



Investor Presentation

Morgan Stanley Asia Pacific Summit

Singapore | 16 November 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.

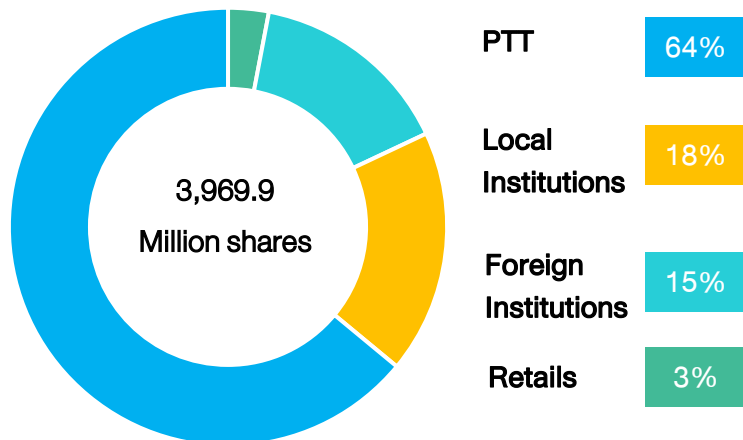


Company Introduction

PTTEP Overview | E&P Flagship of PTT Group



Shareholding Structure

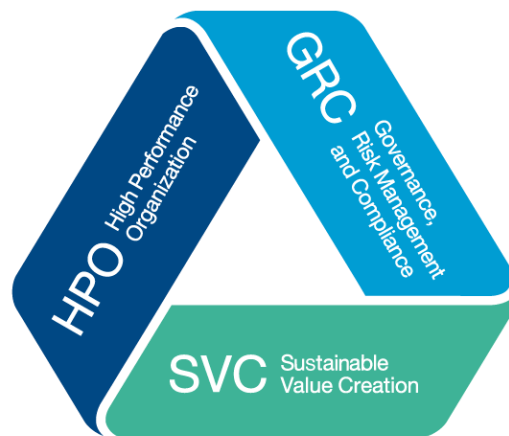


As of latest book closing Aug 2022

Stock Quote
Market Cap.
Sales Revenue
Cash Cost

PTTEP
> 17 Billion USD
> 90% SEA & ME
~ 15 USD/BOE

Sustainability Framework



Sustainability



Key Strategies

Drive Value

- Strengthen E&P and ensure Thailand energy security
 - Maximize Production
 - Expedite development
 - Monetize discovery
- Enhance competitiveness of unit cost
- Expand gas-weighted portfolio and LNG in upstream and midstream business

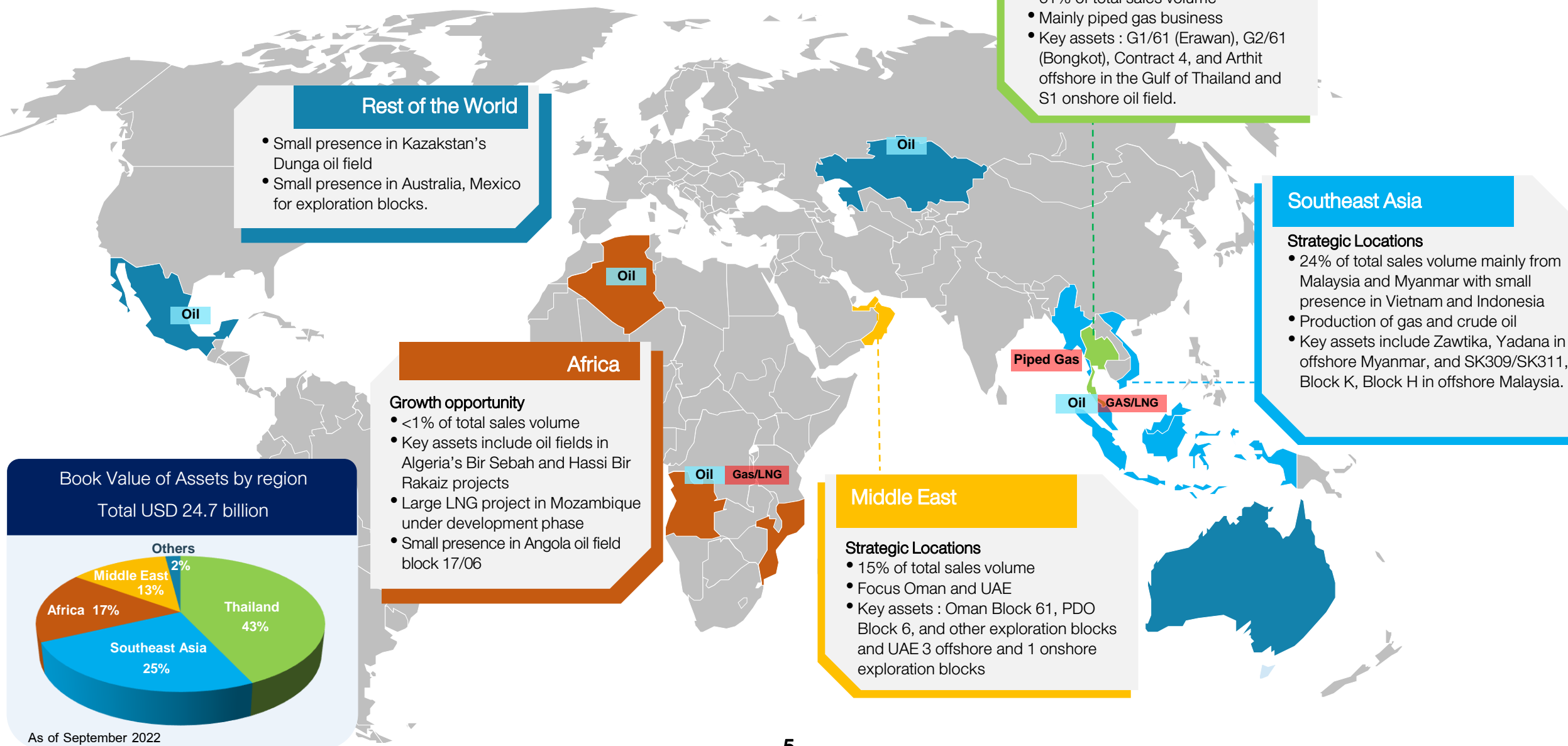
Decarbonize

- E&P Net Zero 2050
- Execute GHG emission reduction plan
- Accelerate CCS projects
- Maximize use of renewables and future energy in operation
- Pursue emission offsetting and ocean for life

Diversify

- Scale up AI and Robotics Ventures (ARV)
- Capture gas-to-power and renewable energy opportunity
- Explore CCUS, H₂, and Future Energy
- Commercialize in-house technology

PTTEP Overview | Diversified asset portfolio





Business Update

Energy Trilemma

Key to the future energy source
is to find the **RIGHT BALANCE**



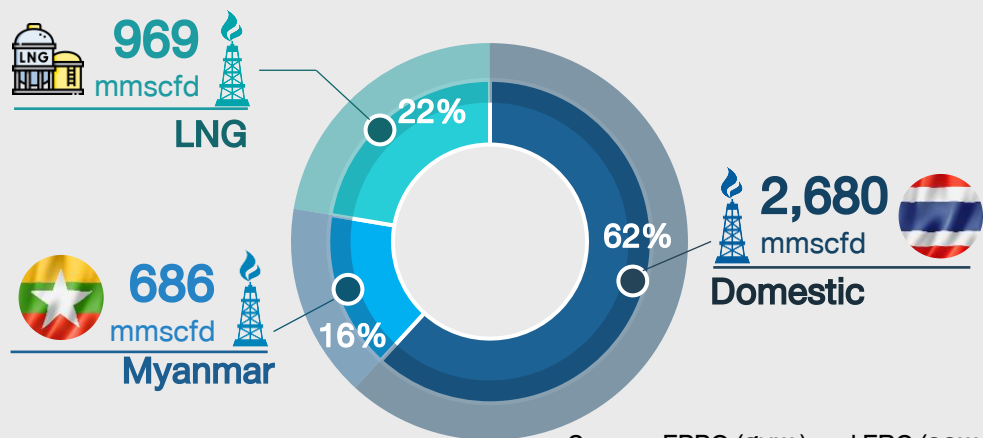
Deliver Security & Affordable Energy to Thailand



2022
Thailand Gas Demand

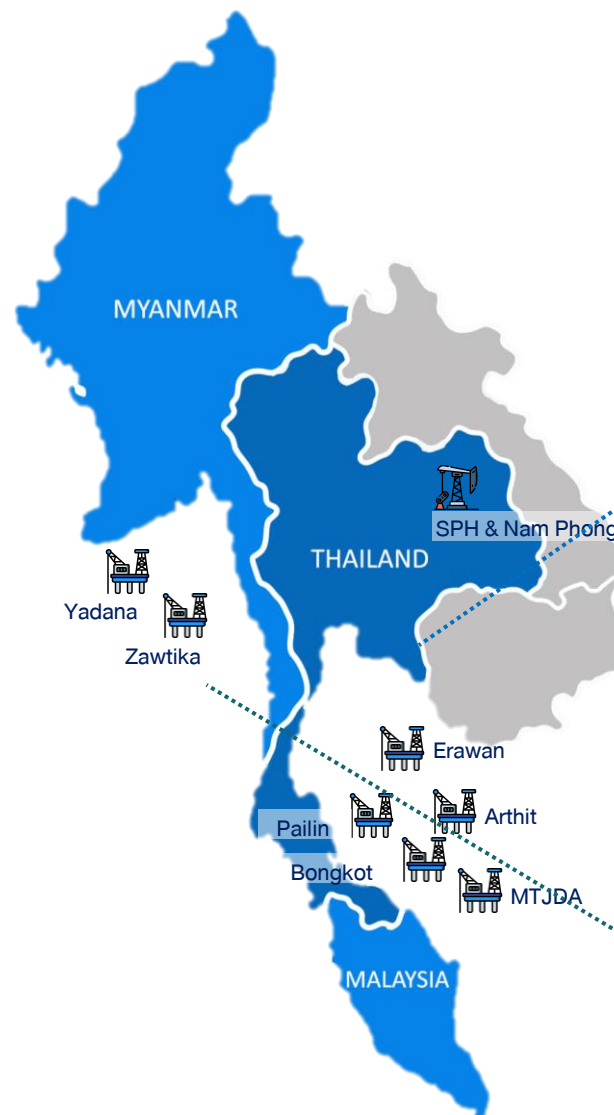
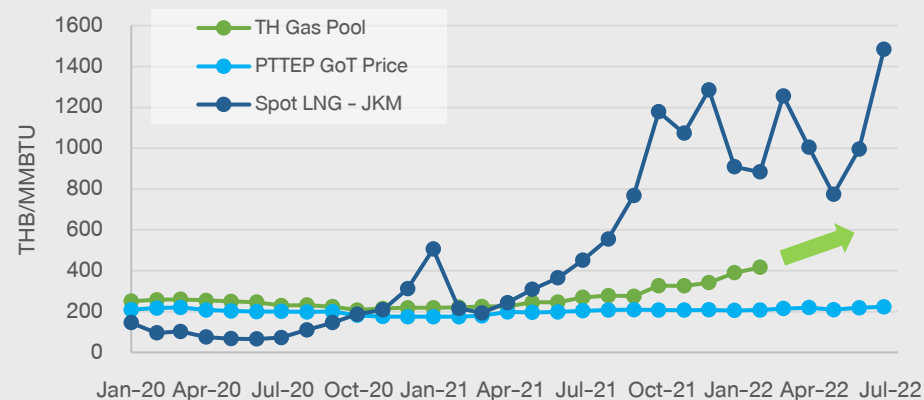
~4,300 mmscfd

Sourcing of Natural Gas



Source: EPPO (฿ว.) and ERC (฿ว.)

Natural Gas Price



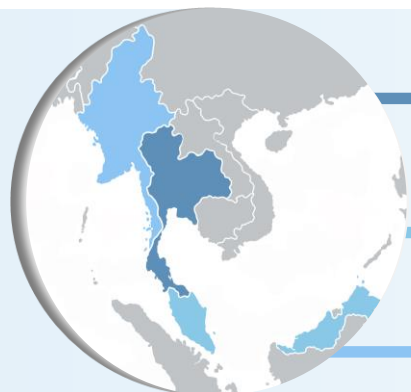
PTTEP Gas supply to Thailand

Field	mmscfd
Erawan (G1/61)	210 <i>800 by 2024</i>
Bongkot & G2/61	850
Pailin	420
Arthit	330
MTJDA	33

Field	mmscfd
Yadana	580
Zawtika	240

Based on daily production rate in October 2022

Projects Update Q3/2022



Thailand



Malaysia



Myanmar

G1/61 Erawan Current gas production 210 MMSCFD. 1st ramp-up target mid 2023. Total 4 WHPs have been installed with additional 4 WHPs within 2022.

MTJDA Granted rights for additional exploration area and 10-year PSC extension to 2039. Add gas volume to Thailand at least 30 MMSCFD until 2025.

SK410B Continue exploration campaign, another exploration well under result evaluation.

Zawtika Minimal impact from gas pipeline leakage, fully repaired within 2 weeks. Continue drilling activities to maintain production with new phase 1D.

G2P Ongoing preparation works

Abu Dhabi Offshore 1 and 3

Currently being evaluated for petroleum potential for future exploration

Abu Dhabi Offshore 2

Announced gas discovery approx. 2.5–3.5 TCF. Further drillings to appraise full block potential.

Sharjah Onshore Area A

Farm-in to acquire 25% stake. Project is in exploration phase.

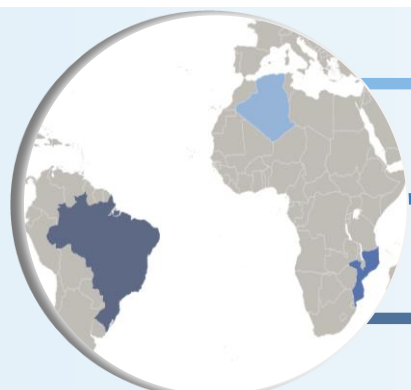


UAE

HBR Oil production commenced. Expect daily production in Q4/22 ~13 KBPD.

