



# FY22 & 4Q22 results

Investor and analyst update

1<sup>st</sup> March 2023



## DISCLAIMER

The information contained in this presentation is intended solely for your reference.

This presentation contains “forward-looking” statements that relate to future events, which are, by their nature, subject to significant risks and uncertainties. All statements, other than statements of historical fact contained in this presentation including, without limitation, those regarding Banpu’s future financial position and results of operations, strategy, plans, objectives, goals and targets, future developments in the markets where Banpu participates or is seeking to participate and any statements preceded by, followed by or that include the words “believe”, “expect”, “aim”, “intend”, “will”, “may”, “project”, “estimate”, “anticipate”, “predict”, “seek”, “should” or similar words or expressions, are forward-looking statements.

The future events referred to in these forward-looking statements involve known and unknown risks, uncertainties and other factors, some of which are beyond our control, which may cause the actual results, performance or achievements, or industry results to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

These forward-looking statements are based on numerous assumptions regarding our present and future business strategies and the environment in which Banpu will operate in the future and are not a guarantee of future performance. Such forward-looking statements speak only as of the date on which they are made. Banpu does not undertake any obligation to update or revise any of them, whether as a result of new information, future events or otherwise. The information set out herein is subject to change without notice, its accuracy is not guaranteed, has not been independently verified and it may not contain all material information concerning the Company.

Banpu makes no representation, warranty or prediction that the results anticipated by such forward-looking statements will be achieved, and such forward-looking statements represent, in each case, only one if many possible scenarios and should not be viewed as the most likely or standard scenario. No assurance given that future events will occur or our assumptions are correct. Actual results may materially differ from those provided in the forward-looking statements and indications of past performance are not indications of future performance. In no event shall Banpu be responsible or liable for the correctness of any such material or for any damage or lost opportunities resulting from use of this material. Banpu makes no representation whatsoever about the opinion or statements of any analyst or other third party. Banpu does not monitor or control the content of third party opinions or statements and does not endorse or accept any responsibility for the content or use of any such opinion or statement.

Banpu’s securities have not been and will not be registered under the U.S. Securities Act of 1933, as amended, or the securities laws of any state of the United States, and may not be offered or sold within the United States, except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of such act or such laws.

This presentation does not constitute an offer to sell or a solicitation of an offer to buy or sell Banpu’s securities in any jurisdiction.



**01**

**2022  
Highlights**

**02**

Powering  
Ahead

**03**

Financial  
Summary

**04**

Energy  
Resources

**05**

Energy  
Generation

**06**

Energy  
Technology



# 2022: a year of transformation

## Significant growth of clean energy portfolio

Leveraging strong financial performance for strategic and financial investments that can help drive Banpu towards its **Greener, Smarter** vision.

### Key investments in 2022 include:

- Major expansion of US natural gas production and midstream integration.
- Continuous growth of energy technology portfolio through investment and partnerships in solar rooftop development, batteries, energy management, and smart city solutions.
- Expansion into new and disruptive S-curve businesses such as healthcare.



## Raising capital to accelerate **Greener, Smarter** transition



Successful issuance of new shares through Banpu warrant W4, receiving over \$250 M to fund strategic plan and projects.



Secure financial position with Net D/E improving to 0.74x in 2022 from 1.31x by end of 2021, supported by strong operational cash flow and a balanced capital structure.

## Excellence in ESG



**consecutive years**

Member of  
**Dow Jones Sustainability Indices**

Powered by the S&P Global CSA



**Sustainability Disclosure Award 2022**

from Thaipat Institute for consistent and excellent conduct of ESG principles.

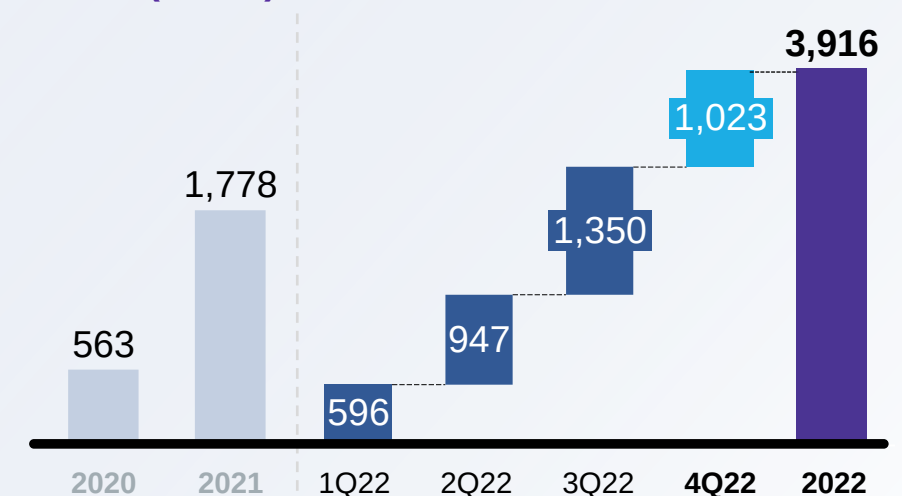
## A Year of Strong Financial Performance



**Driven by Banpu portfolio being well-positioned to capture strong commodity price environments.**

With gas and coal monthly average prices at **\$4.4-8.8/MMBtu** and **\$237-437/tonnes** levels driven by supply shortages and disruptions and recovering demand.

### Ebitda (US\$M)



# Banpu: ESG leadership and credit rating recognition



**A**  
rating for third consecutive year for demonstrating resiliency towards long-term ESG risks and excellent risk management and mitigation relative to peers.



Member of  
**Dow Jones Sustainability Indices**  
Powered by the S&P Global CSA

**Awarded since 2014**

Recognized as a constituent of DJSI for conducting business with the highest ESG standards.



**Awarded since 2015**

Recognized in THSI for sustainable operations and responsible investment principles.

## SUBSIDIARIES



### ESG EXCELLENCE

In 2022, BPP demonstrated high ESG standards through sustainable and responsible operations.



**5th Year**  
Listed on THSI



Commended  
Sustainability Award  
Awarded by SET in 2022



ASEAN Asset Class  
from 2021 ASEAN Corporate Governance Scorecard

## BANPU ESG RATING



**Honor since 2018**

Highest distinction in SET's Sustainability Excellence Award for at least 4 consecutive years.



**ASEAN Asset Class**

Awarded in 2021 ASEAN Corporate Governance Scorecard for excellent corporate governance



**Sustainability Disclosure Award 2022**

from Thaipat Institute for consistent and excellent conduct of ESG principles.



**CREDIT RATING A+**

with a '**stable**' outlook on the company and senior unsecured debentures reflecting the company's stable business growth.



Awarded Responsibly Sourced Gas (RSG) Gold Rating Certification\*

by Project Canary Trustwell, a 3rd Party Certification Company.

\*Certification awarded to 100% of BKV's NEPA production and a portion of BKV's Barnett production, as of 31 Dec 2022.





01

2022  
Highlights

02

**Powering  
Ahead**

03

Financial  
Summary

04

Energy  
Resources

05

Energy  
Generation

06

Energy  
Technology





## Establishment

Focused on coal mining operations in Thailand.

1983



## "Our Way in Energy"

Rebranding to reflect company's new identity as integrated energy company.

2018



celebrating four decades of excellence

2023

1980s

1990s

2000s

2010s

2020s

Present

Banpu  
Early Years



Banpu established as a coal mining company in Thailand. IPO in 1989.

Diversification



Diversification into power and other sectors regionally

Coal-Focus



Coal-centric growth, driven by geographic expansion.

Greener,  
Smarter  
Strategy



Launch of Greener, Smarter strategy, investing into renewables, gas, and battery production across Pan-Pacific.

Accelerated  
Transformation

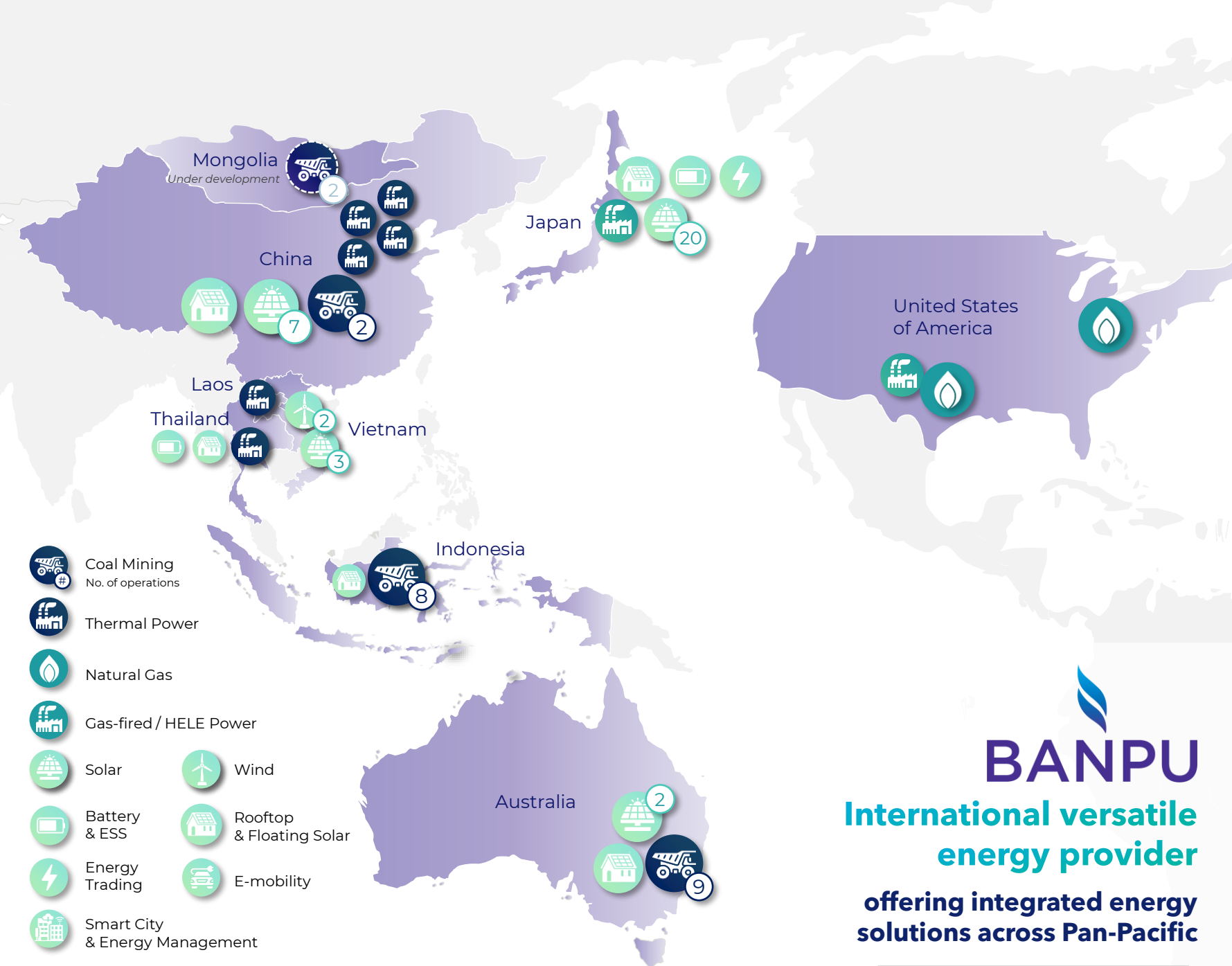


Continued commitment to transformation towards cleaner energy and energy technology solutions.

Going beyond:

Scale up **Greener, Smarter** portfolio, exploring new disruptive growth markets in energy and beyond.





**BANPU**  
**International versatile**  
**energy provider**  
**offering integrated energy**  
**solutions across Pan-Pacific**

2022



## Energy Resources

**Mining business**  
 Sales volume 40.5 Mt

**Gas business**  
 Sales volume 280 Bcfe



## Energy Generation

**Total**  
 Committed capacity 4.0 GW



## Energy Technology



# Energy Resources

## Stronger than ever.

Banpu's operations are well-positioned across the globe to ride the wave of disruption, capturing the upside from energy markets.



Disruptive external events such as the pandemic-induced economic slowdown and on-going tensions between Russia and Ukraine, were a perfect storm of factors that converged to create an energy market crisis in 2022.



Natural gas

### 864 Mmcfed\*

Average Net Gas production volume

**Well-established gas producer in the US**

With owned and operated gas midstream assets.



Mining

### 35.4 Mt

Coal production volume

**Maximizing profitability of reserves, looking forward beyond coal.**

# 2022 recap

Portfolio growth:

NORTH TEXAS, US | 2Q22

## Barnett shale expansion\*



**+225** Mmcfed  
net production

**+1.4** Tcfe  
1P reserves

**+778** Miles  
of midstream pipeline and related infrastructure

US GAS | FY22

## Carbon Capture, Utilization & Sequestration

- 4Q22: BKV reaches internal FID on second CCUS project
- 3Q22: BKV entered into CCUS project development agreement with Verde CO<sub>2</sub> called "BKV Verde"
- 2Q22: BKV reaches FID\*\* with EnLink Midstream for first CCUS project, 'Barnett Zero' in Barnett Shale



MINING

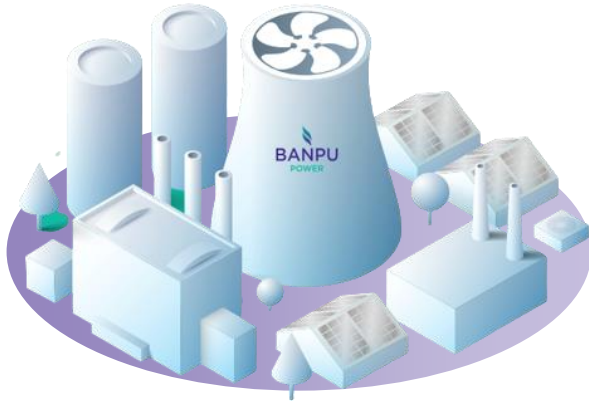
## Responsible operations

Ensuring reliable delivery of higher quality coal to customers with plans to integrate clean energy, such as solar and battery solutions, to improve energy efficiency across mining operations.

# Energy Generation

## Robust & Resilient.

Continued growth of *affordable, reliable, and eco-friendly* power portfolio while maximizing value and efficiency of legacy assets.



Banpu's power generation portfolio maintained operational excellency and resiliency amidst volatile commodity prices through a diversified portfolio.



Solar & Wind Power.

**0.6 GW**

Operating Capacity

**Strong and growing portfolio**

across geographies with favorable markets conditions.



Thermal & HELE Power.

**3.3 GW**

Operating Capacity

**Continued resiliency**

with opportunities to synergize along the value chain

## 2022 recap



Portfolio growth:

**Vietnam  
Solar & Wind  
+80 MW**



**US retail  
electricity**



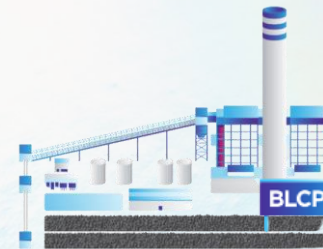
through launch of **BKV-BPP Power** to further integration in the electricity value chain

Other initiatives:

1 Q 23

**Promoting Decarbonization  
with Ammonia**

MoU between BPP, EGCO Group, BLCP Power, JERA Co., Mitsubishi Corporation and Mitsubishi Heavy Industrials for a collaborative feasibility assessment on ammonia co-firing to reduce carbon emissions from power generation at the BLCP power plant and CCUS potential.





# Energy Technology

## The way forward.

Expanding to new horizons in clean energy and beyond.

Key engine in driving Banpu's *Greener, Smarter* transformation through investments and acquisitions.

### Energy trading

1,719 GWh

Trading in Japan; with plans to expand to liberalized markets with Banpu Group presence

### Smart cities & energy management

20 projects

### e-Mobility

MaaS Platform

- muvmi** e-tuktuk Ride hailing
- HAUP** Carsharing
- Forn** Compact EV
- evolt** EV charging
- BEYOND GREEN** e-club car

### Rooftop & floating solar

205 MW  
Committed capacity

**SolarESCO**  
Solar rooftop developer in Vietnam

### Battery & ESS solutions

1.0 GWh  
Li-ion capacity

**durapower**  
Li-ion battery production

## 2022 recap

### Key accomplishments:



#### Scaling-up battery & ESS business

- MoU with **Cherdchai Motor Sales** and **Durapower** for 1 GWh Li-ion battery plant in Thailand by 2026.
- JV with Singapore-based LiV Energy Venture for Lithium-Vanadium ESS.



#### Enhancing energy solution capabilities

- Partnerships with **SP Group** and **PlanetComm** and investment into **Altotech** and **Eurazeo Smart City Fund II** to expand capabilities in energy solutions.



#### Expanding solar development capabilities

- Acquisition of **Solar ESCO**, solar development platform in Vietnam.
- Development of **major solar rooftop projects** across Banpu geographies including 64 MW committed capacity in Zhengding, China, 8.2 MWp for IBP in Indonesia, as well as expansion across Thailand.



# Banpu 2021-2022

Cash-centric  
growth.



Focus on capitalizing surging energy commodity prices and maintaining strong operations throughout times of disruption from external factors.

# Banpu strategy 2023-2025

Financial strategy to  
meet growth targets.

**Strong cashflow generation from cash cow commodity businesses**

Capitalize on energy commodity prices during volatile market conditions to fuel expansion of sustainable businesses.

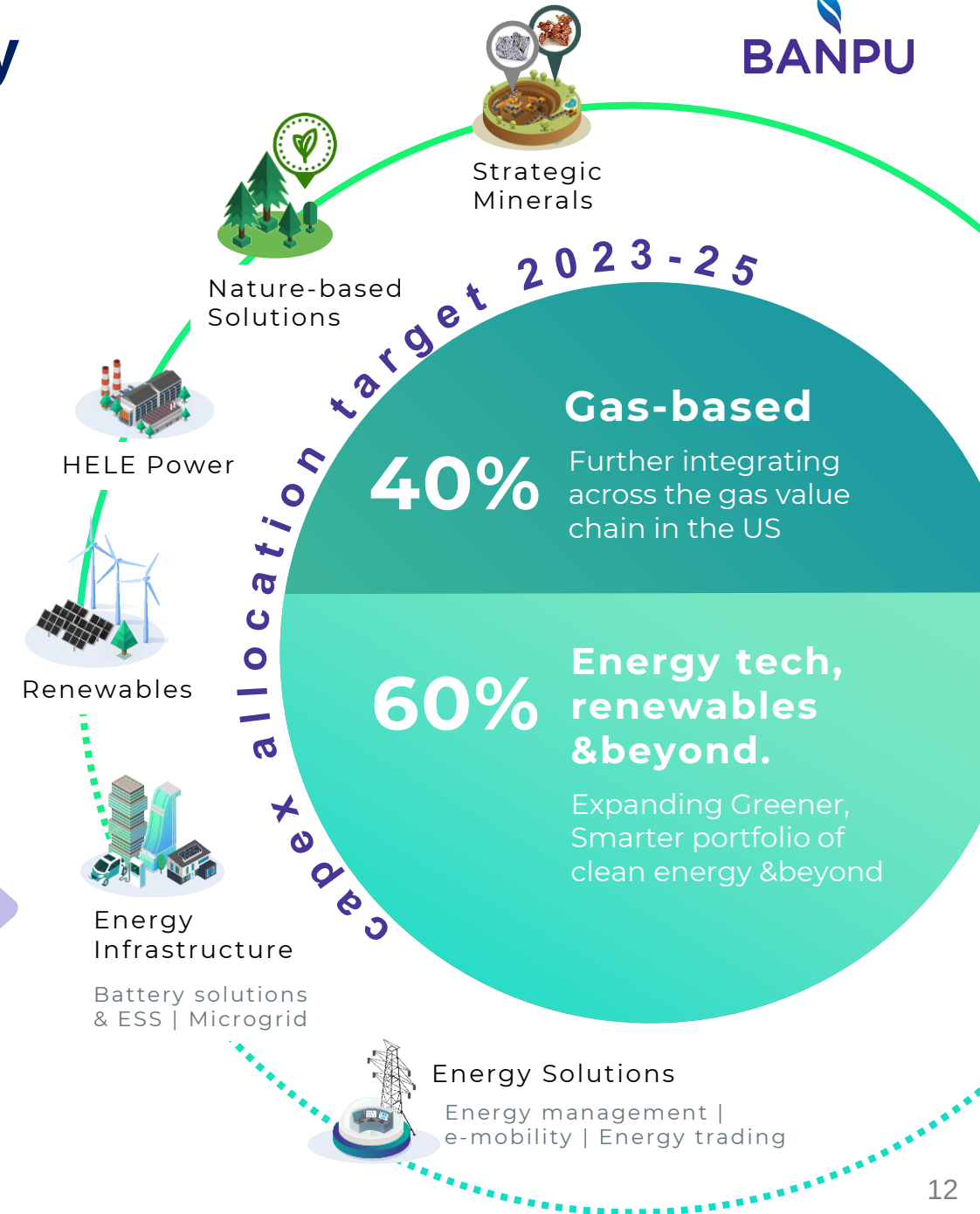
**Growth capital for Greener, Smarter Strategy**

from Banpu Warrant (W4 & W5) to increase financial flexibility to execute strategic projects and investments.

