



Regenerative Happiness

Bangchak Corporation Plc

Opportunity Day Q1/2024



S&P Global

MSCI
ESG RATINGS



SET **AAA**
ESG Ratings 2023

CCC | B | BB | BBB | A | AA | AAA

May 29, 2024

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Bangchak Business Portfolio



Register Capital and Paid – up Capital 1,376,923,157 Baht



◀.76%
Ministry of Finance



19.85%
Vayupak Fund 1



14.18%
Social Security Office



61.21%
Public (As of 7 March 2024)



Sriracha Refinery

LEGACY

TOUCHPOINT

GREEN PLATFORM

Phra Khanong Refinery

OKEA

Refinery & Oil Trading Business
294 KBD

Marketing Business
Distribution channels through industrial & retail channels
2,217 Service Stations

Clean Power Business
bcpg Holds 57.81%
4 power generation technologies
in 7 countries over the world with 2,000+ MW in total

Bio-based Products

bbgi Holds 45.00%

No.1 fully Integrated Biofuel Producer in Thailand with 1.85 ML/D in production capacity

Natural Resources

Norway-based oil & gas company with production capacity of 35-40 KBD in 2024

bsrc Holds 76.34%

of nameplate capacity with 500,000 Tons of Paraxylene



Always Ahead of The Game!

Leading the Way in the Eco-Revolution



Strong Foundation for Value Creation



E&P Business

Providing Energy
Security



**Return
Optimization**

- Synergy Realization
- Shareholder Return



**Platform
for Growth**

- To Run Multi-Refineries
- Shared Services



**Commitment
to Net Zero**

In 2050



Financial Discipline

Strong financial management practices to ensure stability and growth

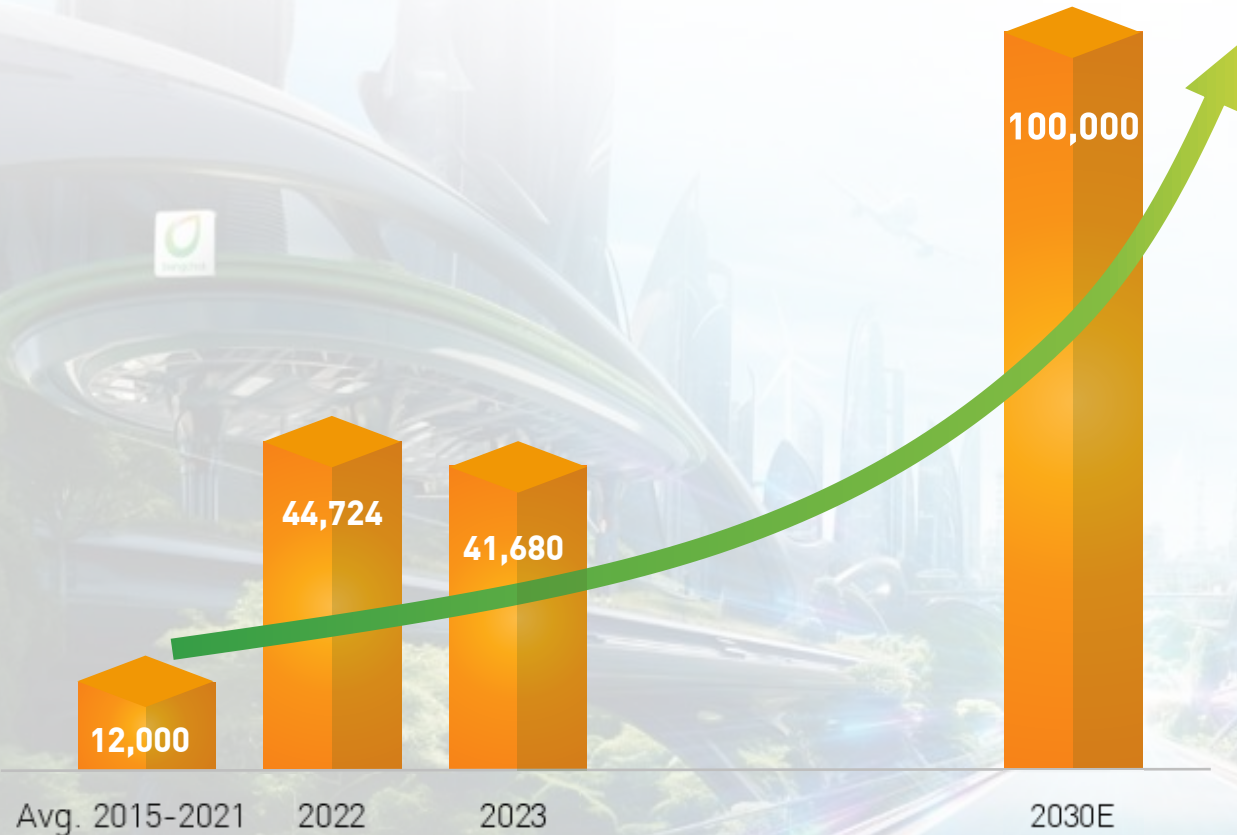
Exponential Growth Journey

Strong Market Fundamentals, Optimization, Diversification

*10X
New Growth
Chapter*

Accounting EBITDA

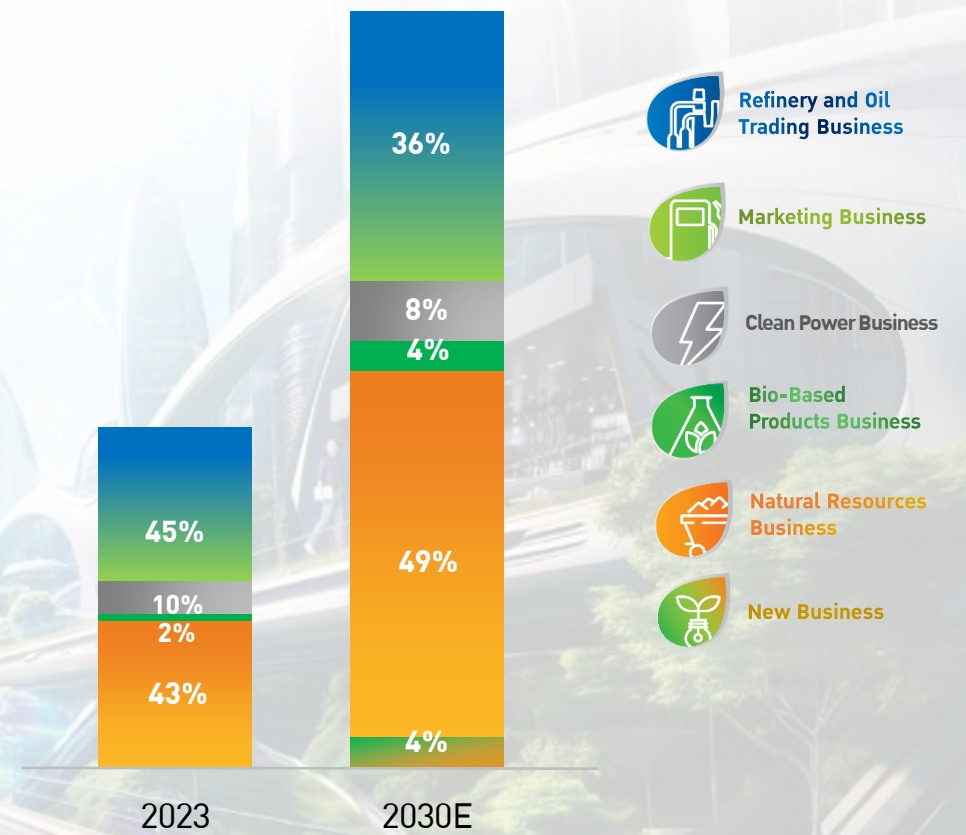
Unit : Million Baht



Accounting EBITDA

(% breakdown by business unit)