MZA1 Construction to resume pending security situation

Portfolio Rationalization Divestment



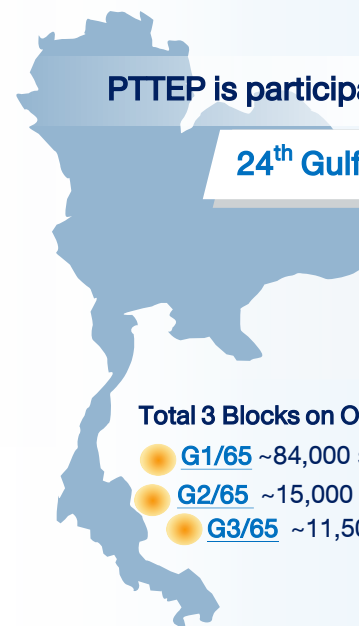
Algeria



Mozambique



Brazil



PTTEP is participating in

24th Gulf of Thailand Bid Round

PSC Scheme

- Exploration 6 + 3 Yrs.
- Production 20 + 10 Yrs.

Total 3 Blocks on Offer

G1/65 ~84,000 sq.km.

G2/65 ~15,000 sq.km.

G3/65 ~11,500 sq.km.

Timeline

Feb 2023

Announcement of Successful

Mid Sep 2022

Bid Submission

May to Sep 2022

Data room

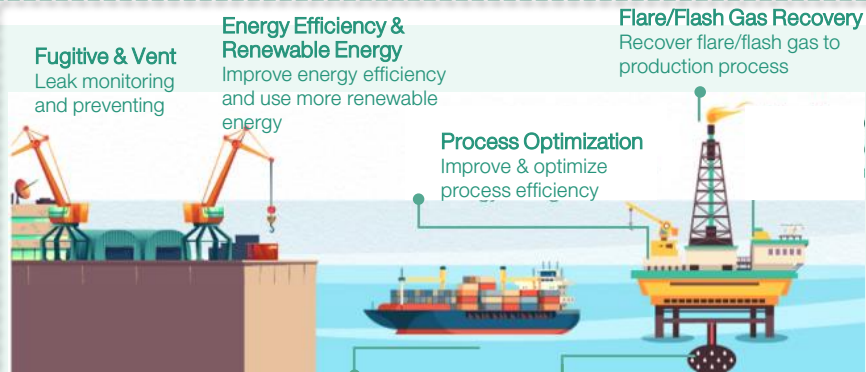
Apr 2022

Announcement Bid Opening

Pathway to Decarbonize

GHG Emissions Reduction (Avoid & Mitigate)

PTTEP has continued to reduce GHG emissions since 2012.



2.77 MtCO₂e

Accumulated GHG Reduction from Jan 2012 – Sep 2022



S1 Solar Power



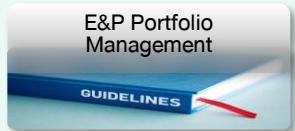
> 60% progress of S1 solar power construction (expected completion in Q2/2023)



Arthit CCS



Ongoing CCS Pre-FEED Study Report (expected 1st injection in 2026)

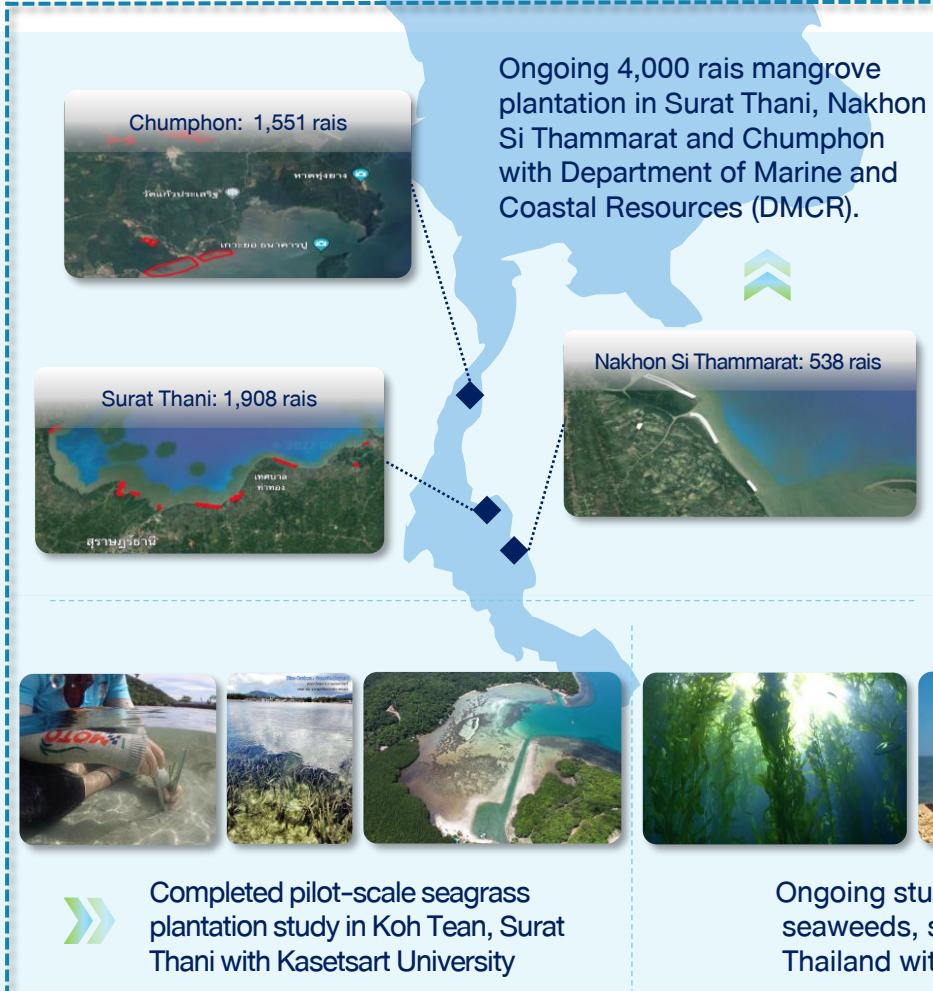


E&P Portfolio Management



GHG criteria for investment decision completed

GHG Offsetting



2022 Low Carbon and Sustainable Business Award (highest level)

from the Thailand Greenhouse Gas Management Organization (TGO)



