2Q21 results

Opportunity Day

23rd August 2021

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Highlights 2Q21	Focus: Banpu Transformation	Financial Summary	Energy Resources	Energy Generation	Energy Technology

2Q21 highlights

BANPU

Accelerating the Banpu Transformation

Additional investments in Greener, Smarter businesses through investments in:

Australia Solar
Beryl and Manildra solar farm in Australia with total capacity of **167 MW**

US Power
Signed PSA for the acquisition of natural gas power plant in Texas, Temple I CCGT with total capacity of **768 MW***

Strong cash flow generation across businesses

EBITDA improved by **12%** from last quarter with higher contribution from Coal and Gas businesses

Capital raising for future Greener, Smarter growth

Equity and debenture issuance to accelerate Greener, Smarter transformation

Continued increase in commodity price levels

Gas price increased to **$3.79/MMBtu** and coal price increased to **$131/t** for the quarter, driven by increasing demand and supply tightness

Innovating the energy ecosystem of the future

Continued implementation of solar rooftop and floating solutions, expansion of energy trading business and launch of new energy solutions

Note: *signed Purchase and Sale Agreement, deal closing in 4Q21

Banpu: continued ESG leadership and credit rating recognition

BANPU

ESG RATING

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

The DJSI, managed by S&P Global, is the leading international standard for corporate sustainability

Gold
Class on SAM Sustainability Award since 2015. In 2020, Banpu's combined ESG performance scores were 3x the industry average

MSCI ESG RATINGS A

CCC	B	BB	BBB	A	AA	AAA

The MSCI ESG Ratings is managed by MSCI, one of the most experienced ESG performance measuring agencies

A
ratings for having a track record of managing the most significant ESG risks and opportunities relative to peers

Sustainability Award
Gold Class 2021
S&P Global

The Sustainability Yearbook 2021, published by S&P Global, showcases the sustainability performance of top companies

Gold
Class distinction, achieving an ESG score within 1% of the industry's top-performing company's score

THSI
THAILAND SUSTAINABILITY INVESTMENT 2020

The THSI, prepared by SET, shortlists Thai companies following the highest ESG standards

5th
consecutive year included in the THSI for sustainable operations in-line with responsible investment principles

Asia Sustainability Reporting Awards
Asia's Best SDG Reporting
SILVER 2020
asra

The ASRA, organized by CSRWorks International, is one of the most prestigious awards for corporate reporting in Asia

Silver
Class in Asia's Best SDG Reporting in 2020 for implementing strategy to support and achieve UN Sustainable Development Goals

V.E
PART OF Moody's ESG Solutions
BEST EMERGING MARKET PERFORMERS

Ranking assessment by V.E, part of Moody's ESG Solutions, that recognizes companies in Emerging Markets for their ESG performance

Best Performer
Recognized as one of the top 100 Best Emerging Market Performers, out of a universe of 843 companies from 31 different countries

CREDIT RATING

TRIS RATING
A Strategic Partner of S&P Global

As a strategic partner of S&P Global, Tris Rating has over 20-year experience as a leading credit rating agency in Thailand

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

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The Global Energy Transition: driven by natural gas and renewables

BANPU

NATURAL GAS DEMAND

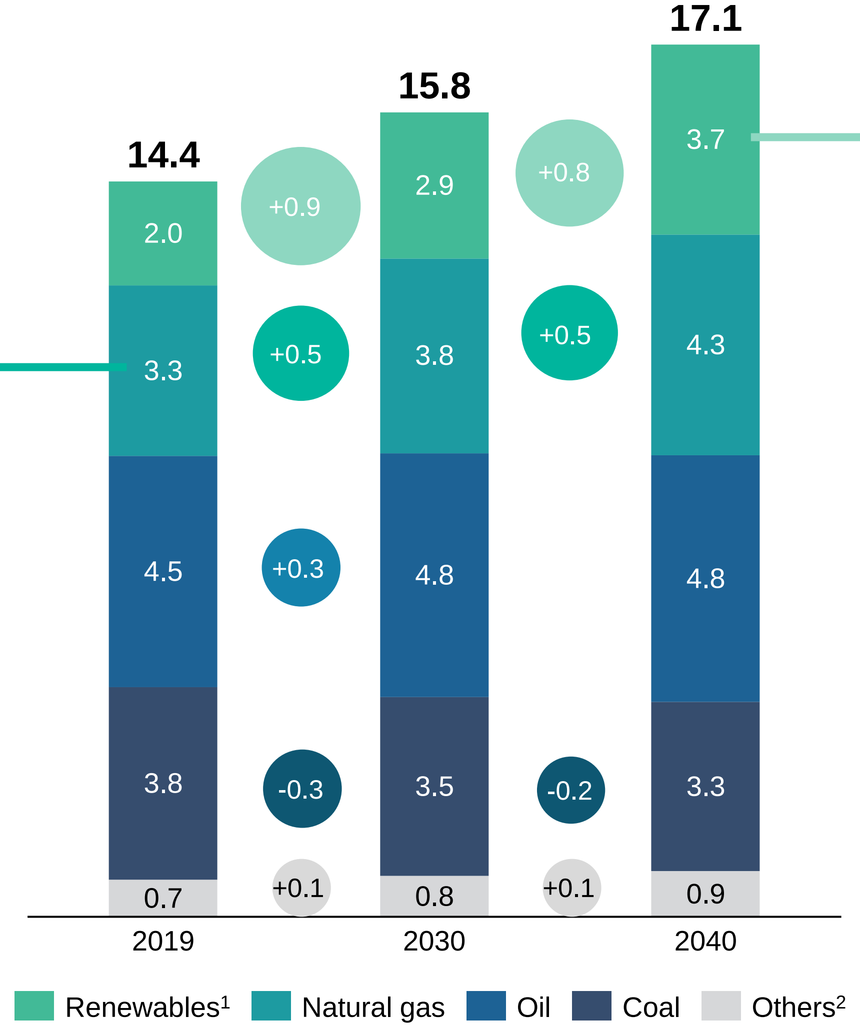
	2019	2040
USA	730 Mtoe	750 Mtoe
APAC	700 Mtoe	1,250 Mtoe

“Almost half of the increase in gas demand to 2024 is expected to come from the Asia Pacific region, driven by China and India as well as by emerging markets in South and Southeast Asia...North America’s gas production to account for about a quarter of global supply growth to 2024.”

iea

WORLD PRIMARY ENERGY DEMAND, BY FUEL

Unit: Btoe



RENEWABLE INSTALLED CAPACITY

	2019	2040
GLOBAL	2,700 GW	7,750 GW
APAC	1,230 GW	4,400 GW

“Renewable energy and energy efficiency will work in synergy to drive global energy decarbonisation.”

IRENA International Renewable Energy Agency

“Around $15.1 Tn is invested in new power capacity to 2050 in our Economic Transition Scenario... Around $11 Tn, or 73%, goes to renewables ...Asia Pacific sees 45% of all new capital…”

BloombergNEF

Note: (1) Renewables include hydro, modern bioenergy, wind, solar, geothermal, and marine (2) Others include nuclear and solid biomass

Source: IEA WEO 2020 Stated Policies Scenario, AWR Lloyd analysis

Banpu's Greener, Smarter strategy: harnessing the 3Ds

Global
3Ds
Megatrends

Decarbonization

Reducing carbon emissions through government policies, benchmarking systems, and stakeholders - from investors to consumers - prioritising environmental impact.

Decentralization

Shifting from large, centralized generation plants to dispersed generation from a mix of smaller generators to improve energy security, lower prices, and reduce GHG emissions.

Digitalization

Using cutting-edge technology to optimize increasingly complex energy generation, transmission and distribution systems, such as energy efficiency technology and battery storage.

BANPU AND THE 3Ds

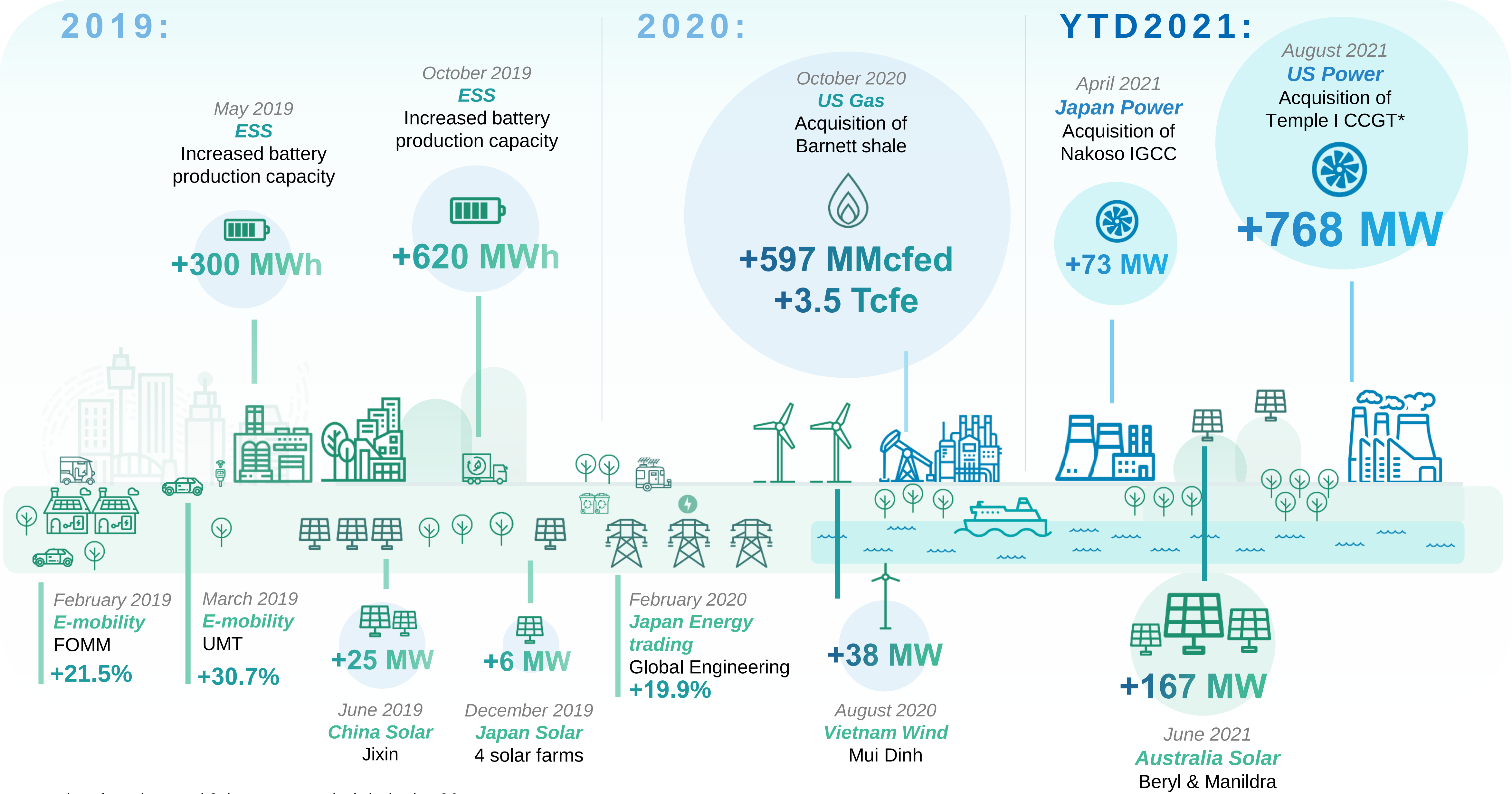
Portfolio of renewable power plants including **solar** and **wind farms, gas assets, electric vehicles, HELE** and **CCGT power plants**

Driving **decentralized energy generation** and storage through **solar rooftop installation**, **energy storage systems**, and **smart city** development

Development of **energy management systems, operational excellence**, **energy trading**, and **e-mobility solutions**

Banpu: major ongoing transformation 2019-21

BANPU



Note: *signed Purchase and Sale Agreement, deal closing in 4Q21

Greener investments in 2Q21

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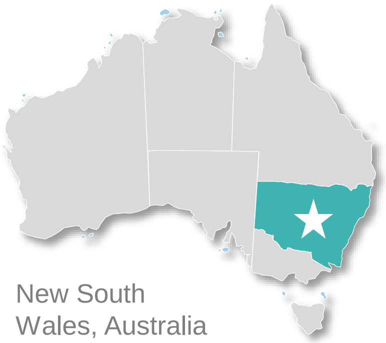
AUSTRALIAN SOLAR (+167 MW)



New South Wales, Australia

BERYL & MANILDRA SOLAR FARM (US$75 M)

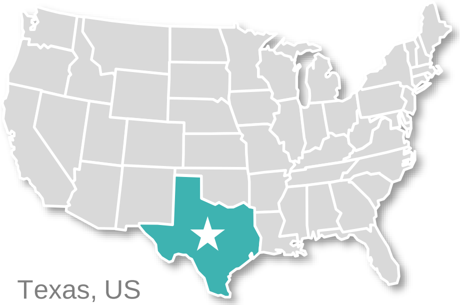
June 2021

Acquisition of operating assets generating immediate steady revenue streams

First step into Australian power market with potential to further expand Banpu's power portfolio

Expansion of energy ecosystem in Australia aligning with Banpu's synergistic growth strategy

U.S. GAS-FIRED POWER (+768 MW)*



Texas, US

TEMPLE I CCGT POWER PLANT (US$430 M**)

August 2021

Immediate cashflow contribution with a track record of consistent operational performance

State-of-the-art technology well-positioned to capture potential upside from market dynamics

Potential upside through synergies with Barnett shale through direct gas supply

Note: *signed Purchase and Sale Agreement, deal closing in 4Q21, **subject to adjustment in accordance with the Purchase and Sale Agreement

Banpu: Greener, Smarter 2025 portfolio targets

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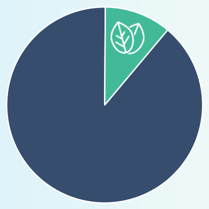
ENERGY RESOURCES — ENERGY GENERATION — ENERGY TECH

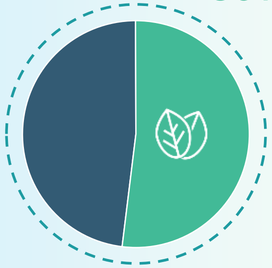
MINING	GAS	THERMAL	HELE	RE	ESS	E-MOBILITY / SMART CITIES	ENERGY TRADING / BEHIND-THE-METER SOLUTIONS
CLEAN TECH MINERALS NATURAL CAPITAL CONSERVA-TION/ CARBON CREDITS	SYNGERGISTIC GAS VALUE CHAIN & EXPANDING UPSTREAM GAS		GREENER GENERATION: EXPAND	RENEW-ABLES: EXPAND	ENERGY TECHNOLOGY: EXPAND INCLUDING POTENTIAL VPP & DATA CENTER BUSINESSES		

GROUP EBITDA BY BUSINESS



2020

GREENER BUSINESS >50%



2025

LEADING OUR TRANSFORMATION WITH ESG PRINCIPLES

Banpu: funding an accelerated transformation 2021-25

CAPITAL RAISING

- *30 Jun* Announced rights offering
- *17 Jul* Announced Debenture issuance
- *30 Jul & 2-3 Aug* Debenture subscription period
- *9 Aug* EGM of shareholders
- *17 Aug* Record date of eligible shareholders
- *6 – 17 Sep* Rights offering subscription period
- *TBD* Listing of new shares

1 EQUITY ISSUANCE

+Bt 8.5 bn

2021

Rights offering
(3 existing : 1 new share)
Offer price: Bt 5.0/sh
Shares issued: 1,692 M shares

+Bt 8.5 bn

2022

Warrants
(1 new share: 1 warrant)
Exercise price: Bt 5.0/sh
Warrants issued: 1,692 M units

+Bt 12.7 bn

2023

Warrants
(1 new share: 1 warrant)
Exercise price: Bt 7.5/sh
Warrants issued: 1,692 M units

+

2 DEBENTURE ISSUANCE

+Bt 16 bn

2021

Unsubordinated and unsecured debentures,
semi-annual interest payment
3-year: 1.6% p.a.
5-year: 2.9% p.a.
7-year: 3.3% p.a.
10-year: 3.8% p.a.