**Refinancing to ensure smooth operations**

Through issuance of new debenture which received an 'A+' rating from TRIS Rating, to refinance existing debt and fuel working capital.

Financial strategy



# Banpu strategy 2023-25

## BUSINESS UNIT FOCUS:

### Energy Resources

### Energy Generation

### Energy Technology

## KEY STRATEGIC ACTIONS



#### GAS

##### **Net Zero Scope 1 and 2 emissions of BKV's upstream business by 2025**

With ambitious plans to expand across the gas value chain in the US and develop CCUS\*.



#### MINING

##### **Responsible and reliable supplier**

Continue improvements in operational efficiency through implementation of green initiatives to deliver high-quality products to our customers.

#### ENERGY RESOURCES

##### **Explore and establish new S-curve businesses**

including strategic minerals, natural-based solutions, etc. as part of commitment to decarbonization and sustainable growth.



#### RENEWABLES

##### **Grow renewable capacity**

seeking investment opportunities focusing on high-growth geographies aligned with Banpu's presence to grow green generation portfolio.



#### THERMAL & HELE

##### **Maximize value and efficiency of legacy assets**

maintaining stable operation across all plants, while lowering emission levels, and generating steady cash flow.

#### ENERGY GENERATION

##### **Value enhancement across US electricity value chain**

including electricity retail and trading capabilities in merchant markets, as well as HELE plants with potential synergies with gas assets.



#### ENERGY TECH.

##### **Net zero solution provider**

Scale up targeted ecosystem portfolio to become one-stop shop for integrate energy services.



#### INVESTMENTS

##### **Vertically-integrated battery player**

from manufacturing to recycling, to capture value from the entire battery value chain.

#### ENERGY & BEYOND

##### **Value creation through invested partners and new S-curve businesses**

by exploring new disruptive businesses such as healthcare and maximizing value creation from investments and partnerships

01

2022  
Highlights

02

Powering  
Ahead

03

**Financial  
Summary**

04

Energy  
Resources

05

Energy  
Generation

06

Energy  
Technology



## KEY FIGURES

### EBITDA

Strong result driven by Coal and Gas business contribution supported by commodity price levels. Stable contribution from other businesses.

**\$3,916 M**

### NPAT

Strong performance and improved operational results.

**\$1,162 M**

### ND/E

ND/E improved from 1.31x in the previous year.

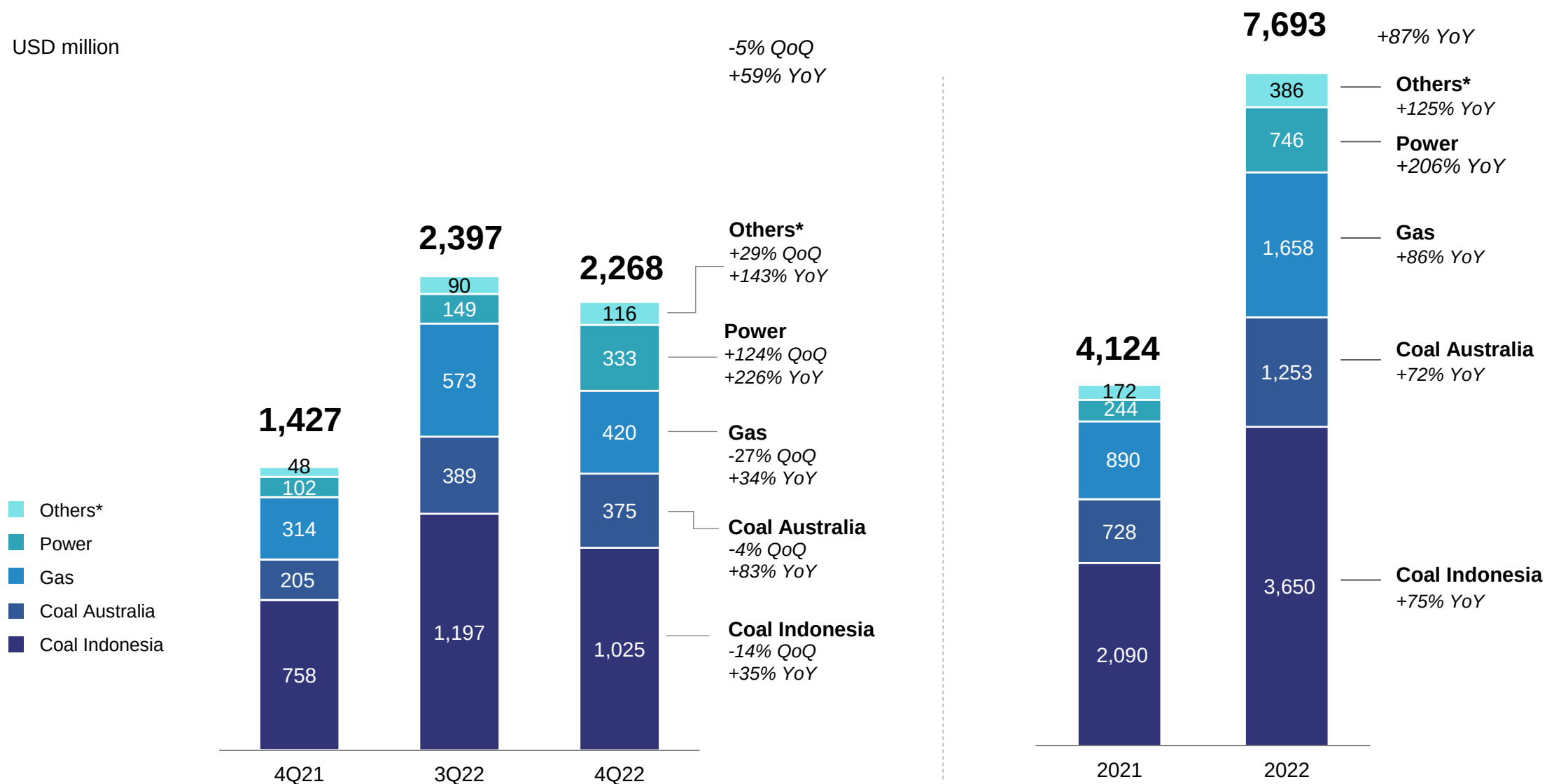
**0.74 x**

## KEY TAKEAWAYS

- 1 Robust Coal business performance:** from higher monthly ASP, due to supply shortages and disruptions and recovering demand
- 2 Significant Core Gas business contribution:** led by substantial increase in gas sales volume and supported by increase in average local price\*
- 3 Strategically-positioned Energy Resources business:** Coal and Gas businesses well-positioned to benefit from current and near-term commodity price levels and demand
- 4 Greener cashflow:** cashflow generation captured from new investments including Nakoso IGCC, Temple I CGGT, Australia Solar, Vietnam Wind and Japan Solar. Future near-term cashflow to be captured from new Greener, Smarter investments (i.e., Vietnam Solar)

# Banpu consolidated sales revenues – 4Q22 and FY22

USD million

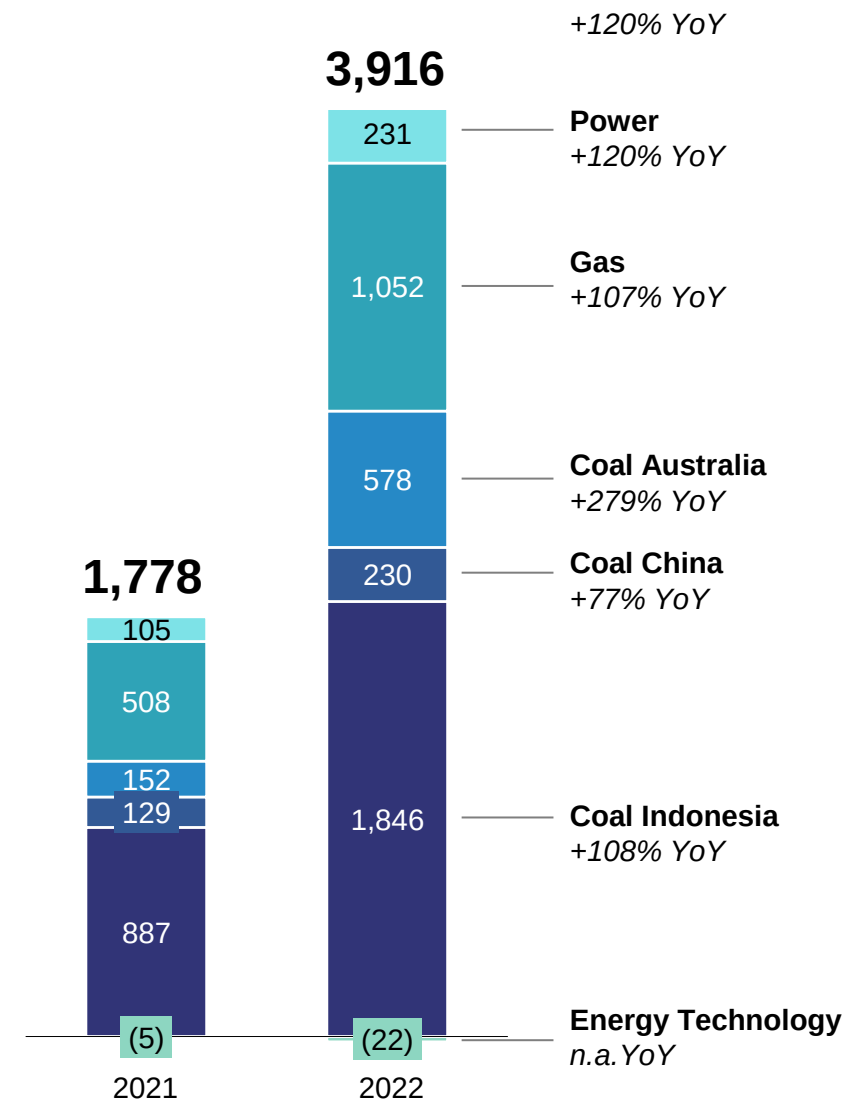
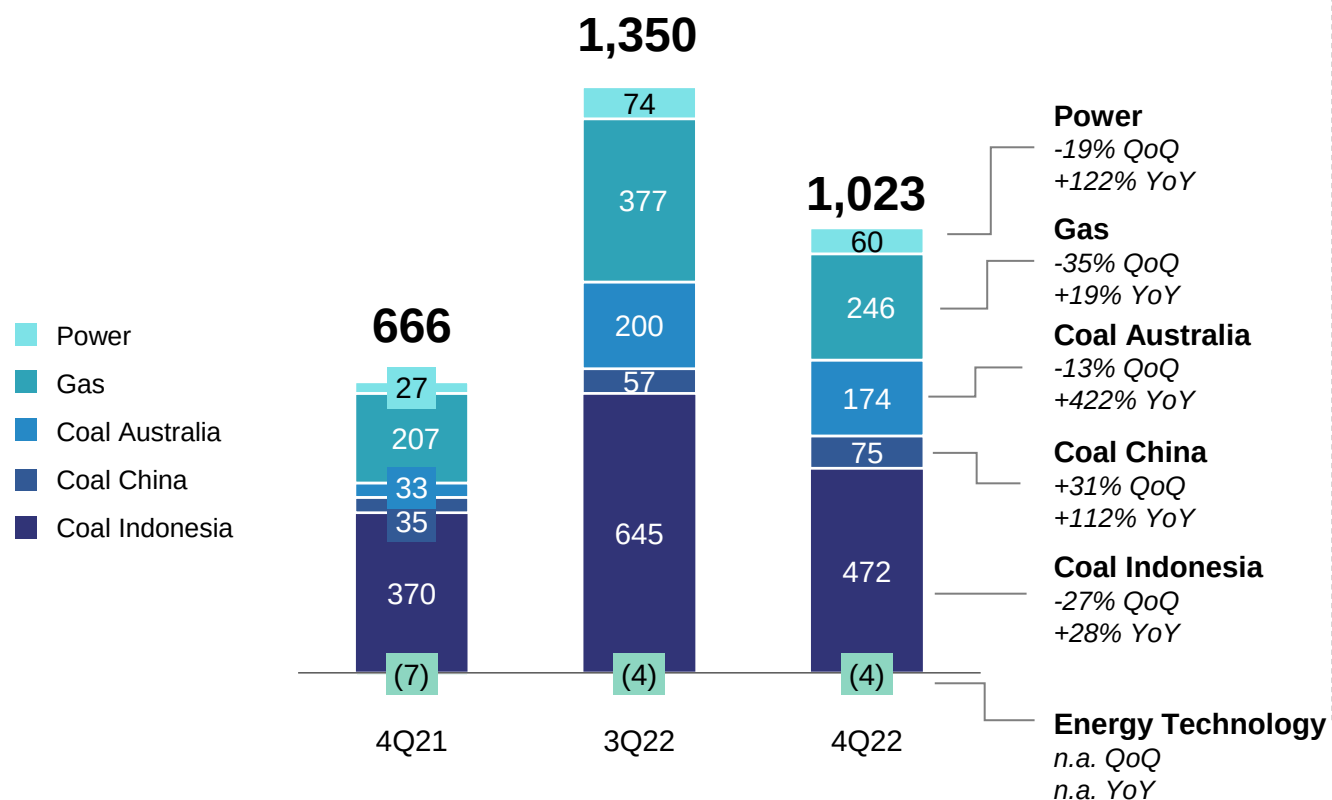


Note: \* Revenue from others includes coal trading, fuel business and other businesses