100 Bn.



-  Refinery and Oil Trading Business
-  Marketing Business
-  Clean Power Business
-  Bio-Based Products Business
-  Natural Resources Business
-  New Business

Agenda



01

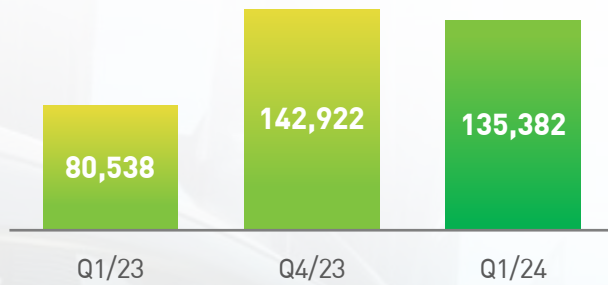
Bangchak Group Performance

02

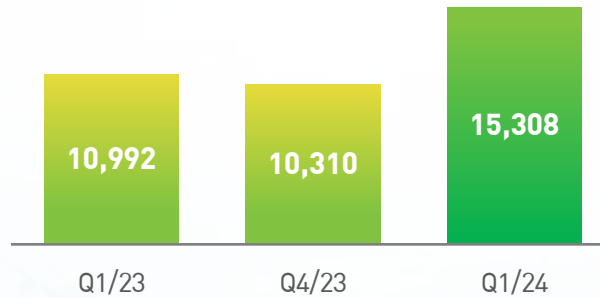
New Business Update

Highest-Record Quarterly Accounting EBITDA

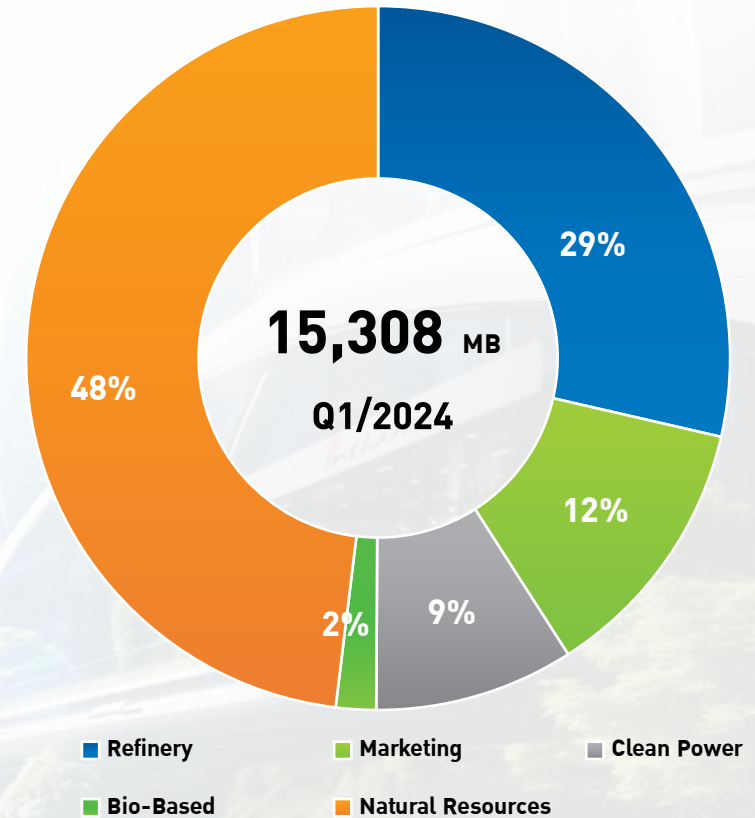
Total Revenue (MB)



Accounting EBITDA (MB)



Accounting EBITDA Breakdown by Business Unit



PAT (MB)



Core Profit (MB)



Q1/2024 Performance Snapshot comparing to Q4/2023

Accounting EBITDA (Unit : Million Baht)

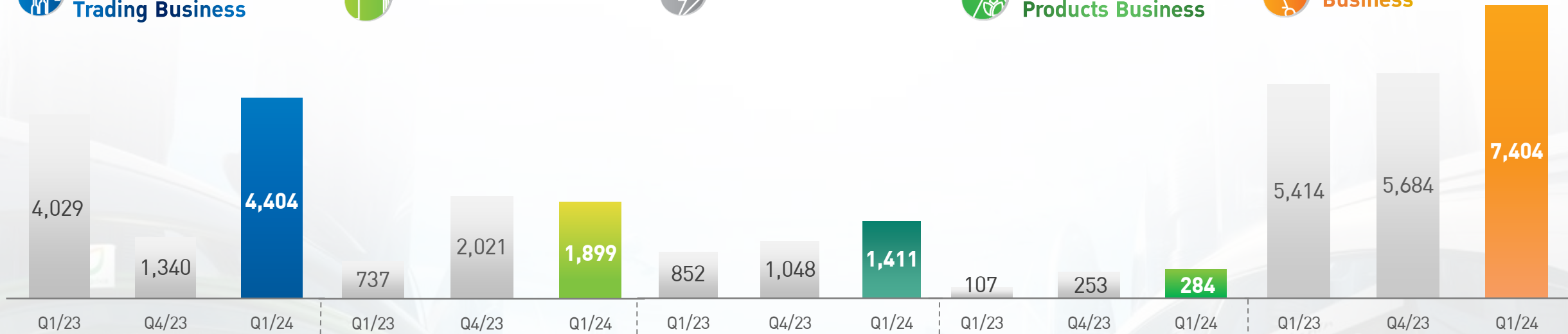
Refinery and Oil Trading Business

Marketing Business

Clean Power Business

Bio-Based Products Business

Natural Resources Business



Highest Record Run Rate of 272 KBD after the Acquisition of BSRC

Strong Operating GRM at \$6.08/BBL

Lower Inventory Loss (Net NRV)

Highest Total Sales Volume thanks to the Acquisition of BSRC

Increase in Retail Market Share to 29.2%

Lower Inventory loss (Net NRV)

