BANPU

2Q20 results

Investor and analyst update

13th August 2020

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Banpu: innovating in a time of disruption

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Smooth operations with safety measures in place and no shutdowns

Continuous efficiency improvements driven by digital transformation

Cost rationalization with target of 20% cost reductions across all operations

Antifragile* strategy

Weathering global disruptions through our integrated energy solutions portfolio to diversify risks and seize new opportunities

CSR and stakeholder engagement

Embracing change and supporting communities and societies in times of need

Innovating the energy ecosystem of the future

Developing new-era clean energy tech to leverage the ‘3D’ mega-trends

Greener Smarter energy transition

Transition to Greener business, accelerated by Barnett acquisition, restructuring of gas business and continuing investment in renewables

Note: *Nassim Nicholas Taleb's book – "Antifragile: Things that Gain from Disorder" describes ‘antifragility’ as ‘beyond resilience or robustness’. The resilient resists shocks and stays the same; the antifragile gets better.

Banpu's ongoing support in the fight against Covid-19

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SUPPORT AND RELIEF

More than 380 bags of supplies worth over THB 300,000 given to Pattaya tourism sector workers from the *Mitr Phol-Banpu Solidarity to Aid Thailand on Covid-19 Confrontation Endowment.*

5,700 sets of medical supplies to 19 hospitals, and 500 bags of relief supply to orphans, across 3 Thai Southern border provinces.

THB 2 M donated to Thai Red Cross Society's 'Cloth Face Masks for Self-Protection from Covid-19' project to distribute 10 M cloth face masks and 180,000 sets of daily necessities across the country.

PROTECTION & PREVENTION

THB 10 M donated to Thai Red Cross. The funding aims to alleviate the Covid-19 impact under "Plus One" project, which produces and distribute the "Mask for Blood Hero" to blood donors

More than 40,000 cloth masks worth over THB 720,000 distributed across 151 schools.

ROAD TO RECOVERY

THB 30 M donated to Thammasat University Hospital for a Respiratory Care Unit and other medical equipment

THB 10.5 M given to Thammasat University Hospital for purchasing ventilators and the construction of negative pressure rooms.

THB 8.6 M donated to Golden Jubilee Medical Center and Sanam Chai Khet Hospital to fight Covid-19.

THB 1.8 M given to Buddhasothorn Hospital for positive pressure clinic and negative pressure medical procedure room.

Banpu: sustainability leader

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ENVIRONMENT

SOCIAL

GOVERNANCE

MEMBER OF
Dow Jones Sustainability Indices
In Collaboration with RobecoSAM

The DJSI is managed by RobecoSAM, the world's longest running and most prestigious sustainability rating agency. Thousands of publicly traded companies participate each year.

Banpu has been a Gold Class Industry Leader on the DJSI since 2014.
In 2019, 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. Its research is used by over 1,400 investors worldwide.

In 2019, Banpu was upgraded to 'A' rating in MSCI ESG Ratings assessment for having a track record of managing the most significant ESG risks and opportunities relative to peers.

Barnett acquisition: accelerated transaction completion

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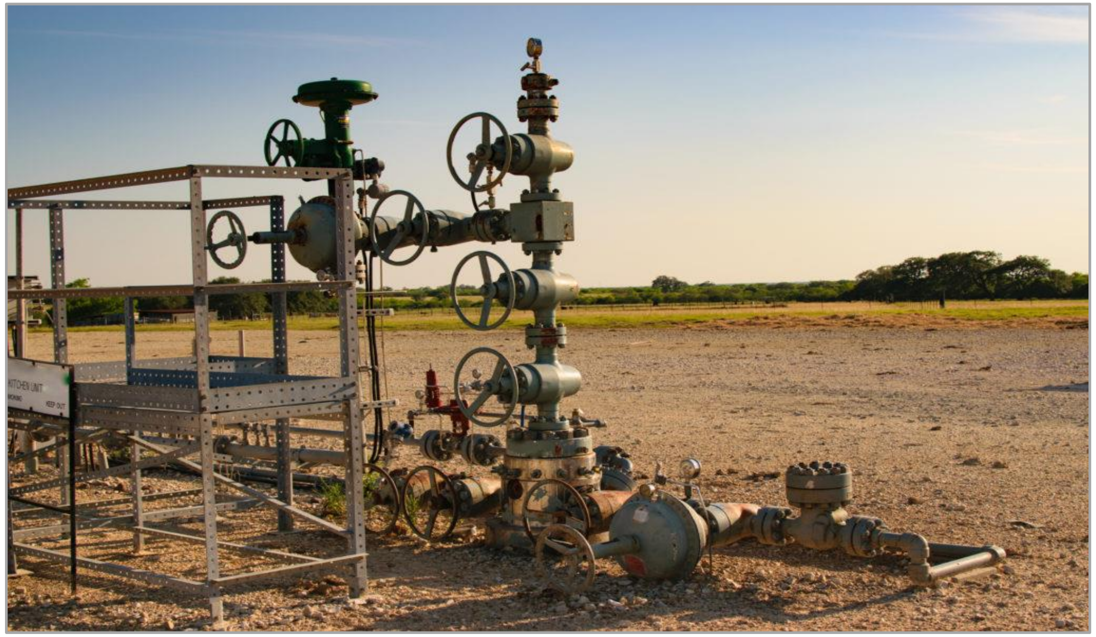
1st Oct
2020
New closing date

31st Dec
2020
Previous arranged date



TAKING ADVANTAGE OF GAS PRICE RECOVERY

Recent Henry Hub gas price rebound to $2/MMBtu range supported by resilient domestic US demand

EARLY PROFIT REALIZATION

Additional profit contribution in 4Q20 with access to the largest gas-consuming state in the US and export facilities

SYNERGIES WITH BANPU'S MARCELLUS SHALE

Technology integration with Marcellus assets to further improve efficiency and cost reduction

Restructuring to capture future upside potential

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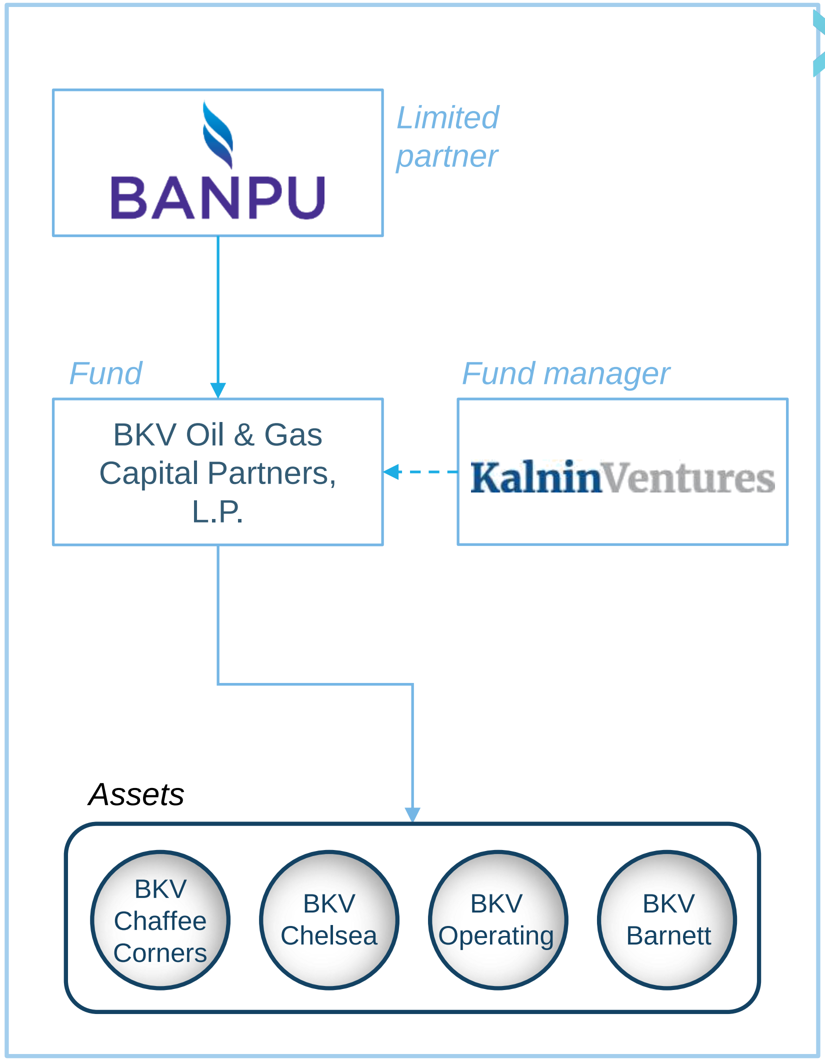
OLD GAS BUSINESS STRUCTURE



CORPORATIZATION OF BKV

Growth mode

Ability to raise capital for future growth

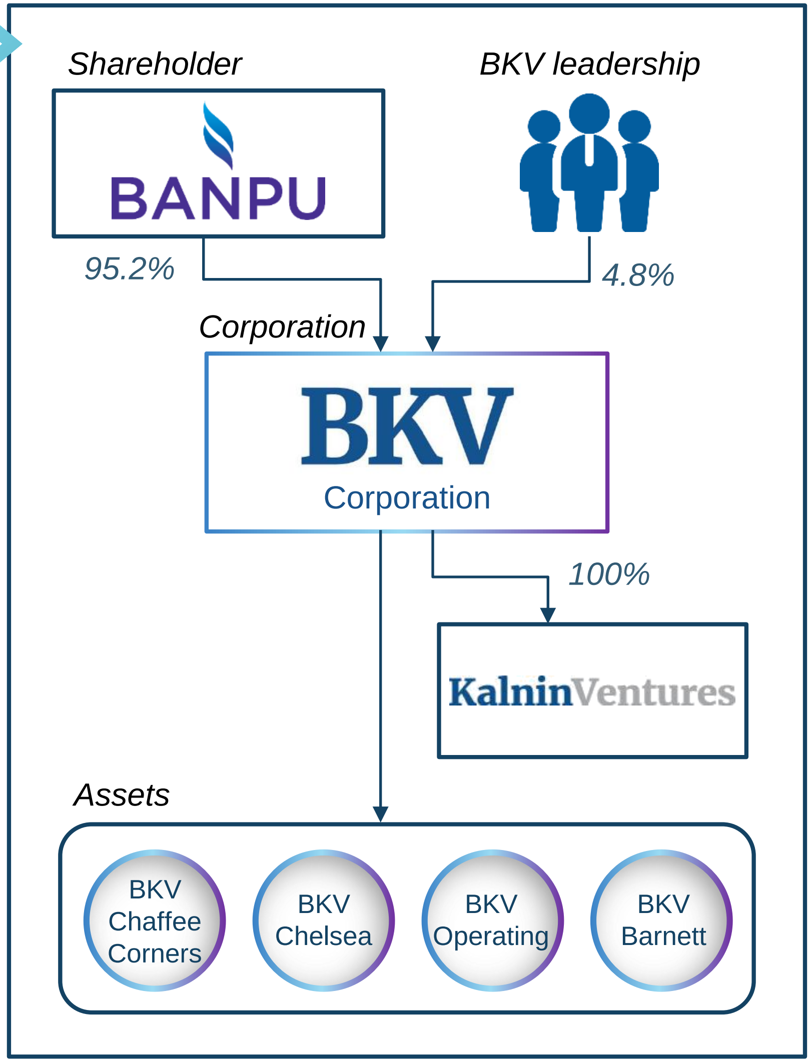
$30.8 M

One time non-cash transaction offering minority shares to BKV leadership

Increased control

Increases Banpu's long-term control over its US gas business

NEW GAS BUSINESS STRUCTURE (POST-MAY 2020)



Resilient business model: ‘integrated energy solutions’

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ENERGY RESOURCES

Shale Gas

0.8 Bcfd*

Net production

Mining

41 Mt**

Coal sales

ENERGY GENERATION

Renewable Power

642 MW

Committed capacity

Thermal Power

2.4 GW

Committed capacity

ENERGY TECHNOLOGY

Solar Rooftop

172 MW

Committed capacity

Clean Energy Tech

0.5 GWh
Li-ion batteries

E-mobility services
E-mobility solutions

4 smart city
projects

280 GWh**
electricity trading

Note: *Includes Barnett production capacity **2020 target

01	02	03	04	05
Highlights 2Q20	**Financial Summary**	Energy Resources	Energy Generation	Energy Technology

Banpu consolidated financial summary 2Q20

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KEY FIGURES

Unit: USD million

EBITDA **$72 M**

Strong result despite low coal and gas prices

NPAT **-$79 M**

Impacted by non-recurring expense from US gas restructuring and FX loss

ND/E **1.34 x**

ND/E increased from 1.19x in the previous quarter

KEY TAKEAWAYS

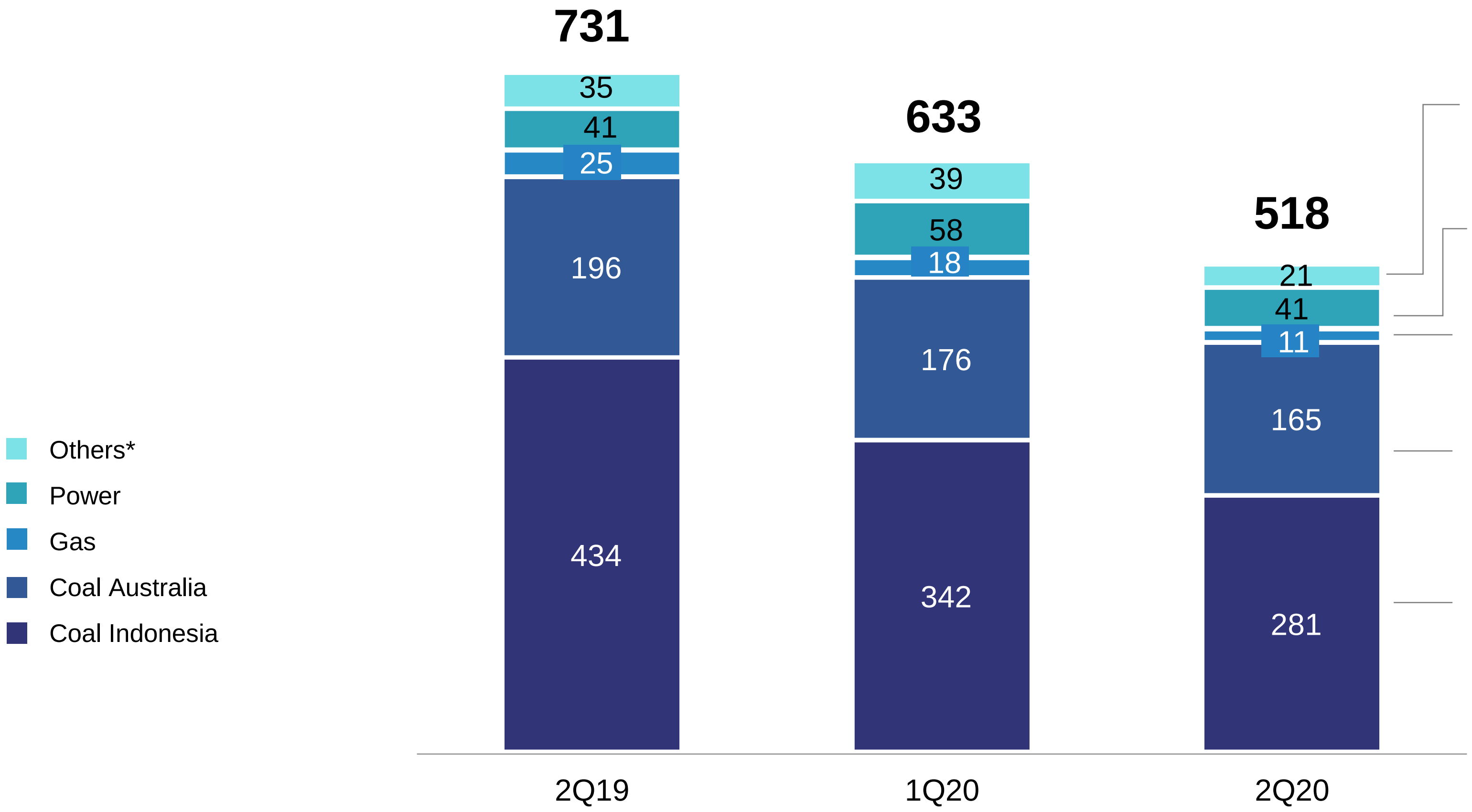
1. **Strategic positioning:** well-positioned to benefit from improving commodity price environment and growth in demand in clean-tech energy businesses
2. **Cash flow:** resilient cash flow amid unfavorable conditions during Covid-19 pandemic with improving outlook
3. **Cost reduction:** continuing implementation of 20% cost reduction program and efficiency improvement across all businesses
4. **Liquidity:** strong financial position with continued support from financial institutions

Banpu consolidated sales revenues – 2Q20

USD million

-18% QoQ

-29% YoY



Others*
-46% QoQ
-40% YoY

Power
-29% QoQ
+1% YoY

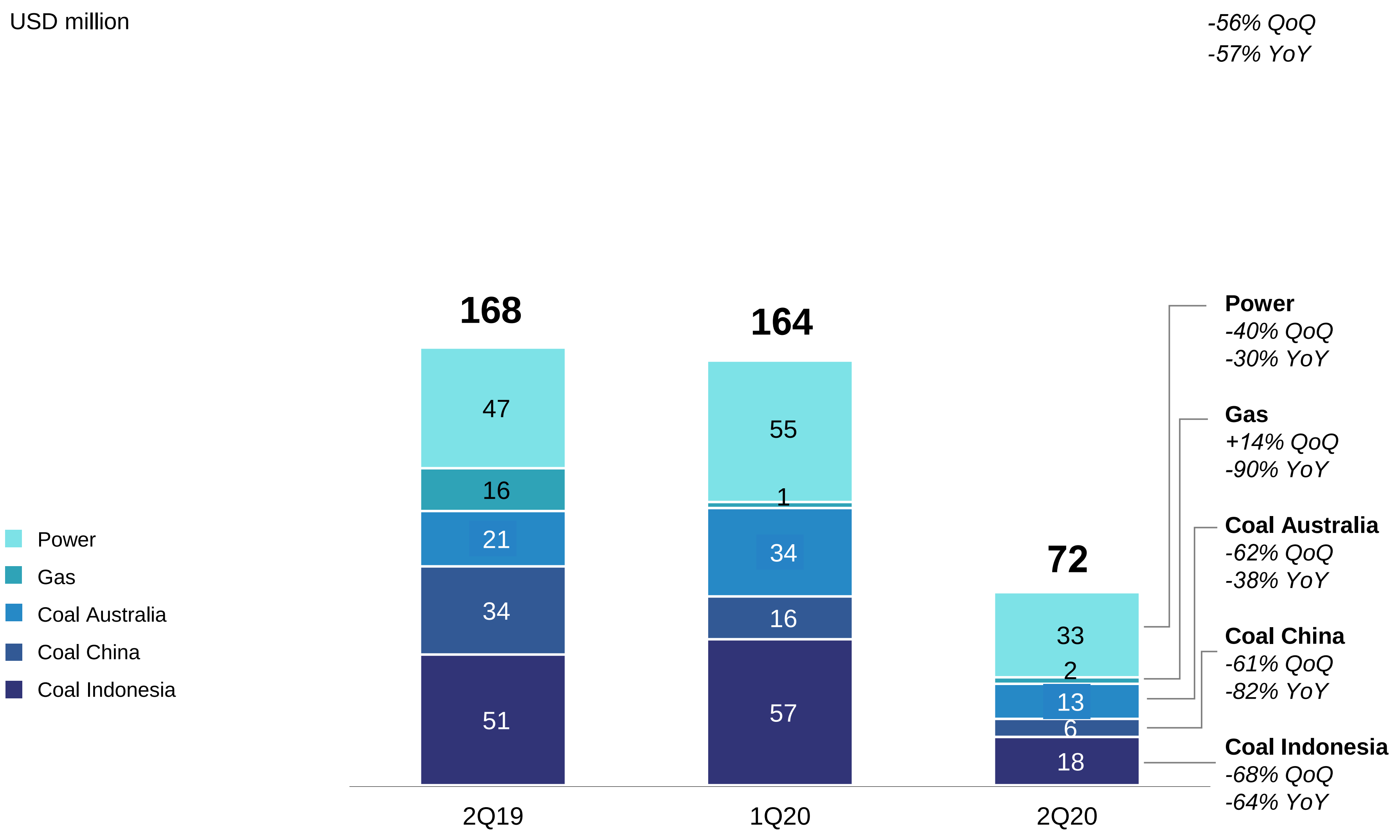
Gas
-41% QoQ
-58% YoY

Coal Australia
-6% QoQ
-16% YoY

Coal Indonesia
-18% QoQ
-35% YoY

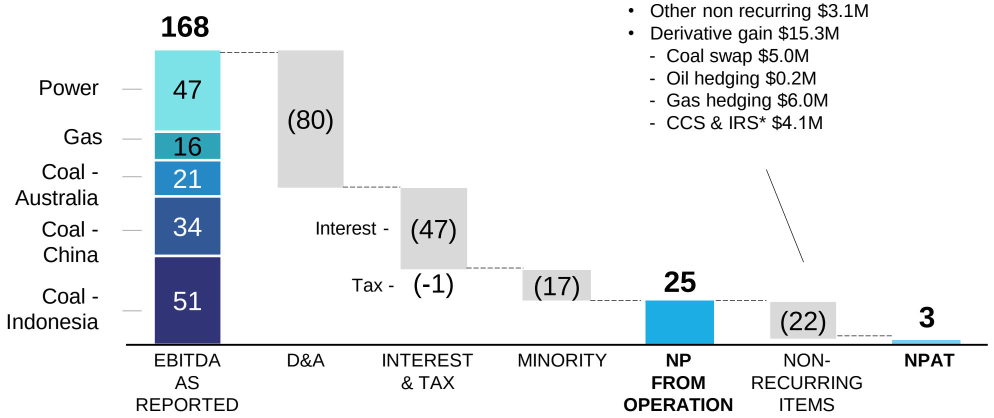
Note: *Revenue from others includes coal trading, fuel business and other businesses