# Banpu consolidated EBITDA – 4Q22 and FY22

USD million

-24% QoQ  
+54% YoY

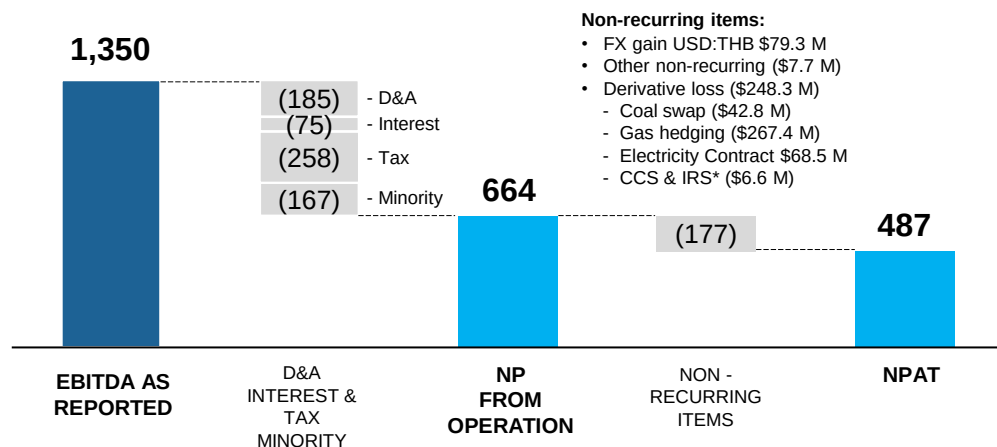




# Banpu consolidated NPAT – 4Q22 and FY22

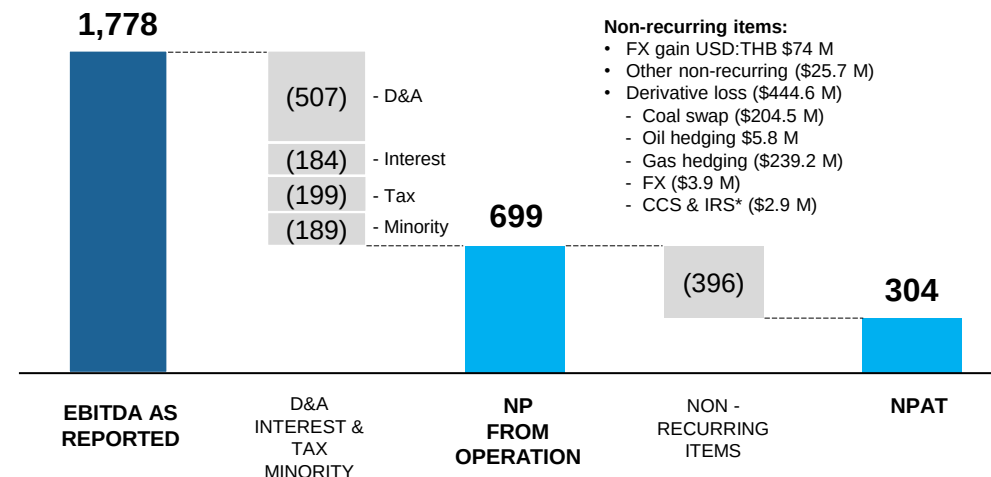
## 3Q22 NET PROFIT AFTER TAX

USD million



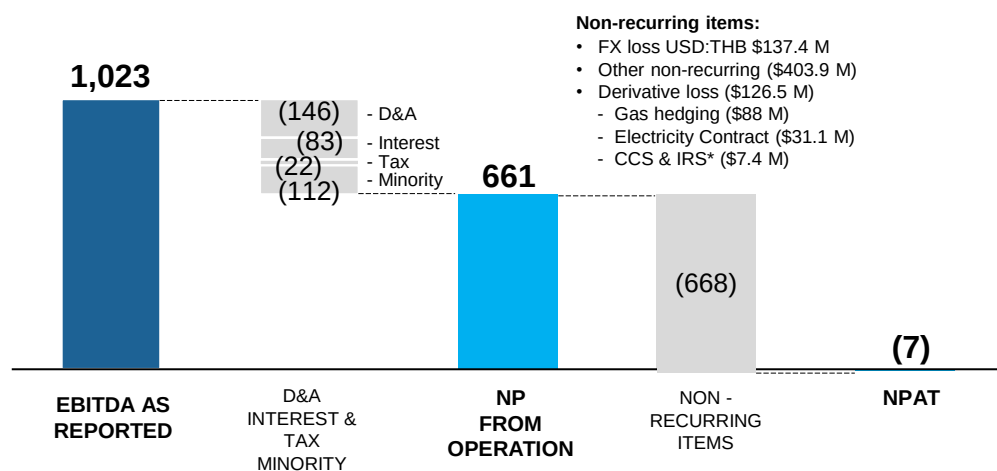
## 2021 NET PROFIT AFTER TAX

USD million



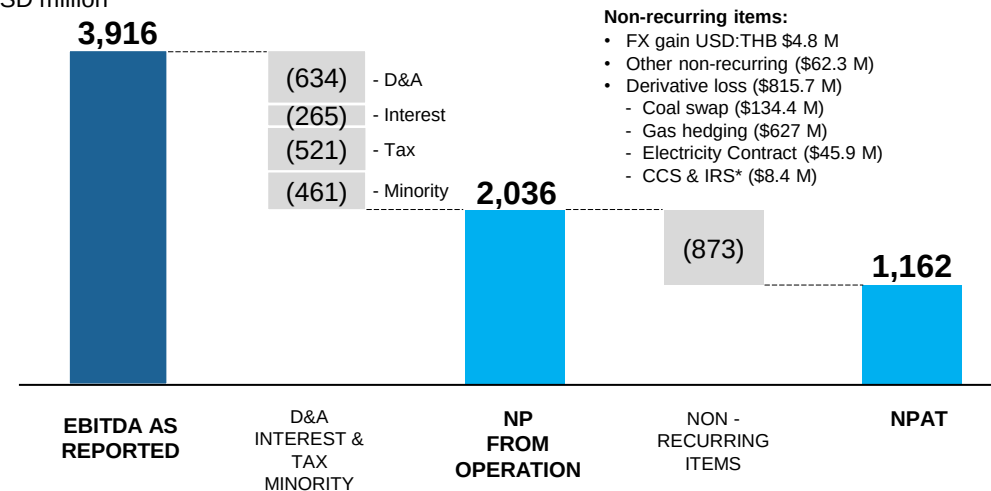
## 4Q22 NET PROFIT AFTER TAX

USD million



## 2022 NET PROFIT AFTER TAX

USD million





01

2022  
Highlights

02

Powering  
Ahead

03

Financial  
Summary

04

**Energy  
Resources**

05

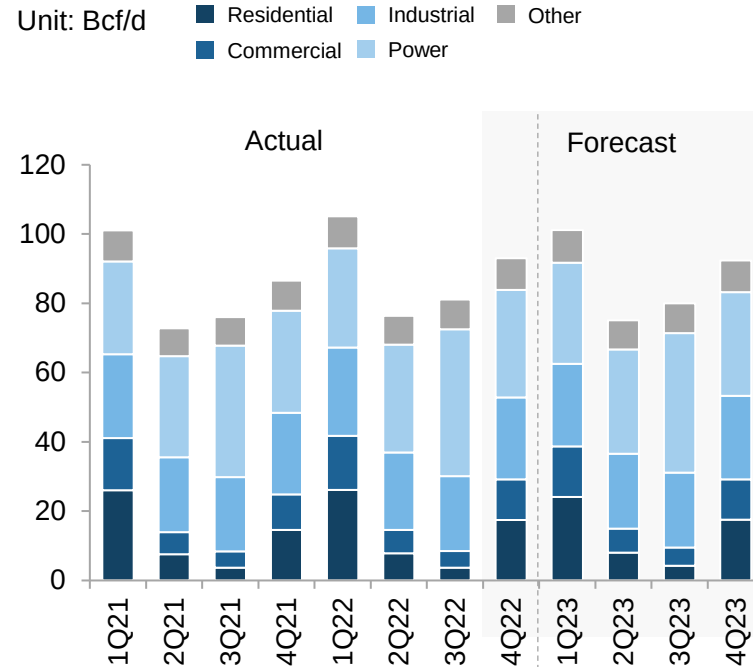
Energy  
Generation

06

Energy  
Technology

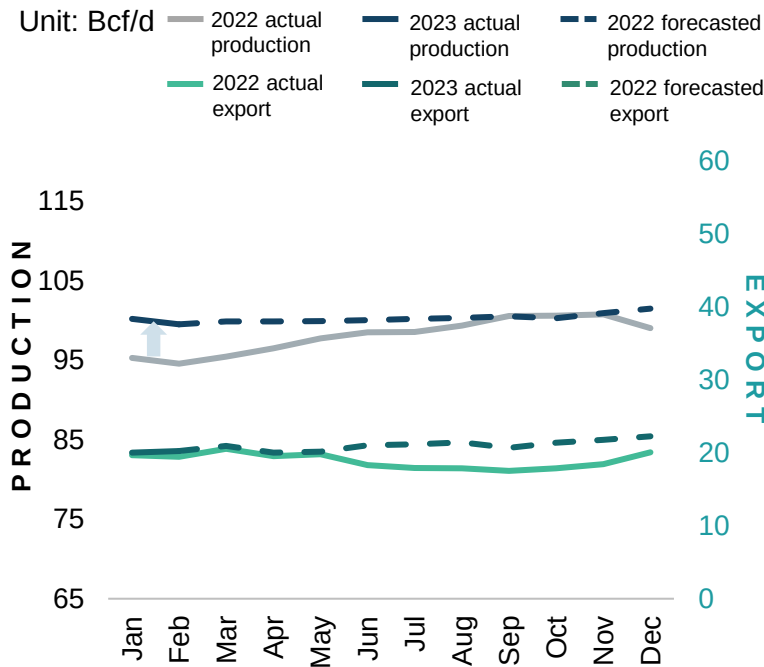
# U.S. gas market update

## US CONSUMPTION & PROJECTION



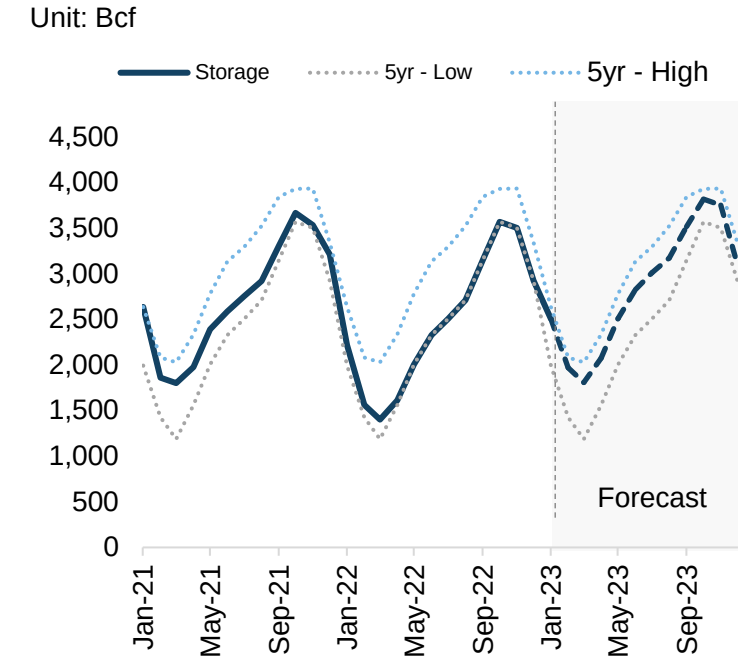
- Majority of US gas demand is domestic consumption. Price is largely determined by local demand and supply with indirect linkage to oil via associated gas production.
- Consumption in the US averaged at 93 Bcf/d in 4Q22, up 15% from 3Q22. Average consumption for 2022 lies at 98.1 Bcf/d and is forecasted to average at 100.3 Bcf/d in 2023.
- Temperature across the US in January were warmest since 2006, leading to significant decrease in natural gas consumption of for space heating.

## US NATURAL GAS PRODUCTION



- US gas production increased from 99.5 Bcf/d in 3Q22 to 100.13 Bcf/d in 4Q22 and averaging 98.1 Bcf/d for 2022. Despite wellhead freeze-offs and pipeline maintenance reducing production in late December, production rebounded to pre-winter storm levels by January 2023.
- US gas production growth in the past months has been outpacing demand growth with expectations that production will stay between 100-101 Bcf/d throughout 2023 as the Freeport LNG export facility which went offline during June 2022 due to a fire is expected to come back online in 1Q23, adding 2 Bcf/d demand.

## U.S. STORAGE LEVEL



- Natural gas inventories in January 2023 ended the month above 5-year average levels due to warmer-than-normal January temperatures leading to lower gas consumptions for space heating
- It is expected that inventories will close the withdrawal system at the end of March at more than 1.8 Tcf, or 16% above the 5-year average.



# U.S. gas: production outpaced demand, stabilizing gas prices down

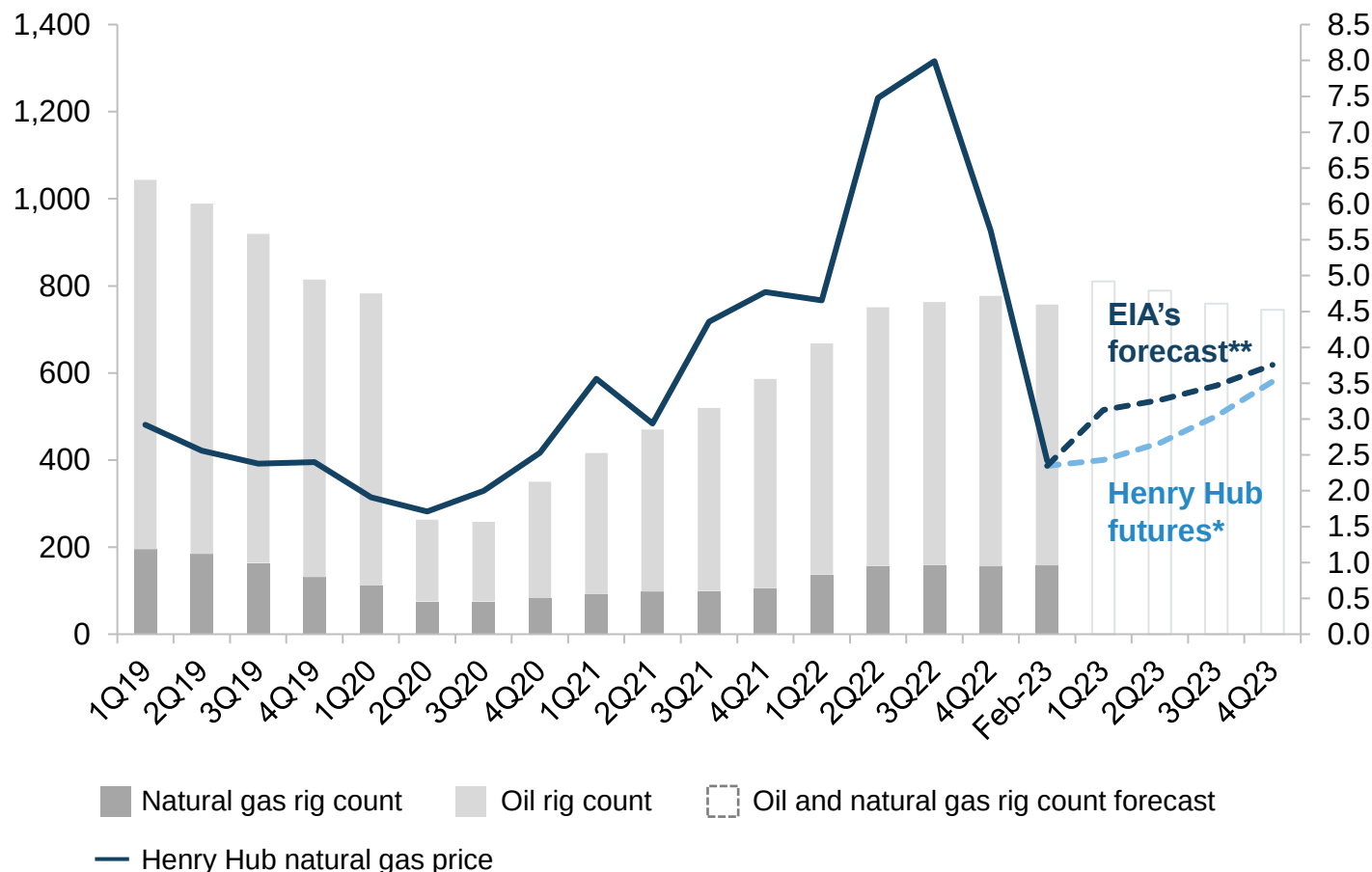
## US RIG COUNT VS HENRY HUB PRICE

US OIL AND NATURAL GAS RIG COUNT

Unit: Rigs

HENRY HUB SPOT PRICE

Unit: \$/MMBtu



## COMMENT

- Natural gas prices in 4Q22 decreased from the previous quarter to \$5.6/MMBtu, driven by lower demand from warmer-than-expected temperatures.
- Price in 2022 averaged at \$6.4/MMBtu and is forecasted to return to an average of \$3.4/MMBtu in 2023 due to production growth outpacing demand growth and already higher-than-average inventory levels.
- Oil and gas rigs are expected to increase in 1Q23, up 35% from 4Q22, staying at higher levels compared to the past 3 years since Covid.
- Henry Hub futures is expected to decrease from the current spot price to around \$3.1/MMBtu in 1Q23 and stabilize to between \$3.3 - 3.8/MMBtu levels in the following quarters.

Note: \* As of February 7, 2023, \*\* Short-Term Energy Outlook (February 2023)

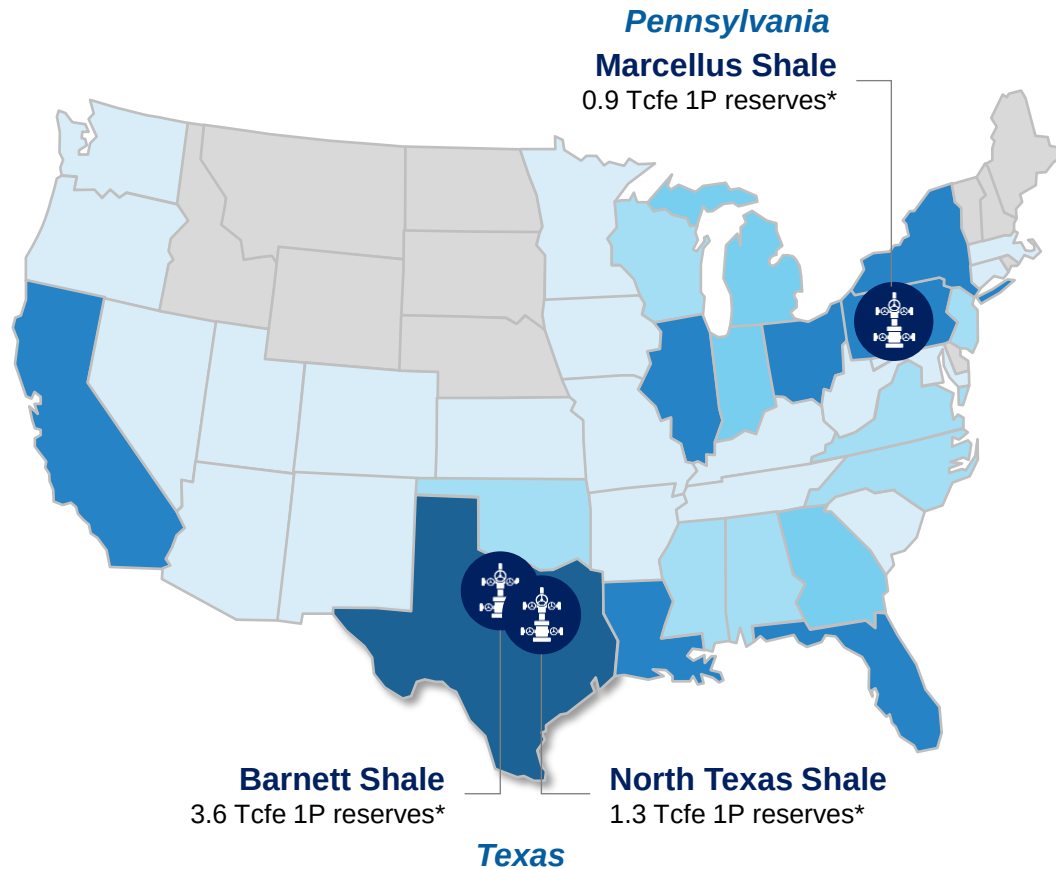
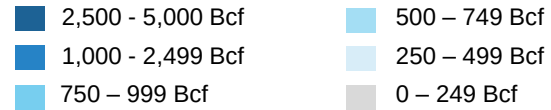
Source: EIA, S&P Global, and Baker Hughes US natural gas rotary rig count (February 2023)

# Banpu Gas: 2022 highlights

## US DRY GAS CONSUMPTION 2021 BY STATE<sup>1</sup>



Banpu shale  
gas operations



Average local price\*\*

**\$6.07/Mcfe**

+68% YoY

Sales volume

**280 Bcfe**

+14% YoY

EBITDA\*\*\*

**\$1,052 M**

+107% YoY

Notes:

\* As of (or, as applicable, for year end) December 31, 2022;

\*\* Average local price = Henry Hub - basis differential;

\*\*\* IFRS EBITDA. Significant differences between IFRS and BKV US GAAP EBITDAX include treatment of derivative gains and losses, depletion expense, accretion expense, stock compensation expense, BNAC expenses, equity income, and contingent consideration gains and losses for asset acquisitions

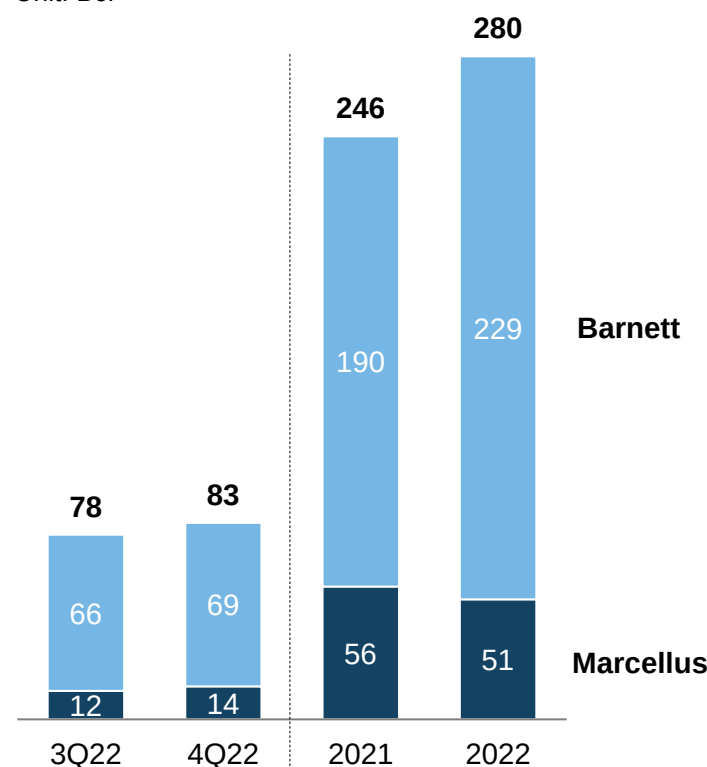
Source: (1) EIA

# Banpu Gas: 4Q22 and FY22 performance

2022 recorded an EBITDA of \$1,052 M, highlighting our agility to successfully deliver strong production and capture upside from price fly-ups with strong operational momentum heading into 2023.

