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Investor Presentation

Morgan Stanley Virtual ASEAN Conference 2022

29 June 2022

Cautionary Statement

Forward-looking Information

The information, statements, forecasts and projections contained herein reflect the Company's current views with respect to future events and financial performance. These views are based on assumptions subject to various risks. No assurance is given that these future events will occur, or that the Company's assumptions are correct. Actual results may differ materially from those projected.

Petroleum Reserves Information

In this presentation, the Company discloses petroleum reserves that are not included in the Securities Exchange and Commission of Thailand (SEC) Annual Registration Statement Form 56-1 under "Supplemental Information on Petroleum Exploration and Production Activities". The reserves data contained in this presentation reflects the Company's best estimates of its reserves. While the Company periodically obtains an independent audit of a portion of its proved reserves, no independent qualified reserves evaluator or auditor was involved in the preparation of reserves data disclosed in this presentation. Unless stated otherwise, reserves are stated at the Company's gross basis.

This presentation may contain the terms "proved reserves" and "probable reserves". Unless stated otherwise, the Company adopts similar description as defined by the Society of Petroleum Engineers.

Proved Reserves - Proved reserves are defined as those quantities of petroleum which, by analysis of geological and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under current economic conditions, operating methods, and government regulations.

Probable Reserves - Probable reserves are defined as those unproved reserves which analysis of geological and engineering data suggests are more likely than not to be recoverable.

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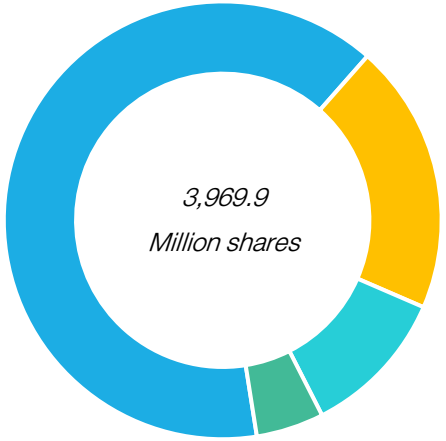
Company Introduction

PTTEP Overview | E&P Flagship of PTT Group

Shareholding Structure

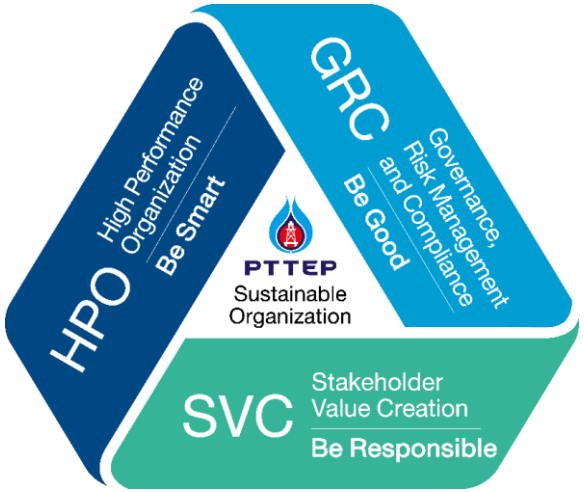


PTT	64%
Local Institutions	20%
Foreign Institutions	11%
Retails	5%

As of latest book closing Aug 2021

Stock Quote	PTTEP
Market Capitalization	> 15 Billion USD
Sales Revenue	> 90% SEA & ME
Cash Cost	< 14 USD/BOE

Operating Framework



Dow Jones Sustainability Indexes	THSI Thailand Sustainability Investment 2020	FTSE4Good
2014-2021	2016-2021	2016-2021

MSCI	CDP Disclosure Insight Action
Level "A"	Level "B"

Strategy

HPO & Thrive in Lower Carbon Future

Sustainable E&P business
- ❑ Go for Gas
- ❑ 1st Quartile Unit Cost
- ❑ Production ~700KBOED by 2030

Diversification beyond E&P
- ❑ NI 20% by 2030
- ❑ ARV, Power, CCU

Greenhouse Gas Management
- ❑ Net Zero 2050
- ❑ CCS

Sustain Business Integrity Excellence

GRC role model

Create Shared Values

Circular Model for E&P

Ocean for Life "Guardian of the Ocean"

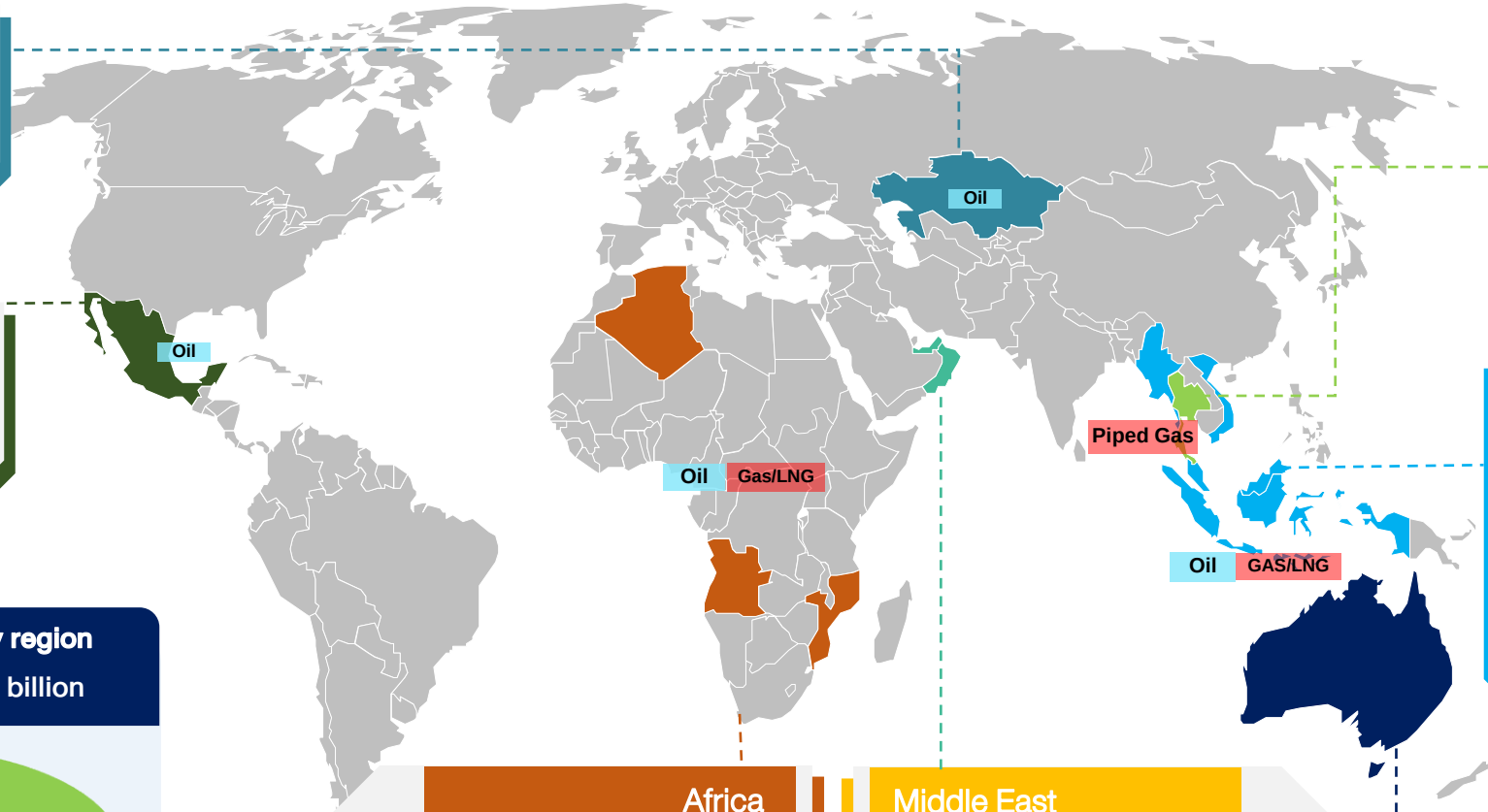
PTTEP Overview | Diversified asset portfolio

Central Asia

Kazakhstan
- Dunga onshore oil field (acquired from Partex in 2019)

North America

Opportunities in an early phase:
- Deepwater exploration in Mexico



Thailand

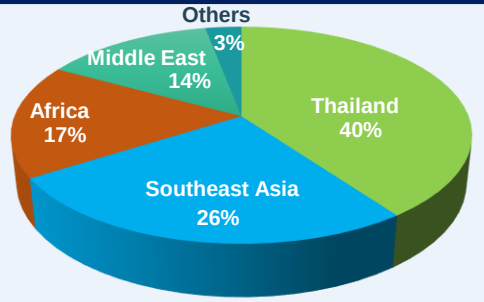
Home Base
- 63% of total sales volume (3M2022)
- Key producing assets include Bongkot, Arthit, Contract 4 and S1
- G1/61 (Erawarn) transition completed
- G2/61 (Bongkot) transition in process (1st 200mmscfd commenced in Apr 2022)

Southeast Asia

Strategic Area
- 23% of total sales volume, mainly from Malaysia and Myanmar (3M2022)
- Recent multiple petroleum discoveries in Malaysia including Lang Lebah
- New exploration block in Malaysia, Sabah SB412
- Other producing assets in Vietnam (oil) and Indonesia (gas)

Book Value of Assets by region

Total assets USD 24.14 billion



As of Mar 2022

Africa

An area for growth, key projects include:
- Algeria's Bir Seba oil field with current flow rate of approximately 17 KBPD
- Algeria's Hassi Bir Rakaiz oil field target 1st oil production in Q2/22.
- Mozambique LNG project target 1st cargo in late 2025*

Middle East

Strategic Area in Oman and UAE
- 14% of total sales volume (3M2022)
- Oman: 4 onshore blocks including PDO (Block 6), largest producing oil asset, and Block 61, largest tight gas development
- UAE: 3 offshore and 1 onshore exploration blocks

Australia

Potential gas development
- Sizable undeveloped gas resources in Timor Sea

Note: As of March 2022

* Subject to local security situation

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Business Update

Key Strategies and 2022 Focus Areas

G1/61 & G2/61	Safe transition & accelerate ramp-up activities
Assets Monetization	SK410B (Lang Lebah) FEED for FID in 2023
Exploration	21 exploration and appraisal wells in 4 countries
GHG & CCS	Emission intensity reduction and CCS rollout
Net Zero	Target Net Zero GHG Emissions by 2050
Diversification	ARV, G2P, CCU, Renewables, H2

Business Update | E&P

Thailand

G1/61

Transition and Operatorship transfer completed 24 APR 2022. Proceed to ramp-up activities to achieve 800MMSCFD in 24 months

G2/61

Transition of 200MMSCFD completed
On track for additional 500 MMSCFD in Mar 2023
Total production rate 700MMSCFD

Malaysia

SB412

Obtained new block SB412 from MY Bid Round 2021. PSC signed in March 2022.