Banpu consolidated EBITDA – 2Q20



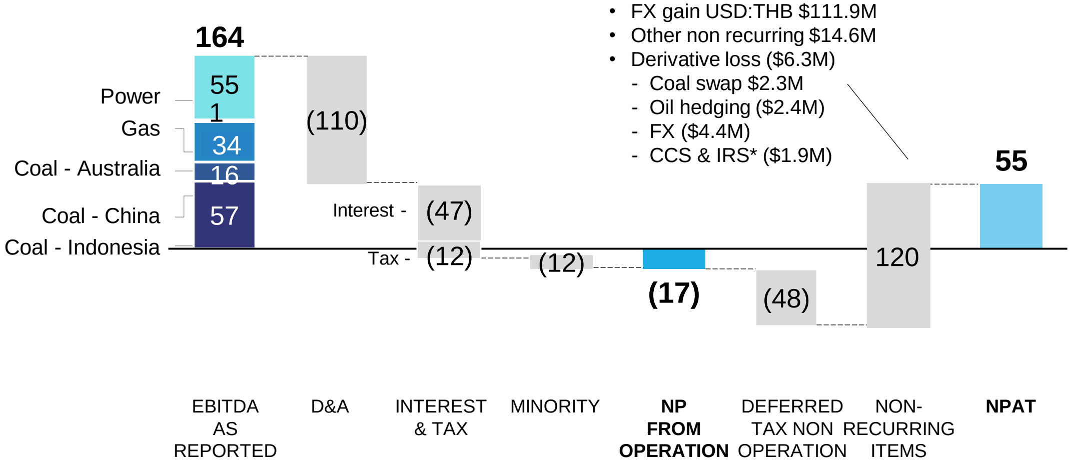
Banpu consolidated NPAT – 2Q20

2Q19 NET PROFIT AFTER TAX



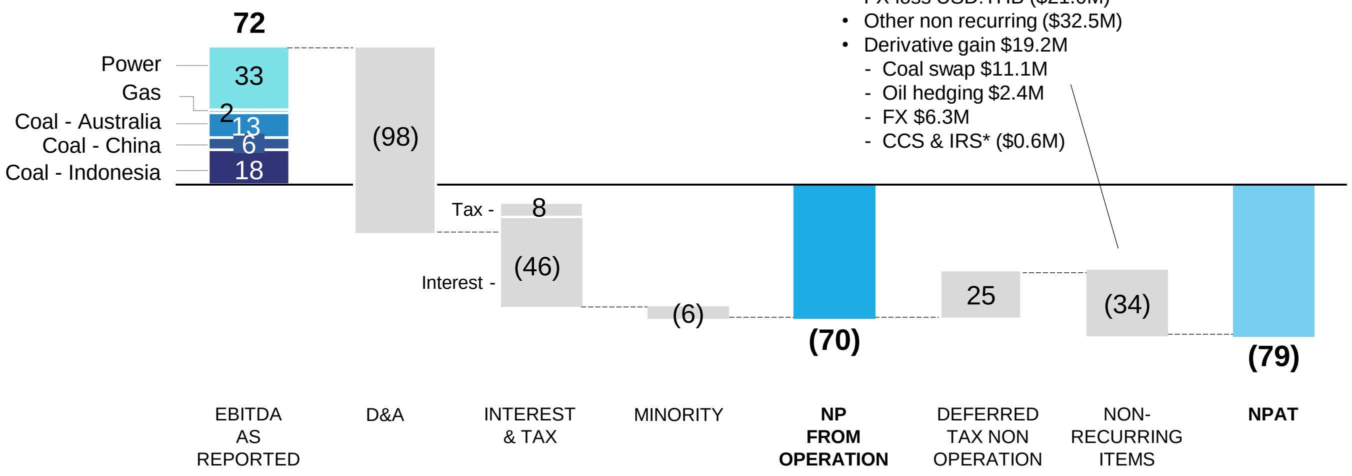
Non-recurring items:
- FX loss USD:THB ($40.8M)
- Other non recurring $3.1M
- Derivative gain $15.3M
  - Coal swap $5.0M
  - Oil hedging $0.2M
  - Gas hedging $6.0M
  - CCS & IRS* $4.1M

1Q20 NET PROFIT AFTER TAX



Non-recurring items:
- FX gain USD:THB $111.9M
- Other non recurring $14.6M
- Derivative loss ($6.3M)
  - Coal swap $2.3M
  - Oil hedging ($2.4M)
  - FX ($4.4M)
  - CCS & IRS* ($1.9M)

2Q20 NET PROFIT AFTER TAX

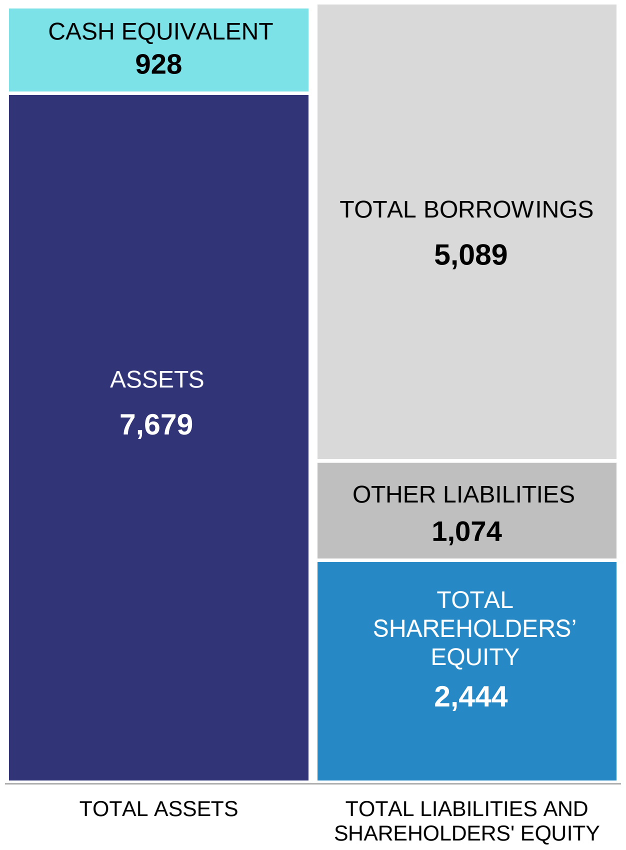


Non-recurring items:
- FX loss USD:THB ($21.0M)
- Other non recurring ($32.5M)
- Derivative gain $19.2M
  - Coal swap $11.1M
  - Oil hedging $2.4M
  - FX $6.3M
  - CCS & IRS* ($0.6M)

Banpu consolidated balance sheet – 2Q20

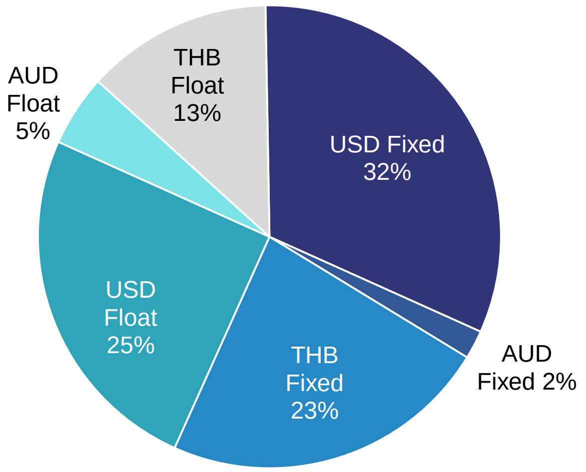
2Q20 CONSOLIDATED FINANCIAL POSITION

USD million



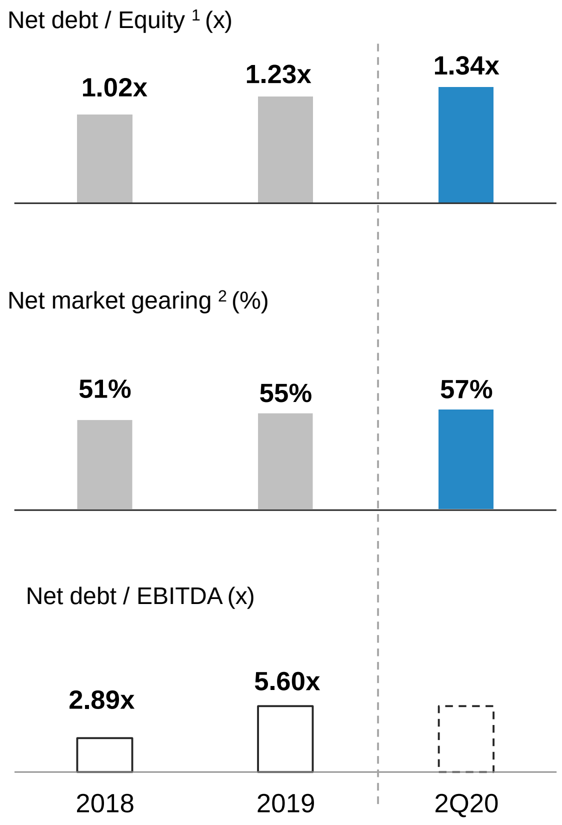
Note:
1 Net debt to book value of shareholders' equity
2 Net debt to enterprise value (enterprise value = net debt + market capitalization as at 30 June 2020)

DEBT FX STRUCTURE



Total gross debt: US$5.09 billion
As of 30 June 2020

GEARING RATIOS



01 Highlights 2Q20

02 Financial Summary

03 Energy Resources

04 Energy Generation

05 Energy Technology

U.S. gas market update

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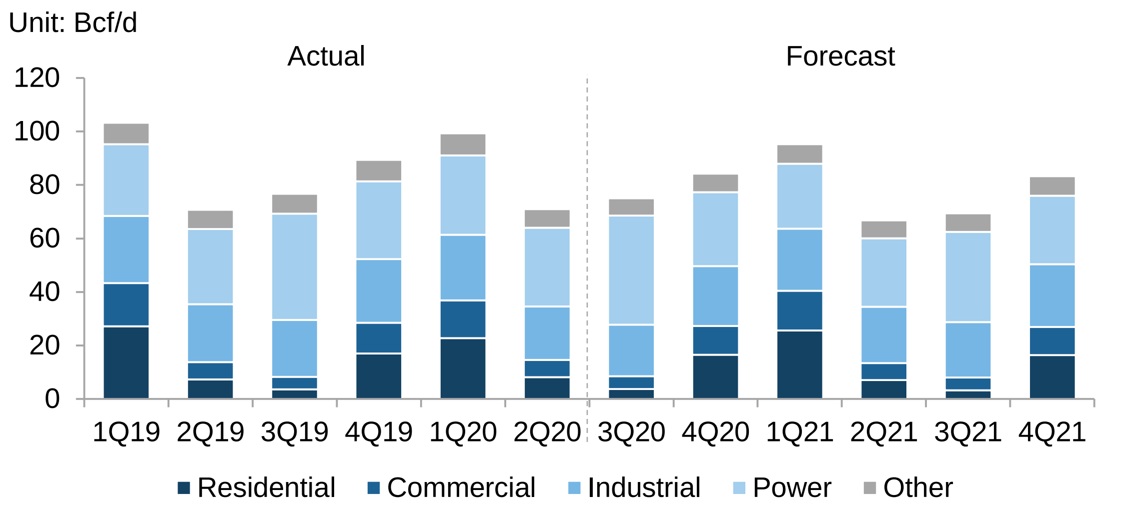
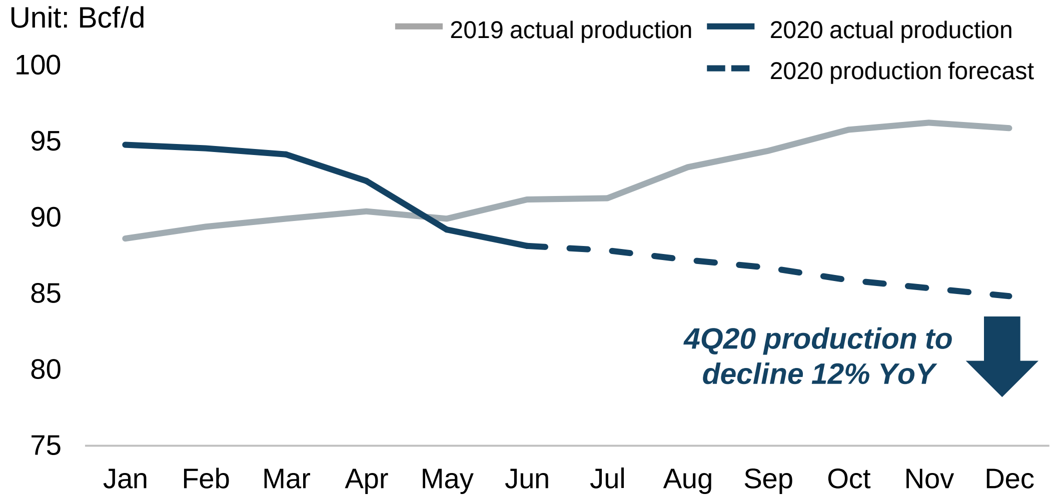
RESILIENT DEMAND PROJECTION

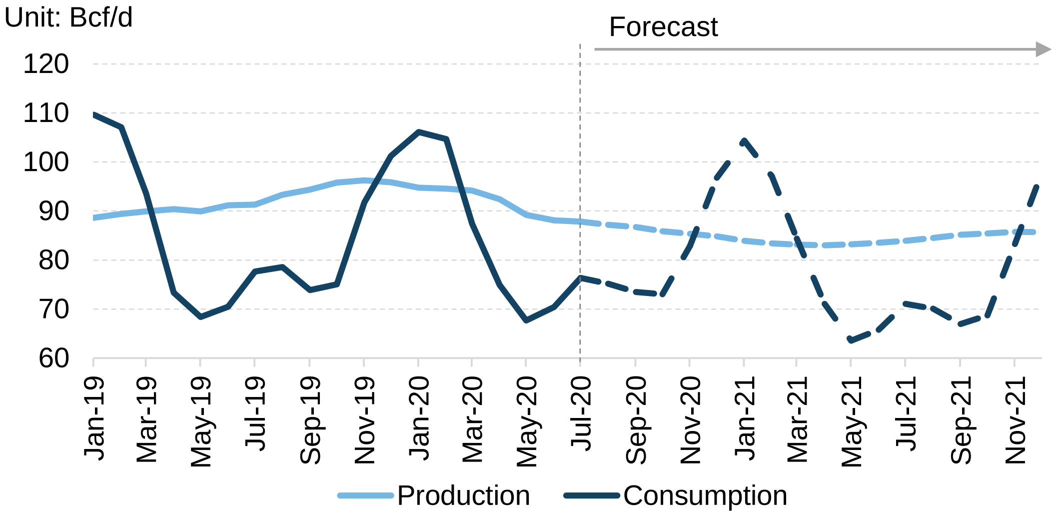


- Majority of US gas demand is domestic consumption. Price determined by local demand and supply with indirect linkage to oil via associated gas production.
- Despite Covid-19 and economic slowdown, demand remains very resilient, with consumption in 2Q20 above 2Q19. Increase driven by residential and power sector consumption, offset by decline in commercial sector.
- Production averages 90 Bcfd in 2Q20 (-6% YoY) amidst sharp drop in drilling activity (rig count decline), production curtailment and bankruptcies.
- Market predicts price recovery in 2H20 and 2021 as supply drops overtake demand stability. Demand resilience along with structural production decline will support price in medium term.