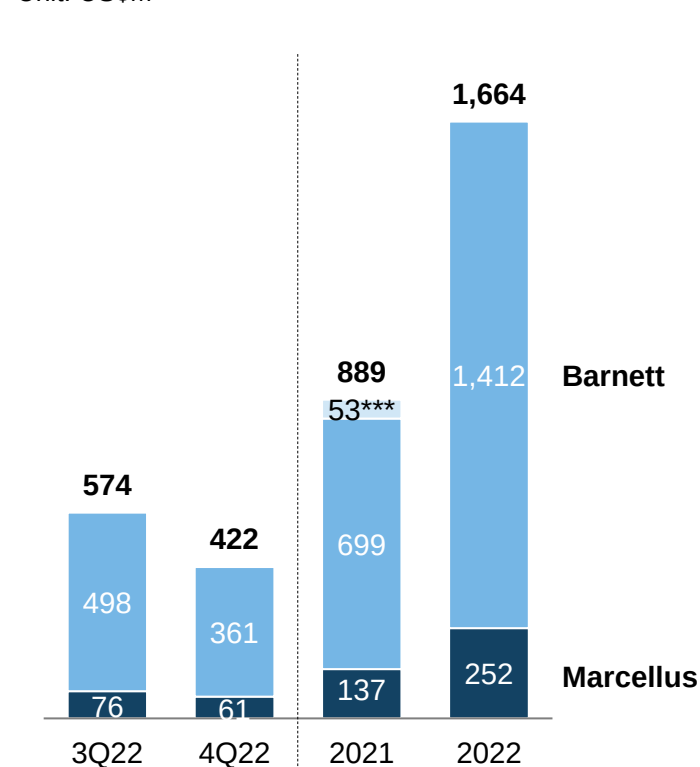
## SALES VOLUMES

Unit: Bcf\*



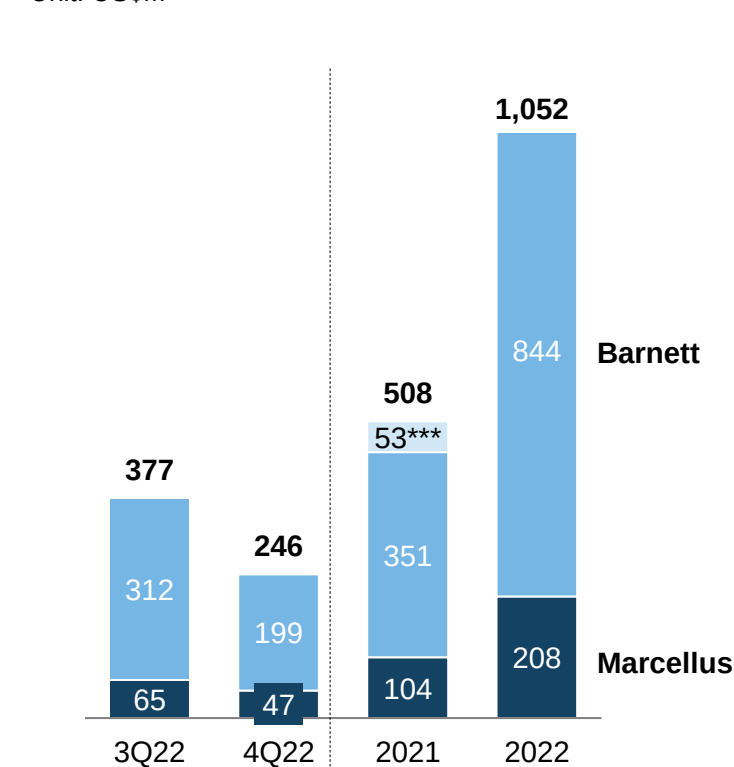
## TOTAL REALIZED REVENUE\*\*

Unit: US\$M



## EBITDA\*\*\*\*

Unit: US\$M



Note:

\* Bcf = Billion cubic feet

\*\* IFRS total realized revenue. Significant differences between IFRS and BKV total revenues and other operating income include net derivative gains and losses, marketing, non-operated midstream revenues, and others

\*\*\* Other income from trading JV

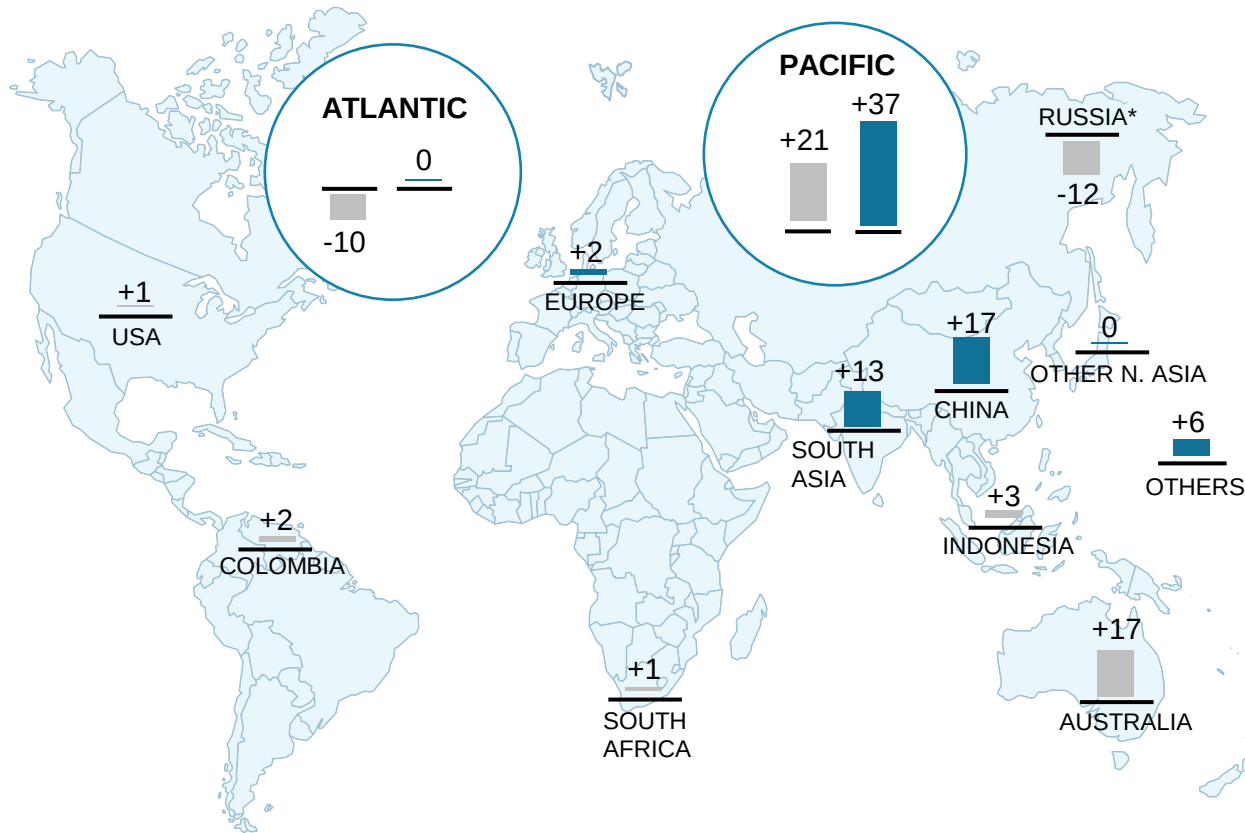
\*\*\*\* IFRS EBITDA. Significant differences between IFRS and BKV US GAAP EBITDAX include treatment of derivative gains and losses, depletion expense, accretion expense, stock compensation expense, BNAC expenses, equity income, and contingent consideration gains and losses of asset acquisitions;



# Global thermal coal market

## COAL DEMAND AND SUPPLY CHANGE – 2023E VS 2022

Unit: Mt      ■ SUPPLY      ■ DEMAND



Note:\* Russia exports to non-CIS countries only, JKT = Japan, South Korea and Taiwan

## TRENDS

### DEMAND

In 2023, the coal market is expected to remain relatively calm compared to 2022, although prices are expected to remain at current high levels. Although winter demand won't be as strong as originally expected because of the mild start to the year, ongoing energy tightness in Europe and expected growing demand in Asia will support import demand growth in 2023.

- **China:** Covid's resurgence, mild weather, and the Lunar New Year holiday curtailed coal consumption at the start of the year. However, we expect China's economy to recover soon as Covid lockdown protocols ease.
- **India:** Thermal coal demand in 2023 is expected to remain strong from strong economic activity with expectations that the increase in domestic coal supply is unlikely to meet demand growth as the government has already issued directives for generators to import more coal.
- **JKT:** The start of the year saw weak demand and high stocks due to a warm winter. Power plants are diversifying their coal supply portfolio in order to help manage costs. Nuclear output is expected to rebound which would impact gas as coal remains competitive.
- **Europe:** Started the year with high coal and gas stocks with weaker-than-expected due to a mild winter and poor economic performance. However, we expect that coal demand will strengthen in 2023 to help preserve gas supply. With no Russian coal, Europe will likely increase coal shipments from non-Russian sources, indicating that Europe may not be out of the energy supply risk yet.

### SUPPLY

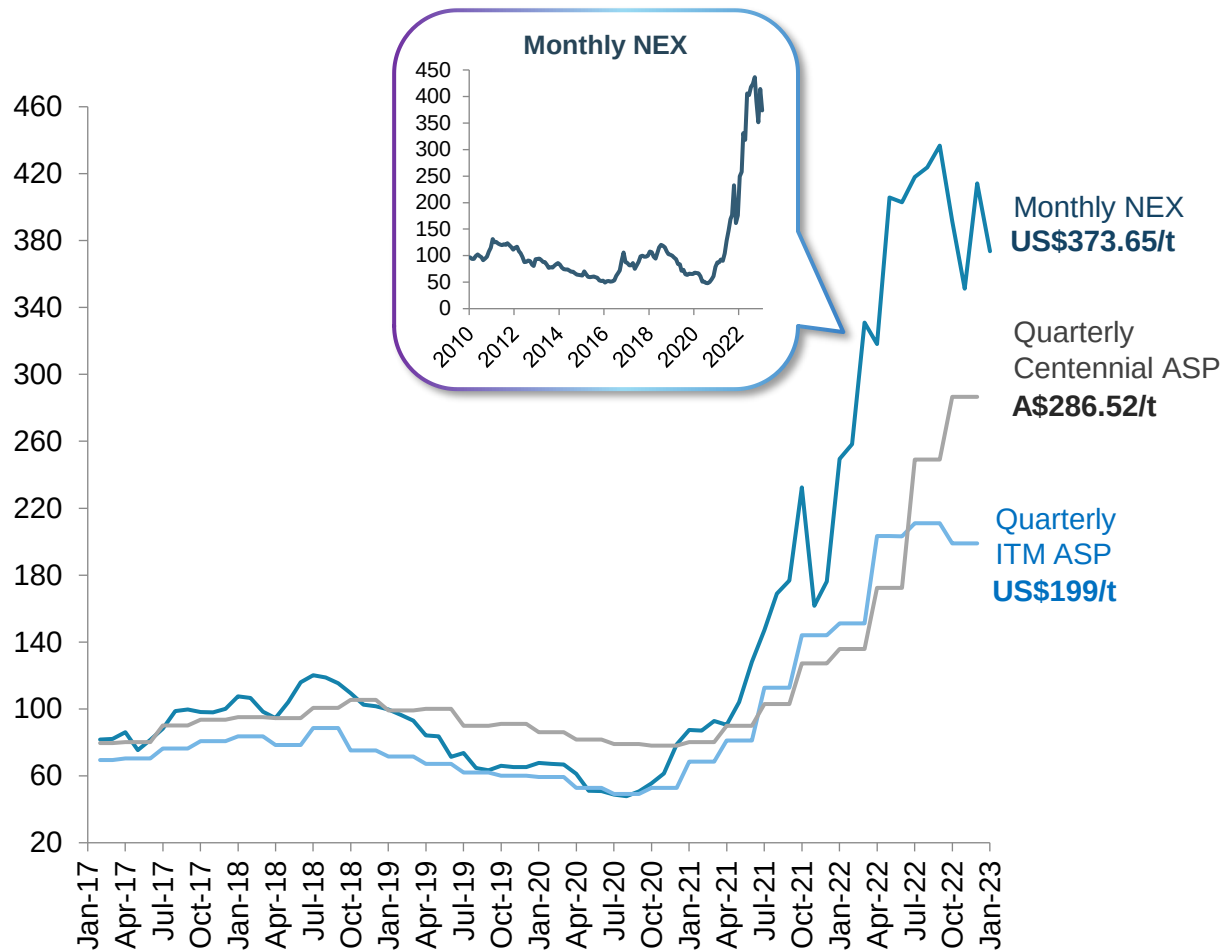
Although less tight than in 2022, global HCV supply remains limited enough to maintain high price levels. Lower CV coal appears to have much looser fundamentals due to the possibility that Indonesia may significantly increase its output.

- **Indonesia:** Producers have expressed interest in growing supply to take advantage of high coal prices. We expect further growth in production and export in 2023.
- **Australia:** Export is expected to recover substantially from last year, after mining conditions were impacted by persistent rainfall throughout the year. Without Russia, Australia is the single most important driver of the HCV market.
- **Others:** Russia has lost its European and some of its JKT market due to falling global coal prices affecting Russian sellers, resulting in lower output. Logistic constraints will continue to curb exports from South Africa and the US while Colombia faces uncertainty from risk of blockades.

# Banpu ASPs vs thermal coal benchmark prices

## BANPU ASP VS BENCHMARK PRICES

Unit: US\$/t; A\$/t for CEY



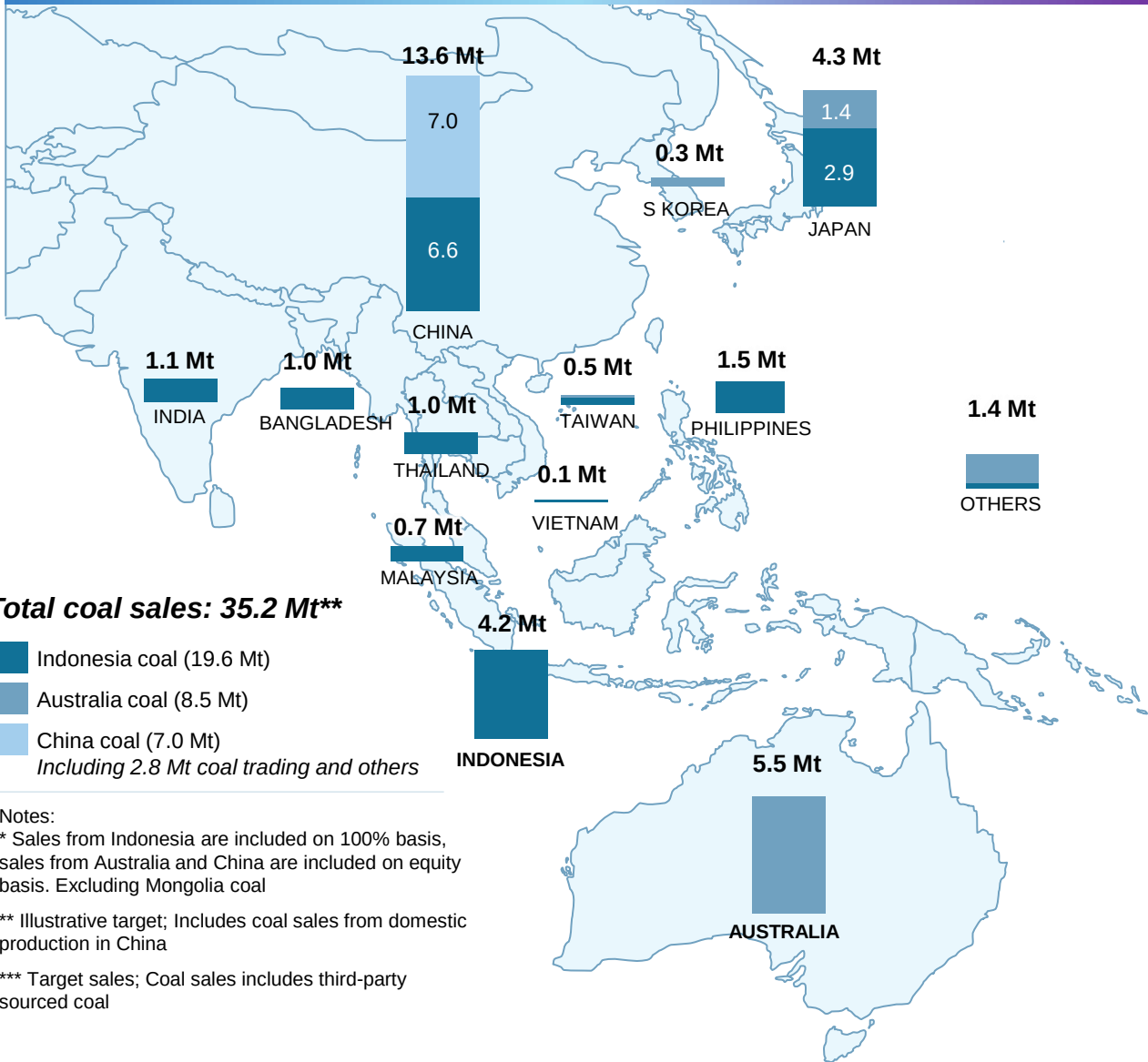
## COMMENTS

- The overall seaborne premium thermal coal market remained relatively strong through 4Q22, particularly in the later part of the quarter, mainly due to the wet weather in major coal fields in New South Wales, Australia.
- GCNewc started weakening from September until early November, the weekly GCNewc hit the bottom (US\$324/t) on 11 November. From late November, the coal market gained momentum again due the wet weather in Australia, the weekly GCNewc hit US\$416/t on 9 December.
- The lower quality thermal coal market has been relatively stable during 4Q22. ICI2/3/4 were in the range of US\$150-180, US\$115-135, US\$85-95. In general, despite the winter peak season, the average price level of mid-low CV Indo coal market in 4Q22 was in the similar level with 3Q22.
- 2H22 is the peak of premium thermal coal in a foreseeable future, while the fundamentals of the thermal coal market is still relatively strong considering the geopolitical environment.
- We anticipate the demand for off specification thermal coal to continue to increase, not only the new demand from traditional premium coal buyers, the import demand from China and India will become stronger thanks to the economy recovery after Covid-19.
- Banpu group ASP in 4Q22 remains at historically high level.
- Key price metrics:
  - ITM ASP 4Q22: US\$199/t\* (-6% QoQ)
  - CEY ASP 4Q22: A\$286.5/t\* (+15% QoQ)  
ASP Domestic A\$80.5/t (-22% QoQ), ASP Export A\$538.2/t (-6% QoQ)
  - NEX (February 17, 2023)\*\*: US\$202.5/t

Note:  
 \* Includes post shipment price adjustments as well as traded coal; CEY sales volume: 4Q22 - 55% domestic : 45% export, 3Q22 - 69% domestic : 31% export  
 \*\* The Newcastle Export Index (NEX)

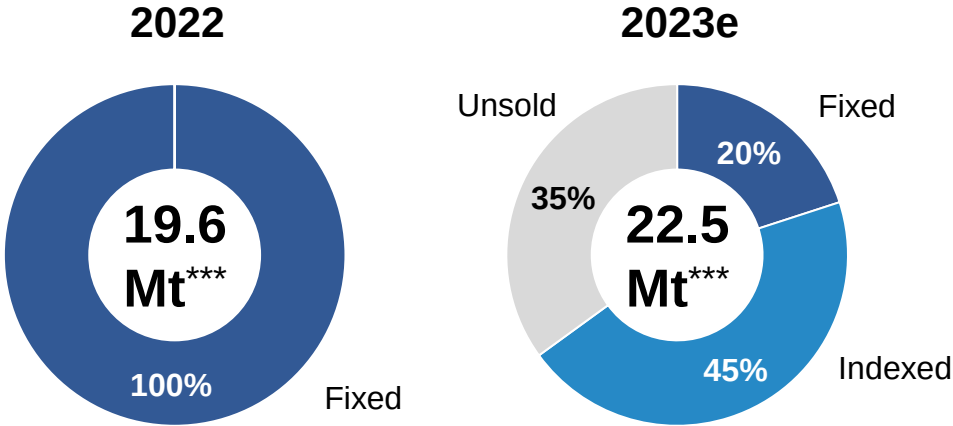
# Banpu Mining: group coal sales and pricing status 2022