SK410B

Prepare to drill 1 more exploration well in 2022
For SK410B (Lang Lebah) - FID expected in 2023

Myanmar

Yadana

Appointed as new operator effective 20 July 2022

Operatorship transfer under preparation

Stake increases to 37%

UAE

Sharjah Onshore Area C

25% stake acquisition completed 1 March 2022

Proceed to do seismic activity

Mozambique

MZB LNG

1st Cargo expected in 2025 awaiting local security situation

Algeria

HBR-Phase I

1st Oil on 1 June 2022 contributing

4 KBOED this year

Business Update | Beyond E&P

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AI & Robotics

- Business scaling up in progress

ROVULA — AI subsea inspection repair and maintenance (IRM)

SKYLLER — Smart Faming solution

varuna — Drone asset inspection

CARIVA — Healthcare ecosystem and services

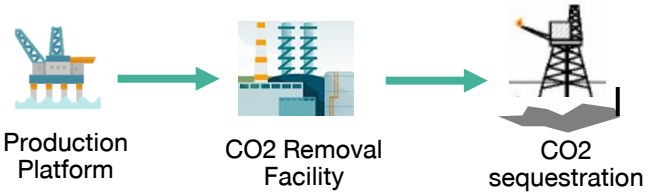
Gas To Power

300	370	600
MMSCFD	KM	MWh
Upstream	Pipelines	Power Plant

- USD 2bn investment GTP project
- Gas supply from M3 and M9
- Preparation work in progress
- FID 2023 / COD 2026

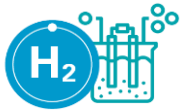
CCS

- Pilot projects : Arthit in Thailand and Lang Lebah in Malaysia
- Established Thailand CCS Project Taskforce
- MOU with INPEX and JGC to explore CCS opportunity in Thailand



CCU & H2

- MOU study green methanol for marine transportation
- Study H2 for future energy



Renewables – Solar

- 1st Pilot Solar energy project size 10MWp
- Supply electricity to S1
- FID mid 2022 / COD early 2023
- Pave way to future renewables project

Total Area ~ 40 acres (113 Rai) in Kampangpetch, NE Thailand

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Net Zero Ambition

Our Net Zero Ambition

2020
Base Year

2030
30%
GHG Intensity*
Reduction

2040
50%
GHG Intensity
Reduction

2050
NET ZERO
Greenhouse Gas Emissions
E&P, Operational Control
SCOPE 1 & 2

*Intensity refers to GHG released in Tonne CO_2e per thousand tonnes of hydrocarbon production

Pathway to Net Zero

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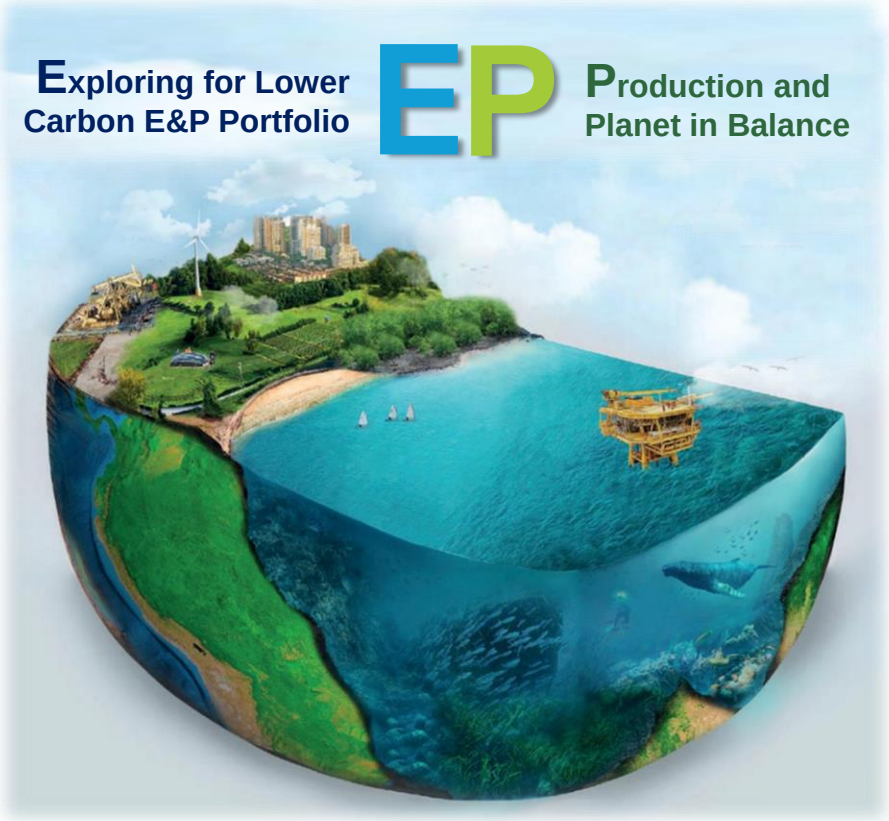
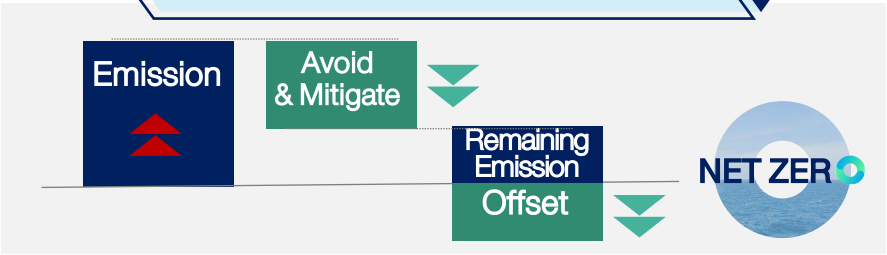


GHG Management Concept



Net Zero Roadmap & Key Milestones

2021 — 2030 — 2040 — **2050 NET ZERO**

Greenhouse Gas Emissions
E&P, Operational Control
SCOPE 1 & 2

Avoid

- Internal Carbon Price
- Lower Carbon E&P Portfolio Management

Mitigate

- Flare Gas / Energy Optimization
- Onshore Solar Power Plant
- CCS at Arthit & Lang Lebah
- Methane Emission Reduction via Tech.
- Zero Routine Flare
- Maximize Renewable Energy in Operation
- Apply Other Future Clean Energies

Offset

- Forestation Program and Blue Carbon Project
- Other Offset Program through Ocean for Life

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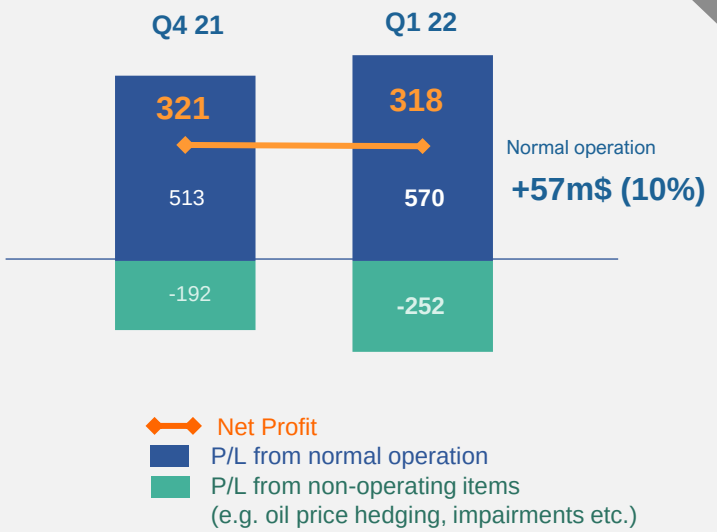
Financial Results & Guidance

Results | Net Profit and Key Drivers

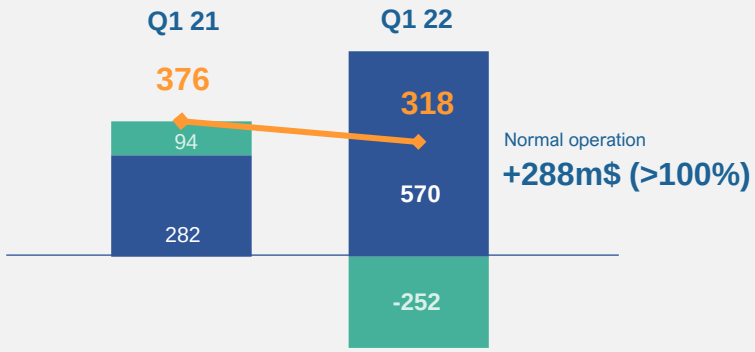
Net Profit

(in million USD)

QoQ



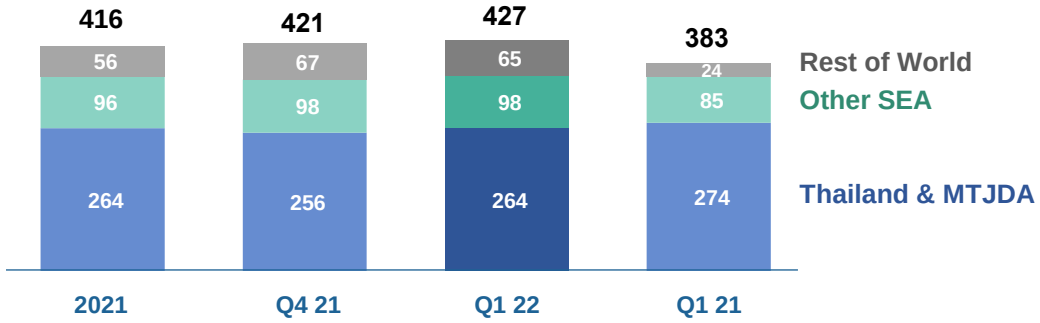
YoY



Sales Volume[1]

(+2% QoQ, +12% YoY)

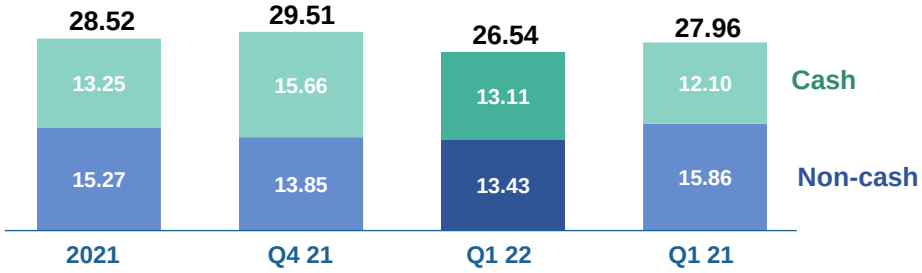
(in KBOED)



Unit Cost[2]

(-10% QoQ, -5% YoY)

(in USD/BOE)

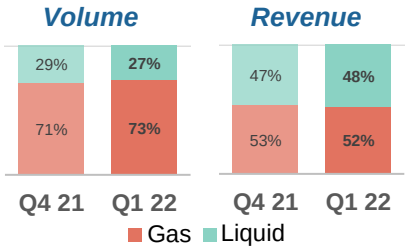


Average Selling Price

(+10% QoQ, +27% YoY)

	2021	Q4 21	Q1 22	Q1 21
Gas ($/MMBTU)	5.69	5.81	6.07	5.61
Liquid ($/BBL)	66.70	76.17	91.19	56.59
Avg. Selling Price ($/BOE)	**43.49**	**46.87**	**51.35**	**40.38**
Avg. Dubai ($/BBL)	69.39	78.27	96.21	60.01
Avg. HSFO ($/BBL)	64.42	71.38	87.96	56.74

Gas: Liquid Mix

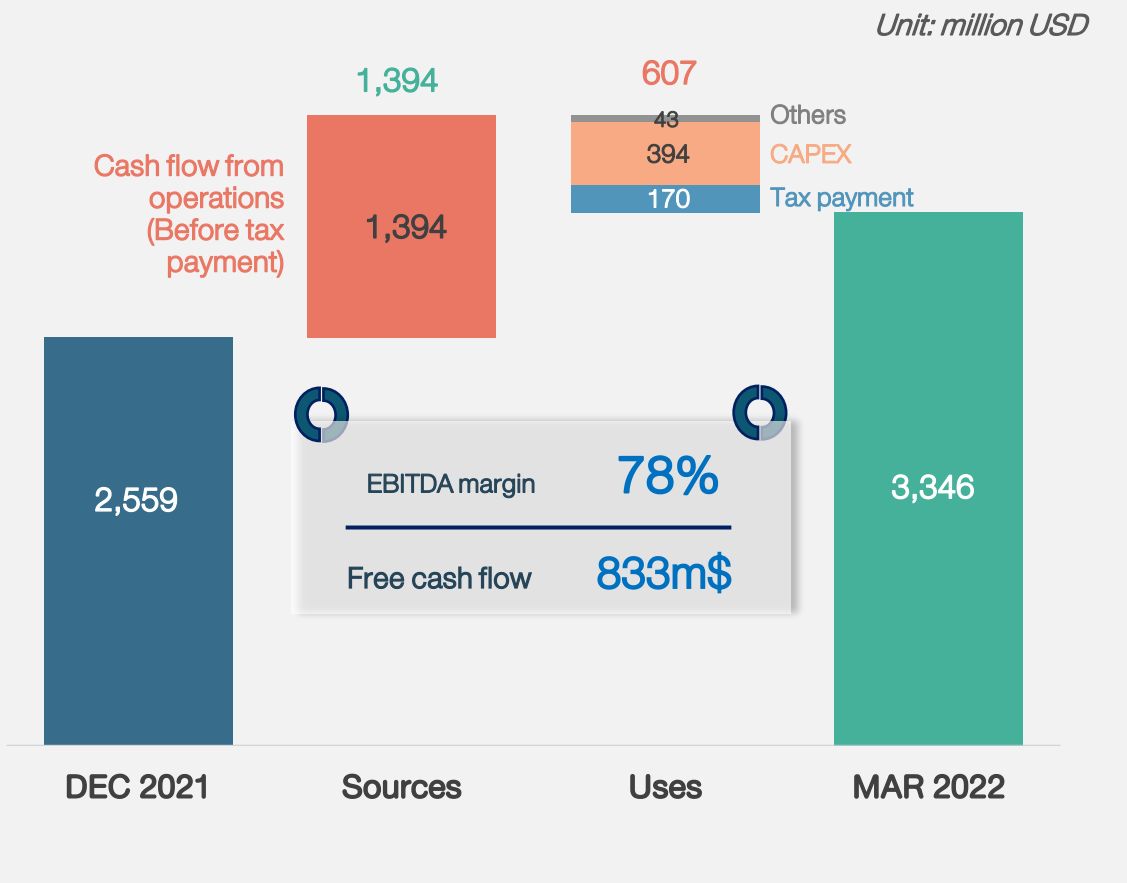


Note: [1] Include sales volume from ADNOC Gas Processing (AGP)
Exclude Oman Block 61 deemed sales volume from tax payment by government