Soften Marketing Margin

Higher Share of Profit from U.S. Projects & Full Quarter Profit Recognition

Slightly Lower Electricity Sales due to Seasonality Impacted Hydro Power Plant

Highest B100 Sales Volume thanks to selling to BSRC

Improved Ethanol Spread

Lower Ethanol Sales Volume

All Time High Production & Sales Volume

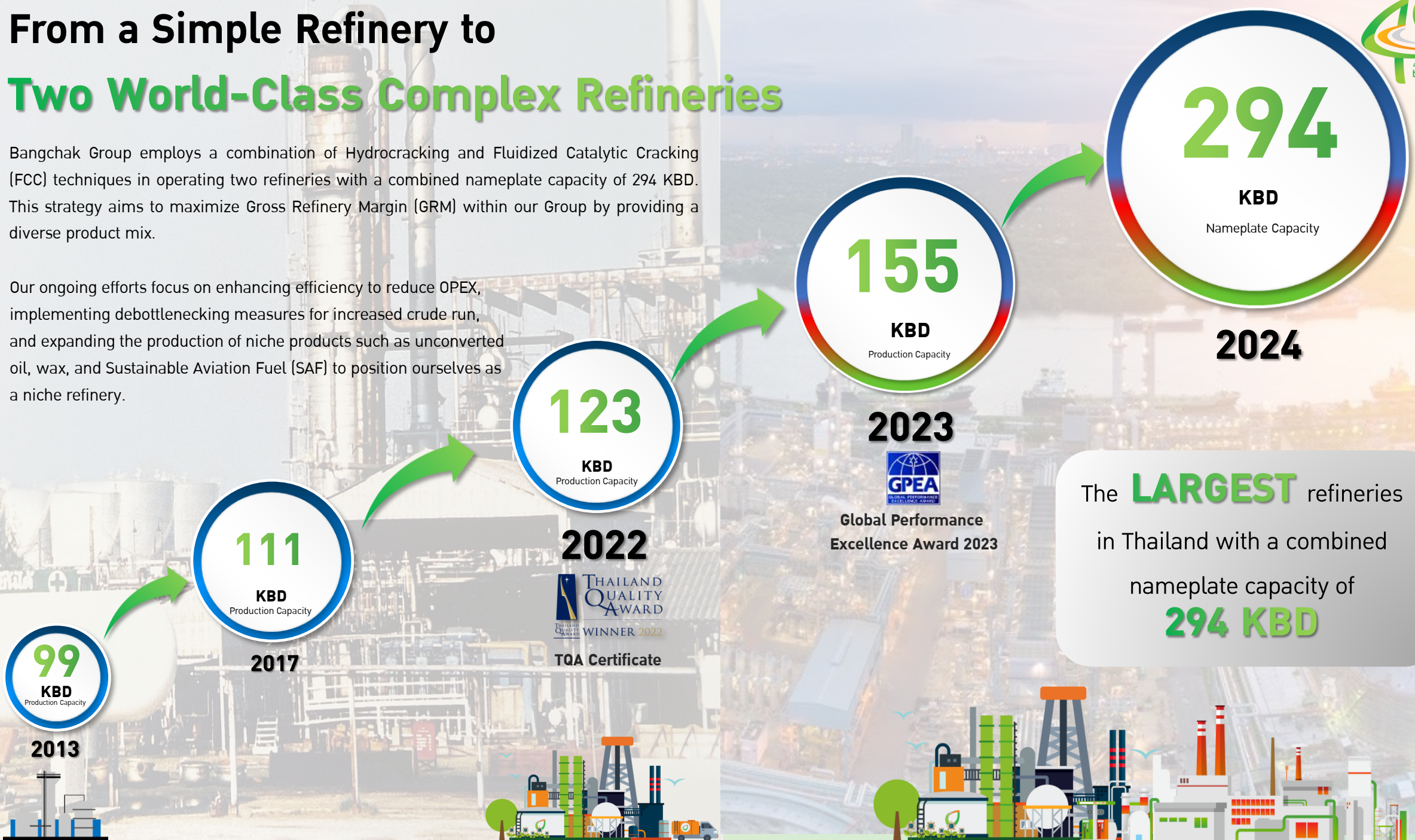
Lower Oil & Gas Prices

Net Impairment loss of 366 MB – impact to PAT

From a Simple Refinery to Two World-Class Complex Refineries

Bangchak Group employs a combination of Hydrocracking and Fluidized Catalytic Cracking (FCC) techniques in operating two refineries with a combined nameplate capacity of 294 KBD. This strategy aims to maximize Gross Refinery Margin (GRM) within our Group by providing a diverse product mix.

Our ongoing efforts focus on enhancing efficiency to reduce OPEX, implementing debottlenecking measures for increased crude run, and expanding the production of niche products such as unconverted oil, wax, and Sustainable Aviation Fuel (SAF) to position ourselves as a niche refinery.



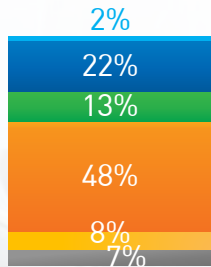
The **LARGEST** refineries in Thailand with a combined nameplate capacity of **294 KBD**

Complementary Refinery Portfolio: Post-Integration

Q1/24 Phra Khanong Refinery

121 KBD (101%)

Crude Run
Utilization
Rate

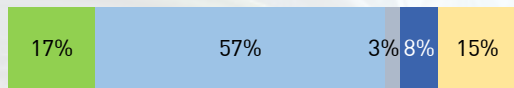


Product Yield

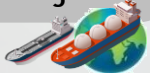


Q1/24

Crude Source



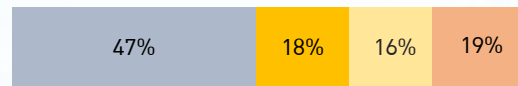
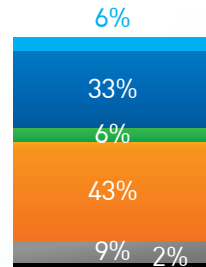
BCPT
Oil Trading Volume