PROSPECTIVE GREENER, SMARTER INVESTMENTS

ENERGY RESOURCES
Clean Tech Minerals
Natural Capital Solutions
Gas Value Chain

ENERGY GENERATION
HELE Power
Renewables

ENERGY TECHNOLOGY
Energy Ecosystem
E-Mobility
Data Centers

Strengthen Banpu's capital structure

Flexibility to capture Greener opportunities

Lower dependency on market conditions

Banpu: investment focus 2021-25

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PROCEEDS FROM CAPITAL RAISING

INVESTMENT

INVESTMENT

INVESTMENT

ENERGY RESOURCES

MINING

Strategic Minerals entry

Venture into mining of high growth, clean tech minerals, driven by growing energy technology trends. Core focus regions include Australia and Indonesia

Natural Capital Solutions

Investment in reforestation/ deforestation prevention for carbon offsetting along with land and biodiversity improvement

GAS

Upstream Expansion

Consolidate core unconventional natural gas basins, prioritize synergistic acquisitions with sustainable cash flow, and leverage automation technology

Synergistic and greener value chain

Explore synergistic and sustainable opportunities that enhance returns

ENERGY GENERATION

THERMAL

HELE power development

Development of *Greener* power assets with higher efficiency and lower emissions

US Gas-fired power opportunities

Seek investment opportunities in CCGT power plants, with potential synergies

RENEWABLES

Solar and Wind power opportunities

Continuous expansion of renewables portfolio in the Pacific Rim with key focus in Vietnam Australia, US, Japan, and China

ENERGY TECHNOLOGY

ENERGY TECH

Energy storage systems production ramp-up

Capitalize on battery demand growth by expanding Li-ion production capacity

Banpu energy ecosystem expansion

Scale up e-mobility services, smart city solutions and energy trading businesses, while venturing into new high growth areas such as virtual power plants and data centers

CASH FLOW FROM CURRENT BUSINESS OPERATIONS

Strong EBITDA generation from Banpu business units to accelerate Greener, Smarter transition

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Banpu consolidated financial summary 2Q21

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KEY FIGURES

EBITDA $308 M

Strong result driven by contribution from Coal and Gas business, as a result of high commodity price levels, alongside stable performance from other businesses

NPAT $42 M

Strong performance supported by improved operational performance

ND/E 1.38 x

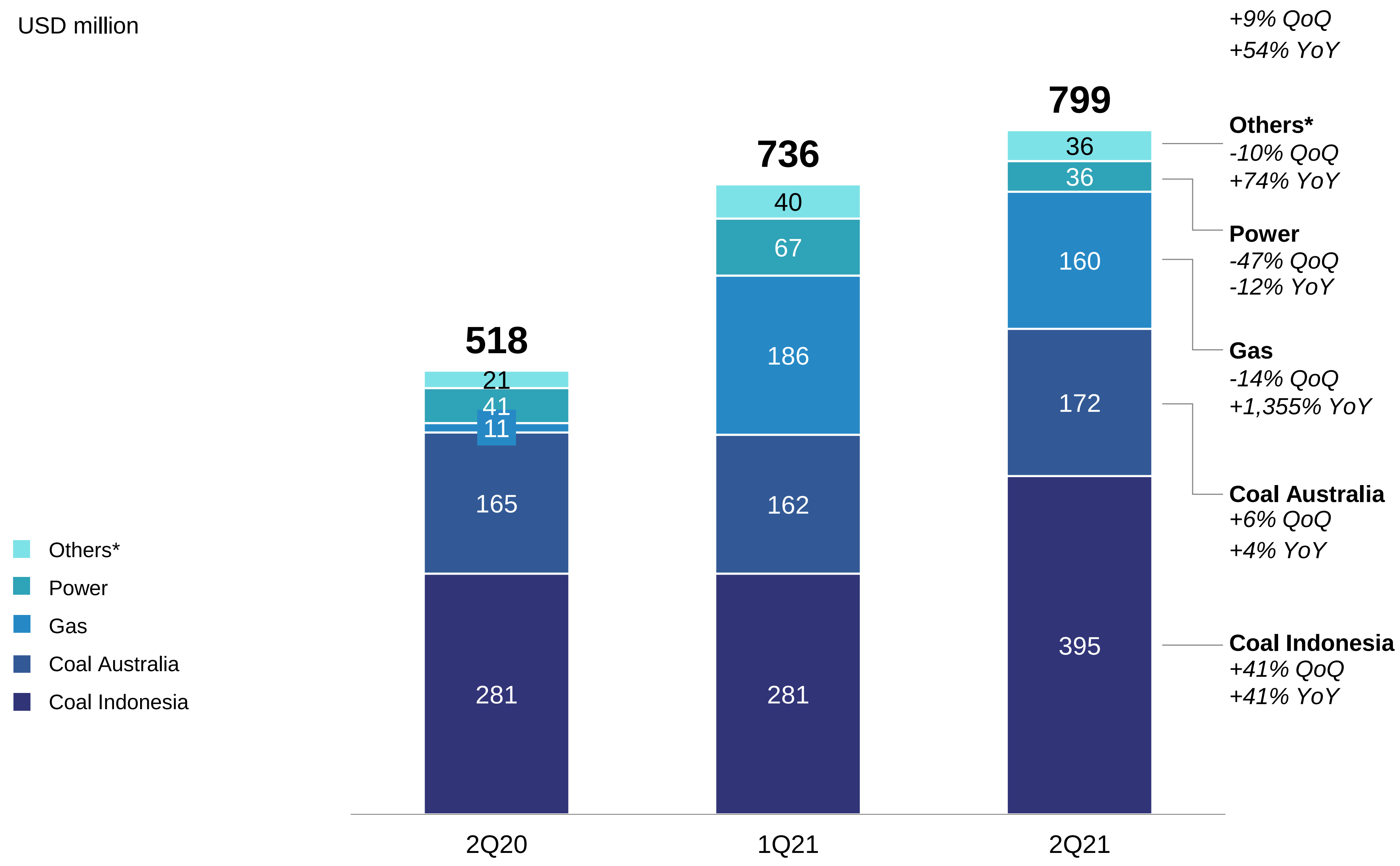
ND/E improved from 1.39x in the previous quarter

KEY TAKEAWAYS

1. **Robust Coal business performance:** from higher sales volume and ASP, compared to 1Q21, driven by recovering demand and increased market prices
2. **Strong Core Gas business contribution:** supported by increase in average local price* and stable production volumes
3. **Strategic positioning:** Coal and Gas businesses well-positioned to benefit from current commodity price levels and demand
4. **Greener, Smarter investments:** cashflow generation to be captured from recent investments in Temple I CCGT, Australia Solar, and Nakoso IGCC

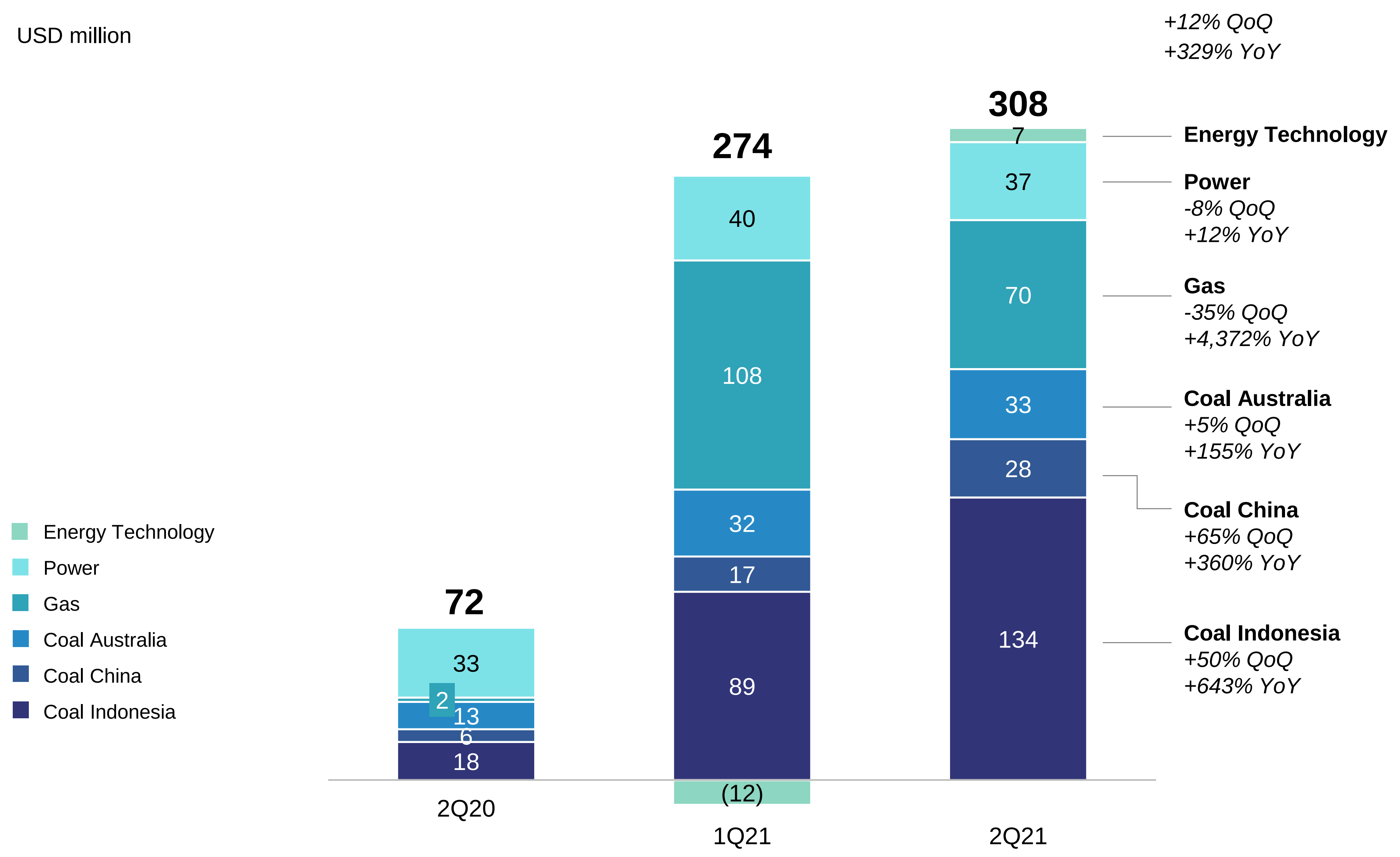
Note: *Average local price = Henry Hub - basis differential

Banpu consolidated sales revenues – 2Q21



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

Banpu consolidated EBITDA – 2Q21



Banpu consolidated NPAT – 2Q21

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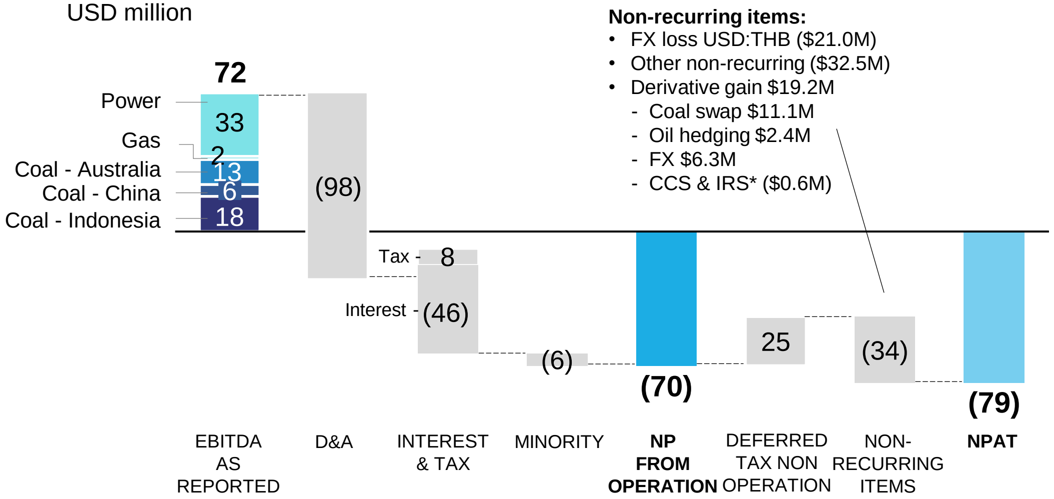
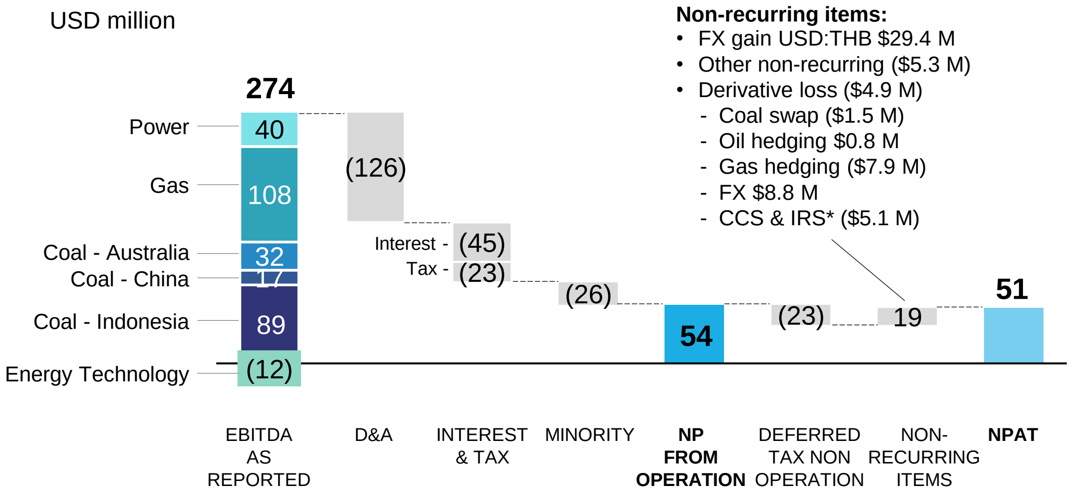
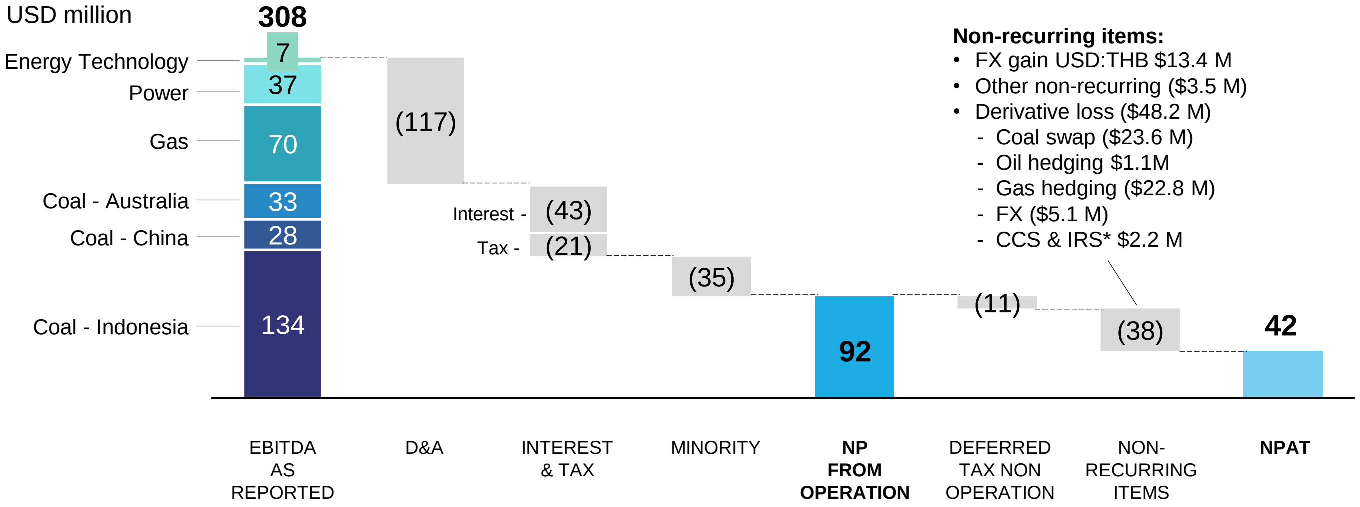
2Q20 NET PROFIT AFTER TAX



1Q21 NET PROFIT AFTER TAX



2Q21 NET PROFIT AFTER TAX

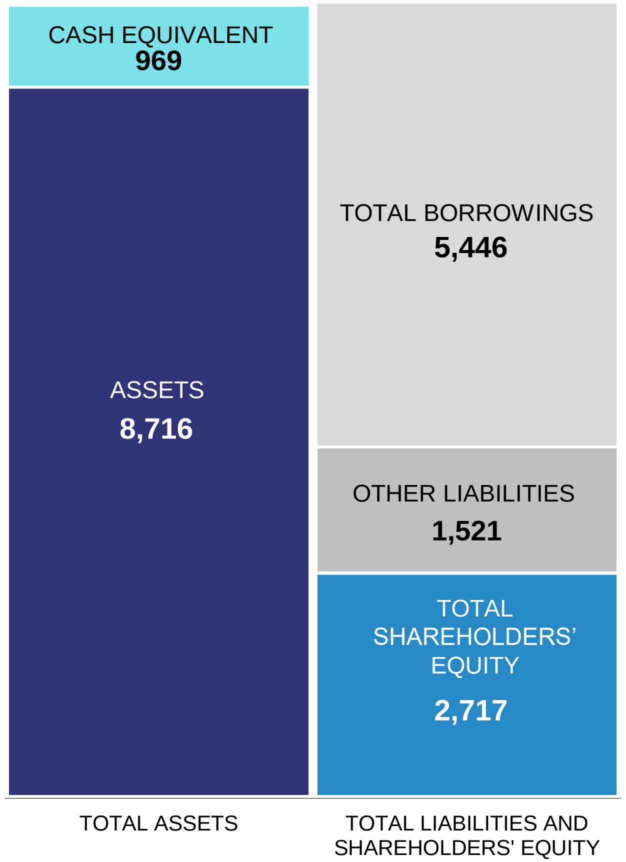


Note: *cross currency swap, interest rate swap

Banpu consolidated balance sheet – 2Q21

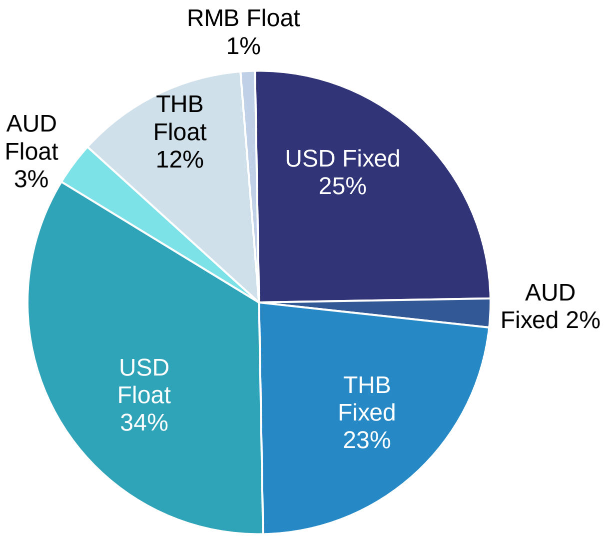
2Q21 CONSOLIDATED FINANCIAL POSITION

USD million



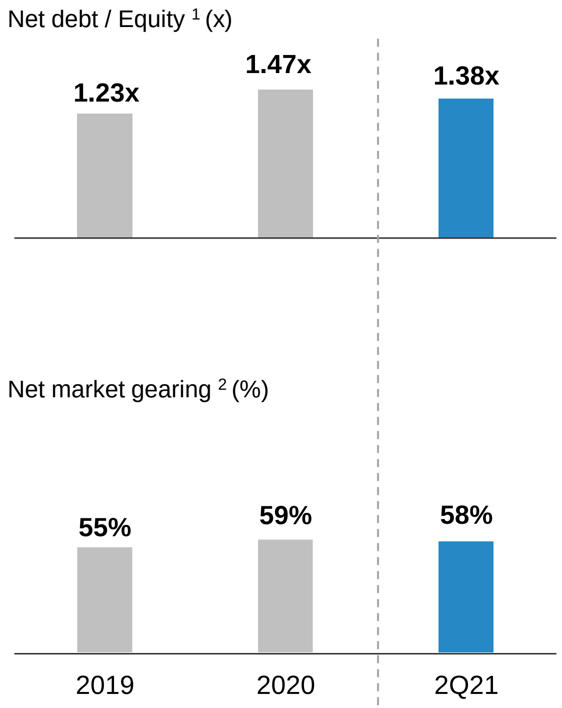
Note:
1 Net debt to book value of shareholders' equity
2 Net debt to enterprise value (enterprise value = net debt + book value of shareholders' equity)