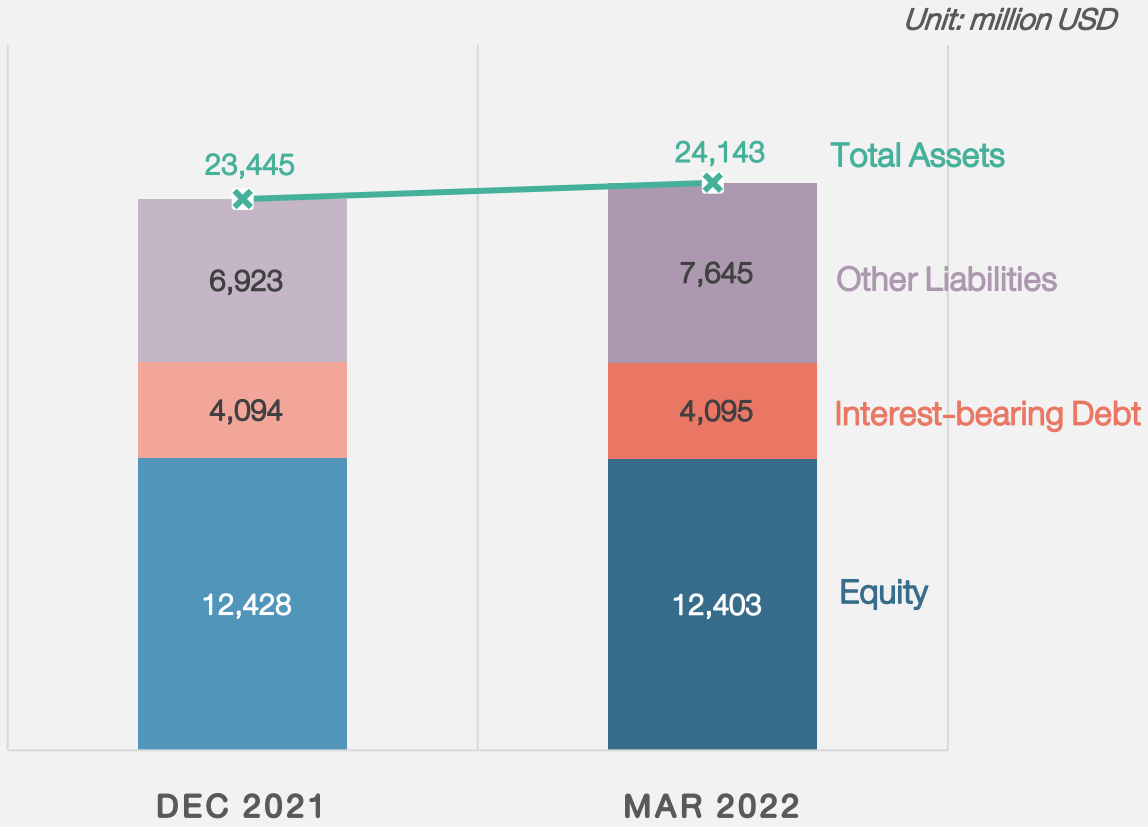
[2] Exclude Exploration assets write-off in Brazil for Q1 21
All Unit Cost shown above exclude costs related to new business

Results | Cash Flows and Financial Position

Cash Flows



Financial Position



Note: * Include Short-term investment
Net of adjustment for the effect of exchange rate changes on cash and cash equivalents

Results | Financial Guidance and Debt Profile

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Financial Guidance

	Average Sales Volume (KBOED)	Average Gas Price* (USD/MMBTU)	Unit Cost (USD/BOE)	EBITDA Margin (% of Sales Revenue)
Q2	~467	~6.2	~28–29	~70–75%
Full Year	~467	~6.4		

* Based on average Dubai oil price in 2022 at 96 $/BBL, with sole investment in G1/61 (Erawan)

Debt Profile

	2021	Q1 2022
Debt to Equity	0.33	0.33
Debt to EBITDA	0.80	0.72
Average Cost of Debt	3.38%	3.38%
Average Loan Life	12.7 Yrs	12.4 Yrs
Interest Rate (Fixed : Float)	83:17	83:17

Note: Debt excludes Hybrid bonds

Credit Ratings

International

- STANDARD & POOR'S RATINGS SERVICES (McGRAW HILL FINANCIAL): BBB stand-alone rating — BBB+ / Stable
- FitchRatings: BBB stand-alone rating — BBB+ / Stable
- MOODY'S: Baa2 stand-alone rating — Baa1 / Stable

National

- TRIS RATING: AAA / Stable

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Thank you and Q&A

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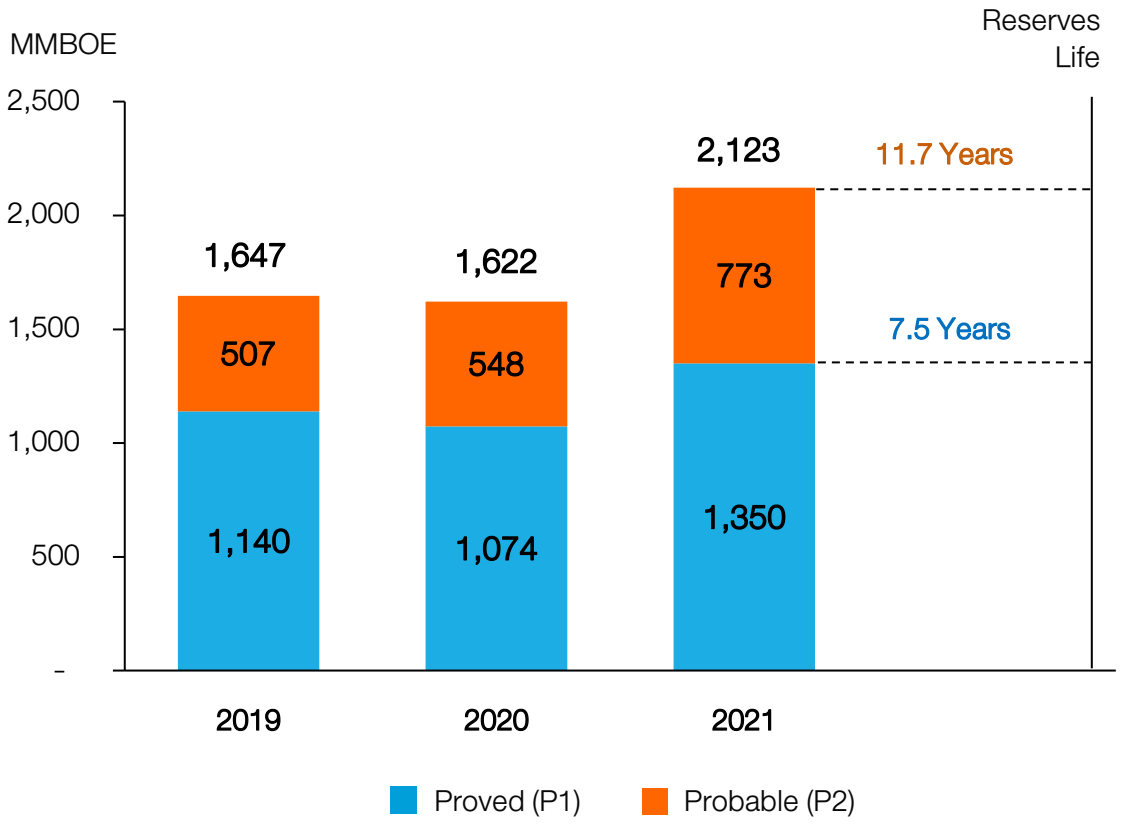
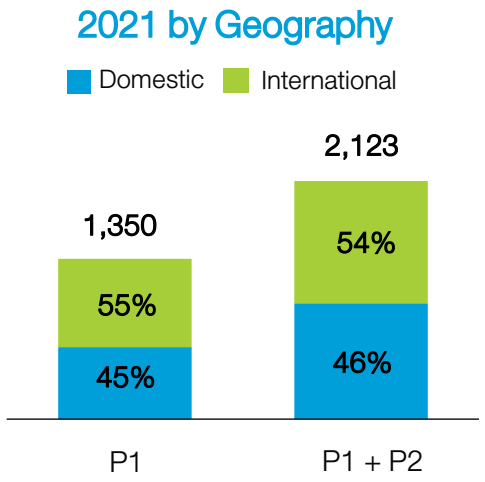
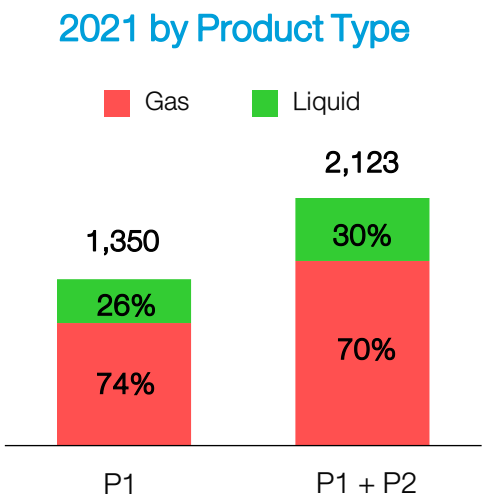
PTTEP Overview | Reserves







5-Year Average Proved Reserves Replacement Ratio (RRR)

2019	2020	2021
1.5X	1.5X	1.9X

- Based on total production of natural gas, condensate, and crude oil (including LPG) of 495 KBOED for the year ended December 31, 2021
- Figures include reserves from equity method

As of December 2021

SD & ESG | Disclosure and Ratings

ESG Standards

GRI

Global Reporting Initiative Reporting Standards (GRI Standards)

Oil and Gas Sector Disclosures (OGSD)

ESG Ratings

S&P Global Ratings — *ESG Rating*

100	80	60	40	20
	PTTEP, Woodside, TotalEnergies, HESS, Shell, Repsol	bp, equinor, eni, Chevron	ExxonMobil, Santos, PetroChina	

MSCI — *ESG Rating*

AAA	AA	A	BBB	BB	B	CCC
equinor, Woodside, HESS	Repsol, Shell, Santos	PTTEP, bp, eni, TotalEnergies	ExxonMobil, Chevron		PetroChina	

Moody's — *ESG Credit Impact*

1	2	3	4	5
	PTTEP, eni	Woodside, HESS, equinor, Shell, Repsol, TotalEnergies, bp, Chevron, ExxonMobil		

CDP DISCLOSURE INSIGHT ACTION — *Climate Change*

A	A-	B	B-	C	C-	D	D-	No Response
	equinor, Repsol, bp, eni, TotalEnergies, HESS	PTTEP, Shell						Woodside, Chevron, PetroChina, ExxonMobil, Santos

SUSTAINALYTICS a Morningstar company — *ESG Risk Rating*

0-10	10-20	20-30	30-40	40+
		Woodside, Repsol, PTTEP, eni, TotalEnergies, HESS	equinor, Shell, bp, ExxonMobil, Santos	Chevron, PetroChina

Source: S&P Global, MSCI, Moody's, CDP, SUSTAINALYTICS' websites

As of December 2021

SD & ESG | Targets and Progress Q1/2022

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GHG Management

13 CLIMATE ACTION

GHG Intensity Reduction Target

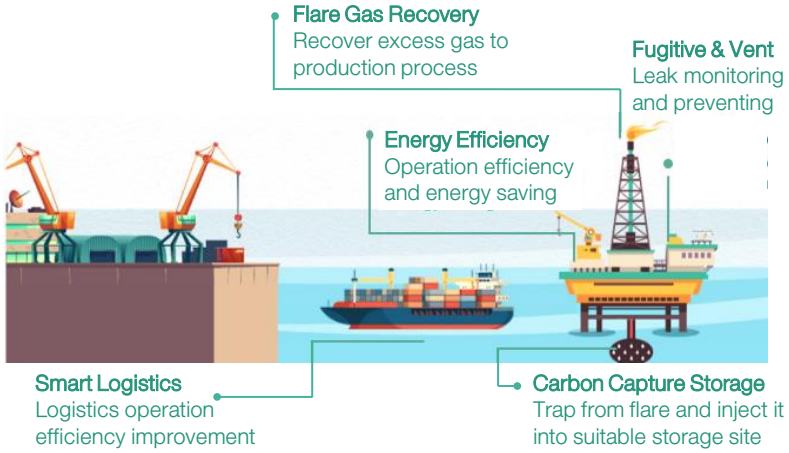
25% By 2030 (2012 base year)

