

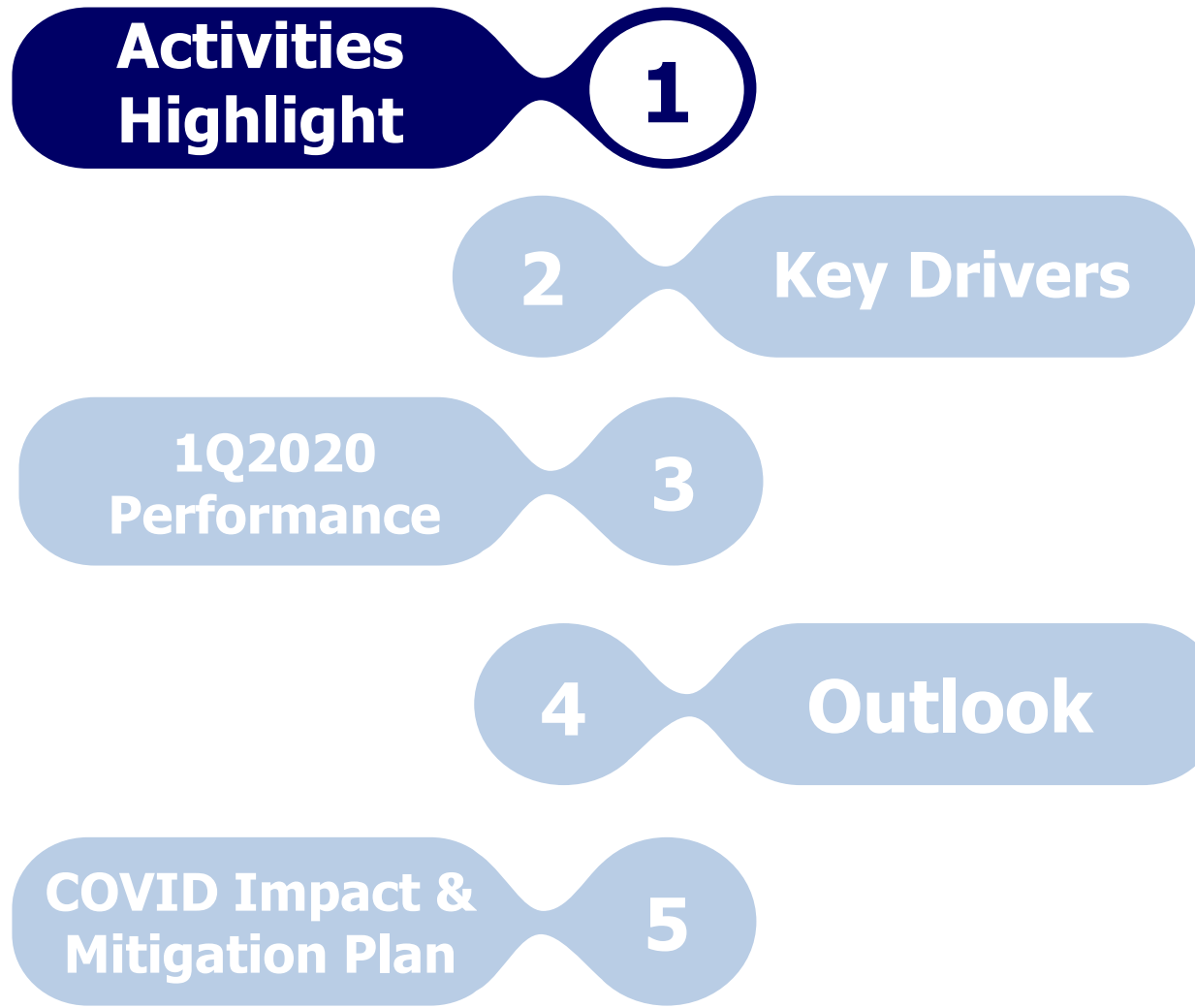


Analyst Meeting 1Q2020

12 May 2020



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PTT Won

“NACC Integrity Awards 9th”

(2nd Consecutive years)



Awarded to organizations that
Manage business with integrity,
Upholding good corporate governance
policies and with care for society,
communities and the environment.

The Office of National Anti-Corruption Commission (NACC)

PTT Group-We Fight Together



PTT Group distributed 160,000 liters of medical alcohol to more than 170 hospitals & other medical institutes nationwide



Donate to Siriraj Hospital, Vajira Hospital, etc. for medical equipments, medicines & medical supplies, and 50 tablets for telemedicine



Donate disposable gowns made from plastic resins of the GC's InnoPlus brand.



Support production of protective suits and Powered Air-Purifying Respirators (PAPRs)



Café Amazon offered free drip coffee & Thai SMEs dessert to Medical Staffs



Support VISTEC for the development of Diagnostic test kit



Reduce NGV's public selling price while maintaining the price for private cars



Reduce LPG 15 KG cylinder prices for 3 months



PTT Group Management & Staff donate 115,300 CC of blood



Make & Distribute 10,000 cotton face masks to elders



Make Face Shields



กลุ่ม ปตท.พร้อมเป็นกำลังใจ
ให้ผ่านวิกฤตครั้งนี้ไปด้วยกัน

#สามพลังใจWeFightTogether



We Fight... to Ensure Thailand's Energy Security

Established "Palungjai" Center

Monitor & Surveillance



Work From Home

With SPIRIT + D

Social Distancing

Limit access to PTT's Areas

No Travelling

To High-risk countries for Covid-19 infection

PTT Group 's BCM

Mitigation Plan

Scenario Management

GSP's Measure

Shift Management

Define Critical persons
Separate team into 3 shifts

2nd Site for control room

As a back up plan in case of emergency



Update in 1Q2020



**Establishment PTTT USA:
PTT International Trading USA**



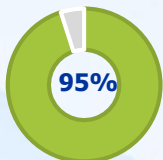
**Lower subsidy 3 bt/kg. for public
vehicles in 1Q20 as agreed with gov.**



GSP#5 : Planned shutdown

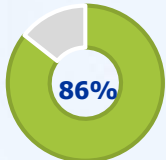
Projects' Progress

As of 31 March 2020



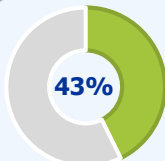
**RA#6
Ratchaburi -
Wangnoi**

COD: 2021



**5th Transmission
Pipeline**

COD: 2021



**LNG
Terminal#2**

COD: 2022



**Signed ESPA with Oman's Ministry of Oil
and Gas (MOG) : E&P rights of Block12**



• **JV : rPET and rHDPE 45 KTA (COD: 4Q2021)**
• **Establishment Polymer's Mkt Company**
"PT GCM Marketing Solutions" in Indonesia



**Acquired Solar power plants
in Thailand 39.5 MW**



IPO Filing on 2 April 2020

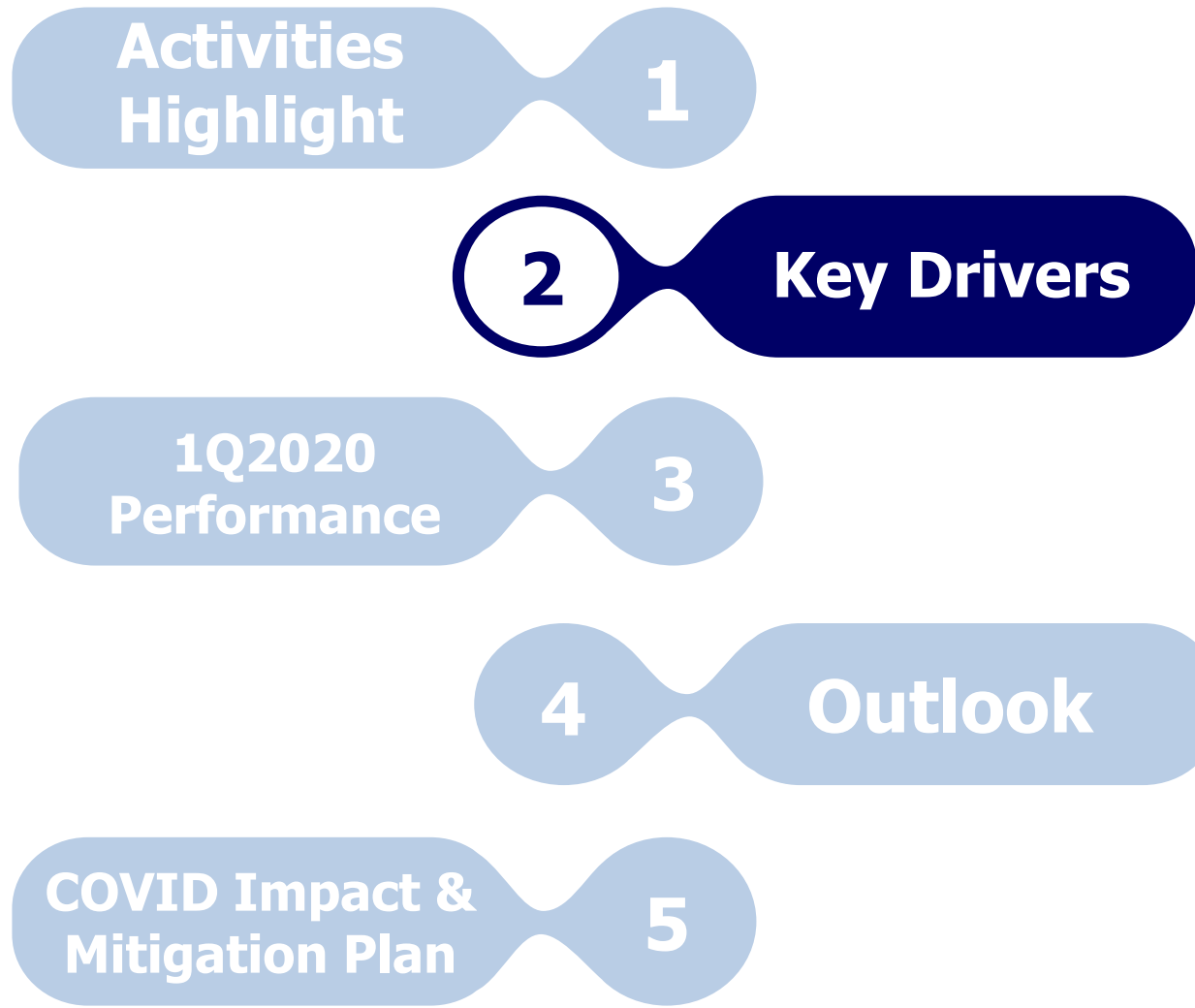


Planned Turnaround in 1Q2020

- **GC : Olefin plants**
- **IRPC : Refinery, PP & ABS plants**



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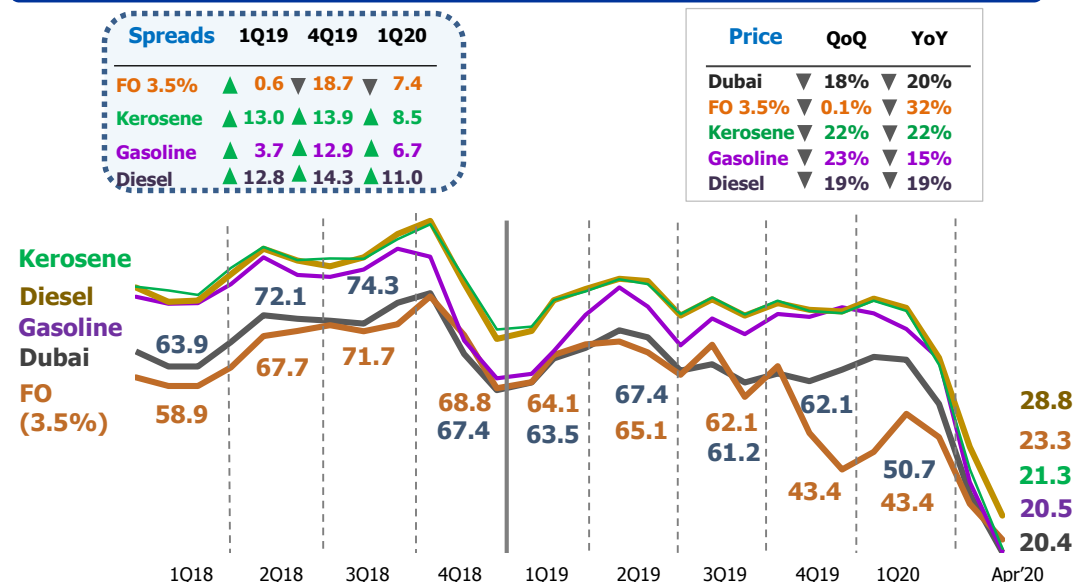


Key Business Drivers:

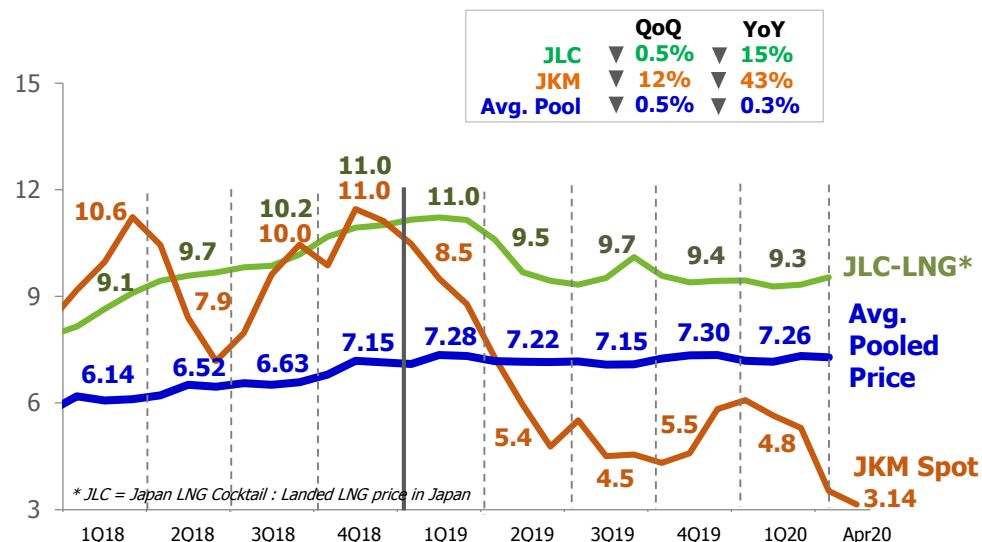
QoQ: Prices declined due to COVID-19 pandemic and oil price war while Baht depreciated

YoY: Economic slowdown caused all prices to dropped significantly, including LNG spot prices

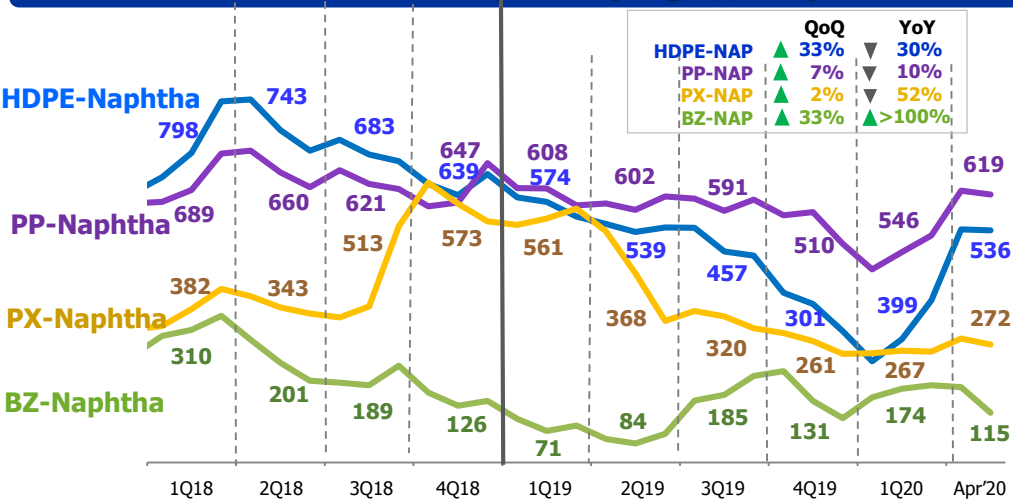
AVG. Petroleum Price (\$/bbl)



