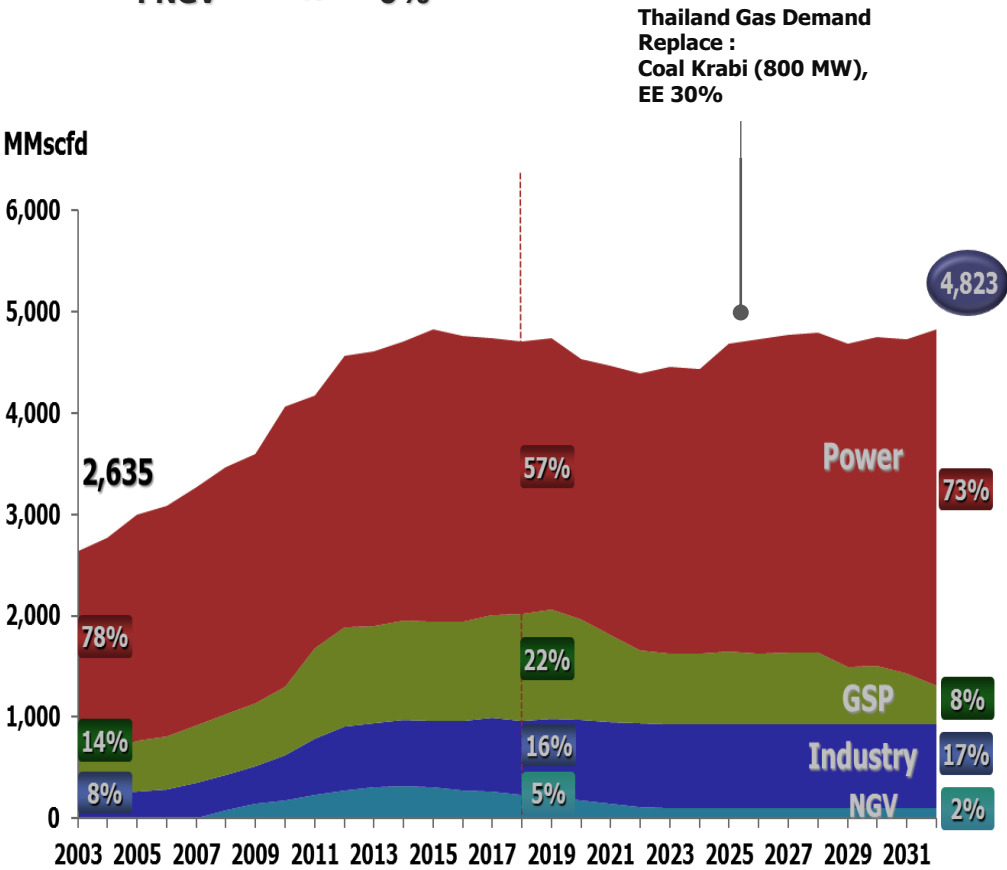


## Growth of natural gas upon Government fuel diversification policy for power generation

Old\*

Thailand Gas demand forecast (CAGR during 2018-2032)