Financial Results

Profit and Loss

Q3/2022 Key events

Exploration wells write-off in Australia

MTJDA Production Period Extension

Tax incentives Malaysia Sabah-H

Brazil Assets Divestment

Unit: million USD

↔ Net Profit
 ■ P/L from normal operation
 ■ P/L from non-operating items

Profit from Normal Operations

Sales Volume

Average Selling Price

Unit Costs

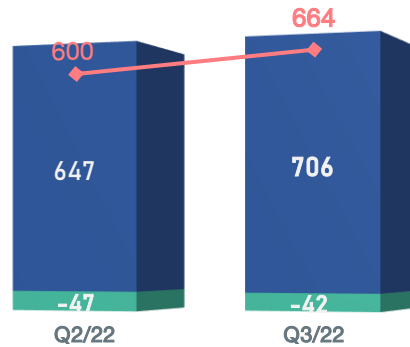
Major Non-operating items

Oil Price Hedging

Impairment / Asset Write-off

Gain from Bargain Purchase

QoQ



+3%

G1/61 1st Full Quarter, MTJDA

-3%

Lower liquid price

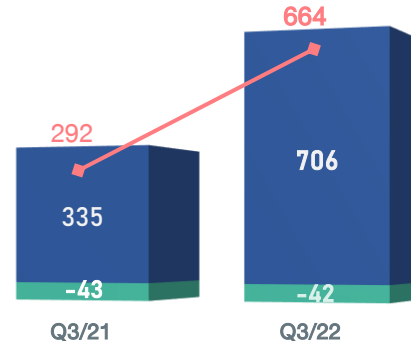
+0.1%

Gain in Q3/22 vs Loss in Q2/22

Brazil Asset Impairment in Q3/22

-

YoY



+15%

G1/61, Oman Block 61, Arthit

+21%

Higher gas and liquid price

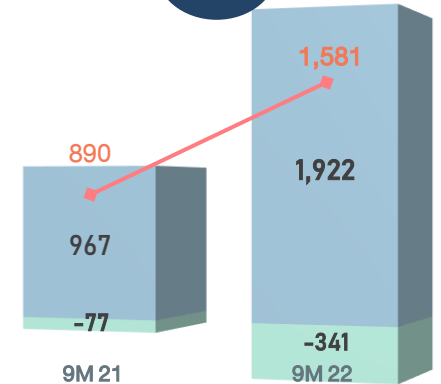
-2%

Gain in Q3/22 vs Loss Q3/21

Brazil Asset Impairment in Q3/22

-

YTD



+10%

G1/61, Oman Block 61, Arthit

+27%

Higher gas and liquid price

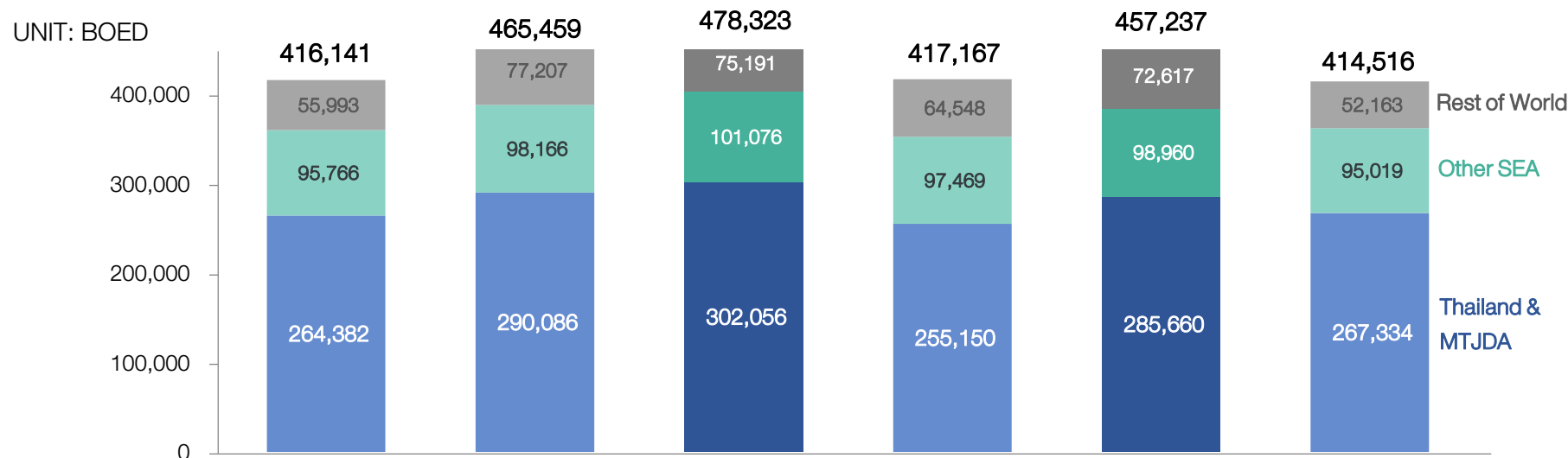
-1%

Less Hedging Loss in 9M22

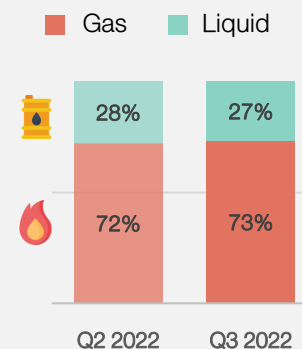
Less Brazil Asset W/O in 9M22

Gain from Bargain Purchase in 9M21

Volume and Price

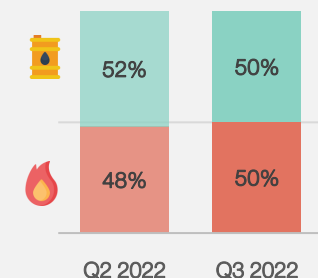


Volume Mix



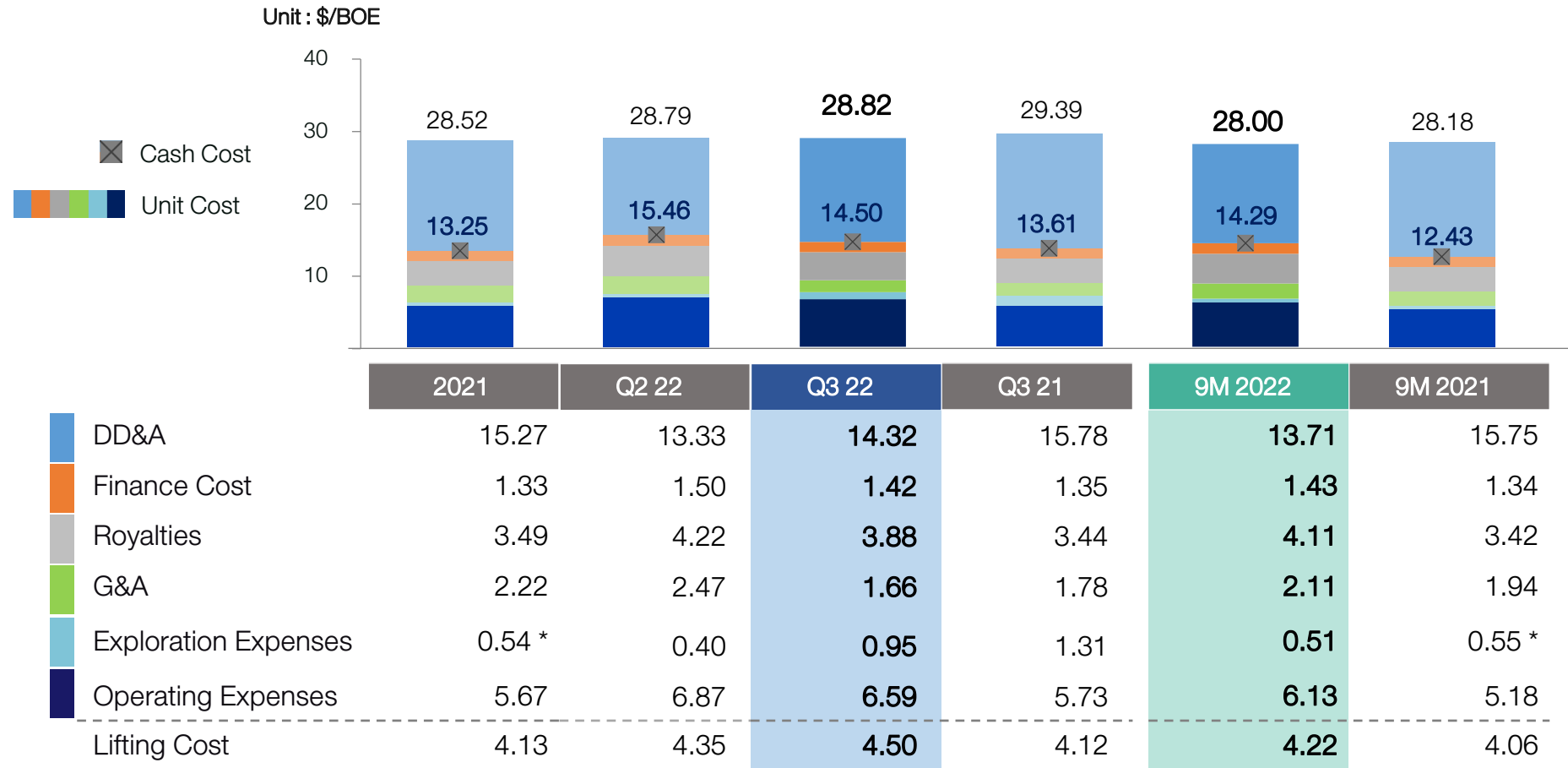
Product Price	2021	Q2 22	Q3 22	Q3 21	9M 2022	9M 2021
Gas (\$/MMBTU)	5.69	6.10	6.18	5.76	6.12	5.66
Liquid (\$/BBL)	66.70	105.47	97.94	69.16	98.44	63.40
Weighted Avg. (\$/BOE)	43.49	55.61	53.68	44.25	53.62	42.34
Avg. Dubai (\$/BBL)	69.39	108.22	96.68	71.68	100.29	66.35
Avg. HSFO (\$/BBL) (High Sulphur Fuel Oil)	64.42	104.67	74.44	68.35	89.02	62.14

Revenue Mix



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

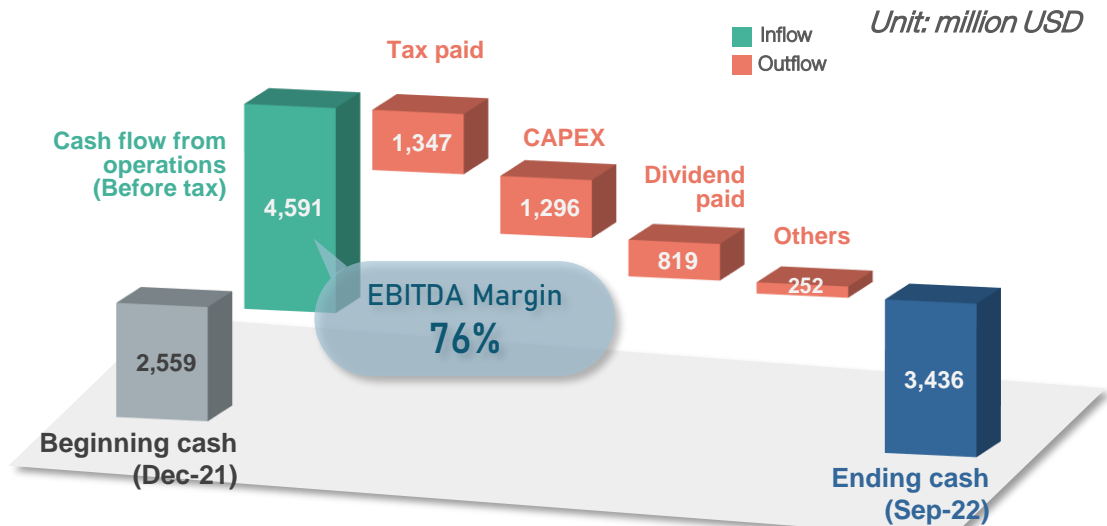
Unit Cost



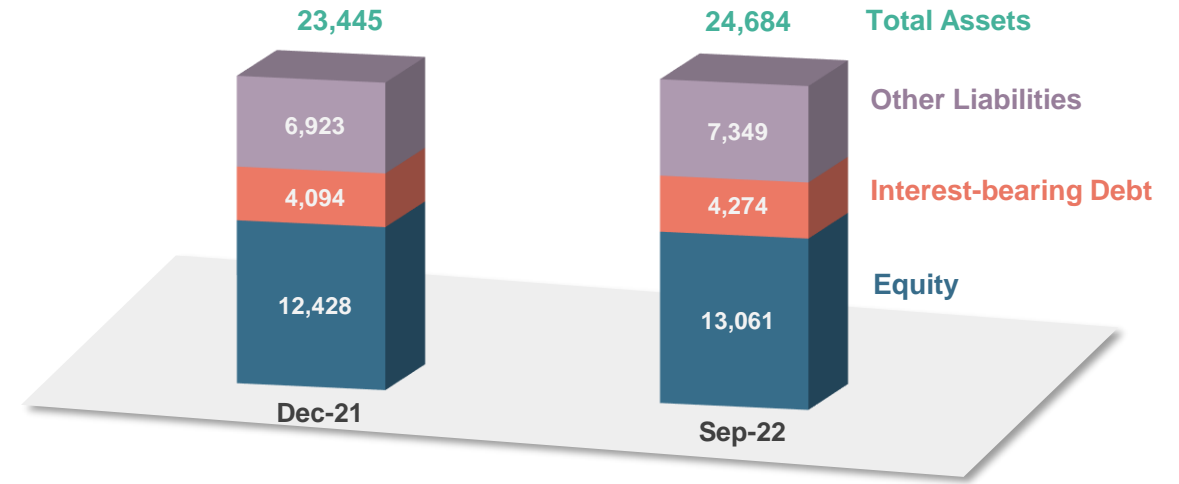
Note: * Exclude Exploration assets write-off in Brazil for 9M 2021, and 2021
 All Unit Cost shown above exclude costs related to new business
 The formulas for calculating ratios are provided in the supplementary section for your reference

Cashflows, Financial Position and Debt Profile

Cashflow & Financial Position



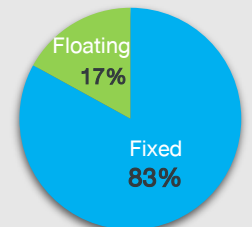
Note: * Include Short-term investment
Net of adjustment for the effect of exchange rate changes on cash and cash equivalents



Debt Profile

	2021	Q3 2022		2021	Q3 2022
Debt to Equity	0.33	0.33	Average Cost of Debt	3.38% p.a.	3.73% p.a.
Debt to EBITDA	0.80	0.62	Average Loan Life	12.7 Yrs	12.8 Yrs

Interest Rates



Guidance and Ratings



Outlook

		FY 2022
Sales Volume (KBOED)		~468
Gas Price (US\$/MMBTU)		~6.3
Unit Cost (US\$/BOE)		~29-30
Profitability (EBITDA Margin)		70-75%

* Based on average Dubai oil price in 2022 at 97 \$/BBL

Ratings

AAA

Stable

BBB stand-alone rating

Baa1

Stable

BBB stand-alone rating





Member of
**Dow Jones
Sustainability Indices**

Powered by the S&P Global CSA

Thank you and Q&A



+66 2 537 4000



IR@pttep.com



<http://www.pttep.com>

Supplementary information



• Profit and Loss Statement	19
• Reserves	20
• Finance	21 - 23
• E&P Business	24 - 26
• Beyond E&P Business	27 - 28
• SD & ESD	29 - 31
• Thailand Energy Market	32 - 34
• Projects Information	35 - 44
• Organization Structure	45
• Ratio and Formula	46
• Conversion Table	47

Results | Profit and Loss Statement

Unit: million USD

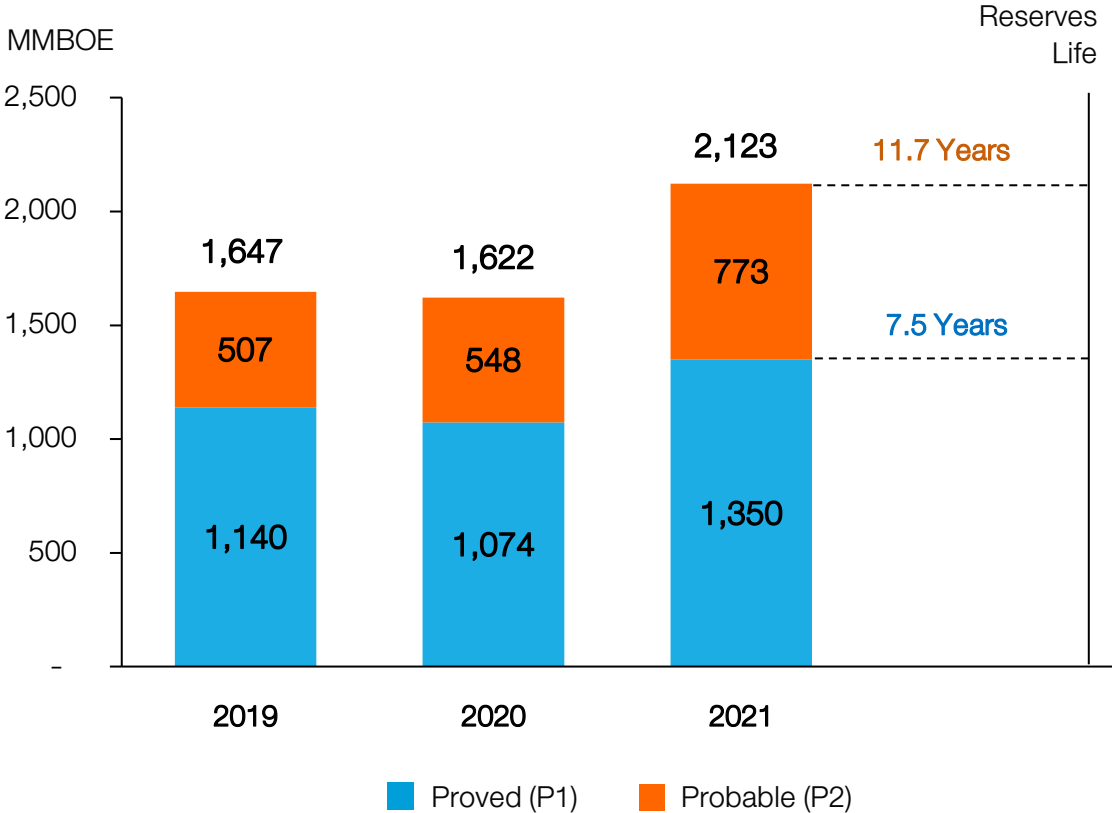
	Q3 22	Q2 22	%QoQ	Q3 21	%YoY	9M 22	9M 21	%YTD	FY2021
Total Revenues	2,617	2,469	6%	1,784	47%	7,008	5,331	31%	7,314
Sales ⁽¹⁾	2,388	2,383	0.2%	1,744	37%	6,801	4,864	40%	6,731
Sales Volume (BOED) ⁽²⁾	478,323	465,459	3%	417,167	15%	457,237	414,516	10%	416,141
Sales Price (US\$/BOE)	53.68	55.61	(3%)	44.25	21%	53.62	42.34	27%	43.49
Gain from a bargain purchase	-	-	-	-	-	-	350	(100%)	342
Others ⁽³⁾	229	86	>100%	40	(>100%)	207	117	77%	241
Total Expenses	1,936	1,882	3%	1,499	29%	5,433	4,453	22%	6,118
Major Expenses:									
Operating Expenses	300	291	3%	220	36%	789	586	35%	861
Exploration Expenses	42	17	>100%	50	(16%)	64	207	(69%)	226
G&A	80	112	(29%)	72	11%	285	229	24%	355
DD&A	631	565	12%	606	4%	1,713	1,782	(4%)	2,202
Loss on Financial Instruments	-	-	-	5	(100%)	84	228	(63%)	234
Impairment Loss on Assets	95	-	100%	-	100%	95	-	100%	183
Income Tax Expenses	468	610	(23%)	326	44%	1,575	839	88%	1,287
Share of profit (loss) from associates and JV	(17)	13	(>100%)	7	(>100%)	6	12	(50%)	15
Net Profit	664	600	11%	292	>100%	1,581	890	78%	1,211
Profit (Loss) from normal operation	706	647	9%	335	>100%	1,922	967	99%	1,479
Profit (Loss) from non-operating items	(42)	(47)	11%	(43)	2%	(341)	(77)	(>100%)	(268)
Non-operating items breakdown:									
Oil Price Hedging	94	(38)	>100%	(41)	>100%	(184)	(289)	36%	(284)
Tax from Effect of FX	(13)	(11)	(18%)	(2)	(>100%)	(26)	(11)	(>100%)	(10)
Effect from FX and others	(28)	2	(>100%)	-	(100%)	(36)	18	(>100%)	12
Impairment Loss on Assets	(95)	-	(100%)	-	(100%)	(95)	-	(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.