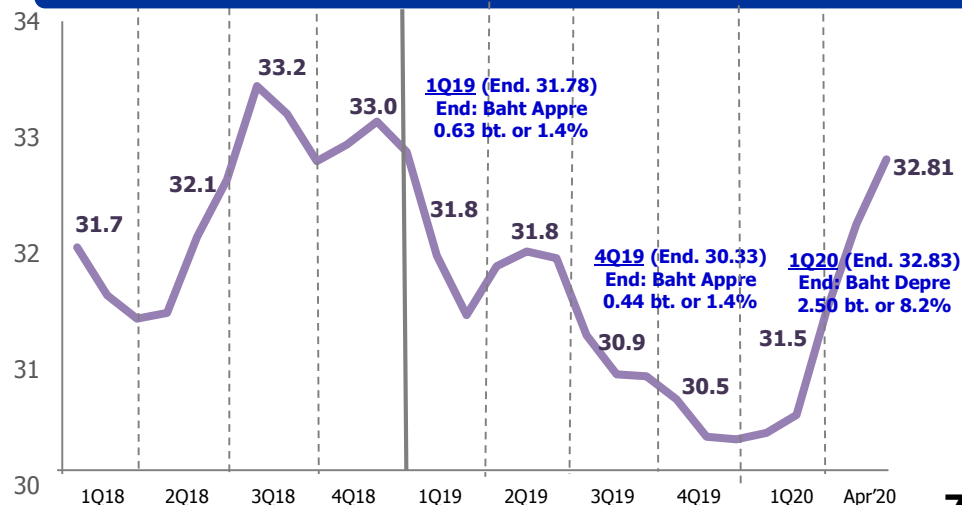
Avg. NG Prices (\$/MMBTU)



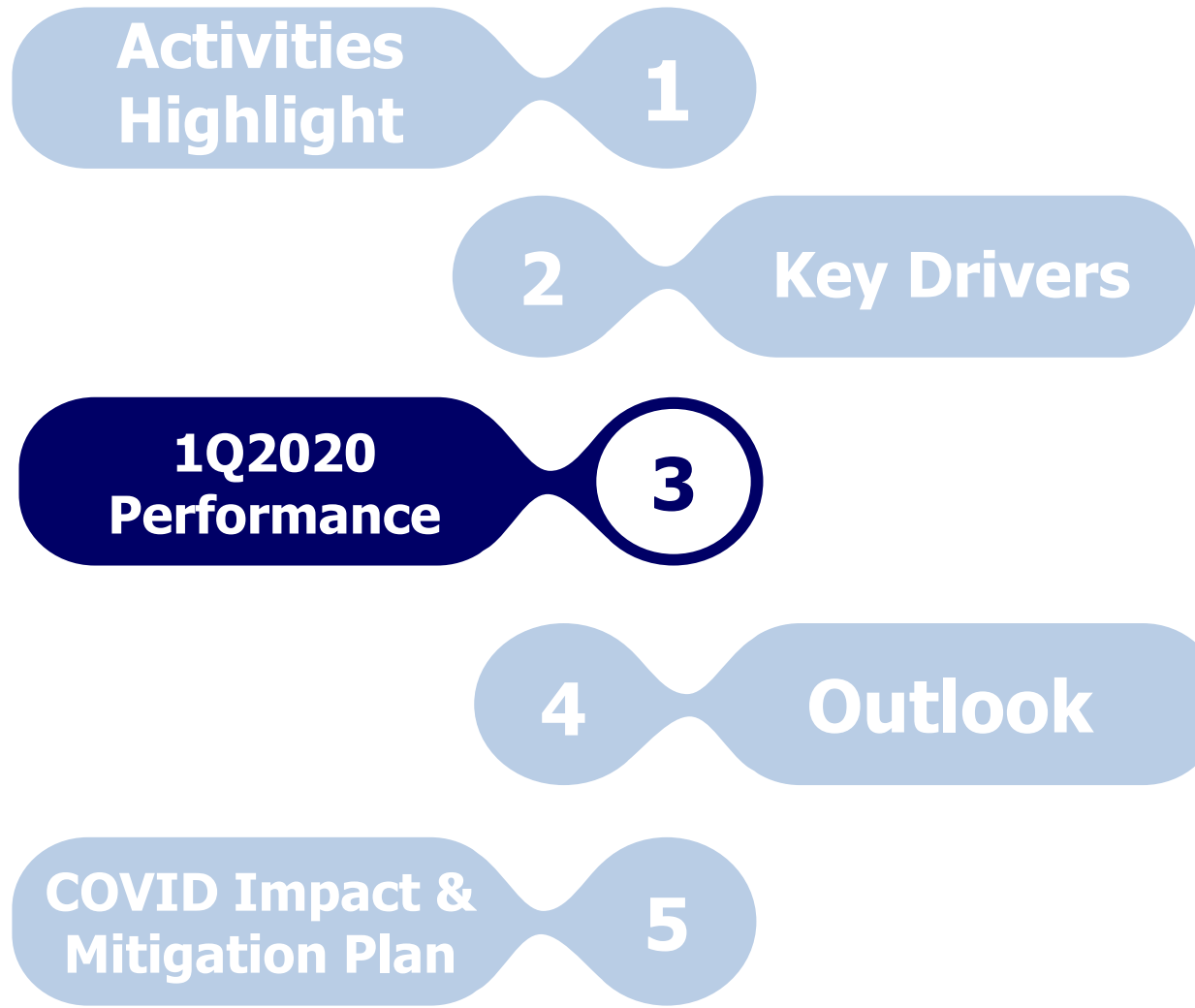
Petrochemical Spread (Avg. \$/ton)



AVG. FX (THB/USD)



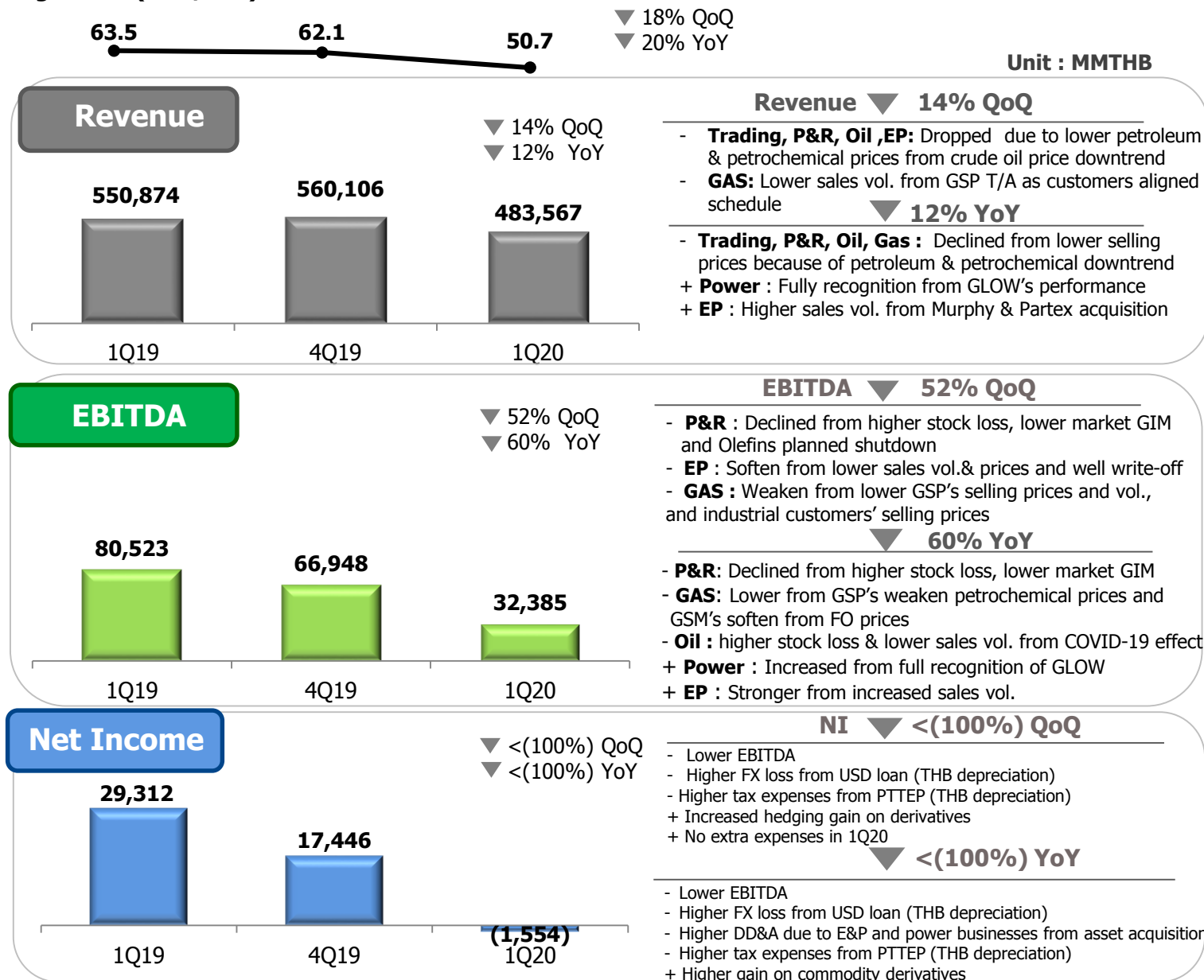
Contents



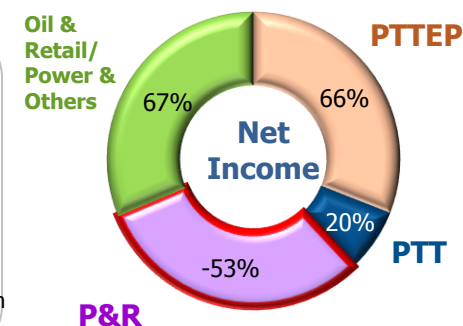
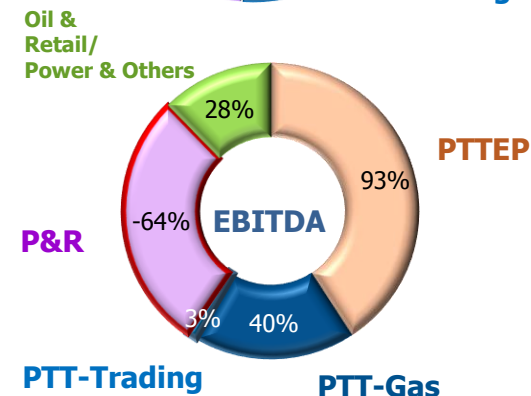
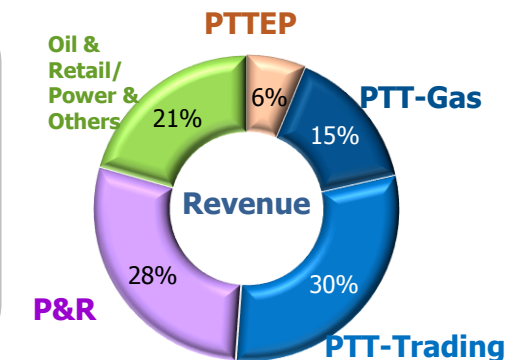
PTT Consolidated Performance: 1Q20

NI pressured from oil price crashing (stock loss) in line with market downturn

Avg. Dubai (USD/BBL)



1Q2020

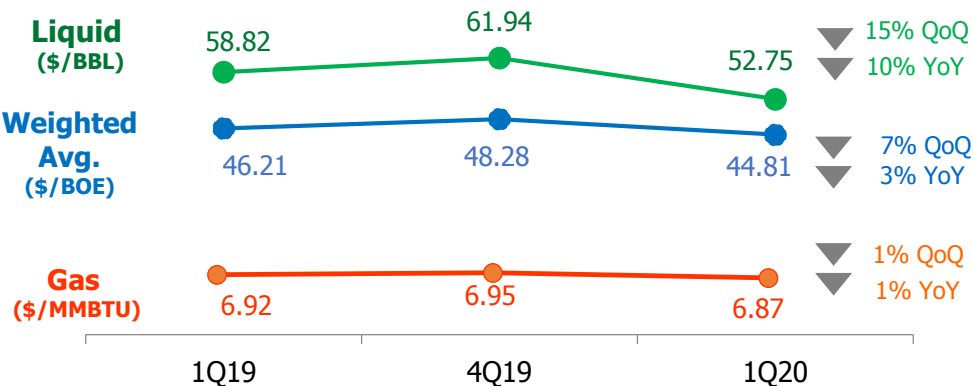


E&P : Prices & Volume and NI

QoQ: Lower sales volume from Malaysia Project and Bongkot and selling prices related to oil prices

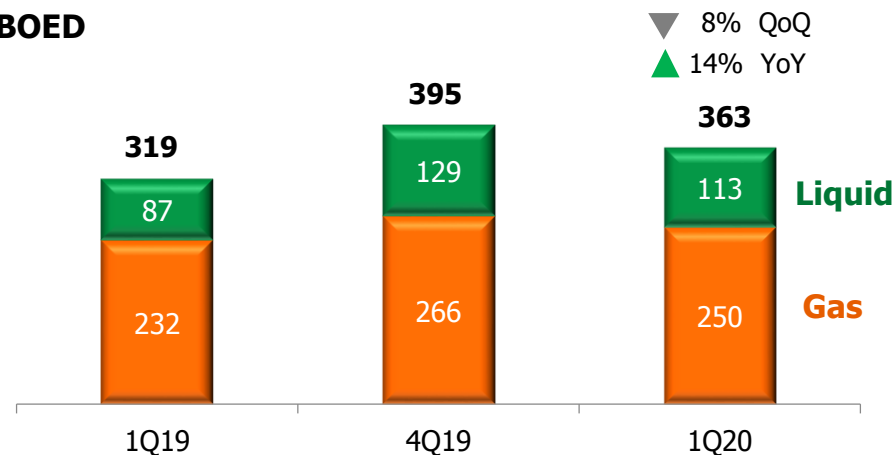
YoY: Higher sales volume from Malaysia Project and Partex despite lower selling prices

Product Prices



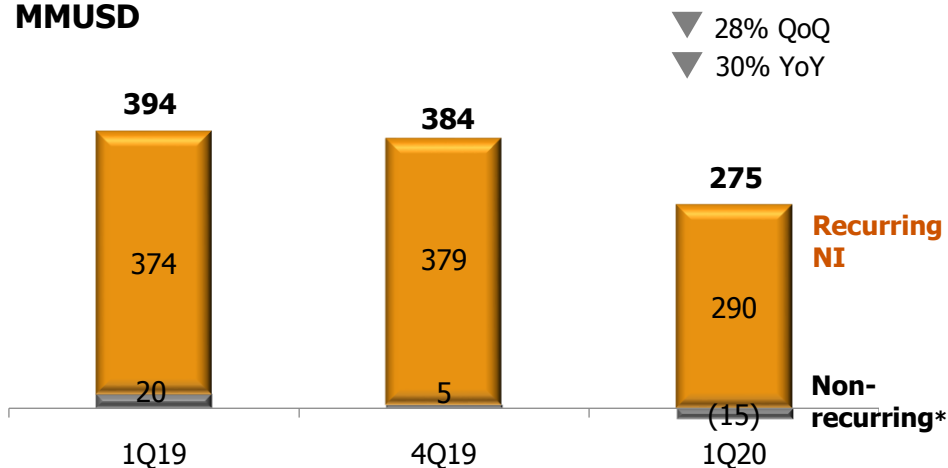
Sales Volume

KBOED



Net Income (100%)

MMUSD



Key Highlights

QoQ

- **Volume:** decreased 8% as lower crude oil sales of Malaysia Project and lower nomination from buyer
- **Avg. Selling Price:** decreased 7% from the decreased in crude oil price
- **NI:** dropped as lower sales vol. & avg. selling prices, and higher tax expenses from Baht depreciation, despite lower OPEX and DD&A

YoY

- + **Volume:** increased 14% mainly from the acquisition of Malaysia & Partex
- **Avg. Selling Price:** decreased 3% from lower oil and gas prices
- **NI:** dropped due to higher OPEX, DD&A, and tax expenses from Baht depreciation

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

PTT EBITDA Breakdown by Business



(Unit: MMTHB)

Business Unit	1Q19	4Q19	1Q20	QoQ	YOY
Gas- EBITDA	17,948	15,509	14,433	↓ 7%	↓ 20%
• S&M	3,503	3,487	1,924	↓ 45%	↓ 45%
• TM	8,633	8,473	9,079	↑ 7%	↑ 5%
• GSP	4,252	2,581	1,803	↓ 30%	↓ 58%
• NGV	(1,148)	(982)	(580)	↑ 41%	↑ 49%
• Others ^{1/}	2,708	1,950	2,207	↑ 13%	↓ 19%
Trading^{2/} EBITDA	613	508	907	↑ 79%	↑ 48%
Total	18,561	16,017	15,340	↓ 4%	↓ 17%

^{1/} Others include PTTLNG, PTTNGD, and PTTGL

^{2/} MIS & include PTTT and PTTT LDN

Note Since July 2018 Oil business has been transferred to subsidiaries (OR), see more details in Oil business performance

Gas Business : Prices & Sales Vol.