Net Zero By 2050

◆PROGRESS◆

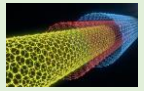
Reduction of GHG Emission Intensity

As of 2021, **24.1% Reduction** (2012 base year)
(2.35 $MMTCO_2e$)



CCUS Study

CNT from flare gas: Ongoing FEED Study for CNT Pilot Unit at S1



CO2 to carbonate-based product: Ongoing to fabricate prototype testing unit

CCS : Ongoing CCS Pre-FEED at ART and LLB

Circular Model

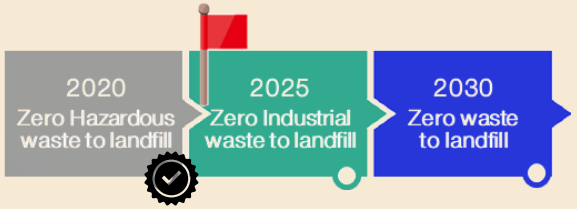
12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Zero Waste to Landfill by 2030

≥50% of Main Structure Reuse by 2030

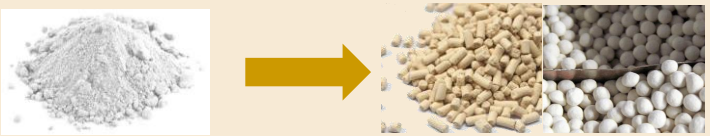
◆PROGRESS◆

Waste to Landfill



Upcycling High Volume Waste

Sand to Zeolite: Successfully synthesized prototype zeolite from nano-silica and further identify potential use case (moisture absorbent)



Oil sludge conversion to Graphene: Complete prototype unit fabrication

Ocean for Life

14 LIFE BELOW WATER

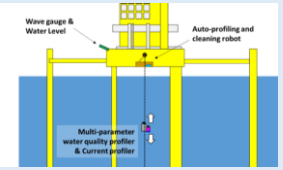
Net Positive Impact of Biodiversity & Ecosystem Services in Offshore Operations vs baseline by 2030

≥50% Increase in Local community income vs baseline by 2030

◆PROGRESS◆

Ocean Health & Biodiversity Monitoring

Pilot Project of Seagrass Plantation at Koh Samui and Koh Taen, Surat Thani



Develop Meteorological & Oceanographic (Met-Ocean) Data Station at ART

Ramp Up CSR around Ocean Flagship Projects

- 3 New Area Selection for Aquatic Animal Hatchery Learning Centers (Chonburi, Sumut Prakarn, Samut Sakorn)
- 4,000 Rais Mangrove Forestation Area Selection (Chumphon, Surat Thani and Nakhon Si Thammarat)
- Established 15 Conservation Areas & 7.8 km^2 Fish Home Areas

Results | Profit and Loss Statement

PTTEP

Unit: million USD

	Q1 22	Q4 21	%QoQ	Q1 21	%YoY	FY2021
Total Revenues	**2,083**	**1,989**	**5%**	**1,779**	**17%**	**7,314**
Sales [1]	2,030	1,867	9%	1,391	46%	6,731
Sales Volume (BOED) [2]	427,368	420,965	2%	382,877	12%	416,141
Sales Price (US$/BOE)	51.35	46.87	10%	40.38	27%	43.49
Gain from a bargain purchase	-	-	-	350	(100%)	342
Others [3]	53	122	(57%)	38	39%	241
Total Expenses	**1,776**	**1,671**	**6%**	**1,405**	**26%**	**6,118**
Major Expenses:						
Operating Expenses	197	275	(28%)	174	13%	861
Exploration Expenses	6	20	(70%)	149	(96%)	226
G&A	93	125	(26%)	75	24%	355
DD&A	517	420	23%	547	(5%)	2,202
Loss on Financial Instruments	245	7	>100%	98	>100%	234
Impairment Loss on Assets	-	183	(100%)	-	-	183
Income Tax Expenses	497	448	11%	192	>100%	1,287
Share of profit (loss) from associates and JV	**11**	**3**	>100%	**2**	>100%	**15**
Net Profit	**318**	**321**	(1%)	**376**	(15%)	**1,211**
Profit (Loss) from normal operation	570	513	11%	282	>100%	1,479
Profit (Loss) from non-operating items	(252)	(192)	(31%)	94	(>100%)	(268)
Non-operating items breakdown:						
Oil Price Hedging	(240)	5	(>100%)	(107)	(>100%)	(284)
Tax from Effect of FX	(2)	1	(>100%)	(9)	78%	(10)
Effect from FX and others	(10)	(15)	33%	5	(>100%)	12
Impairment Loss on Assets	-	(183)	100%	-	-	(183)
Exploration assets write-off	-	-	-	(145)	100%	(145)
Gain from a bargain purchase	-	-	-	350	(100%)	342

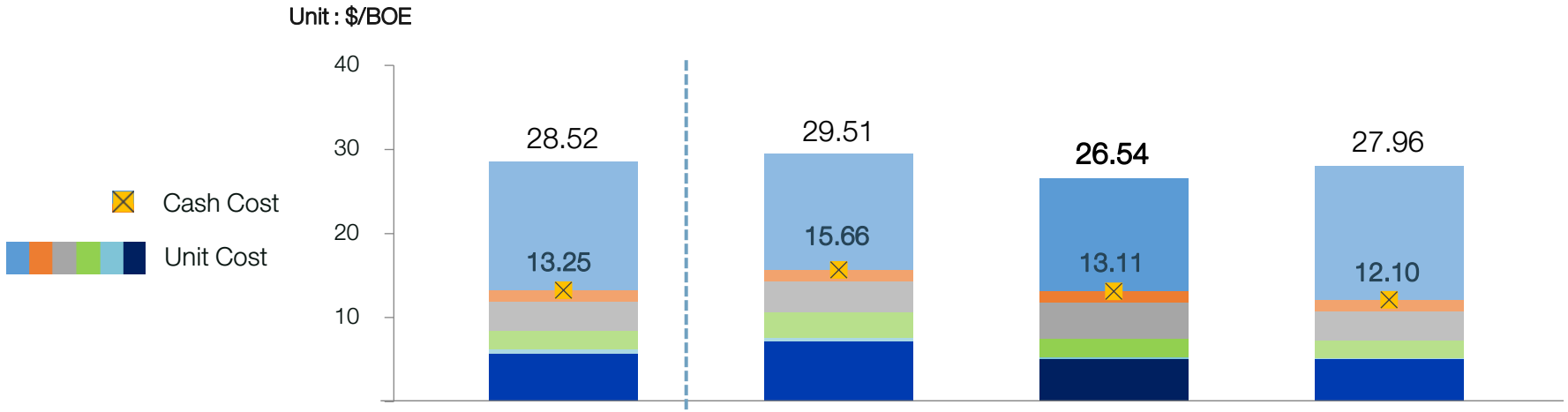
Note:

(1) Include Oman Block 61 deemed sales revenues from tax payment by government

(2) Exclude Oman Block 61 deemed sales volume from tax payment by government

(3) Consisted of Revenue from Pipeline, Gain from FX, Forward Contract, and Gain from Oil price Hedging, and Malaysia Block K redetermination of participating interest in Q4'21

Results | Unit Cost



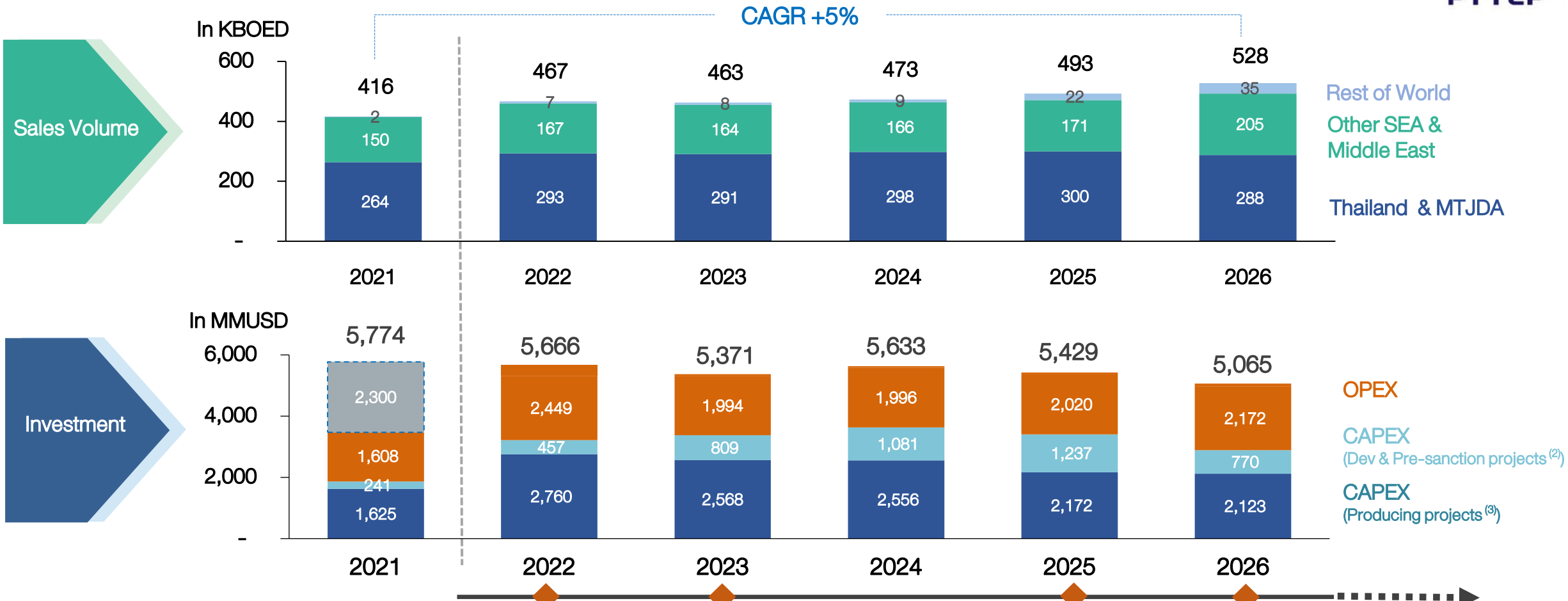
	2021	Q4 21	Q1 22	Q1 21
DD&A	15.27	13.85	**13.43**	15.86
Finance Cost	1.33	1.31	**1.35**	1.39
Royalties	3.49	3.69	**4.27**	3.41
G&A	2.22	3.05	**2.23**	2.12
Exploration Expenses	0.54 *	0.51	**0.15**	0.12 *
Operating Expenses	5.67	7.10	**5.11**	5.06
Lifting Cost	4.13	4.33	**3.87**	4.15

Note: * Exclude Exploration assets write-off in Brazil for Q1 21
All Unit Cost shown above exclude costs related to new business
The formulas for calculating ratios are provided in the supplementary section for your reference

Not included Sole Investment in G1/61 (Erawan)