US NATURAL GAS PRODUCTION



US NATURAL GAS PRODUCTION VS CONSUMPTION



Source: EIA

U.S. gas: declining production will support gas price outlook

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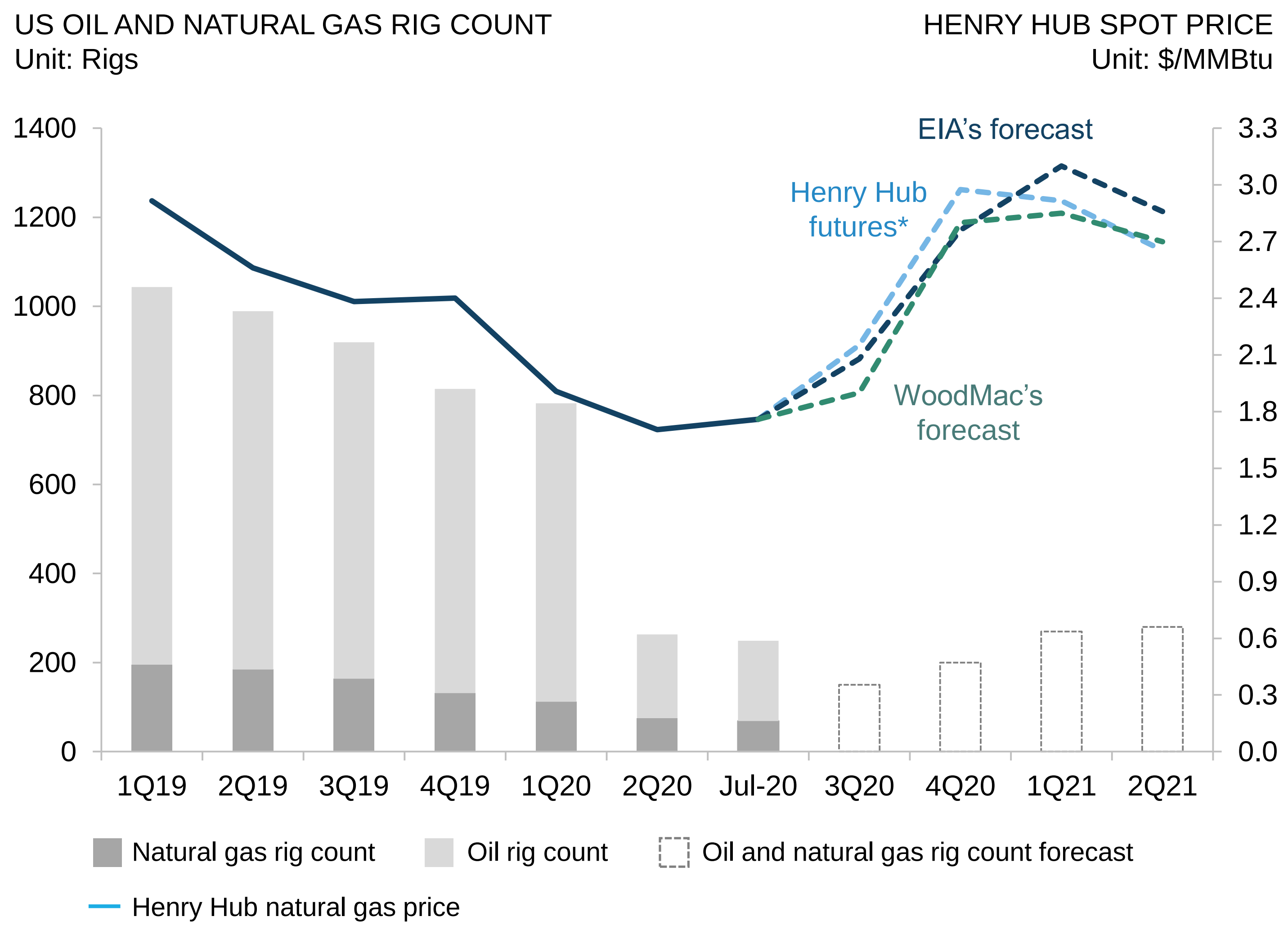
US RIG COUNT VS HENRY HUB PRICE



Note: *as of Aug 1st, 2020
Source: IHA Markit report, WoodMac research and Baker Hughes US natural gas rotary rig count (August 2020)

COMMENT

- Major US gas producers have announced capital spending reduction by 15-30% in response to impact from Covid-19.
- Oil rigs down 74% to 180, gas rigs down 47% to 69 YTD; fewest since 2016
- Decline in rig count and reduction in capital spending indicate lower gas production (associated gas from oil wells and from gas wells)
- Henry Hub futures signal an increase as domestic demand remains stable vs. decline in gas supply.

Banpu Gas: 2Q20 highlights

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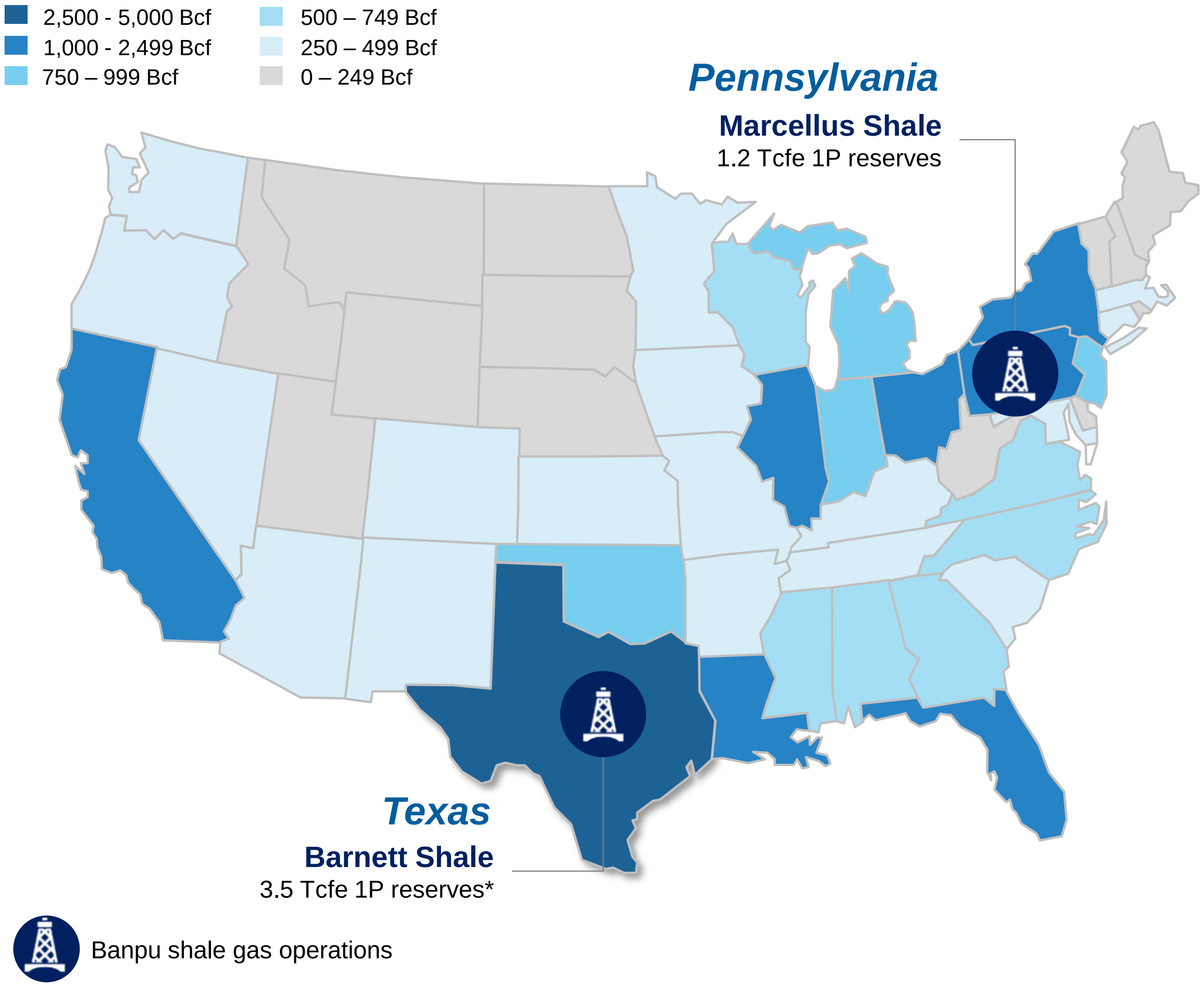
US DRY GAS CONSUMPTION 2018 BY STATE (Bcf)



Average netback price**

$0.52/Mcf

-43% QoQ

Sales volume**

15.9 Bcf

-5% QoQ

EBITDA**

$1.6 M

+14% QoQ

* Banpu signed Purchase & Sale Agreement with Devon Energy Corp in December 2019 subject to conditions precedent, completion expected by 3Q20, ** Marcellus only

Banpu Gas: 2Q20 performance – Marcellus

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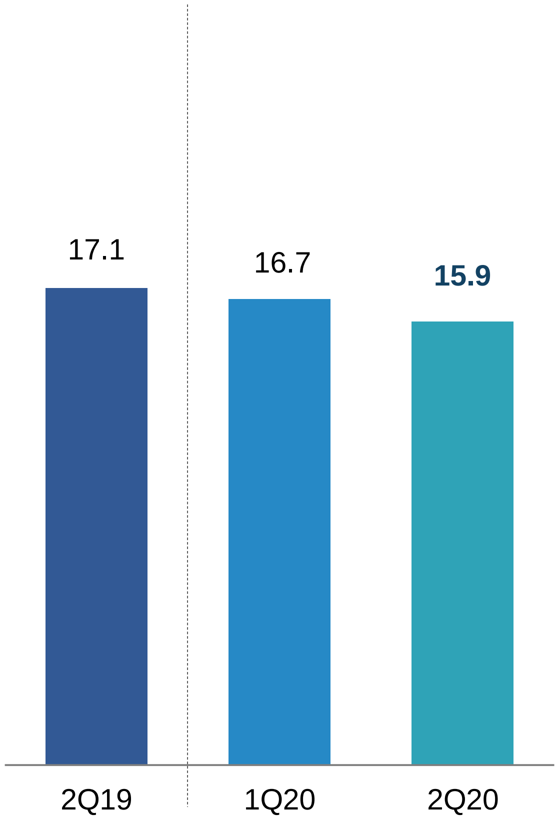
Despite low pricing environment, 2Q20 EBITDA was partially supported by solid production and saving initiatives in place. Continued spending discipline will help uplift 2H20 performance while market prices recover towards winter.

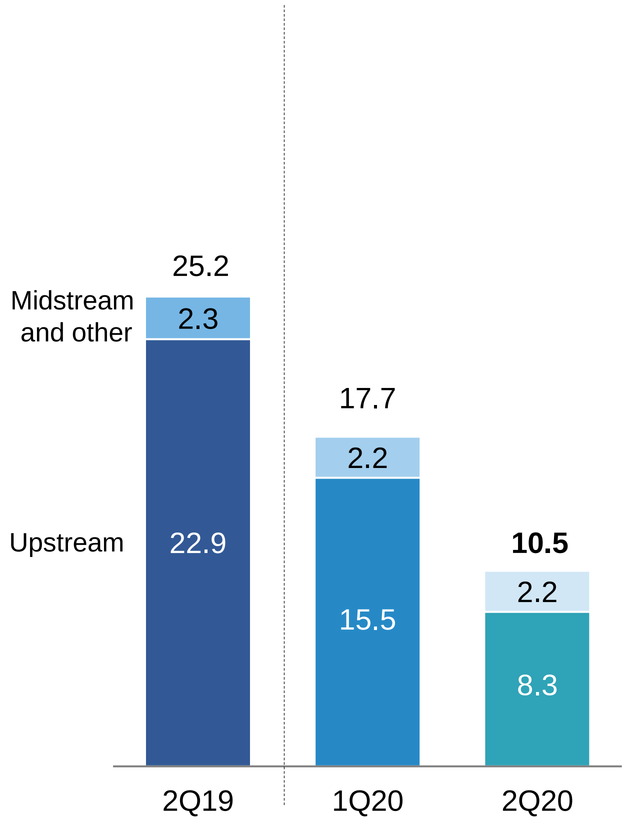
SALES VOLUMES

Unit: Bcf [1]



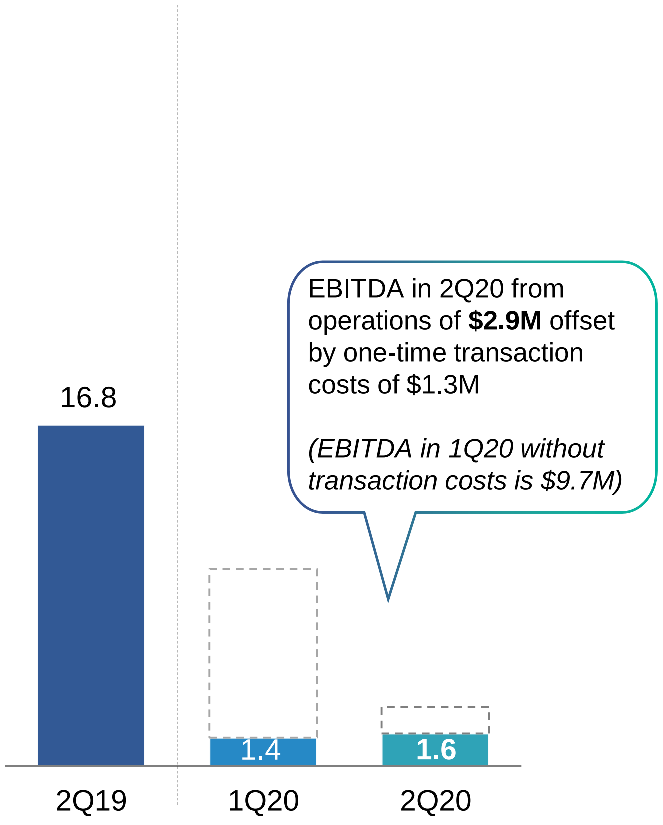
TOTAL REALIZED REVENUE

Unit: US$M



EBITDA

Unit: US$M



Note: 1 Bcf = Billion cubic feet

Banpu Gas: capital reduction and continued opex discipline

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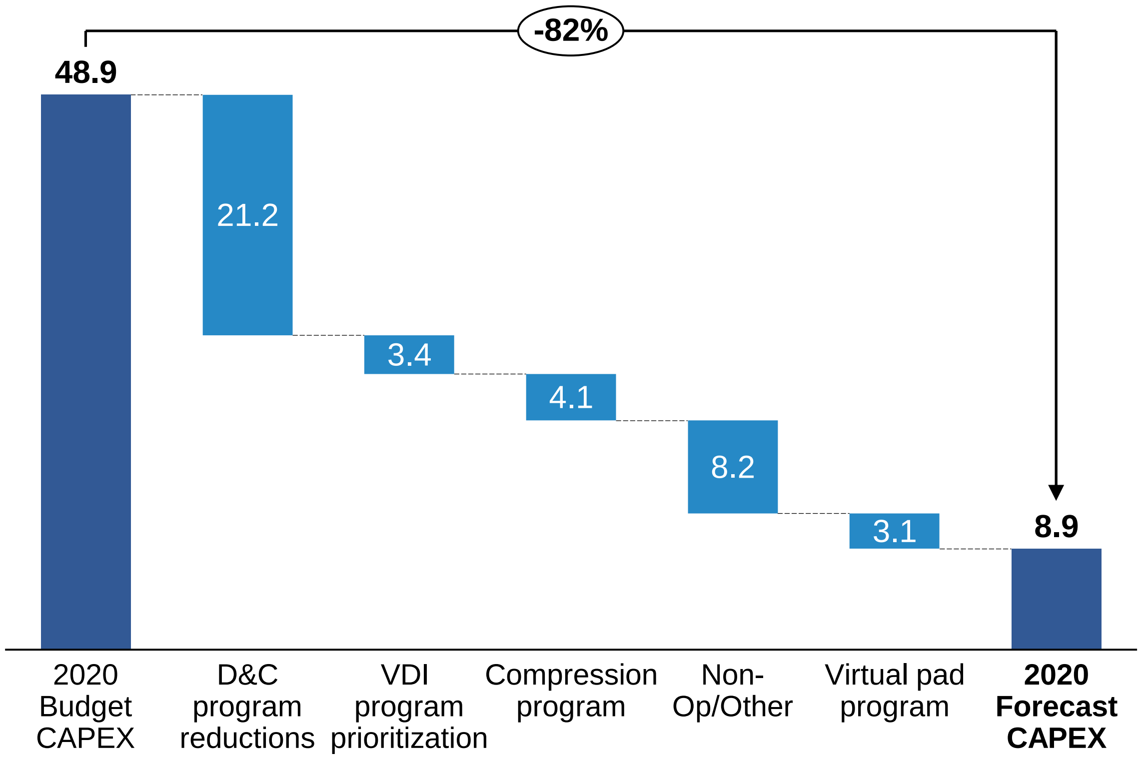
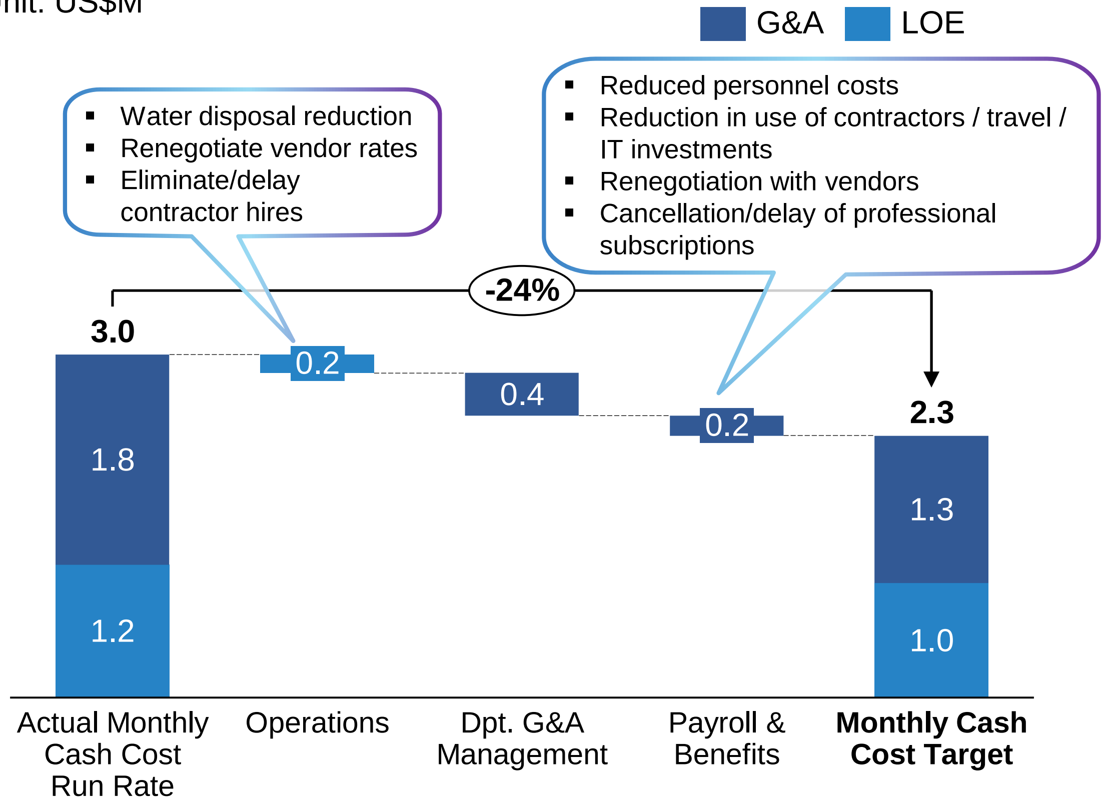
CAPEX SAVINGS

Unit: US$M



OPEX SAVINGS

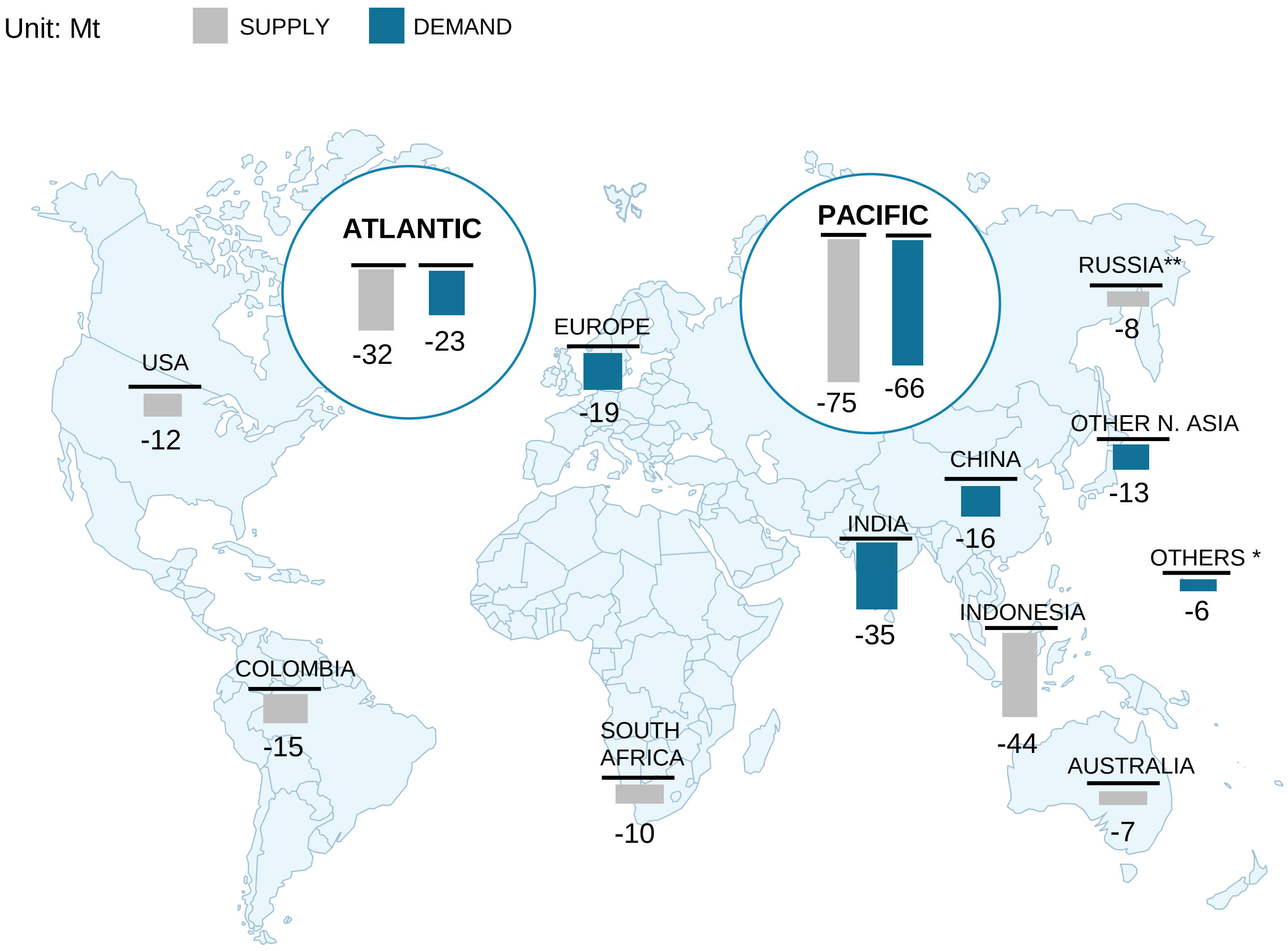
Unit: US$M



- In response to the pricing challenge and macro environment, several initiatives were implemented to boost operational efficiency, cut down capex, and drive opex savings in the short-term.
- Through opex savings, potential increase of $4M to bottom line. Implemented measures have started to pay off.
- Barnett acquisition will increase scale of operations in the U.S. and lead to increased operational efficiencies.