QoQ : Lower NG volume from GSP's planned shutdown while gas price maintained

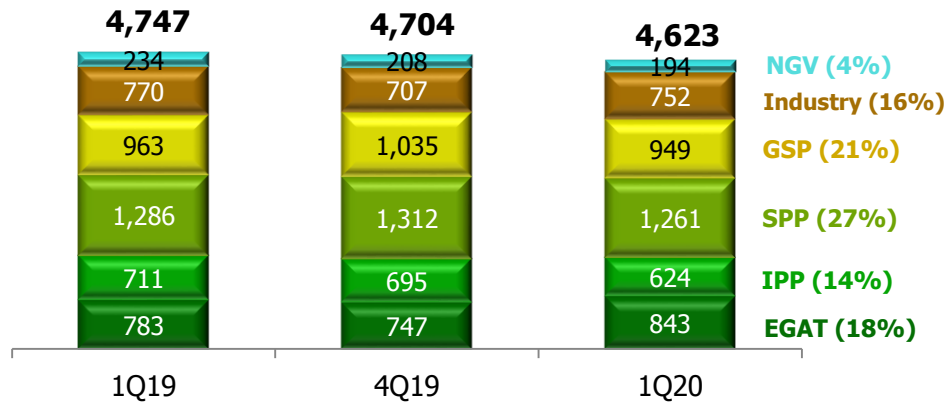
YoY : Stable pooled gas price but soften NG demand due to COVID-19

NG Customer Breakdown

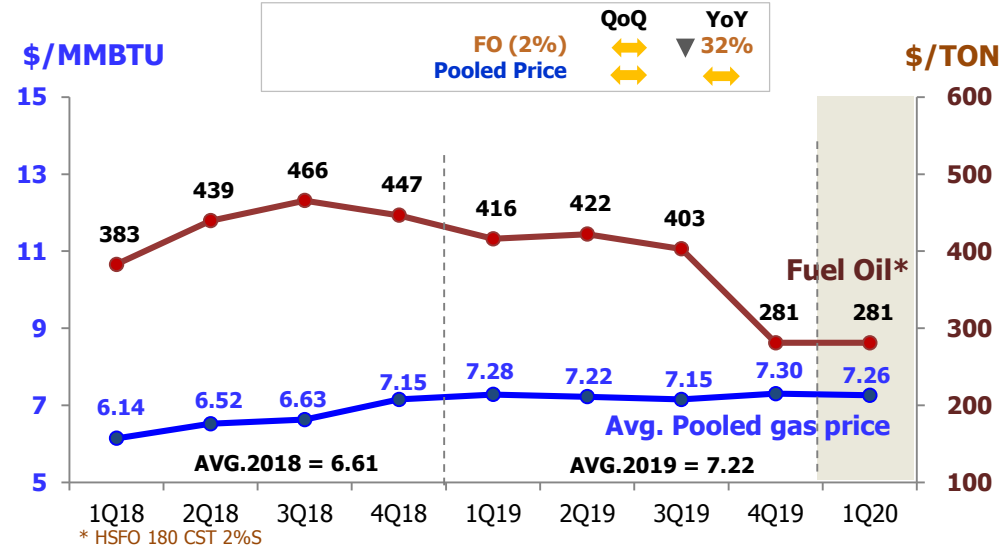
Unit: MMSCFD

▼2% QoQ

▼3% YoY



NG Price VS FO



NGV Price/Sales Volume

NGV Avg. price

Unit: THB/KG

▲1%QoQ

▲3%YoY

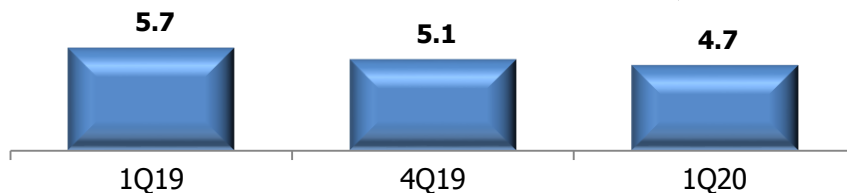


NGV Sales Vol.

Unit: K.Ton/Day

▼8% QoQ

▼18% YoY



Key Highlights

QoQ

- **NG sales vol.** slightly decreased mainly from GSP & Power volume while Industry volume increased
- GSP vol. decreased 8% as more planned SD in 1Q20 (GSP#5 20 days in 1Q20: vs GSP#1 3 days in 4Q19)
- Power vol. decreased 1% due to lower consumption from COVID-19 impact
- + Industry vol. rose 6% due to customers' TA in 4Q19
- **Selling Price:** Industrials' prices decreased from dropped FO price linked
- + **NGV** selling prices uplifted while sales vol. dropped

YoY

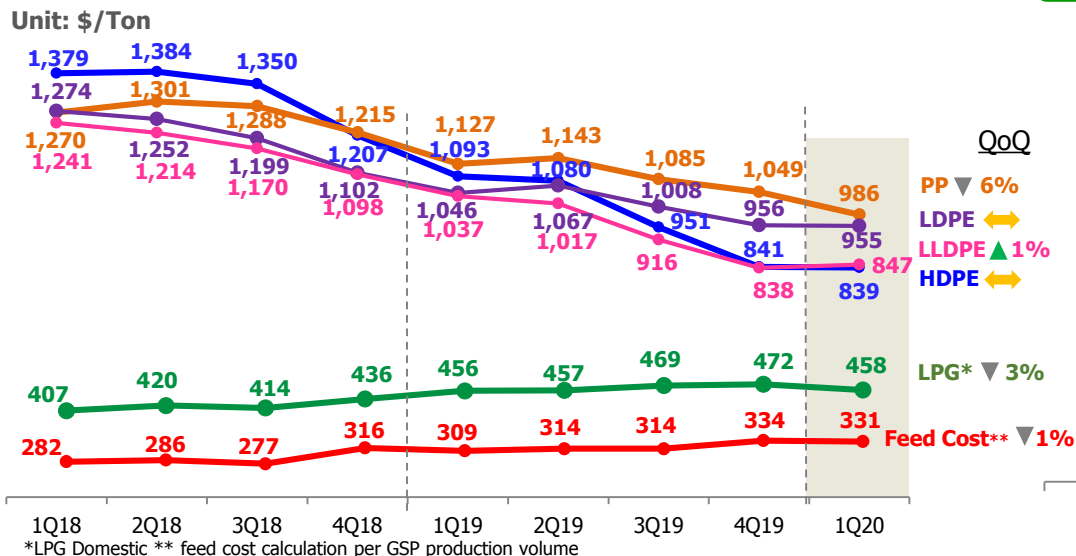
- **NG sales vol.** was lower from power sector; vol. declined 2% from COVID outbreak effect
- **Selling Price:** Industrials' prices decreased due to dropped FO price linked
- + **NGV** selling prices increased while sales vol. dropped

Gas Business Performance

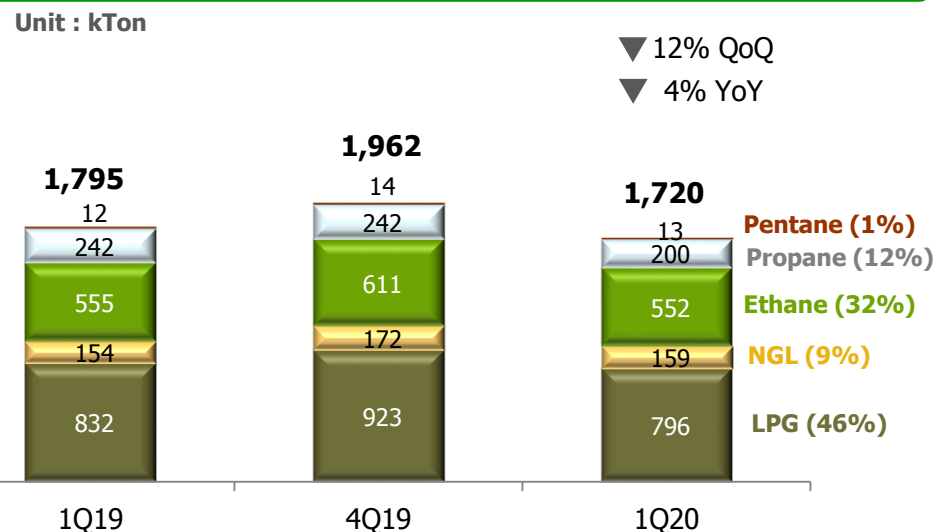
QoQ: Lower Gas EBITDA from lower selling prices of Industrial customers & GSP's lower vol. during planned shutdown

YoY: Lower Gas EBITDA mainly due to lower profit of GSP and S&M

GSP Feed Cost vs Petchem. price

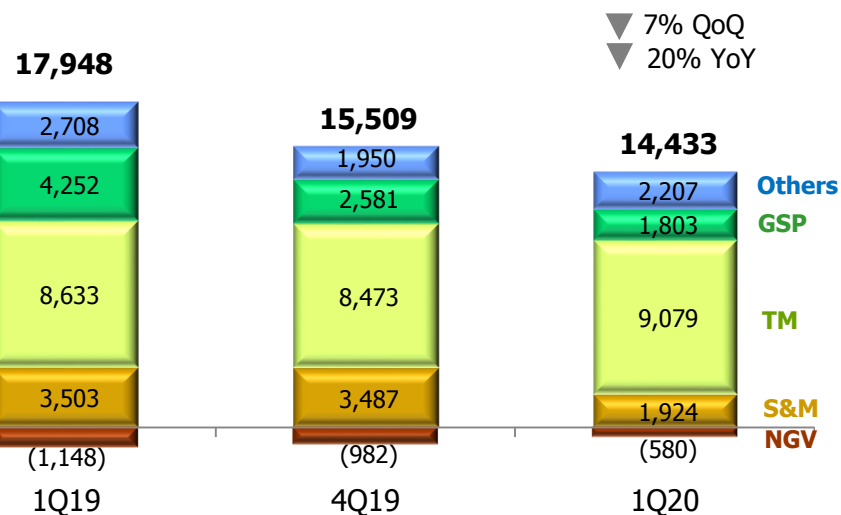


GSP Sales Volume



Gas - EBITDA

Unit: MMTHB



Gas EBITDA Highlights

QoQ

- **S&M** decreased from industrial selling price from lower FO price linked & soften gas sale vol. due to GSP's maintenance shutdown & demand slowdown
- **GSP** performance declined from lower sales vol. due to GSP's TA in 1Q20 and lower average selling prices
- + **NGV** lower loss from lower sales vol. and public selling price lift up

YoY

- **GSP** dropped significantly from lower referenced petrochemical selling prices, lower vol. from customer maintenance shutdown in 1Q20
- **S&M** decreased from industrial selling prices from lower FO price linked
- **Other** decreased mainly from lower performance of PTTNGD (FO price linked)
- + **NGV** reduced loss from lower sales volume & higher avg. selling prices

Oil Business : OR Group



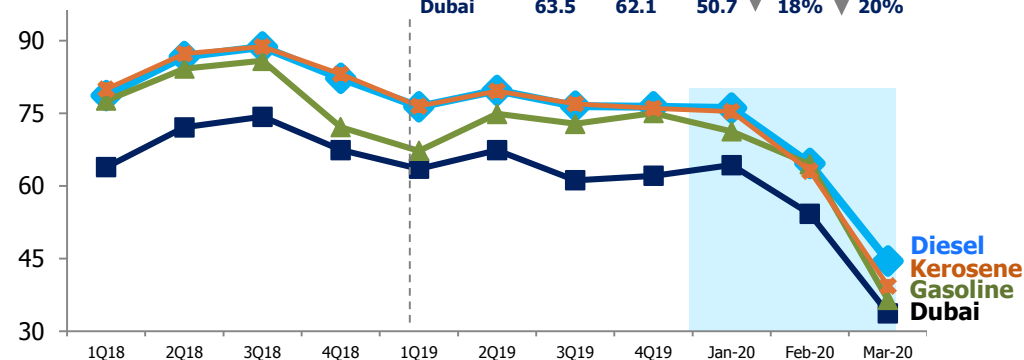
QoQ: Improved EBITDA from lower SG&A and better margin despite higher stock loss

YoY : Lower EBITDA from higher stock loss and reduced sales volume from COVID-19

Petroleum Prices

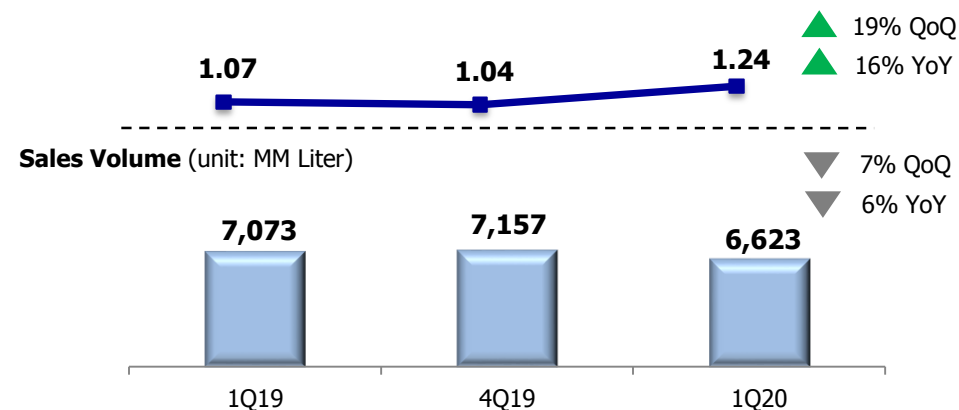
(Average Prices)

USD/BBL



Gross margin¹/Sales volume

GM (Unit: THB/Liter)



¹/Excluded Non-oil, stock gain/loss, non-recurring item

OR Group – EBITDA

Unit: MMTHB

	QoQ	YoY
Oil	▲ 8%	▼ 40%
Non-oil	▲ 27%	▲ 5%
Inter & Other	▲ >100%	▼ 46%
Total	▲ 18%	▼ 31%

5,528



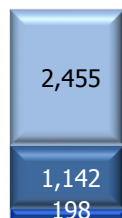
1Q19

3,222



4Q19

3,795



1Q20

Oil (65%)

Non-oil (30%)

Inter & Other (5%)

Key Highlights

QoQ

- + **Margin:** 19% higher from Jet A-1 lag time in pricing structure
- **Volume:** 7% dropped from COVID-19 Pandemic and lockdowns
- + **EBITDA:** 18% increased from lower SG&A and non-oil expansion, despite higher stock loss

YoY

- + **Margin:** 16% increased mainly from Jet A-1 lag time in pricing structure
- **Vol:** 6% dropped mostly from COVID-19 Pandemic and lockdowns
- **EBITDA:** decreased from higher stock loss while non-oil rose mainly from Café Amazon expansion

Trading BU:

QoQ: Higher EBITDA from higher Gross Margin and gain on derivatives despite lower Sales Volume

