

# How we operate

## Our operations

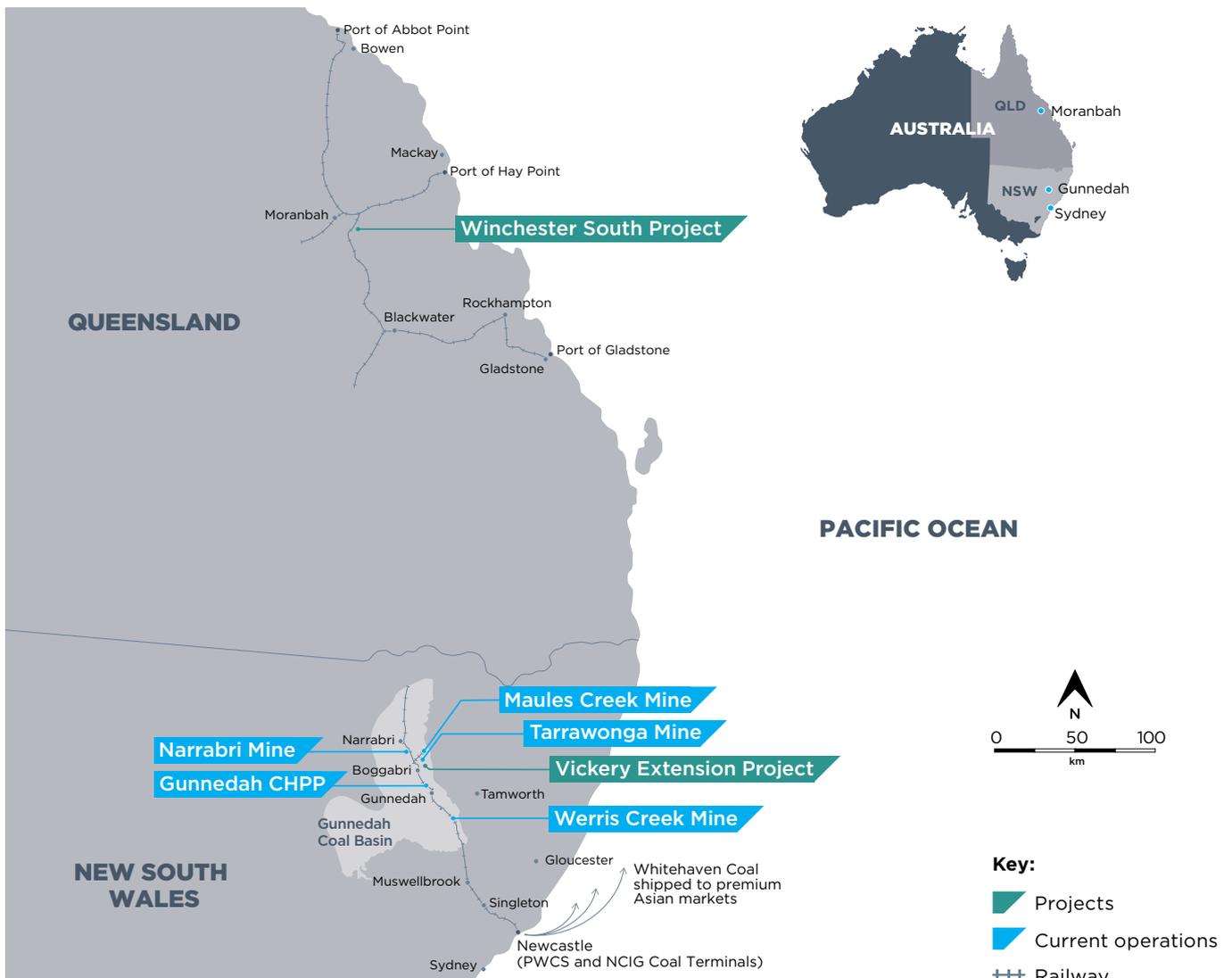
We operate four mines, three open-cut and one underground, in the Gunnedah Coal Basin in North West NSW, producing high-quality metallurgical and thermal coal for export to advanced and developing economies across North and South East Asia.

Maules Creek, our newest and largest mine, produces some of the highest quality high energy thermal coal in Australia, and has been in operation since 2015. The open-cut mine has coal reserves to support 40 years

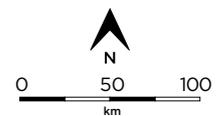
of production, and uses ultra-class mining equipment. During FY20 Maules Creek commissioned its first overburden autonomous haulage fleet. Additional fleets will be commissioned over the coming two years.

Our Narrabri underground coal mine has been operating since 2012, and is currently approved to produce 11 million tonnes per annum of high quality thermal coal until 2031. The Narrabri longwall is fully automated and is one of the most advanced in Australia.