Global thermal coal market

COAL DEMAND AND SUPPLY CHANGE – 2020E VS 2019



TRENDS

DEMAND

Lockdowns around the globe gradually eases and global power demand continues to improve. Recovery has been tepid and spotty.

- **China:** Economic recovery, strong hydro, improving domestic production and stock levels means no rush to relax import quota.
- **India:** Lockdowns have impacted power demand and industrial activities. Emphasis on consumption of domestic coal.
- **Others:** Power recovery slowdown in Japan and South Korea amid resurgence of new Covid-19 cases. Vietnam imports grow with added capacity.

SUPPLY

Producers start to cut production, but no large-scale formal cutbacks announced. Oversupplied market continues.

- **Indonesia:** Production decline sharply due to weak demand and likely to continue in 2H20. Most of the production cuts come from small miners.
- **Australia:** Thermal coal exports steady but likely to be cut in near term; Stronger Australian dollar and rising diesel costs put significant pressure on high-cost mining operations.
- **Others:** Weak European demand and collapsed rail bridge reduce Russian export to Europe; Expect more supply cuts from Colombia and US amid weak European demand and low prices; Weak Indian demand and low prices will continue to hit South African exports.

* Demand in other countries driven by Vietnam, Philippines, Bangladesh and Morocco (across both Pacific and Atlantic) ** Russia exports to non-CIS countries only

Banpu ASPs vs thermal coal benchmark prices

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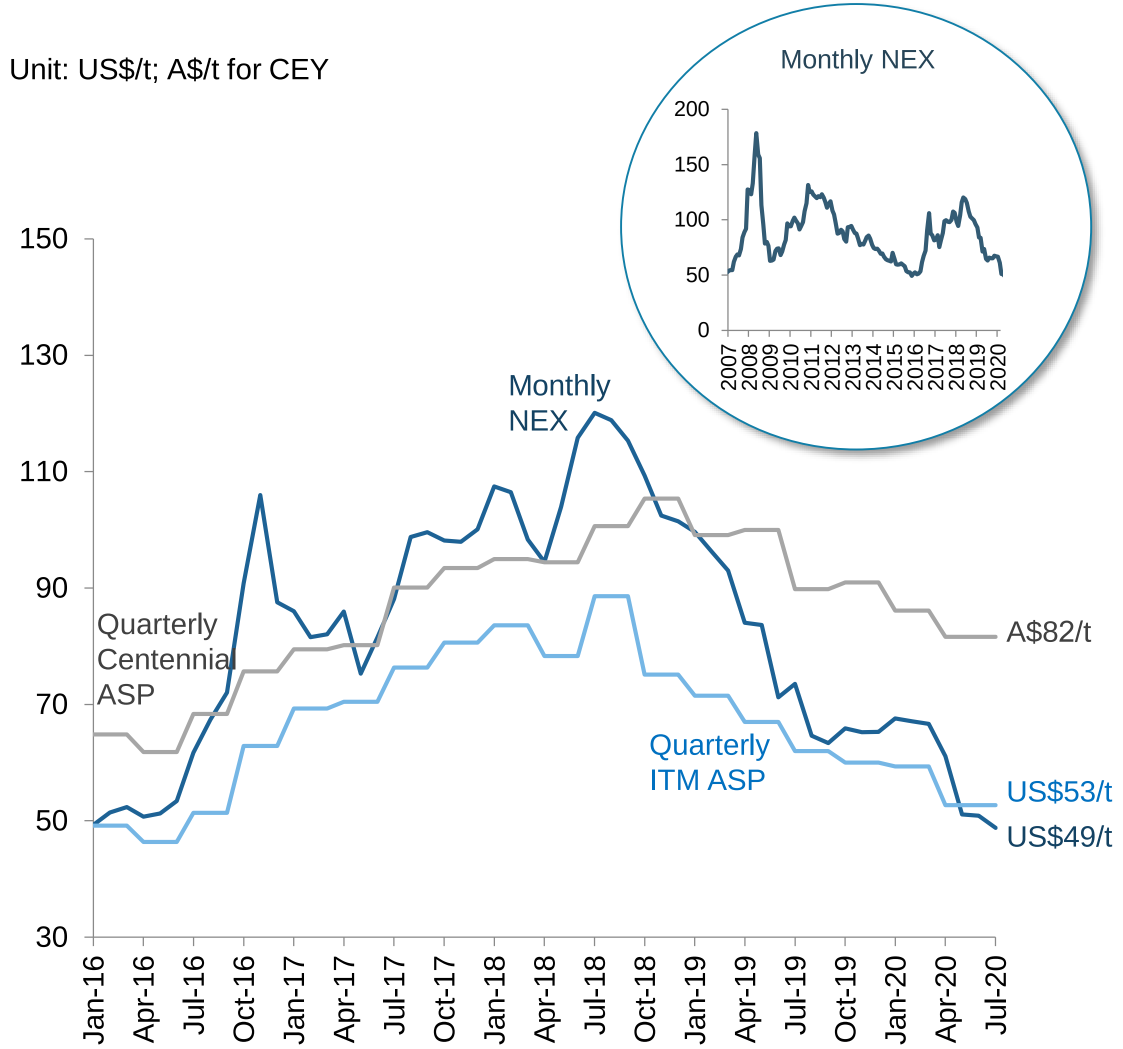
BANPU ASP VS BENCHMARK PRICES



COMMENTS

- NEX has been trading at mid US$50s through most of the 2Q20, dropping from mid US$60s in 1Q20.
- Covid-19 spread through China caused interruption in domestic coal production, hence increased demand for import coal, which helped support Indonesian coal prices during the first 2 months.
- Since March, electricity demand continued to weaken globally with extended lockdowns, China production capacity recovered its strength.
- Global recession saw price drop as demand quickly evaporated. Coal price took a major drop through April touching lowest level seen since early 2016.
- Key price metrics:
  - ITM ASP: US$53/t* (-11% QoQ)
  - CEY ASP: A$82/t* (-5% QoQ)
  - NEX (August 7th, 2020)**: US$48/t

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

Chinese domestic coal price bounce back: increased demand

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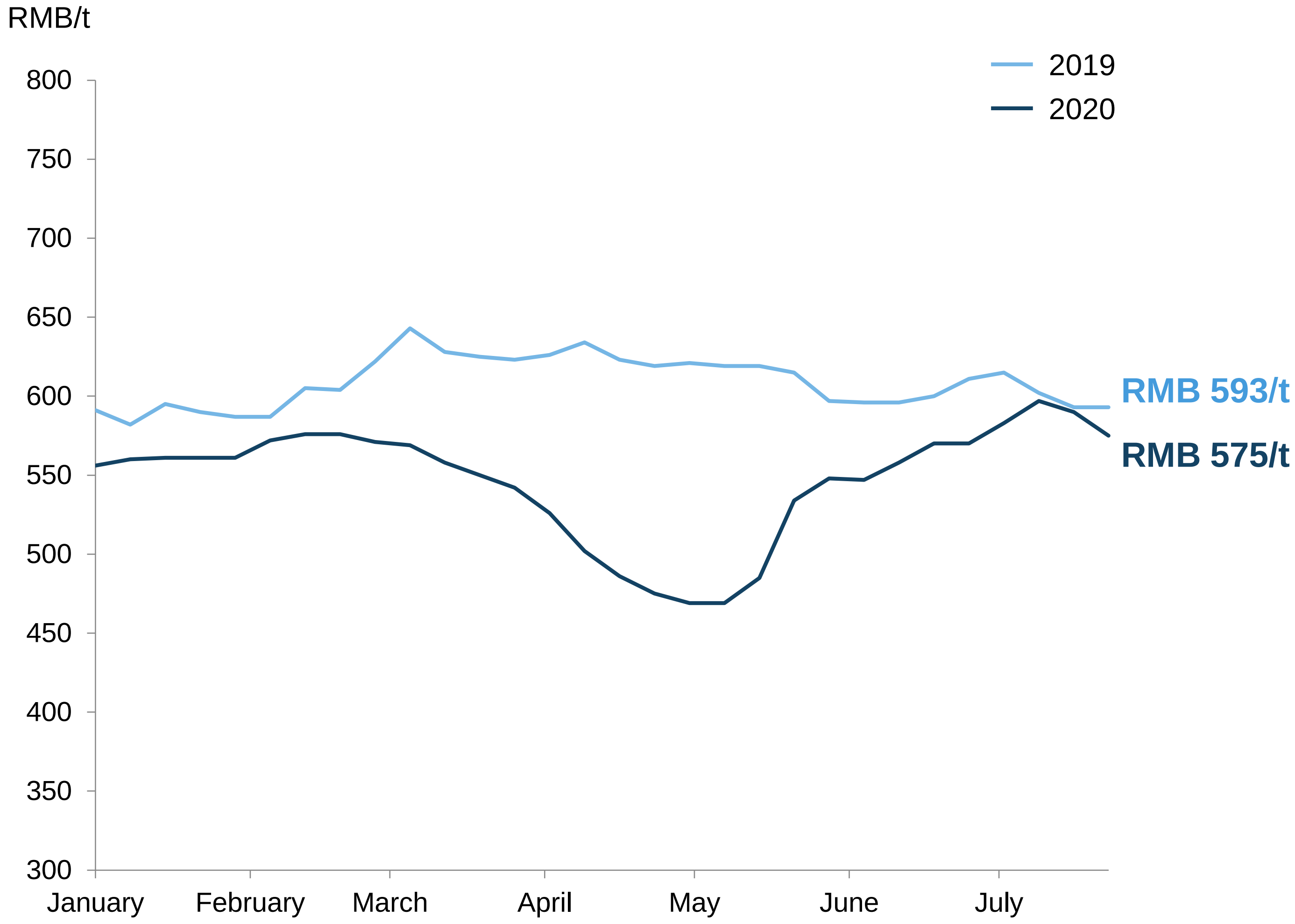
CHINA COAL INDEX (5,500 KCAL) – FOB PRICE 1H20 VS. 1H19



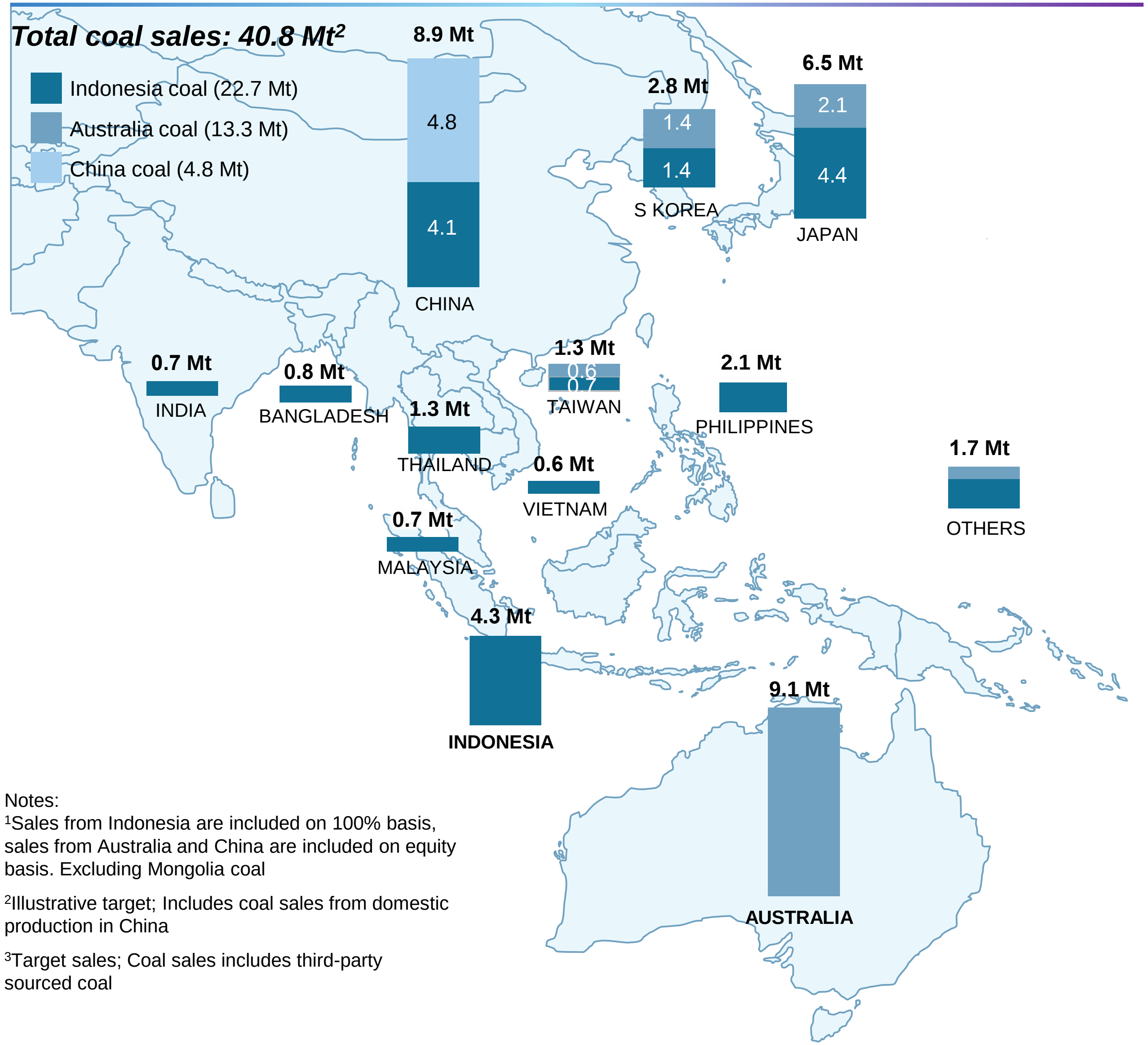
COMMENTS

- Thermal coal price in China has rebounded to pre-Covid-19 levels in 2019.
- Coal import control measures which have been implemented since January 2020 pushed up the domestic price but subdued imported coal prices, resulting in about RMB 200/t gap in July.
- China domestic coal price declined in July due to the flood caused by heavy rainfall in Southern China resulting in lower coal demand in the region.
- Coal prices are expected to rise following the report from China Meteorological Administration that the rainfall is nearing the end.

Source: sxcoal.com (July 2020)

Banpu Mining: group coal sales and pricing status 2020e

COAL SALES[1] SOURCE – DESTINATION ANALYSIS



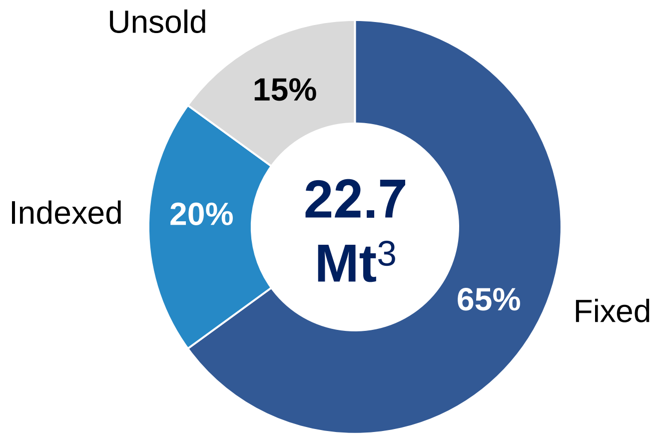
Notes:
[1]Sales from Indonesia are included on 100% basis, sales from Australia and China are included on equity basis. Excluding Mongolia coal

[2]Illustrative target; Includes coal sales from domestic production in China

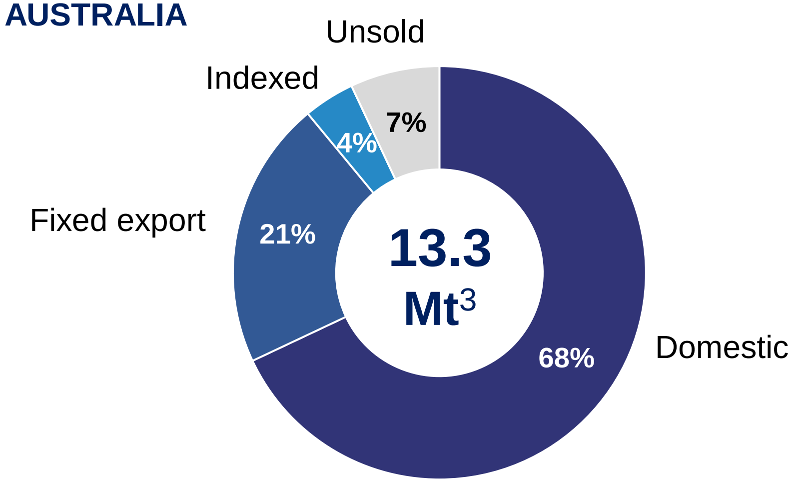
[3]Target sales; Coal sales includes third-party sourced coal