~9 M.BBL

Q1/24 Sriracha Refinery

150 KBD (86%)



~16 M.BBL

Pipeline

access from Eastern to
Northeastern

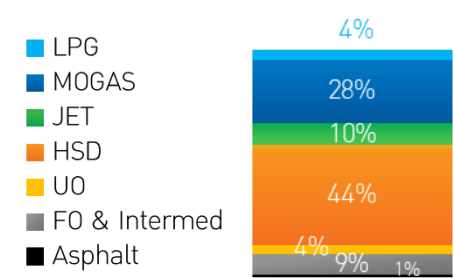


Sriracha
Deep Seaport
& Terminal

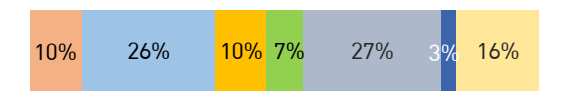


Q1/24 Bangchak Group

272 KBD (92%)



Q1/24



Middle East Far East South East
Domestic West African USA
Others

27 M.BBL (+49% QoQ)

Include Out-Out Trading

Logistics
Integration

Pipeline

access from
BKK-Northern



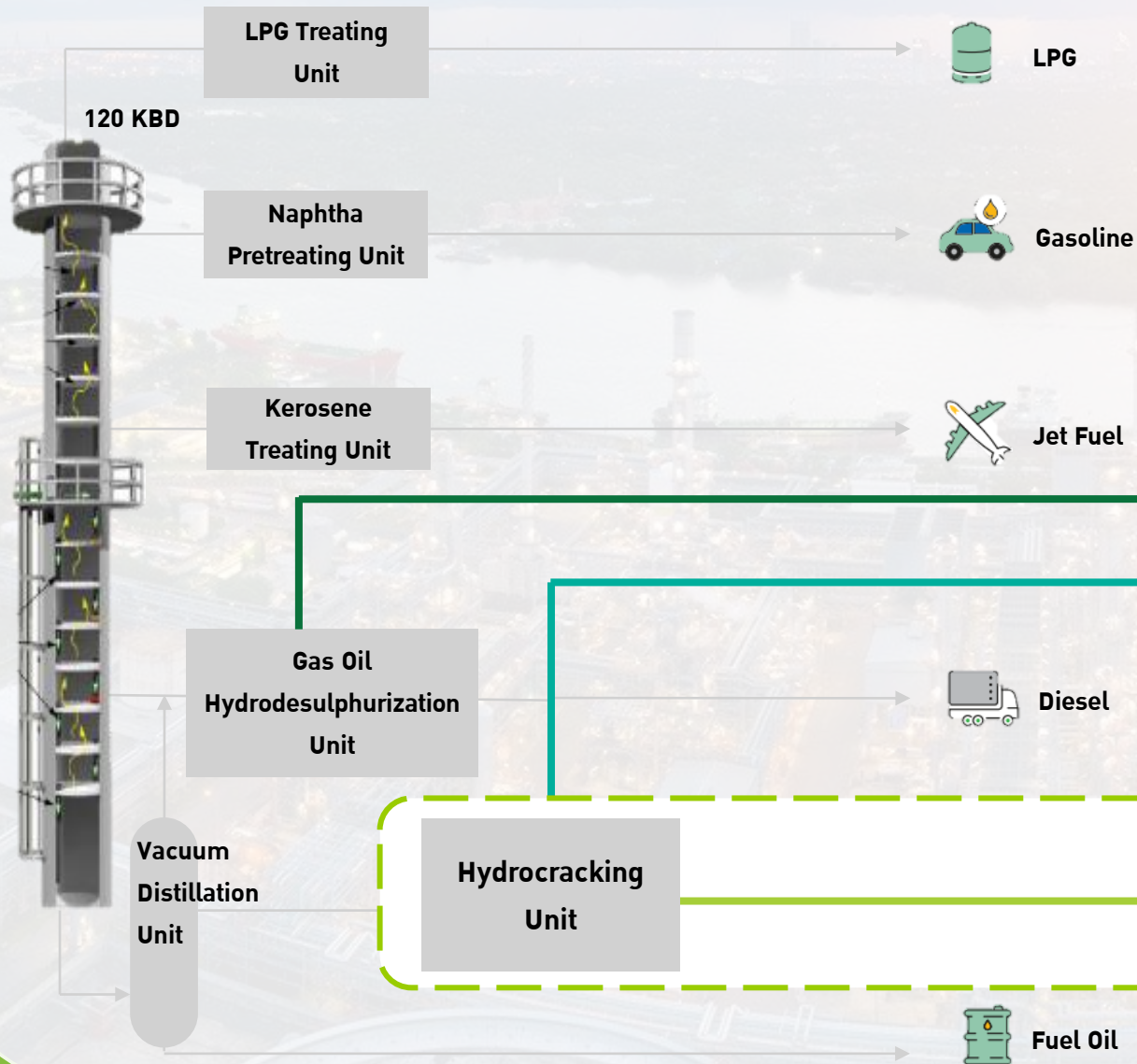
Phetchaburi, Si Chang
Seaport &
Terminal



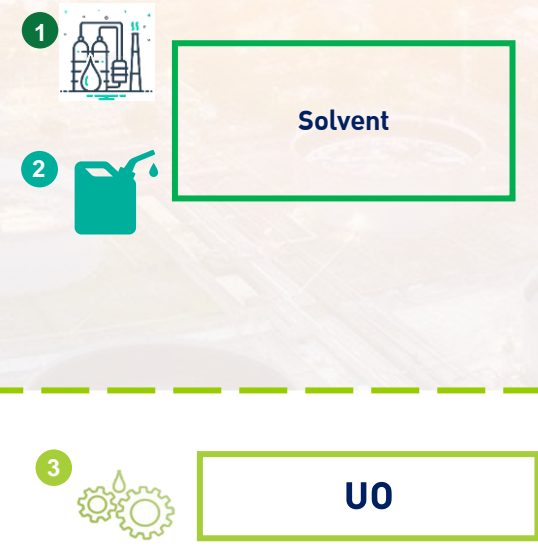
Terminals

across Thailand

Turn Around Maintenance in MAY 2024



1 + 2 + 3 **Double** Portion of Niche Products:
100+ML/MO ↑ from 50 ML/MO
right after TAM in May 2024
Planned shutdown scheduled for 27 days, May 7th - June 2nd 2024

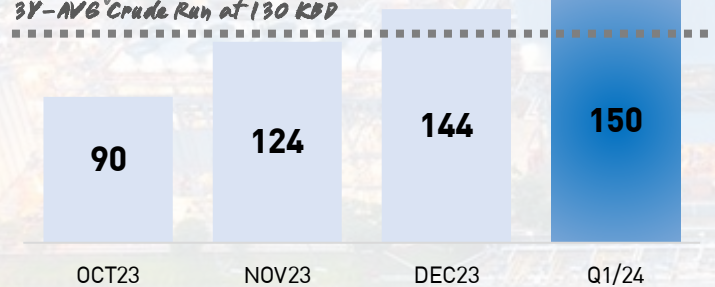


Synergy in Action: Progress Snapshot

Refinery Operations

✓ Sriracha Crude Run Improvement (Unit: KBD)

Pre-Integration:
3Y-AVG Crude Run at 130 KBD



✓ Crude Co-Loading & Co-Purchasing

- ✓ Jetty & Port improvement for receiving larger vessels
- ✓ Receiving **Suezmax vessel** (~ 950,000 barrels)
- ✓ Higher negotiation power for crude purchase

✓ Product Optimization & Product Blending

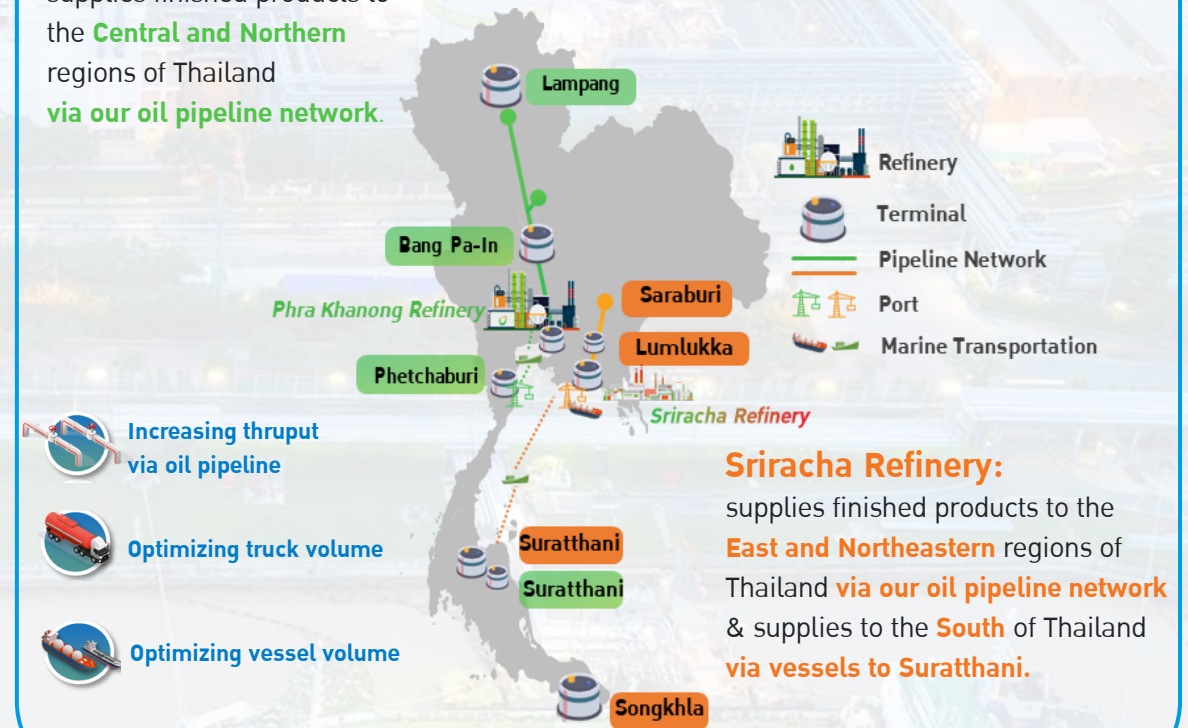
- for profit maximization of Bangchak's Group
- ✓ **No Gasoline Import for BCP**, replacing by Gasoline production from BSRC (Previously BSRC used to export Gasoline)