The Werris Creek open-cut coal mine commenced operations in 2005 and has resources to support production until approximately 2025, while our Tarrawonga open-cut coal mine commenced operations in 2006 and has reserves to support a further 10 years of coal extraction.



PACIFIC OCEAN



- Key:**
- █ Projects
  - █ Current operations
  - == Railway

## Our coal

We supply high-CV, low-impurity thermal coal, low-ash, low-sulphur and low-phosphorous semi-soft coking coal, and high volatile pulverized coal injection (PCI) coals into the seaborne market.

Our high-quality coal is exported to advanced and developing economies across North and South East Asia, and helps power regional economies through its contribution to energy generation and steel production. Our coal is sought-after for its unique properties, including the fact it delivers among the lowest carbon emissions per tonne of coal consumed in the seaborne trade.

Increasingly, countries in our region are looking to premium-quality coal for use in high-efficiency, low-emissions coal-fired power stations because it does not force them to choose between their economic aspirations and applicable domestic and international carbon emissions reduction commitments.

## Our infrastructure and logistics network

Given the distance of Whitehaven's mines from the Port of Newcastle, our logistics task continues to comprise a high proportion of total Free On Board (FOB) costs.

To deliver our products to market, we contract rail track, rail haulage and port terminal capacity with our major service providers. As our production levels grow, we will continue our transition to becoming one of the largest users of this infrastructure in the Hunter Valley coal supply chain system.

We contract rail track capacity with the Australian Rail Track Corporation (ARTC). We continue to work with ARTC to expand effective capacity within the Gunnedah Basin - without requiring additional rail infrastructure - through improved operating efficiencies and investment in new

technology systems, with the overall aim of improving supply chain productivity and minimising costs.

We have rail haulage contracts with Pacific National and Aurizon - the two major rail operators - until 2026. These large Australian companies provide haulage of all currently projected expansion tonnes pre-first coal from the Vickery Extension Project. We will work with our infrastructure partners to align planned increases in production with contract rail haulage capacity, supporting the anticipated increase in our managed production levels while minimising fixed cost exposure.

We maintain port capacity contracts with both Newcastle Coal Infrastructure Group and Port Waratah Coal Services, allowing maximum flexibility through all three coal terminals at the Port of Newcastle. We continue to work with our terminal partners to secure additional capacity that allows for both short-term surge and long-term annual shipping requirements in line with our production profile.

## Our customers

Our key customer markets are end-user consumers in the power generation, basic oxygen steelmaking and general industrial sectors primarily within North East Asia, India and, increasingly, South East Asia. Total managed coal sales volumes in FY20 were 20.2 million tonnes, shipped through the Port of Newcastle. We have a robust load port coal quality testing regime in place as part of all of our coal sales agreements, and all of our customers with whom we have these contractual arrangements test coal quality upon receipt of a shipment from us at the discharge port. The rigorous systems and testing regimes we have in place ensure the coal we are delivering consistently meets required contractual specifications.

## Thermal coal

Whitehaven's managed sales of thermal coal in FY20 amounted to 17.2 million tonnes, 55% of which was sold into Japan, 16% into Taiwan and 15% into South Korea. The majority of this thermal coal - around 80% - was high-CV, low-impurity product favoured by Japanese and Taiwanese generators that primarily employ HELE power station technology. Mid-CV product of the type preferred by Korean generators made up 12% of the total, with the balance a lower-CV specification used within the broader Whitehaven Group as a blending product or sold stand-alone.

## Metallurgical coal

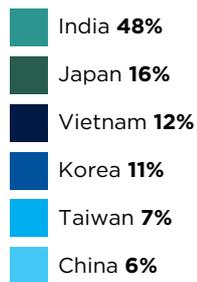
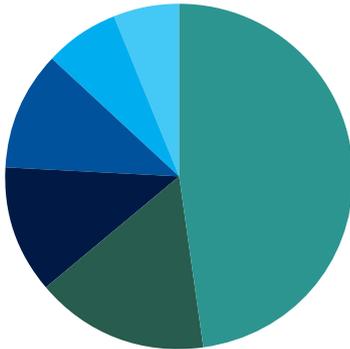
Whitehaven's managed sales of metallurgical coal in FY20 reached 3.0 million tonnes, 48% of which was sold to steel mills in India, 16% into Japan, 12% into Vietnam and the balance to other Asian markets including roughly 6% in predominantly spot sales to China. Our sales were split between SSCC and PCI coals. SSCC was 69% of the total and was sourced from our Maules Creek and Tarrawonga mines. The balance of 31% was PCI coal produced at our Narrabri and Werris Creek mines and sold exclusively into Indian steel mills.