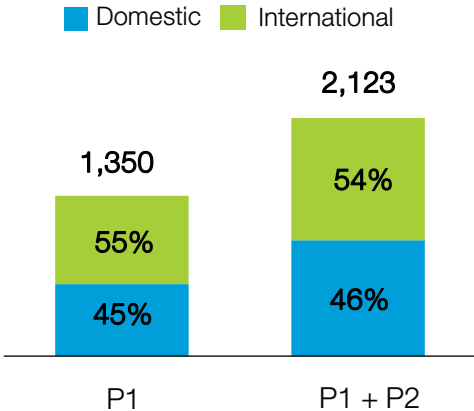


5-Year Average Proved Reserves Replacement Ratio (RRR)

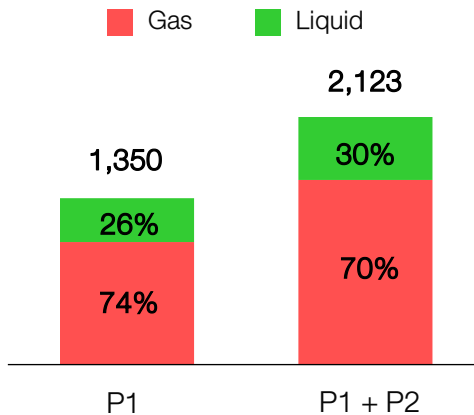
2019	2020	2021
1.5X	1.5X	1.9X

- 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

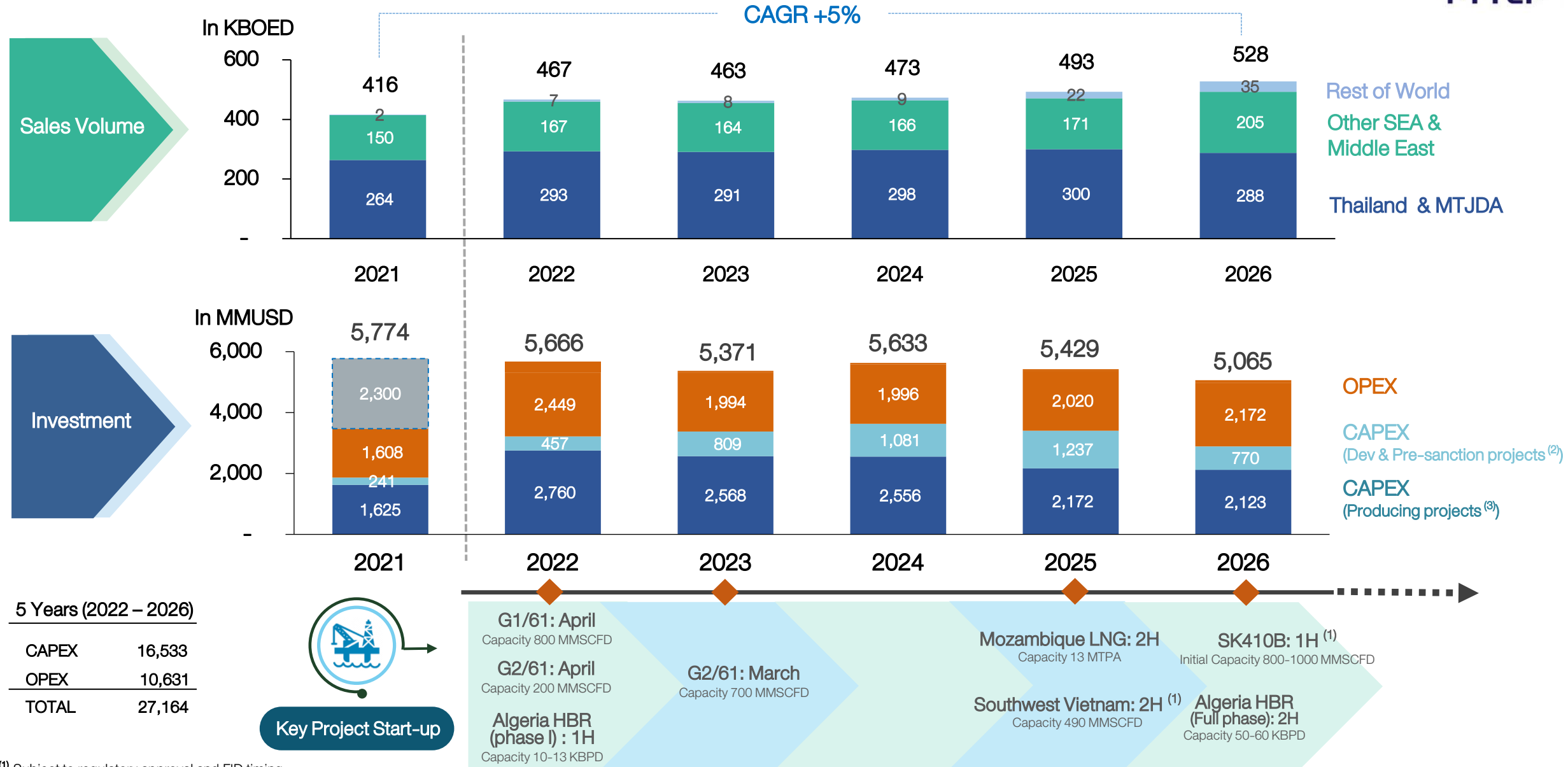
2021 by Geography



2021 by Product Type



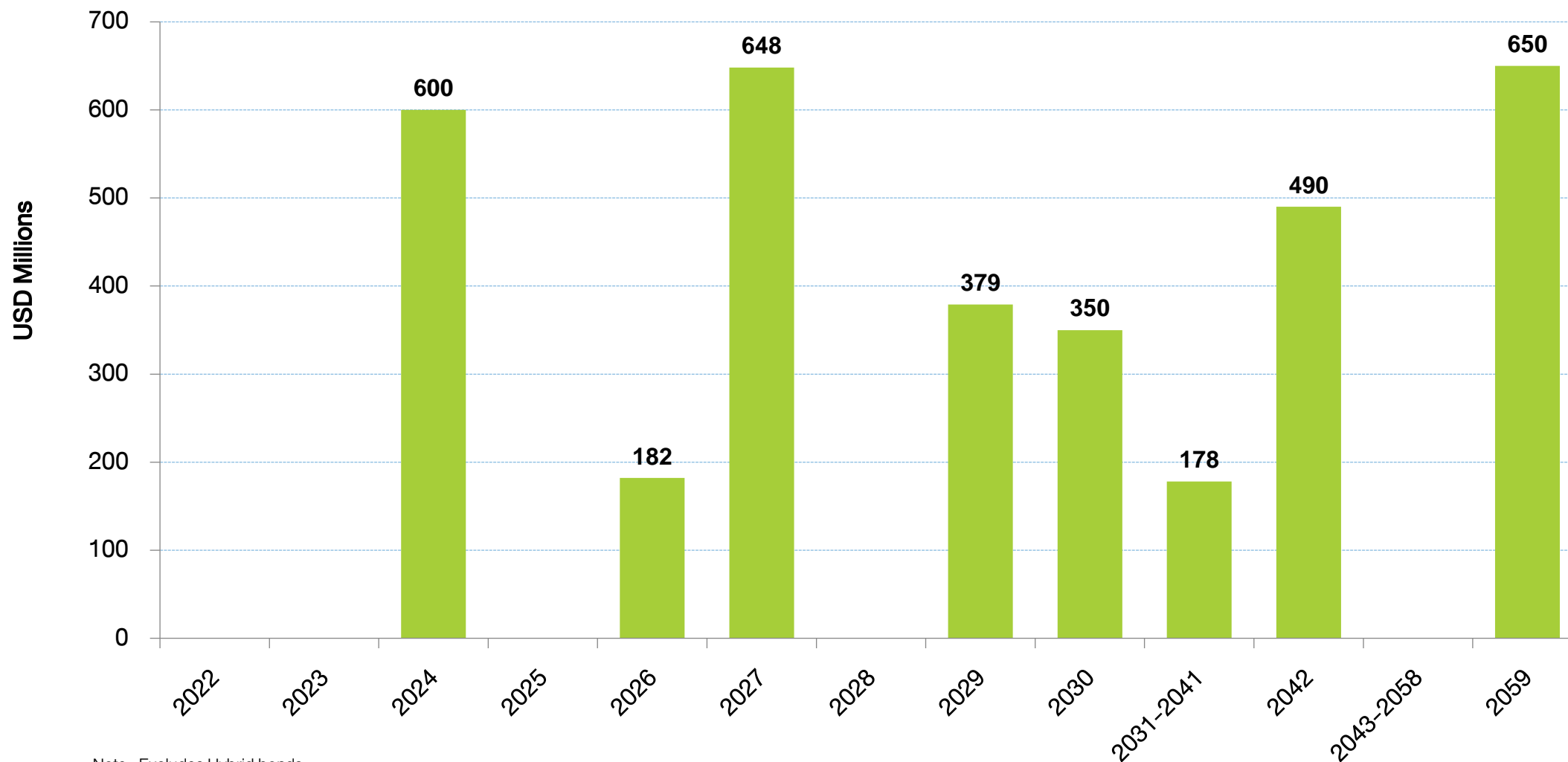
Finance | 5-year Sales Volume & Investment Budget (announced December 2021)



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



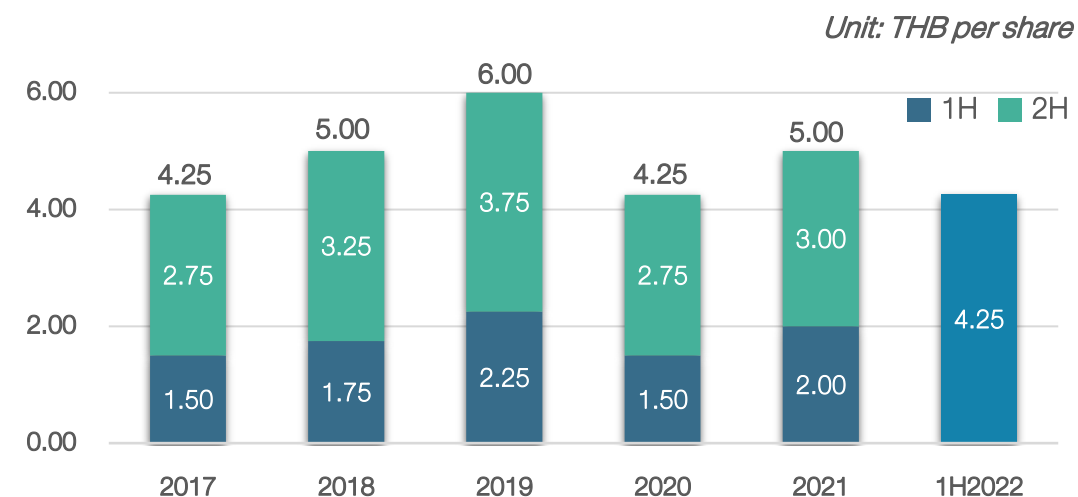
Note: Excludes Hybrid bonds

Unit: USD Millions or equivalent after cross currency swap

Key Ratios

	Q2'2022	Q3'2022
EBITDA Margin	75%	76%
Debt to Equity	0.33	0.33
Debt to EBITDA	0.69	0.62
Current Ratio	1.85	1.96
ROA	6.5%	7.9%
ROE	18%	21%

Dividend Payment History



Payout Ratio

% of Net Profit	88	55	49	77	50	50
% of Profit from Normal Operation	63	51	53	71	41	38

E&P Business | Thailand, Myanmar and Malaysia



Myanmar

Production

Zawtika (WI 80%)

- Production Volume gas 319MMSCFD (9M2022)

Yadana (WI 37.1%)

- Production Volume gas 754MMSCFD (9M2022)

Exploration

M3 (WI 100%)

- Pending development

Malaysia

Production

Block K (WI Kikeh 56%, SNP 22.4%, GK 7.2%)

- Production Volume crude 26KBPD and gas 30MMSCFD (9M2022)

Block H (WI Rotan 56%, Others 42%)

- Production Volume gas 260MMSCFD (9M2022)

SK309 and SK311 (WI 42-59.5%)

- Including East Patricia field
- Production Volume gas 200MMSCFD, and crude 18KBPD (9M2022)

Exploration

- SK410B (LLB), SK417, SK314A, SK438, SK405B
- PM415, PM407



Thailand

Production

G1/61 Erawan (WI 60%)

- FY2022 daily gas production 200-220MMSCFD
- Ramp-up in progress to 800MMSCFD in Apr 2024
- Sole investment 100%

G2/61 Bongkot (WI 100%)

- GBN Transition completed. Production 200MMSCFD.