## 2022 COAL SALES\* SOURCE – DESTINATION ANALYSIS

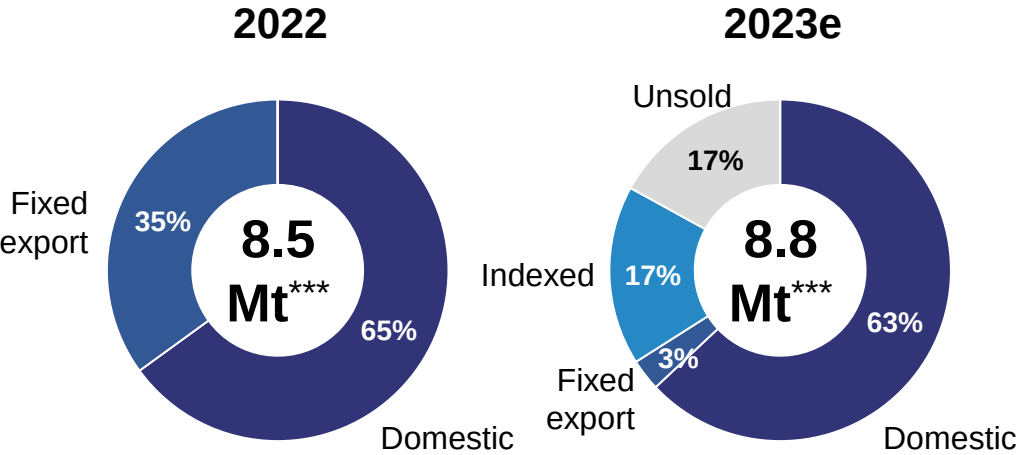


## COAL SALES PRICING STATUS

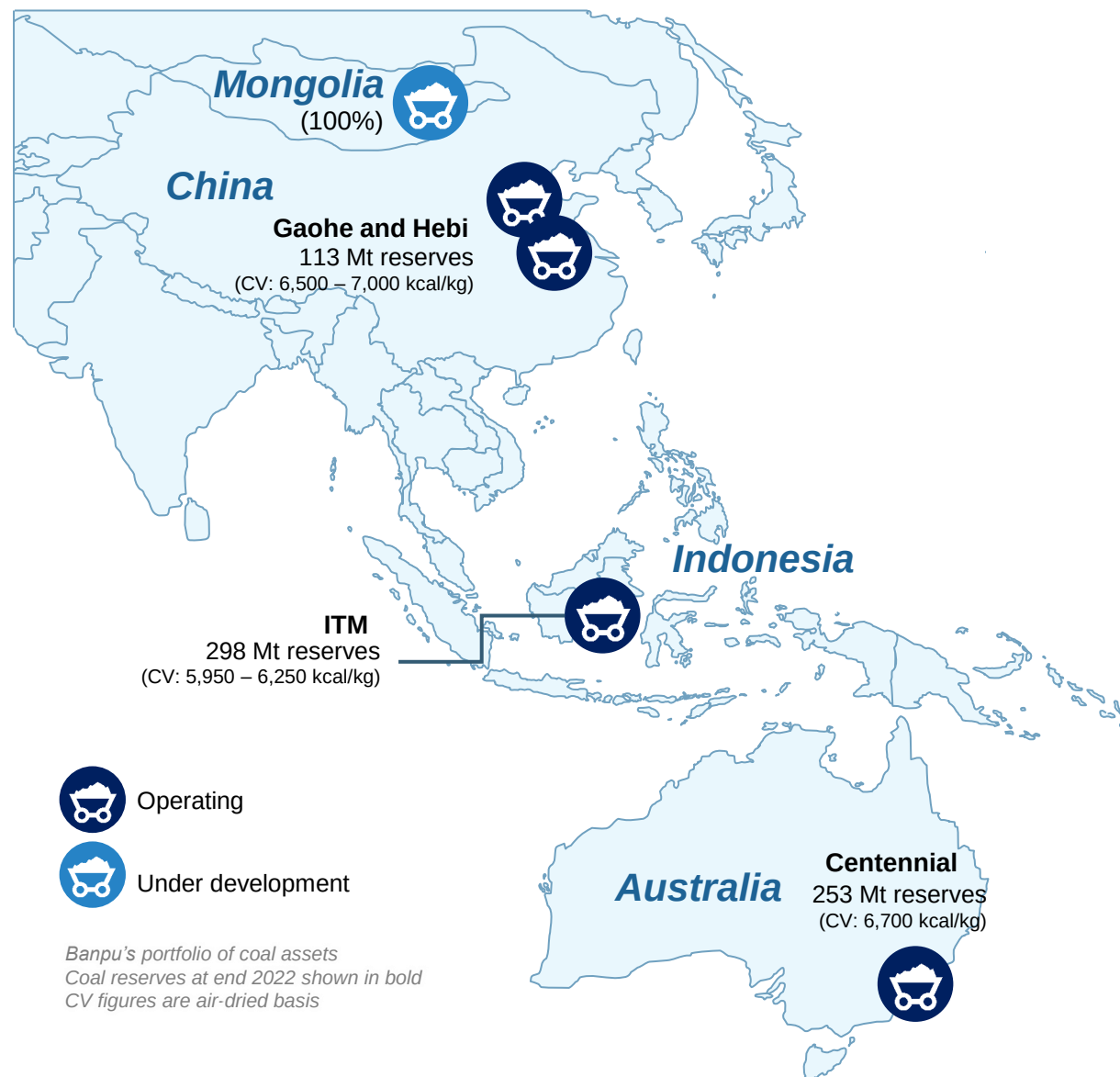
### INDONESIA



### AUSTRALIA



# Banpu Mining: 2022 highlights



Production volume\*

**35.4 Mt**

-6% YoY

Sales volume\*

**40.5 Mt**

-1% YoY

EBITDA

**\$2,654 M**

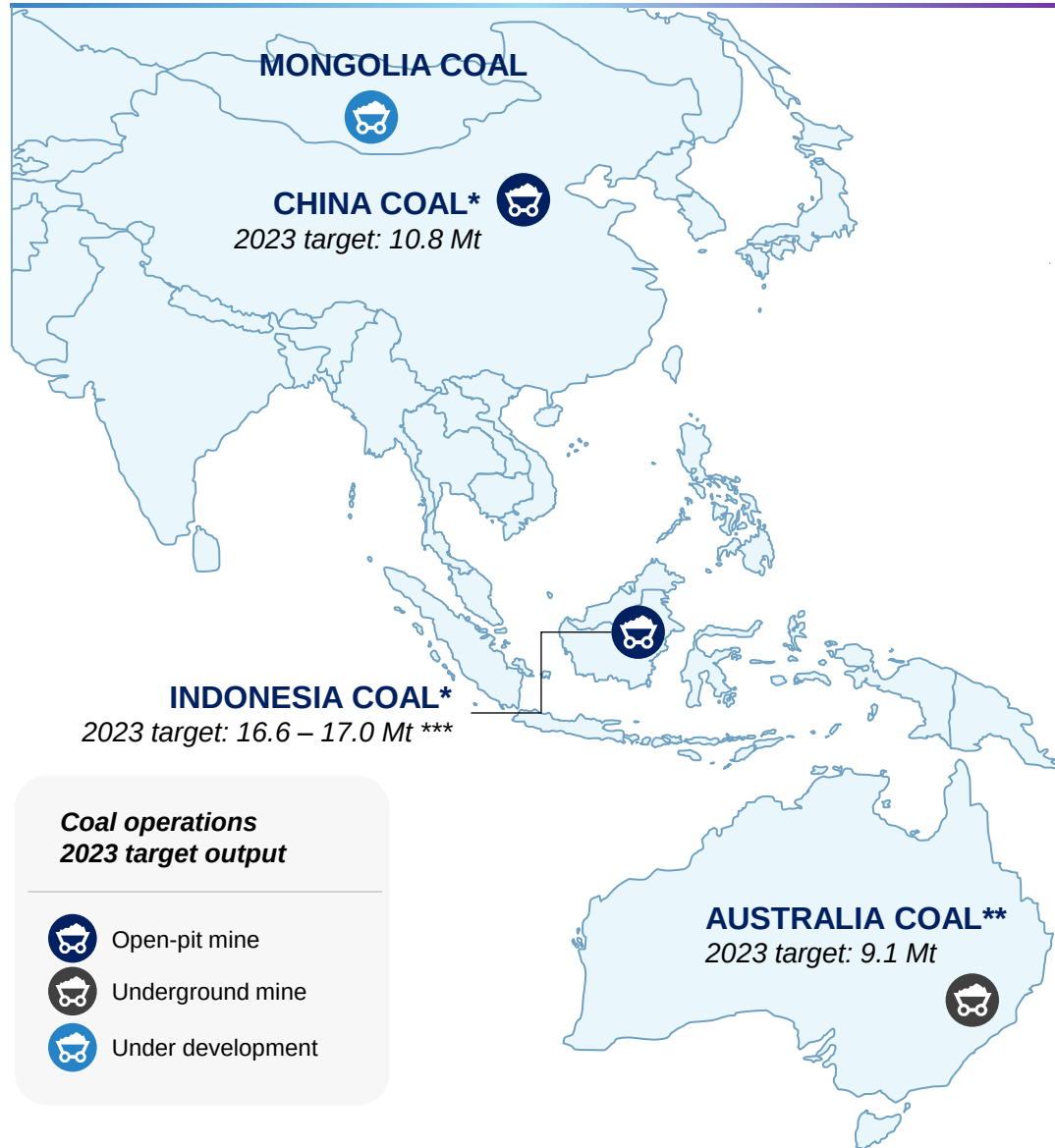
+127% YoY

Note: \* Based on 100% basis



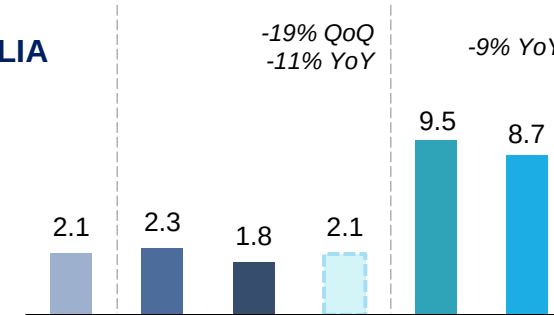
# Banpu Mining: operational summary

## 2023E COAL OUTPUT



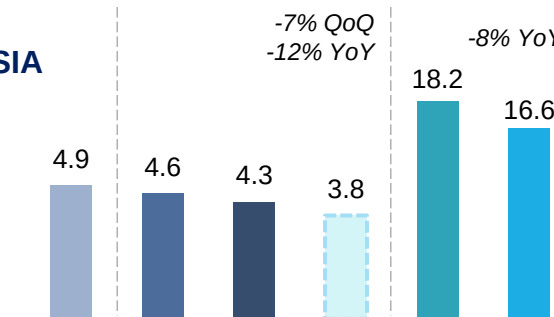
## ROM PRODUCTION AND KEY UPDATES

### AUSTRALIA COAL\*\*



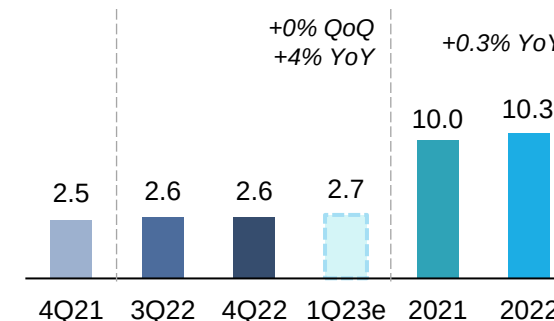
- Lower production at both LW mines in 4Q22 due to unfavorable strata and water conditions.
- As a result, start-up of Mandalong LW34 was delayed until January 2023.
- Nevertheless, Centennial achieved a record profit result in FY22 resulting in a net debt reduction of \$324 M.

### INDONESIA COAL\*



- 4Q22 production decreased by 7% QoQ and 12% YoY due to challenging weather conditions and flooding at Jorong mine.
- 1Q23e production is targeted at 3.8 Mt, due to anticipation of bad weather and lower production from Jorong mine.

### CHINA COAL\*



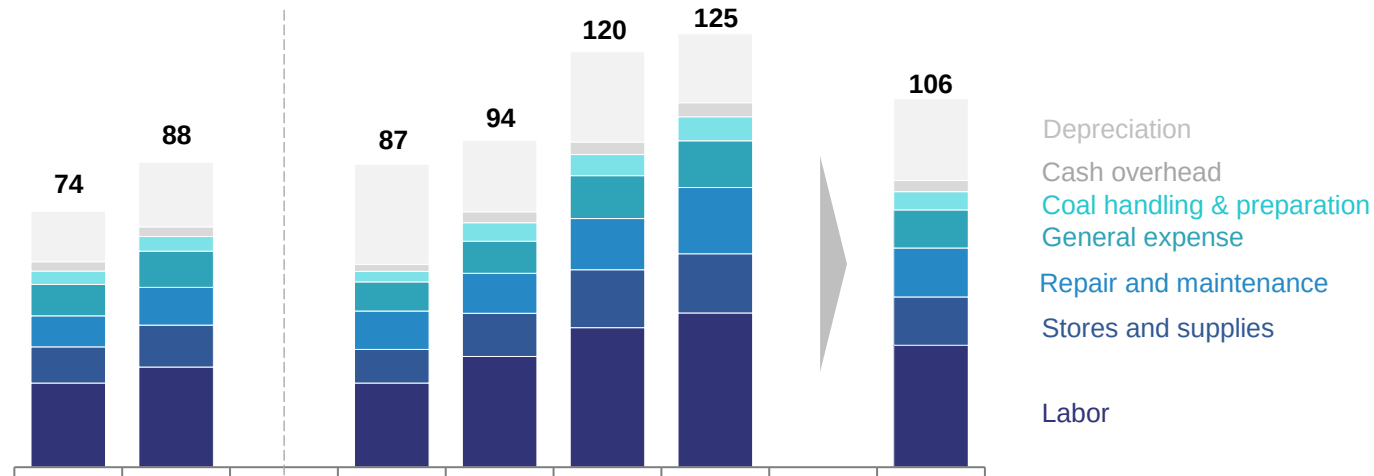
- Gaohe:** Stable production during Q4.
- Hebi:** Slightly lower production in Q4 due to restriction from insufficient minable coal at prepared longwall panels.

Note: \* 100% basis, \*\* equity basis, \*\*\*The higher production range is subject to further Indonesia government approval

# Banpu Mining: average production cost breakdown

## AUSTRALIA COAL – AVERAGE PRODUCTION COST\*

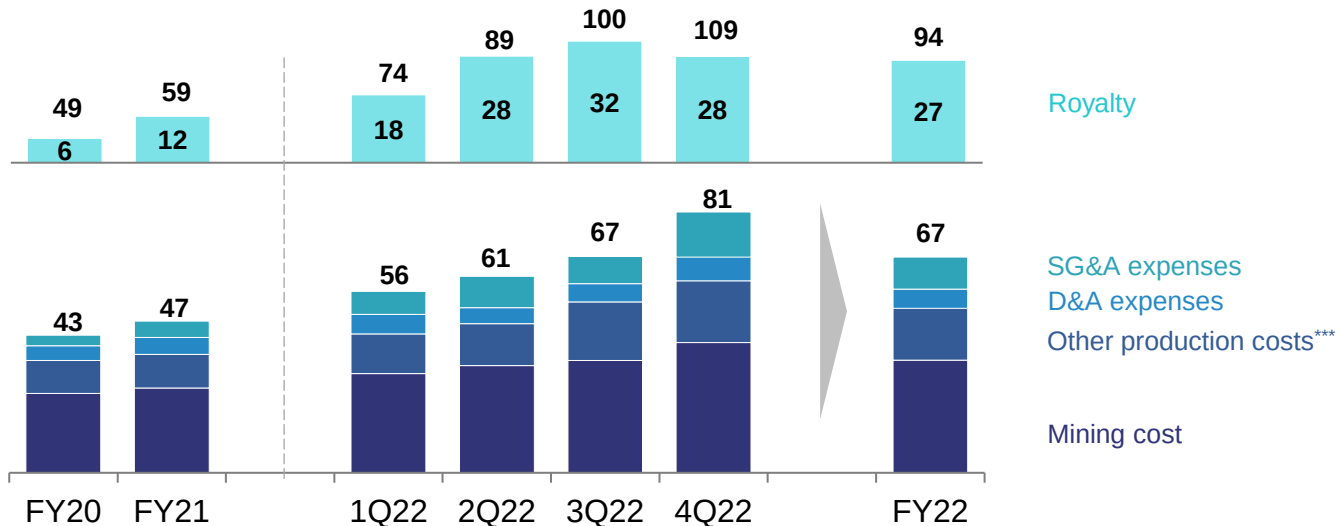
Unit: A\$/t



- Global inflation environment continues to drive input costs up (i.e., steel, fuel, and labour).
- Lower production volumes in 4Q22 due to lower extraction tonnes from the LW mines (Mandalong LW delays & challenging geological conditions at Springvale) impacting cost per ton.
- Mine site teams are implementing strict opex and capex cost control measures.

## INDONESIA COAL – AVERAGE TOTAL COST\*\*

Unit: US\$/t



- Average total cost per ton (excl. royalty) rose to \$81/t in 4Q22 as a result of impacts from:
  - Slight increase in strip ratio;
  - Lower production volume affecting unit cost; and
  - Adjustment of DMO tariff due to change in regulation.
- Overall increase in cost in 2022 was mainly driven by higher fuel price as well as increased royalty payment following higher ASP.





01

2022  
Highlights

02

Powering  
Ahead

03

Financial  
Summary

04

Energy  
Resources

05

**Energy  
Generation**

06

Energy  
Technology

# Banpu Energy Generation: 4,263 MW committed capacity



**8 countries**

operations across the  
Pacific Rim



**3,253 MW**

committed thermal  
equity capacity



**1,010 MW**

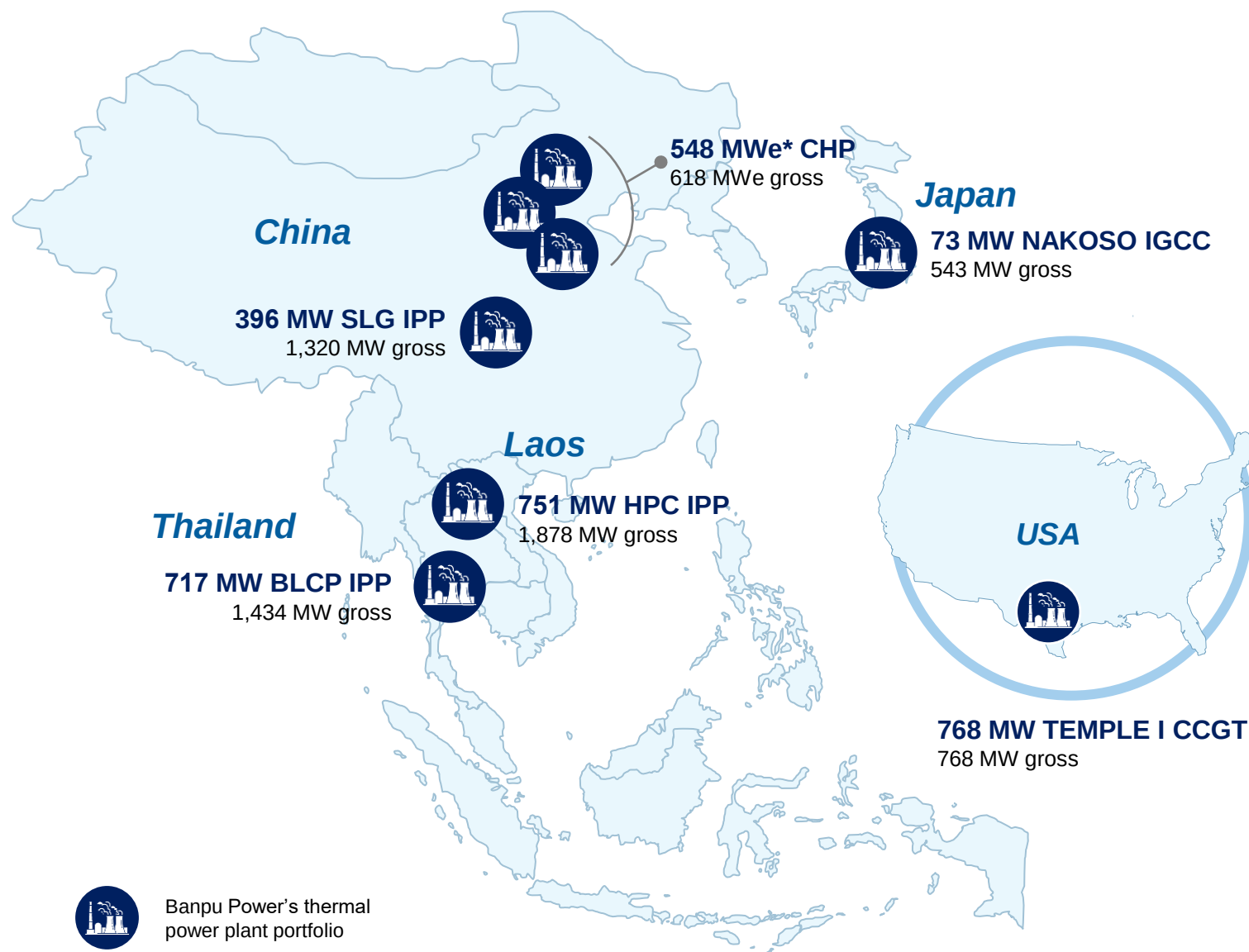
committed renewables  
equity capacity

-  Solar power plant portfolio
-  Solar floating portfolio
-  Banpu Power's thermal power plant portfolio

-  Solar rooftop portfolio
-  Wind power plant portfolio



# Banpu Thermal Power: 2022 highlights



Note: \* MW equivalent

EBITDA  
**\$231 M**  
+120% YoY

Achieved EAF

|                         |                           |
|-------------------------|---------------------------|
| <b>86%</b><br>at HPC    | <b>87%</b><br>at BLCP     |
| <b>32%</b><br>at Nakoso | <b>83%</b><br>at Temple I |

# Thermal Power: 2022 updates



## BLCP

*Completed CAH with consistent and efficient operations to serve electricity demand in Thailand.*

- High reliability with EAF\* reported at 87%
- Total revenue reported at THB 17.0 bn, EBITDA at THB 3.1 bn
- Reported share of profit at THB 580 M, +170% YoY



## HPC

*Recorded the highest revenue since COD. Operated smoothly as planned and performed high EAF in 2022.*

- Reported higher EAF of 86%, +1% YoY
- Total revenue reported at THB 22.1 bn, EBITDA at THB 12.5 bn
- Reported share of profit at THB 3.7 bn



## SLG

*Better performance contributed by increased power sold, higher tariffs from participating in the power trading market, and decreased coal costs from coal supply contracts.*

- Reported net power sold of 4,420 GWh
- Reported share of loss at RMB 55 M, improved by RMB +51 M YoY.