DEBT FX STRUCTURE



Total gross debt: $5.4 billion
As of 30 June 2021

GEARING RATIOS



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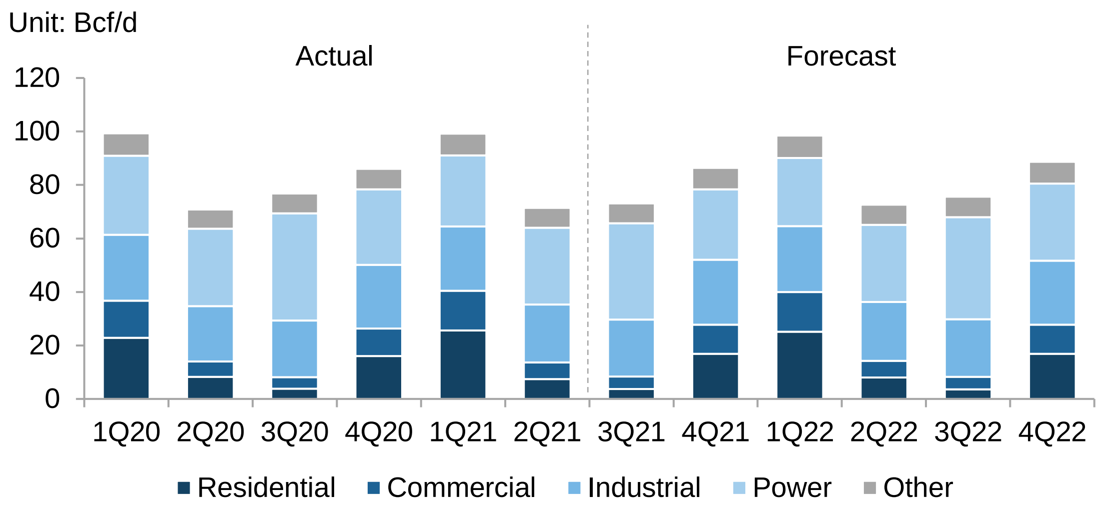
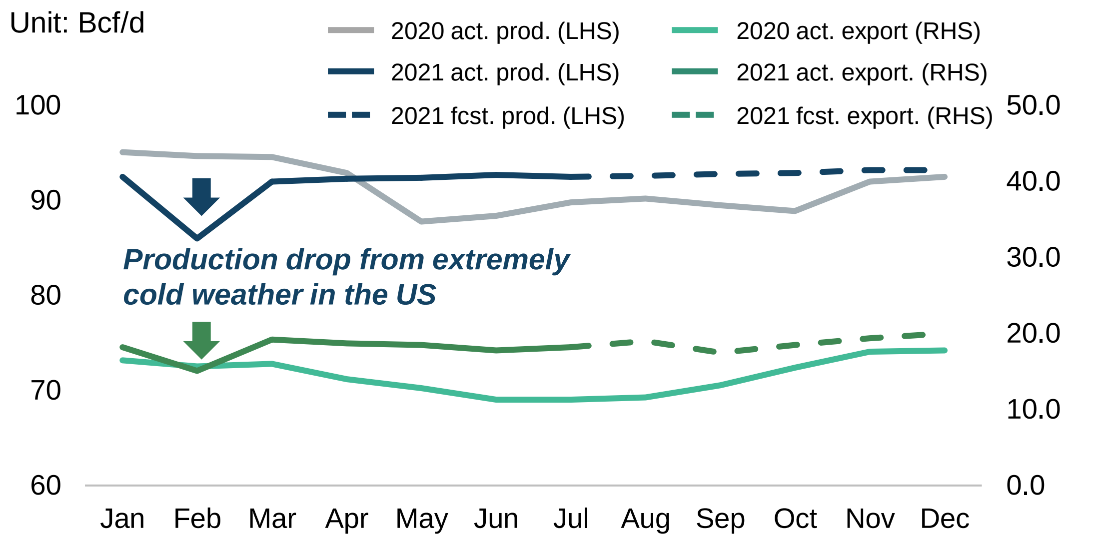
U.S. gas market update

RESILIENT DEMAND PROJECTION

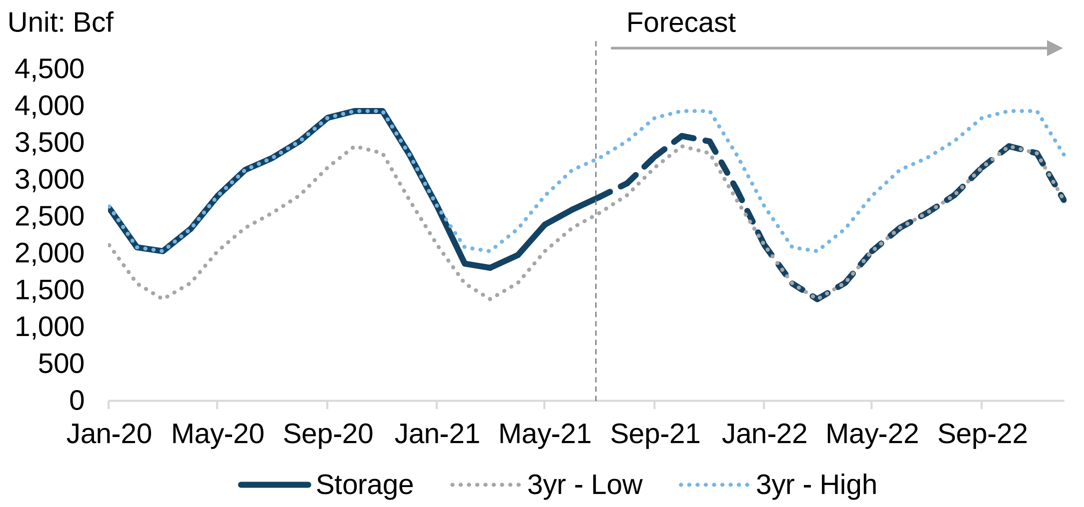


- Majority of US gas demand is domestic consumption. Price determined by local demand and supply with indirect linkage to oil via associated gas production.
- U.S. gas consumption is expected to average 82.5 Bcf/d in 2021, slightly down from 2020 as power generators switch to coal due to rising natural gas prices. With the expanding economic activity and colder winter temperatures, residential, commercial and industrial natural gas consumption is expected to rise by 1.4 Bcf/d from 2020.
- U.S. gas production is expected to increase to 92.9 Bcf/d in 2H21 from 91.4 Bcf/d in 1H21 and continue to rise to 94.9 Bcf/d in 2022 driven by high natural gas and crude oil prices.
- Natural gas inventories ended July 2021 at almost 2.8 Tcf which is 6% lower than 5-year average due to higher natural gas withdrawals during the winter of 2020-21 as a result of drop in production from cold February temperature.

US NATURAL GAS PRODUCTION



U.S. STORAGE LEVEL



Source: EIA Short-Term Energy Outlook (August 2021)

U.S. gas: gas prices expected to remain high amid low storage level

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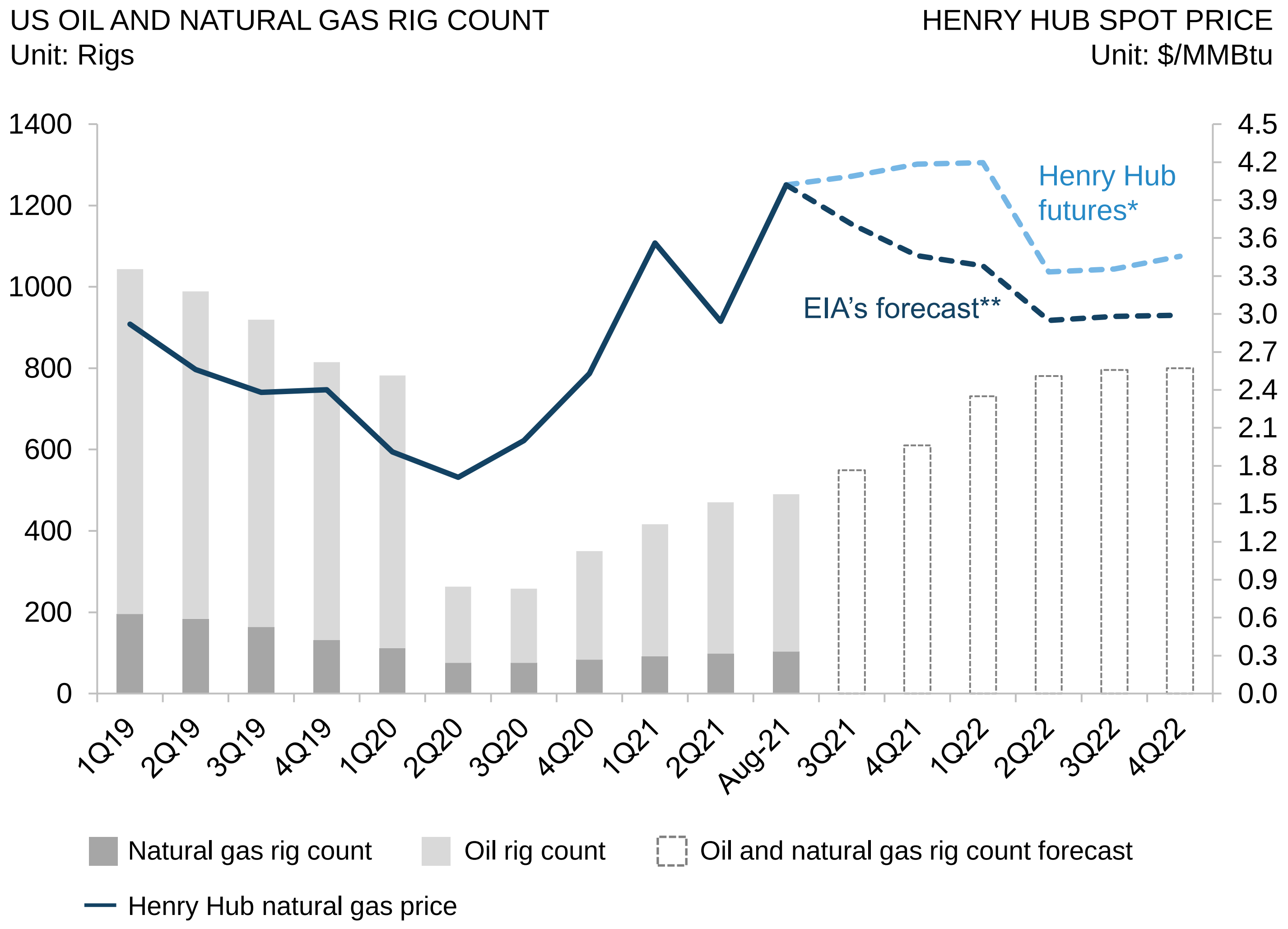
US RIG COUNT VS HENRY HUB PRICE



Note: *as of Aug 10th, 2021, **Short-Term Energy Outlook (August 2021)
Source: IHS Markit report (July 2021) and Baker Hughes US natural gas rotary rig count (August 2021)

COMMENT

- Natural gas prices in 2Q21 declined from a spike caused by extreme weather conditions in the US in the previous quarter, but price levels are still higher than 4Q20
- Capital spending is expected to increase in 2021 and 2022 relative to 2020 in response to higher crude oil and natural gas prices, but remain low in total compared to 2015-2019 average
- With the increase in capital spending, oil and gas rigs are expected to continue to increase in 3Q21, up 16% from 2Q21 but remain at levels 47% lower than 1Q19
- Henry Hub futures signal a continued increase until 1Q22 as supply growth is expected to be insufficient to increase storage to a comfortable level heading into winter season

Banpu Gas: 2Q21 highlights

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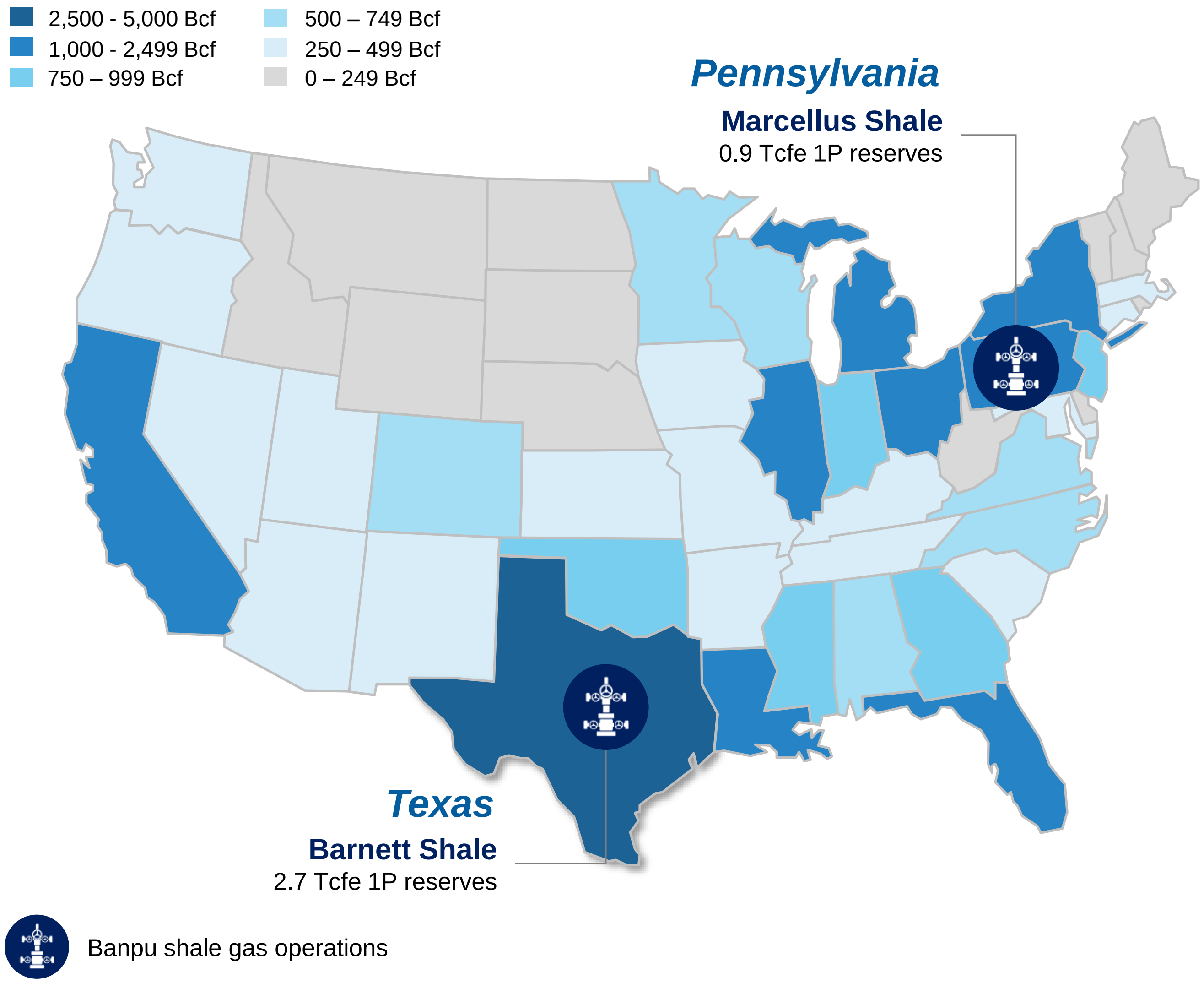
US DRY GAS CONSUMPTION 2019 BY STATE* (Bcfe)



Average local price**

$2.76/Mcfe

+6% QoQ

Sales volume

60 Bcfe

-3% QoQ

EBITDA

$70M

-35% QoQ

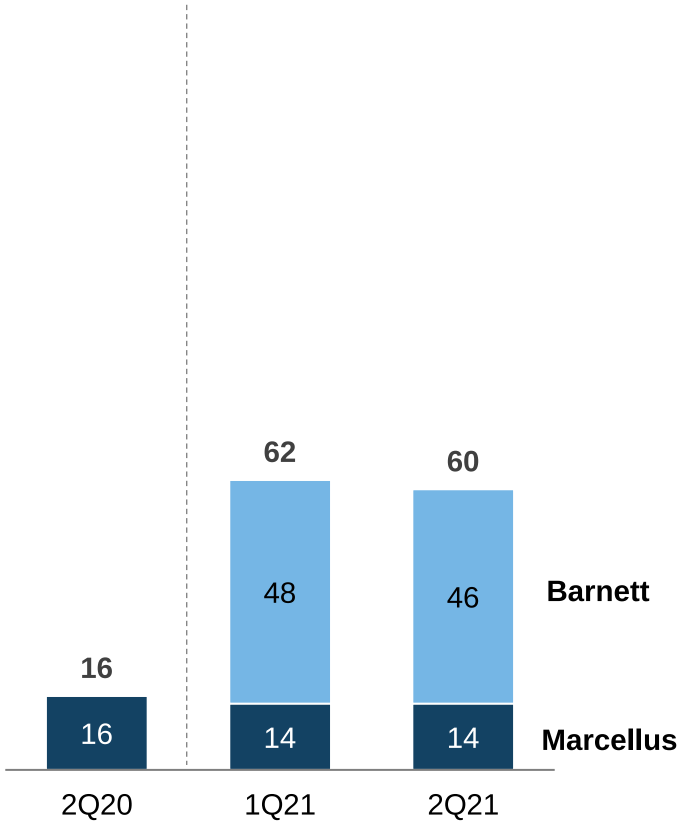
*Source: EIA
**Average local price = Henry Hub - basis differential

Banpu Gas: 2Q21 performance

2Q21 operational EBITDA was $68 M (excl. income from the trading JV), increasing 15% QoQ, highlighting our strength to maintain strong base production under a solid spring-to-summer pricing environment.