Bongkot (WI 66.67%)

- Production volume gas 730MMSCFD and condensate 19KBPD (9M2022)
- Remaining transition to G2/61 in Mar 2023 at 500MMSCFD

Arthit (WI 80%)

- Production Volume gas 298MMSCFD and condensate 16KBPD (9M2022)

Contract 4 (WI 60%)

- Production Volume gas 415MMSCFD and condensate 15KBPD (9M2022)

S1 (WI 100%)

- Production Volume crude oil 25KBPD (9M2022)

MTJDA (WI 50%)

- Production Volume gas 290MMSCFD (9M2022)

E&P Business | The Middle East

UAE

Exploration

Abu Dhabi Offshore 1, 2, 3 (WI 30%)

- High potential prospective resources with significant sizeable discoveries
- Operated by ENI (WI 70%)

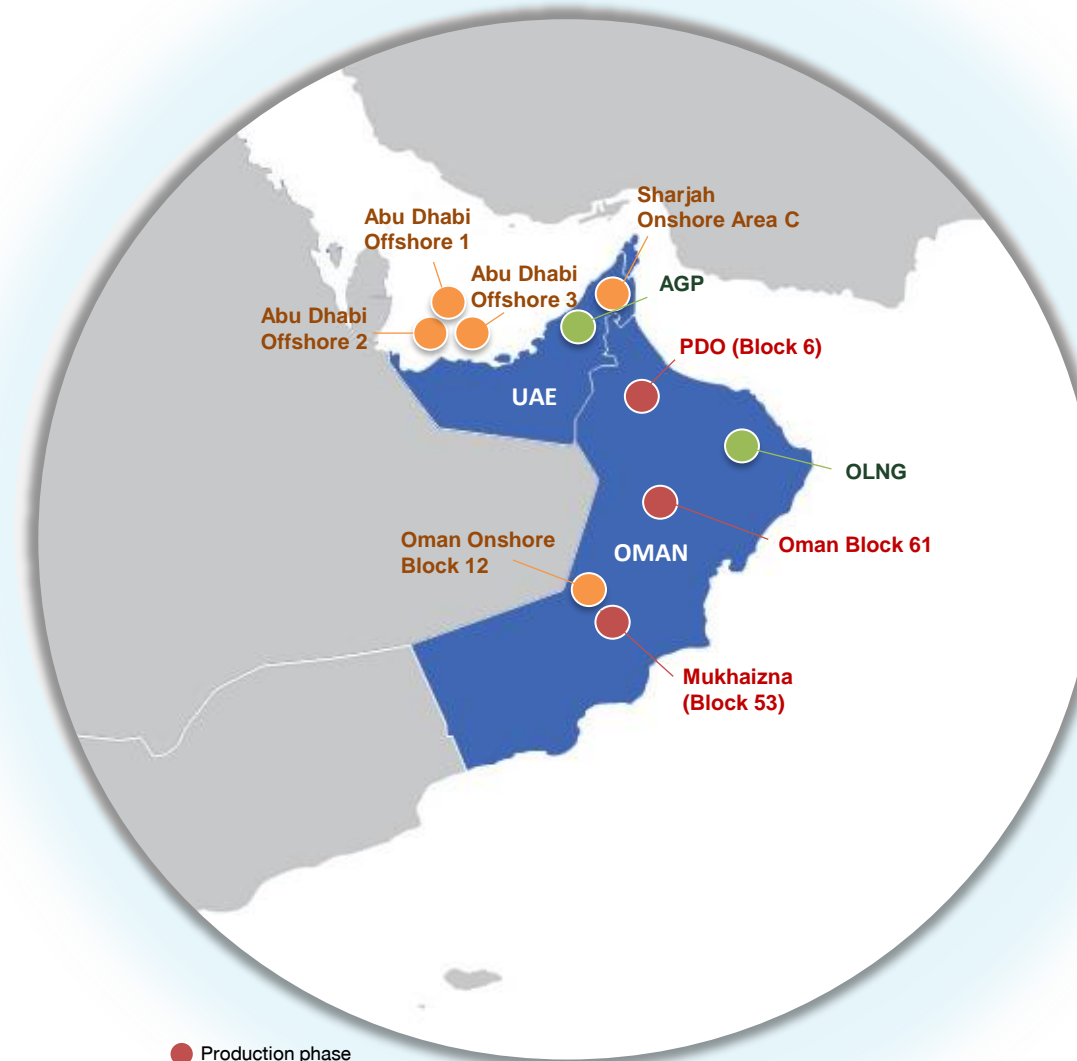
Sharjah Onshore Area C (WI 25%)

- High gas & condensate potential with the possibility of integrating with surrounding fields
- Operated by ENI (WI 50%)

Midstream

ADNOC Gas Processing (WI 2%)

- AGP is 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 economy
- Sizable volume of Propane, Butane and Naphtha
- Operated by ADNOC (WI 68%)



- Production phase
- Exploration phase
- Midstream

OMAN

Production

PDO Block 6 (WI 2%)

- Largest asset covering around 1/3 of the country. Average oil production volume of 660 KBPD (9M2022)
- Operated by Petroleum Development of Oman

Mukhaizna Block 53 (WI 1%)

- Largest single onshore producing field in Oman. Average oil production volume of 94 KBPD (9M2022)
- Operated by Occidental Petroleum (WI 47%)

Block 61 (WI 20%)

- Largest tight gas development in Middle East
- Gas and condensate daily production rate of 1,500 MMSCFD and 61,000 BPD (9M2022).
- Operated by BP (40% interest)

Exploration

Onshore Block 12 (WI 20%)

- Operated by Total E&P Oman (80% interest)

Midstream

OMAN LNG (WI 2%)

- The only LNG facility in Oman. Processing capacity 10.4 MTPA.
- Operated by Government of Oman (WI 51%)

Algeria

Production

Bir Seba (WI 35%)

- Oil production consisting of block 433a, 416b
- Operated by PVEP (WI 40%)
- Production volume crude 16KBPD

Hassi Bir Rekaiz (WI 49%)

- HBR oil filed consisting of block 443a, 424a and 415ext
- 1st Oil in June 2022 and will start delivering sales volume in Q4/2022.
- Operated by Groupment (WI 51%)
- Production volume crude 13KBPD

Angola

Development

Block 17/06 (WI 2.5%)

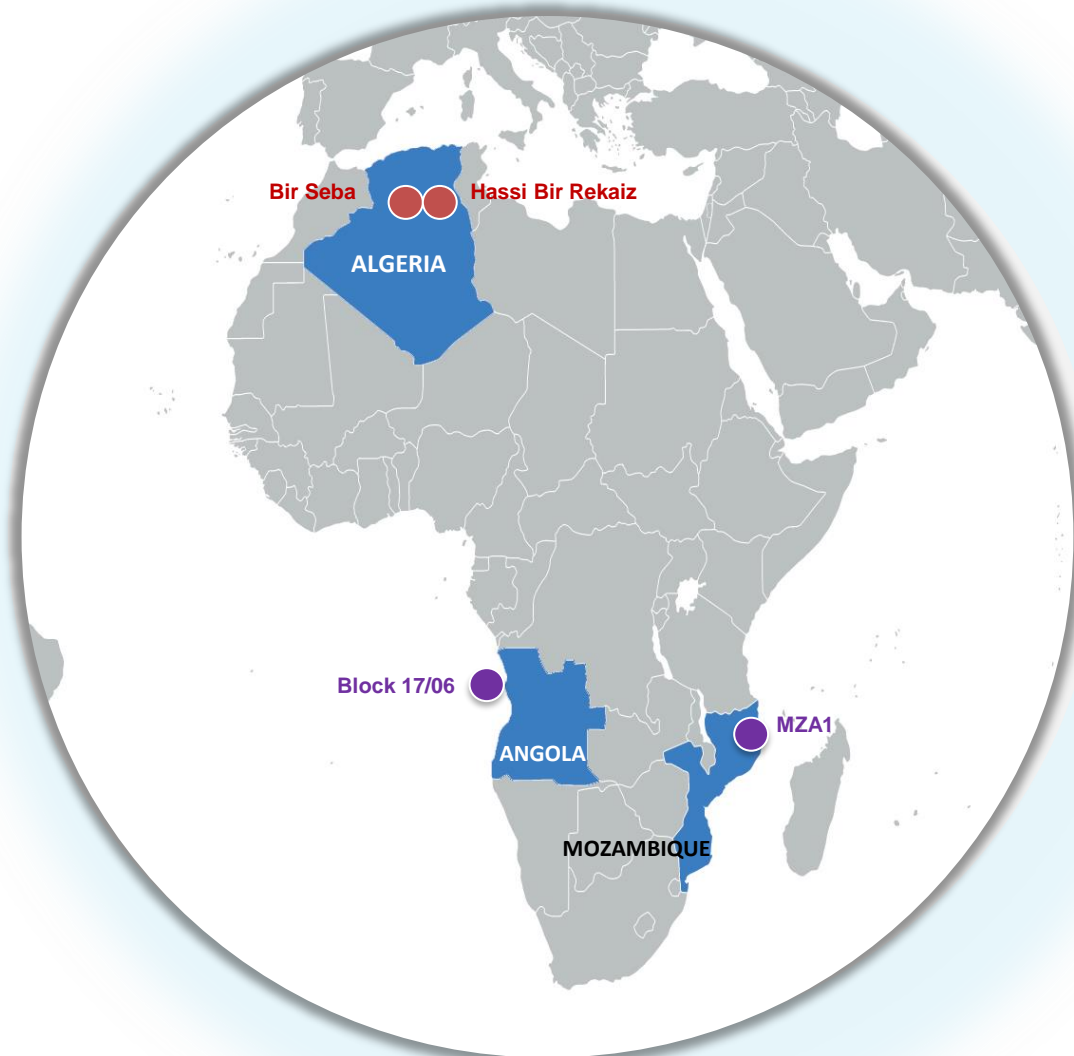
- FID in July 2022 for Begonia offshore oil field in the Lower Congo Basin, estimated production capacity at 30KBPD.
- Operated by TotalEnergies (WI 30%)

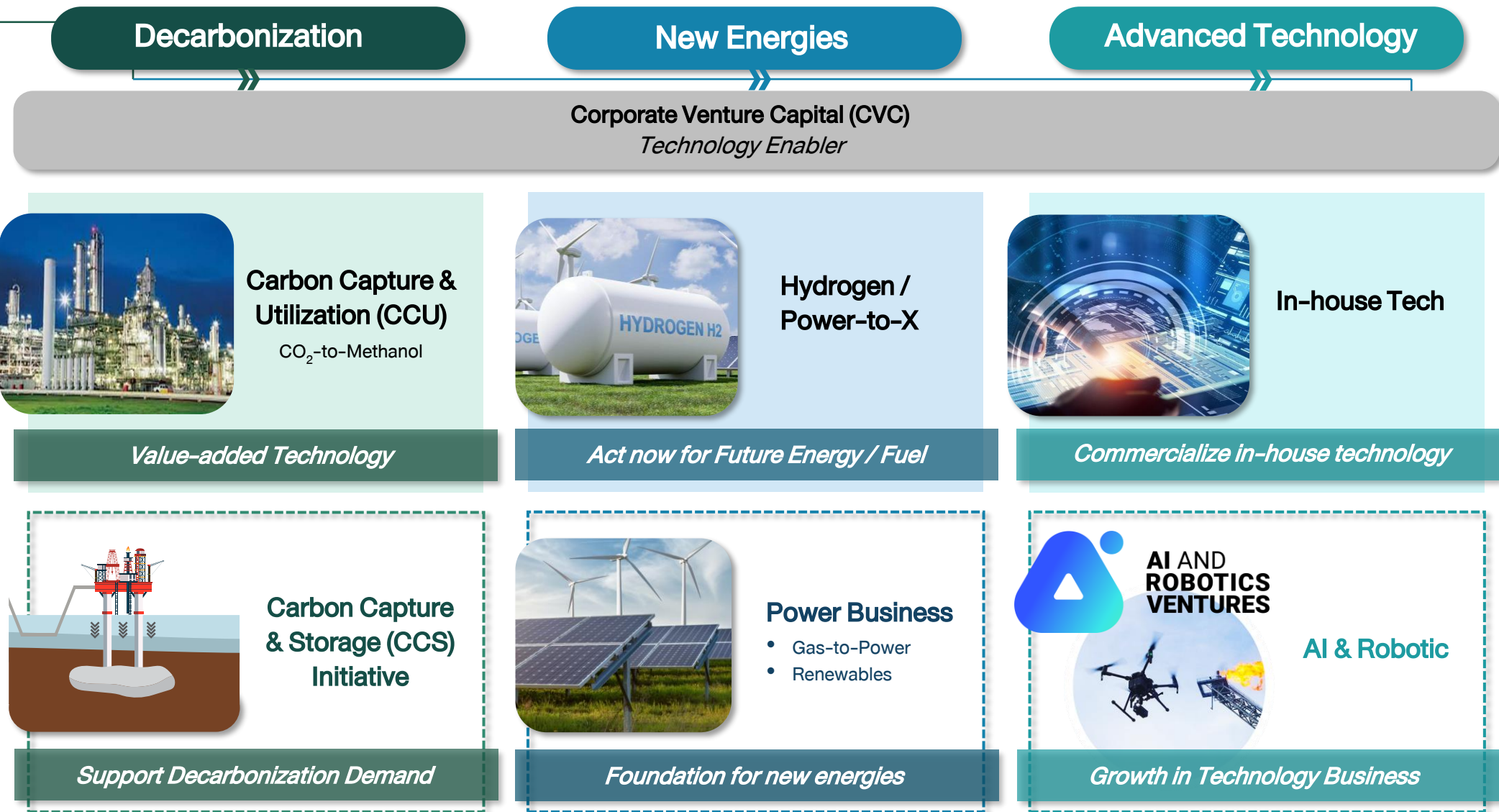
Mozambique

Development

MZA1 (WI 8.5%)

- High quality reservoirs capable up to 200MMSCFD per well
- Construction phase for LNG facility with capacity 13.1 MTPA (2 trains).
- Currently under Force Majeure due to local security situation
- Operated by TotalEnergies (WI 26.5%)



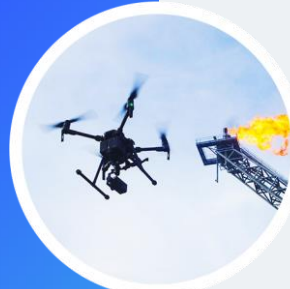


Beyond E&P Business | ARV



ROVULA

Nextgen marine & subsea solutions for safety efficiency and reduced carbon footprint



SKYLLER

Artificial Intelligence and Augmented Reality Solutions for critical infrastructure management



varuna

Crop Sustainability and Nature-based Carbon Solutions



CARIVA

Health Tech API Platform for life-changing personalized health innovation



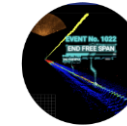
Xplorer AUV
Surveillance & inspection



RotoClimber
Vertical Repair & Maintenance



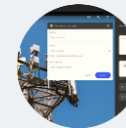
Nautilus
Horizontal Repair & Maintenance



XSpector
Computer Vision Analytics & Insights



UAS Data Capture and Inspection



Asset Management Platform



HORRUS
Pilotless UAS systems For autonomous dispatch



HIGHTSIGHT
Integrated teleoperations Solutions for surveillance and asset inspection