## China CHP

*Optimizing plant operations and seeking coal supply contracts through negotiations with relevant authorities to mitigate impacts of high coal cost.*

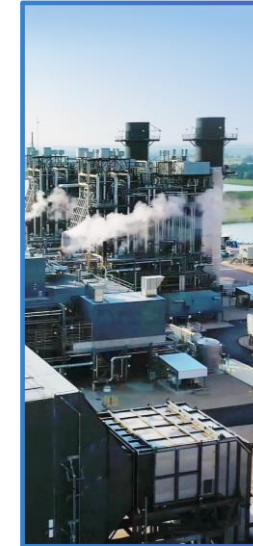
- Reported revenue of RMB 1.39 bn
- Total EBITDA of RMB 1 M
- Reported share of loss at RMB 65 M



## Nakoso IGCC

*Underwent occasional maintenance throughout 2022 due to plant still at early stage of operations. Temporary closure scheduled for 2023 to ensure long-term reliability and sustainability.*

- Reported EAF of 32%
- Reported net generation of 1,332 GWh
- Reported share of profit at THB 267 M

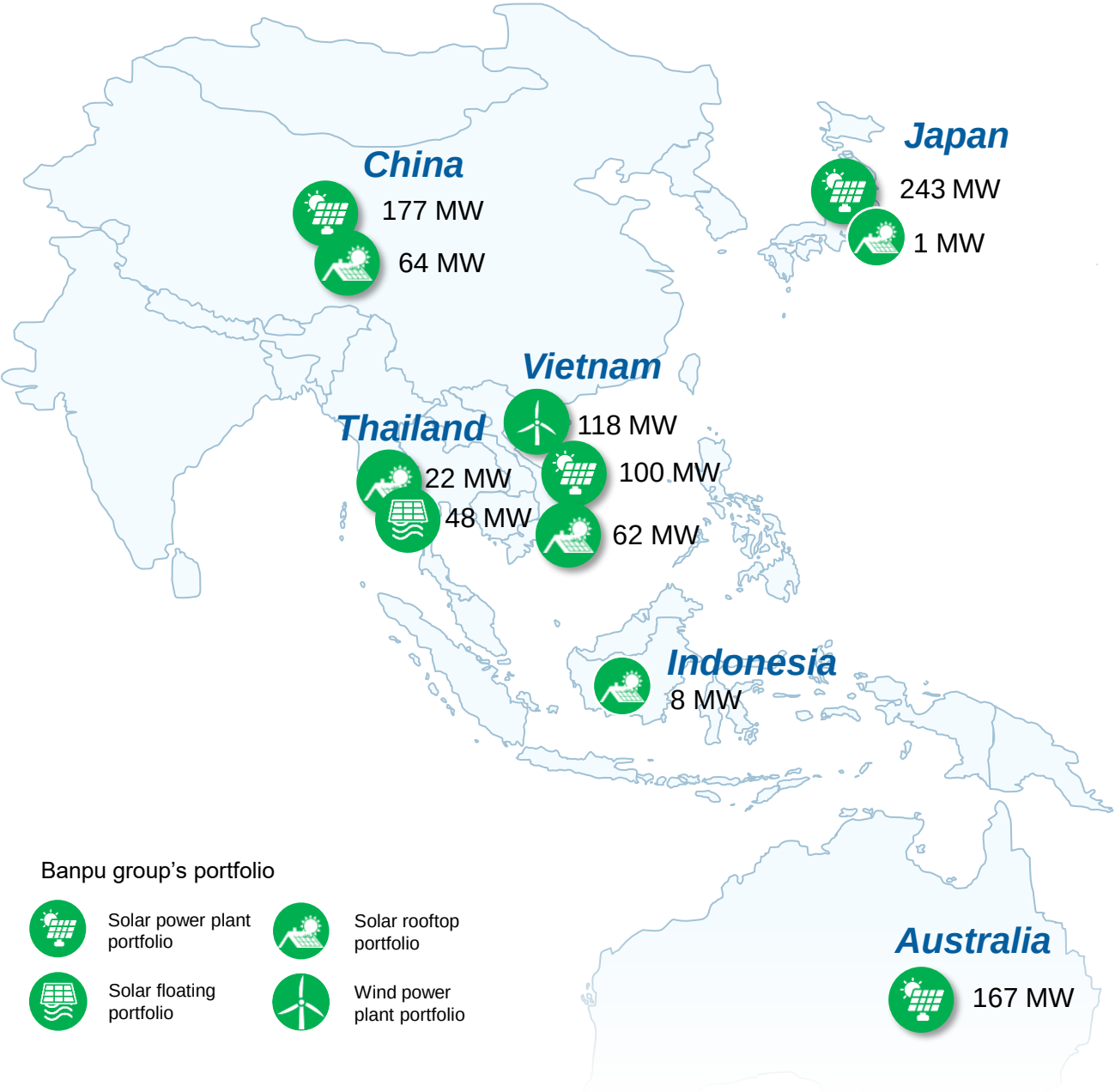


## Temple I

*Contributed strong EBITDA in 2022 supported by higher power price and increased demand during the summer peak season.*

- Reported EAF of 83% with net generation of 3,810 GWh
- Revenue reported at USD 502 M, EBITDA at USD 87 M
- Reported share of profit at USD 11 M (includes net loss from derivative USD 12 M)

# Banpu Renewable Power: diversified Asia-Pacific portfolio\*



**1,010 MW**

committed renewables capacity across Asia-Pacific



**687 MW**

committed solar power capacity



**205 MW**

committed solar rooftop and floating solar capacity



**118 MW**

committed wind capacity

Banpu group's portfolio



Solar power plant portfolio



Solar rooftop portfolio



Solar floating portfolio



Wind power plant portfolio

**Australia**



167 MW



# Renewable Power: 2022 updates



## China Solar

*Capacity factor slightly improved due to favorable weather conditions with higher power sold YoY.*

- Average capacity factor was 15%
- Power sold was 227 GWh, +2% YoY
- Reported revenue of RMB 192 M with profit contribution of RMB 51 M



## Japan Solar

*Maintained capacity factor with higher power sold from new COD projects and additional investment.*

- Average capacity factor was 12%
- Power sold was 211 GWh, +31% YoY
- Reported TK distribution of JPY 1.2 bn



## Australia Solar

*Despite facing challenges in the form of lower-than-expected irradiation in 2022, the solar farms has utilized the opportunity to optimize its operations and increase efficiency.*

- Average capacity factor was reported at 18%
- Power sold was 194 GWh
- Reported share of loss of AUD 41 M (loss from derivative of AUD 25 M)



## Vietnam Solar

*Revenue recognition for 35 MW Nhon Hai Solar Farm since June 2022.*

- Average capacity factor was 16%
- Power sold was 29 GWh
- Reported EBITDA of USD 2.3 M and share of profit of USD 0.2 M



## Vietnam Wind

### El Wind Mui Dinh

- Average capacity factor was 23%
- Power sold was 77 GWh
- Reported EBITDA of USD 7.7 M and share of loss of USD 1.8 M

### Vinh Chau project

- Completed construction and pre-commissioning activities
- On process of COD documentation with the relevant authorities





01

2022  
Highlights

02

Powering  
Ahead

03

Financial  
Summary

04

Energy  
Resources

05

Energy  
Generation

06

**Energy  
Technology**

# Energy technology: current position and future targets

2022

**SOLAR: ROOFTOPS & FLOATING**  
incl. 49% in Solar ESCO

Committed capacity

**205 MW**



Durapower investment

**1.0 GWh**

(0.7 GWh\* on equity basis)



Cherdchai Motor JV

**In progress**



**SMART CITIES & ENERGY MGMT**  
100% ownership

**20 projects**

Energy management, smart infra, etc.



**ENERGY TRADING**  
100% ownership

Electricity sales

**1,719 GWh**

(461 GWh in 4Q22)



**E-MOBILITY**

**muvmi**

Ridesharing



EV

**HAUP**

Carsharing

**evolt**

EV charging

2025  
target

**500 MW**

Li-ion battery  
production capacity  
(Total 2.7 GWh\* on equity basis)

**3.0 GWh**

**0.75 GWh\***

**30 projects**

**2,000 GWh**



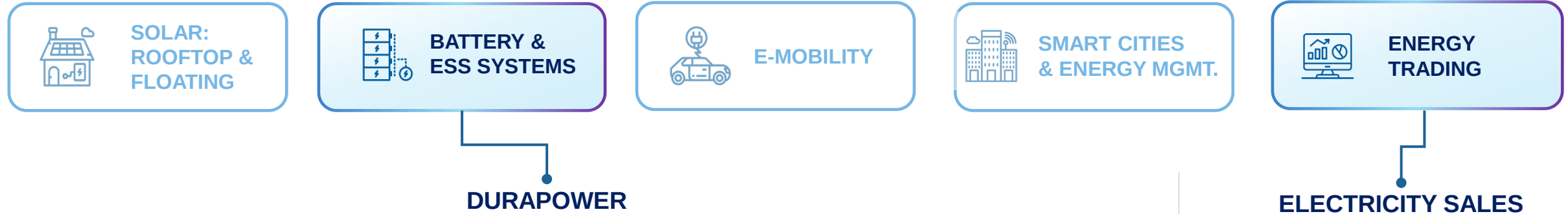
Mobility-as-a-service

2030 target

Integrated clean energy ecosystem



# Banpu Energy Technology: 4Q22 and recent updates



## BANPU NEXT

Increased stake from  
47.68% to 65.1%  
(February 2023)



**durapower**  
APPLICATIONS



## BANPU NEXT INCREASES ITS SHAREHOLDING IN DURAPOW TO ENHANCE ESS BUSINESS

Durapower, headquartered in Singapore, offers a closed-loop, end-to-end energy storage solution for the electric mobility, specialty vehicles, and stationary energy storage.

With the investment completion, Banpu NEXT increases the shareholding percentage from 47.68% to 65.1% in Durapower Holding.

### STRATEGIC RATIONALE:



Enhance Banpu NEXT's  
ESS value chain



Accelerate the scale-up of  
Durapower with capacity expansion



Synergy in market  
approach and expansion



## ENHANCED MARKETING AND SALES THROUGH MARKET LINKED PRICE OFFERING

Engaged more than 150 small to medium sized clients; in 8 utility grid areas. The indicated client group is offered to supply with market-linked re pricing with majority of supplies are in 1Q23



# Banpu Energy Technology: 4Q22 and recent updates (cont'd)



**SOLAR:  
ROOFTOP &  
FLOATING**

## SOLAR ROOFTOPS



### IBP CONTINUES SOLAR PROJECT DEVELOPMENT

IBP has signed additional solar rooftop PPA of 1 MWp in 1Q23; bringing total secured capacity to 8.24 MWp. Currently, the total installed capacity is approximately 4.3 MWp.

### ZHENGDDING SOLAR ROOFTOP DEVELOPMENT

Zhengding CHP was selected by Zhengding Government to develop solar rooftops under the 'Whole-county rooftop solar PV' Policy. It currently has a committed capacity of 64 MW with potential to increase to 167 MW by 2023.

### THAILAND SOLAR ROOFTOP PROJECTS

Delivered Choknamchai and Betagen Phase II solar rooftop projects with a total capacity of 638 kWp and operating since 4Q22.

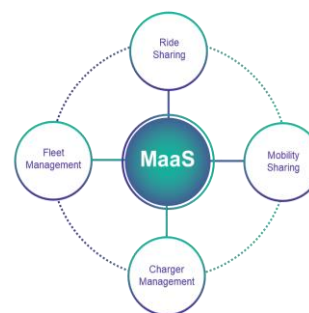


**BATTERY &  
ESS SYSTEMS**



**E-MOBILITY**

## E-MOBILITY EXPANSION



**muvmi**

**HAUP**

**evolt**

**BEYOND GREEN**

### FLEET EXPANSION

MuvMi expanded its fleet to 306 operating e-tuktuks with an additional 342 e-tuktuk under the registration process.

### FLEET MANAGEMENT FOR THE DELIVERY SERVICE SEGMENT

HAUP has expanded their advanced carsharing service to the delivery segment with a total of 65 FOMM cars provided to 65 branches of 7-11 convenient store.



**SMART CITIES  
& ENERGY MGMT.**



**ENERGY  
TRADING**

## BANPU NEXT ECOSERVE



### COMMERCIAL OPERATION OF CHILLER PLANT MANAGEMENT CONTRACT AT CHAMCHURI SQUARE

Banpu NEXT EcoServe has commenced the commercial operation of its 12-year chiller plant management contract with Chamchuri Square on the 1<sup>st</sup> of January 2023 as planned. The contract consists of an installed chiller capacity of 5,250 RT.





## APPENDIX

# Banpu: 'integrated energy solutions' 2022

## ENERGY RESOURCES

### Shale Gas



**864** MMcfed  
Net production\*

## ENERGY GENERATION

### Renewable Power



**805** MW  
Committed capacity

## ENERGY TECHNOLOGY

### Solar: Rooftop & Floating



**205** MW  
Committed capacity

### Mining



**35.2** Mt  
Coal sales

### Thermal Power



**3,253** MW  
Committed capacity

### Clean Energy Tech



**1.0 GWh** (100% basis)  
Li-ion batteries



**E-mobility services**  
**E-mobility solutions**



**Smart Cities &**  
**Energy Management**



**1,719 GWh**  
Electricity trading

# Natural gas: reserve and production term

## Reserve



### DEFINITION

- BKV utilizes oil and gas reserves definitions that conform with the definitions set forth by the United States Securities and Exchange Commission (SEC). The following are categories of oil and gas reserves: Proved Developed Producing (PDP)
  - Proved Developed Not Producing (PDNP)
  - Proved Undeveloped (adjacent to a producing well) (PUD)
  - Probable (in the same area as production but not adjacent) (PROB)
  - Possible (contingent on additional drilling) (POSS)
- Reserves have to be economically viable.

## Production



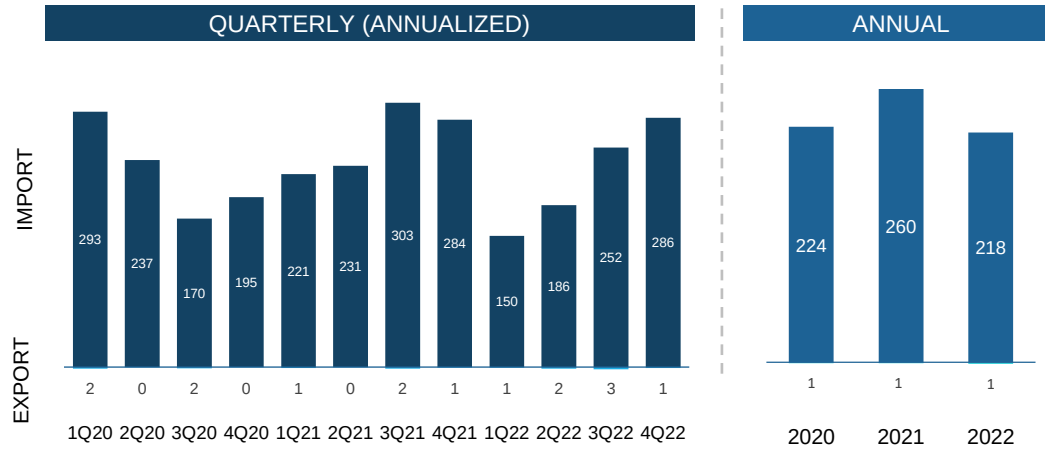
### PRODUCTION UNIT

- In the US, production is measured in 1,000 cubic feet (MCF)
  - 1,000 MCF = 1 MMCF
  - 1,000,000 MCF = 1 BCF
  - 1000 BCF = 1 TCF
  - 1 MCF = 28.3 Meters<sup>3</sup>
  - 1 MCF = 1.0 Million BTU (MMBTU) or Decatherms (dry gas)
  - 1 BCF = 1.0 Trillion BTU
  - 1 Meter<sup>3</sup> = 35.3 MCF
  - 1 Billion Meters<sup>3</sup> = 35.3 BCF

# China: shifting focus from “zero covid policy” to economic growth

## CHINA THERMAL COAL IMPORTS/EXPORTS\*

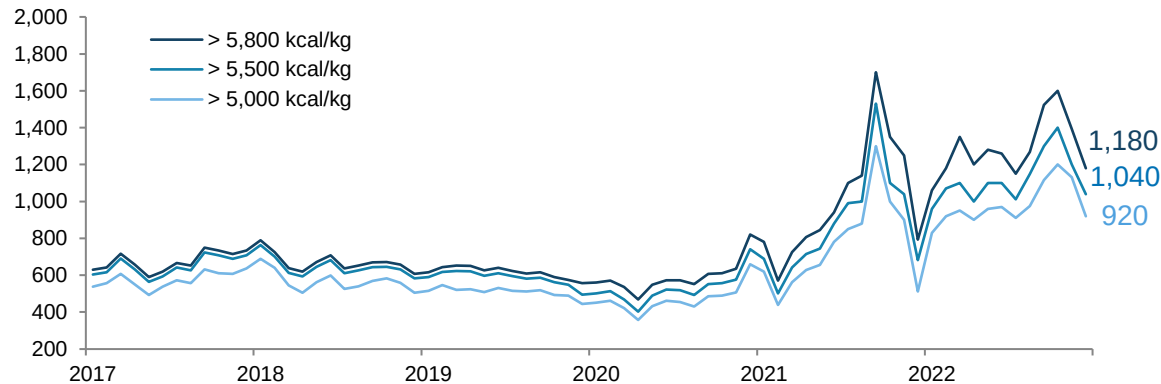
Unit: Mt



Sources: Banpu MS&L

## CHINA DOMESTIC COAL PRICES

Unit: RMB/t



Note: \* Includes lignite but excludes anthracite imports/exports  
Source: www.sxcoal.com/cn (January 13, 2023)

## 4Q22

- Coronavirus outbreak curtailed economic activity and coal demand significantly in 4Q22, resulting in a decline in domestic coal prices.
- Soaring coronavirus infections triggered intensified epidemic control measures, curbing truck transportation.
- However, the central government encouraged local officials to remove transport restrictions and urged producers to ramp up coal output to ensure sufficient coal supply for the winter.
- China's decision to eliminate nearly all major Covid measures on 7 December as an attempt to shift the country's focus to recovering the economy, has led to large-scale outbreaks in many provinces and significantly impacting economic activities.
- Warm winter led to curtailment of utility sector coal consumption while demand from industrial sector has also declined from the slowing economy.
- China has reopened itself to Australian coal imports which will likely benefit coking coal rather than thermal coal in the short-term.
- Thermal coal imports in 4Q22 recovered QoQ due to concerns over domestic coal transport restrictions.