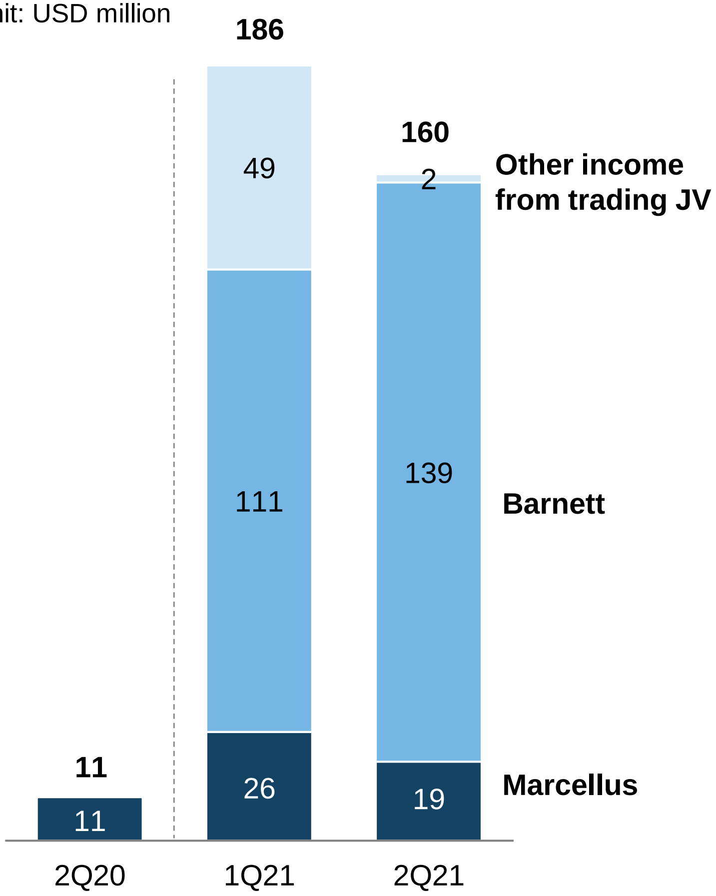
SALES VOLUMES

Unit: Bcf*



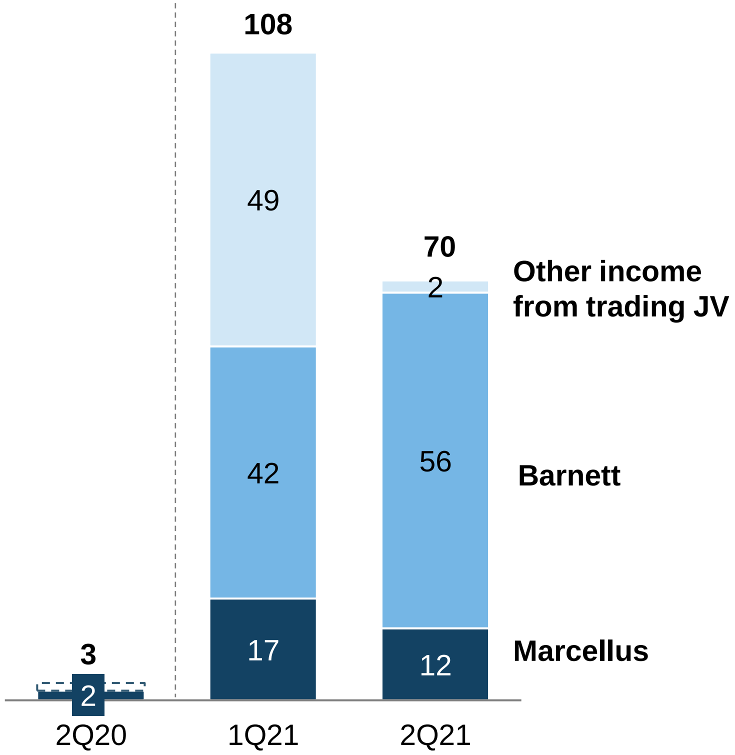
TOTAL REALIZED REVENUE

Unit: USD million



EBITDA

Unit: USD million



Note: *Bcf = Billion cubic feet

Global thermal coal market

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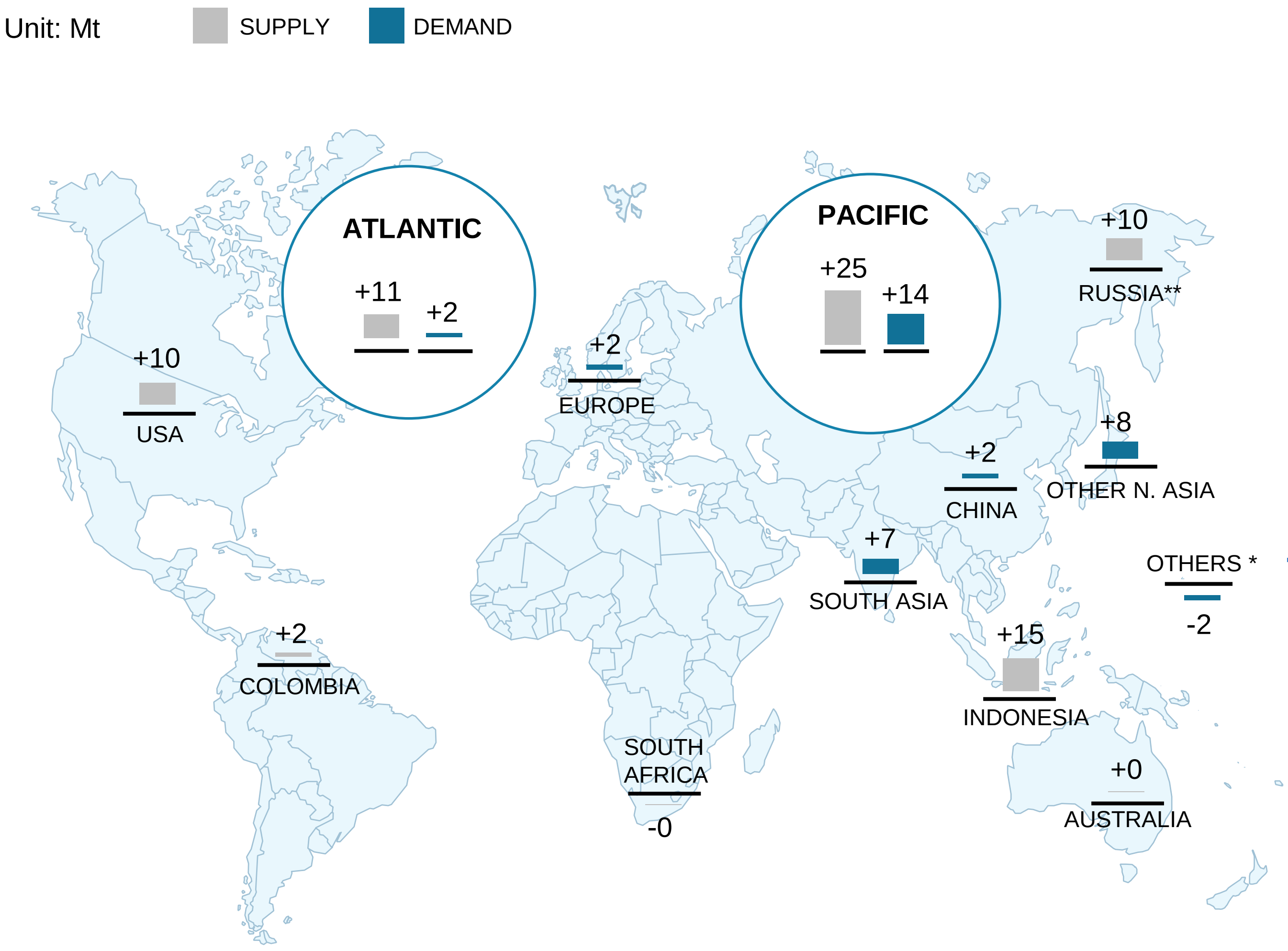
COAL DEMAND AND SUPPLY CHANGE – 2021E VS 2020



* Demand in other countries driven by Vietnam, ** Russia exports to non-CIS countries only, JKT = Japan, South Korea and Taiwan

TRENDS

DEMAND

Global thermal coal prices look set to remain strong through the remainder of 2021 as stimulus and resumption of trade lead a strong economic recovery. Strong summer demand, tight supply and high gas prices also support coal burn. China's Australian coal ban has lifted global coal prices.

- **China:** Strong economic recovery and summer demand is expected to drive power demand amid domestic coal supply shortage. It is likely that the Chinese government will continue to relax import control.
- **India:** High coal price and high availability of domestic coal will deter import purchase.
- **JKT:** Warmer-than-usual weather, rising gas price and low nuclear availability will keep coal burn high in 2H2021.
- **Europe:** Strong power demand, high gas price and weak renewables generation encourage coal burn. Tight supply, high freight rate and a global commodities boom also help drive European coal price up.

SUPPLY

Tight supply continues as coal supply chains have been disrupted by Covid-19 and geopolitical tension. Rainfall and maintenance also contribute to weak supply recovery.

- **Indonesia:** Heavy rain, high domestic demand, Covid-19 and shortage of equipment supply will limit growth in 2H2021.
- **Australia:** Loss of Chinese demand has been absorbed by shipments into India and JKT but wash plant maintenance will restrict HCV output
- **Others:** South Africa export is expected to improve in 2H but locomotive issues and cable theft are constraining supply while high Richards Bay coal prices have been a deterrent to some buyers. Rail capacity and maintenance will keep Russian coal supply tight in 2H2021. US thermal coal export is expected to maintain in 2H2021, as labour shortages and limited rail capacity curb export growth.

Banpu ASPs vs thermal coal benchmark prices

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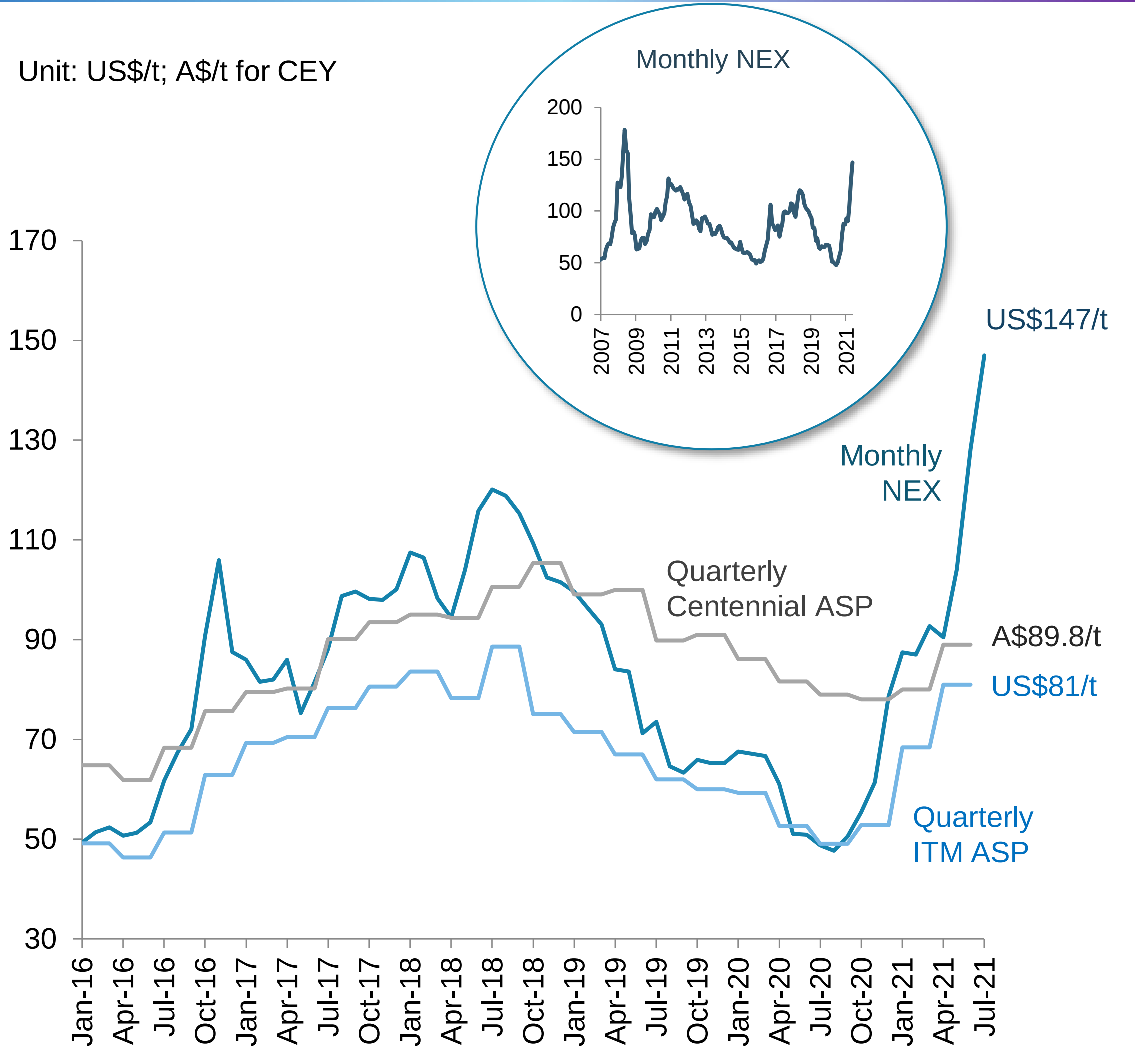
BANPU ASP VS BENCHMARK PRICES



Note: * Includes post shipment price adjustments as well as traded coal
** The Newcastle Export Index (previously known as the Barlow Jonker Index – BJI)