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

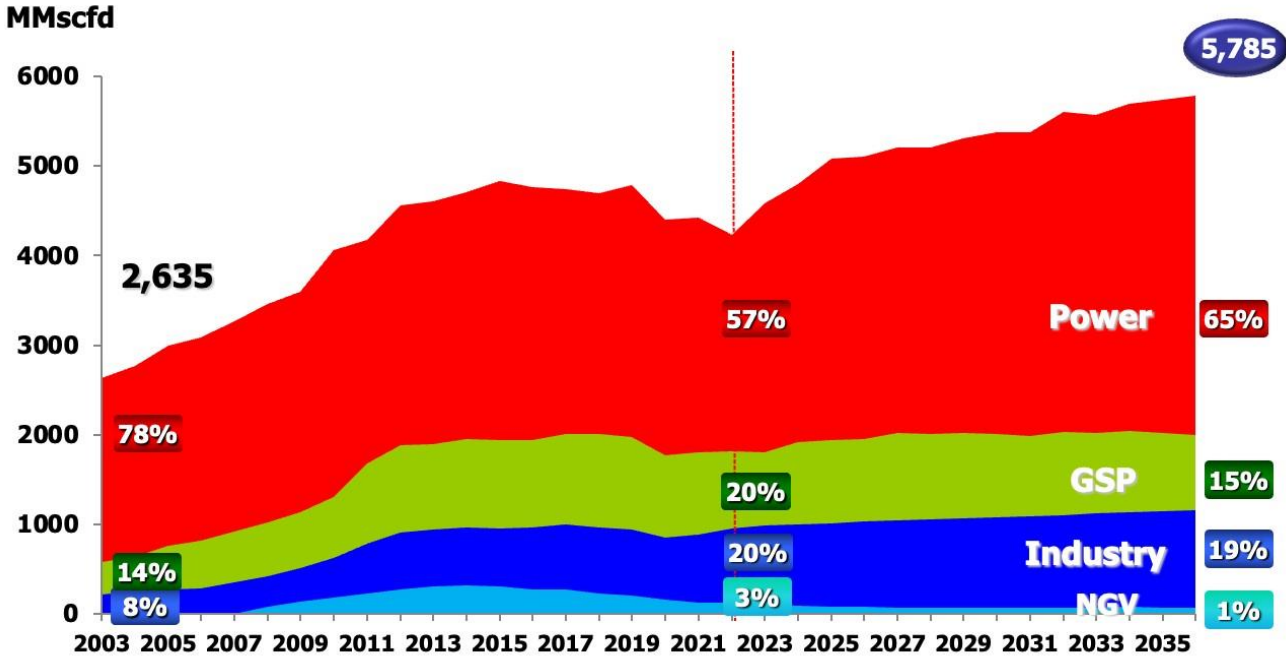


\*Source: Ministry of Energy

NEW\*\*

Thailand Gas demand forecast (CAGR during 2022-2036)

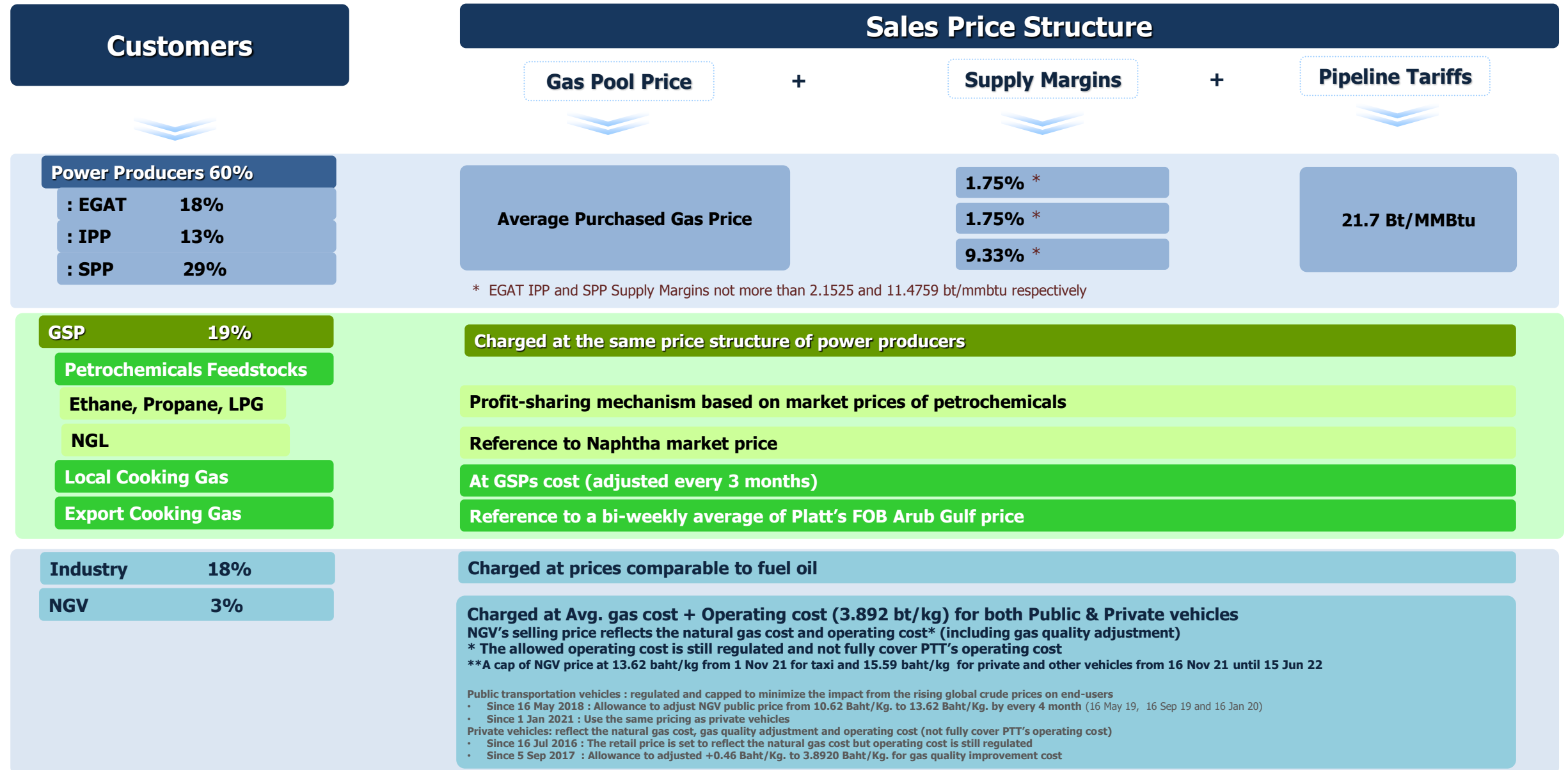
: Total	~	2%
: Power	~	3%
: GSP	~	1%
: Industry	~	2%
: NGV	~	-4%