Logistics

✓ Logistics Rezoning & Oil Pipeline Usage

Phra Khanong Refinery:

supplies finished products to the **Central and Northern** regions of Thailand **via our oil pipeline network.**



From Cooperative Service Stations to **Greennovative Destination**

2x growth

1,072
Stations

2015

2,217

Stations
Ended Q1/24

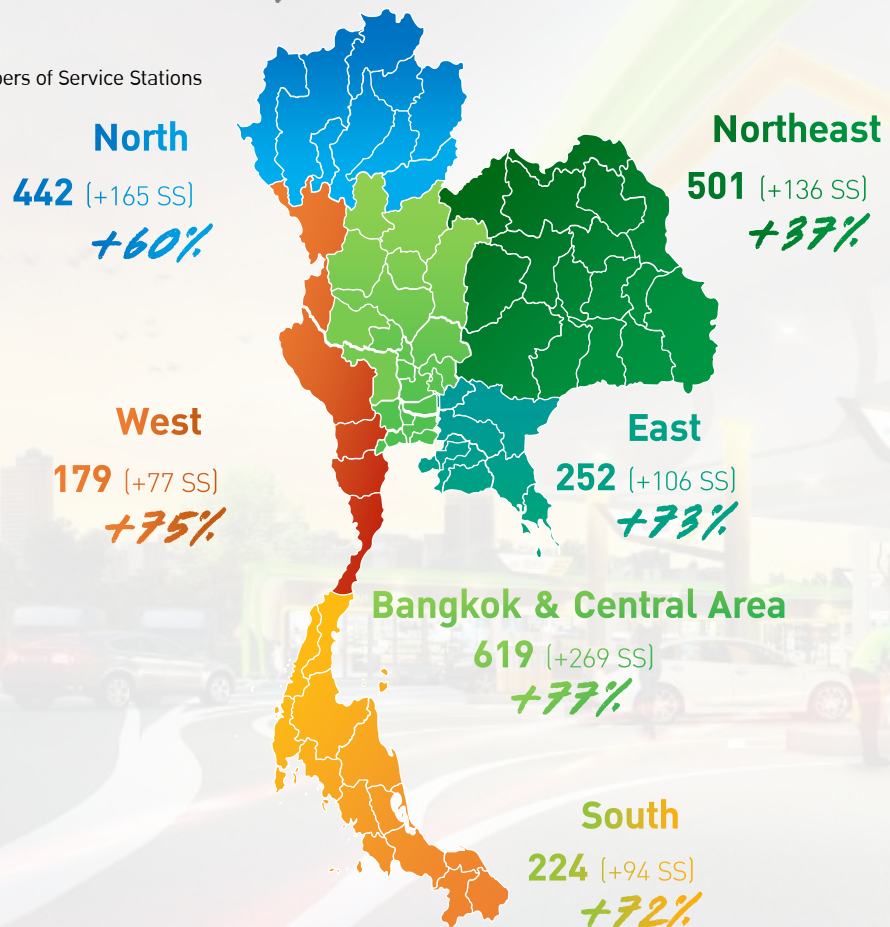


bangchak 6th & Inthanin 3rd consecutive Superbrands

Strengthening Marketing Portfolio

Remarkable Growth in Service Station Network Coverage from pre-integration

Unit: Numbers of Service Stations



2,217
service stations
1,388 + 829

No.1
in Bangkok & Central Area
of Oil Service Stations

29.2%
Market Share
+0.4% from FY2023

12.1%
Lubricant Market Share
+1.2% from FY2023

13%
Market Share
in Premium Products
Growth **4X** from pre-integration



Note: Data as of 31 March 2024

Project Highlights

The Chlorophyll Projects

The Flagship Service Station
in Hua-Hin

Flagship location

"Phase 1 of the Chlorophyll Project
Soft Opens in April 2024"

Retail + Green



Bangchak
HI PREMIUM 97 as a *First Fuel*
EURO 5

chosen by AAS Auto Service & undisclosed well-known brands



Driving Sales Volume Growth:

Continuing Marketing Campaigns



Regenerative brand



Strategic Retail Space



The Great EV Pavilion



New Lifestyle mall

New Exclusive Partner in Retail Experience Business



Greenovative Destination for Intergeneration:

Expansion Target
(Branches)

20
FY2024

50
FY2027

Earning Scheme

Rental Space & Profit Sharing

Focus Area

Residential Area & Major Cities

Bangchak Service stations

Shop Covering Pet's

- ✓ Products
- ✓ Wellness
- ✓ Hospitals
- ✓ Retails



Synergy in Action: Progress Snapshot

Marketing Network

✓ Rebranding Service Stations

829 45% SS rebranding Target to be completed by 2024
As of APR24

✓ Market Share Expansion

28.8% (FY2023) → 29.2% (Q1/24) of Retail Market Share

✓ Avg. Sales Volume via SS

+32 ML/MO from pre-integration

10.9% (FY2023) → 12.1% (Q1/24) of Lube Market Share

✓ Premium Product Penetration



✓ Integrated Marketing Campaign

✓ Non-Oil Offering Penetration



Lubricant Sales into 722 SS under BSRC

✓ Sales Promotion



✓ Loyalty Program



Keep Realizing EBITDA Synergies >3,000 mn. THB/Year

Refinery Operations

~฿1,000 mn. THB

- ✓ Improved utilization from 130 KBD to 174 KBD
- ✓ Product yield and GRM optimization
- ✓ Coordinated maintenance schedule
- ✓ Strategic oil blending
- ✓ Crude co-loading

Logistics

~฿200 mn. THB

- ✓ Logistic re-zoning
- ✓ Expanded logistics reach with lower cost
- ✓ Trading growth