## Supporting emissions reductions

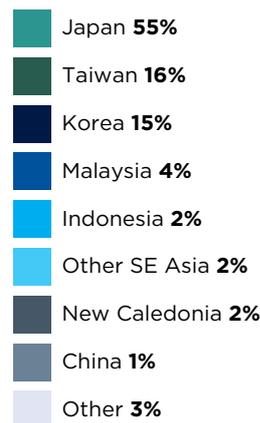
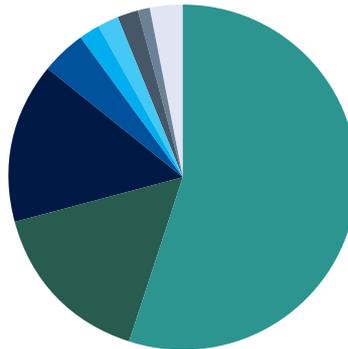
Increasingly, countries in our region are looking to premium-quality coal for use in high-efficiency, low-emissions (HELE) coal-fired power stations because it does not force them to choose between their economic aspirations and applicable domestic and international carbon emissions reduction commitments.

### Key export markets

**Metallurgical coal sales FY20**



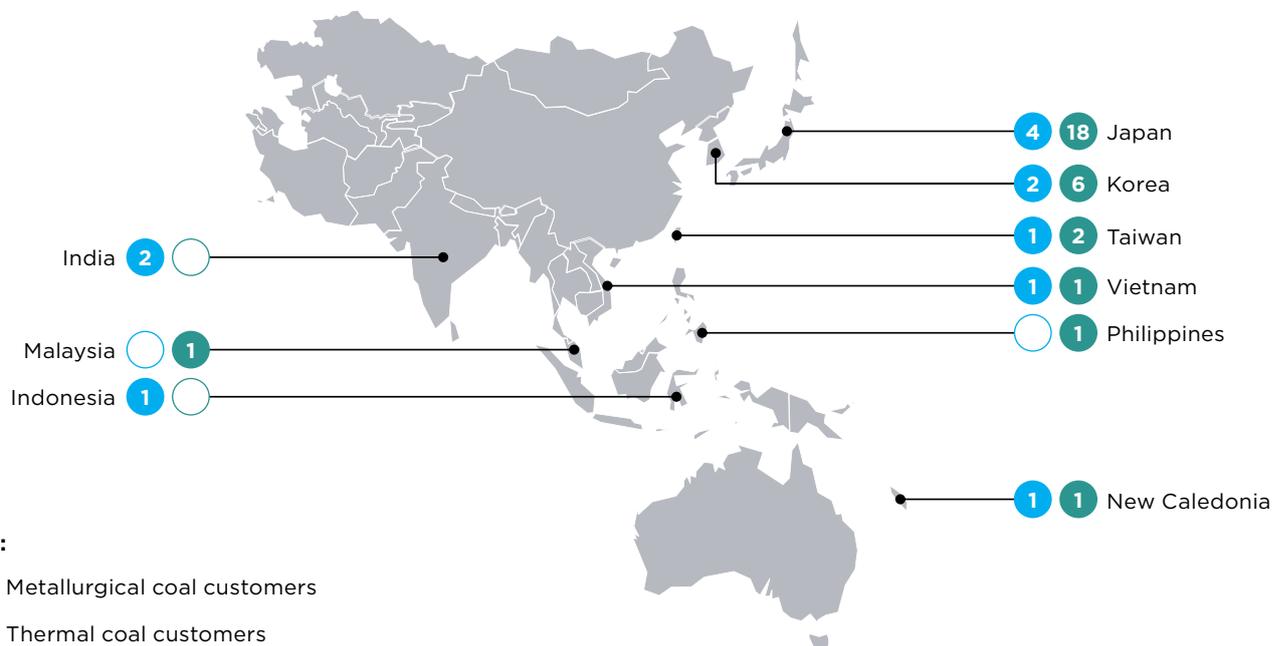
**Thermal coal sales FY20**



### Key customer contracts

Term sales represent the majority of our annual sales volumes and allow us to ensure we meet our customers' ongoing requirements for reliable, stable high-quality coal supply over the long term. Approximately 60% of our contracted sales are long term in nature. During FY20 Whitehaven Coal secured the following incremental term coal sales agreements (CSA):

- New two-year term CSA with a major Korean electricity generation company
- Renewal of a one-year term CSA to supply a Japanese steel mill with Maules Creek SSCC and thermal coal
- Renewal of a one-year term CSA with an Indian steel producer for supply of Narrabri PCI coal and Maules Creek SSCC
- Renewal of a number of one-year term CSAs to supply Japanese general industry customers.