Finance | 5-year Sales Volume & Investment Budget

PTTEP



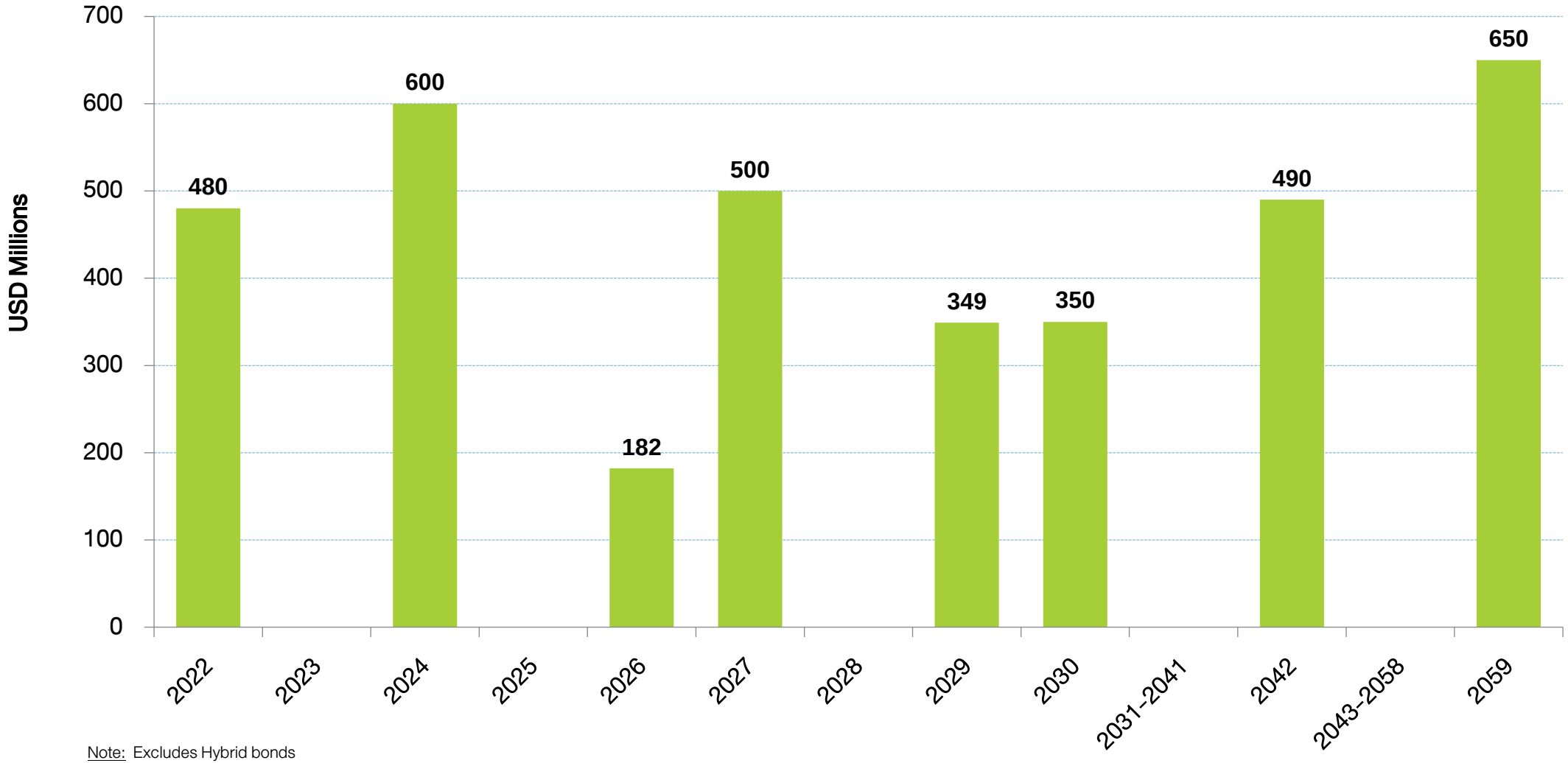
5 Years (2022 – 2026)	
CAPEX	16,533
OPEX	10,631
TOTAL	27,164

Key Project Start-up

- **2022**
  - G1/61: April — Capacity 800 MMSCFD
  - G2/61: April — Capacity 200 MMSCFD
  - Algeria HBR (phase I) : 1H — Capacity 10-13 KBPD
- **2023**
  - G2/61: March — Capacity 700 MMSCFD
- **2025**
  - Mozambique LNG: 2H — Capacity 13 MTPA
  - Southwest Vietnam: 2H (1) — Capacity 490 MMSCFD
- **2026**
  - SK410B: 1H (1) — Initial Capacity 800-1000 MMSCFD
  - Algeria HBR (Full phase): 2H — Capacity 50-60 KBPD

Note: (1) Subject to regulatory approval and FID timing
(2) Development & Pre-sanction projects include Mozambique LNG , Algeria HBR, SK410B and Southwest Vietnam
(3) Including exploration and appraisal in all projects and head office CAPEX, and new businesses

Finance | Debt Maturity Profile



Note: Excludes Hybrid bonds

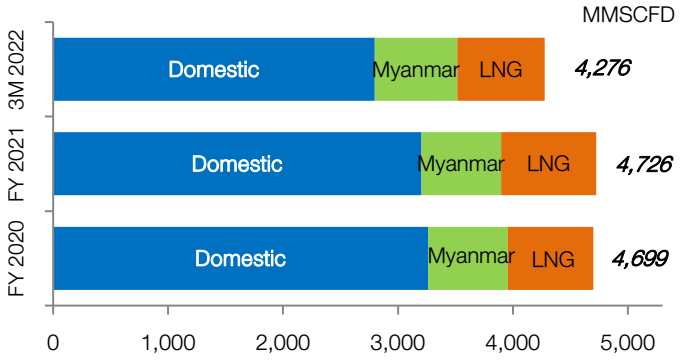
Unit: USD Millions or equivalent after cross currency swap

As of March 2022

Thailand | Market Update

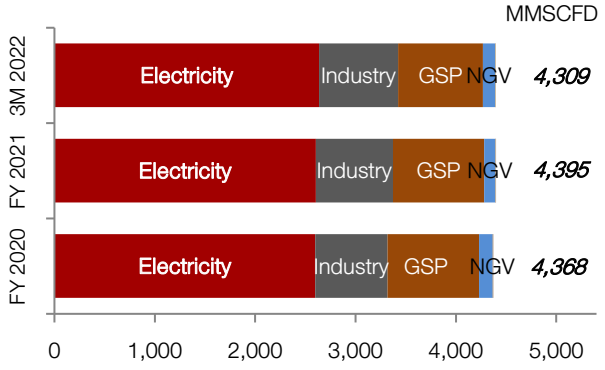
Thailand Energy Overview

Natural Gas Supply

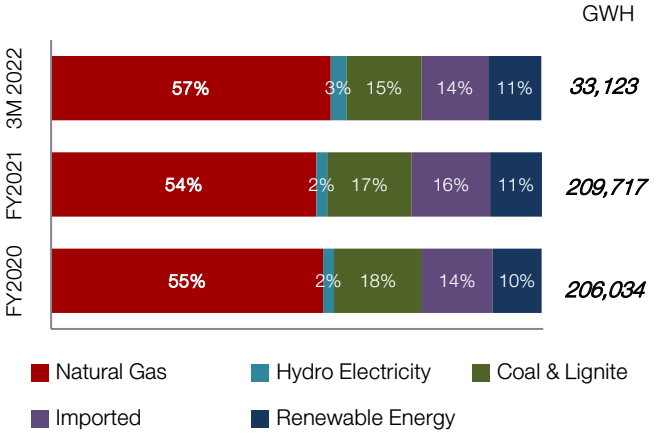


- Stable energy demand, while the energy prices continue to soar
- As of March 2022, compared with the same period of last year: significantly declined in domestic supply, while gas from Myanmar and LNG imports remained constant.

Natural Gas Consumption



Electricity Generation



Source: Energy Policy and Planning Office (EPPO)

Exchange Rate Movement (USD/THB)

Consensus on the exchange rate mostly depends on

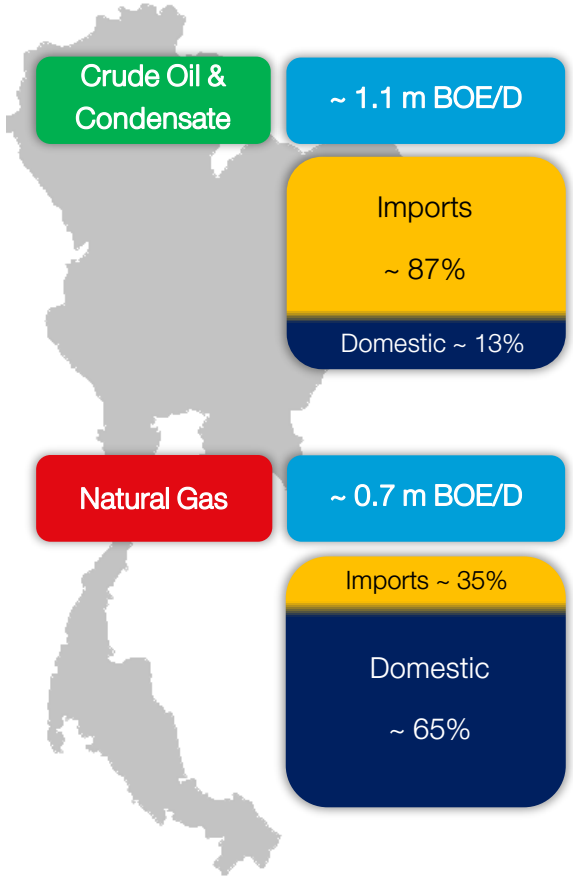
- Thailand economic recovery in particular the tourism sector
- Bank of Thailand and Federal Reserve monetary policy tightening schedule
- Geopolitical tensions and uncertainty from the Russia-Ukraine war

Source: Bank of Thailand, Bloomberg

Forecast based on Bloomberg Consensus as of 31 March 2022

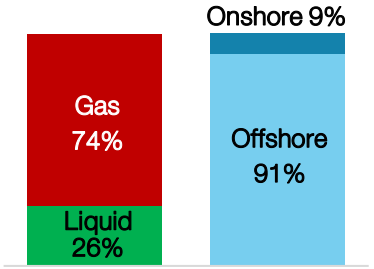
Thailand | Energy Value Chain

3M 2022 Thailand's Oil and Gas Demand

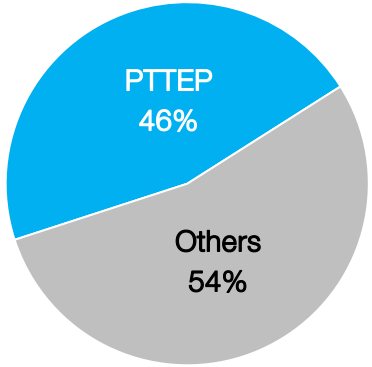


3M 2022 Thailand Petroleum Production

% by Petroleum Type and Area



% Production by Company



Midstream

Gas: operated by PTT

- Transmission Pipelines
- Gas Separation Plants

Oil: PTT participates through subsidiaries

- Refineries

Downstream

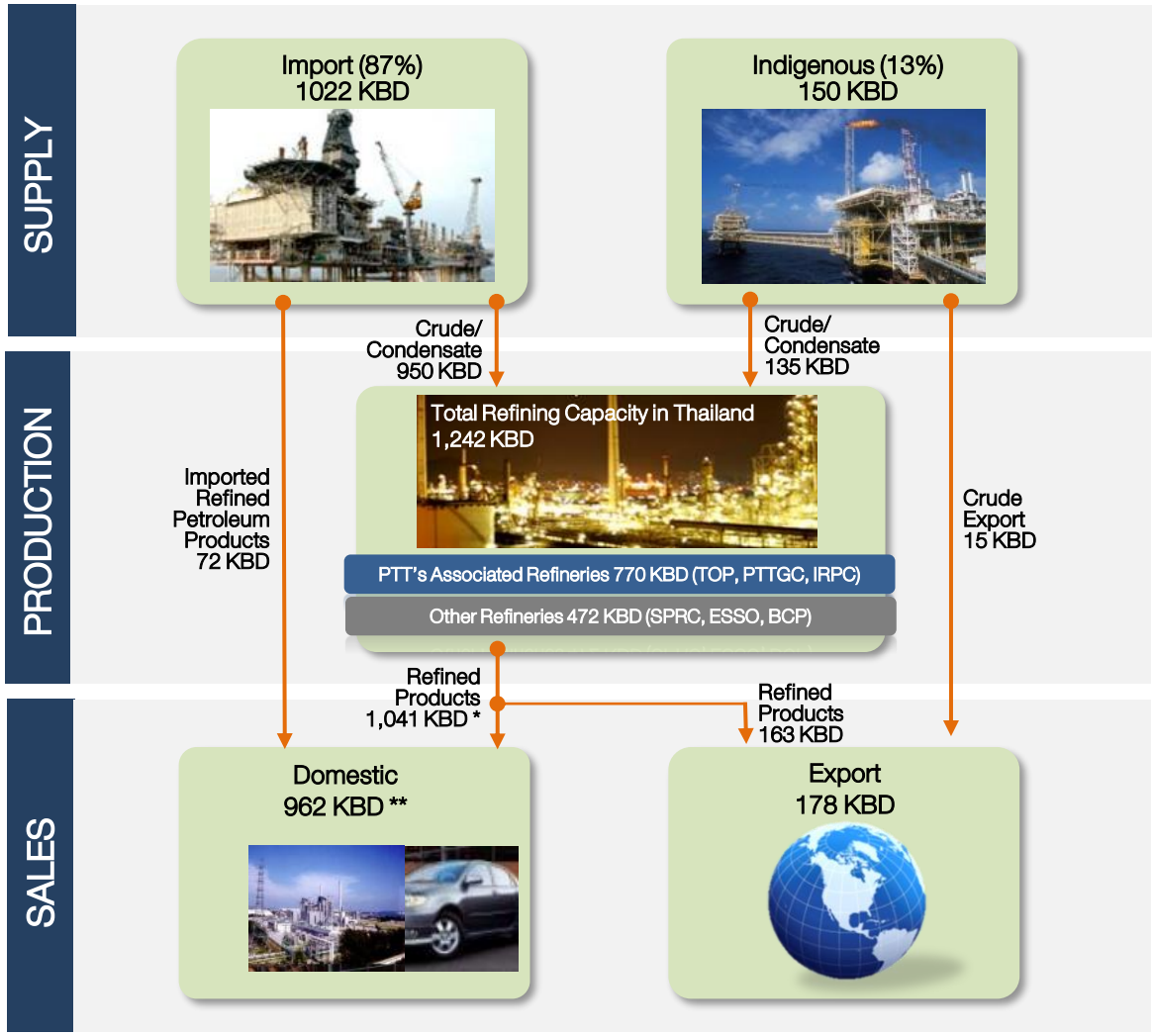
- Petrochemicals
- Oil and gas marketing