## OUTLOOK

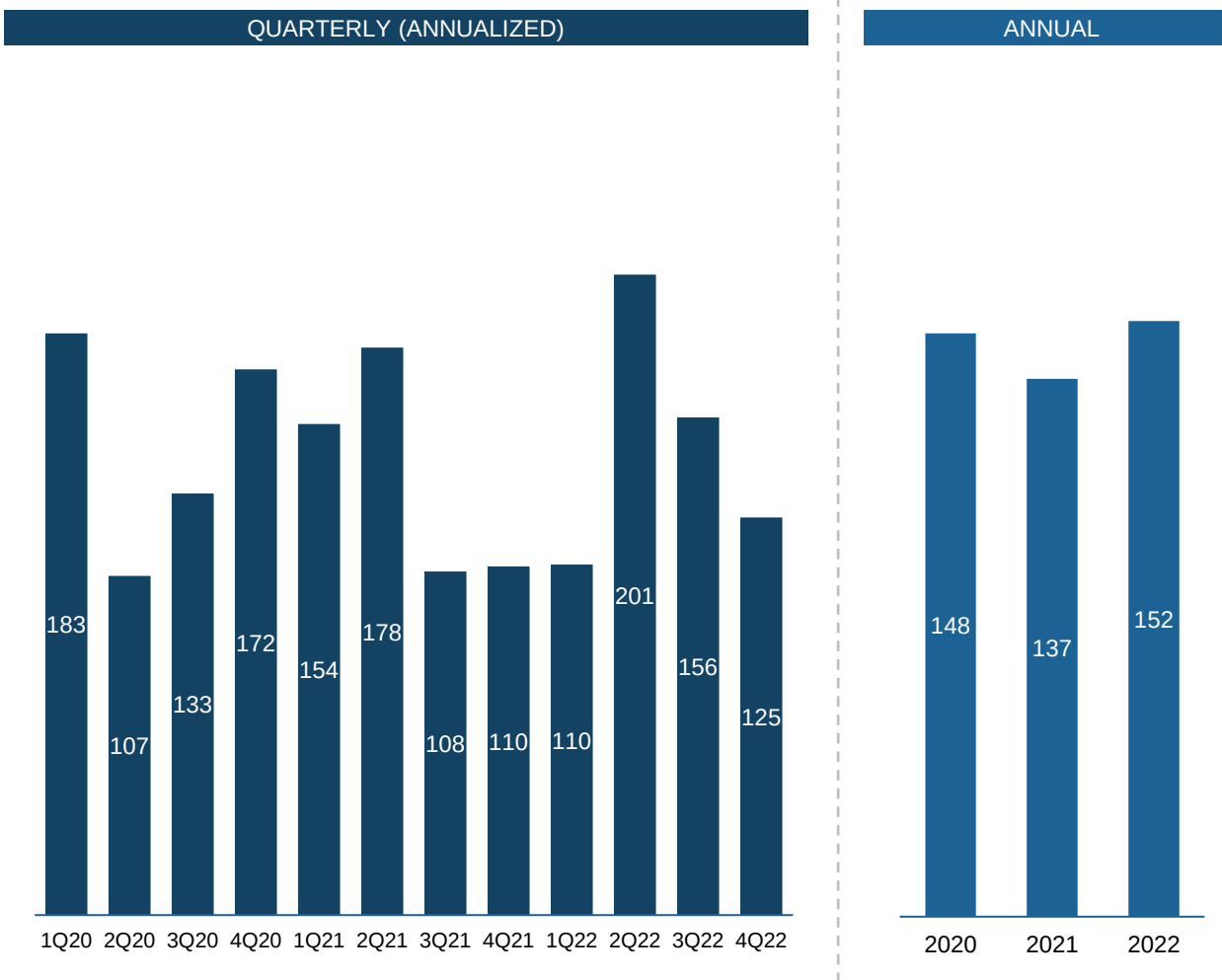
- Weak demand for coal in 1Q23, as economic activity remained slow to pick up after the Lunar New Year holiday and mild winter.
- Coal inventories remain high with expectations that strong domestic supply will pressure domestic coal prices throughout early 2023.
- Coal demand is expected to bounce back in 2Q23 due to economic recovery as there will be no lockdown.
- China scales back production growth plans for 2023 as coal quality deteriorates.
- Thermal coal import demand is expected to grow due to falling seaborne coal prices.
- Improving China-Australia relations are expected to have little impact on China's imports. However, difficulties in customs clearance still persist and have led to increasing wariness among Chinese buyers of purchasing Australian coal.



# India: high coal price slowed import interest

## INDIA THERMAL COAL IMPORTS\*

Unit: Mt



Note: \* Includes lignite grade imports  
Source: Commodity Insights, Banpu MS&L

## 4Q22

- Power demand remained robust in 4Q22 with 9% growth YoY, primarily due to an increase in heating requirements and acceleration of economic activities boosting electricity demand.
- Coal-fired generation rose by 9% YoY in 4Q22 as contributions from gas and nuclear declined.
- Domestic coal production increased by 9% YoY to 208 Mt in 4Q22.
- Government is gradually easing its policy of priority coal allocation to the power sector due to a significant improvement in domestic coal availability, which resulted in greater domestic supply to industrial consumers.
- Thermal coal import fell by 31 Mt or 20% QoQ in 4Q22 due to high international coal prices lowering import demand; bringing this year's import increase to 11%.
- The availability of discounted Russian coal continued to serve industrial buyers which resulted in significant increase of Russian coal import during the year.
- Cement makers increased import of petcoke due to its competitive price.

## Outlook

- Strengthening economic activities will keep thermal coal demand strong in 2023.
- Seasonal high power demand in 1Q23 will support coal-fired generation due to intermittency of renewables and hydro.
- We expect domestic coal supply will remain robust in 2023 to complement demand growth. However, constraints on the rail network will continue to hinder the ability of domestic supply to keep up with demand.
- Sharp falling seaborne coal prices likely to impact the growth of Russian coal in the Indian market in 2023.
- India's government issued fresh import directive to generators to import coal for 6% of their total burn during January - September to help build stocks and bridge an expected shortfall in domestic coal availability.

# Coal quarterly output summary

## AUSTRALIA OPERATIONS: COAL OUTPUT (MT) – ROM OUTPUT ON EQUITY BASIS

| Mines                       | CV (kcal/kg)* | 2Q22       | 3Q22       | 4Q22       | 1Q23e      |
|-----------------------------|---------------|------------|------------|------------|------------|
| <b>Western operations</b>   |               | <b>1.6</b> | <b>1.2</b> | <b>1.2</b> | <b>1.2</b> |
| Springvale                  | 6,700         | 1.1        | 0.7        | 0.4        | 0.9        |
| Clarence                    | 6,700         | 0.3        | 0.3        | 0.3        | 0.2        |
| Airly                       | 6,700         | 0.2        | 0.2        | 0.5        | 0.1        |
| <b>Northern operations</b>  |               | <b>1.2</b> | <b>1.1</b> | <b>0.6</b> | <b>0.9</b> |
| Mandalong                   | 6,700         | 1.0        | 0.8        | 0.3        | 0.6        |
| Myuna                       | 6,700         | 0.2        | 0.3        | 0.3        | 0.3        |
| <b>Total Australia coal</b> |               | <b>2.8</b> | <b>2.3</b> | <b>1.8</b> | <b>2.1</b> |

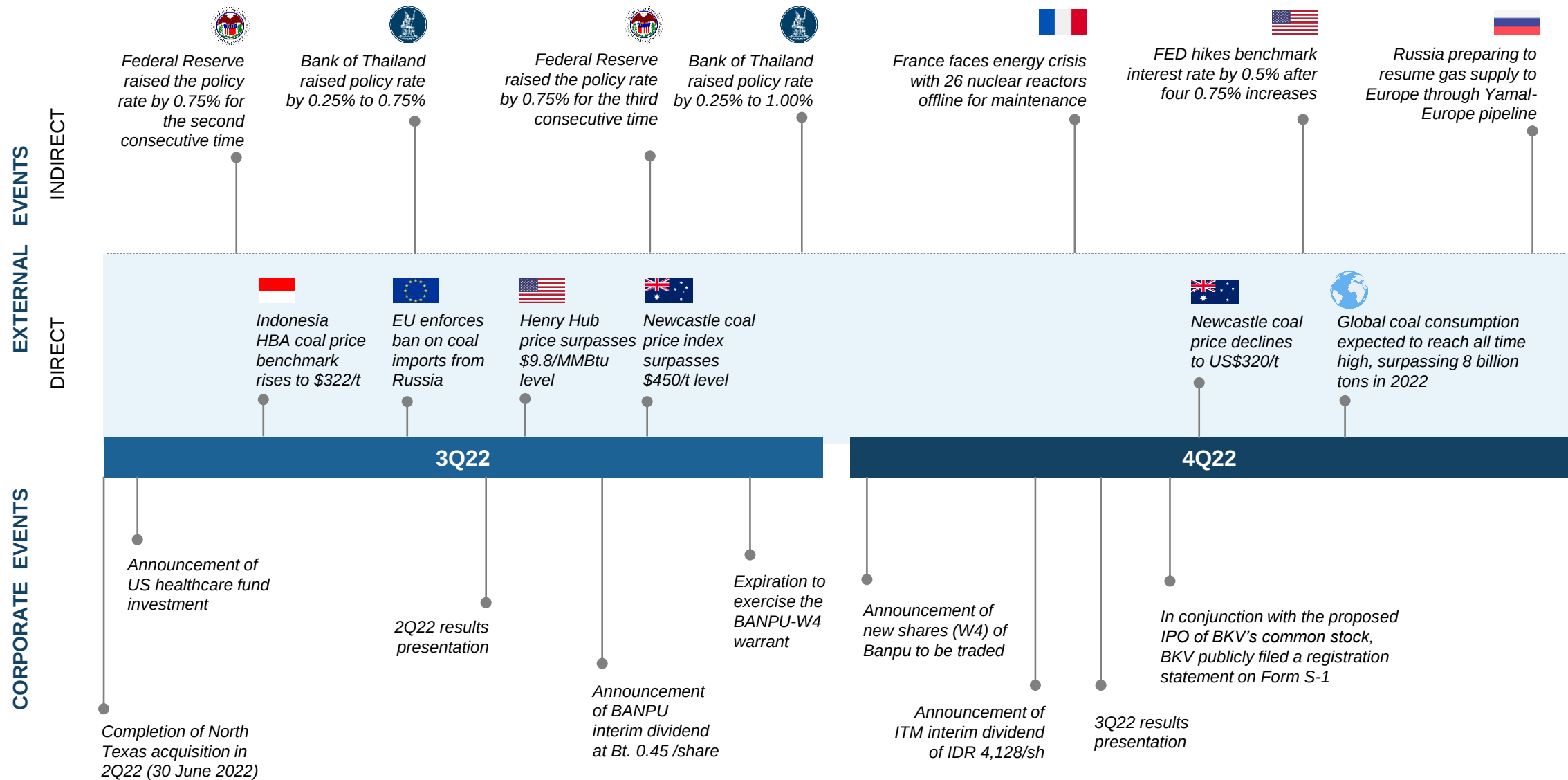
## INDONESIA OPERATIONS: COAL OUTPUT (MT) – ROM OUTPUT ON 100% BASIS

| Mines                       | CV (kcal/kg)* | 2Q22        |                      | 3Q22        |                      | 4Q22        |                      | 1Q23e       |                      |
|-----------------------------|---------------|-------------|----------------------|-------------|----------------------|-------------|----------------------|-------------|----------------------|
|                             |               | Output (Mt) | Strip ratios (bcm/t) | Output (Mt) | Strip ratios (bcm/t) | Output (Mt) | Strip ratios (bcm/t) | Output (Mt) | Strip ratios (bcm/t) |
| Indominco                   | 5,950 – 6,250 | 1.7         | 10.3                 | 2.0         | 8.9                  | 1.6         | 10.5                 | 1.4         | 13.0                 |
| Trubaindo                   | 6,550 – 6,700 | 0.7         | 14.7                 | 0.9         | 10.8                 | 0.8         | 12.7                 | 0.6         | 16.7                 |
| Bharinto                    |               | 1.2         | 7.9                  | 1.6         | 10.6                 | 1.8         | 10.4                 | 1.7         | 9.3                  |
| Jorong                      | 5,300         | 0.2         | 16.2                 | 0.2         | 17.4                 | 0.2         | 15.5                 | 0.1         | 11.3                 |
| <b>Total Indonesia coal</b> |               | <b>3.9</b>  | <b>10.6</b>          | <b>4.6</b>  | <b>10.2</b>          | <b>4.3</b>  | <b>11.0</b>          | <b>3.8</b>  | <b>11.8</b>          |

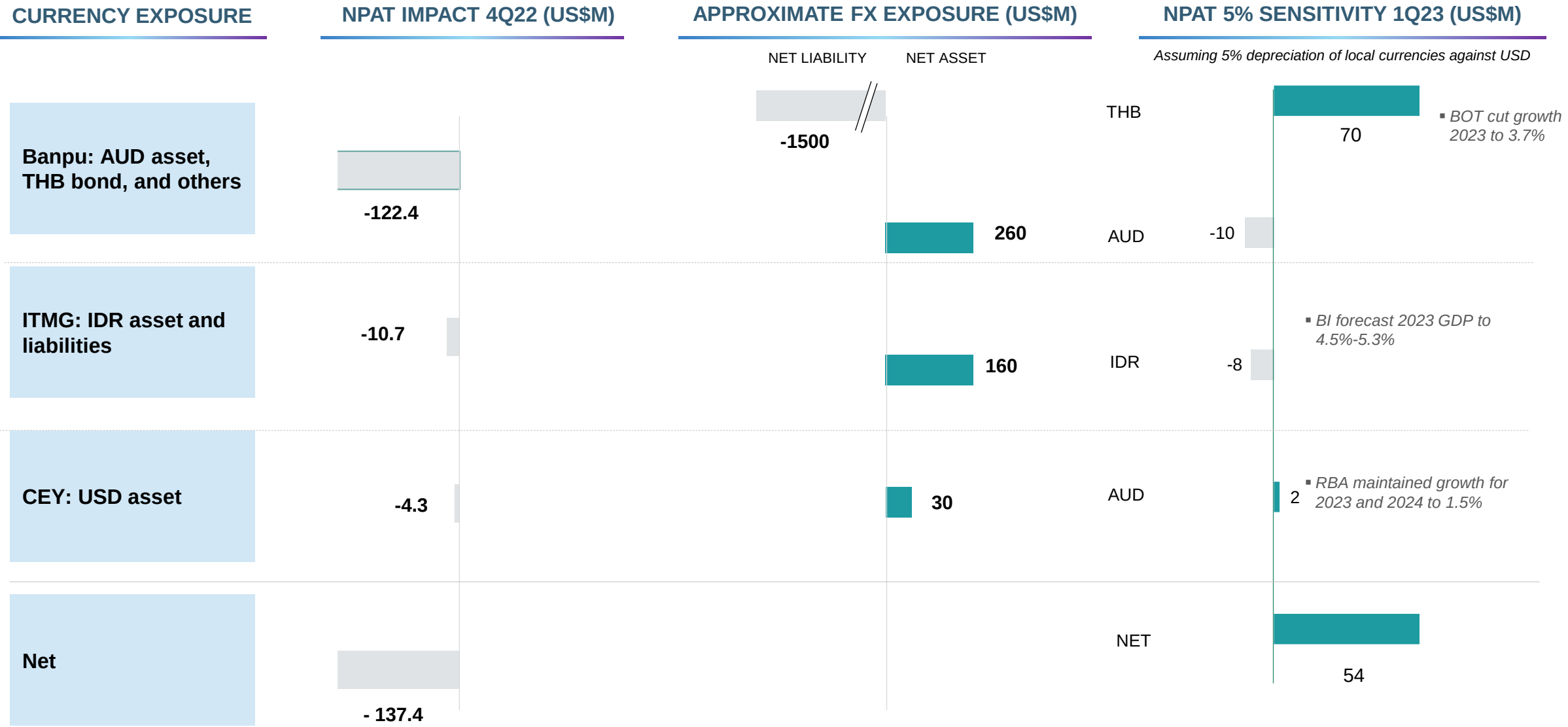
## CHINA OPERATIONS: COAL OUTPUT (MT) – ROM OUTPUT ON 100% BASIS

| Mines                   | CV (kcal/kg)* | 2Q22       | 3Q22       | 4Q22       | 1Q23e      |
|-------------------------|---------------|------------|------------|------------|------------|
| Gaohe                   |               | 2.3        | 2.3        | 2.3        | 2.4        |
| Hebi                    |               | 0.2        | 0.3        | 0.2        | 0.3        |
| <b>Total China coal</b> |               | <b>2.5</b> | <b>2.6</b> | <b>2.5</b> | <b>2.7</b> |

# Key external and corporate events



# FX impact analysis guidance on P&L

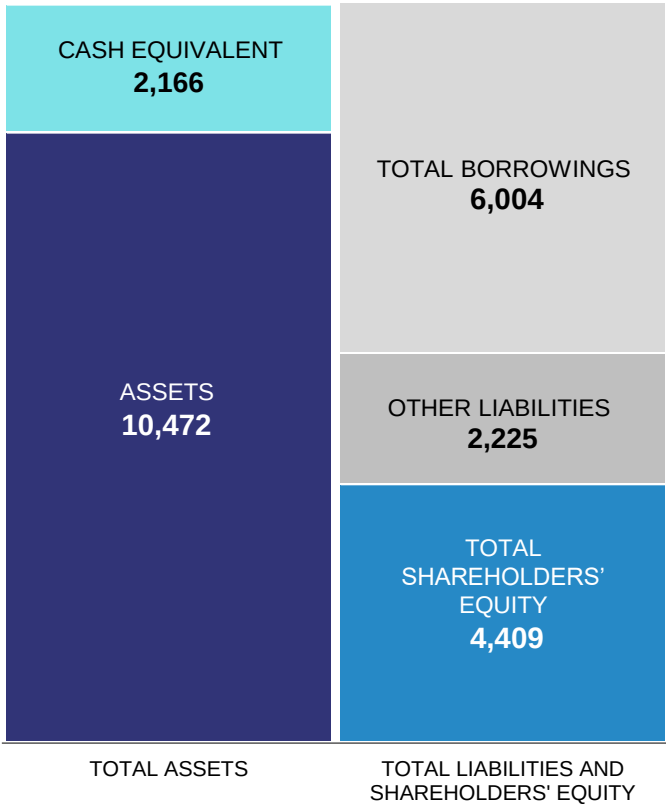




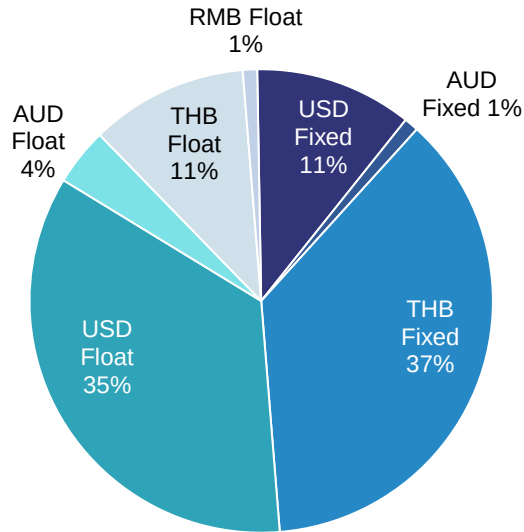
# Banpu consolidated balance sheet – 2022