YoY: Higher EBITDA from gain on derivatives despite lower GM & Sales Volume

Gross Margin¹

Unit: THB/Liter

▲ 20% QoQ
▼ 14% YoY



1Q19

4Q19

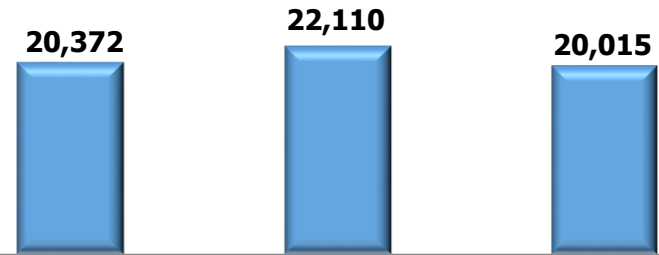
1Q20

¹ PTT Trading BU + trading subsidiaries: FX Adjusted + gain/loss on derivatives

Sales Volume²

Unit: MM Liter

▼ 9% QoQ
▼ 2% YoY



1Q19

4Q19

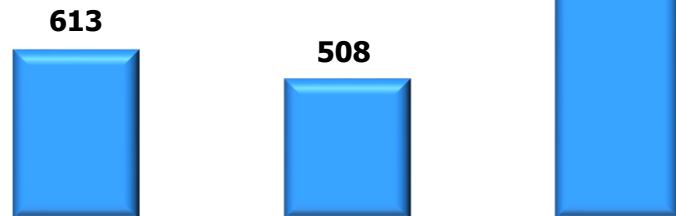
1Q20

² PTT Trading BU + trading subsidiaries

Trading – EBITDA³

Unit: MMTHB

▲ 79% QoQ
▲ 48% YoY
907



1Q19

4Q19

1Q20

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

Key Highlights

QoQ

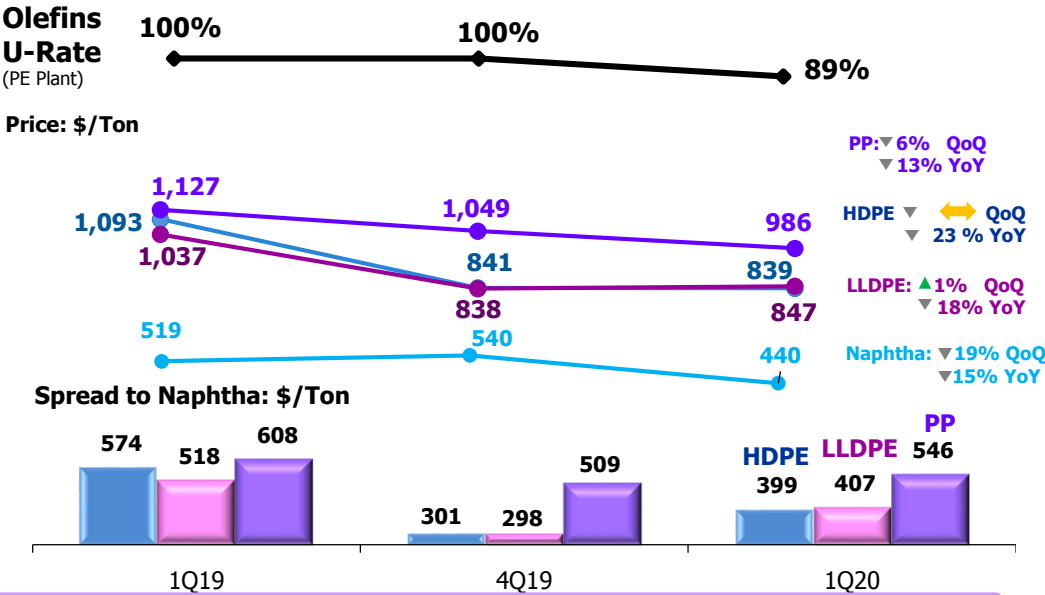
- + **Margin** increased 20% from lower domestic condensate discount & higher gain on derivatives
- **Volume** decreased -9% mainly from Lower Out-Out trading of crude oil & petroleum products due to COVID-19
- + **EBITDA** increased from higher GM and gain on derivatives despite lower sales volume

YoY

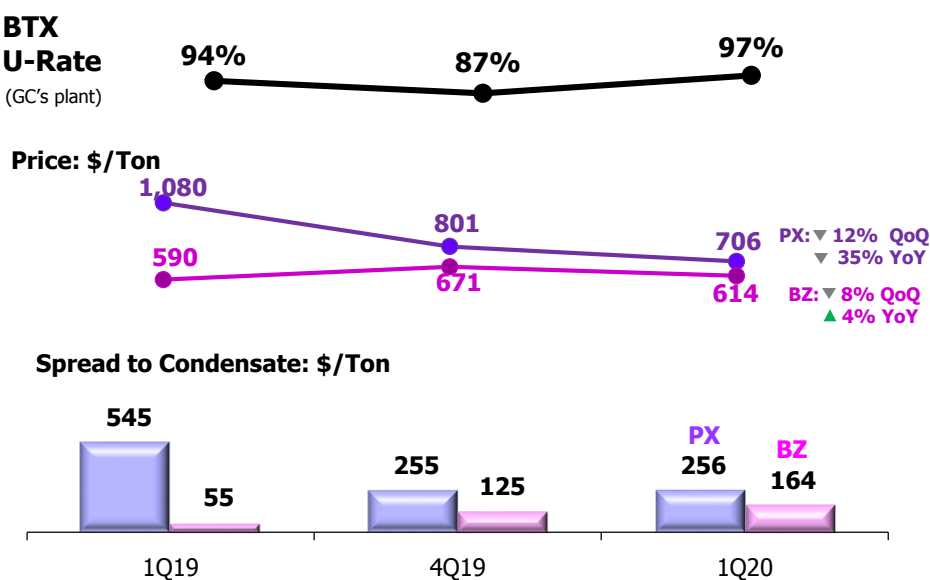
- **Margin & Volume** decreased 14% and 2% respectively due to lower crude oil import & petroleum products Out-Out trading activities
- + **EBITDA** increased from gain on derivative despite lower GM & Sales Vol.

P&R BU
QoQ: Lower performance from stock loss due to oil price sharply dropped
YoY: Performance suppressed by COVID-19 impact & oil price war

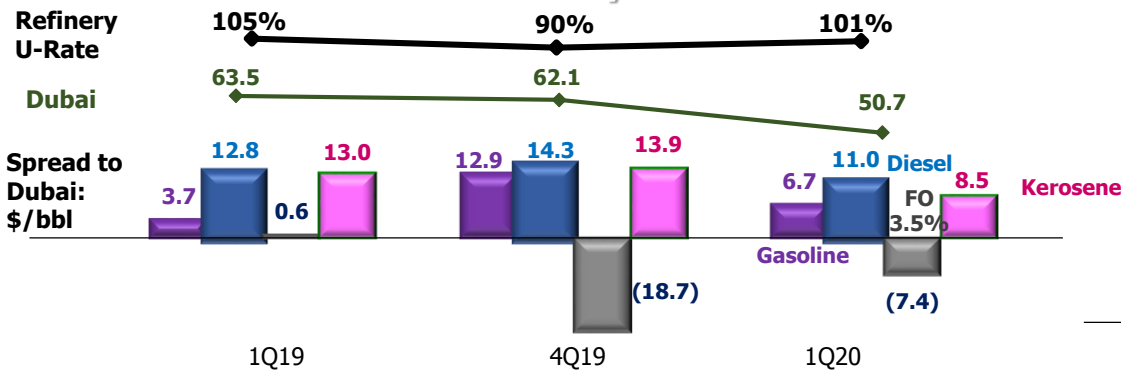
Olefins



Aromatics

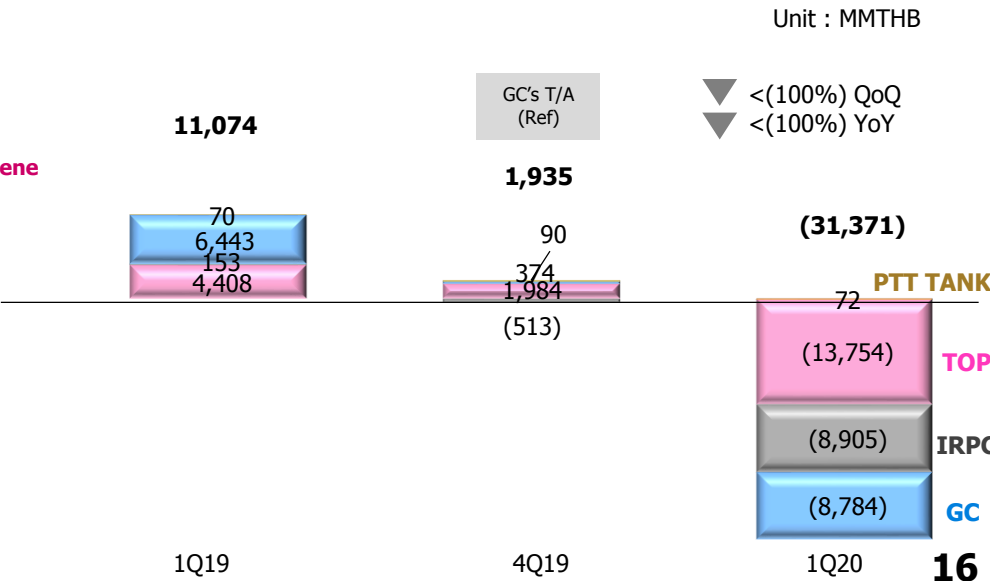


Refinery



Unit: \$/BBL	1Q19	4Q19	1Q20
Mkt GRM	2.44	2.19	0.84
Stock G/L excl. NRV	1.58	0.89	(9.02)
Hedging G/L	(0.06)	0.44	0.79
A/C GRM	3.97	3.52	(7.39)

Net Income (100%)



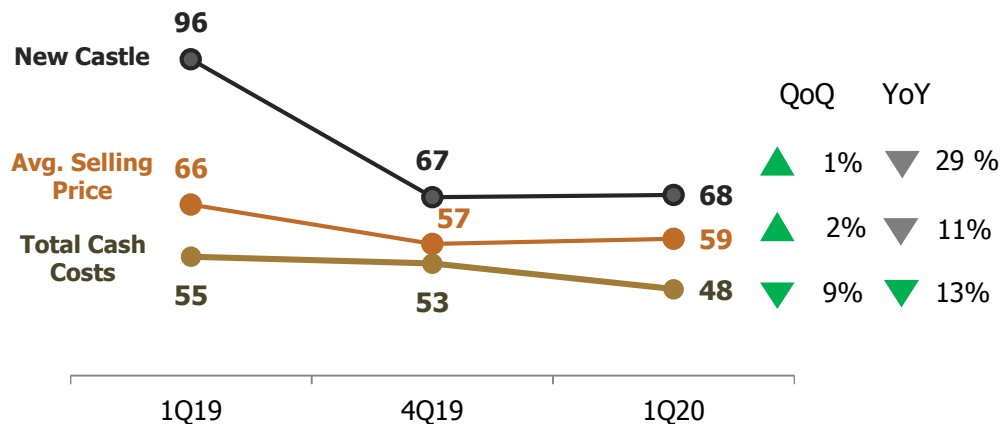
Other Businesses : Coal business (SAR)

QoQ: NI increased from lower cash cost and gain on tax lawsuit

YoY : NI decreased due to lower ASP & volume and lower gain on lower tax lawsuit

Avg. Selling Price^{1/} & Cash cost^{1/}

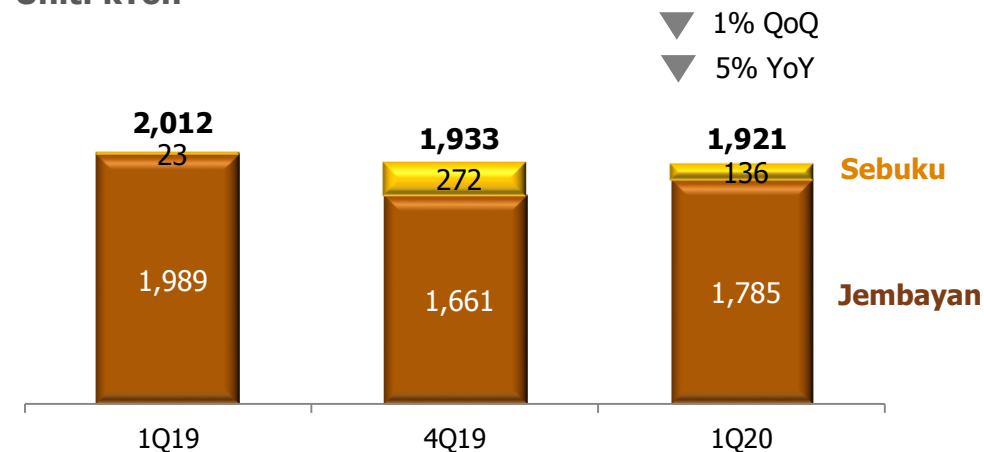
Unit: \$/Ton



^{1/}Average Calorific value ~ 5,450 kcal/kg

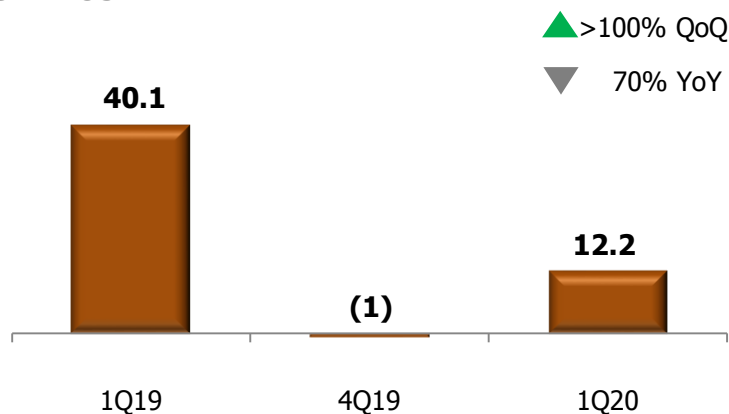
Sales Volume

Unit: kTon



Net income^{2/}

Unit: MMUSD



^{2/}Non-recurring items include the payback on tax lawsuit case & impairment

Key Highlights

QoQ

- **Volume** 1% dropped from lower export of Sebuk
- + **ASP** 4% higher according to due to referenced New Castle Coal price
- + **Cash cost** 9% down from lower gasoil price
- + **NI** increased >100% from lower cost & payback on tax lawsuit in 1Q20

YoY

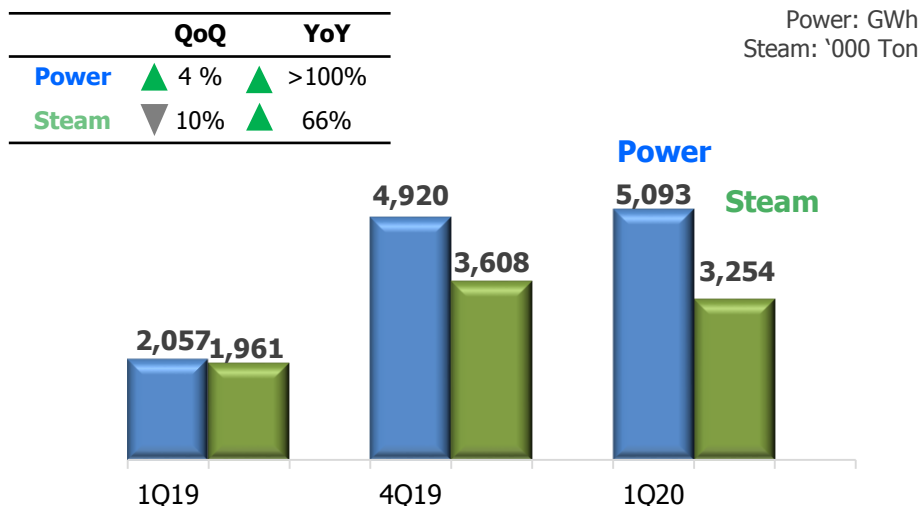
- **Volume** 5% decreased due to lower export of Jembayan
- **ASP** dropped due to price controlled by Indonesia Domestic Mkt Obligation
- + **Cash cost** lower from decreased gasoil & coal prices
- **NI** decreased from lower gain on tax lawsuit case in 1Q20