## Growth

Our ongoing growth is underpinned by a number of development projects, including the Vickery Extension Project (Vickery) in the Gunnedah Basin of NSW, and Winchester South in Queensland's Bowen Basin. Vickery received its primary planning approval from the NSW Government on 12 August 2020 and, during FY20, Winchester South was declared a 'Coordinated Project' by the QLD Government.

Vickery entails construction of an open-cut coal mine and associated on-site infrastructure about 25 kilometres north of Gunnedah. The mine will produce a majority metallurgical coal for steel-making, with the balance being high quality thermal coal destined for premium export markets. The Project builds upon, and further optimises, an already-approved mine, on a site that has already been extensively and safely mined over many years. The proposal will make Vickery and our neighbouring operations more efficient and sustainable over the longer term. Vickery will create around 500 new construction jobs and 450 new operational jobs. With an estimated capital cost of approximately \$750 million, the Vickery Extension Project has the potential to be one of the most significant investments in North West NSW over the coming years. Following extensive public consultation and an exhaustive review by the NSW Department of Planning, Industry and Environment, the Extension Project was approved by the Independent Planning Commission NSW and is now proceeding through secondary approvals processes.

Winchester South is located 30km south-east of Moranbah in Queensland's Bowen Basin, a well-established and well-understood coal basin. Purchased from Rio Tinto by Whitehaven in 2018, the currently undeveloped project is expected to produce metallurgical coal for export to the Asian market. Winchester South is our first major investment in Queensland and will entail approximately \$1 billion in expenditure, inclusive of the mining fleet. It is expected the mine will deliver 500 new jobs during construction and around 450 new operational jobs.

We are also pursuing a range of brownfield opportunities. The Narrabri Underground Mine Extension Project is a proposal to extract coal to the south of the existing mine, via the established surface infrastructure, using the existing coal handling preparation plant, rail loop, box cut and offices. The proposal will extend the approved life of the mine from 2031 to around 2044, providing continued employment for hundreds of people in the region.

In addition, we intend to apply for an increase in the approved production rate at Maules Creek from 13Mtpa to 16Mtpa run of mine (ROM) coal, and we will be increasing production at Tarrawonga from around 2.4Mtpa to up to around the approved rate of 3.0Mtpa ROM coal.

## Policy and advocacy

Whitehaven participates in policy advocacy on a range of issues affecting both our company and the coal mining sector. We engage in dialogue with elected and non-elected representatives at all levels of government on both a bilateral basis and under the auspices of our membership of industry associations both domestically and abroad. These interactions form part

of our contribution to ensuring a competitive and sustainable mining sector and cover a wide range of issues including:

- competition issues associated with rail, port and logistics
- domestic energy policy
- royalties and taxation
- industrial relations
- safety
- environmental regulation
- climate change.

We believe industry associations play an important role in public policy discourse and in helping to ensure Australia's minerals sector sustainably delivers benefits to the economy and communities where we operate. Industry associations are a forum for the exchange of ideas and information and to seek consensus on key policy matters that either affect, or have the potential to affect, our sector. They are also the primary vehicle through which Whitehaven contributes to the development of industry standards and regulation. Whitehaven considers that differences of opinion on some matters are an inevitable and healthy part of any member-based organisation albeit we always seek to work constructively towards consensus outcomes.

We are active members of the associations listed below. We keep our membership of these entities under regular review.

Industry associations:

- Minerals Council of Australia
- NSW Minerals Council
- Queensland Resources Council
- World Coal Association.

Whitehaven periodically makes formal contributions to parliamentary reviews which can be accessed via our website. Any political donations we may make from time to time are recorded and disclosed in accordance with applicable legislation.

## NSW Government commitment to coal

In June 2020, the NSW Government released its *Strategic Statement on Coal Exploration and Mining in NSW*, which clearly outlines a commitment from the Government to coal mining and coal workers in NSW that will span many decades, as we continue to

meet the strong demand for high quality coal in our near region. The Statement also outlines the Government's proposed approach to the release of new areas for exploration and possible mining, some of which present opportunities for the business.

Whitehaven welcomes the NSW Government's announcement which provides greater certainty for industry participants and will help ensure continued investment in the sector for years to come.

## Minerals Council of Australia Climate Action Plan

In June 2020, the Minerals Council of Australia (MCA) released its Climate Action Plan, which outlines how the MCA and its members are taking action on climate change as part of the sector's collective commitment to the Paris Agreement and its goal of net zero emissions globally and in Australia. The Plan acknowledges the critical importance of

technology in reducing emissions, and has the following key core objectives:

- Enabling the potential of technology to decarbonise the minerals sector
- Increasing transparency in reporting
- Sharing of practical knowledge on climate responses.

The Plan will be reviewed annually and publicly reported on to ensure it remains consistent with Australia's climate policy ambitions in support of the Paris Agreement.