COAL SALES PRICING STATUS

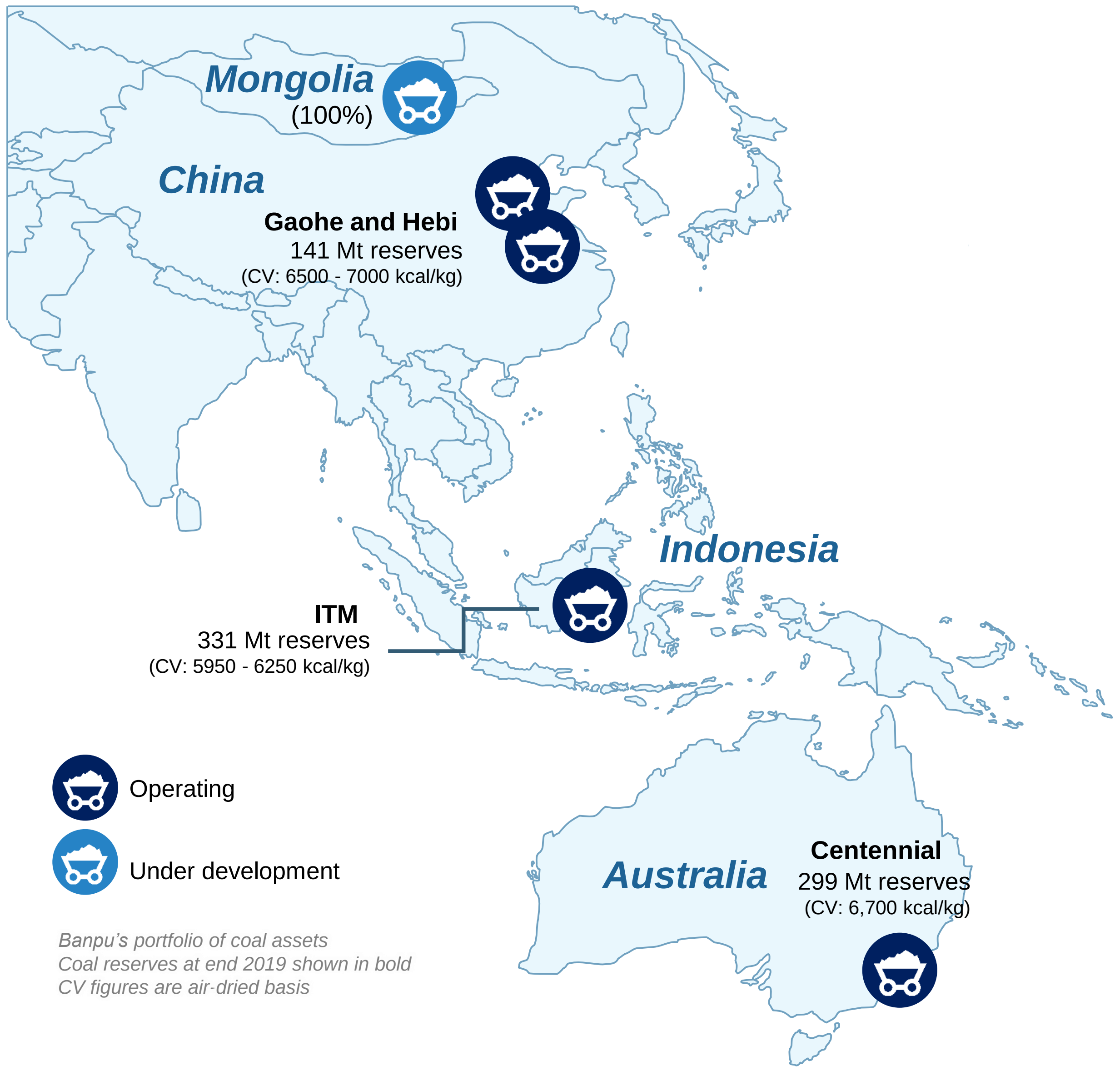
INDONESIA



AUSTRALIA



Banpu Mining: 2Q20 highlights



Banpu's portfolio of coal assets
Coal reserves at end 2019 shown in bold
CV figures are air-dried basis

Production volume*

10.6 Mt

+6% QoQ

Sales volume*

11.1 Mt

+3% QoQ

EBITDA

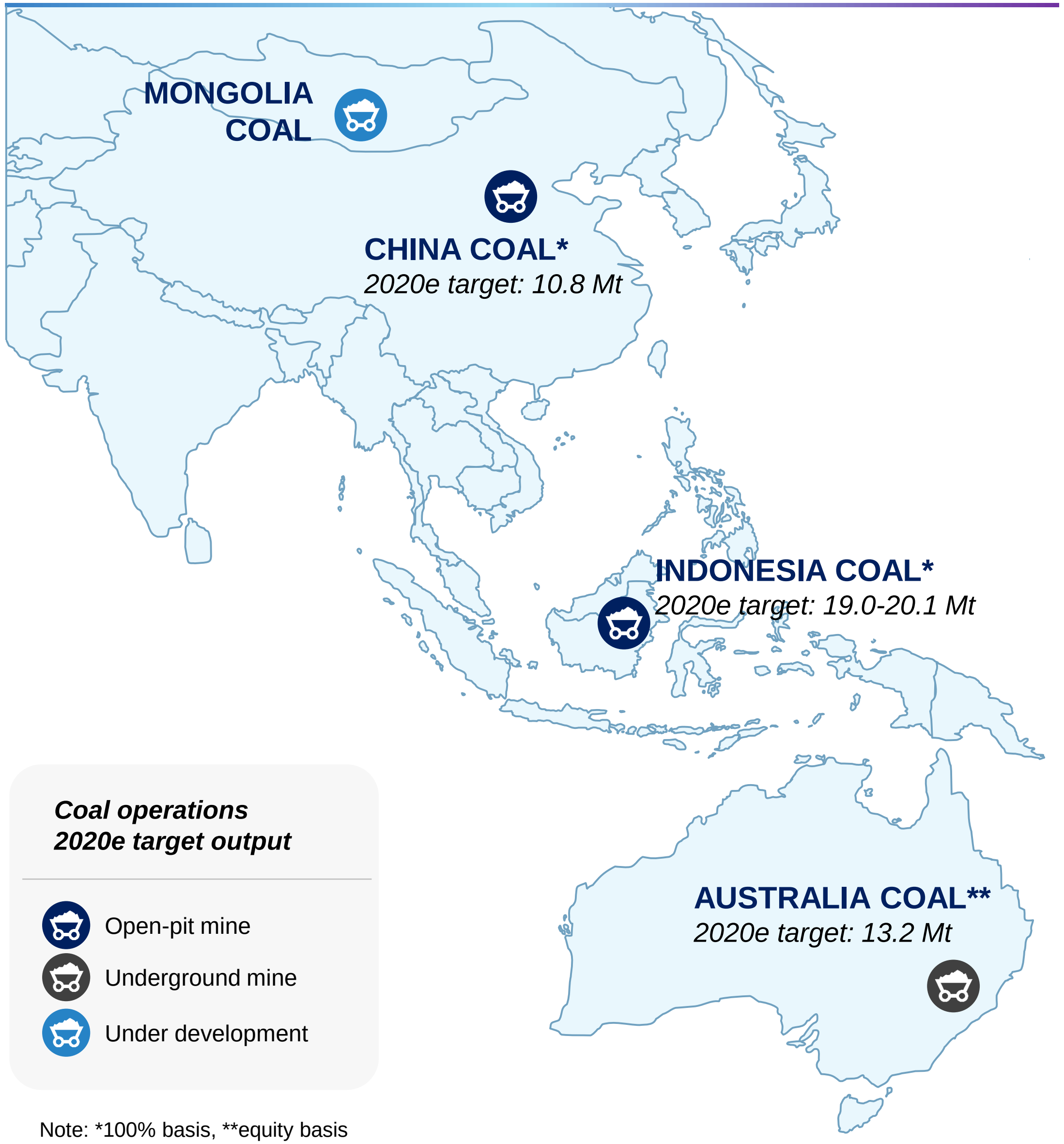
$37 M

-65% QoQ

Note: *Based on 100% basis

Banpu Mining: operational summary

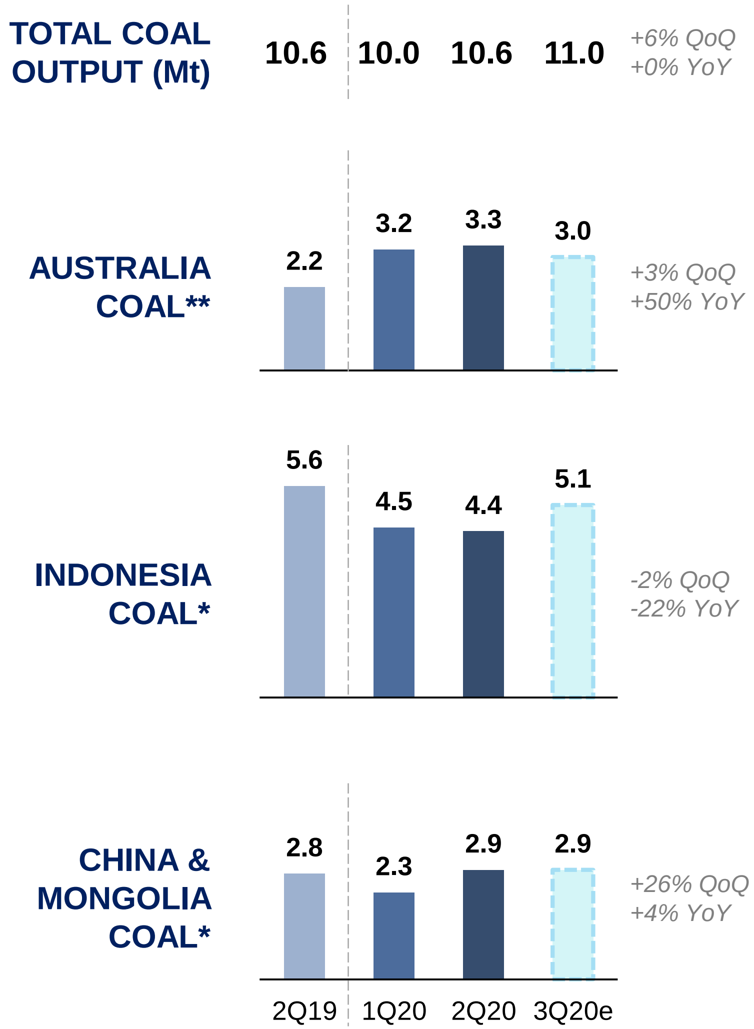
2020E COAL OUTPUT



Coal operations 2020e target output

- Open-pit mine
- Underground mine
- Under development

ROM PRODUCTION AND KEY UPDATES



- Western operations continued to show major improvement in output, compared to last quarter
- Northern operations production down, due to poor mining conditions and LW changeover

- All mines achieved target production with exception of Jorong mine, slightly below target output due to heavy rainfall

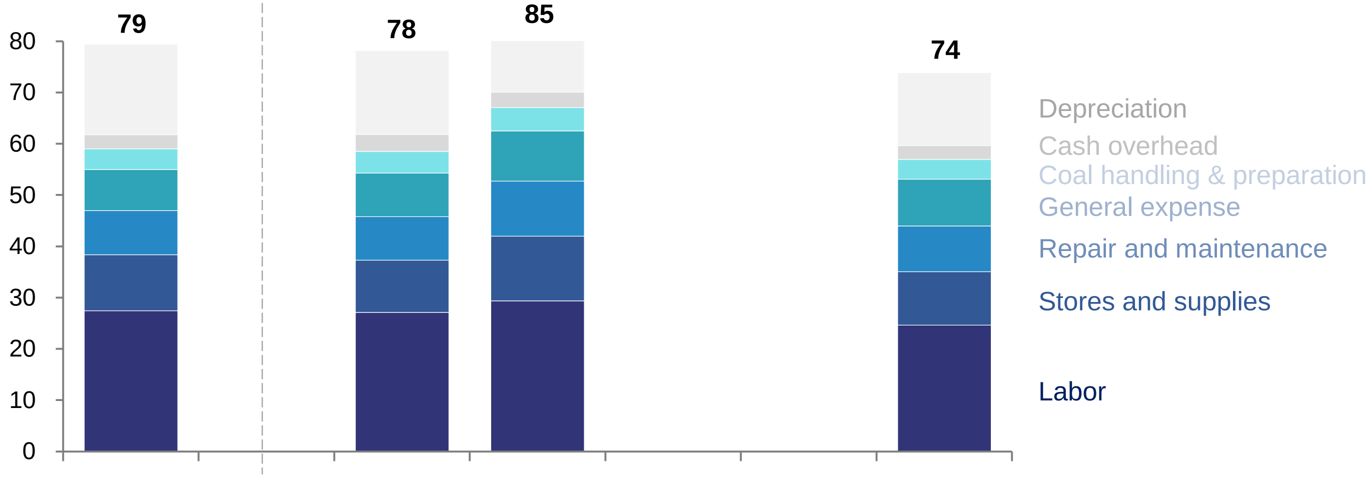
- Gaohe: Higher production and sales in Q2 as Covid-19 mitigated and production gradually return to normal in Q2.
- Hebi: Stable production in Q2 as the longwall panel 2315 returns to normal production.

Note: *100% basis, **equity basis

Banpu Mining: average production cost breakdown

AUSTRALIAN COAL – AVERAGE PRODUCTION COST[1]

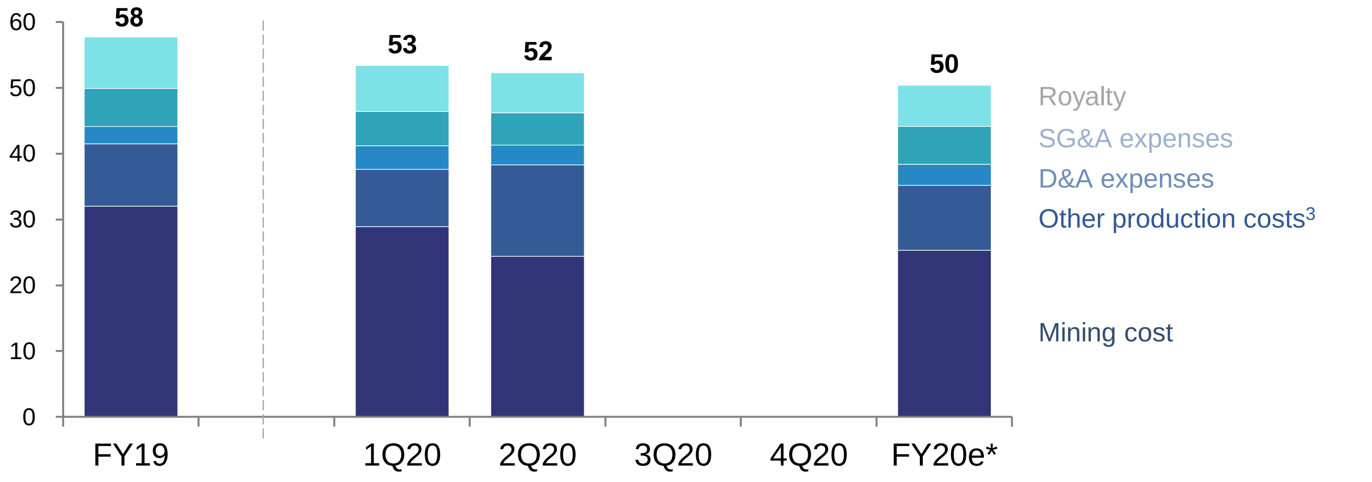
Unit: A$/t



- Costs impacted by mining conditions and more frequent longwall relocations.
- Higher amortisation as a result of Springvale decision to relocate LW earlier to improve production certainty.
- Continued cost reduction in contractor labour and overheads is expected to further drive costs down

INDONESIAN COAL – AVERAGE TOTAL COST[2]

Unit: US$/t



- Average total cost reduced further due to lower mining cost from lower fuel price and lower royalty in 2Q20.
- Progressing on to reduce average total cost for the whole year to target $50/t

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., *indicative target

Banpu Mining: action plans for 2H20

BANPU

COST REDUCTION

- CEY: target to lower labour, supplier and corporate overhead costs
- ITM: aim to reduce overall cost by $8/t from 2019 level through mine plan optimization, lower fuel and overhead costs
- China: continue implementation of 20% cost reduction

CAPEX RATIONALIZATION

- Deferment and cancellation of non-core activities
- CEY: reduce exploration costs through deferment of non-critical exploration expenditure
- ITM: capex rationalization target to lower capex by 30% from initially planned budget

EFFICIENCY IMPROVEMENT

- Implement digital transformation across mining sites to improve productivity
- China: launched Intelligent Mine project implementing automation, safety monitoring and ERP systems to improve operation safety and stability


BANPU

Banpu Energy Generation: 3.2 GW committed capacity

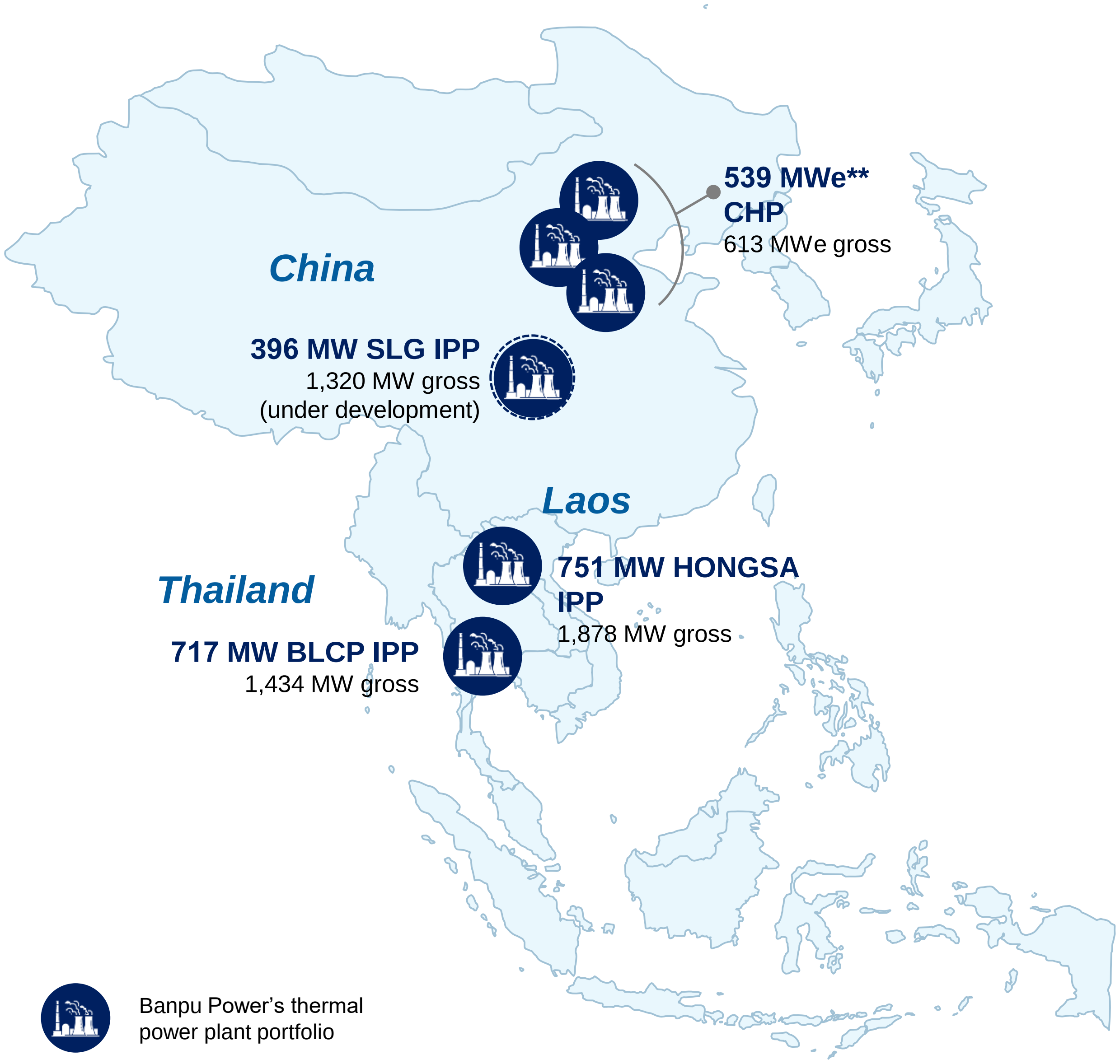
11 countries
operations across Asia

2.4 GW
committed thermal equity capacity*

0.8 GW
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)

Banpu Thermal Power: 2Q20 highlights



EBITDA

$33 M

-40% QoQ

Achieved EAF

100%
at BLCP

63%
at Hongsa

Project update

83%

completed for SLG project

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

Banpu Thermal Power: 2Q20 updates

BANPU

BLCP

Smooth operation with strong dispatch and consistent high availability & reliability