TEG Businesses : Power - GPSC

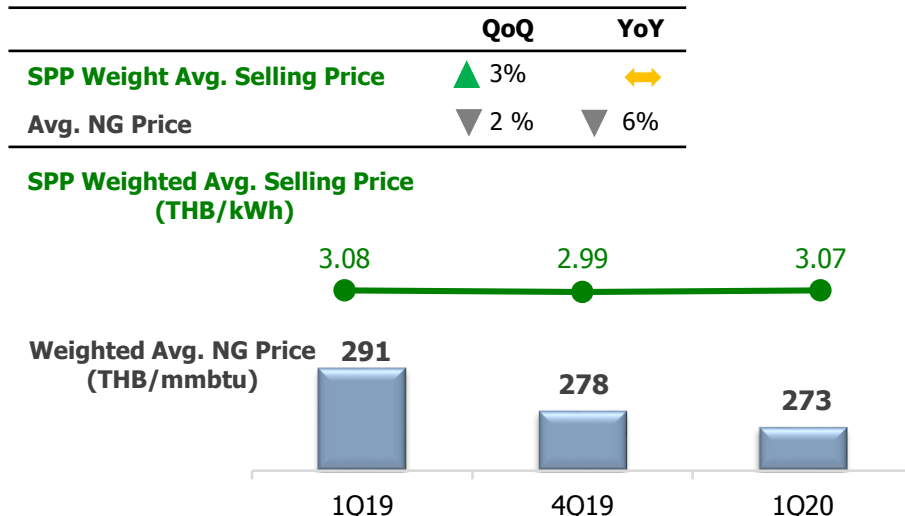
QoQ: Higher revenues from IPPs due to no planned shutdown

YoY: Higher performance from the full recognition of GLOW and higher AP from Sriracha

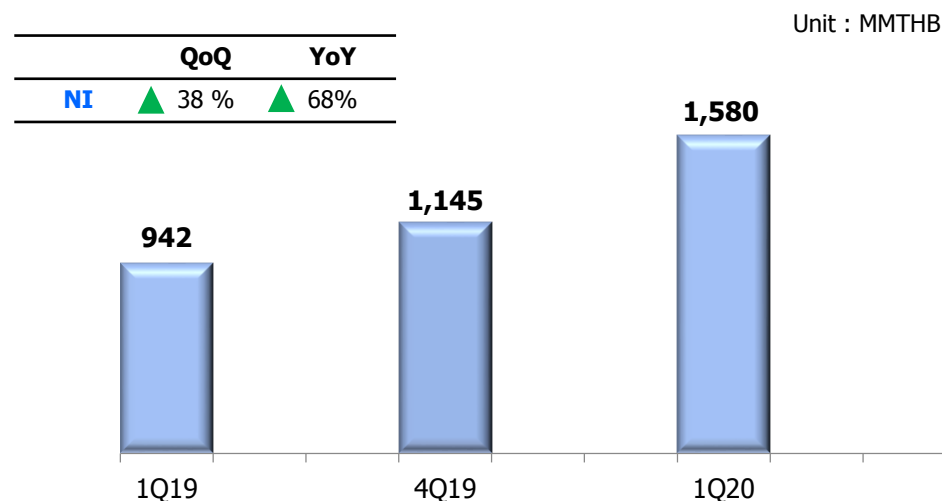
Sales Volume



Weighted Avg. Selling & NG Prices (SPP)



Net Income



Key Highlights

QoQ

- + **Sales vol.** increased mainly from Sriracha and GHECO-One (no planned shutdown)
- + **Avg. Selling Price (SPP)** increased 3%, despite lower NG prices
- + **NI** improved mainly from increasing AP from Sriracha & GHECO-One (IPPs) due to the depreciation of THB, lower NG prices of SPP, as well as the decrease of maintenance cost and finance costs

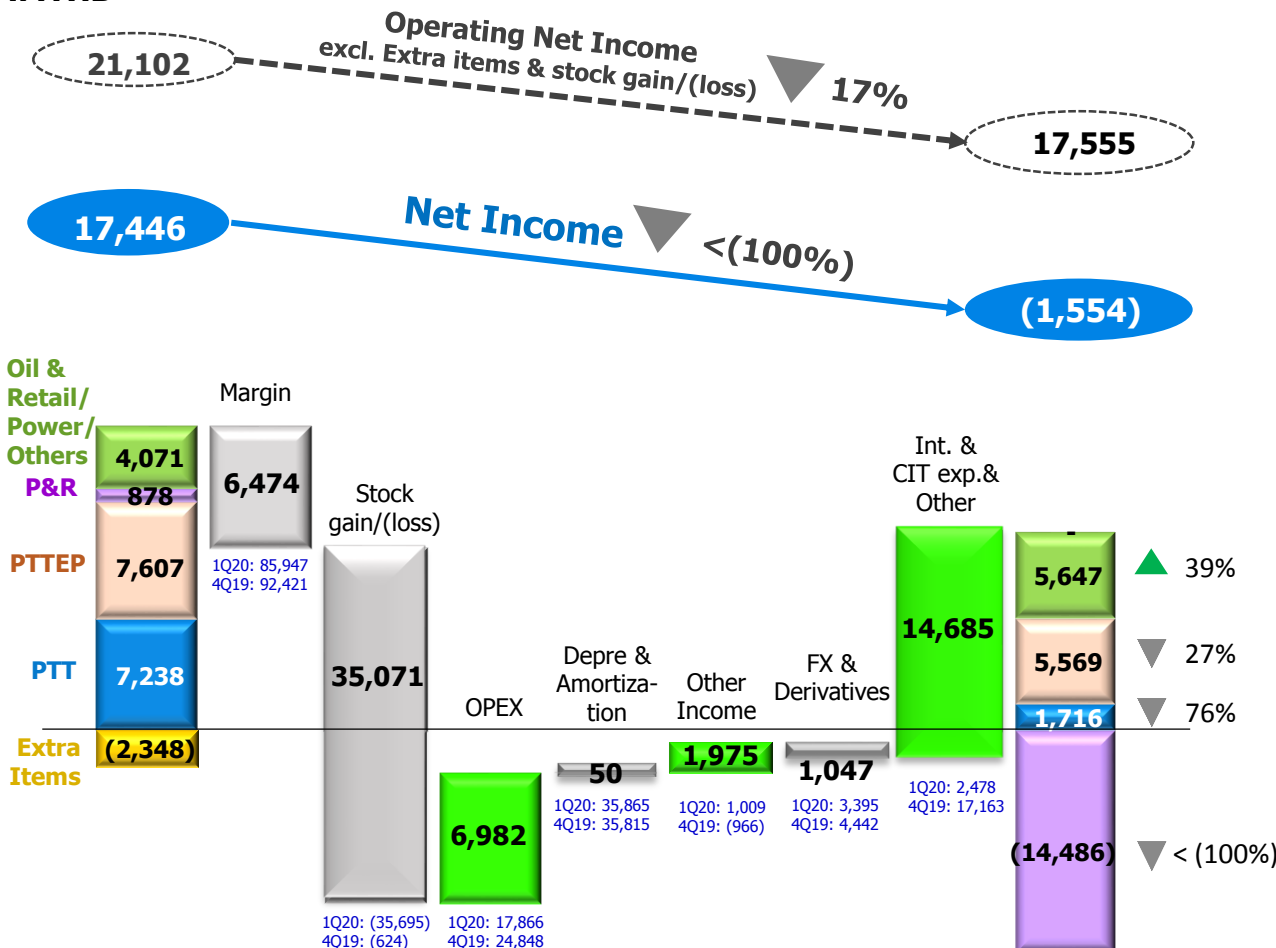
YoY

- + **Sales vol.** increased from the recognition of GLOW's performance
- **Avg. Selling Price** slightly decreased from lower NG prices for SPP portfolio
- + **NI** increased from the recognition of GLOW's performance and the depreciation of THB resulting in higher AP from Sriracha

1Q20 vs 4Q19 PTT Consolidated Performance (QoQ):

Resilient group operating performance without stock loss

MMTHB



Oil & retail/ Power/ Others ▲

Others: ▲

- + **Trading Affiliates (PTTT)**: gain on derivatives
- + **PTTLNG**: higher FX gain from forward contract
- + **Coal**: lower cash cost & payback on tax lawsuit

Oil & Retail ▼

- Higher stock loss and MTM loss on derivatives
- Vol. decreased esp. Jet A-1 and gasoline
- + Lower SG&A
- + Margin increased; Jet A-1 due to price structure

Power ▲

- + Increasing AP from Sriracha and Gheco-1 (T/A in 4Q19)
- + Lower NG price & maintenance cost

Petrochemical & Refining ▼

- Significantly stock loss in 1Q20 due to crude oil price sharply drop while stock gain in 4Q19
- Lower GRM from reduced in almost products spread
- Olefins: lower vol. from 3 plants T/A and olefins spread dropped
- Aromatics: Stock loss while PX and BZ spreads improved

PTTEP ▼

- Lower sales vol. due to lower crude sales of Malaysia Project and lower nomination from buyer
- Lower ASP following crude oil prices decreased

Gas ▼

- GSP: lower vol. from GSP#5 S/D & declined petchem prices
- S&M: declined selling price of industrial customers due to lower FO price linked
- + Lower loss on NGV's business

Trading ▲

- + Higher GM from lower condensate discount
- + Gain on derivatives
- Lower vol. from out-out trading

Extra Items ▼

4Q19: PTT's payment on damage from court's judgment (NACAP) & pipeline allowance for high speed train project
: IRPC's reverse impairment

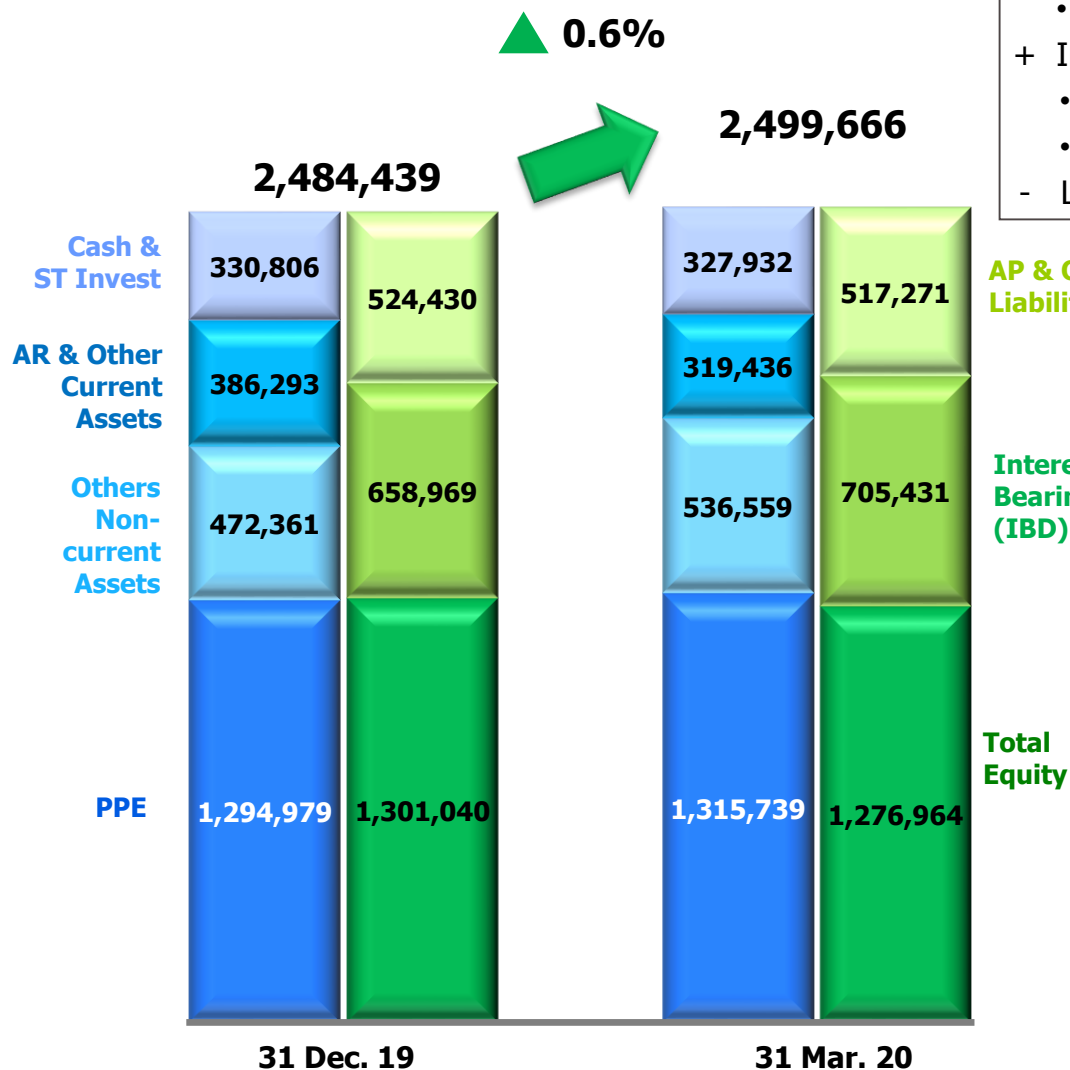
1Q20: No extra items

4Q19

1Q20

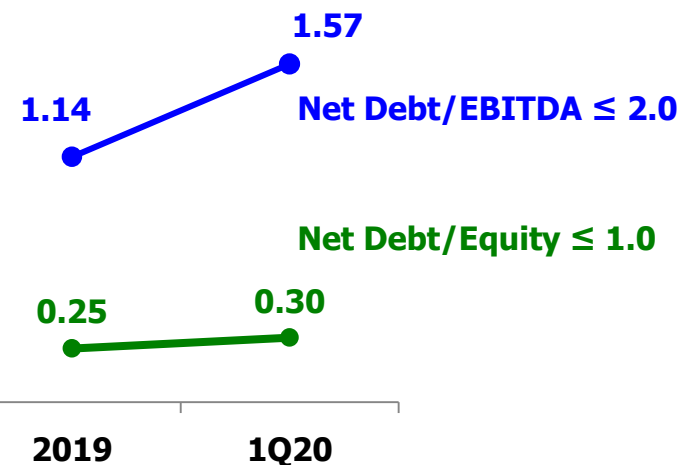
Statement of Financial Position

MMTHB



Assets/Liabilities increased : mainly from

- + Increased in right of use according to TFRS16
- + Increased in IBD from
 - Lease liabilities according to TFRS16
 - Foreign currency loan (MTM) from THB depreciation
- + Increased in PPE from;
 - PTTEP's FS conversion as THB depreciation
 - PTT and PTT Group's projects under construction
- Lower equity mainly from dividend payment and 1Q20 net loss



PTT Ratings at Sovereign Level

- Foreign Currency : Moody's (Baa1), S&P (BBB+), FITCH (BBB+)
- Local Currency : Moody's (Baa1), S&P (A-), FITCH (BBB+)

Statements of Consolidated Cash Flows : 1Q2020

Operating	61,243
Net Income	(1,554)
Changes in assets & liabilities	15,618
Income Tax	(3,869)
Non-Cash Adjustment	51,048

Investing	(69,218)
CAPEX (PP&E, Intangible asset)	(43,623)
Investment (Sub. & Affiliates & others)	(1,934)
Current investment	(27,515)
Dividend/Interest Received	1,986
Others	1,868

Free Cash flow
(7,975)



Financing	(27,056)
S/T & L/T Loan repayment	(39,212)
Finance cost paid	(7,257)
Dividend paid	(585)
Ordinary share issuance of subsidiaries	153
Received from loans/Bonds	19,845

Adjustment
(3,166)

Beginning Cash & Cash Equivalents
292,542
38,253
330,795



Cash In/(Out)
(38,197)
35,334
(2,863)