Marketing Network

~฿300 mn. THB

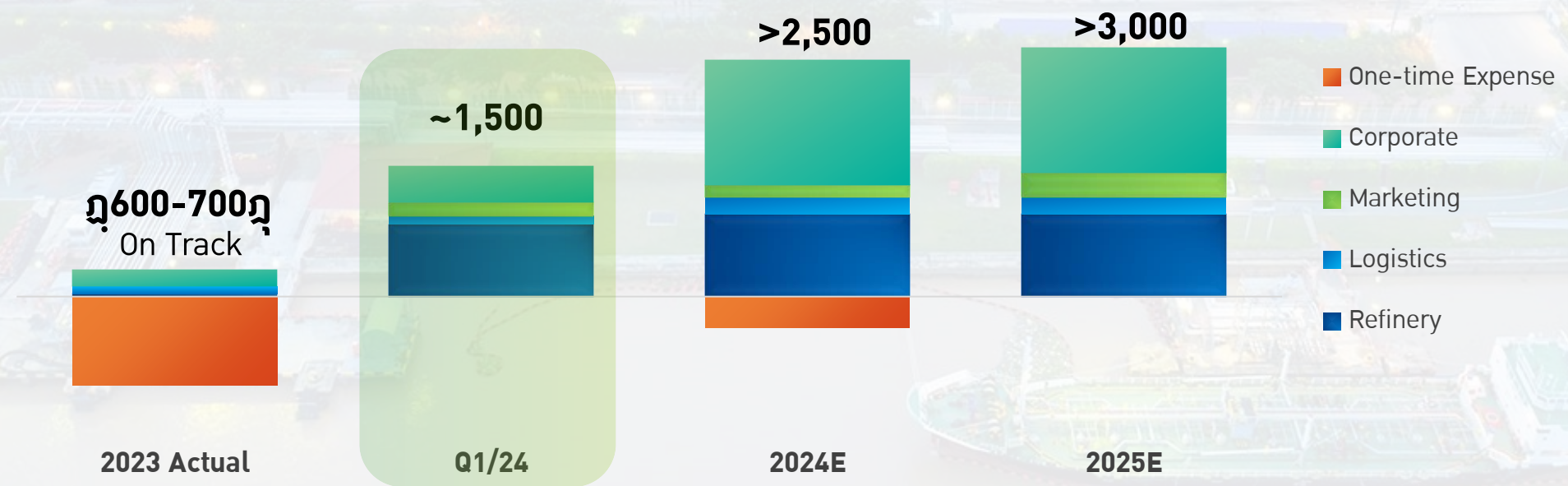
- ✓ BSRC's throughput enhancement
- ✓ Increase sales volume of premium products
- ✓ Expand industrial sales volume
- ✓ Opportunity for Non-oil network expansion in BSRC's stations

Corporate Cost Saving

~฿1,500 mn. THB

- ✓ Economies of scale on back-office operations
- ✓ Simplified management structure

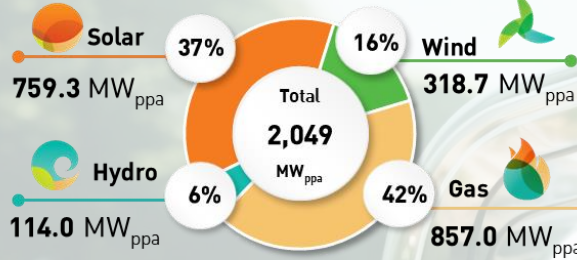
Unit : Million Baht



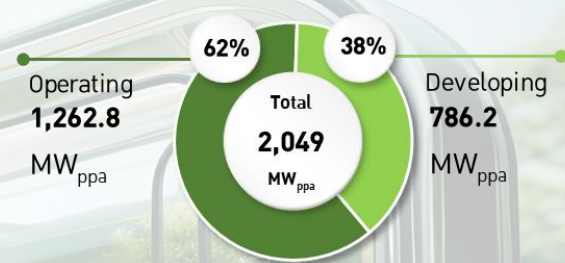
Clean Power Business footprints in 7 countries globally

An integrated power generation company and service provider of smart energy system focusing on renewable and clean power

Generation by Technologies



Production Capacity



THAILAND



188.7 MW

11.9 MW



9.0 MW



Oil Terminal 710 ML



District cooling

**3,000 RT (Phase I)
(SCOD 2024)**

Operating

Developing

LAOS TO VIETNAM



114.0 MW



**(SCOD 2025)
290.0 MW**

Operating

Developing



U.S.A



857 MW

Operating



CHINA

• VRB



JAPAN



79.7 MW

Operating

10.0 MW

Developing



TAIWAN



(SCOD 2024-2026)

469.0 MW

Operating

Developing



THE PHILIPPINES



14.4 MW

Operating

5.3 MW (SCOD 2025)

Developing



Solar Energy



Wind Energy



Hydropower



Natural Gas

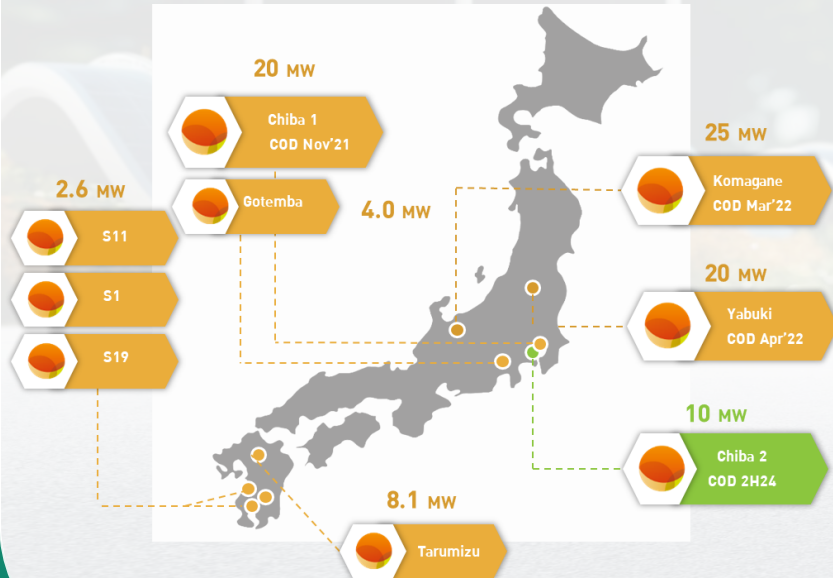


Smart Energy

Clean Power Business: 2024 Project Highlights

Capital Recycling from Japan Divestment

- 9 solar farms & Asset Management and Operation & Maintenance unit
- Transaction value of **JPY 42,970 mn.** (approx. of **THB 10,377 mn.**)
- Target completion by **2024**



Thailand 13 MWe Solar Farm

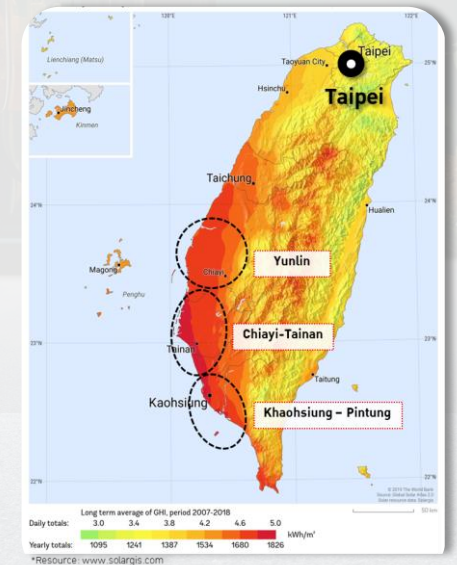
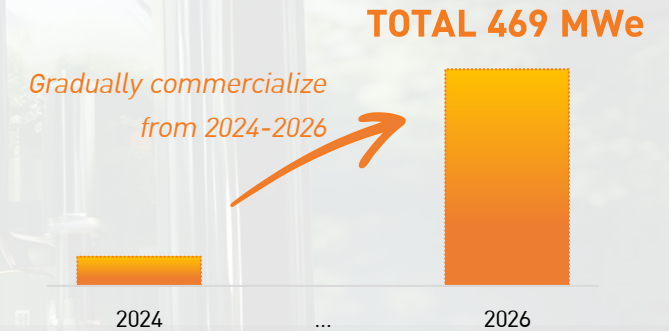
additional acquisition in operating assets