Source: Energy Policy and Planning Office (EPPO) and Department of Mineral Fuels (DMF)

Thailand | Oil and Gas Balance

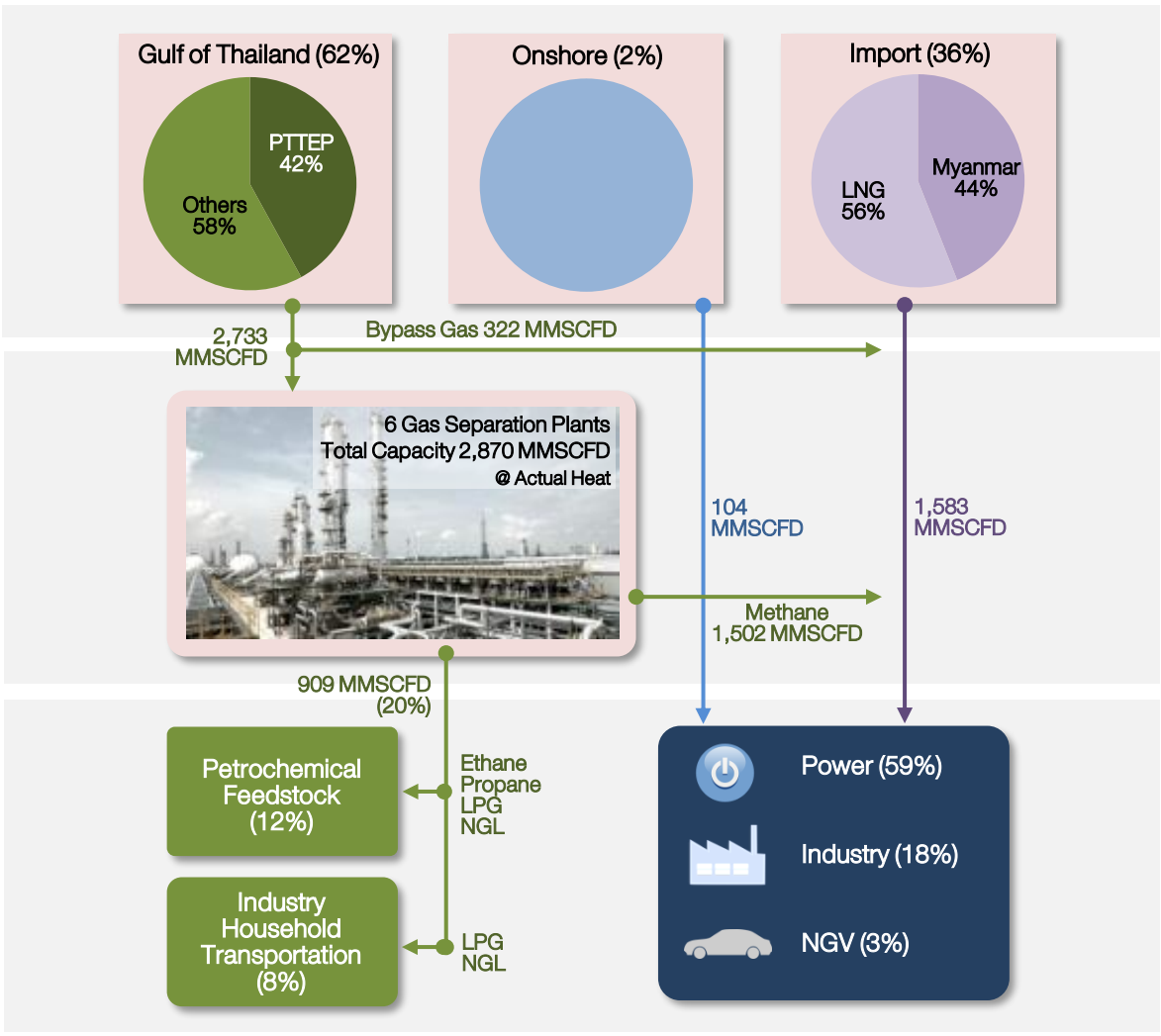
Oil Balance***

Maintains stability supply through adequate refining capacity



Natural Gas Balance****

Main driver of the Thailand economy



Source: PTT

Note:
- * Refined product from refineries = 958 KBD, including domestic supply of LPG from GSPs and Petrochemical Plants = 83 KBD
- ** Not included Inventory
- *** Information as of 2M 2022
- **** Information as of Year 2021
- MMSCFD @ Heating Value 1,000 Btu/ft^3

Projects | Thailand, Myanmar and Malaysia

Myanmar

- 3 producing gas fields supplying gas to both Thailand and Myanmar: Yadana, Yetagun and Zawtika
- Operate Zawtika project, start up in March 2014 with current gas supply of 326 MMSCFD for 3M2022

Project Status

Production	• Zawtika *(80% WI)* • Yadana *(25.5% WI)* • Yetagun *(19.3% WI)*
FDP	• M3 *(100% WI)*

Thailand

Production / Ramp-up Projects

Bongkot *(66.6667% WI)*

Average natural gas and condensate sales volume of 819 MMSCFD and 22 KBPD in 3M2022

S1 *(100% WI)*

The largest onshore crude oil production field in Thailand with 3M2022 average crude oil sales volume of 25 KBPD

Arthit *(80% WI)*

Average sales volume in 3M2022 was 277 MMSCFD of natural gas and 15 KBPD of condensates

Contract 4 *(60% WI)*

Average sales volume in 3M2022 was 403 MMSCFD of natural gas and 16 KBPD of condensate

G1/61 *(100% WI)*

- Operatorship transfer completed. First year production rate of 200-250MMSCFD.
- Sole investment 100%

G2/61 *(100% WI)*

- GBS transition completed. Production rate at 200 MMSCFD

Malaysia

Production

Block K Project :

Kikeh *(56% WI)* , Siakap North-Petai (SNP) *(22.4% WI)* and Gumusut-Kakap (GK) *(7.2% WI)*

- Average production volume in 3M2022 was 32 KBPD of crude oil and 27 MMSCFD of natural gas

SK309 and SK311 Project : *(59.5% WI)*

For East Patricia field *(42% WI)*

- Average production volume in 3M2022 was 193* MMSCFD of natural gas and 20* KBPD of condensates and crude

Block H Project :

Rotan field *(56% WI)* Remaining Area *(42% WI)*

- First gas early February 2021 with average production volume in 3M2022 at 275 MMSCFD of natural gas
- Full capacity at 270 MMSCFD

For Block K, gross production is net off utilization

Exploration

Sarawak SK410B Project *(42.5% WI)*

- Multi TCF gas discovery in Lang Lebah Field
- Expected to reach Final Investment Decision (FID) in 2023

Sarawak SK417 and Sarawak SK405B projects

- New Petroleum discoveries with additional well drilling to assess upside potential

Sabah SB412

- New block awarded from 2021 Malaysia Bid Round
  - The project is under preparation for Exploration activities.

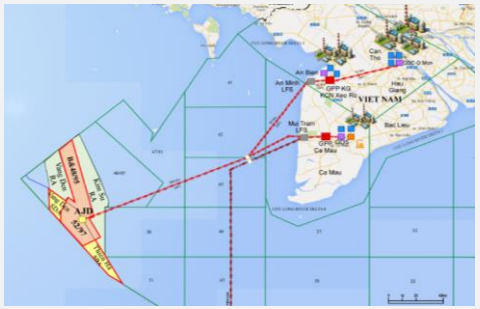
Note: WI – working interest

Projects | Vietnam and Indonesia

Vietnam

Vietnam 16-1 *(28.5% WI)*

- Average sales volume of crude oil was 13 KBPD in 3M2022
- In 2022, the project has plan to drill 2 development wells in Q3 - Q4/2022.



Southwest Vietnam

- Vietnam B & 48/95 *(8.5% WI)*
- Vietnam 52/97 *(7% WI)*

- Field Development Plan was approved by Government
- The project is currently in the negotiation process on commercial terms to put forward FID, with production capacity approximately 490 MMSCFD

Indonesia

Natuna Sea A *(11.5% WI)*

- Average sales volume of natural gas was 199 MMSCFD in 3M2022

- Production projects
- Pre sanction projects

Projects | Middle East

UAE

Abu Dhabi Offshore 1,2 and 3

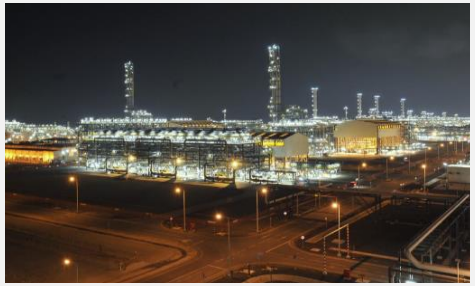
- High potential prospective resources with significant sizeable discoveries
- Located North-west of Abu Dhabi Emirates, United Arab Emirates
- Granted the award for exploration in January 2019 - 2020
- Operated by Eni Abu Dhabi B.V. (70% interest)

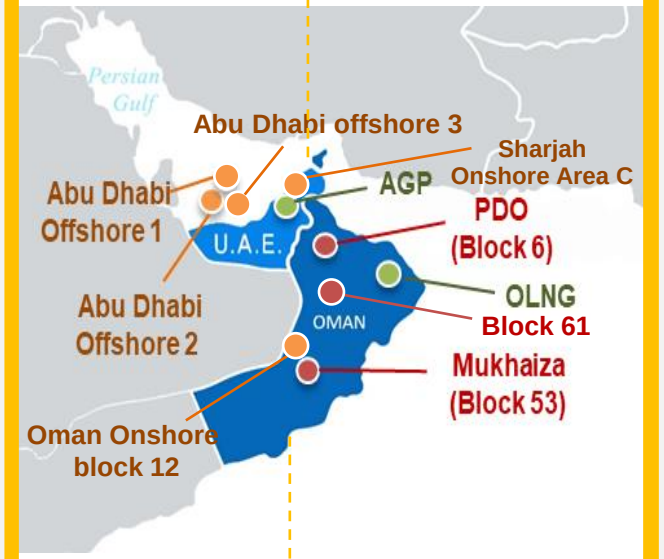
Sharjah Onshore Area C

- High gas & condensate potential with the possibility of integrating with surrounding fields
- Located in the central part of Sharjah Emirate , United Arab Emirates
- Operated by Eni Abu Dhabi B.V. (50% interest)

ADNOC Gas Processing (AGP)

- One of the largest gas processing complexes in the world (total capacity of 8 BCFD)
  JV: 3 plants with capacity of 1.2 BCFD
  ADNOC: 2 plants with capacity of 6.9 BCFD
- Essential to Abu Dhabi and UAE's economy
- Sizeable volumes of Propane, Butane and Naphtha offtake
- Operated by ADNOC (68% interest)





*Block awarded in 2019
**Block awarded in 2020

- Production phase
- Exploration phase
- Midstream

Oman

PDO (Block 6)

- Largest asset covering around 1/3 of the country
- Long-life asset, produced only 15% of reserves in-place
- Average oil production volume of 660 KBPD for 3M2022
- Operated by Petroleum Development of Oman (Joint Operating Company)