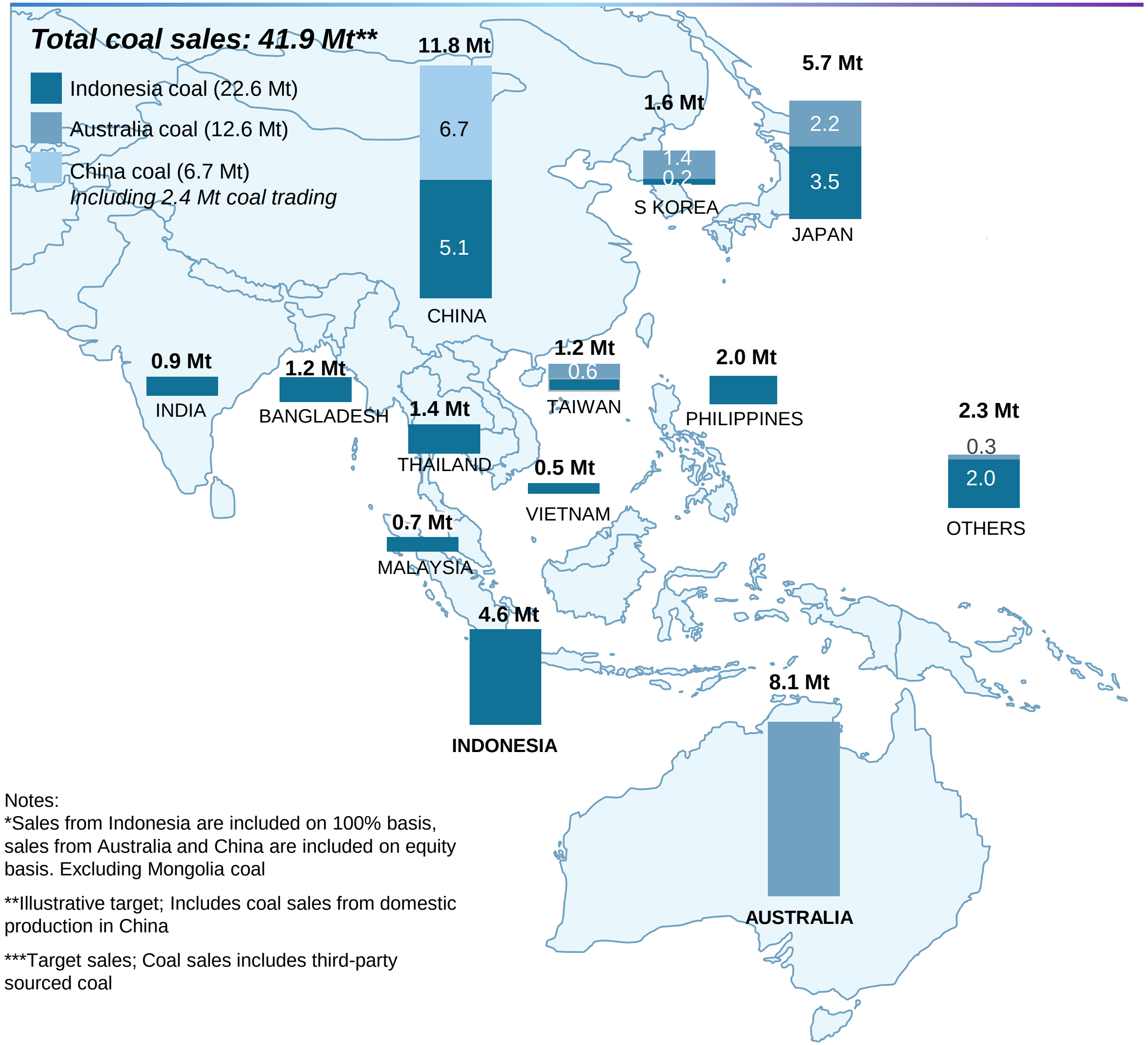
COMMENTS

- Coal price surge momentum continued into 2Q21 mainly as a result of strong demand together with tight supply. Newcastle coal price surged again from May, after a short-lived retreat during April.
- JPU Reference Price (USD109.97@GAR6322, for JFY2021 term, April 2021 – March 2022) was finally concluded in early June 2021.
- Unresolved China–Australia conflict led to the import ban by China, pushing up Indonesia Coal price since 2H2020, until April 2021, where certain coal qualities traded at premium over Newcastle price on heat equivalent basis. While from May, the high-quality Australian cargo gained back the premium against lower quality Indonesian coal.
- Newcastle future price, currently in significant backwardation, at around US$120 for CY2022, still at very healthy price levels for the coal mining industry
- Group ASP in 2Q21 continue to increase, particularly for the export portion.
- Key price metrics:
  - ITM ASP 2Q21 : US$81.0/t* (+18% QoQ)
  - CEY ASP 2Q21 : A$89.8/t* (+12% QoQ)

    ASP Domestic A$74.1/t (-3% QoQ), ASP Export A117.3/t (+33% QoQ)
  - NEX (August 13th, 2021)**: US$175.65/t

Banpu Mining: group coal sales and pricing status 2021e

COAL SALES* SOURCE – DESTINATION ANALYSIS



Notes:

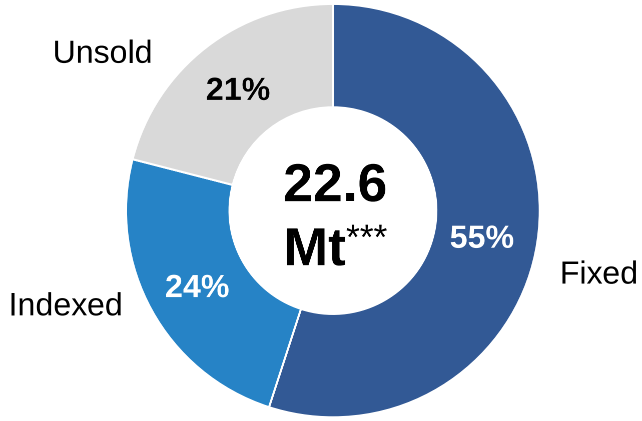
*Sales from Indonesia are included on 100% basis, sales from Australia and China are included on equity basis. Excluding Mongolia coal

**Illustrative target; Includes coal sales from domestic production in China

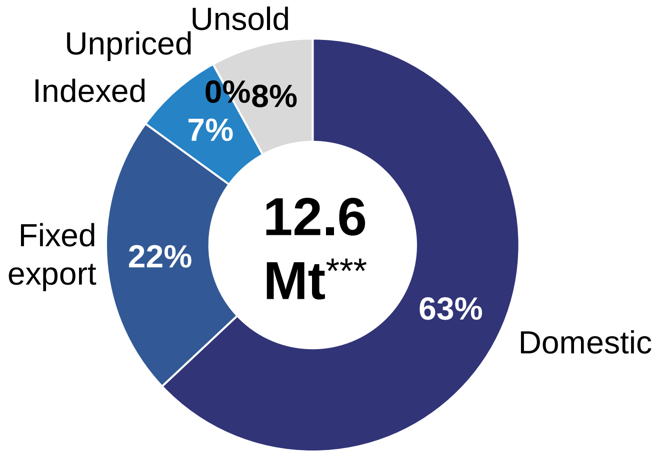
***Target sales; Coal sales includes third-party sourced coal

COAL SALES PRICING STATUS

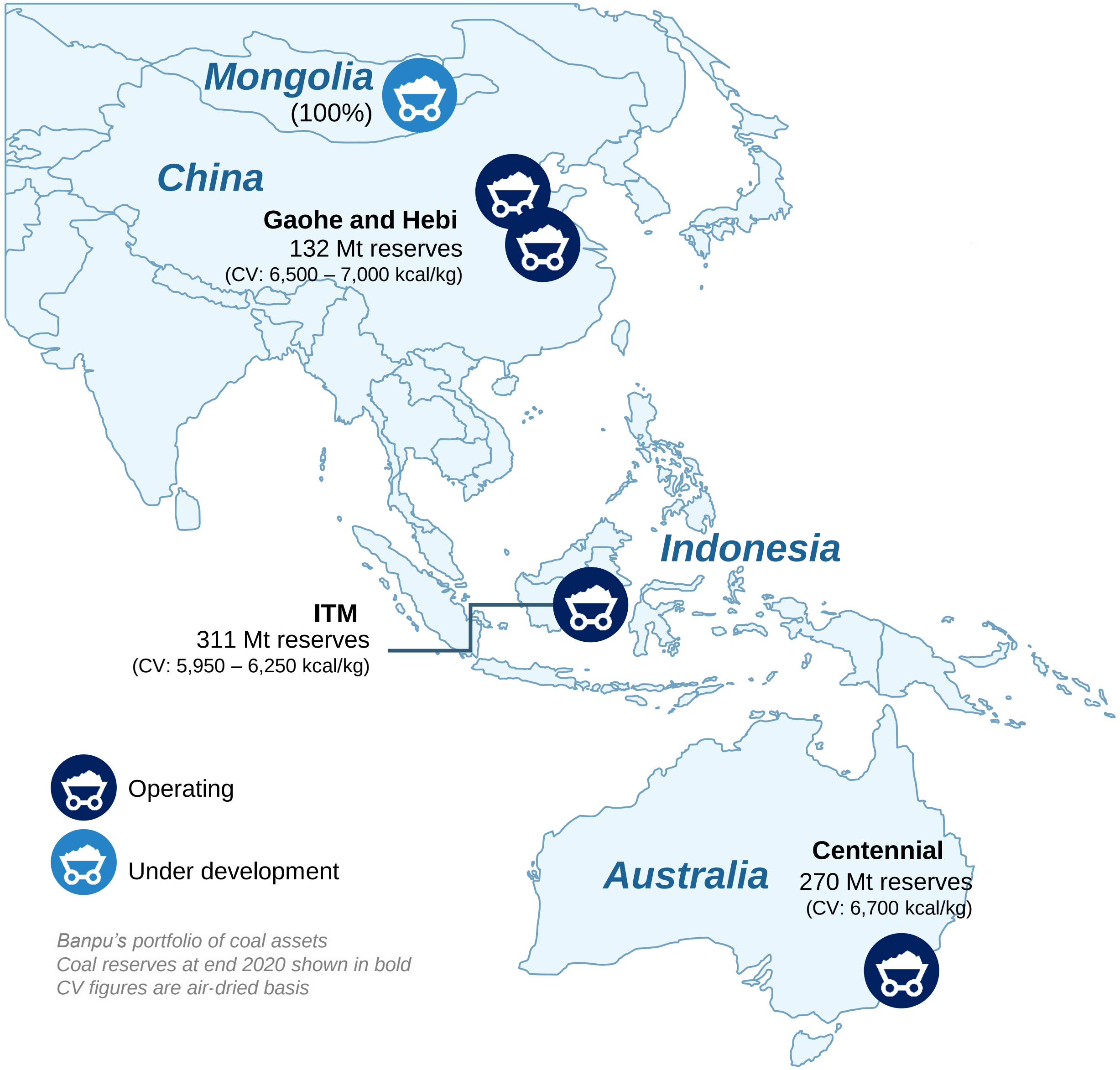
INDONESIA



AUSTRALIA



Banpu Mining: 2Q21 highlights



Banpu's portfolio of coal assets
Coal reserves at end 2020 shown in bold
CV figures are air-dried basis

Production volume*

9.3 Mt

+4% QoQ

Sales volume*

8.9 Mt

+8% QoQ

EBITDA

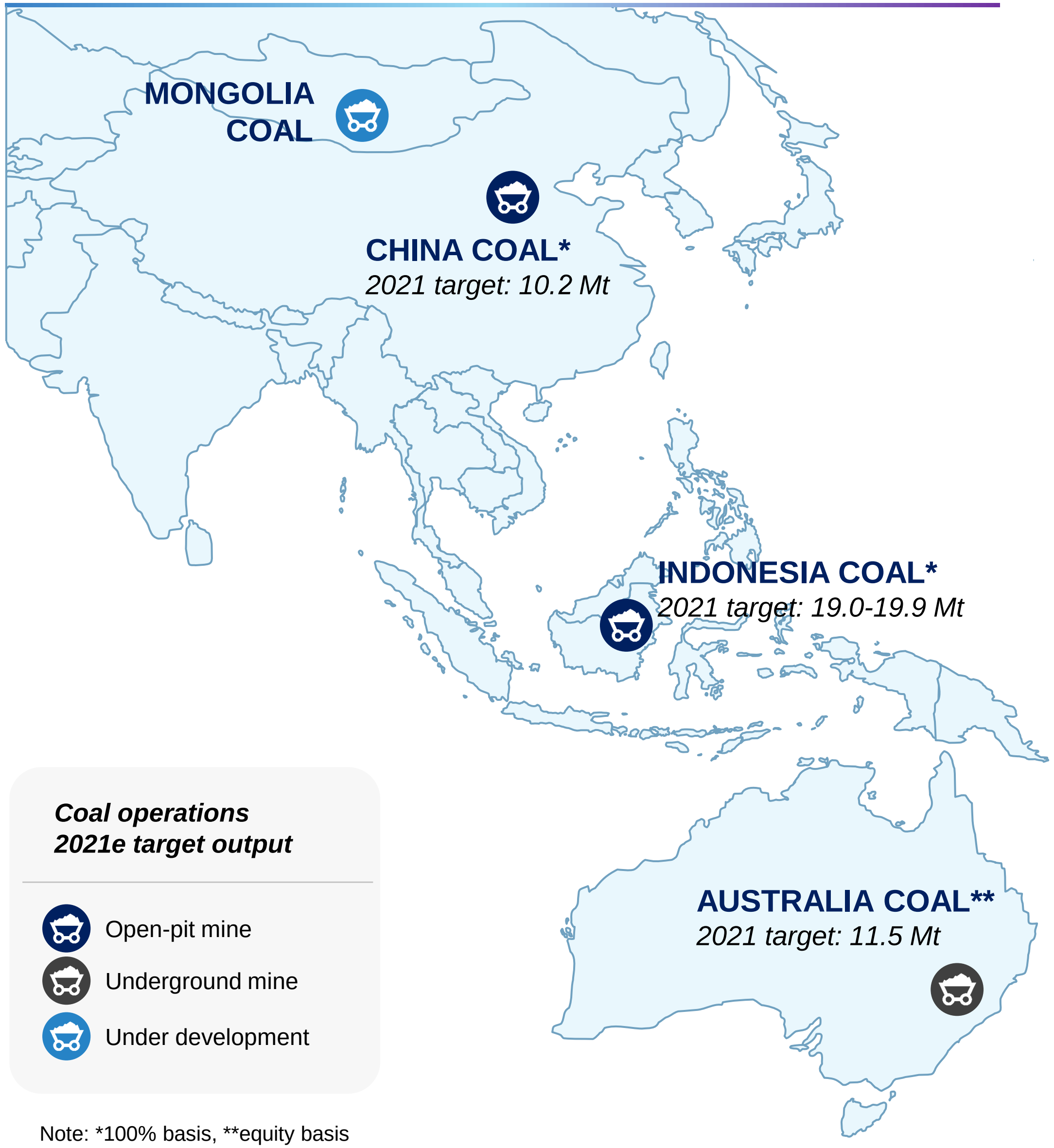
$194 M

+41% QoQ

Note: *Based on 100% basis

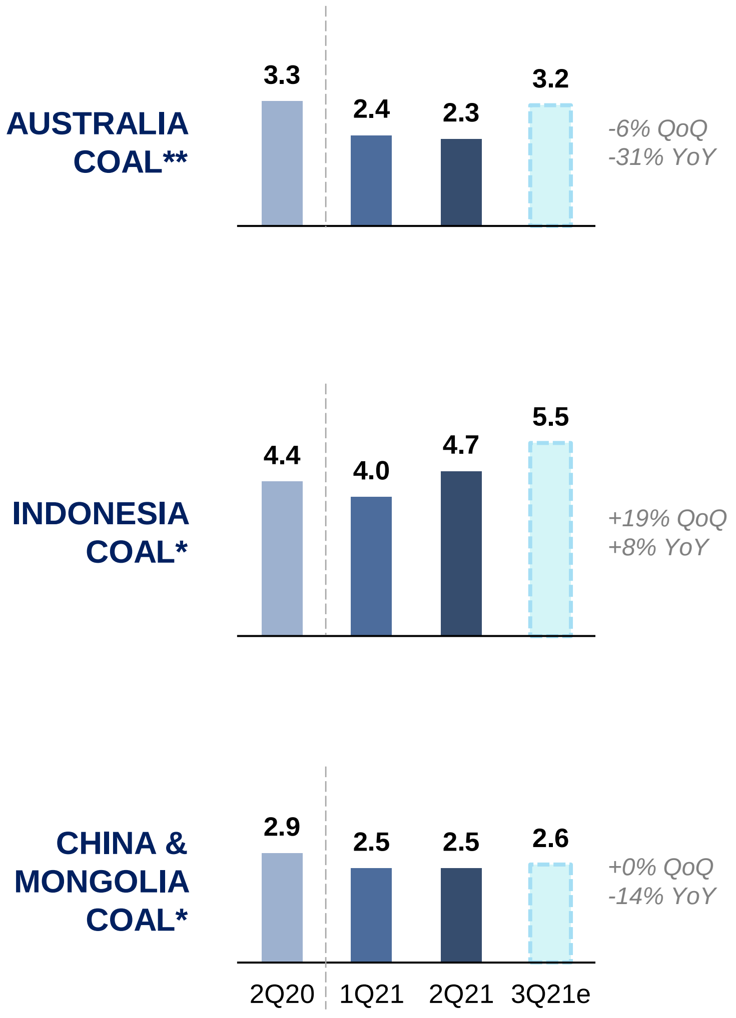
Banpu Mining: operational summary

2021E COAL OUTPUT



Note: *100% basis, **equity basis

ROM PRODUCTION AND KEY UPDATES



- Production was flat when compared to previous quarter, with Springvale impacted by complex geology, while Mandalong and Airly experienced extended changeovers.
- 3Q21 - anticipated improved conditions and reduced time in longwall changeover mode.

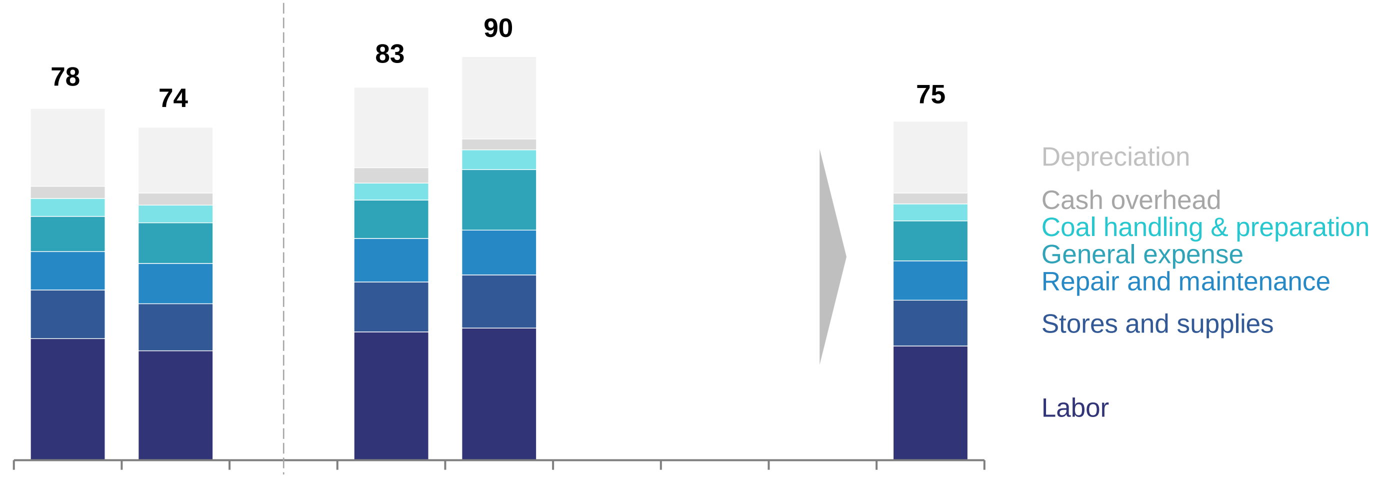
- Due to continued unpredictable weather conditions, production achieved was slightly below target with lower production from Bharinto and Kitadin-Embalut. slightly offset by solid performance at Indominco.