Precision Farming



Remote Sensing Solutions for agri-land management



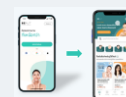
KANNA
Retail Carbon Farming



MAKARA
Nature-based Carbon Solutions



NEXTCERCISE
Fitness Monitoring



BEAUT
Personalized Care and Wellness



ARVIC
Health Ecosystem



PTTEP
JOINT VENTURES



with Mermaid Subsea Services



with Aerodyne Group and Digital Creations



with Thaicom



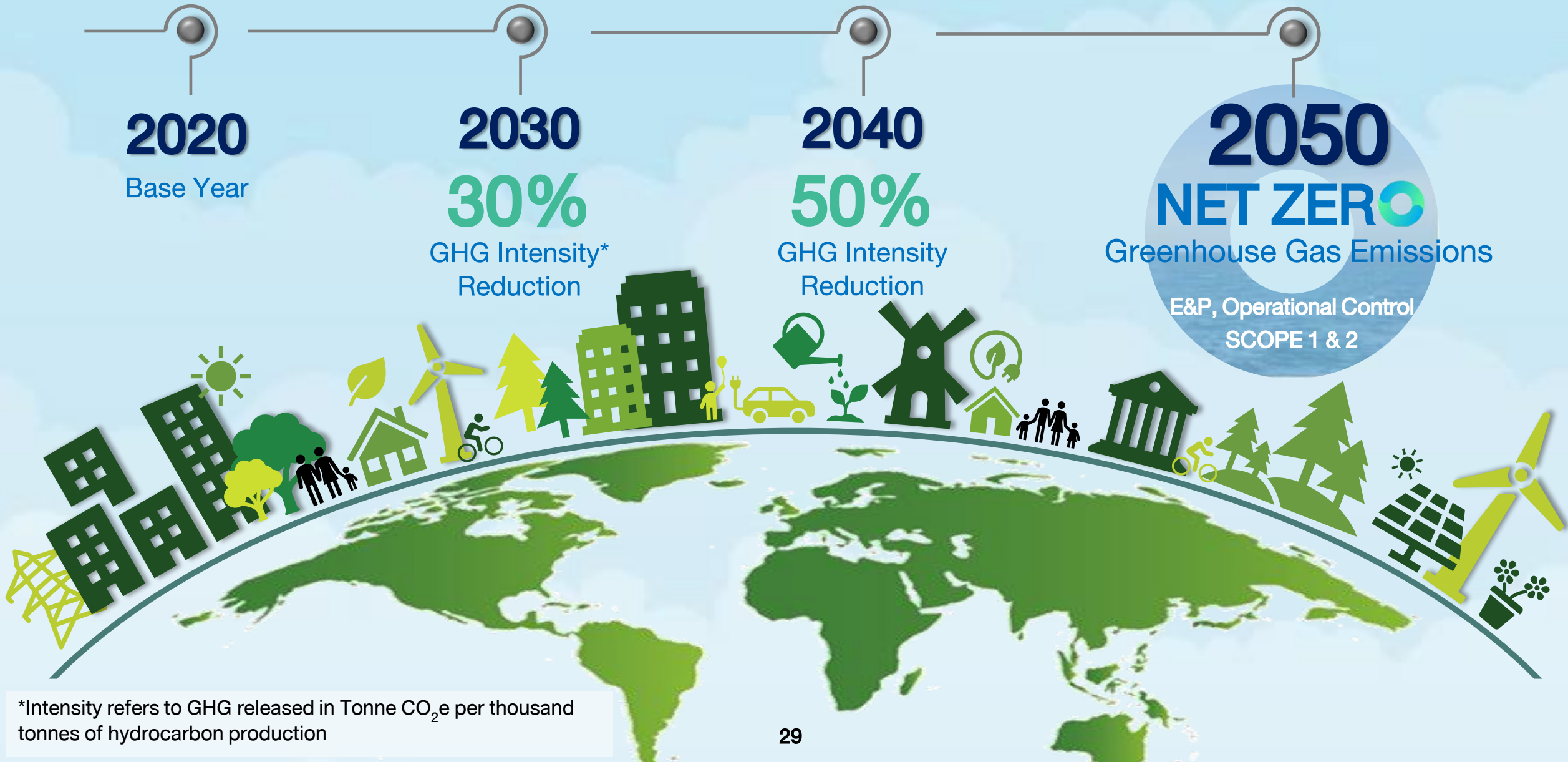
with BJC

Technologies & Businesses

AI and Robotics Ventures

ARV is the venture building platform of PTTEP. We leverage artificial intelligence and robotics technologies to unlock value and create business growth opportunities across industries spanning air, land, and sea. Through innovation, R&D, go-to-market and partnership activities, we aspire to deliver unparalleled experiences to the ecosystems we engage with.

SD & ESG | Net Zero Ambition



*Intensity refers to GHG released in Tonne CO₂e per thousand tonnes of hydrocarbon production

SD & ESG Update

Decarbonization

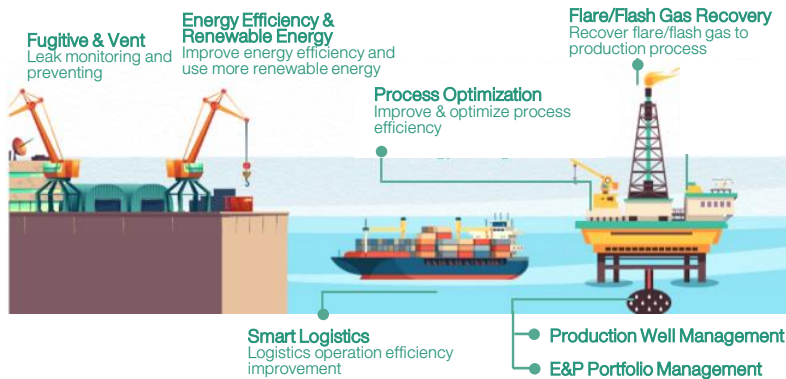
GHG Intensity Reduction Target
30% By 2030 (2020 base year)

Net Zero By 2050

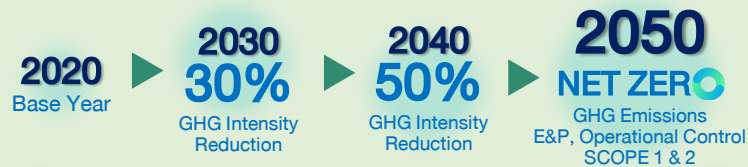
◆ PROGRESS ◆

Reduction of GHG Emission Intensity

As of Q3/2022, > 124,000 TCO₂e Reduction since Jan 2022



EP Net Zero



Exploring for
Lower Carbon E&P
Portfolio

EP

Production and
Planet in Balance

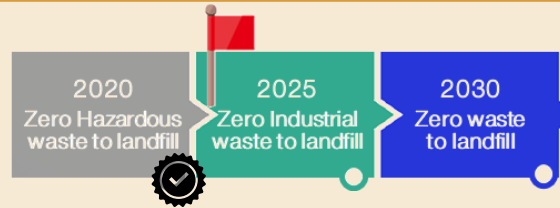
Circular Model

Zero Waste to Landfill by 2030

≥50% of Main Structure Reuse by 2030

◆ PROGRESS ◆

Waste to Landfill



WHP Jacket Reuse

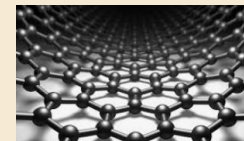
Conduct a feasibility study for the reuse of Wellhead Platform (WHP) jacket in addition to the reuse of Wellhead Platform (WHP) topside

Upcycling High Volume Waste



Sand to Zeolite: Completed prototype study result to turn sand waste from petroleum production at Zawtika project to nano silica and zeolite with good moisture absorption rate

Oil sludge conversion to Graphene: Completed lab scale unit fabrication



Ocean for Life

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



Collaborated with Hydro-Informatics Institute (HII) & Kasetsart University to collect ocean data by deploying an ocean current mapper [1st time in Thailand]

Conducting a pilot-scale seagrass plantation study in Koh Tean, Surat Thani



Ramp Up CSR around Ocean Flagship Projects



- 4 Aquatic Animal Hatchery Learning Centers Established (Phetchaburi, Prachuap Khiri Khan, Samut Songkhram & Rayong)

- More than 10 km² Conservation Area & Fish Home

- Handed over the sea turtle conservation exhibition & sea turtle hatchery buildings to the Royal Thai Navy Sea (Chonburi)

SD & ESG | Disclosure and Ratings

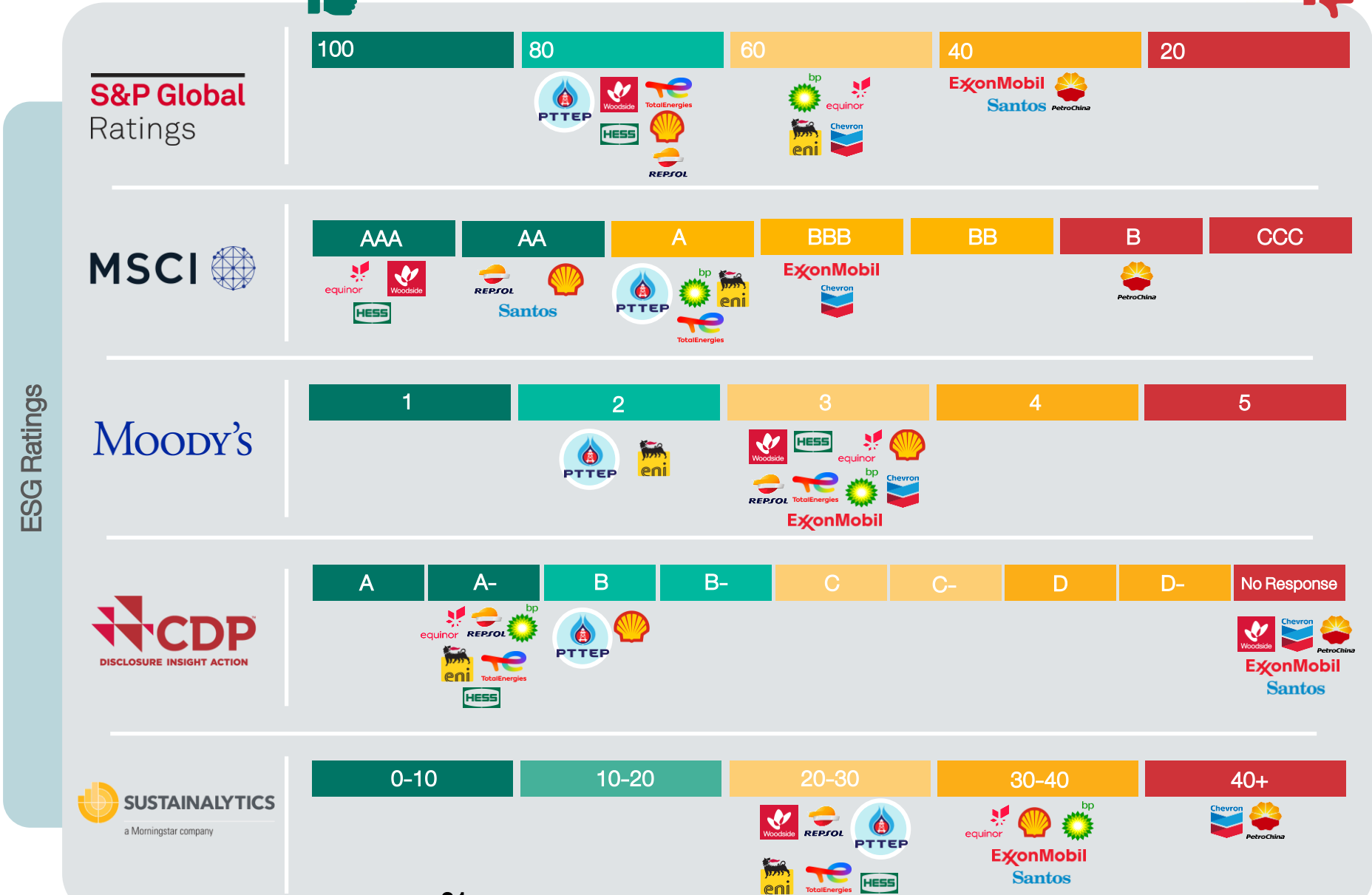


ESG Standards



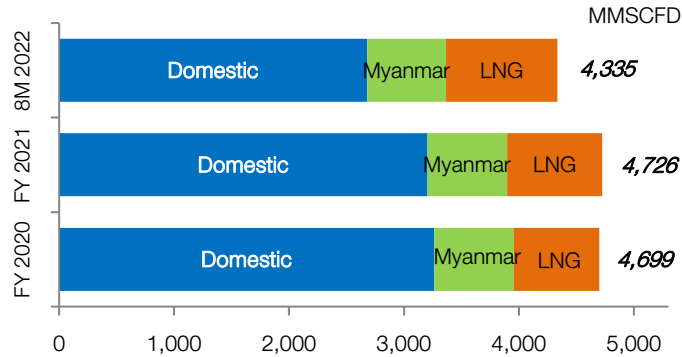
Global Reporting Initiative Reporting Standards (GRI Standards)

Oil and Gas Sector Disclosures (OGSD)



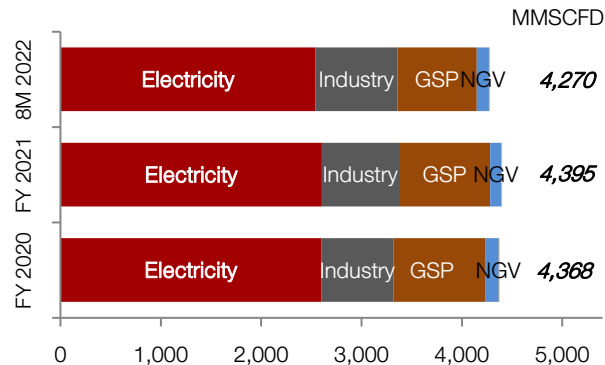
Thailand Energy Market | Overview

Natural Gas Supply

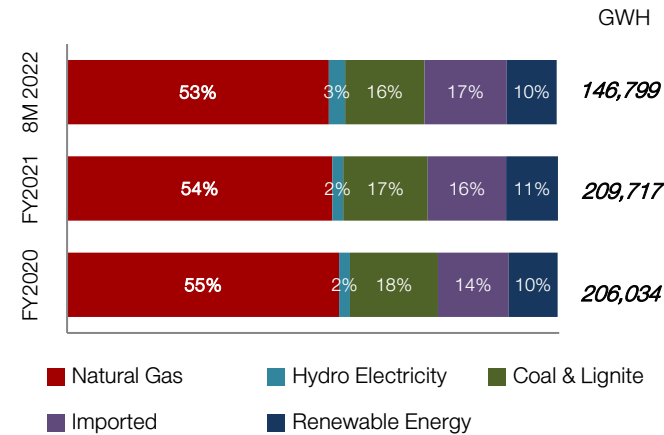


- Increase in energy demand & become closer to demand before COVID-19 pandemic, along with high level of energy prices
- As of August 2022, compared with the same period of last year: significantly declined in domestic supply, while gas from Myanmar remained constant with increase in LNG import.