Oman Onshore Block 12

- Located onshore central part of the Sultanate of Oman
- Signed agreement with Oman's Ministry of Oil and Gas (MOG) for exploration and production rights in February 2020
- Operated by Total E&P Oman Block 12 B.V. (80% interest)

Mukhaizna (Block 53)

- Largest single onshore producing field in Oman
- Average oil production volume of 94 KBPD for 3M2022
- Operated by Occidental Petroleum (47% interest)

Oman Block 61

- Largest tight gas development in Middle East
- Gas and condensate production capacity of 1,500 MMSCFD and 69,000 BPD respectively
- Operated by BP Exploration (Epsilon) Limited (40% interest)

Oman LNG

- The only LNG facility in Oman
- Processing capacity 10.4 MTPA
- Contracted LNG sales to international buyers: Japan and South Korea
- Government of Oman 51% (Operator)

Note: ADNOC : Abu Dhabi National Oil Company

Projects | Rest of the World

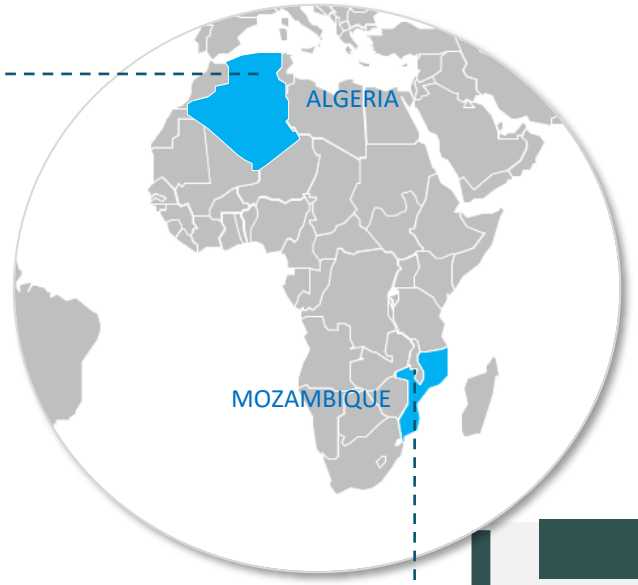
Algeria

Bir Sebah

- Block 433a & 416b
- PVEP 40% (operator), PTTEP 35%

Hassi Bir Rekaiz

- Blocks 443a, 424a, 414ext & 415ext for Crude Oil.
- Sonatrach 51% (operator), PTTEP 49%



Mozambique

Mozambique Area 1

- High quality reservoirs capable up to 200mmscfd per well
- LNG capacity 13.1 MTPA (2 trains)
- TotalEnergies 26.5% (operator), PTTEP 8.5%
- Construction phase

Mexico

Mexico block 12 (2.4)

- Non-operating partner with 20% participating interest
- Located in the Mexican Ridges, western Gulf of Mexico
- Currently evaluating the petroleum potential for further way forward

Mexico block 29 (2.4)

- Non-operating partner with 16.67% participating interest
- Located in the Campeche, southern Gulf of Mexico
- 2 successful deep-water oil discoveries in May 2020
- Currently undergoing a pre-development study

Brazil

Barreirinhas AP1

- Operated by Shell Brasil (65% interest)
- Four offshore exploration blocks: BAR-M-215, BAR-M-217, BAR-M-252 and BAR-M-254
- Currently waiting for exploration wells drilling permit from the government

BM-ES-23

- Acquired 20% interest from Shell in Q3 2014
- Partnered with Petrobras (65%, operator) and INPEX (15%)
- Currently evaluating the petroleum potential for further development

Projects Details | Thailand

	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
1	Arthit	Operator	Production	PTTEP Chevron MOECO	80% 20% 4%	277	15	• Increase Sales Gas DCQ from 220 to 280 MMSCFD in Feb'22
2	B6/27	Operator	Production	PTTEP	100%	-	-	• Prepare for decommissioning activities
3	B8/32 and 9A	JV	Production	PTTEP Chevron MOECO KrisEnergy Palang Sophon	25.01% 51.66% 16.71% 4.63% 2%	50	11	• Ensure gas deliverability level at DCQ • Drill development wells • Preparation for wellhead platform reuse in 2022-23
4	Bongkot	Operator	Production	PTTEP TotalEnergies	66.67% 33.33%	819	22	• Infills drilling for BKT Sole investment • Maintain production level as planned • Carry out wells plug and abandonment, Pipeline cleaning and Hg decontamination • Wellhead platform & sealine and FSO1 PLEM Decommissioning (Non-transferred asset)
5	CT4 (formerly Pailin)	JV	Production	PTTEP Chevron MOECO	60% 35% 5%	403	16	• Ensure gas deliverability level at DCQ • Drill development wells • Topside reuse
6	E5	JV	Production	PTTEP EXXON MOBIL	20% 80%	8	-	• Ensure gas deliverability level at DCQ

Note: * PTTEP denotes respective PTTEP subsidiaries participating in the project
** Sales volume represent **average volume for 100% of the project during Q1/2022**
*** Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship/ JV = PTTEP Joint Venture Partner
**** DCQ = Daily Contractual Quantity

Projects Details | Thailand

	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
7	G4/43	JV	Production	PTTEP Chevron MOECO Palang Sophon	21.375% 51% 21.25% 6.375%	1	2	• Deliver production volumes as nominated from the buyer and oil production as planned
8	G4/48	JV	Production	PTTEP Chevron MOECO	5% 71.25% 23.75%	1	0.1	• Decommissioning activities
9	L53/43 & L54/43	OP	Production	PTTEP	100%	-	0.5	• On-going 5th drilled well • Plan to complete 6 wells around mid of Apr'22 and commence 1st oil by Jul'22 • Plan for production facilities debottlenecking and relocation projects to handle additional gross production from new wells.
10	PTTEP1	OP	Production	PTTEP	100%	-	0.2	• Maintain production plateau • Relocate facilities from PTTEP1 to L54/43 to be minimized CAPEX cost
11	S1	OP	Production	PTTEP	100%	8	Crude: 25 KBPD LPG: 183 MTon/Day	• Production optimization and long-term development plan are on-going for business plan and work activities identification according to 10 years strategy
12	Sinphuhorm	OP	Production	PTTEP Apico EXXON MOBIL	55% 35% 10%	95	0.3	• Ensure gas deliverability • Preparing the drilling campaign for 2 wells during Q2 - Q4 2022
13	L22/43	OP	Production	PTTEP	100%	-	-	• On-going execution plan of total 5 drilling wells scheduled in Q4 2022. • Plan to prepare for the resume production or exit strategy in future after drilling results confirmed.

Note: * PTTEP denotes respective PTTEP subsidiaries participating in the project
** Sales volume represent **average volume for 100% of the project during Q1/2022**
*** Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship/ JV = PTTEP Joint Venture Partner

Projects Details | Thailand

	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
14	MTJDA	JOC	Production	PTTEP Petronas Carigali	50% 50%	260	10	• Facility Readiness for Additional Gas to DP1 (Thailand) for 30-50 MMSCFD
15	G9/43	OP	Exploration	PTTEP	100%	-	-	• Activity suspended
16	G1/61 (Erawan)	OP	Production	PTTEP Mubadala	60% 40%	-	-	• Successful transition to become operator on 24 April 2022 • Production ramp-up in progress
17	G2/61 (Bongkot)	OP	Production	PTTEP	100%	-	-	• Normal operations

Note: * PTTEP denotes respective PTTEP subsidiaries participating in the project
** Sales volume represent **average volume for 100% of the project during Q1/2022**
*** Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship/ JV = PTTEP Joint Venture Partner

Projects Details | Myanmar, Malaysia, Other SEA

	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
1	Block K (Malaysia) - Kikeh - Siakap-North Petai field (SNP) - Gumusut-Kakap field (GK)	OP (Kikeh & SNP) JV (GK)	Production	PTTEP	Kikeh 56% SNP 22.4% GK 7.17%	32 **	27 **	• SNP Phase 2 development well commenced production. GK Phase 3 development drilling commenced by Unit Operator.
2	Sarawak SK309 and SK311 (Malaysia)	OP	Production	PTTEP	42 – 59.5%	193 **	20 **	• Pemanis Gas Development and South Acis Satellite infill oil development drilling completed and commenced production
3	Block H (Malaysia)	OP	Production	PTTEP	42 – 56%	275 **	-	• Continue at higher production 280+ MMSCFD
4	Malaysia – Other projects	OP	Exploration	PTTEP	42.5 - 80% (varied by permits)	-	-	• SK410B : Plan to drill 1 exploration well in 2022 and expected FID in 2023 for LLB • SK417, SK405B, SK438 : Planning and preparing for the drilling of appraisal and exploration wells in 2022 exploration campaign. • SB412 : Preparing for exploration activities.
5	Yadana (Myanmar)	JV	Production	PTTEP TotalEnergies Chevron MOGE	25.5% 31.24% 28.26% 15%	732	-	• Appointed to be Operator effective in Jul'22. • Under process of operatorship transfer
6	Yetagun (Myanmar)	JV	Production	PTTEP Petronas-Carigali MOGE Nippon Oil	19.3178% 40.91018% 20.4541% 19.3178%	44	-	• Submitted notice to withdraw, effective May 2022
7	Zawtika : M9 & a part of M11 (Myanmar)	OP	Production	PTTEP Myanma Oil and Gas Enterprise (MOGE)	80% 20%	326	-	• Maintain operations. Some activities are delayed due to COVID-19 and political situation.

Note: * PTTEP denotes respective PTTEP subsidiaries participating in the project
** Sales volume represent **average volume for 100% of the project during Q1/2022** except Malaysia (Production volume 100%)/ For Block K, gross production is net off unitization
*** Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship/ JV = PTTEP Joint Venture Partner

Projects Details | Myanmar, Malaysia, Other SEA

	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
8	M3 (Myanmar)	OP	Exploration	PTTEP	100%	-	-	• Waiting for approval of PSC Supplementary
9	MD-7 (Myanmar)	OP	Exploration	PTTEP TotalEnergies	50% 50%	-	-	• Termination process in progress
10	9-2 (Vietnam)	JOC	Production	PTTEP Vietnam Oil and Gas Group Pharos Energy	25% 50% 25%	12	4	• Maintain production level • Procurement for drilling campaign of 1 development well
11	16-1 (Vietnam)	JOC	Production	PTTEP Vietnam Oil and Gas Group Pharos Energy OPECO	28.5% 41% 28.5% 2%	2	13	• Maintain production level • Procurement for drilling campaign of 2 development wells
12	B & 48/95 (Vietnam)	JV	Exploration	PTTEP Vietnam Oil and Gas Group MOECO	8.5% 65.88% 25.62%	-	-	• Monitoring Power Plants progress • Negotiation process on commercial terms in order to push forward the Final Investment Decision (FID) • The first production target at the end of 2025
13	52/97 (Vietnam)	JV	Exploration	PTTEP Vietnam Oil and Gas Group MOECO	7% 73.4% 19.6%	-	-	• Monitoring Power Plants progress • Negotiation process on commercial terms in order to push forward the Final Investment Decision (FID) • The first production target at the end of 2025
14	Natuna Sea A (Indonesia)	JV	Production	PTTEP Premier Oil KUFPEC Petronas Pertamina	11.5% 28.67% 33.33% 15% 11.5%	199	1	• Maintain production level

Note: * PTTEP denotes respective PTTEP subsidiaries participating in the project
** Sales volume represent **average volume for 100% of the project during Q1/2022**
*** Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship/ JV = PTTEP Joint Venture Partner

Projects Details | Middle East

	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
1	Abu Dhabi Offshore 1 (UAE)	JV	Exploration	PTTEP Eni Abu Dhabi	30% 70%	-	-	• Being evaluated for petroleum potential to support future exploration, including G&G report
2	Abu Dhabi Offshore 2 (UAE)	JV	Exploration	PTTEP Eni Abu Dhabi	30% 70%	-	-	• Continued drilling the first exploration well
3	Abu Dhabi Offshore 3 (UAE)	JV	Exploration	PTTEP Eni Abu Dhabi	30% 70%	-	-	• G&G study is on-going
4	Sharjah Onshore Area C (UAE)	JV	Exploration	PTTEP Eni Abu Dhabi SNOC	25% 50% 25%	-	-	• Completed the acquisition of 25% interest on 1 March 2022 • Seismic activity is on-going.
5	PDO Block 6 (Oman)	JOC	Production	PTTEP Government of Oman Shell TotalEnergies	2% 60% 34% 4%	-	660 **	• Normal operations
6	Mukhaizna (Oman)	JV	Production	PTTEP Occidental OOCEP Indian Oil Mubadala	1% 47% 20% 17% 15%	-	94 **	• Normal operations