- Continue its high plant efficiency and high plant reliability with EAF* at 99.5%
- EBITDA of THB 1.0 bn, significant improvement with 8% QoQ and 4% YoY
- Profit contribution of THB 0.5 bn, +41% YoY

Hongsa

Extended planned maintenance with intense inspection at unit 3 ensuring sustainable long-term performance

- Operational performance result with EAF of 63% resulted from maintenance of unit 3
- EBITDA of THB 2.2 bn, -38% QoQ and -41% YoY
- Profit contribution of THB 0.4 bn, impacted by major overhaul at unit 3 and FX loss

China CHP

Competitive coal price with higher power & steam demand as extended heating period and higher demand from business recovery

- Reported revenue of RMB 235 M, improved +3% YoY

SLG

- Construction progress achieved 83%
- Expect synchronize by the end of 2020 after transmission line construction completion

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 Thermal Power: business near term growth, SLG project

1,320 MW
CAPACITY
396 MW on equity basis

83%
COMPLETION
with expected COD in 4Q20

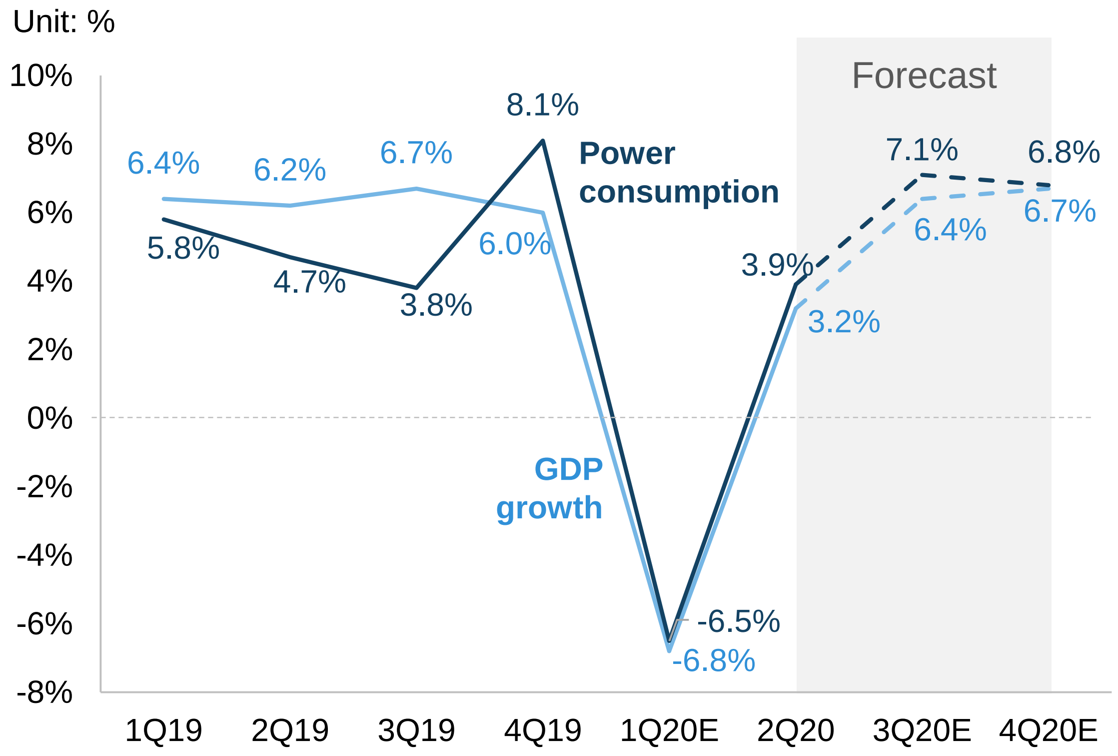
Ultra-supercritical technology
turbine generator and pipelines installed

Back energization with 1000KV transmission line
expected by 3Q20

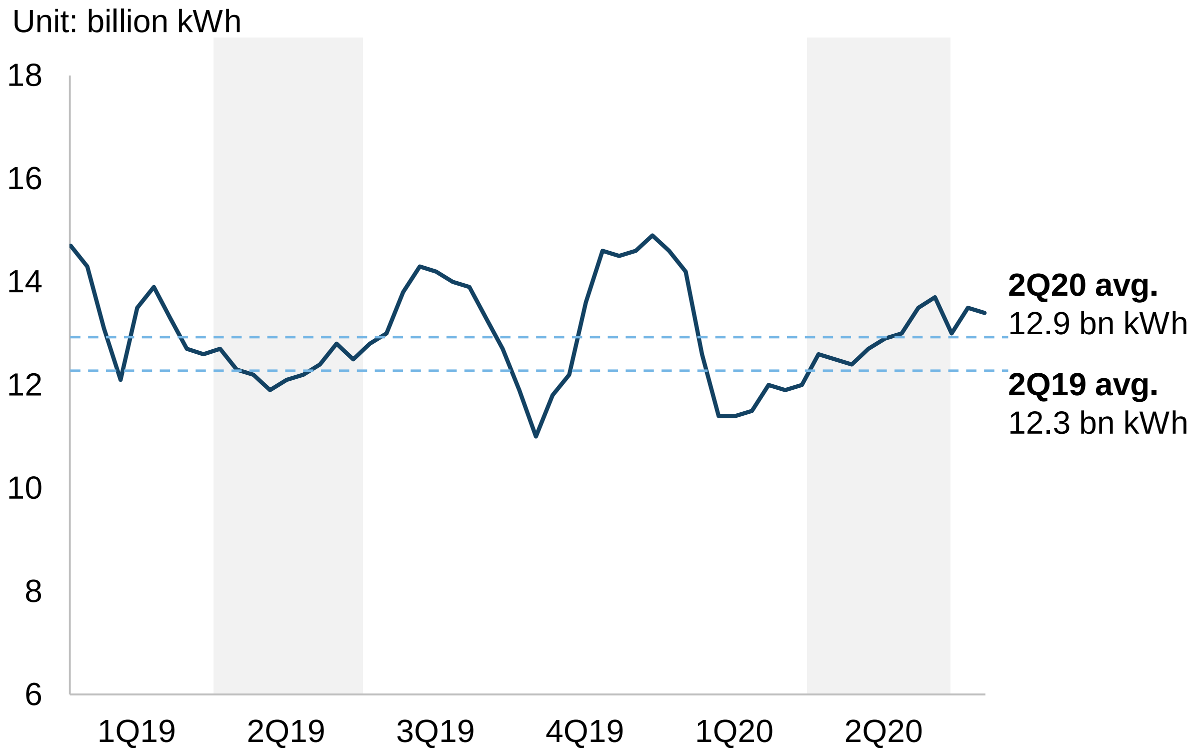
China power market continues to recover with rebound in GDP

BANPU

CHINESE GDP AND POWER CONSUMPTION



CHINA COAL-FIRED POWER GENERATION

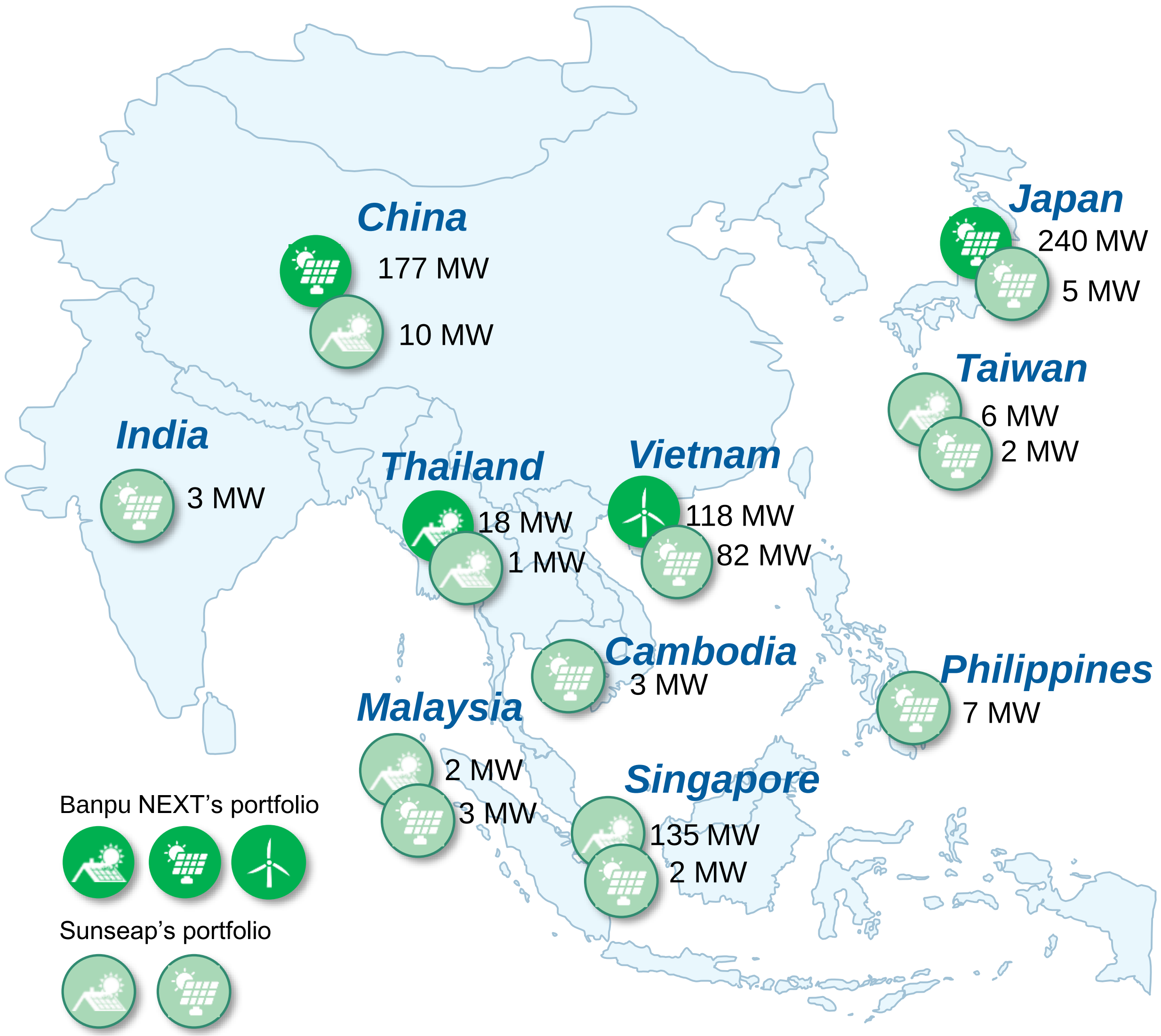


- China's economy rebounded in 2Q20 resulting in a strong recovery of the power consumption
- Power consumption is expected to continue to recover in 3Q20 and 4Q20 in line with GDP growth

- China's power generation recovered in 2Q20 from February low and is currently higher than 2Q19 level
- Attributable factors include increase in industrial activities as factories gradually resume their operations and weak hydropower generation in April

Source: State Grid Energy Research Institute (July 2020)

Banpu Renewable Power: diversified Asia-Pacific portfolio*



814 MW
committed renewables capacity across Asia

524 MW
committed solar power capacity

172 MW
committed solar rooftop capacity

118 MW
committed wind capacity

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

Banpu Renewable Power: 2Q20 updates

China Solar

Higher power sold due to good weather conditions and more stabilize from Covid-19 situation

- Average capacity factor reported at 17%, +5% QoQ
- Power sold increased by 43% QoQ
- Reported revenue of RMB 56 M, +40% QoQ and +12% YoY

Japan Solar

Higher average capacity factor and more power sold due to better weather conditions

- Average capacity factor reported at 18%, +7% QoQ
- Power sold reported at 43 GWh, +59% QoQ with additional capacity from Kurokawa which COD in December 2019

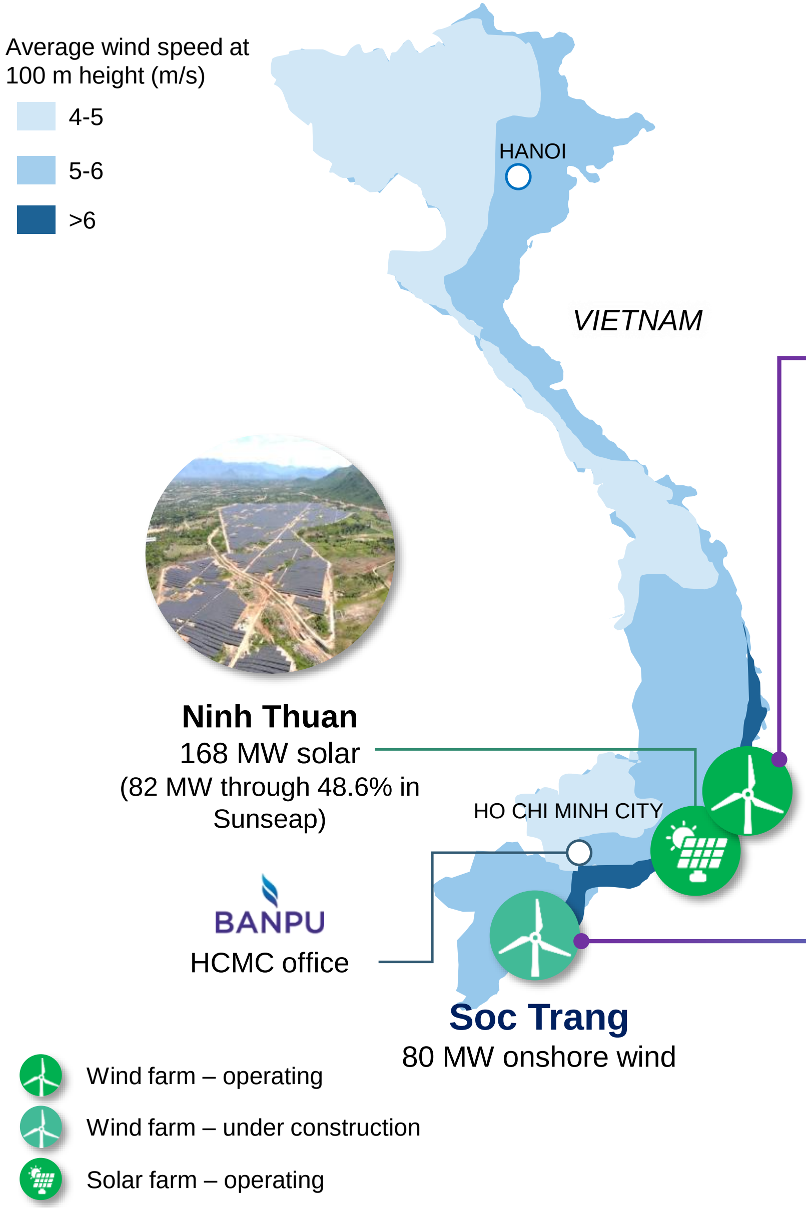
Vietnam Wind

Additional capacity from new acquisition of operating Mui Dinh wind farm of 37.6 MW

- Immediate earning upside once the deal is completed as expected in 4Q20
- Project Soc Trang phase 1 continue its construction with COD shifting to 1H21 as it was unable to transport equipment to site area due to Covid-19 situation while continue to develop the remaining phases to receive feasibility study approval