Natural Gas Consumption



Electricity Generation



Source: Energy Policy and Planning Office (EPPO)

Exchange Rate Movement (USD/THB)



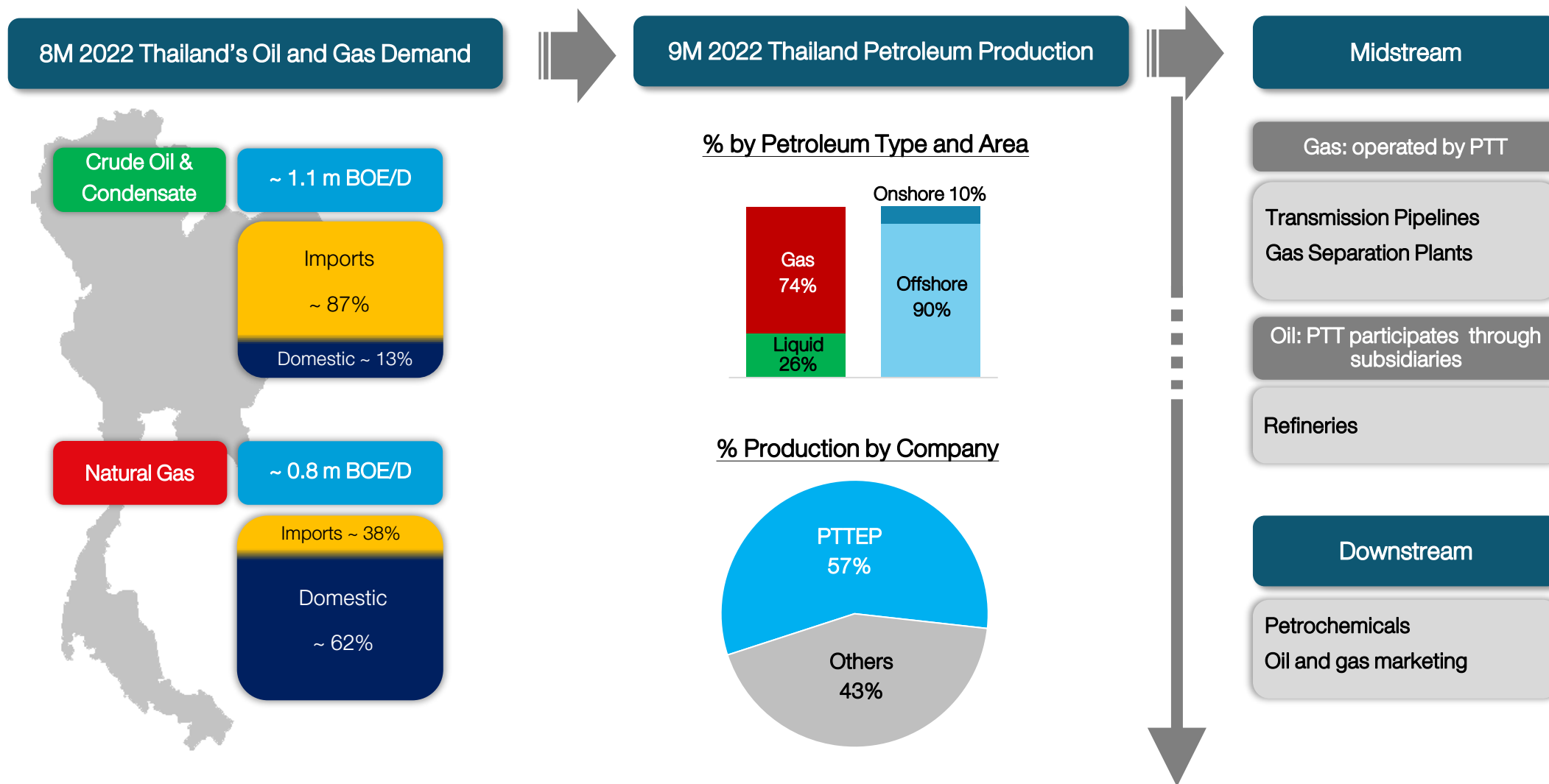
Consensus on the exchange rate mostly depends on

- Monetary policies and rate hike schedules of the Bank of Thailand and Federal Reserve
- Economic recovery of Thailand in particular the tourism sector
- Market risk-off factors such as high inflation and supply chain disruptions

Source: Bank of Thailand, Bloomberg

Forecast based on Bloomberg Consensus as of 17 October 2022

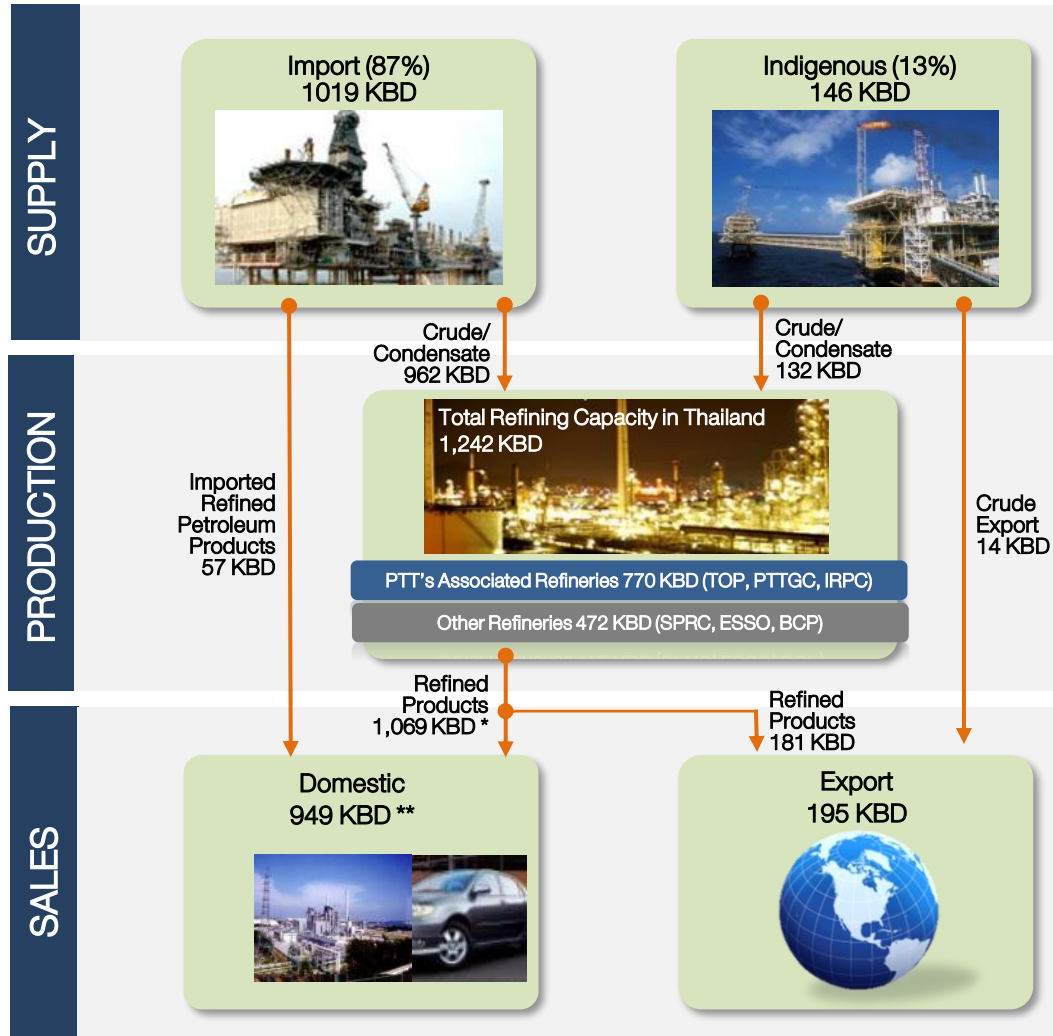
Thailand Energy Market | Value Chain



Thailand Energy Market | Oil & Gas Balance

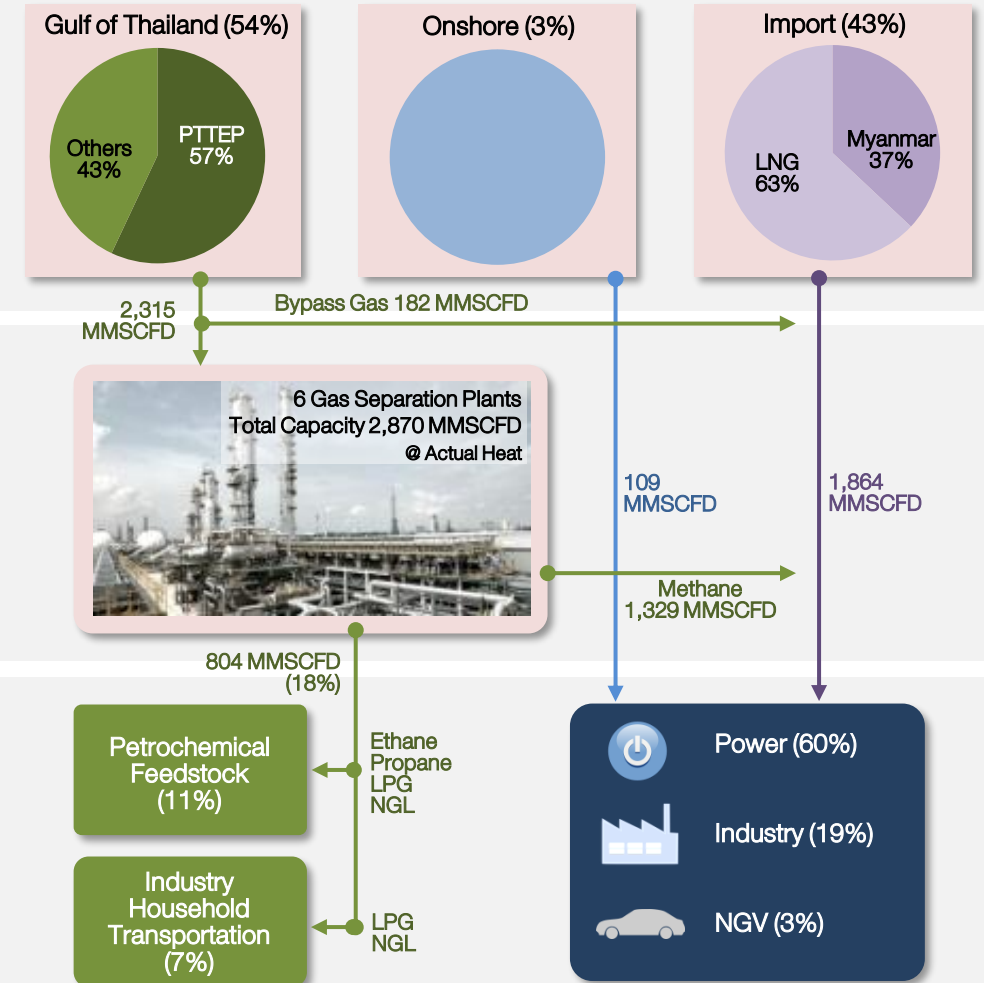
Oil Balance***

Maintains stability supply through adequate refining capacity



Natural Gas Balance****

Main driver of the Thailand economy



Source: PTT

Note: * Refined product from refineries = 990 KBD, including domestic supply of LPG from GSPs and Petrochemical Plants = 79 KBD

** Included Inventory

*** Information as of 6M 2022

**** Information as of 6M 2022

MMSCFD @ Heating Value 1,000 Btu/ft³

Projects Details | Thailand (as of September 2022)



	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%	287	16	<ul style="list-style-type: none"> Ensure gas delivery per DCQ
2	B6/27	Operator	Production	PTTEP	100%	-	-	<ul style="list-style-type: none"> Prepare for decommissioning activities
3	B8/32 & 9A	JV	Production	PTTEP Chevron MOECO KrisEnergy Palang Sophon	25.01% 51.66% 16.71% 4.63% 2%	47	10	<ul style="list-style-type: none"> Normal operations
4	Bongkot	Operator	Production	PTTEP TotalEnergies	66.67% 33.33%	701	19	<ul style="list-style-type: none"> Block 15 ended the concession on Apr 23, 2022 and operates under G2/61 project. Block 16 and Block 17 has maintained production until end of concession on Mar 7, 2023 Maintain production level as planned
5	Contract 4 (Pailin)	JV	Production	PTTEP Chevron MOECO	60% 35% 5%	405	16	<ul style="list-style-type: none"> Ensure gas delivery at DCQ
6	E5	JV	Production	PTTEP EXXON MOBIL	20% 80%	7	-	<ul style="list-style-type: none"> Ensure gas delivery at DCQ

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

** Sales volume represent **average volume for 100% of the project during 9M2022**

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

**** DCQ = Daily Contractual Quantity

Projects Details | Thailand (as of September 2022)



	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
7	G4/43	JV	Production	PTTEP	21.375%	1	2	<ul style="list-style-type: none"> Deliver production volumes as nominated from the buyer and oil production as planned
				Chevron	51%			
				MOECO	21.25%			
				Palang Sophon	6.375%			
8	G4/48	JV	Production	PTTEP	5%	1	-	<ul style="list-style-type: none"> Decommissioning activities in progress
				Chevron	71.25%			
				MOECO	23.75%			
9	L53/43 & L54/43	OP	Production	PTTEP	100%	-	0.7	<ul style="list-style-type: none"> Normal operations
10	PTTEP 1	OP	Production	PTTEP	100%	-	0.2	<ul style="list-style-type: none"> Maintain production plateau
11	S1	OP	Production	PTTEP	100%	8	Crude: 25 KBPD LPG: 175 MTon/Day	<ul style="list-style-type: none"> Production optimization and long-term development are on-going
12	Sinphuhorm	OP	Production	PTTEP	55%	97	0.3	<ul style="list-style-type: none"> Ensure gas delivery at DCQ
				Apico	35%			
				EXXON MOBIL	10%			
13	L22/43	OP	Production	PTTEP	100%	-	-	<ul style="list-style-type: none"> Production suspended Pending drilling results to determine further production/ development plans

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

** Sales volume represent **average volume for 100% of the project during 9M2022**

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

Projects Details | Thailand (as of September 2022)



	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
14	MTJDA	JOC	Production	PTTEP	50%	276	9	<ul style="list-style-type: none"> Granted extension of 10-year production period, as well as additional 30MMSCFD of gas production which will be delivered to Thailand until end of 2025 to serve Thai energy demand.
				Petronas Carigali	50%			
15	G9/43	OP	Exploration	PTTEP	100%	-	-	<ul style="list-style-type: none"> Activity suspended
16	G1/61 (Erawan)	OP	Production	PTTEP	60%	123	5	<ul style="list-style-type: none"> On-going drilling and WHP installation activities. Total 8 WHP for 2022.
				Mubadala	40%			
17	G2/61 (Bongkot)	OP	Production	PTTEP	100%	115	4	<ul style="list-style-type: none"> On-going drilling and WHP installation activities.