- Gaohe: Stable production amid continuous recovery of industrial activities and increase in demand as summer peak approaches.
- Hebi: Stable production despite complicated running conditions of LW panels and operation suspension between 4 June - 6 July resulting from the coal/gas outburst accident at Mine No.6.

Banpu Mining: average production cost breakdown

AUSTRALIA COAL – AVERAGE PRODUCTION COST[1]

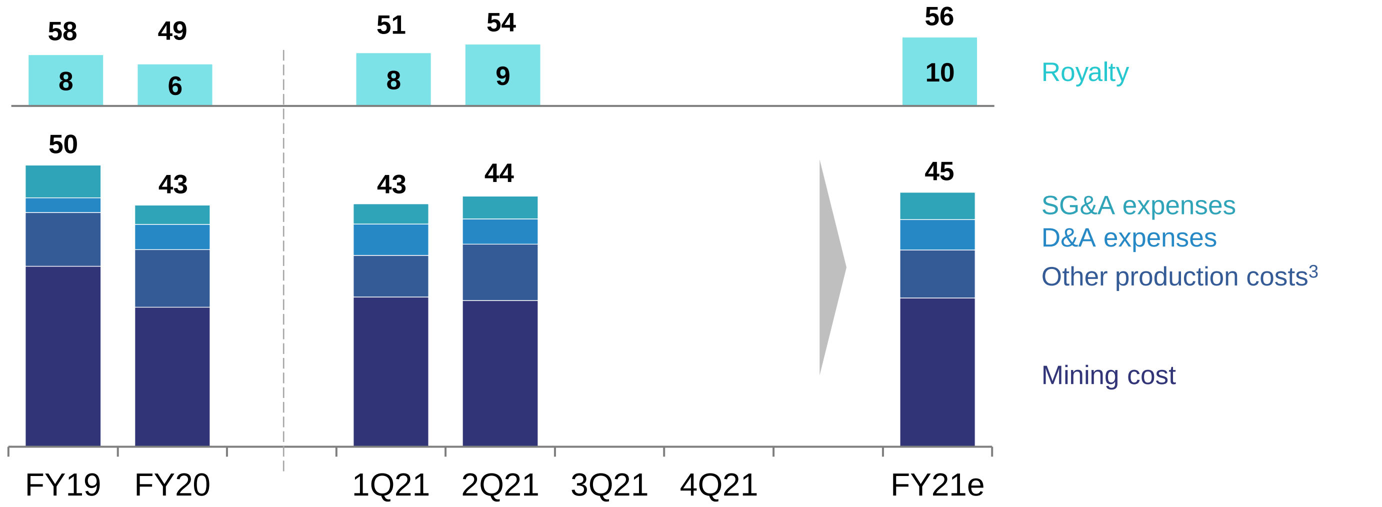
Unit: A$/t



- Costs impacted by mining conditions, lower production and rising steel prices.
- Focus remains on improving production and cost performance.

INDONESIA COAL – AVERAGE TOTAL COST[2]

Unit: US$/t



- Average total cost (excl. royalty) rose to US$44/t in 2Q21 on the back of increasing fuel cost, while mining cost reduced slightly due to lower strip ratio.
- Higher royalty costs, as a result of rising coal price.

Note: 1 These figures do not include selling, distribution and royalty costs; based on 'sold' production, 2 Coal business only, 3 including repair and maintenance, salaries and allowances, inventory adjustment, others etc.

01 Highlights 2Q21

02 Focus: Banpu Transformation

03 Financial Summary

04 Energy Resources

05 Energy Generation

06 Energy Technology

Banpu Energy Generation: 4,317 MW committed capacity

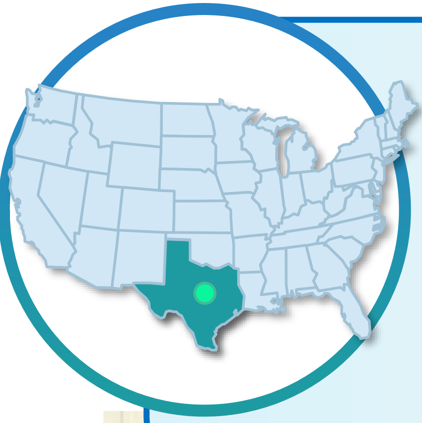
13 countries
operations across the Pacific Rim

3,244 MW
committed thermal equity capacity*

1,073 MW
committed renewables equity capacity**

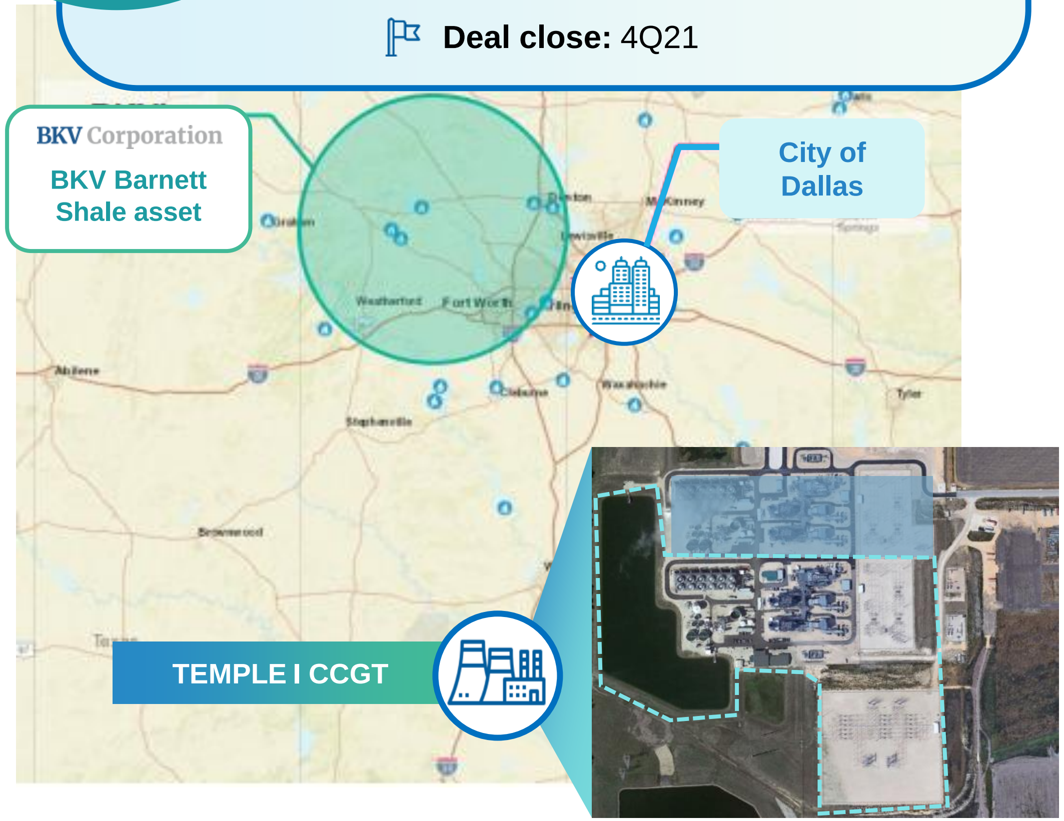
*Based on Banpu Power's equity capacity, **Banpu Renewable Power businesses are owned by Banpu NEXT (50% Banpu PLC, 50% Banpu Power)

Growth update: Temple I – giant leap towards Greener, Smarter



TEMPLE I GAS FIRED POWER PLANT (CCGT)

- **Location:** Bell County, Texas, US
- **Total Capacity:** 768 MW
- **COD:** 2014
- **Total Acquisition:** US$430 M*
- **Deal close:** 4Q21



PROJECT HIGHLIGHTS

Banpu's US Gas subsidiary, BKV Corporation and Banpu Power, jointly signed a Purchase and Sale Agreement for the acquisition of a 100% stake in Temple I CCGT in August 2021

State of the art plant technology
Temple I is well-positioned to quickly respond to real-time market signals and capture growing demand in Electricity Reliability Council of Texas (ERCOT) market

Potential upside through synergies with Banpu's Barnett shale gas asset
The proximity to Banpu's Barnett shale allows physical gas supply to flow directly to the plant, creating potential newfound synergies

Potential for significant upside return
Opportunities from ongoing discussions with local municipalities, strategic buyers, and retail markets for significant upside for returns

Note: *subject to adjustment in accordance with the Purchase and Sale Agreement

Growth update: Temple I – key investment highlights

BANPU

1 FAVORABLE ERCOT MARKET DYNAMICS

Retirements and load growth in ERCOT will tighten electricity supply-demand gap

Electricity demand in ERCOT is projected to outpace generation capacity in near term: Continuous coal plant retirements and increasing load growth will drive increases in electricity prices over the next several years

Retired	Announced
7.4 GW	**6.3 GW**
between 2018-20	to retire by 2022-26

Risk for retirement

Gas-fired	*Coal-fired*
14 GW	**11 GW**
> 40 years old	*> 30 years old*

Temple I is strategically positioned to supply major demand centers in the state with potential for long-term PPA deals

2 ONE OF THE MOST EFFICIENT AND FLEXIBLE CCGTS IN ERCOT

7 years old — Temple I

23 years old — Avg. ERCOT

Temple I is equipped with high efficiency, plant and gas turbine technology; making it well-positioned to substitute retiring capacities in ERCOT

HIGH EFFICIENCY
Temple I runs one of the lowest realized heat rates in ERCOT at 7,200 Btu/kWh

HIGH FLEXIBILITY
Low turn down ratio and fast response, allowing ramp up of **c.28 MW/minute** and full baseload capacity in 30 minutes. Temple I is equipped with winterization equipment.

ENVIRONMENTAL-FRIENDLY
Advanced emission controls in place with zero liquid discharge

3 ATTRACTIVE GAS TRANSPORT AND STORAGE AGREEMENTS

c.98% on imbalance charge is reduced compared to the previous gas transport agreement after renegotiation

$1 M of annual fixed costs saved from storage contract renegotiation

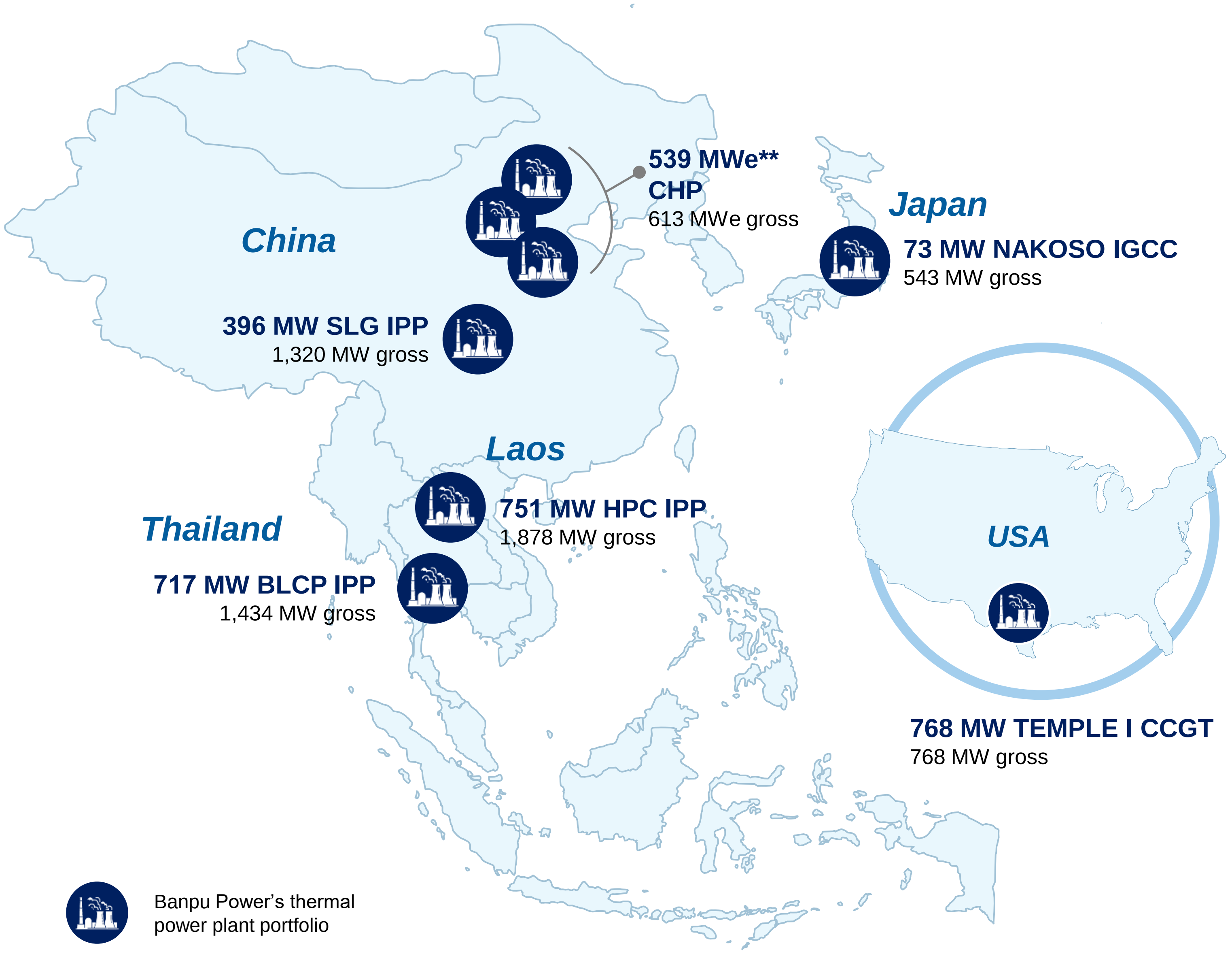
Favorable natural gas arrangements making the plant one of the most flexible units in ERCOT

4 LONG TERM WATER SUPPLY AND WASTEWATER MANAGEMENT

Secured 30-year Effluent and Water Purchase Agreements with the City of Temple

Banpu Thermal Power: 2Q21 highlights

BANPU



EBITDA

$37 M

-8% QoQ

Achieved EAF

92% at HPC

87% at BLCP

Growth update

+768 MW

from recent investment in Temple I in USA

*Based on Banpu Power's equity capacity, ** MW equivalent

Banpu Thermal Power: 2Q21 updates

BLCP

Reported strong reliability, although unplanned maintenance was conducted to repair tube leak

- High reliability with EAF* reported at 87%, +2% QoQ
- Total revenue reported at THB 3.5 bn, EBITDA at THB 0.8 bn
- Share of profit at THB 78 M

HPC

Reported high reliability resulted from long-term performance improvement program

- Reported high reliability with EAF of 92%, +9% QoQ
- Total revenue reported at THB 5.8 bn, EBITDA at THB 3.7 bn
- Reported share of profit at THB 1.1 bn

China CHP

Slower demand recovery from some of our industrial customers and high coal cost impacted operational performance

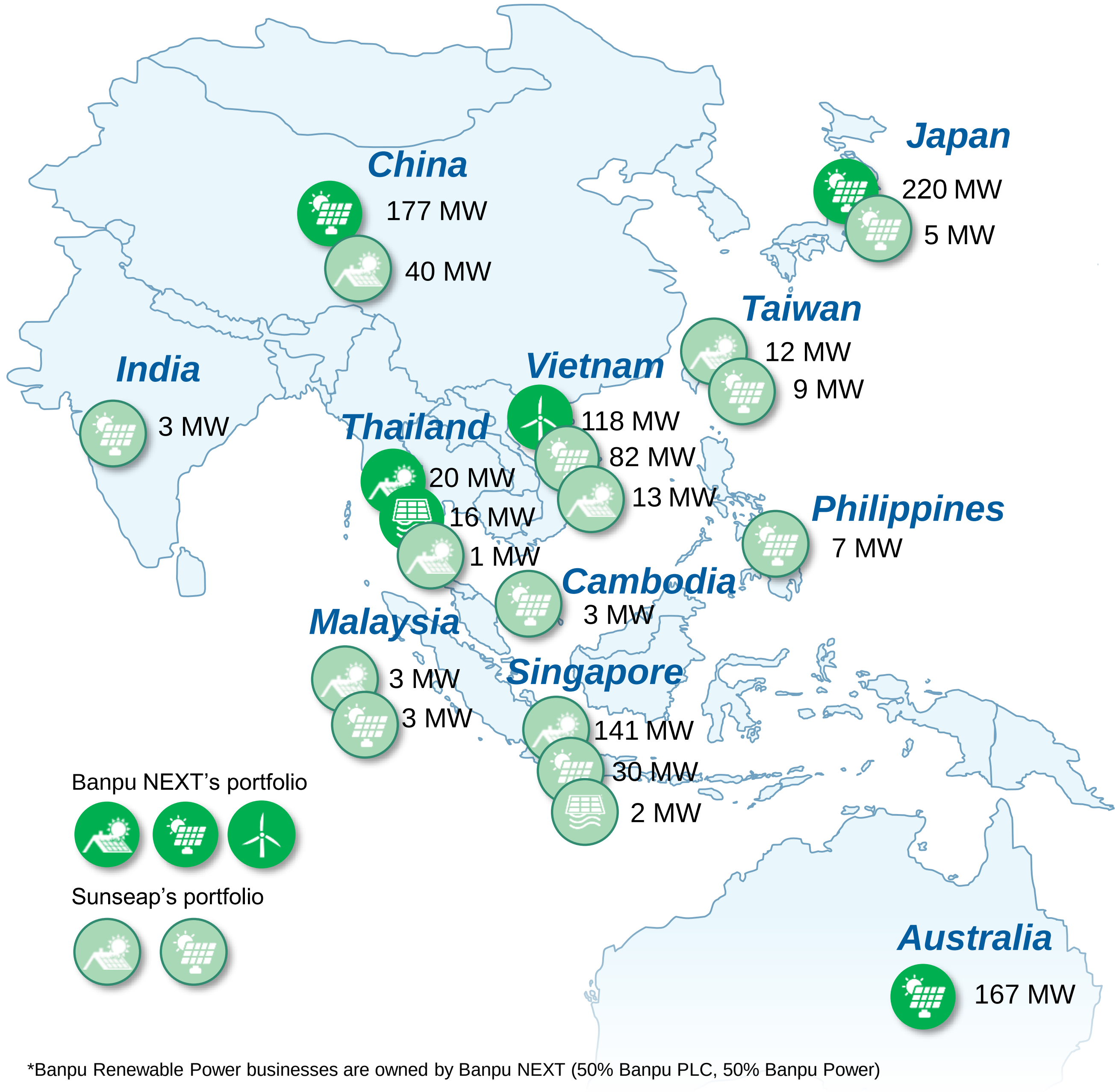
- Reported revenue of RMB 178 M.