Note: Banpu has 50% shareholding in Banpu NEXT

Banpu Renewable Power: growing portfolio in Vietnam



El Wind Mui Dinh (37.6 MW) – operating asset

Operating
since 23 April 2019

Offtake agreement
with **Vietnam Electricity (EVN)** under **20-year PPA**

Grid connection
Connected to **National Grid** with **110 kV** transmission

Feed-in-Tariff
Attractive tariff of **US cents 8.5/kWh**

Soc Trang project (80 MW) – under construction

16%

30 MW in phase 1
Construction progress as of June; COD 1H21

50 MW in phase 2 & 3
Pre-feasibility study result submitted; COD 2021

Source: GIZ

01 Highlights 2Q20

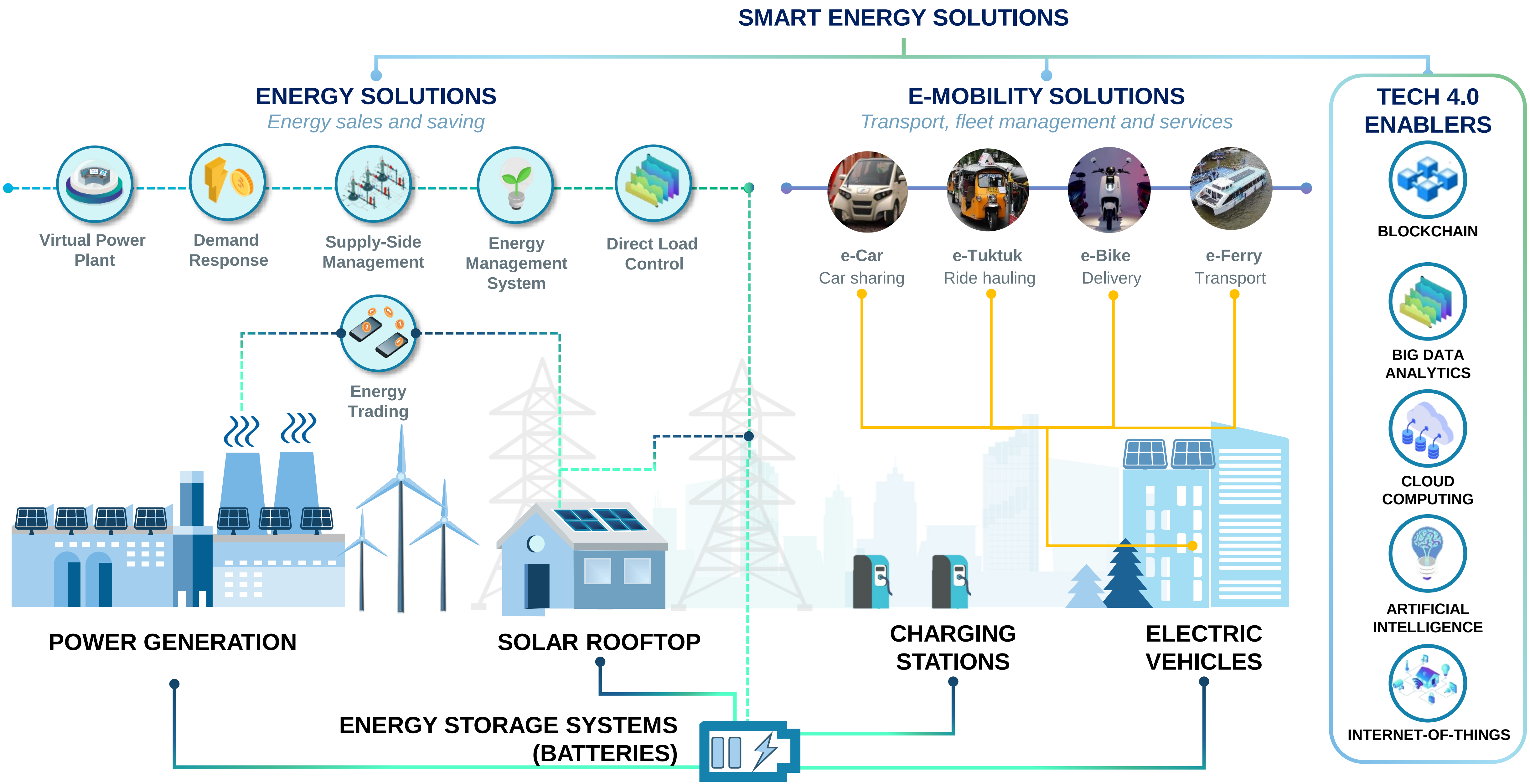
02 Financial Summary

03 Energy Resources

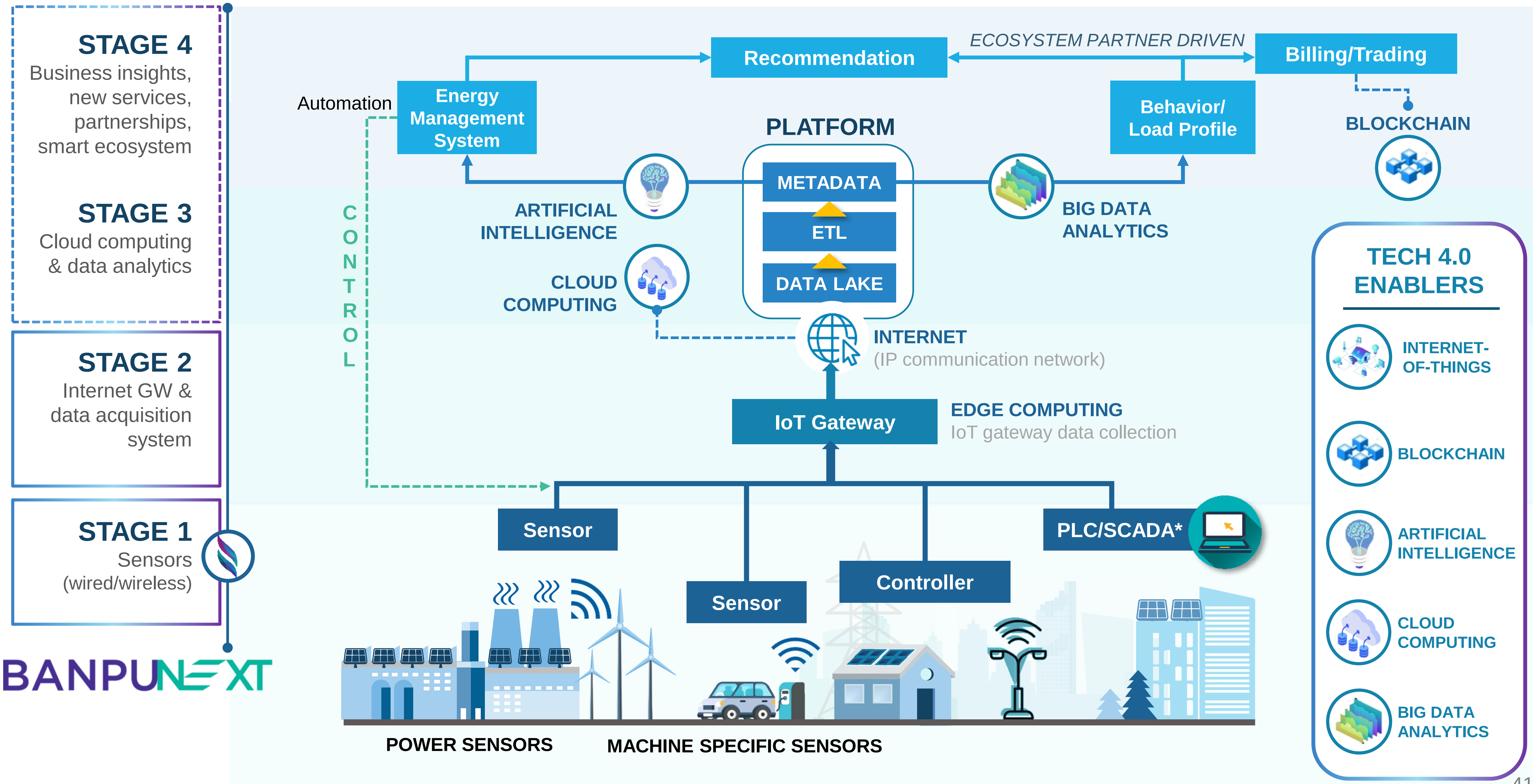
04 Energy Generation

05 Energy Technology

Banpu's emerging downstream smart energy ecosystem



Our vision: Banpu's future smart energy architecture



*Programmable Logic Controller/Supervisory Control and Data Acquisition

Banpu Energy Technology: growing portfolio

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	SOLAR ROOFTOP Including 48.6% in Sunseap	ENERGY STORAGE SYSTEMS 47.7% in Durapower	E-MOBILITY 30.7% in UMT; 21.5% in FOMM	SMART CITIES	ENERGY TRADING
2019	**109 MW** Operating capacity	**0.5 GWh** Li-ion battery production capacity	**2,000** passengers/day ride hauling via Muvmi **22** electric vehicles under fleet management	**4 projects**	**0 GWh** Electricity sales
1H20	**172** **MW**	**0.5** **GWh**	**4,000 passengers/day** **50 electric vehicles**	**4** **projects**	**280** **GWh****
2025 target	**500** MW	**1.4** GWh	**10,000** **passengers/day** **100+** **electric vehicles**	**9** projects	**500** GWh

*Based on 100% Banpu NEXT. Banpu NEXT is 50% owned by Banpu and 50% by Banpu Power **2020 target

Banpu Energy Technology 2Q20: updates

BANPU

SOLAR ROOFTOP

ENERGY STORAGE SYSTEMS

E-MOBILITY

SMART CITIES

ENERGY TRADING

0.5 GWh
47.7% stake in Durapower

4 projects

CAPACITY EXPANSION

48.6% stake in Sunseap

SOLAR ROOFTOP EXPANSION

Added 15 MW in Singapore increasing Sunseap's total capacity to 154 MW

E-MOBILITY SOLUTIONS

THAILAND'S FIRST SEA E-FERRY LAUNCH

Integrated with 625 kWh Durapower battery and energy management system

ELECTRICITY SALES

PRESENCE IN KEY REGIONS IN JAPAN

Electricity trading in 4 key regions – Tokyo, Kansai, Tohoku and Shikoku, accounting for 60% of Japan's electricity consumption

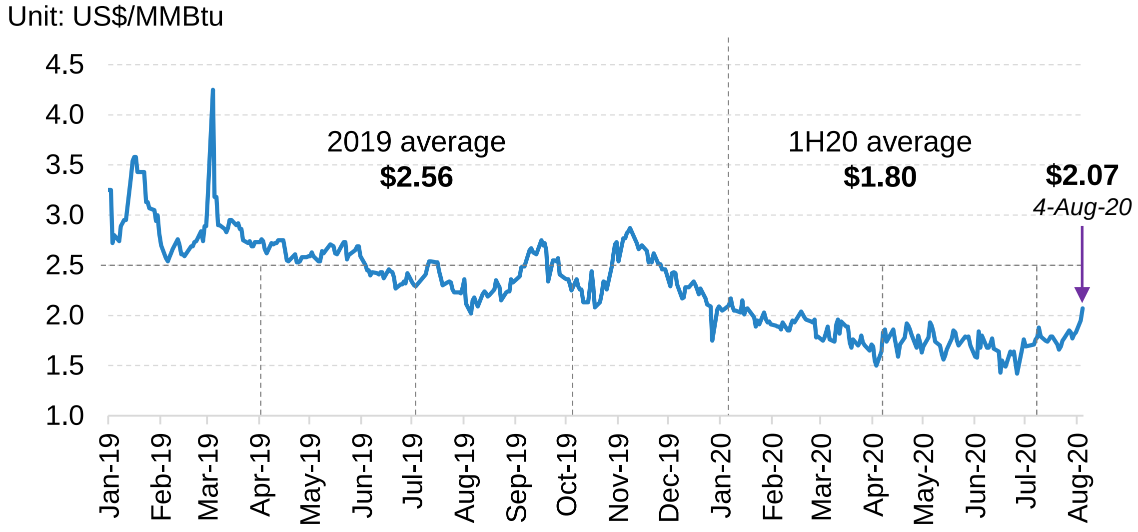
Note: Capacity based on 100% Banpu NEXT, Banpu has 50% shareholding in Banpu NEXT

APPENDIX

U.S. gas market update

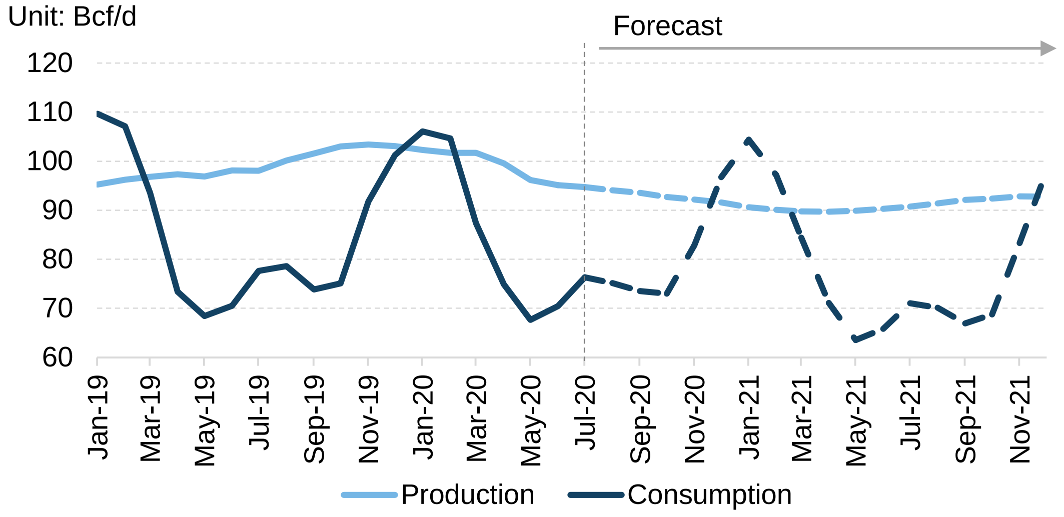
BANPU

AVERAGE HENRY HUB PRICE AS OF JULY 2020

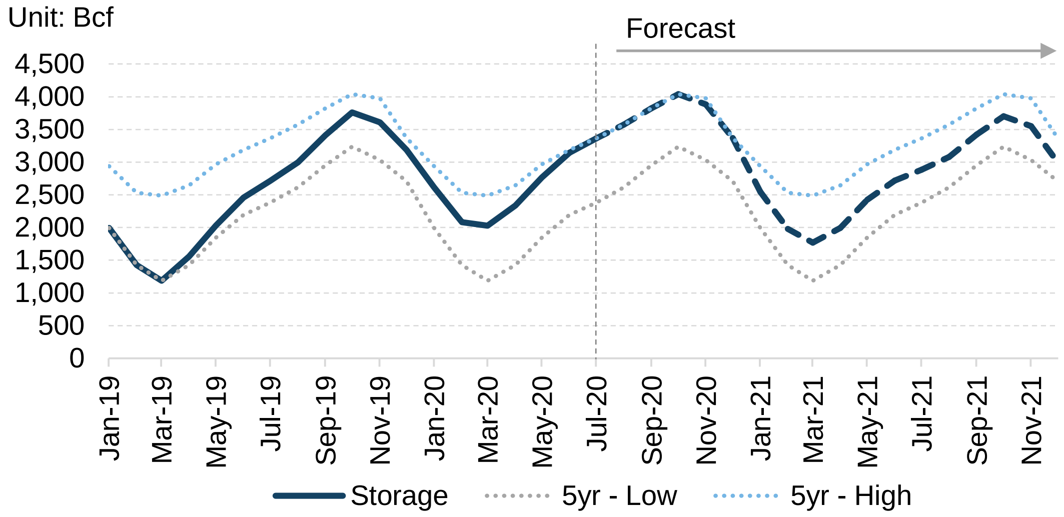


- **Gas Price:** Henry Hub price average around $1.80 per MMBtu in 1H20 which was lower than the LTM average of around $2.56 per MMBtu
- Weekly storage injections so far during April-October injection season have been close to five-year average as falling production has been offset by falling demand from industrial sector and LNG exports
- **Outlook:** Production is expected to decrease through 2H20 and 1H21 as a result of decline in drilling activity and production curtailments reflecting falling natural gas prices. EIA forecasts Henry Hub to average around $1.93/MMBtu in 2020, subsequently increasing to $3.10/MMBtu in 2021

U.S. TOTAL NATURAL GAS PRODUCTION – CONSUMPTION



U.S. STORAGE LEVEL



Source: EIA

Natural gas: reserve and production term

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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

2H20 indicative guidance

BANPU

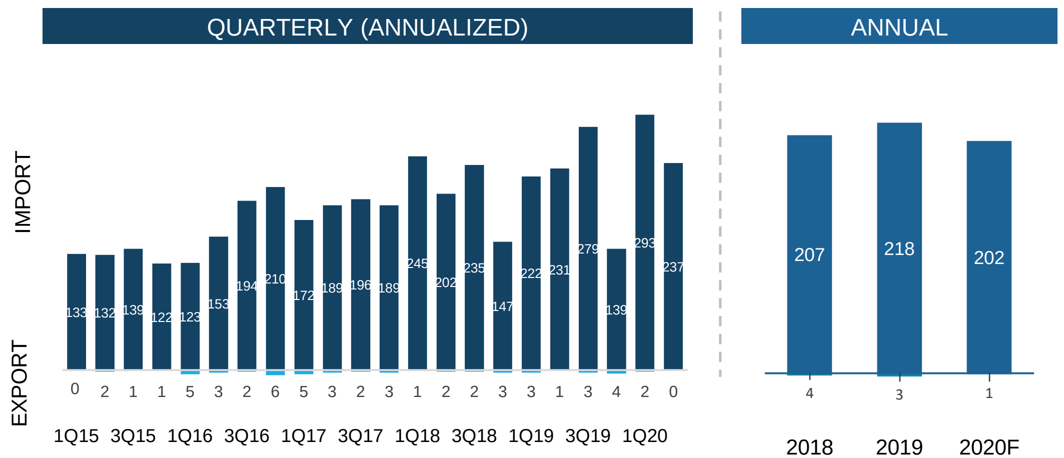
ILLUSTRATIVE AND INDICATIVE ONLY

	UNIT GUIDANCE (US$/MCF)		COMMENTS
	REVENUE		
	Reserves (Bcf)	*1,250*	
	Production volume (Mmcfd)	*170-200*	
NET BACK	Average differential to Henry Hub	\$0.20 - \$0.35	Difference selling points and Henry Hub (NYMEX basis)
NET BACK	G&C costs	\$0.45 - \$0.60	Gathering and compression costs (to intrastate pipelines)
NET BACK	Transportation	\$0.20	
	Pipeline revenue	\$0.10 - \$0.15	Applicable to Chaffee Corners volume only
	COSTS		
	Lease operating costs	\$0.18 - \$0.22	Main component of operating costs
	G&A	\$0.25 - \$0.35	General and administration costs
	Taxes	21%	Currently benefit from tax shield due to accelerated DD&A
	DD&A	\$0.80 - \$0.95	Depreciation, depletion and amortization
	Drilling and completion costs	\$0.80 - \$1.20	Costs incurred to drill and to make the well ready for production

China: import quota uncertainty stifled seaborn coal imports

CHINA THERMAL COAL IMPORTS/EXPORTS*

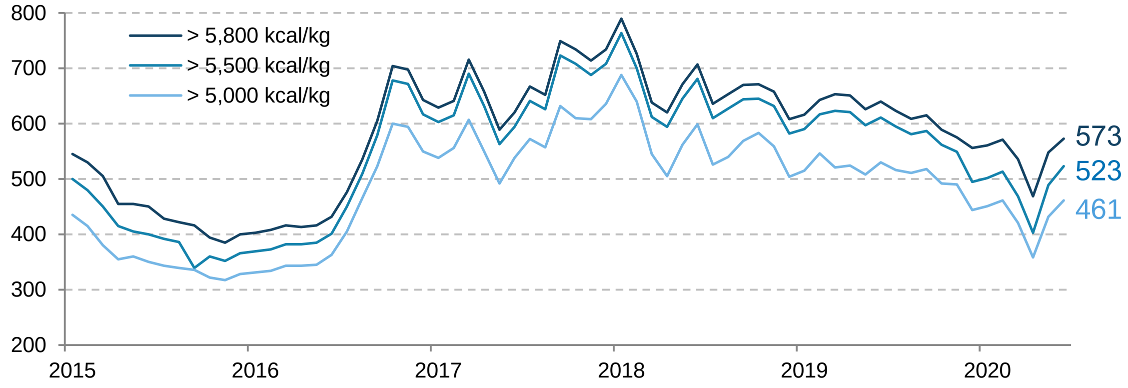
Unit: Mt



Sources: Banpu MS&L

CHINA DOMESTIC COAL PRICES

Unit: RMB/t



2Q20

- China has lifted the containment measurement across the country in April, thermal coal demand returned to growth in April and jumped in May with the strong resurgence in economic activity.
- Beside the economic revival, higher than normal temperatures but lower than normal rainfall was also supported coal burn in Q2, driving coal burn returns to last year's levels.
- Domestic coal supply was tighter as supply was curtailed ahead of National Congress meeting in May resulted in rising domestic coal prices.
- Thermal coal import remained strong on the year despite tighter import restrictions which indicated that buyers try to import cheap coal as much as they can before government not allow them to do as imported coal was cheaper than domestic coal.
- However, Import restriction continues to pressure seaborne coal prices.
- China announced a stimulus package to improve the economy post-coronavirus but we do not expect the stimulus to have a large impact on the seaborne market as the government will likely act to control both domestic coal prices and imports.

OUTLOOK

- Heavy rain in many southern regions will dampen near-term coal demand.
- China's economic planner, NDRC, urged major coal mining regions to boost production to meet strong summer demand in Q3.
- Utility companies in China are running out of 2020 thermal coal import quotas and are shifting towards domestic coal to cover their upcoming summer requirements.
- NDRC may loosen import restrictions during summer peak demand if domestic supply could not fill the gap.
- Much less stringent approach of government authorities to recent outbreaks in the city suggests that the government will try to support economic growth by not imposing blanket wide-scale lockdown measures.