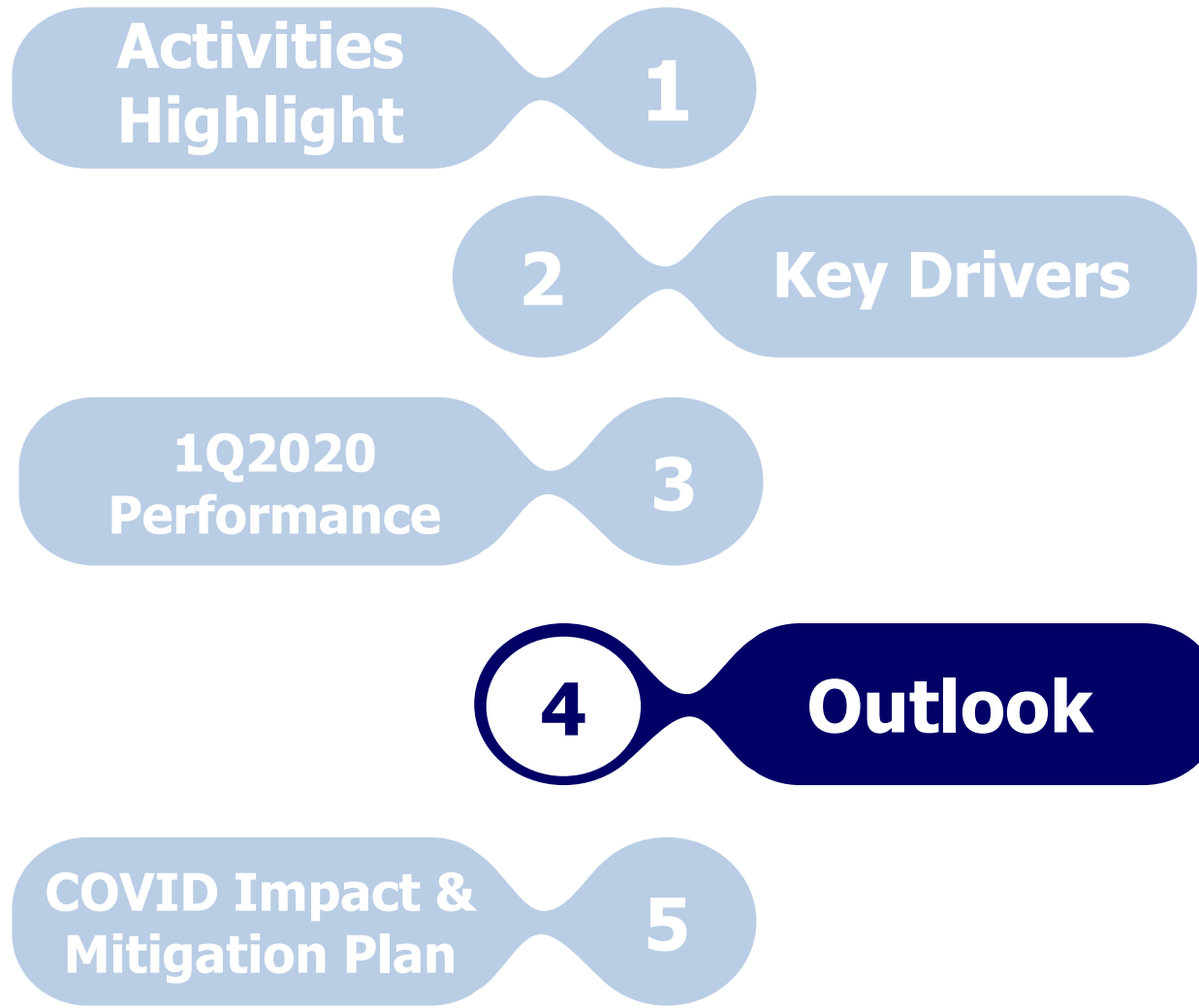


Ending Cash & Cash Equivalents	254,345
Current inv.	73,587
Ending cash incl. S/T investment	327,932

Cash & cash eqi

Current inv.

Contents



Global Economic Outlook:

The Great Lockdown

IMF Forecast – 2020 GDP Growth



- **COVID-19 and containment measures disrupting economic activities**

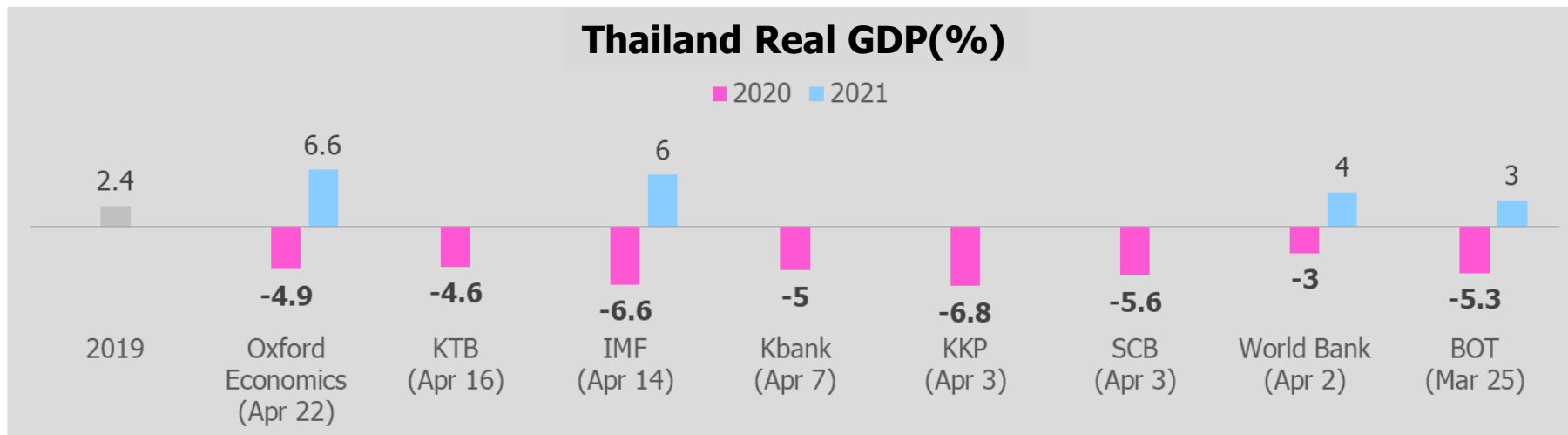
(mostly in 2Q2020 for all countries)

- Infection reducing labor supply
- Quarantines, regional lockdowns and social distancing affecting sectors relying on social interactions
- Workplace closures disrupting supply chains and lowering productivity
- Layoffs, income declines, fear of contagion, and heightened uncertainty making people spend less
- Domestic disruption spilling over to trading partners through trade and global value chain linkage
- Initial shock amplifying through tight financial conditions which are expected to remain in place in 1H2020
- Weaker global demand leading to lower commodity prices for commodity exporters



- + **Gradual recovery in economic activities expected in 2H2020**, as pandemic fades and containment measures are gradually lifted
- + **Emergency support, as well as fiscal and monetary stimulus**
- + **Policy actions taken around the world to help global growth rebound in 2021**

Thailand Economic Outlook: Sharp Slowdown



Drop in tourist arrivals to 13-21 million in 2020,
from 40 million in 2019

-48% to -67%

Goods exports in deeper contraction,
amid weaker trading partners

-6% to -13% in 2020 vs.
-3.2% in 2019

Private consumption hit hard by
the global crisis, local transmission,
and severe drought

-4% to -1% in 2020 vs.
4.5% in 2019

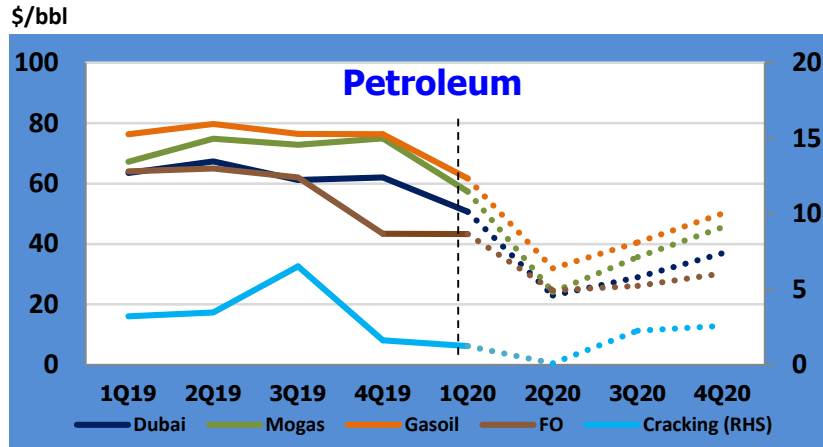


COVID-19 relief measures

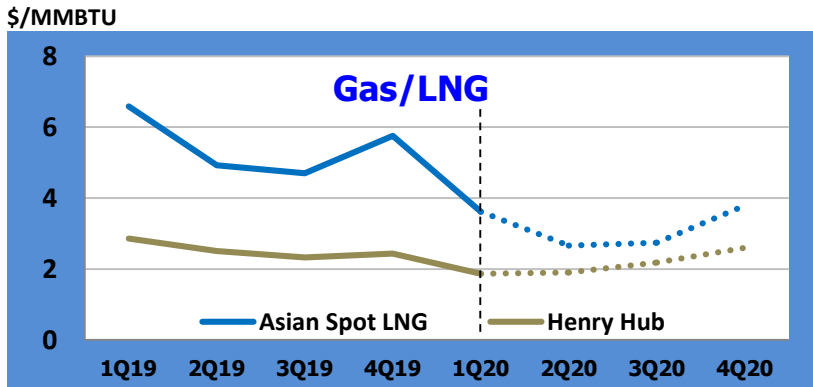
Fiscal and monetary stimulus

Low fuel prices amid oil price war

2020 Petroleum and Gas Outlook



Price	2019(A)	1Q20(A)	Apr20(A)	Y20(E)
Dubai	63.5	50.7	20.4	30-40
Mogas	72.5	57.4	20.5	35-45
Gasoil	77.2	61.7	28.7	40-50
FO (3.5%)	58.7	43.4	23.3	25-35
Singapore GRM	3.7	1.2	(0.2)	2.0-3.5



Price	2019(A)	1Q20(A)	Apr20(A)	Y20(E)
Asian Spot LNG	6.0	3.6	2.2	2.7- 3.8
Henry Hub (HH)	2.5	1.9	1.8	1.8 - 2.6

Source: PTT, PRISM
Petroleum Rolling as of Apr 2020

Dubai

- ▼ **COVID-19 outbreak** dampens global economy and oil demand
- ▼ **Surging Non-OPEC oil production**, led by U.S.; however, low oil prices may cause producers to reduce output
- ▲ **OPEC+ cut oil output** to balance oil market
- ▲ **Geopolitical Risks**; U.S. conflicts with Iran, and Venezuela, plus unrest in other oil producing countries such as Libya

Mogas

- ▼ **Collapsed demand** as several countries continue lockdowns to contain the spread of COVID-19
- ▲ **Heavy turnaround and refinery cut run** to curtail supply and cope with demand loss

Gasoil

- ▼ **Sluggish demand from transportation and industrial sectors** caused by the COVID-19 pandemic
- ▲ **Expected recovering business activities** after reaching peak of COVID-19 would stimulate fuel consumption in 2H2020

Fuel Oil

- ▼ **IMO regulation** effective 1 Jan 2020
- ▲ **Lower HSFO production** after the implementation of IMO 2020
- ▲ **Expected HSFO demand for power sector to improve** during summer

Singapore GRM

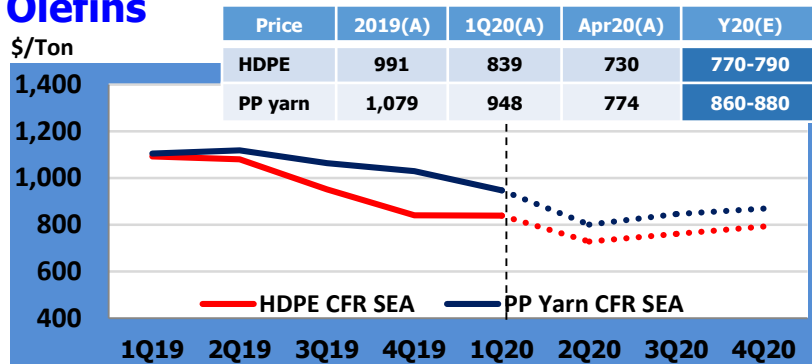
- ▼ **Lower crack margins** affected by a significant drop in demand

Gas/LNG

- ▼ **Asian Spot LNG:**
 - Asian LNG demand is pressured from COVID-19 effect but expected to recover in 4Q2020
 - Weak regional demand and limited storage availability further depress prices
- ▼ **Henry Hub:** Lower expected global demand for natural gas put downward pressure on prices.

2020 Petrochemical Outlook

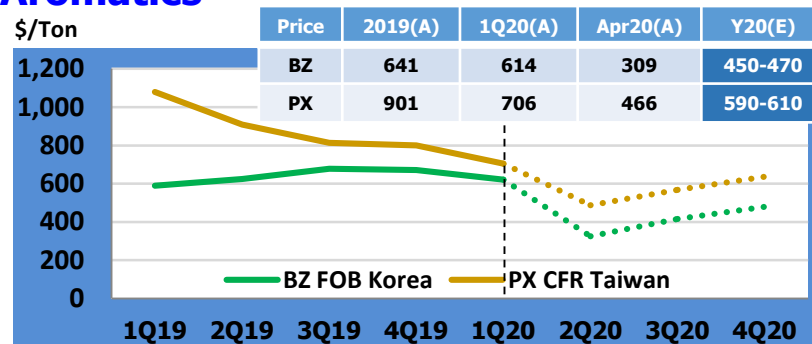
Olefins



Olefins

- ▼ **Downstream demand is affected** by government measurement to control COVID-19 spread and economic slowdown across the regions
- ▼ **PRefChem** (Malaysia) plans to start PP and HDPE units in 2H2020
- ▲ High demand from **single-use** applications i.e. food packaging, garbage bag
- ▲ Expect **economic to recovery** from easing government restriction across the regions toward 2H2020

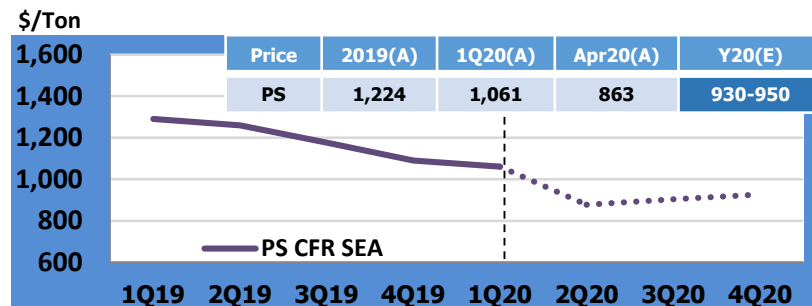
Aromatics



Aromatics

- ▼ **Downstream demand**, especially textile, automotive and appliance, is largely affected by COVID-19 pandemic and nationwide lockdown across the regions
- ▼ **Saudi Aramco** (Saudi Arabia) and **Sinochem** (China) plan to start PX facilities at the end of this year
- ▲ **Chinese PX demand** gradually improve from improving PTA and textile production but market sentiment still concern on global economic outlook and 2nd wave of COVID-19 spread