- 4 Operating Assets
- Investment < **THB 477 mn.**
- Completed 8 MWe in 2024 & 5 MWe by 2024



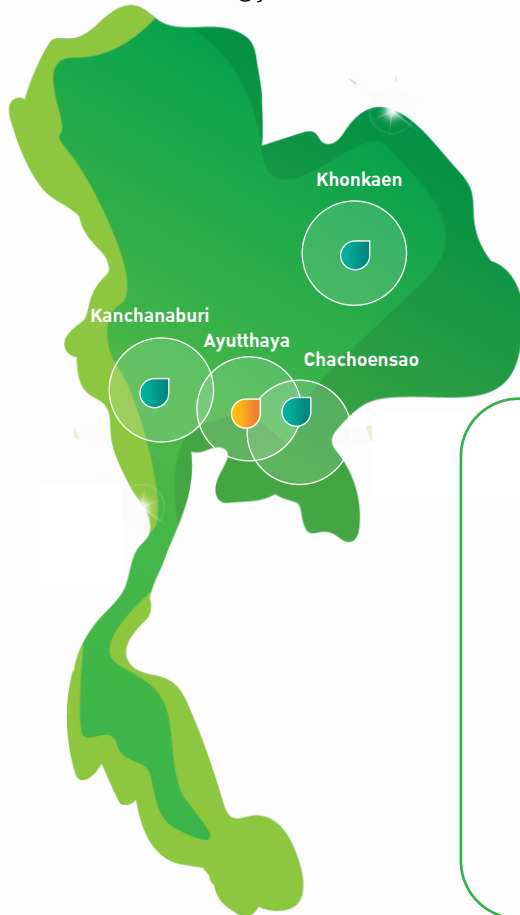
Taiwan 469 MWe Solar Farm

under construction as planned

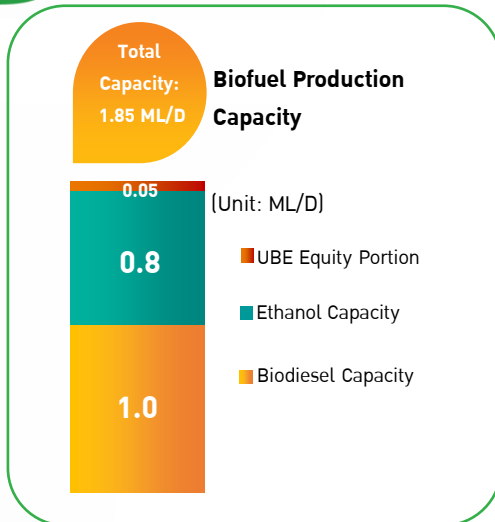


Biotechnology Beyond Biopower

No.1 Fully Integrated Biofuel Producer in Thailand,
aiming to become a leader in premium bio-based products
and biotechnology business.



Holds 44.99%



Strong Foothold in E&P Business

With investment in upstream petroleum exploration and production (E&P) business through OKEA ASA in Norway since 2018, Bangchak Group has planned to extend our presence in E&P to other regions in the world.



OKEA ASA Holds 45.44%



Production Volume (KBOEPD)

	2023	1Q24
Draugen	6.5	10.6
Brage	4.9	7.6
Gjoa & Nova	7.4	6.4
Ivar Aasen	3.0	2.8
Yme	2.8	3.4
Statfjord area	-	11.3
Total	24.6	42.1

Creating Value through Active Ownership



Draugen

44.56%

Lifetime extension from 2027 to 2040+



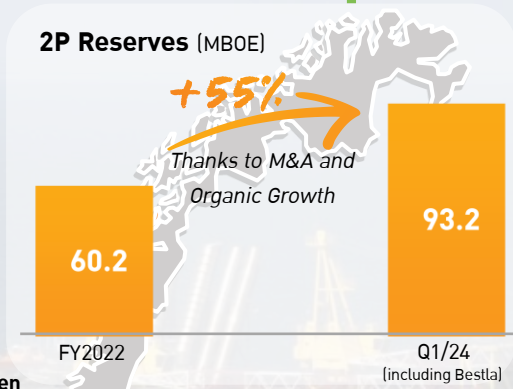
Taking operatorship in December 2018



Increased production efficiency to **90% in Q1/2024 (from 88% in 2019)** driven by solid operational performance and key contributions from **Hasselmus**



Sanctioned electrification project – will reduce CO₂ intensity by **95%** and production expense by 2027



Brage

35.2%

Becoming operator in November 2022

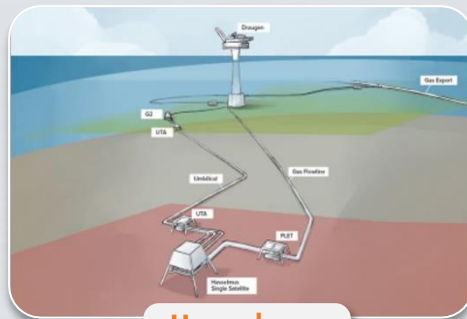


Improved production efficiency to **96% in Q1/2024 (from 91% in Q1/2023)** through successful infill drilling campaign and Cook development, delivering above expectations



Bestla tie-back to Brage will add significant volumes, synergies and economics of scale