SLG

- Completed trial operation and ready for commercial dispatch

Note: : *Equivalent Availability Factor (EAF) is a percentage of a given operating period in which a generating unit is available without any planned- and unplanned shutdown or deratings

Banpu Renewable Power: diversified Asia-Pacific portfolio*



1,073 MW
committed renewables capacity across Asia-Pacific

706 MW
committed solar power capacity

249 MW
committed solar rooftop and floating solar capacity

118 MW
committed wind capacity

*Banpu Renewable Power businesses are owned by Banpu NEXT (50% Banpu PLC, 50% Banpu Power)

Banpu Renewable Power: 2Q21 updates

China Solar

Higher power sold driven by favorable weather conditions which resulted in higher capacity factor

- Average capacity factor 2Q21 reported at 16.4%, +2% QoQ
- Power sold was 64 GWh, +18% QoQ
- Reported revenue of RMB 57 M, profit contribution of RMB 26 M

Japan Solar

Significant increase in power sold supported by higher irradiation from favorable weather conditions

- Average capacity factor 2Q21 reported at 17.0%, +8% QoQ
- Power sold was 55 GWh, +87% QoQ
- Reported TK distribution of JPY 66 M

Vietnam Wind

Vin Chau project construction progress reached 68%

- Completed wind turbine generation foundation and transmission line construction, COD shifted to 4Q21 due to Covid-19 lockdown in Soc Trang province

Completed El Wind Mui Dinh ownership transfer, will recognize profit in 3Q21

Note: Banpu Power has 50% shareholding in Banpu NEXT

01 Highlights 2Q21

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Banpu Energy Technology: growth targets 2025

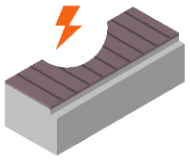
BANPU

SOLAR: ROOFTOP & FLOATING

Including **48.6%** in Sunseap

2Q21: **249** **MW** committed capacity

2025 target: **500** **MW**



ENERGY STORAGE SYSTEMS

47.7% in Durapower

2Q21: **1.0** **GWh** (0.5 GWh on equity basis) Li-ion battery production capacity

2025 target: **3.0** **GWh** (1.4 GWh on equity basis)

E-MOBILITY

30.7% in UMT;
21.5% in FOMM

2Q21:

3,200 passengers/day ride hailing via Muvmi

215 electric vehicles under fleet management

1 E-ferry sold

2025 target:

10,000 passengers/day

5,500+ electric vehicles

100 E-ferries sold

SMART CITIES

100% ownership

2Q21: **5** **projects** Includes energy management, smart infrastructure, etc.

2025 target: **9** **projects**

ENERGY TRADING

100% ownership

2Q21: **305** **GWh** Electricity sales

2025 target: **1,000** **GWh**

Banpu Energy Technology: 2Q21 updates

BANPU

SOLAR: ROOFTOP & FLOATING

ENERGY STORAGE SYSTEMS

E-MOBILITY

SMART CITIES

ENERGY TRADING

FLOATING SOLAR

FLOATING SOLAR PROGRESS
Completed 60% construction of 16 MW floating solar project at LK Rubber Industrial City Hub, the largest privately-owned solar floating project in Thailand

SOLAR ROOFTOP

COMPLETED INSTALLATION & NEW CONTRACT SIGNING
Of 1.9 MW and 0.67 MW, respectively with Khon Kaen Innovation Center

ENERGY SOLUTIONS

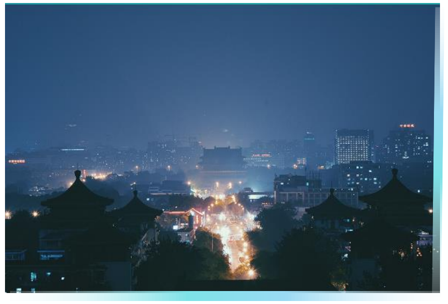
LAUNCHED SMART ENERGY CONSUMPTION ANALYTICS
Energy health check services providing accurate data analytics and guidelines via digital platform to optimize energy saving for enterprises

INTRODUCED NEW SOLAR SMART PACKAGE
Catering towards medium-sized businesses during the Covid-19 pandemic

CSR

EV CAR SHARING FOR CARING PROJECT
Continued collaboration with HAUPCAR to provide smart micro-mobility services at Budsarakam Field hospital. Utilizing a fleet of 21 EV cars and e-scooters, the service includes providing free transportation for medical professionals and personnel, as well as assisting in the transport of medical equipment across hospital grounds

ELECTRICITY SALES



SECURED NEW SUPPLY CONTRACT IN JAPAN
Awarded 10 contracts to deliver 111 GWh of electricity to 6 new clients, including hospitals, universities and National institutes with most contracts' supply period lasting 1 year from April 2021 to March 2022

APPENDIX

Banpu: ‘integrated energy solutions’ 2021

BANPU

ENERGY RESOURCES

Shale Gas

~700 MMcfed
Net production

Mining

42 Mt
Coal sales

ENERGY GENERATION

Renewable Power

824 MW
Committed capacity

Thermal Power

3,244 MW
Committed capacity

ENERGY TECHNOLOGY

Solar: Rooftop & Floating

249 MW
Committed capacity

Clean Energy Tech

1.0 GWh (100% basis)
Li-ion batteries

E-mobility services
E-mobility solutions

5 smart city
projects

305 GWh
electricity trading

Natural gas: reserve and production term

BANPU

Reserve

DEFINITION

- Natural Gas Reserve Definitions in the US are defined by the SEC and are the same as used for oil:
  - 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 1000 cubic feet (MCF)
  - 1000 MCF = 1 MMCF
  - 1,000,000 MCF = 1 BCF
  - 1000 BCF = 1 TCF
  - 1 MCF = 28.3 Meters^3
  - 1 MCF = 1.0 Million BTU (MMBTU) or Decatherms (dry gas)
  - 1 BCF = 1.0 Trillion BTU
  - 1 Meter^3 = 35.3 MCF
  - 1 Billion Meters^3 = 35.3 BCF

2021 indicative guidance

ILLUSTRATIVE AND INDICATIVE ONLY

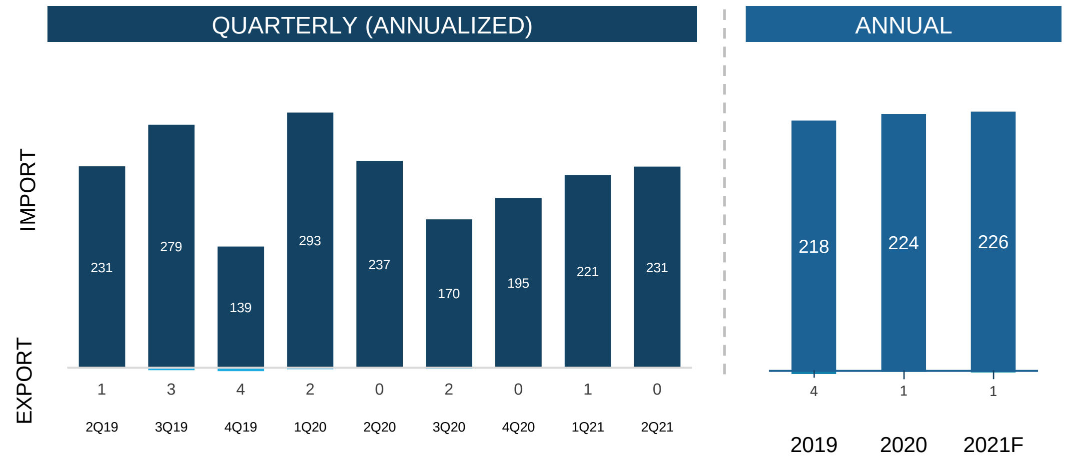
UNIT GUIDANCE (US$/MCF)			COMMENTS
	REVENUE		
	Reserves (Tcf)	*3 – 4*	
	Production volume (Mmcfd)	*600 – 700*	
NET BACK	Average differential to Henry Hub	$0.20 - $0.40	Difference selling points and Henry Hub (NYMEX basis)
NET BACK	GCP&T costs	$1.07 - $1.14	Gathering, compression, fractionation and transportation costs
	Pipeline revenue	$0.02 - $0.05	Applicable to Chaffee Corners volume only
	COSTS		
	Lease operating expense	$0.40 - $0.47	Main component of operating costs
	G&A	$0.24 - $0.29	Recurring general and administration costs
	Taxes	21%	Currently benefit from tax shield due to accelerated DD&A
	DD&A	$0.42 - $0.48	Depreciation, depletion and amortization
	Drilling and completion costs	$0.22 - $0.28	Costs incurred to drill and to make the well ready for production

China: strong demand and supply tightness driven coal prices

BANPU

CHINA THERMAL COAL IMPORTS/EXPORTS*

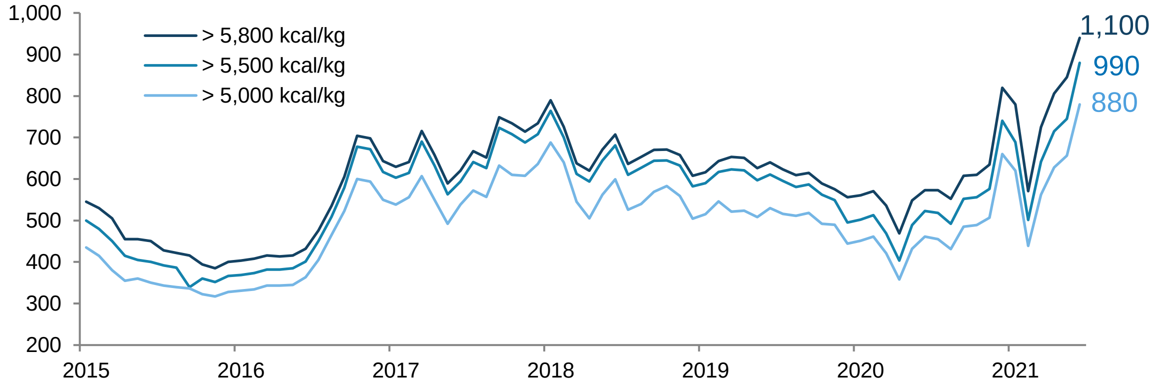
Unit: Mt



Sources: Banpu MS&L

CHINA DOMESTIC COAL PRICES

Unit: RMB/t



Note: *Includes lignite but excludes anthracite imports/exports
Source: www.sxcoal.com/cn 9 August 2021

2Q21

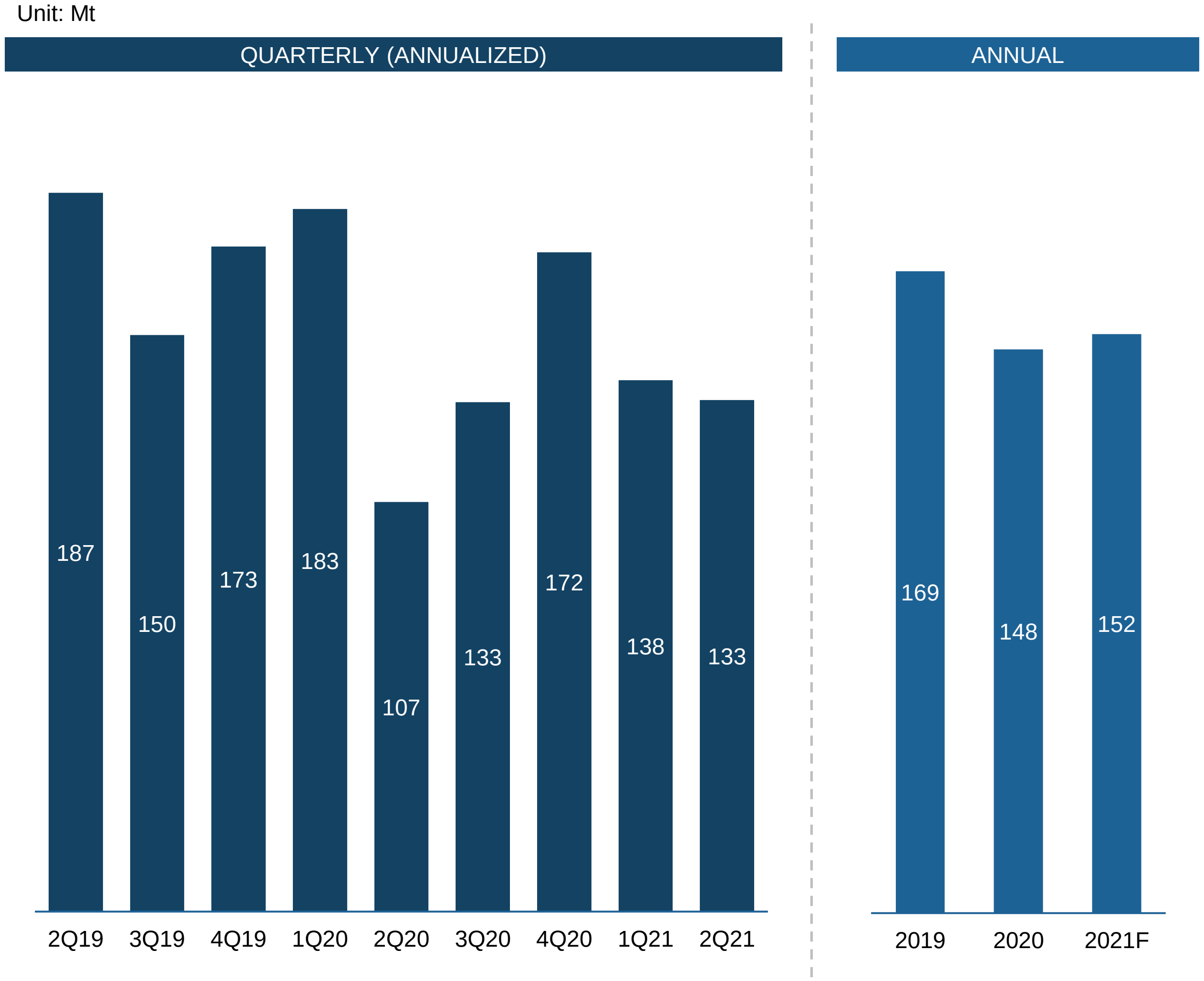
- Soaring domestic coal prices were supported by strong demand and tight supply.
- Strong thermal coal demand in Q2 was driven by a robust economy and strong thermal generation due to weak hydro generation and hotter-than-normal weather.
- Domestic supply contracted in Q2 due to various safety and environmental inspections.
- Central government has asked mines to increase output, but we have not seen any significant increase as mines primarily focus on safety rather than increasing output. Several serious accidents occurred in May and June, making safety the top issue in the run-up to the Communist Party of China’s centenary on 1 July.
- Soaring prices have led to the suspension of various Chinese domestic thermal coal price indices on 11 May in a means to stabilize the market.
- Import restrictions have been suspended in many provinces in June resulting in increased import volume.
- Ban on Australian coal continues to support non-Australian coal prices.

OUTLOOK

- Power demand in Q3 will be driven by warm weather, while demand from industrial sector is expected to remain strong.
- Heavy rainfall and rising mine safety concerns has slowed domestic coal production recovery. We expect domestic supply tightness will continue in Q3.
- It is anticipated that China will continue relaxing coal import restrictions during Q3 (or probably until the end of the year) to offset the domestic coal supply shortage and control the rise in coal prices.
- Thermal coal imports are expected to increase in July and August as shipping data suggests that thermal coal arrivals have been strong. However, this will not ease the supply tightness since imports increase will occur in the peak demand period. China’s ban on Australian coal will continue.

India: coal generation up despite lockdown

INDIA THERMAL COAL IMPORTS*



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

2Q21

- Indian economy has been hit by lockdown in May/June to control the second wave of Covid-19 infections. However, the restrictions have eased gradually from mid-June, and industries are coming back to normalcy.
- Estimated coal-fired generation in Q2 was up 28% YoY, leading to a 34% increase in coal consumption at power plants.
- Coal India Limited (CIL) produced 124 Mt of coal in Q2, up by 2% YoY. CIL's coal dispatch was significantly higher than its output as it includes coal shipped from its inventory. Q2 dispatch was 160 Mt, increased by 33% on the year, leading to stock reducing to about 64 Mt by the end of June versus 100 Mt in Q1.
- Thermal coal imports in Q2 was 33 Mt, down 4% QoQ but up by 25% YoY. Demand for stock building ahead of monsoon season supported imports while global coal price spike pushed Indian buyers to defer their purchases.
- Cement demand was squeezed in April and May; however, the impact was less severe in government-aided projects.
- Indian buyers continued to increase purchase of Australian coal due to high Indonesian and South African coal prices.