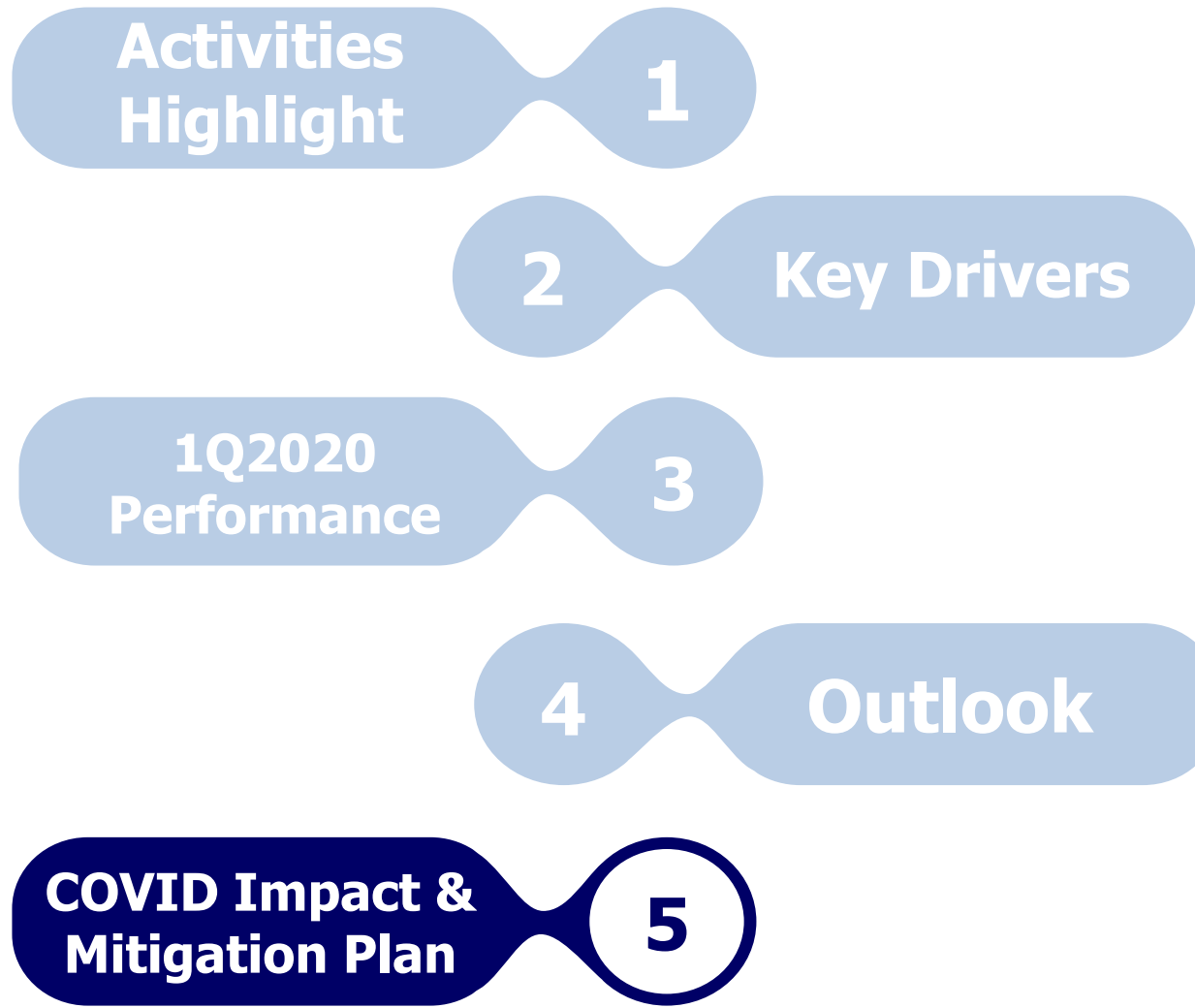
Polystyrene



Polystyrene (PS)

- ▼ **PS downstream demand**, especially Chinese appliance export sectors affected by lockdown across the regions
- ▼ **PS demand is likely slow** as Ramadan between 23 Apr to 23 May and low season around May and Jun.
- ▲ **Chinese PS producers** currently reduce operating rate in accordance with concern on global economic slowdown
- ▲ **Firm demand for PS food packaging** as ongoing COVID-19 concern

Contents



Impact from COVID & Price War to PTT and PTT Group : Likely case



Upstream



- Optimal supply according to Power and Petrochemical demand
- **Expected E&P sales volume in 2020**
↓ ~ 7%*



Intermediate



Gas Pipeline

- Performance maintain as per committed volume of pipeline

S&M

- Gas consumption in relation to domestic GDP both for power and industrial customers

GSP

- Optimal utilization rate to align with Petrochemical demand and domestic LPG demand

Total Gas volume ↓ ~ 5-10% : mainly due to industrial's and transportation's demand



Maximize utilization to mitigate gas market volatility



Downstream



Trading

- Crude/project supply and procurement optimization according to market
- **Expected trading volume**
↓ ~ 3-5%



- **Sales volume both oil and non-oil businesses relative to country GDP**



- **PTT group refinery U-Rate in 2020 range from 90%-100%**
- Running optimization with group central balance model to get optimal In & out take plan as a group



Infrastructure



- **Some reduction in Industrial users demand volume**
- No impact to EGAT volume (incl. IPP & SPP)

*Note: compared to Business Plan

Implications to PTT



1. Drive performance improvement



2. Review budget and investment prioritization



3. Ensure liquidity, manage cash conversion cycle (balance AR,AP) and maintain financial strength

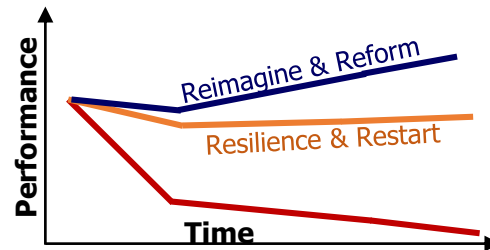
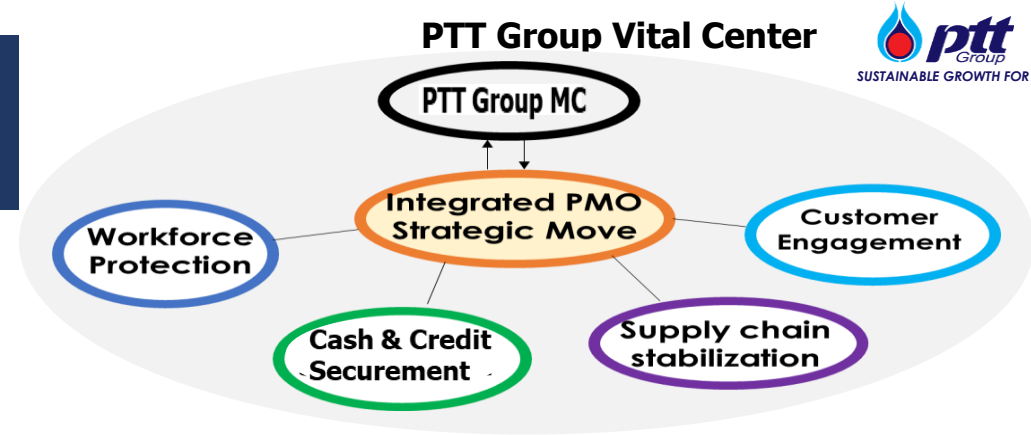


4. Supply chain management & stability for cost optimization



5. Changes to regulatory environment enabling faster technology adoption & more flexibility

PTT group mitigate the Impact thru "PTT Group Vital Center"



4R's levers

Group's immediate focus & strengthening with closed monitoring

Strong foundation for growth thru any crisis

01



Resilience

Immediate actions to address challenges and ensure resiliency

- Stress tests & adaptive planning
- Spend smarter & Prioritize CAPEX
- Liquidity mgmt. & Credit Rating
- PTT group value chain optimization
- Safeguard employees & WFH
- Protect & care for customers

02



Restart

Restart the business back to scale quickly and ensure competitiveness

- New normal operation thru Group synergy
- Maintain financial strength and business competitiveness
- Efficient & agile workforce
- Engage and retain customers

03



Re-imagination

Initiates & design business models for opportunities (Next Normal)

- Reimagine Upstream
- Reinforce Downstream
- Reignite S-Curve into action

04



Reform

Reform corporate & businesses to operate in every situation

- Org. / structure / business transformation readiness for regulatory and environment shift

**Present focus on Resilience & Restart
... to New normal**

**Reimagine & Reform
... for Next normal**

Present Focus on Resolve, Resilience & Return

"Decrease-Discard-Defer" Measures & Prioritize CAPEX



Decrease

- Donation/CSR
- Outsources/ Advisory



Discard

- SG&A
- Advertising/ Events



Defer

- Maintenance
- New projects

OPEX

**10% - 15%
reduction
from Spend
Smarter
Program**

- + Spending from procurement
- + Expense reduction i.e. SG&A
- + Addition from process redesign

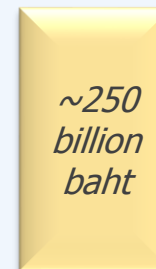
SPIRIT+D

Cultivate Cost Conscious Culture

CAPEX

- **Prioritize**
- **Reconsider**

**PTT Group
Planned CAPEX 2020**



10%-15%

Revision



CAPEX reduction; new projects under study, non-core asset disposal

Continued CAPEX: Under-construction project

Gas Business Guidance

▪ Pooled gas price

2Q20



2020



Soften avg. pooled gas price
in Y2020 especially in 2H20
- All sources



▪ GSP : major turnaround

- 2Q2020 GSP#1 major TA (25 days)
GSP#1 & GSP#5 50% TD for inventory management (23 days)
- 2H2020 minor turndown of GSP#5 and GSP#6



▪ NGV & LPG Subsidy



• NGV

- Public vehicles : Reduce 3 baht/kg : 13.62 baht/kg -> 10.62 baht/kg
(1 Apr 20 – 30 Jun 20)
- Private vehicles : Fixed price at 15.31 baht/kg
(16 Mar 20 – 15 Aug 20)

• LPG

- Only subsidy thru “State Welfare smart card” to low-income households at the maximum subsidy of 30 MB till Jun. 20
- = Revised down LPG Ex-Refinery prices down from 17.1795 baht/kg -> 14.3758 baht/kg (24 Mar 20 – 23 Jun 20) -> Subsidized by LPG Fund

Upcoming Projects in 2020



▪ Gas Master Sales Agreement

- Target within MID 2020



▪ On-scheduled projects

- irpc** 2Q20: COD of Floating solar project
- GPSC** 3Q20: NNEG Expansion Project
- GC** 2H20: COD of MTP Retrofit & PO/Polyols

PTT Group's Maintenance Schedule



2Q20: Planned TA (HDPE II)

3Q20: Planned TA (LDPE,LLDPE II,
Aro II, PS)



3Q20: Planned Major TA (LAB)



2Q20: Planned TA (PP)

Thank you



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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) : 1Q2020

Operating	538
Net Income	18,795
Changes in assets & liabilities	(13,535)
Income Tax	(362)
Non-Cash Adjustment	(4,360)

Investing	(10,650)
CAPEX (PP&E, Intangible asset)	(4,532)
Investment (Sub. & Affiliates & others)	2,818
Current investment	(8,132)
Dividend/Interest Received	655
Others	(1,459)

Free Cash flow
(10,112)



Financing	(3,499)
Repayment Loans	(2,338)
Interest paid	(1,161)
Received from loans/Bonds	0

Adjustment
(472)

Beginning Cash and Cash Equivalents
46,481
15,002
61,483



Cash In/(Out)
(14,083)
9,930
(4,153)



Ending Cash & Cash Equivalents	32,398
Current inv.	24,932
Ending cash incl. S/T investment	57,330

Cash & cash eqi
Current inv.

PTT Group Performance : 1Q2020 (QoQ)

Unit : MMTHB	Performance 100%					% PTT holding	Equity Method % PTT				
	1Q19	4Q19	1Q20	QoQ	YoY		Q1/19	4Q19	1Q20	QoQ	YoY
PTT Net operating Income	8,416	4,635	1,716	(63%)	(80%)		8,416	4,635	1,716	(63%)	(80%)
E&P - PTTEP	12,479	11,621	8,613	(26%)	(31%)	64.79%	8,147	7,607	5,569	(27%)	(32%)
<u>Petrochemical</u>	6,513	464	(8,712)	<(100%)	<(100%)		3,004	216	(4,015)	<(100%)	<(100%)
- PTTCG	6,443	374	(8,784)	<(100%)	<(100%)	47.92%	2,934	126	(4,088)	<(100%)	<(100%)
- Other	70	90	72	(20%)	3%		70	90	73	(19%)	4%
<u>Refining</u>	4,561	1,471	(22,659)	<(100%)	<(100%)		1,839	917	(10,471)	<(100%)	<(100%)
- TOP	4,408	1,984	(13,754)	<(100%)	<(100%)	47.03%	1,749	1,089	(6,255)	<(100%)	<(100%)
- IRPC	153	(513)	(8,905)	<(100%)	<(100%)	47.55%	90	(172)	(4,216)	<(100%)	<(100%)
<u>Others Business</u>	9,356	5,431	5,559	2%	(41%)		7,906	4,042	6,049	50%	(23%)
<u>Inter</u> - PTTER/PTTGM	1,250	(39)	(2,007)	<(100%)	<(100%)	100%	1,255	(25)	154	>100%	(88%)
<u>Gas</u> - PTT LNG/PTTNGD/PTTGL/TTM(T)/TTM(M)	2,211	1,675	2,353	40%	6%		1,893	1,542	2,386	55%	26%
<u>Utilities</u> - GPSC/TP/DCAP/PTTME/PTTES/PTTDIGITAL/ENCO	1,524	1,734	2,234	29%	47%		387	456	564	24%	46%
<u>Oil & Oth.</u> - PTTT/PTTOR/THAPPLINE/Others ^{1/}	4,371	2,061	2,979	45%	(32%)		4,371	2,069	2,945	42%	(33%)
Shared of Net Income from Affiliates	32,909	18,987	(17,199)	<(100%)	<(100%)		20,896	12,782	(2,868)	<(100%)	<(100%)
Tax adjustment for gain on disposal of investment and asset	-	29	(402)	<(100%)			-	29	(402)	<(100%)	
PTT Conso. Net Income	41,325	23,651	(15,885)	<(100%)	<(100%)		29,312	17,446	(1,554)	<(100%)	<(100%)

1/ Including BSA, PTT TCC and RTC

PTT Group Accounting Structure



Data as of 31 Mar 2020

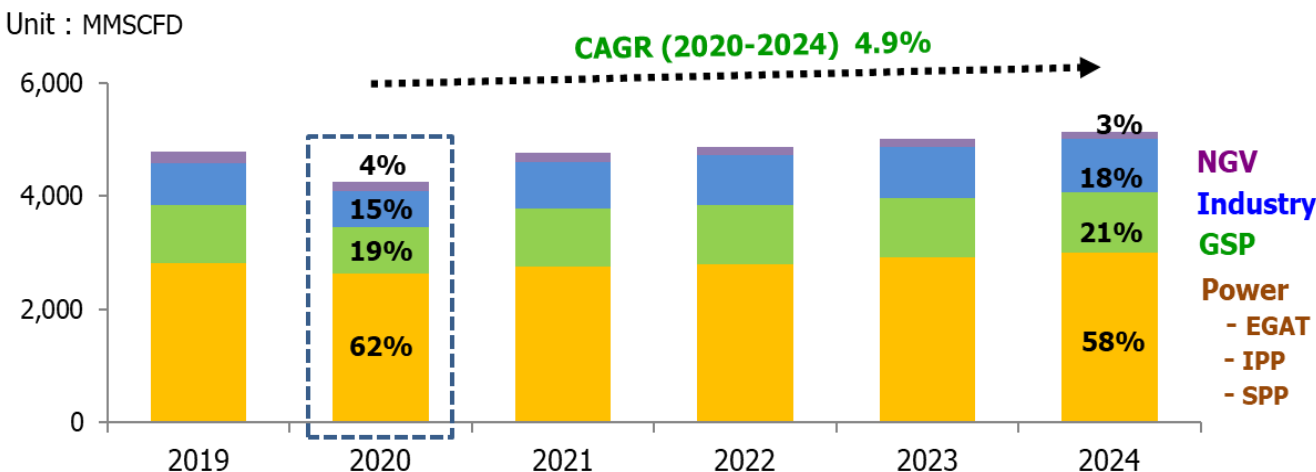
E&P and Gas Business Group			Oil Business Group			Petrochemicals & Refining Business Group		
Subsidiaries PTT Exploration & Production Plc. PTTEP 64.79% PTT Natural Gas Distribution Co., Ltd. PTTNGD 58.00% PTT LNG Co., Ltd. PTTLNG 100.00% PTT Global LNG Co., Ltd. PTTGL 50.00% Joint Ventures Trans Thai-Malaysia (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%			Subsidiaries PTT Oil & Retail Business Co., Ltd. OR 100.00% Others PetroAsia (Maoming) Co., Ltd. PA(Maoming) 20.00% PetroAsia (Sanshui) Co., Ltd. PA(Sanshui) 25.00%			Petrochemical Subsidiaries PTT Global Chemical Plc.* GC 47.92% PTT Tank Terminal Co., Ltd. PTTTANK 100.00% Refining Subsidiaries Thai Oil Plc.* TOP 47.03% IRPC Plc.* IRPC 47.55%		
						International Trading Business Group		
						Subsidiaries PTT International Trading Pte. PTTT 100.00% PTT International Trading London Ltd PTTT LDN 100.00%		
Technology and Engineering Business Group			International Investment			Others		
Subsidiaries Global Power Synergy Co., Ltd* GPSC 22.81% Thai Oil Power Co., Ltd.* TP 26.00% PTT Digital Solutions Co., Ltd.* PTT DIGITAL 20.00% PTT Energy Solutions Co., Ltd.* PTES 40.00% Energy Complex Co., Ltd. EnCo 50.00% Joint Ventures District Cooling System and Power Plant DCAP 35.00% Others Baania (Thailand) Company Ltd. Baania 2.89% HG Robotics Plc. HG Robotics 9.49% Innospace (Thailand) Innospace 19.42%			Subsidiaries PTT Energy Resources Co., Ltd. PTTER 100.00% PTT Green Energy Pte. Ltd. PTTGE 100.00% PTT Global Management Co., Ltd. PTTGM 100.00%			Subsidiaries Business Service Alliance Co., Ltd.* BSA 25.00% PTT Regional Treasury Center Pte. Ltd. PTTRTC 100.00% PTT Treasury Center Co. Ltd. PTT TCC 100.00% Others Sarn Palung Social Enterprise Company Ltd. SPSE 20.00% Dhipaya Insurance Plc. TIP 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.