Note: * PTTEP denotes respective PTTEP subsidiaries participating in the project
** Sales volume represent **average volume for 100% of the project during Q1/2022** except for PDO Block 6 and Mukhaizna (Production volume 100%)
*** Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship/ JV = PTTEP Joint Venture Partner

Projects Details | Middle East

	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
7	Oman Onshore Block 12	JV	Exploration	PTTEP Total E&P Oman Block 12 B.V.	20% 80%	-	-	• 3D seismic reprocessing (original 3D) in progress • 3D seismic acquisition (new 3D) is in process for tendering
8	Oman Block 61	JV	Production	PTTEP BP Makarim Gas Development LLC PC Oman Ventures Limited (PETRONAS)	20% 40% 30% 10%	1,471	61	• Normal operations

Note: * PTTEP denotes respective PTTEP subsidiaries participating in the project
** Sales volume represent **average volume for 100% of the project during Q1/2022**
*** Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship/ JV = PTTEP Joint Venture Partner

Projects Details | Rest of the World

	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
1	PTTEP Australasia (PTTEP AA)	OP	Exploration	PTTEP	90%-100%	-	-	• Cash Maple (AC/RL7) and Oliver (AC/RL12) : Defining proper direction in order to increase development opportunities • Tenacious and Oliver : Well abandonment in progress • Other exploration projects: G&G studies
2	Mozambique Area 1	JV	Development	PTTEP TotalEnergies, Mitsui, ENH, OVL OVRL & Oil India , Bharat	8.5% 26.5%,20% 15%, 10% 10%, 10%	-	-	• First Cargo is expected by 2025, subject to local security situation • 1st Debt drawdown in project Finance • Force Majeure was declared by the operator for safety reason due to the security incident in Palma. • Plan to resume construction activities after security and safety restored
3	Algeria 433a & 416b (Bir Seba)	JOC	Production	PTTEP PetroVietnam Sonatrach	35% 40% 25%	-	17 **	• Drilling of 2 development wells are on-going in Q1 2022. • Target to tie-in and produce 2 new wells in 2022 • Existing wells intervention • Production respect OPEC+ policy
4	Algeria Hassi Bir Rekaiz	OP	Development	PTTEP Sonatrach	49% 51%	-	-	• 1st oil production June 1, 2022 for the initial phase target 13,000 BPD • Groupement (JOC) establishment in Q2 2022
5	Mariana Oil Sands (Canada)	OP	Exploration	PTTEP	100%	-	-	• Reclamation activities in progress to return the area to Canadian government
6	Brazil Barreirinhas AP1	JV	Exploration	PTTEP Shell Brasil Mitsui E&P Brasil	25% 65% 10%	-	-	• Pending exploration wells drilling permit from the government

Note: * PTTEP denotes respective PTTEP subsidiaries participating in the project
** Sales volume represent **average volume for 100% of the project during Q1/2022** except for Algeria 433a & 416b (production volume)
*** Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship/ JV = PTTEP Joint Venture Partner

Projects Details | Rest of the World

	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
7	Brazil BM-ES-23	JV	Exploration	PTTEP Petrobras INPEX	20% 65% 15%	-	-	• Evaluating petroleum potential for development consideration
8	Mexico block 12 (2.4)	JV	Exploration	PTTEP PC Carigali Mexico Ophir Mexico	20% 60% 20%	-	-	• Evaluating petroleum potential for development consideration
9	Mexico block 29 (2.4)	JV	Exploration	PTTEP Repsol Mexico PC Carigali Mexico Wintershal DEA	16.67% 30% 28.33% 25%	-	-	• Pre-development study in progress
10	Block 17/06 (Angola)	JV	Pre-development	PTTEP TotalEnergies Sonangol SSI Acrep Falcon Oil	2.5% 30% 30% 27.5% 5% 5%	-	-	• FID plan in the mid 2022 for the eastern area • Finalized Internal committees and Stakeholders alignment leading to Begonia FID • Launched Forsythia and Gardenia development study on 18 January 2022
11	Dunga (Kazakhstan)	JV	Production	PTTEP TotalEnergies OOCEP	20% 60% 20%	2	11	• Procurement process Compression package and Gathering Lines • Engineering of Separation Upgrade, Flare package and facilities • Facilities modification works

Note: * PTTEP denotes respective PTTEP subsidiaries participating in the project
** Sales volume represent **average volume for 100% of the project during Q1/2022**
*** Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship/ JV = PTTEP Joint Venture Partner

Projects Details | Mid-stream

Note: PTTEP denotes respective PTTEP subsidiaries participating in the project

Sales volume represent **average volume for 100% of the project during Q1/2022**

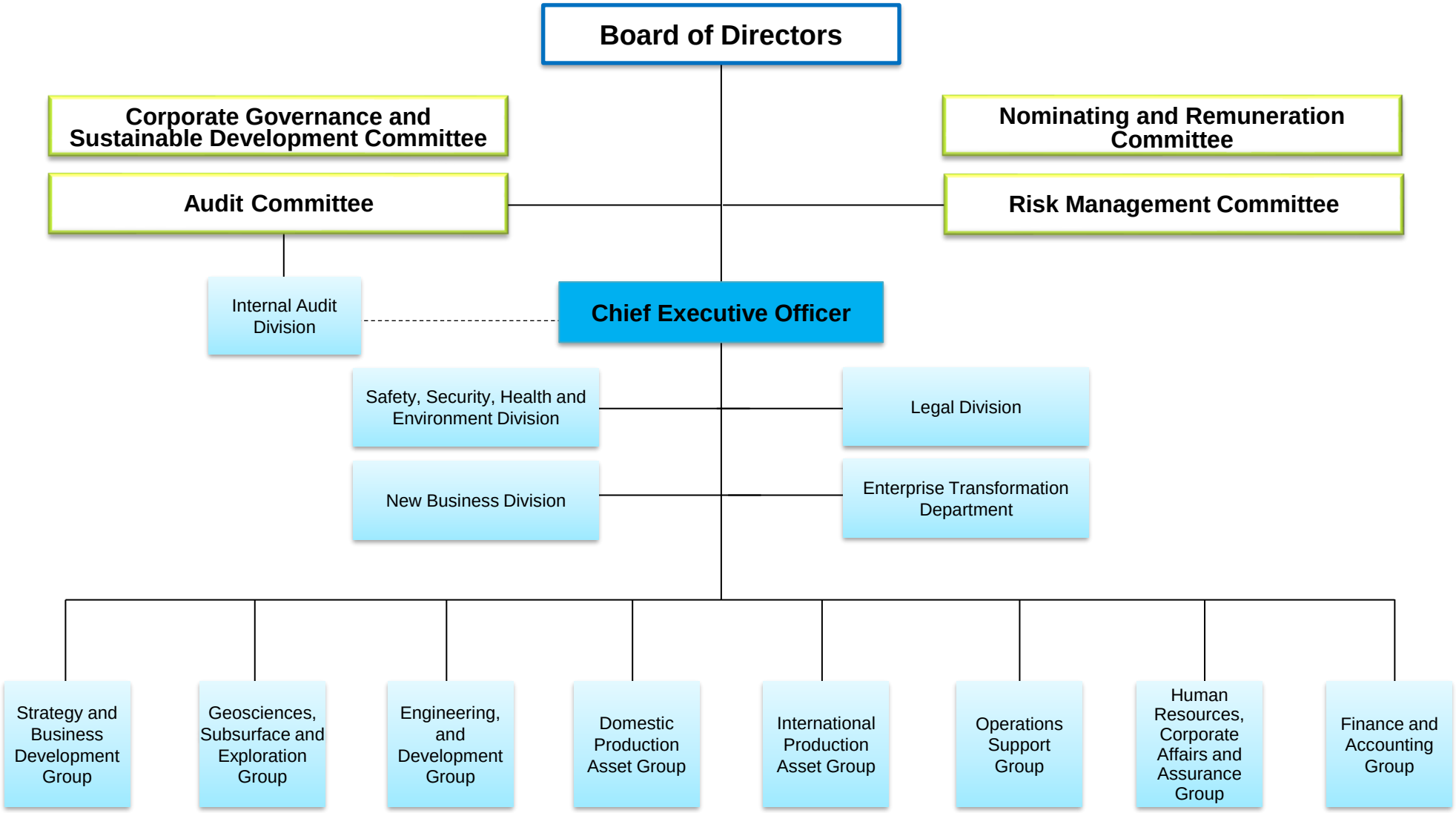
	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
1	Oman LNG [OMAN]	Shareholder	Production	PTTEP Government of Oman Shell TotalEnergies Korea LNG Mitsubishi Mitsui Itochu	2% 51% 30% 5.54% 5% 2.77% 2.77% 0.92%	-	-	• Normal Operations
2	ADNOC Gas Processing [UAE]	JV	Production	PTTEP ADNOC Shell TotalEnergies	2% 68% 15% 15%	-	-	• Normal Operations

Note: * PTTEP denotes respective PTTEP subsidiaries participating in the project

** Sales volume represent **average volume for 100% of the project during Q1/2022**

*** Status: OP = PTTEP operatorship / JOC = PTTEP joint operatorship/ JV = PTTEP Joint Venture Partner

Organization Chart



Ratio and Formula

Lifting Cost ($/BOE)	(Operating Exp. – Transportation Cost – Stock Variation – Other expenses not related to lifting) / Production Volume
Cash Cost ($/BOE)	(Operating Exp. + Exploration Exp. + G&A + Royalties + Finance Cost) / Sales Volume
Unit Cost ($/BOE)	(Operating Exp. + Exploration Exp. + G&A + Royalties + Finance Cost + DD&A) / Sales Volume
Reserves Replacement Ratio	5-Yr Additional Proved Reserves / 5-Yr Production Volume
Reserves Life Index (Year)	Proved Reserves / Production Volume
Success Ratio	Number of wells with petroleum discovery / Total number of exploration and appraisal wells
Sales Revenue	Sales + Revenue from pipeline transportation
EBITDA	(Sales + Revenue from pipeline transportation) - (Operating expenses + Exploration expenses + Administrative expenses + Petroleum royalties and remuneration + Management's remuneration)
EBITDA Margin	EBITDA / Sales Revenue
Return on Equity	Trailing-12-month net income / Average shareholders' equity between the beginning and the end of the 12-month period
Return on Capital Employed	(Trailing-12-month net income + Trailing-12-month Interest Expenses & Amortization of Bond Issuing Cost) / (Average shareholders' equity and average total debt between the beginning and the end of the 12-month period)
Simple Effective Tax Rate	Income tax expenses / Income before income taxes
Total debt	Short-term loans from financial institution + Current portion of long-term debts + Bonds + Long-term loans from financial institution

Net debt	Total debt – Liquidity
Debt to Equity	Total debt / Shareholders' equity
Net Debt to Equity	Net debt / Shareholders' equity
Total Debt to Capital	Total debt / (Total debt + Shareholders' equity)
Total Debt to EBITDA	Total debt / Trailing-12-month EBITDA
Net Debt to EBITDA	Net debt / Trailing-12-month EBITDA
EBITDA Interest Coverage Ratio	Trailing-12-month EBITDA / Trailing-12-month Interest Expenses & Amortization of Bond Issuing Cost

Crude oil	To convert				
	Tonnes (metric)	Kilolitres	Barrels	US gallons	Tonnes/year
From	Multiply by				
Tonnes (metric)	1	1.165	7.33	307.86	-
Kilolitres	0.8581	1	6.2898	264.17	-
Barrels	0.1364	0.159	1	42	-
US gallons	0.00325	0.0038	0.0238	1	-
Barrels/day	-	-	-	-	49.8

Natural gas and LNG	To convert					
	Billion cubic Metres NG	Billion cubic feet NG	Million tonnes oil equivalent	Million tonnes LNG	Trillion BTU	MBOE
From	Multiply by					
1 billion cubic metres NG	1.000	35.315	0.860	0.735	34.121	5.883
1 billion cubic feet NG	0.028	1.000	0.024	0.021	0.966	0.167
1 petajoule NG	0.028	0.981	0.024	0.021	0.952	0.164
1 million tonnes oil equivalent	1.163	41.071	1.000	0.855	39.683	6.842
1 million tonnes oil LNG	1.360	48.028	1.169	1.000	46.405	8.001
1 trillion British thermal units	0.029	1.035	0.025	0.022	1.000	0.172
1 million barrels oil equivalent	0.170	6.003	0.146	0.125	58.000	1.000