\*\* Source : PTT Business plan 2022 approved by BOD on 16 Dec 2021

# Natural Gas Price Structure : As of Mar 2022

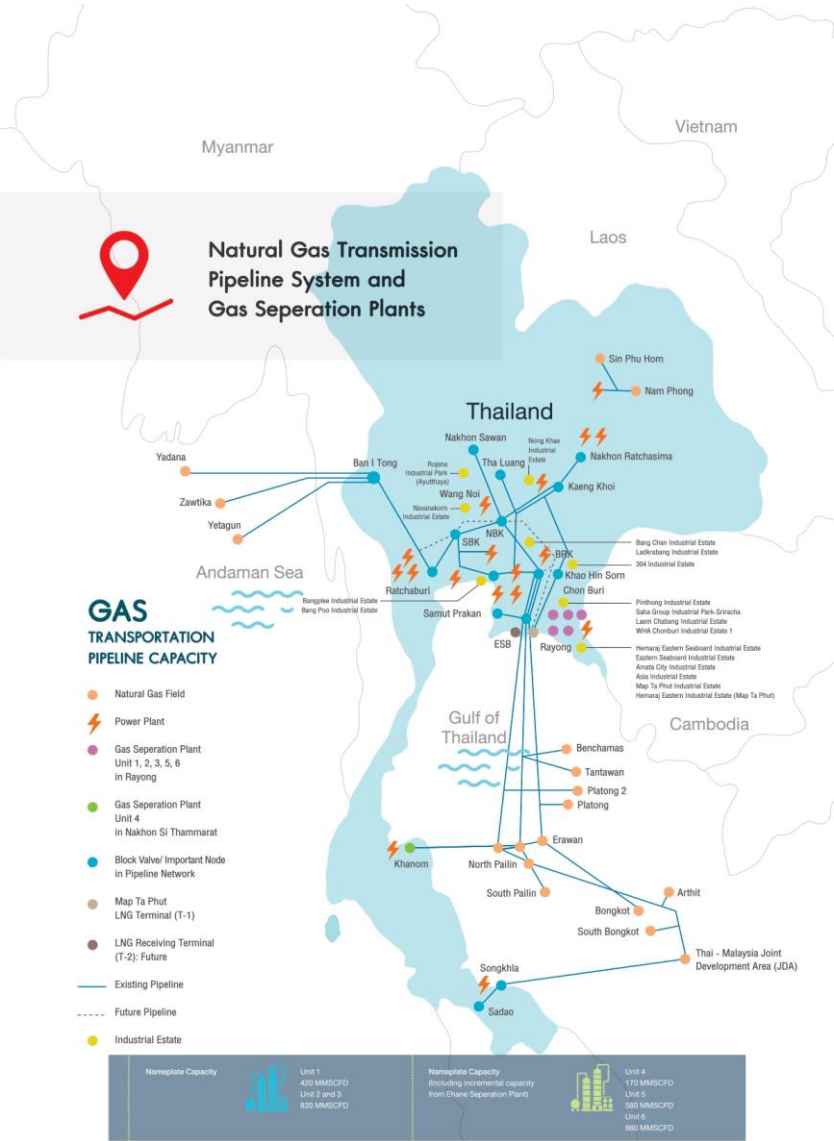
Gas prices are mostly agreed under long term contracts and volatility pass-through to ensure stable returns



## Overview

- ✓ 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

## Gas transmission pipeline capacity



Gas Separation Plant Capacity	
Unit 1	420 MMcf/d
Unit 2 and 3	820 MMcf/d
Unit 4	170 MMcf/d
Unit 5	580 MMcf/d
Unit 6	880 MMcf/d