Note: *Includes lignite but excludes anthracite imports/exports
Source: www.sxcoal.com/cn 13 July 2020

India: lockdown easing but coal demand remains weak

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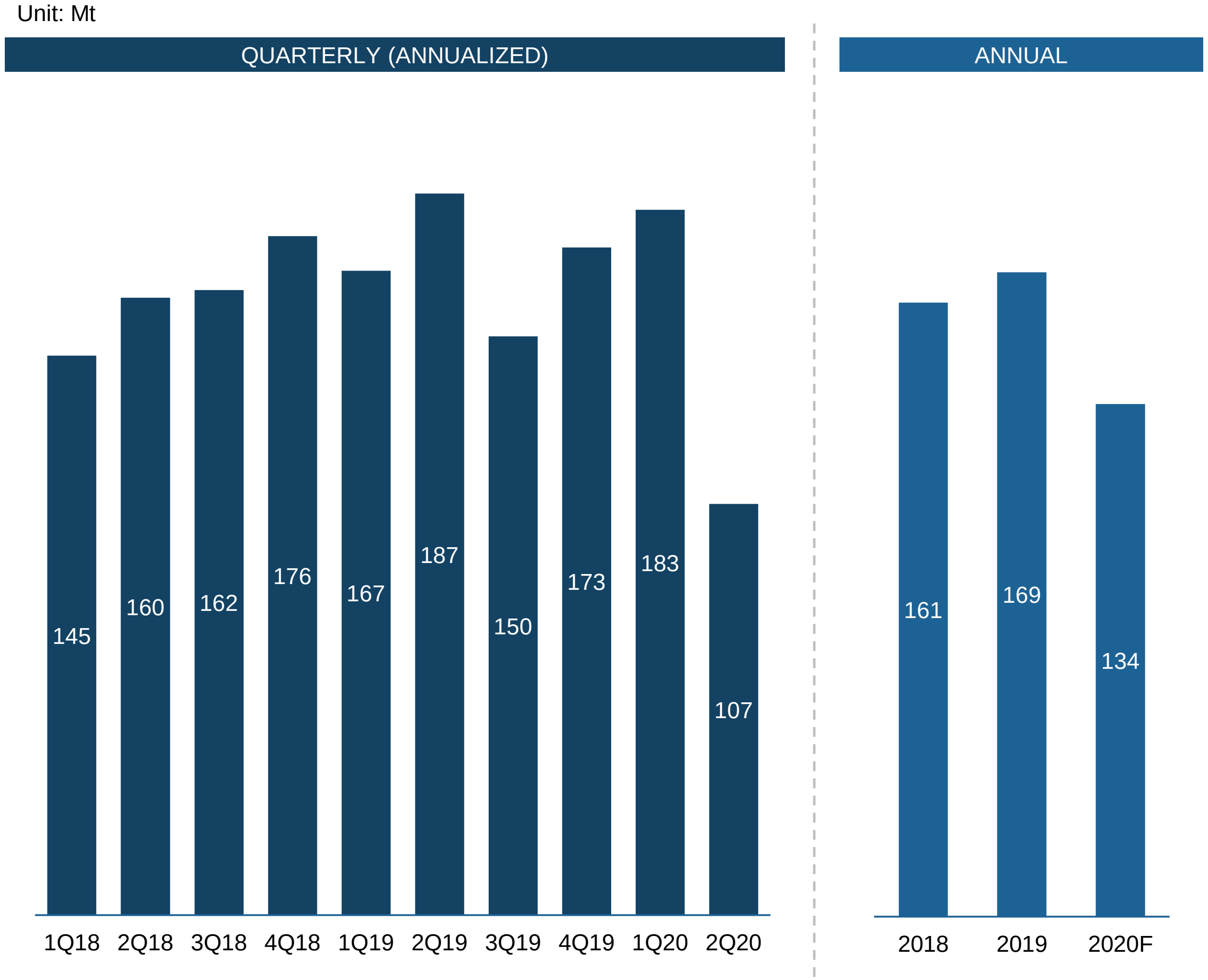
INDIA THERMAL COAL IMPORTS*



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

2Q20

- Partially lifted coronavirus restrictions earlier in June but economic activity and coal demand remains subdued.
- Total power generation in Q2-2020 was down 8% QoQ and down by 18% versus Q2 last year. However, coal-fired generation in Q2-2020 dropped by 18% QoQ and 25% year on year amid rising gas and hydro generation.
- Supply chain disruptions, muted demand, workforce and liquidity issues led to a decline in coal demand in non-power sector.
- Huge inventories at the end of Q1 and lower demand post Covid-19 outbreak, led to 12% decline in production and 21% decline in dispatches of Coal India Limited (CIL) in Q2 over last year.
- With weak demand from power producers, CIL offers more coal to non-power consumers.
- Thermal coal imports fell sharply in Q2 amid lower power sector demand with total Q2 import was 27 Mt, down from 46 Mt in Q1 and from 47 Mt in Q2 last year.
- Devaluation of Indian Rupee kept buyers away from imports.

Outlook

- A stronger-than-expected monsoon period will likely have an impact on coal imports in Q3.
- Continuing pandemic in the country halted further growth in power generation as some states are considering tightening measures to control the spread of the coronavirus which will curtail industrial activity and power consumption, hurting the outlook for coal imports.
- “Special Spot e-auction Scheme 2020 for Import Substitution” launched by CIL will allow buyers to procure coal at a highly competitive prices and will intensify import substitution.
- Indian government is emphasising more consumption of domestic coal by both the power and non-power sectors.

Coal quarterly output summary

BANPU

AUSTRALIA OPERATIONS: COAL OUTPUT (MT) – ROM OUTPUT ON EQUITY BASIS					
Mines	**CV (kcal/kg)***	**2Q19**	**1Q20**	**2Q20**	**3Q20e**
Western operations		**0.8**	**1.6**	**1.8**	**1.4**
Springvale	6,700	0.3	0.8	0.9	0.4
Clarence	6,700	0.4	0.4	0.5	0.6
Airly	6,700	0.2	0.4	0.4	0.4
Northern operations		**1.4**	**1.7**	**1.5**	**1.6**
Mandalong	6,700	1.0	1.4	1.2	1.2
Myuna	6,700	0.4	0.3	0.3	0.3
Total Australia coal		**2.0**	**3.2**	**3.3**	**3.0**

INDONESIA OPERATIONS: COAL OUTPUT (MT) – ROM OUTPUT ON 100% BASIS									
Mines	**CV (kcal/kg)***	**2Q19**		**1Q20**		**2Q20**		**3Q20e**	
		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 – West block	5,950 – 6,250	0.4	26.1	0.5	12.8	0.7	16.9	0.8	13.1
Indominco – East block		2.7	9.3	2.0	9.4	1.5	9.6	1.4	10.7
Trubaindo	6,550 – 6,700	1.1	13.5	1.0	10.9	1.0	11.3	1.3	9.1
Bharinto		0.7	10.2	0.5	9.9	0.6	7.9	0.9	6.8
Kitadin-Embalut	5,800	0.3	10.1	0.2	16.4	0.4	10.9	0.4	11.0
Jorong	5,300	0.4	8.1	0.3	11.3	0.2	6.2	0.3	6.9
Total Indonesia coal		**5.5**	**11.6**	**4.5**	**10.7**	**4.4**	**10.8**	**5.1**	**9.7**

CHINA OPERATIONS: COAL OUTPUT (MT) – ROM OUTPUT ON 100% BASIS					
Mines	**CV (kcal/kg)***	**4Q19**	**1Q20**	**2Q20**	**3Q20e**
Gaohe		2.6	2.0	2.6	2.5
Hebi		0.4	0.3	0.3	0.4
Total China coal		**3.0**	**2.3**	**2.9**	**2.9**

Note: *CV figures are air-dried basis

Key external and corporate events

BANPU

EXTERNAL EVENTS

INDIRECT

- *BoT cut interest rate from 1.25% to 1.00%*
- *Failed production cut agreement between Opec and its allies led to 24% drop in crude oil price*
- *BoT cut interest rate by another 25 basis points to 0.75%*
- *SET index gained by 6.7% amid pickup in crude oil prices and lock down easing*
- *BoT cut interest rate from 0.75% to 0.50%*

DIRECT

- *Indonesia government set 9.8% lower coal production target*
- *India delayed coal and other commodity imports from nationwide lockdown*
- *China's coal import in May fell 20% YoY following tightening coal import rules*
- *Thai Baht appreciated to 30.93 bht per US dollar*

1Q20 | **2Q20**

CORPORATE EVENTS

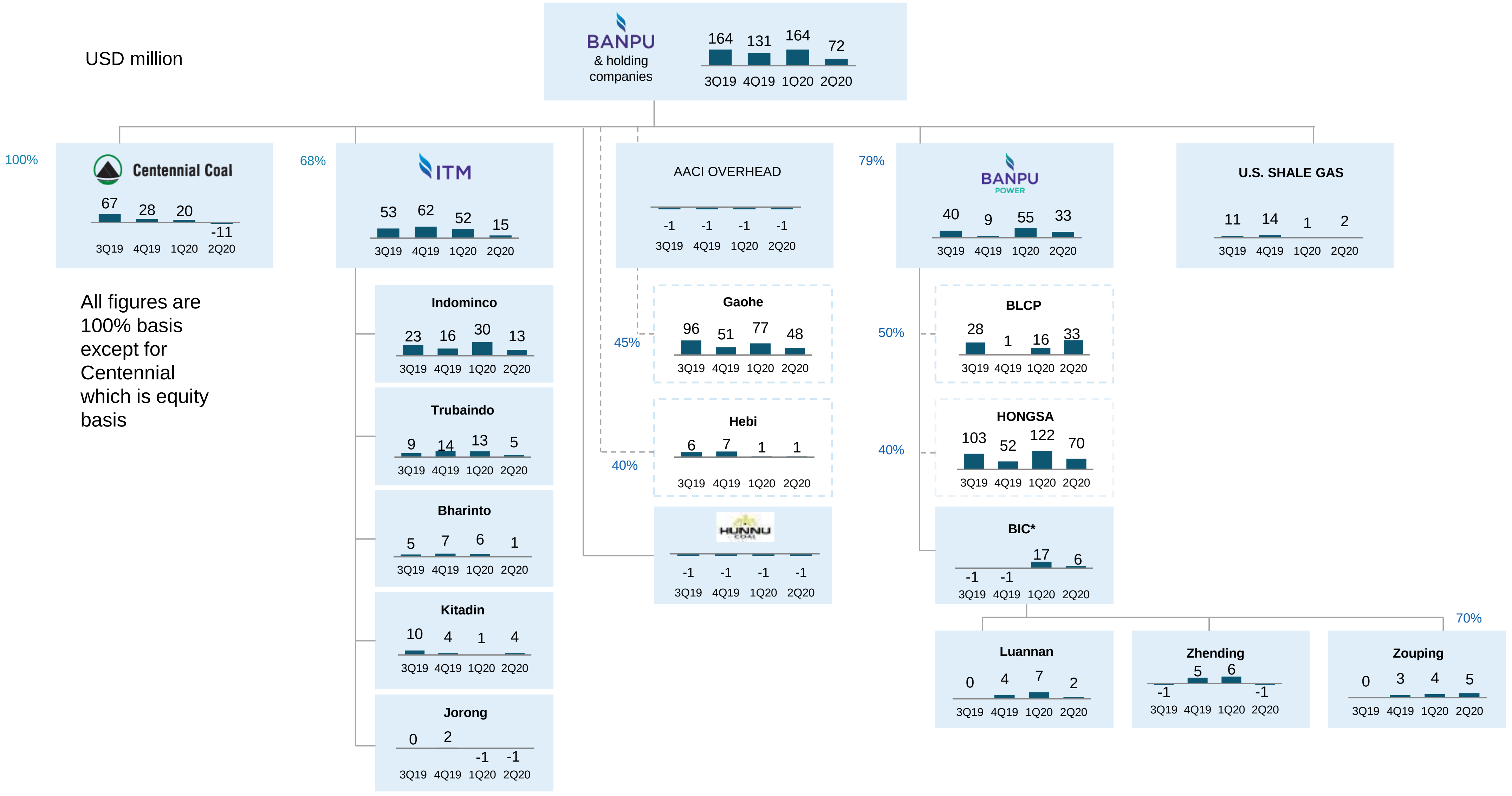
- *Announced to pay 2H19 dividend of THB0.25/sh*
- *Establishment of Banpu NEXT*
- *4Q19 results presentation*
- *Announced the end of share buyback program*
- *Announced the amended terms of Barnett shale assets*
- *1Q20 results presentation*

FX impact analysis guidance on P&L

CURRENCY EXPOSURE	NPAT IMPACT 2Q20 (US$M)	APPROXIMATE FX EXPOSURE (US$M) NET LIABILITY / NET ASSET	NPAT 5% SENSITIVITY 3Q20 (US$M) *Assuming 5% depreciation of local currencies against USD*	
Banpu: THB bond and Others	-19.2	-660	THB 26	*BOT lower growth forecast -8.1% in 2020 and 5% in 2021*
ITMG: IDR asset and liabilities	0.1	20	IDR -1.2	*World bank forecasted Indonesia's growth forecast 0% in 2020 and 4.8% in 2021*
CEY: USD asset	-1.9	10	AUD 0.7	*RBA forecast lower growth, -6% in 2020 and 5% in 2021*
Net	-21.0		NET 26	

Banpu group EBITDA breakdown

USD million



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	2Q20	1Q20	2Q19	QoQ%	YoY%
Total sales revenues*	**518**	**633**	**731**	-18%	-29%
Sales revenue – Coal	453	525	645	-14%	-30%
Sales revenue – Gas	11	18	25	-41%	-58%
Sales revenue – Power	41	58	41	-29%	1%
Cost of sales	(491)	(491)	(569)		
Gross Profit*	**62**	**142**	**162**	-56%	-62%
Gross profit – Coal	57	125	148	-54%	-61%
Gross profit – Gas	(6)	(3)	8	n.a.	n.a.
Gross profit – Power	9	18	6	-49%	44%
GPM	***12%***	***22%***	*22%*		
GPM – Coal	*13%*	*24%*	*23%*		
GPM – Gas	*-55%*	*-16%*	*32%*		
GPM – Power	*23%*	*32%*	*16%*		

Note: * including other businesses

Banpu consolidated: operating profit

USD million	2Q20	1Q20	2Q19	QoQ%	YoY%
Gross Profit	**62**	**142**	**162**	-22%	-26%
GPM	***12%***	***22%***	***22%***		
SG&A	(75)	(83)	(88)		
Royalty	(44)	(52)	(63)		
Income from associates	31	48	77		
Other income and Dividend	8	8	10		
Mining property	(8)	(9)	(9)		
EBIT	**(26)**	**54**	**89**	n.a.	n.a.
EBIT – Coal	(42)	20	44	n.a.	n.a.
EBIT – Gas	(12)	(15)	3	n.a.	n.a.
EBIT – Power	28	49	42	-44%	-35%
EBITDA	**72**	**164**	**168**	-56%	-57%
EBITDA – Coal	37	107	105	-65%	-64%
EBITDA – Gas	2	1	16	14%	-90%
EBITDA – Power	33	55	47	-40%	-30%

Banpu consolidated: net profit

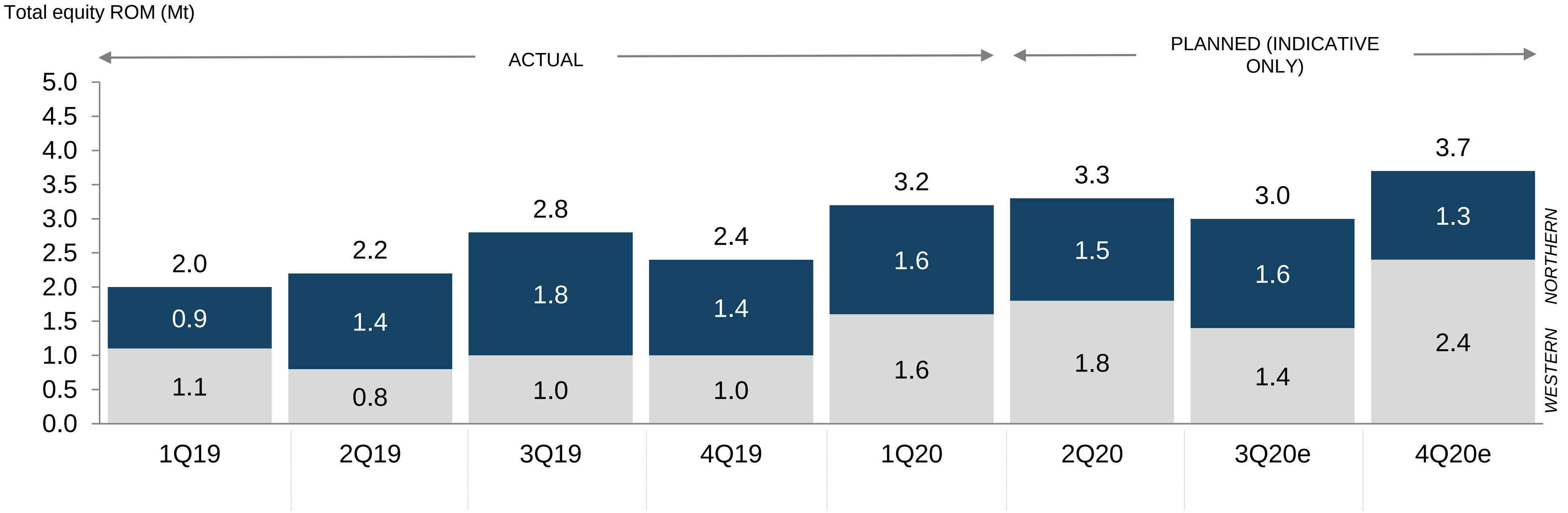
USD million	2Q20	1Q20	2Q19	QoQ%	YoY%
EBIT	**(26)**	**54**	**89**	n.a.	n.a.
Interest expenses	(46)	(47)	(47)		
Income tax (core business)	(7)	(20)	(15)		
Minorities	(6)	(12)	(17)		
Net profit before extra items	**(85)**	**(25)**	**9**	n.a.	n.a.
Non-recurring items*	(33)	15	3		
Gain (Loss) on Derivatives Transactions	19	(6)	15		
Income tax (non - core business)	(3)	(0)	(2)		
Deferred tax income (expenses)	44	(40)	18		
Net profit before FX	**(58)**	**(57)**	**44**	n.a.	n.a.
FX translation	(21)	112	(41)		
Net Profit	**(79)**	**55**	**3**	n.a.	n.a.
EPS (US$/share)	(0.015)	0.011	0.001		

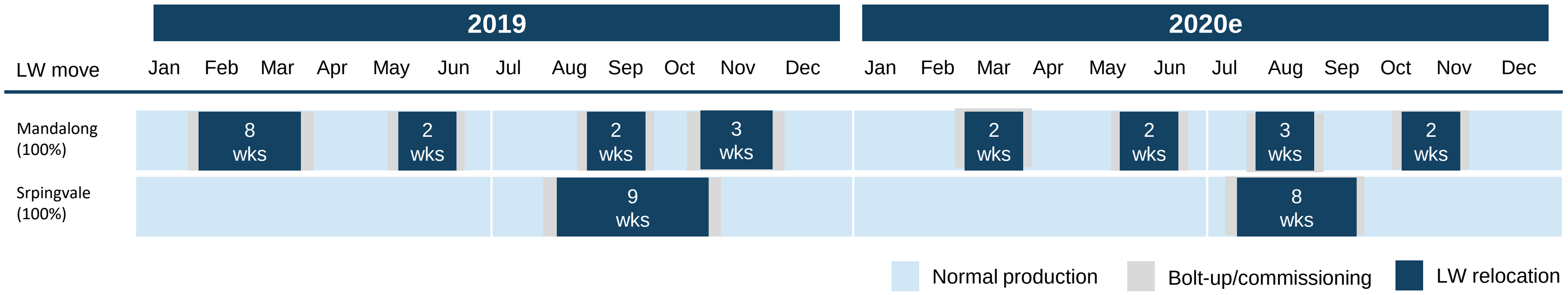
Note: * income from non-core assets and other non-operating expenses

Centennial: income statement

USD million	2Q20	1Q20	2Q19	QoQ%	YoY%
Sales volume (Mt)	**3.1**	**3.1**	**2.9**	0%	7%
Sales revenue	165.1	175.8	200.1	-6%	-18%
Cost of Sales	(171.5)	(160.9)	(179.3)		
Gross Profit	**(6.4)**	**15.0**	**20.9**	n.a.	n.a.
GPM	-4%	9%	10%		
SG&A	(23.0)	(21.5)	(26.2)		
Royalty	(11.1)	(11.6)	(11.8)		
Other income	1.7	1.5	0.1		
Other expenses	-	-	-		
EBIT	**(38.8)**	**(16.6)**	**(17.1)**	n.a.	n.a.
Interest expenses	(5.2)	(5.7)	(5.6)		
Financial expenses	(0.5)	(0.5)	(0.5)		
Gain (loss) on exchange rate	(1.9)	1.5	0.6		
Gain (loss) on derivative	4.7	(2.8)	2.2		
Corporate income tax	-	-	6.2		
Deferred tax income	12.5	7.2	-		
Net Profit	**(29.2)**	**(16.9)**	**(14.3)**	n.a.	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%.

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