Outlook

- Q3 imports are expected to remain dampened by high coal prices and monsoon season. The heavy rains will lead to more hydropower, weak industrial activity and lower overall power demand, decreasing the need for coal generation.
- Slowed coal-fired generation and a higher availability of domestic coal might have weighed on thermal coal imports by power plants.
- Sponge iron prices have recovered in Q2 and stable production is expected for the rest of the year, but high coal prices may delay its purchases.

Coal quarterly output summary

BANPU

AUSTRALIA OPERATIONS: COAL OUTPUT (MT) – ROM OUTPUT ON EQUITY BASIS					
Mines	**CV (kcal/kg)***	**4Q20**	**1Q21**	**2Q21**	**3Q21e**
Western operations		**1.7**	**1.1**	**1.2**	**1.4**
Springvale	6,700	1.0	0.5	0.5	0.6
Clarence	6,700	0.4	0.3	0.4	0.5
Airly	6,700	0.4	0.3	0.3	0.3
Northern operations		**1.3**	**1.3**	**1.1**	**1.7**
Mandalong	6,700	1.1	1.1	0.9	1.4
Myuna	6,700	0.2	0.2	0.2	0.3
Total Australia coal		**3.1**	**2.4**	**2.3**	**3.2**

INDONESIA OPERATIONS: COAL OUTPUT (MT) – ROM OUTPUT ON 100% BASIS									
Mines	**CV (kcal/kg)***	**4Q20**		**1Q21**		**2Q21**		**3Q21e**	
		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	2.3	10.3	1.8	12.5	1.9	11.0	1.9	10.7
Trubaindo	6,550 – 6,700	0.9	8.3	0.7	14.0	0.9	11.9	1.2	11.4
Bharinto		1.1	6.7	1.0	6.7	1.3	6.6	1.7	7.4
Kitadin-Embalut	5,800	0.1	10.6	0.3	18.6	0.4	17.0	0.5	15.8
Jorong	5,300	0.2	7.4	0.2	11.6	0.3	13.4	0.3	11.7
Total Indonesia coal		**4.6**	**8.9**	**4.0**	**11.5**	**4.7**	**10.5**	**5.5**	**10.3**

CHINA OPERATIONS: COAL OUTPUT (MT) – ROM OUTPUT ON 100% BASIS					
Mines	**CV (kcal/kg)***	**4Q20**	**1Q21**	**2Q21**	**3Q21e**
Gaohe		2.0	2.3	2.3	2.3
Hebi		0.3	0.2	0.2	0.3
Total China coal		**2.3**	**2.5**	**2.5**	**2.6**

Note: *CV figures are air-dried basis

Key external and corporate events

BANPU

EXTERNAL EVENTS

INDIRECT

- *BoT maintained policy rates at 0.50%*
- *Blockage of Suez Canal by Ever Given*
- *World recorded highest Covid-19 cases since the beginning of the pandemic*
- *Indonesian government announced its plan to stop approving new coal-fired power plants*
- *BoT maintained policy rates at 0.50%*

DIRECT

- *Henry Hub price rose above $20/MMBtu due to colder-than-normal weather affecting most of Lower 48 states*
- *Newcastle coal price index increased to $91.1/t*
- *Henry Hub price rose above $3.00/MMBtu from higher electricity demand due to hot weather*
- *Newcastle coal price index increased to $131.4/t, hitting 10-year high*

1Q21 | **2Q21**

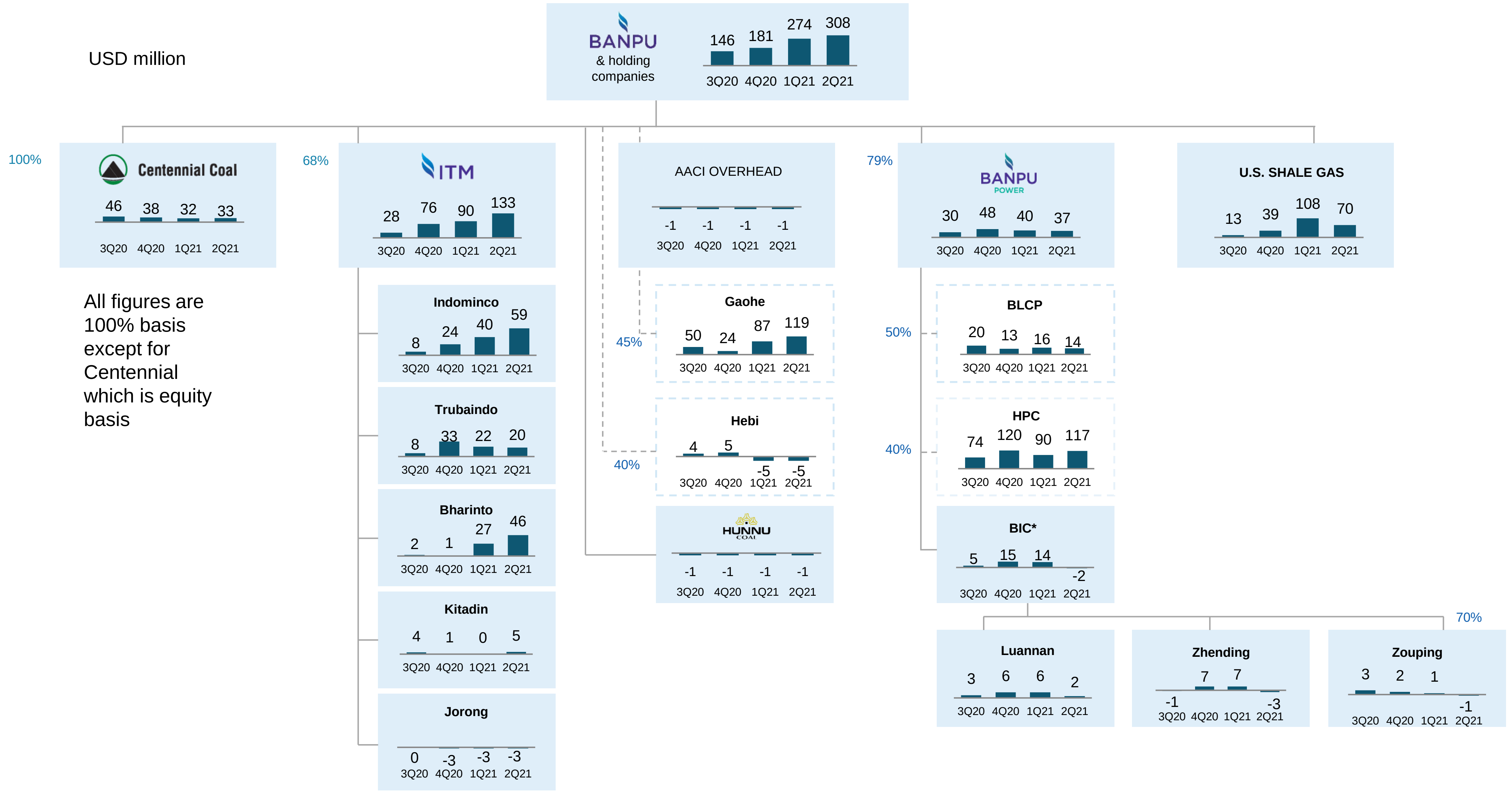
CORPORATE EVENTS

- *4Q20 and FY20 results presentation*
- *Announced investment in Nakoso IGCC through Banpu Power*
- *Nakoso IGCC started commercial operation*
- *1Q21 results presentation*
- *Announced investment in 2 solar farms in Australia with a total capacity of 167 MW*
- *Announced BOD’s resolution to issue new shares through rights offering and warrant issuance*

FX impact analysis guidance on P&L

CURRENCY EXPOSURE	NPAT IMPACT 2Q21 (US$M)	APPROXIMATE FX EXPOSURE (US$M) NET LIABILITY	APPROXIMATE FX EXPOSURE (US$M) NET ASSET	NPAT 5% SENSITIVITY 3Q21 (US$M) *Assuming 5% depreciation of local currencies against USD*	
Banpu: THB bond and Others	13.2	-860		THB 40	*BOT revised down growth for 2021 to 0.7% from 1-2% previously*
ITMG: IDR asset and liabilities	1.2		50	IDR -2	*BI revised down growth for 2021 to 3.5-4.3% from 4.1-5.1% previously*
CEY: USD asset and liabilities	-1.0	-300		AUD -17	*RBA forecast revised down growth for 2021 to 4.0% from 4.75% previously*
Net	13.4			NET 21	

Banpu group EBITDA breakdown



All figures are 100% basis except for Centennial which is equity basis

Consolidated NOT consolidated

Note: all ownership 100% unless otherwise shown
*BIC = Banpu Investment China

Banpu group net debt breakdown

USD million

Note: all ownership 100% unless otherwise shown
*BIC = Banpu Investment China

Banpu consolidated: operating profit

USD million	2Q21	1Q21	2Q20	QoQ%	YoY%
Total sales revenues*	**799**	**736**	**518**	+9%	+54%
Sales revenue – Coal	587	461	453	+27%	+30%
Sales revenue – Gas	160	186	11	-14%	+1,355%
Sales revenue – Power	36	67	41	-47%	-12%
Cost of sales	(530)	(508)	(491)		
Gross Profit*	**269**	**227**	**62**	+19%	+334%
Gross profit – Coal	210	121	57	+74%	+268%
Gross profit – Gas	55	105	(6)	-48%	n.a.
Gross profit – Power	2	16	9	-86%	-74%
GPM	***34%***	***31%***	***12%***		
GPM – Coal	*36%*	*26%*	*13%*		
GPM – Gas	*34%*	*56%*	*-55%*		
GPM – Power	*7%*	*23%*	*23%*		

Note: * including other businesses

Banpu consolidated: operating profit

USD million	2Q21	1Q21	2Q20	QoQ%	YoY%
Gross Profit	**269**	**227**	**62**	+19%	+334%
GPM	***34%***	***31%***	***12%***		
SG&A	(88)	(81)	(75)		
Royalty	(57)	(44)	(44)		
Income from associates	63	43	31		
Other income and Dividend	12	11	8		
Mining property	(8)	(8)	(8)		
EBIT	**192**	**148**	**(26)**	+29%	n.a.
EBIT – Coal	112	44	(42)	+152%	n.a.
EBIT – Gas	43	82	(12)	-47%	n.a.
EBIT – Power	33	36	28	-10%	+12%
EBIT – Energy Technology	4	(14)	-	n.a.	n.a.
EBITDA	**308**	**274**	**72**	+12%	+329%
EBITDA – Coal	194	138	37	+41%	+420%
EBITDA – Gas	70	108	2	-35%	+4,372%
EBITDA – Power	37	40	33	-8%	+12%
EBITDA – Energy Technology	7	(12)	-	n.a.	n.a.

Banpu consolidated: net profit

USD million	2Q21	1Q21	2Q20	QoQ%	YoY%
EBIT	**192**	**148**	**(26)**	+29%	n.a.
Interest expenses	(41)	(43)	(44)		
Financial expenses	(2)	(2)	(2)		
Income tax (core business)	(21)	(20)	(7)		
Minorities	(35)	(26)	(6)		
Net profit before extra items	**92**	**58**	**(85)**	+59%	n.a.
Non-recurring items*	(3)	(5)	(33)		
Gain (Loss) on Derivatives Transactions	(48)	(5)	19		
Income tax (non - core business)	(1)	(0)	(3)		
Deferred tax income (expenses)	(11)	(26)	44		
Net profit before FX	**29**	**21**	**(58)**	+38%	n.a.
FX translation	13	29	(21)		
Net Profit	**42**	**51**	**(79)**	-17%	n.a.
EPS (US$/share)	0.008	0.010	(0.015)		

Note: * income from non-core assets and other non-operating expenses

Centennial: income statement

USD million	2Q21	1Q21	2Q20	QoQ%	YoY%
Sales volume (Mt)	**2.5**	**2.6**	**3.1**	-5%	-19%
Sales revenue	172.4	162.3	165.1	+6%	+4%
Cost of Sales	(157.0)	(164.7)	(170.7)		
Gross Profit	**15.4**	**(2.4)**	**(5.6)**	n.a.	n.a.
GPM	9%	-1%	-3%		
SG&A	(28.2)	(20.3)	(23.2)		
Royalty	(11.0)	(10.6)	(11.1)		
Other income	4.1	1.4	1.7		
Other expenses	-	-	-		
EBIT	**(19.8)**	**(31.9)**	**(38.3)**	n.a.	n.a.
Interest expenses	(5.4)	(5.6)	(5.2)		
Financial expenses	(0.8)	(0.7)	(0.5)		
Gain (loss) on exchange rate	(1.1)	0.2	(1.9)		
Gain (loss) on derivative	(6.8)	(2.4)	4.7		
Corporate income tax	-	-	-		
Deferred tax income	10.0	12.1	12.2		
Net Profit	**(23.8)**	**(28.3)**	**(29.0)**	n.a.	n.a.

Australia coal: quarterly equity rom output

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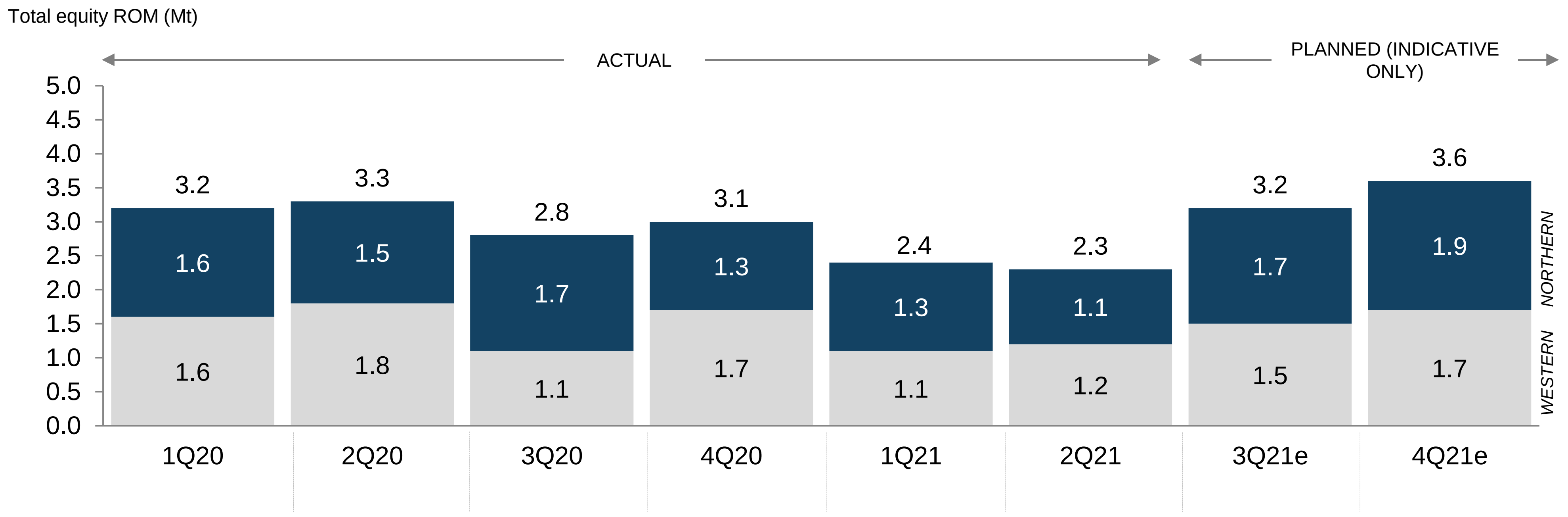

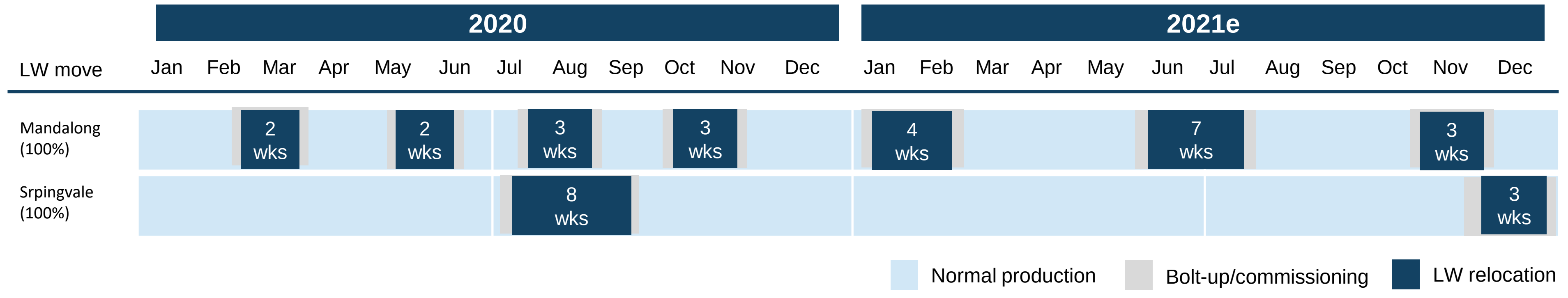

Note: 1 Production generally responds to the timing of longwall changeovers (i.e. lower production results during a longwall changeover period)

2 As of 1 December 2019, Centennial's economic interest in each of Angus Place and Springvale became 100%.

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