## 2022 CONSOLIDATED FINANCIAL POSITION

USD million

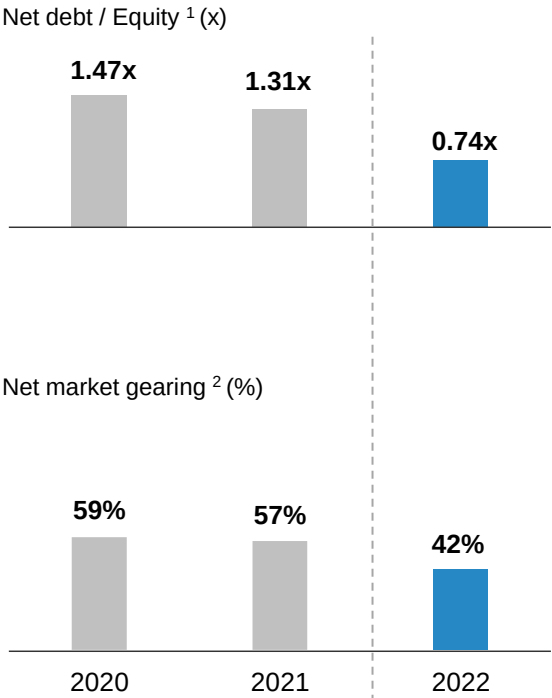


## DEBT FX STRUCTURE



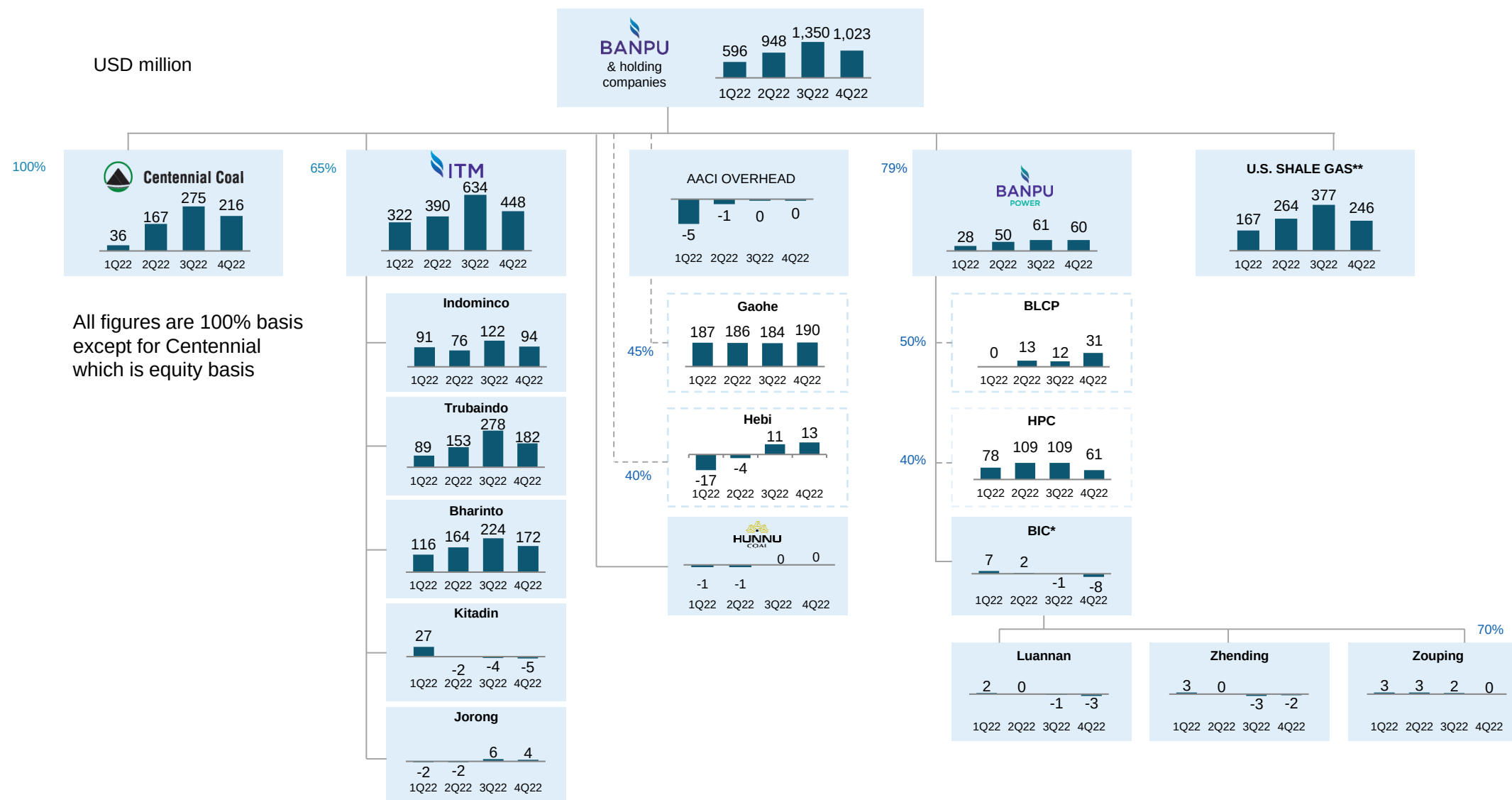
Total gross debt: US\$6,004 million  
As of 31 December 2022

## GEARING RATIOS



Note:  
1 Net debt to book value of shareholders' equity  
2 Net debt to enterprise value (enterprise value = net debt + book value of shareholders' equity)

# Banpu group EBITDA breakdown



Note: all ownership 100% unless otherwise shown

\*BIC = Banpu Investment China

\*\* IFRS EBITDA. Significant differences between IFRS and BKV US GAAP EBITDAX include treatment of derivative gains and losses, depletion expense, accretion expense, stock compensation expense, BNAC expenses, equity income, and contingent consideration gains and losses of asset acquisitions;

Consolidated NOT consolidated

# Banpu group net debt breakdown



Note: all ownership 100% unless otherwise shown

\*BIC = Banpu Investment China

# Banpu consolidated: operating profit

| USD million                  | 2022           | 2021           | YoY%         |
|------------------------------|----------------|----------------|--------------|
| <b>Total sales revenues*</b> | <b>7,693</b>   | <b>4,124</b>   | <b>+87%</b>  |
| Sales revenue – Coal**       | 5,190          | 2,909          | +78%         |
| Sales revenue – Gas          | 1,658          | 890            | +86%         |
| Sales revenue – Power        | 746            | 244            | +206%        |
| <b>Cost of sales</b>         | <b>(3,616)</b> | <b>(2,393)</b> |              |
| <b>Gross Profit*</b>         | <b>4,077</b>   | <b>1,731</b>   | <b>+136%</b> |
| Gross profit – Coal**        | 2948           | 1251           | +136%        |
| Gross profit – Gas           | 1019           | 477            | +113%        |
| Gross profit – Power         | 87             | 15             | +491%        |
| <b>GPM</b>                   | <b>53%</b>     | <b>42%</b>     |              |
| <i>GPM – Coal</i>            | <i>57%</i>     | <i>43%</i>     |              |
| <i>GPM – Gas</i>             | <i>61%</i>     | <i>54%</i>     |              |
| <i>GPM – Power</i>           | <i>12%</i>     | <i>6%</i>      |              |



# Banpu consolidated: operating profit

| USD million                | 2022         | 2021         | YoY%         |
|----------------------------|--------------|--------------|--------------|
| <b>Gross Profit</b>        | <b>4,077</b> | <b>1,731</b> | <b>+136%</b> |
| <b>GPM</b>                 | <b>53%</b>   | <b>42%</b>   |              |
| SG&A                       | (595)        | (423)        |              |
| Royalty                    | (592)        | (294)        |              |
| Income from associates     | 339          | 231          |              |
| Other income and Dividend  | 77           | 56           |              |
| Mining property            | (23)         | (31)         |              |
| <b>EBIT</b>                | <b>3,282</b> | <b>1,271</b> | <b>+158%</b> |
| EBIT – Coal                | 2,256        | 805          | n.a.         |
| EBIT – Gas                 | 875          | 400          | n.a.         |
| EBIT – Power               | 183          | 86           | +113%        |
| EBIT – Energy Technology   | (32)         | (20)         | n.a.         |
| <b>EBITDA</b>              | <b>3,916</b> | <b>1,778</b> | <b>+120%</b> |
| EBITDA – Coal              | 2,654        | 1,169        | +127%        |
| EBITDA – Gas               | 1,052        | 508          | +107%        |
| EBITDA – Power             | 231          | 109          | +113%        |
| EBITDA – Energy Technology | (22)         | (8)          | n.a.         |

# Banpu consolidated: net profit

| USD million                             | 2022         | 2021         | YoY%         |
|-----------------------------------------|--------------|--------------|--------------|
| <b>EBIT</b>                             | <b>3,282</b> | <b>1,271</b> | <b>+158%</b> |
| Interest expenses                       | (257)        | (174)        |              |
| Financial expenses                      | (8)          | (10)         |              |
| Income tax (core business)              | (342)        | (162)        |              |
| Minorities                              | (461)        | (189)        |              |
| <b>Net profit before extra items</b>    | <b>2,215</b> | <b>736</b>   | <b>+201%</b> |
| Non-recurring items*                    | (62)         | (26)         |              |
| Gain (Loss) on Derivatives Transactions | 816          | (445)        |              |
| Income tax (non - core business)        | 42           | (10)         |              |
| Deferred tax income (expenses)          | 137          | (26)         |              |
| <b>Net profit before FX</b>             | <b>1,158</b> | <b>230</b>   | <b>+402%</b> |
| FX translation                          | (5)          | 74           |              |
| <b>Net Profit</b>                       | <b>1,162</b> | <b>304</b>   | <b>+282%</b> |
| EPS (US\$/share)                        | 0.162        | 0.049        |              |

# Banpu consolidated: operating profit

| USD million                  | 4Q22         | 3Q22         | 4Q21         | QoQ%  | YoY%  |
|------------------------------|--------------|--------------|--------------|-------|-------|
| <b>Total sales revenues*</b> | <b>2,268</b> | <b>2,397</b> | <b>1,427</b> | -5%   | +59%  |
| Sales revenue – Coal**       | 1,465        | 1,659        | 991          | -12%  | +48%  |
| Sales revenue – Gas          | 420          | 573          | 314          | -27%  | +34%  |
| Sales revenue – Power        | 333          | 149          | 102          | +124% | +226% |
| Cost of sales                | (1,145)      | (964)        | (735)        |       |       |
| <b>Gross Profit*</b>         | <b>1,123</b> | <b>1,433</b> | <b>692</b>   | -22%  | +62%  |
| Gross profit – Coal**        | 833          | 1,026        | 503          | -19%  | +66%  |
| Gross profit – Gas           | 231          | 380          | 199          | -39%  | +16%  |
| Gross profit – Power         | 37           | 22           | (4)          | +67%  | n.a.  |
| <b>GPM</b>                   | <b>50%</b>   | <b>60%</b>   | <b>49%</b>   |       |       |
| <i>GPM – Coal</i>            | <i>57%</i>   | <i>62%</i>   | <i>51%</i>   |       |       |
| <i>GPM – Gas</i>             | <i>55%</i>   | <i>66%</i>   | <i>63%</i>   |       |       |
| <i>GPM – Power</i>           | <i>11%</i>   | <i>15%</i>   | <i>-4%</i>   |       |       |

# Banpu consolidated: operating profit

| USD million                | 4Q22         | 3Q22         | 4Q21       | QoQ% | YoY%  |
|----------------------------|--------------|--------------|------------|------|-------|
| <b>Gross Profit</b>        | <b>1,123</b> | <b>1,433</b> | <b>692</b> | -22% | +62%  |
| <b>GPM</b>                 | <b>50%</b>   | <b>60%</b>   | <b>49%</b> |      |       |
| SG&A                       | (210)        | (157)        | (124)      |      |       |
| Royalty                    | (168)        | (208)        | (106)      |      |       |
| Income from associates     | 104          | 92           | 57         |      |       |
| Other income and Dividend  | 30           | 14           | 19         |      |       |
| Mining property            | (1)          | (9)          | (6)        |      |       |
| <b>EBIT</b>                | <b>877</b>   | <b>1,165</b> | <b>531</b> | -25% | +65%  |
| EBIT – Coal                | 644          | 783          | 344        | -18% | +87%  |
| EBIT – Gas                 | 190          | 326          | 179        | -42% | +6%   |
| EBIT – Power               | 50           | 61           | 18         | -19% | +180% |
| EBIT – Energy Technology   | (7)          | (6)          | (10)       | n.a. | n.a.  |
| <b>EBITDA</b>              | <b>1,023</b> | <b>1,350</b> | <b>666</b> | -24% | +54%  |
| EBITDA – Coal              | 722          | 902          | 439        | -20% | +65%  |
| EBITDA – Gas               | 246          | 377          | 207        | -35% | +19%  |
| EBITDA – Power             | 60           | 74           | 27         | -19% | +122% |
| EBITDA – Energy Technology | (4)          | (4)          | (7)        | n.a. | n.a.  |



# Banpu consolidated: net profit

| USD million                             | 4Q22       | 3Q22         | 4Q21       | QoQ% | YoY% |
|-----------------------------------------|------------|--------------|------------|------|------|
| <b>EBIT</b>                             | <b>877</b> | <b>1,165</b> | <b>531</b> | -25% | +65% |
| Interest expenses                       | (80)       | (73)         | (47)       |      |      |
| Financial expenses                      | (2)        | (2)          | (2)        |      |      |
| Income tax (core business)              | (83)       | (124)        | (76)       |      |      |
| Minorities                              | (112)      | (167)        | (81)       |      |      |
| <b>Net profit before extra items</b>    | <b>599</b> | <b>798</b>   | <b>325</b> | -25% | +84% |
| Non-recurring items*                    | (404)      | (8)          | (12)       |      |      |
| Gain (Loss) on Derivatives Transactions | (126)      | (248)        | (215)      |      |      |
| Income tax (non - core business)        | (24)       | (2)          | (8)        |      |      |
| Deferred tax income (expenses)          | 85         | (133)        | 26         |      |      |
| <b>Net profit before FX</b>             | <b>130</b> | <b>408</b>   | <b>115</b> | -68% | +13% |
| FX translation                          | (137)      | 79           | (11)       |      |      |
| <b>Net Profit</b>                       | <b>(7)</b> | <b>487</b>   | <b>105</b> | n.a. | n.a. |
| EPS (US\$/share)                        | (0.001)    | 0.072        | 0.017      |      |      |

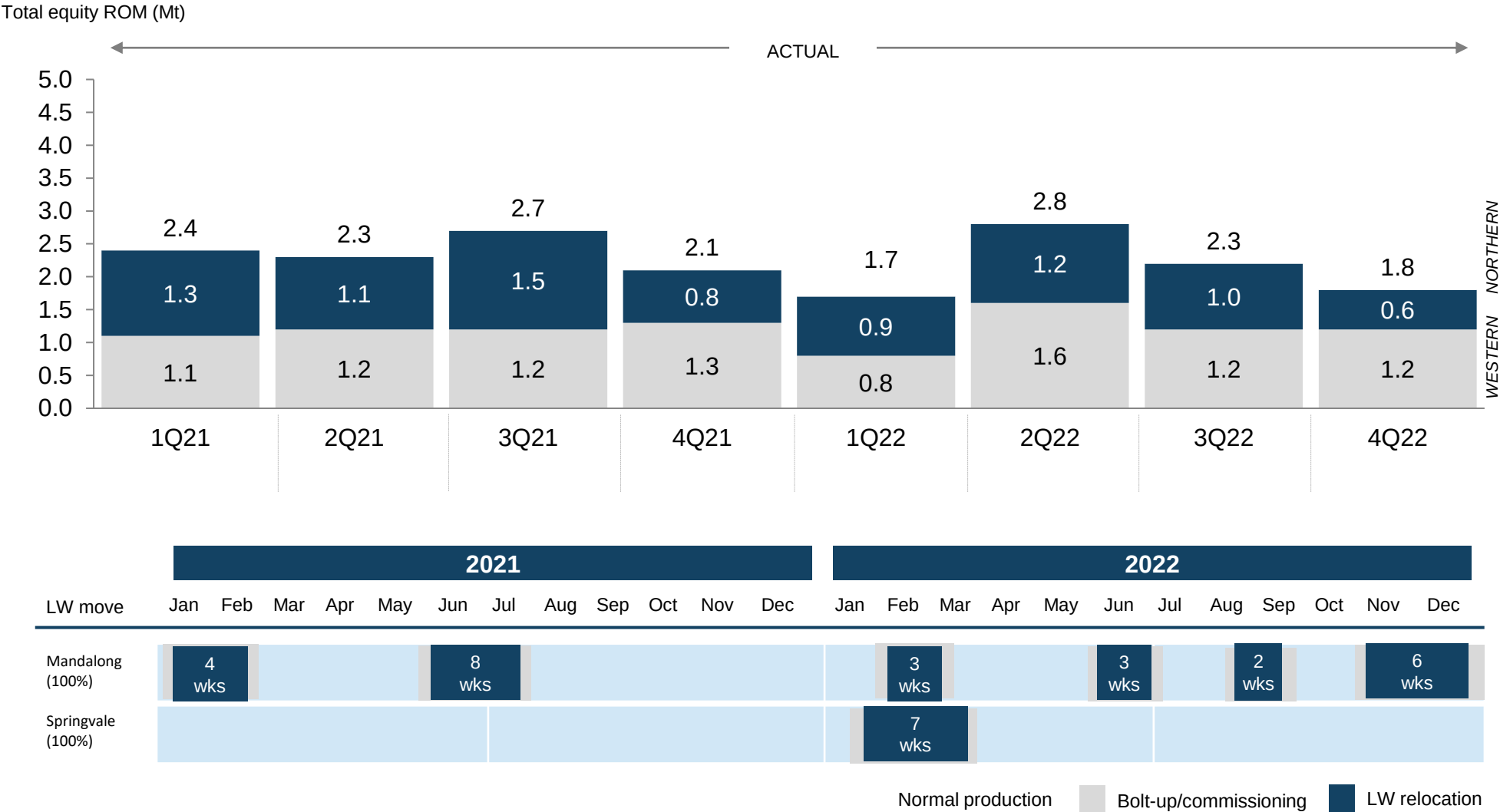
# Centennial: income statement

| USD million                  | 2022         | 2021           | YoY%  |
|------------------------------|--------------|----------------|-------|
| <b>Sales volume (Mt)</b>     | <b>8.5</b>   | <b>9.8</b>     | -13%  |
| Sales revenue                | 1,253.3      | 727.7          | +72%  |
| Cost of Sales                | (773.5)      | (677.0)        |       |
| <b>Gross Profit</b>          | <b>479.8</b> | <b>50.7</b>    | +846% |
| GPM                          | 38%          | 7%             |       |
| SG&A                         | (104.4)      | (96.6)         |       |
| Royalty                      | (78.5)       | (46.6)         |       |
| Other income                 | 7.4          | 8.6            |       |
| Other expenses               | -            | -              |       |
| <b>EBIT</b>                  | <b>304.2</b> | <b>(84.0)</b>  | n.a.  |
| Interest expenses            | (38.1)       | (24.8)         |       |
| Financial expenses           | (2.7)        | (4.6)          |       |
| Gain (loss) on exchange rate | (10.5)       | (6.7)          |       |
| Gain (loss) on derivative    | (50.2)       | (63.2)         |       |
| Corporate income tax         | (0.0)        | 0.0            |       |
| Deferred tax income          | (61.0)       | 58.1           |       |
| <b>Net Profit</b>            | <b>141.8</b> | <b>(125.1)</b> | n.a.  |

# Centennial: income statement

| USD million                  | 4Q22         | 3Q22         | 4Q21          | QoQ% | YoY%    |
|------------------------------|--------------|--------------|---------------|------|---------|
| <b>Sales volume (Mt)</b>     | <b>2.0</b>   | <b>2.3</b>   | <b>2.2</b>    | -13% | -10%    |
| Sales revenue                | 374.8        | 388.5        | 205.3         | -4%  | +83%    |
| Cost of Sales                | (194.7)      | (221.3)      | (194.4)       |      |         |
| <b>Gross Profit</b>          | <b>180.1</b> | <b>167.2</b> | <b>10.9</b>   | +8%  | +1,552% |
| GPM                          | 48%          | 43%          | 5%            |      |         |
| SG&A                         | (30.0)       | (28.2)       | (25.0)        |      |         |
| Royalty                      | (23.5)       | (24.7)       | (12.6)        |      |         |
| Other income                 | 2.6          | 1.2          | 2.1           |      |         |
| Other expenses               | -            | -            | -             |      |         |
| <b>EBIT</b>                  | <b>129.2</b> | <b>115.5</b> | <b>(24.6)</b> | +12% | n.a.    |
| Interest expenses            | (10.1)       | (10.9)       | (7.9)         |      |         |
| Financial expenses           | (1.0)        | (0.6)        | (0.9)         |      |         |
| Gain (loss) on exchange rate | (4.4)        | (2.5)        | 7.6           |      |         |
| Gain (loss) on derivative    | (6.7)        | (8.0)        | (14.0)        |      |         |
| Corporate income tax         | (0.0)        | -            | -             |      |         |
| Deferred tax income          | (32.3)       | (27.9)       | 15.2          |      |         |
| <b>Net Profit</b>            | <b>74.7</b>  | <b>65.7</b>  | <b>(24.6)</b> | +14% | n.a.    |

# Australia coal: quarterly equity rom output



Note: 1. Production generally responds to the timing of longwall changeovers (i.e., lower production results during a longwall changeover period)  
2. As of 1 December 2019, Centennial's economic interest in each of Angus Place and Springvale became 100%.