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

** Sales volume represent **average volume for 100% of the project during 9M2022**

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

Projects Details | Myanmar, Malaysia, Other SEA (as of September 2022)



	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
1	Malaysia Block K - 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%	26 **	30 **	<ul style="list-style-type: none"> The inspection and maintenance were completed as planned Completed drilling wells in GK as part of field development Prepare for drilling in Kikeh in Q4/2022
2	Malaysia SK309 and SK311	OP	Production	PTTEP	42 – 59.5%	200 **	18 **	<ul style="list-style-type: none"> In the process drilling of 4 new infill wells on West Patricia
3	Malaysia Block H	OP	Production	PTTEP	42 – 56%	260 **	-	<ul style="list-style-type: none"> Ensure gas delivery at DCQ Preparing for exploration wells drilling in early 2023
4	Malaysia – Other projects	OP	Exploration	PTTEP	42.5 - 80% (varied by permits)	-	-	<ul style="list-style-type: none"> <u>SK410B</u> : Additional drilling completed in Sep 2022 and under result evaluation. For LLB, expect FID 2023. <u>SK417</u> : Planning and preparing for the drilling of appraisal well <u>SK405B</u> : Sirung Pre-Development Study is ongoing <u>SK438</u> : Well planning in progress <u>SK314A</u> : Drilling preparation <u>SB412</u> : Preparing for exploration activities and focusing on seismic activity
5	Yadana (Myanmar)	JV	Production	PTTEPI Chevron MOGE	37.1% 41.1% 21.8%	737	-	<ul style="list-style-type: none"> Operatorship transfer completed in July 2022 as planned
6	Zawtika : M9 & a part of M11 (Myanmar)	OP	Production	PTTEP Myanma Oil and Gas Enterprise (MOGE)	80% 20%	310	-	<ul style="list-style-type: none"> On the development process of Phase 1D to maintain production level In the process of additional wellhead platform construction Reparation of onshore pipeline leakage was completed, caused 2-week interruption on gas imported to Thailand

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

** Sales volume represent **average volume for 100% of the project during 9M2022** 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 (as of September 2022)



	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
7	Myanmar M3	OP	Exploration	PTTEP	100%	-	-	<ul style="list-style-type: none"> Pending for Final Investment Decision (FID)
8	Vietnam 9-2	JOC	Production	PTTEP Vietnam Oil and Gas Group Pharos Energy	25% 50% 25%	12	3	<ul style="list-style-type: none"> Maintain production level Prepare for dev. Drilling in Q4/2022
9	Vietnam 16-1	JOC	Production	PTTEP Vietnam Oil and Gas Group Pharos Energy OPECO	28.5% 41% 28.5% 2%	4	12	<ul style="list-style-type: none"> Maintain production level Prepare for dev. Drilling in Q4/2022
10	Vietnam B & 48/95	JV	Exploration	PTTEP Vietnam Oil and Gas Group MOECO	8.5% 65.88% 25.62%	-	-	<ul style="list-style-type: none"> Final Investment Decision (FID) planned in 2023
11	Vietnam 52/97	JV	Exploration	PTTEP Vietnam Oil and Gas Group MOECO	7% 73.4% 19.6%	-	-	<ul style="list-style-type: none"> Final Investment Decision (FID) planned in 2023
12	Natuna Sea A (Indonesia)	JV	Production	PTTEP Premier Oil KUFPEC Petronas Pertamina	11.5% 28.67% 33.33% 15% 11.5%	175	1	<ul style="list-style-type: none"> Normal operations

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

** Sales volume represent **average volume for 100% of the project during 9M2022**

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

Projects Details | Middle East (as of September 2022)



	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	30%	-	-	• G&G study is ongoing
				Eni Abu Dhabi	70%			
2	Abu Dhabi Offshore 2 (UAE)	JV	Exploration	PTTEP	30%	-	-	• Completed the first exploration well XF-002
				Eni Abu Dhabi	70%			
3	Abu Dhabi Offshore 3 (UAE)	JV	Exploration	PTTEP	30%	-	-	• G&G study is on-going
				Eni Abu Dhabi	70%			
4	Sharjah Onshore Area C (UAE)	JV	Exploration	PTTEP	25%	-	-	• Seismic acquisition completed, currently under seismic evaluation stage
				Eni Abu Dhabi	50%			
				SNOC	25%			
5	Oman Block 6 (PDO)	JOC	Production	PTTEP	2%	-	660 **	• Normal operations
				Government of Oman	60%			
				Shell	34%			
				TotalEnergies	4%			
6	Oman Block 53	JV	Production	PTTEP	1%	-	94 **	• Normal operations
				Occidental	47%			
				OOCEP	20%			
				Indian Oil	17%			
				Mubadala	15%			

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

** Sales volume represent **average volume for 100% of the project during 9M2022** 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 (as of September 2022)



	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
7	Oman Onshore Block 12	JV	Exploration	PTTEP	20%	-	-	<ul style="list-style-type: none"> Currently under G&G study Plan for exploration wells drilling in 2024
				Total E&P Oman Block 12 B.V.	80%			
8	Oman Block 61	JV	Production	PTTEP	20%	1,504	60	<ul style="list-style-type: none"> Normal operations
				BP	40%			
				Makarim Gas Development LLC	30%			
				PC Oman Ventures Limited (PETRONAS)	10%			

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

** Sales volume represent **average volume for 100% of the project during 9M2022**

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

Projects Details | Rest of the World (as of September 2022)



	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
1	PTTEP Australasia	OP	Exploration	PTTEP	90%-100%	-	-	<ul style="list-style-type: none"> 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%	-	-	<ul style="list-style-type: none"> 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%	-	16 **	<ul style="list-style-type: none"> Target to tie-in and produce from new wells starting from Q4/2022
4	Algeria Hassi Bir Rekaiz	OP	Production	GHBR Sonatrach	49% 51%	-	-	<ul style="list-style-type: none"> 1st oil production 1 June 2022 with daily production rate 13 KBPD Continue remaining drilling and construction work to be completed Phase 1 in Q2/2023
5	Mariana Oil Sands (Canada)	OP	Exploration	PTTEP	100%	-	-	<ul style="list-style-type: none"> Reclamation activities in progress to return the area to Canadian government
6	Barreirinhas AP1 (Brazil)	JV	Exploration	PTTEP Shell Brasil Mitsui E&P Brasil	25% 65% 10%	-	-	<ul style="list-style-type: none"> Divestment is in progress

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

** Sales volume represent **average volume for 100% of the project during 9M2022** 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 (as of September 2022)



	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
7	Brazil BM-ES-23	JV	Exploration	PTTEP	20%	-	-	• Divestment is in progress
				Petrobras	65%			
				INPEX	15%			
8	Mexico block 12 (2.4)	JV	Exploration	PTTEP	20%	-	-	• Evaluating the remaining petroleum potential
				PC Carigali Mexico	60%			
				Ophir Mexico	20%			
9	Mexico block 29 (2.4)	JV	Exploration	PTTEP	16.67%	-	-	• Pre-development study in progress
				Repsol Mexico	30%			
				PC Carigali Mexico	28.33%			
				Wintershal DEA	25%			
10	Block 17/06 (Angola)	JV	Pre-development	PTTEP	2.5%	-	-	• Obtained FID Approval of Begonia Oil Field Development Project on Jul 28, 2022, and production extension period for 20 years until 2045
				TotalEnergies	30%			
				Sonangol	30%			
				SSI	27.5%			
				Acrep	5%			
				Falcon Oil	5%			
11	Dunga (Kazakhstan)	JV	Production	PTTEP	20%	2	12	• Normal operations
				TotalEnergies	60%			
				OOCEP	20%			

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

** Sales volume represent **average volume for 100% of the project during 9M2022**

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

Projects Details | Mid-stream (as of September 2022)



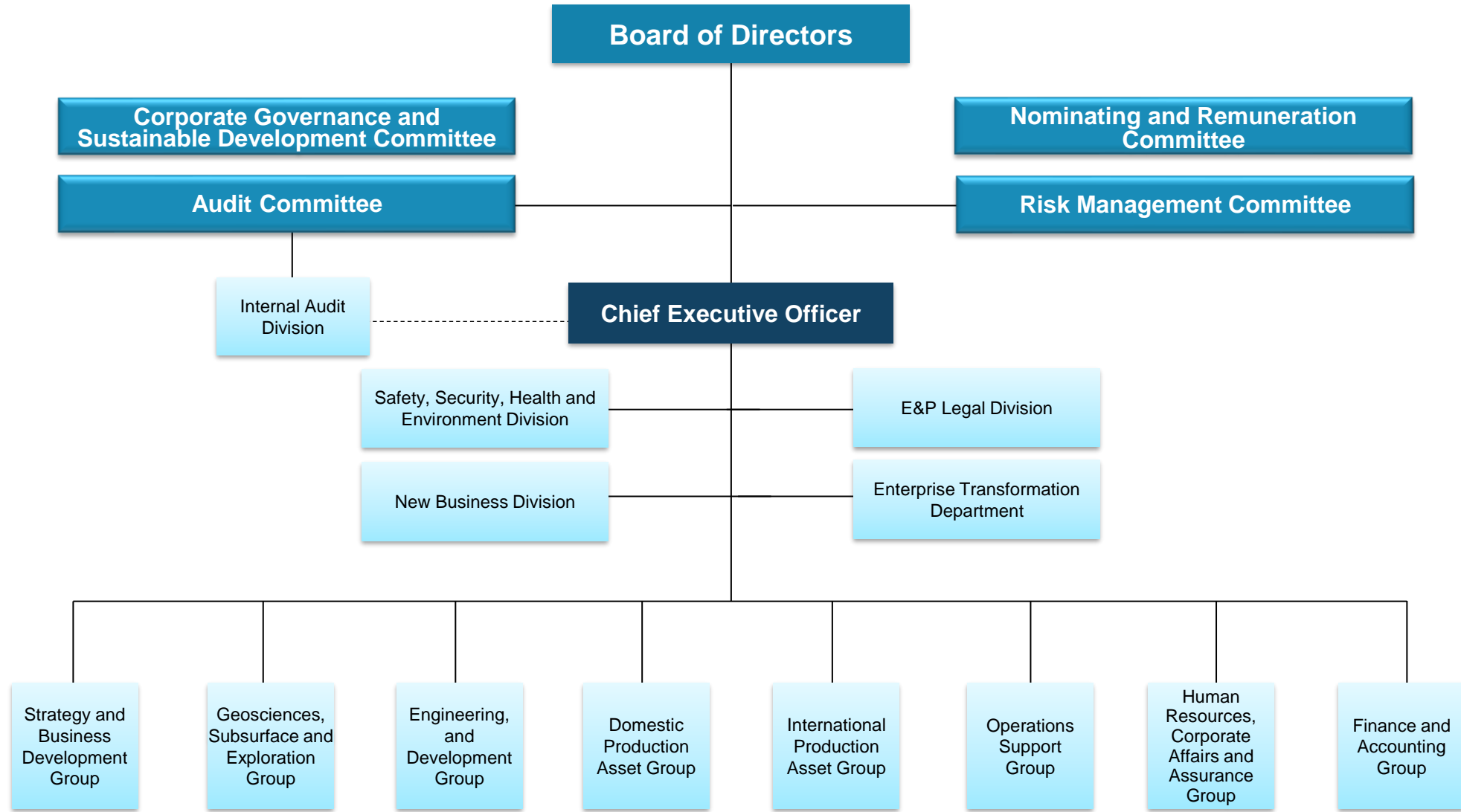
	Project Name	Status	Phase	Participating Interest* (%)		Sales Vol Gas (MMSCFD)	Sales Vol Liquid (KBPD)	Latest Status
1	Oman LNG	Shareholder	Production	PTTEP	2%	-	-	• Normal Operations
				Government of Oman	51%			
				Shell	30%			
				TotalEnergies	5.54%			
				Korea LNG	5%			
				Mitsubishi	2.77%			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

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

** Sales volume represent **average volume for 100% of the project during 9M2022**

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

Organization Chart



Ratio and Formula

Oil and Gas Reserves	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
Profitability	Sales Revenue	Sales + Revenue from pipeline transportation
	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
	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 Assets (ROA)	Trailing-12-month net income / Average assets between the beginning and the end of the 12-month period
Leverage	Return on Equity (ROE)	Trailing-12-month net income / Average shareholders' equity between the beginning and the end of the 12-month period
	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

Conversion Table

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	1.1364	0.159	1	42	-
US Gallons	0.00325	0.0038	0.0235	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	35.315	0.86	0.735	34.121	5.883
1 billion cubic feet NG	0.028	1	0.024	0.021	0.966	0.167
1 million tonnes oil equivalent	1.163	41.071	1	0.855	39.683	6.842
1 million tonnes LNG	1.36	48.028	1.169	1	46.405	8.001
1 trillion BTU	0.029	1.035	0.025	0.022	1	0.172
1 MBOE	0.17	6.003	0.146	0.125	58	1