a subsea tie-back to **Draugen** platform



Hasselmus

1.96 KBOEPD

4.7 MBOE

Oct 2023

Net Production

Net 2P Reserves

COD

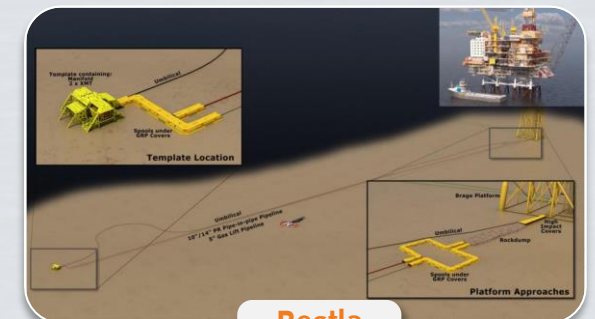
New Development Fields

10 KBOEPD

9.4 MBOE

Target 1H2027

a subsea tie-back to **Brage** Platform



Bestla

Agenda



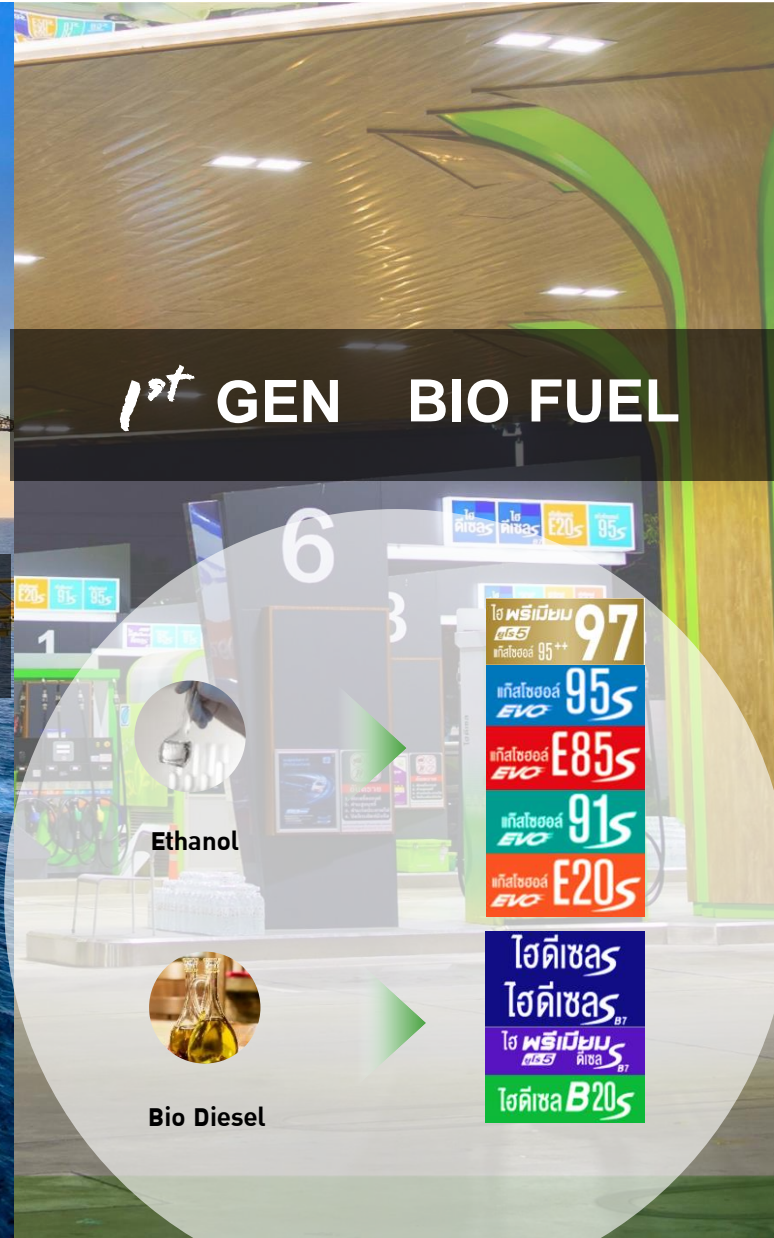
01

Bangchak Group Performance

02

New Business Update

Fuel Generation



What is Sustainable Aviation Fuel (SAF)



SAF

Sustainable Aviation Fuel (SAF) are defined as renewable or waste-derived aviation fuels that meets sustainability criteria, that has similar properties to conventional jet fuel but with a smaller carbon footprint.

100% WASTES AND RESIDUES



Crops Inedible Part

DROP-IN Jet fuel quality



- SAF gives an impressive **reduction of up to 80% in carbon emissions** over the lifecycle of the fuel compared to traditional jet fuel

CO₂ 80%

ICAO Certified Technology



ICAO

50%

Maximum Blending Ratio into JET

HEFA: Synthesized paraffinic kerosene from **Hydrotreated Esters and Fatty Acids**



UCO



PFAD

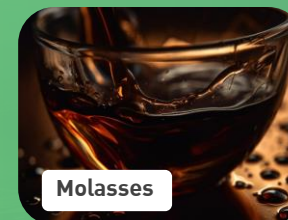


CSPO

50%

Maximum Blending Ratio into JET

Alcohol to Jet (ATJ)



Molasses

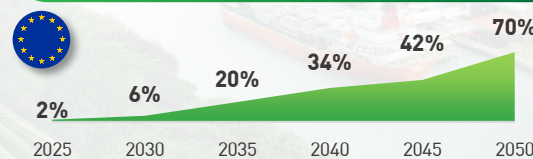


Sugarcane

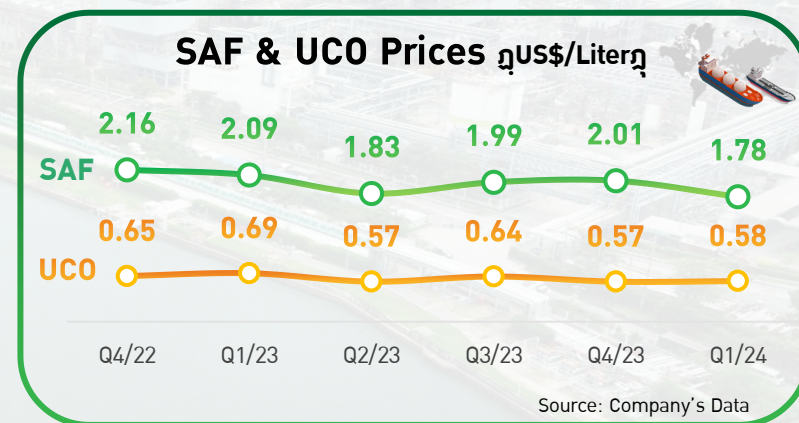


Cassava

Policy Adaptation Example



Singapore mandates
Aims to uplift 1% SAF in 2026,
with plans to raise this to 3%-5% by 2030



Bangchak's Sustainable Aviation Fuel (SAF)

1st
SAF Producer
in Thailand

1st
Player to secure
feedstock

Lower
CAPEX

No CIT
for 8 years & 50% tax
deduction for the next 5
years thanks to BOI
benefit

Shareholding Structure

- ✈ Investment Budget: 8.5 bn. THB
- ✈ Production Capacity 1 ML/D (7 KBD)
- ✈ Target COD: Q2/2025



SAF Feedstock

Used Cooking Oil (UCO)

- To purchase UCO at **Bangchak 162** Service Stations nationwide
- Strategic partnership & being a shareholder of no.1 used cooking oil collector in Thailand:



3 Palm Fatty Acid Distillate (PFAD)

Receiving from **Palm Oil Refinery Plant** in Bangchak Group



SAF Customers

- ✈ Locked in Sales Volume **60%** of total production
- ✈ Strategic Partnership Agreement



📍 **ถนอมฟาร์ม**

ถนอม
ไม่ทิ้ง
บ้านปรุงอาหารใช้แล้ว
ไม่ทิ้ง ไม่อดข้าว
น้ำมาทาง
ที่ปืมน้ำมันมาจาก
ที่ร่วมโครงการ
เพื่อนักบิน SAF
เชื้อเพลิงอากาศยานยั่งยืน
นวัตกรรมสีเขียว รับผิดชอบต่อทุก
SAF - Sustainable Aviation Fuel ปลอดภัยและคุ้มค่า



ASEAN 1st CDMO Producer



Strategic JV with Fermbox Bio to establish

the first CDMO Plant



Expertise in synthetic biology
and manufacturing processes



Experience in large-scale
project execution



bbfb

Capacity: 2,000
Tons/Year

- PROJECT INVESTMENT : **< 444 MB** (Proceeds from IPO)
- % OF BBGI SHARE : **> 75%**
- PRODUCTION CAPACITY : **2,000 Tons/Year** (Initial Phase)
- SYN BIO PRODUCT : **Industrial Enzymes** (Initial Phase)

Crafting a Sustainable World with Evolving Greenovation

 <http://www.bangchak.co.th>

 Bangchak

 @Bangchak.WOW



Regenerative
Happiness
ส่งต่อ...ความสุขไม่สิ้นสุด