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 Erawan Mozambique
700 800

Major Project : COD

5th pipeline
RA#6 Pipeline

Cum. Pipeline Length (Km)

4,702

GSP project: COD
Cum. GSP Production (mmscfd)

LNG new project
Cum. Capacity (MTA)

LNG Terminal 2
19.0

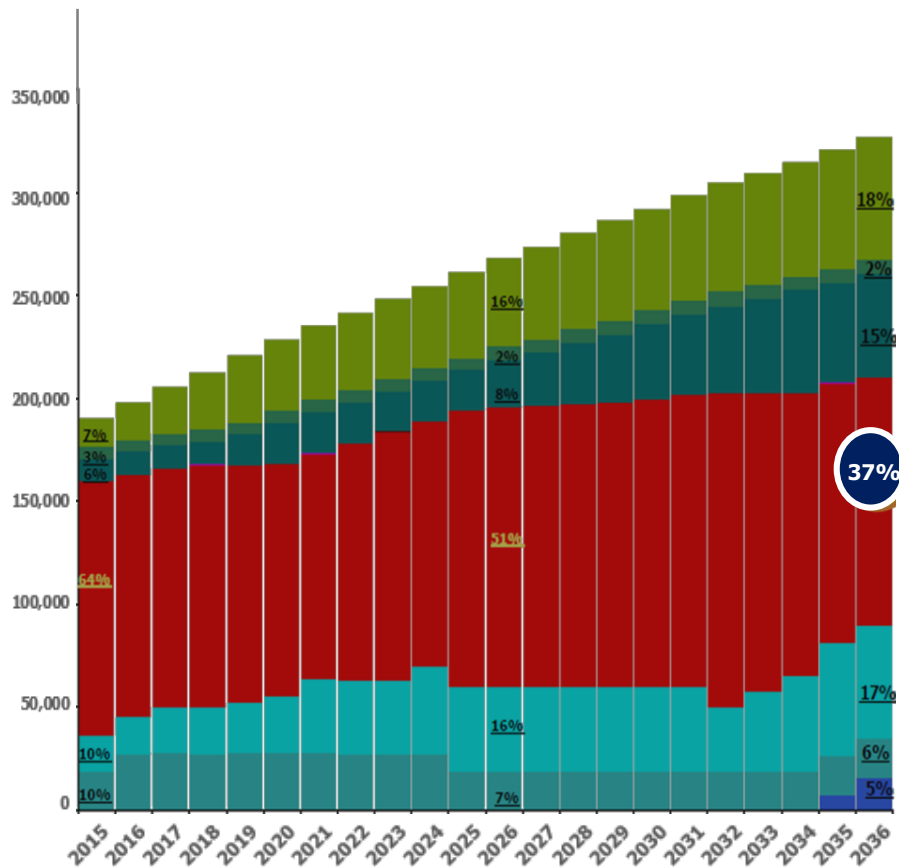
Newly Thailand Power Development Plan

Stronger demand of NG for power plants

PDP 2015*

Natural Gas growth upon
Government fuel diversification policy
for power generation

Unit: GWh

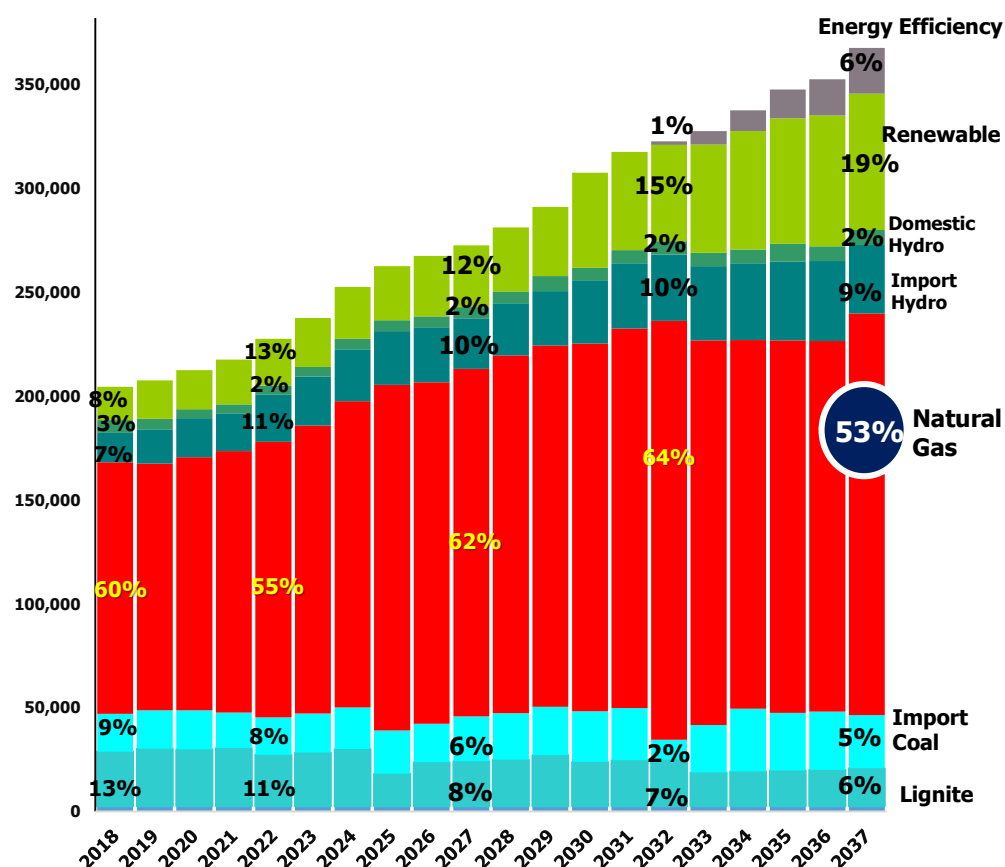


*Source: Ministry of Energy

PDP 2018 Rev.1

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

Unit: GWh



** Source : EPPO (Public Hearing presentation)

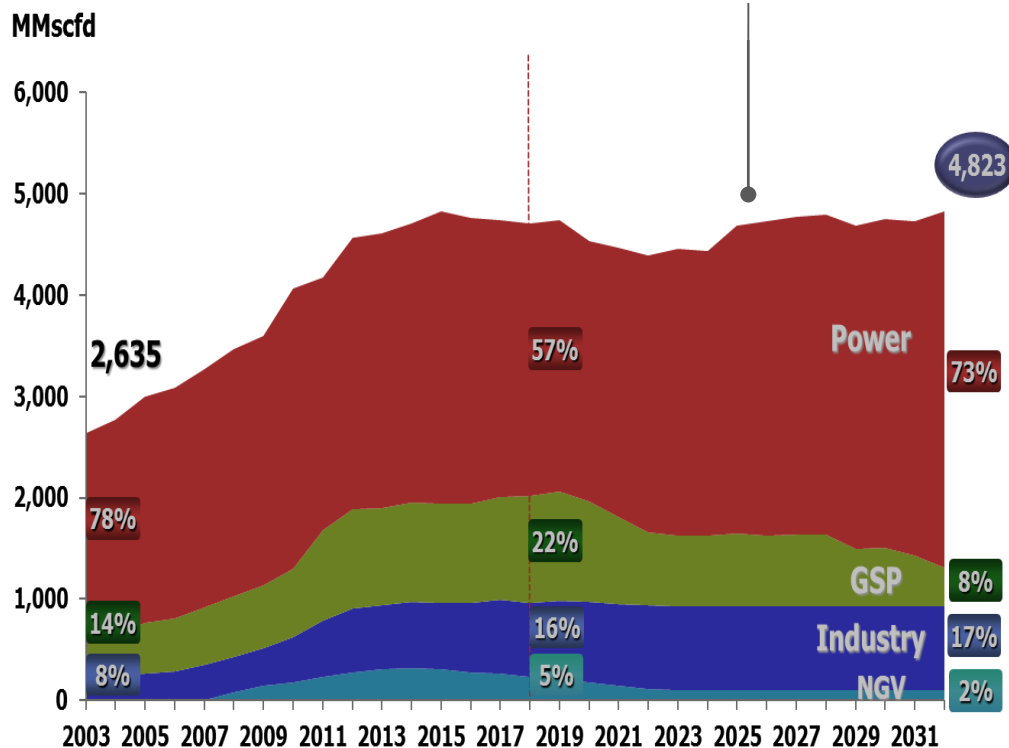
Natural Gas : Growth of natural gas upon Government fuel diversification policy for power generation

Old*

Thailand Gas demand forecast (CAGR during 2018-2032)

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

Thailand Gas Demand
Replace :
Coal ๓๕๐๐ (800 MW),
EE 30%



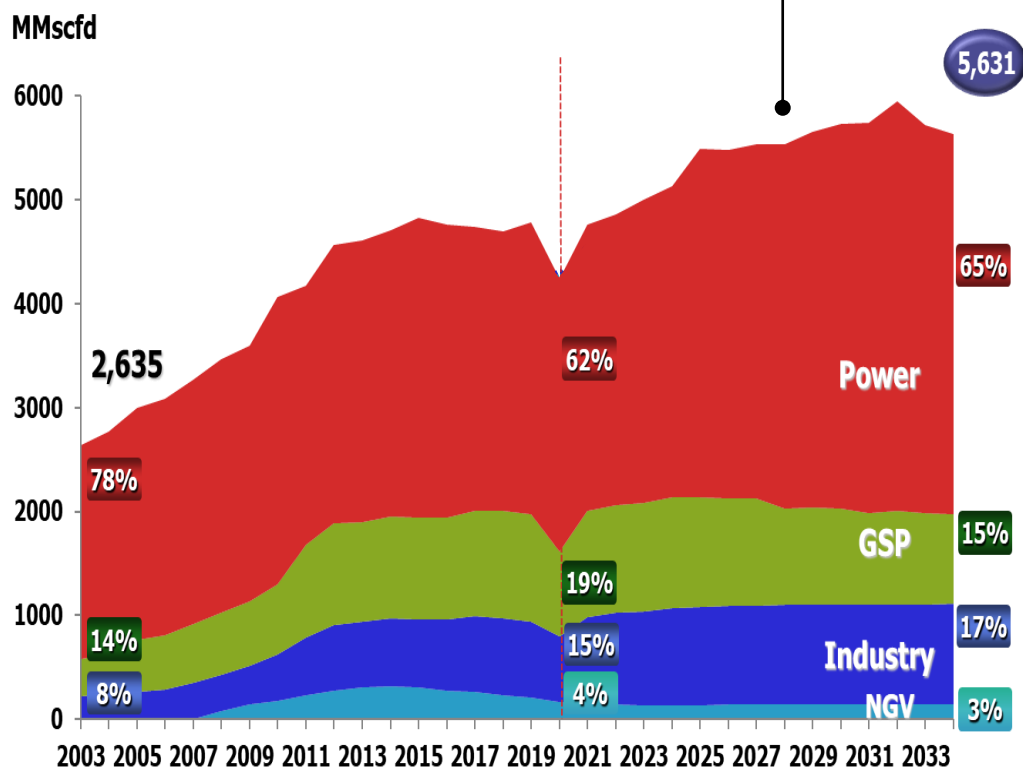
*Source: Ministry of Energy

NEW**

Thailand Gas demand forecast (CAGR during 2020-2034)

: Total	~	2%
: Power	~	2%
: GSP	~	0%
: Industry	~	3%
: NGV	~	-1%

Thailand Gas Demand :



** Source : PTT Business plan 2020 approved by BOD on 16 Jan 2019

Balancing Sustainability : PEOPLE PLANET & PROSPERITY

PTT commits to sustainably operate its business
with an emphasis to balance 3 sustainability management aspects (3P)



8 consecutive year
as a member of the **DJSI** (Year 2012-2019)
from RobecoSAM and S&P Dow Jones Indices



Green House Gas (GHG) Reduction Target



**Thailand's
Greenhouse
Gas Reduction Target**



Short-term: 2020 Target
Reduce greenhouse gas emissions
7-20% from business as usual level
Nationally Appropriate
Mitigation Actions (NAMAs):

Long-term: 2030 Target
Reduce greenhouse gas emissions 20 - 25%
from business as usual level
Nationally Determined Contributions (NDCs):

PTT: GHG Emission from operation (scope 1 & 2) Target

✓ Verified by 3rd party

Strategic Direction

2020

2025

2030

Target Measurement

**Reduce
Operational
Carbon Footprint**

: Set up GHG Reduction
Target from Operation

16 %
vs BAU

18 %
vs BAU

20 %
vs BAU

- Increase PTT Group's revenue from low carbon products in 2023
- Implement carbon pricing for new investment in 2020

2019 Highlight : Sustainability Management Performance

PEOPLE



38% of female employees
42% of female management
(Junior management up)



6 branches of Café Amazon
for Chance to the hearing impaired as baristas



Baht 15,000-30,000 per household per year; an income of more than 160 households in Café Amazon's coffee bean procured project



1st in Thailand and 3rd in ASEAN: The **Vidyasirimedhi Institute of Science and Technology (VISTEC)** be ranked as chemical sciences institutional by Nature Index



794 households benefit from biogas system in piggery farming project : the knowledge of carbon credits through the Thailand Voluntary Emissions and Reduction Program (T-VER) to the communities

PLANET



- **29.71 MtCO2e**: PTT Group's total absolute greenhouse gas emissions from Scope 1 (Direct)
- **1.32 MtCO2e** from Scope 2 (Indirect)



10.37 million cubic meters: water recycled and reused or 7.32% of PTT Group water consumption



395 Hectares planted in 2019
186,754 Hectares : total area of forest planted and maintained until present
> 2.14 million tones of CO₂ emissions per year or valued at over Baht 280 million per year



403 MB: PTT Environmental Investments in 2019



Carbon price is one of PTT investment decision criteria

PROSPERITY



19 MTA of LNG capacity : LNG Receiving Terminal 1 & 2 project to ensure long-term national energy security



24 patents and petty patents be registered in 2019;
1,415 MB revenue received from R&D (direct and indirect)
(2018: 1,316 MB)



~250 million liters per year of B20 diesel be sold domestically to promote palm oil usage, support palm oil farmers and reduce air pollution



~40 million litres per month of total PTT UltraForce Diesel Premium (EURO 5) be sold in **2019** thru more than 400 stations

