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## GLOSSARY

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This glossary contains definitions of certain technical terms used in this prospectus. Some of these definitions may not correspond to standard industry definitions.

- “1/3 Coking Coal” ..... a coal that is softer and weaker than Primary Coking Coal. Similar to semi-hard coking coals, it displays relatively high caking properties and medium levels of Volatile Matter
- “1/2 Middle Sticky Coal” ..... a coal that displays properties similar to PCI coals, having relatively low levels of Volatile Matter and low to medium caking ability
- “anthracite” ..... is the highest rank coal. It is the hardest coal type and is characterised by low volatile matter and high carbon content. It has a semi-metallic lustre and is smokeless when burnt. It has a high fuel efficiency, and its fuel ratio is between 10 and 60
- “Ash” ..... the ash content in coal that represents the non-combustible inorganic residue remaining after the coal is burned
- “bt” ..... billion tonnes
- “Bituminous Coal” ..... a coal group that contains many coal types which are all only slightly affected by weathering unless left exposed for an extended period of time, in which case they break into fine prismatic pieces, not like the platy pieces of lignite. The group has a fuel ratio of about three. Most internationally traded coal and all coking coal is bituminous rank
- “CFR” ..... cost and freight, a term of sale requiring the seller to arrange for the carriage of goods by sea to a port of destination, and provide the buyer with the documents necessary to obtain the goods from the carrier. Under such arrangement, the seller does not have to procure marine insurance against the risk of loss or damage to the goods during transit
- “Chinese Caking Index (G)” ..... is determined through a laboratory test measuring the caking capacity of a sample of coal to ascertain how well the coal binds or fuses together. Higher G index indicates greater caking capacity
- “Chinese Plasticity Index (Y)” ..... is a measure of the maximum thickness of the plastic mass when the coal is heated to the peak temperature and before it resolidifies. This measure is similar to the Crucible Swelling Number and the level of Gieseler Maximum Fluidity
- “CIF” ..... cost, insurance, freight, a term of sale signifying that the price invoiced or quoted by a seller includes insurance and all other charges up to the named port of destination
- “coke” ..... used as a reductant in the manufacturing of iron and steel. To a lesser extent, coke is also used in the casting and smelting of base metals

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- “Coke blend” ..... combination of various types of coking coal with different physical properties into a final “blend” by coke producer in order to maximise certain technical parameters of the coke which ultimately improves pig iron quality, and at the same time minimises cost
- “Coke Strength after Reaction” ..... a measure of the relative coke strength of coke located in the mid-region of a blast furnace. For a high quality hard coking coal the Coke Strength after Reaction (CSR) should be at least 65% of that before the reaction occurred
- “coking coal” ..... also commonly referred to as metallurgical coal, is used to produce coke. Market participants typically refer to six types of coking coals based on specific characteristics of the coal including the ash content, volatile materials, coke strength and fluidity
- “cost curve” ..... a graphic representation in which the production volume of a given commodity across the relevant industry is arranged on the basis of average unit costs of production from lowest to highest to permit comparisons of the relative cost positions of particular production sites, individual producers or groups of producers within a given country or region
- “Crucible Swelling Number (also known as Free Swelling Index)” ..... the degree of free swelling of a one gram sample of crushed coal heated under elevated conditions (>800°C) in a specialised silica crucible. Higher index values (ranging from 1-9) equate to superior caking and/or swelling properties of the coal which are required for coke making
- “EU-15” ..... 15 specified member countries of the European Union
- “EU-27” ..... 27 specified member countries of the European Union
- “Fat Coal” ..... a coal that is similar to Primary Coking Coal. However it shows greater levels of volatile matter. It generally also has a higher caking index
- “fluidity” ..... fluidity refers to coal’s plasticity during carbonization, where coal changes from a solid material to a fluid (plastic) state, and then to a fused porous solid (coke) during cooling. High fluidity is beneficial in the cokemaking process. Typical measure of fluidity is the Gieseler Maximum Fluidity reading
- “FOB” ..... free on board, where the seller is required to clear the goods for export and buyer is responsible for all the costs incurred after the cargo has been loaded on board
- “FOR” ..... free on rail

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- “Gas Coal” ..... a coal with high levels of Volatile Matter but displaying a low to medium caking index
- “Gas Fat Coal” ..... a coal with high levels of Volatile Matter but displaying high caking properties
- “hard coking coal (HCC)” ..... a higher-ranked coking coal with strong caking properties. Hard coking coals generally have Crucible Swelling Number greater than six
- “km” ..... kilometres
- “Lean Coal” ..... a relatively low volatile coal with average caking abilities. This coal typically has properties similar to semi-soft coking coals
- “lignite” ..... is a low rank of coal containing high moisture. Lignite is distinctly brown and is either markedly woody or clay-like in appearance. As it comes from the mine, lignite generally carries 30–40% water and its net calorific (energy potential) value is low. When exposed to the weather, lignite readily loses its water content and is capable of spontaneous ignition. When crushed, lignite produces a brown powder, whereas coal *sensu stricto* (except for cannel coals) produces a black powder
- “Meagre Coal” ..... a coal that is considered to have one of the highest degrees of coalification of a bituminous coal. It has relatively low caking properties, and when burnt it has short flame combustion and is relatively fire resistant
- “Meagre Lean Coal” ..... a coal that has relatively weak caking properties but with low levels of Volatile Matter. This coal is similar to typically low-volatile PCI coals
- “metallurgical coal” ..... see coking coal
- “mt” ..... million tonnes
- “mtpa” ..... million tonnes per annum
- “Offtake agreement” ..... an agreement between a producer of a resource and a buyer of a resource to purchase or sell the producer’s future output
- “Offtaker” ..... the buyer of a offtake agreement to purchase a specified amount of the producer’s future production
- “Pacific” ..... the largest of the Earth’s oceanic divisions. It extends from the Arctic in the north to the Southern Ocean in the south, bounded by Asia and Australia in the west, and the Americas in the east
- “Primary Coking Coal” ..... a high quality hard coking coal with low to medium levels of Volatile Matter and relatively high bonding properties

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- “proven reserves” or “proved reserves” ..... considered to be highly confident of being recoverable (economically)
- “Pulverised Coal Injection (PCI)” ... the process whereby coals are injected into a blast furnace to provide the required carbon in the iron-making process. PCI coals are typically divided into low-volatile and high volatile PCI
- “reserve base” ..... demonstrated, in place (measured plus indicated) resources from which reserves are estimated. The reserve base of an identified resource generally must meet specified minimum physical and chemical criteria related to current mining and production practices, including those for grade, quality, thickness, and depth
- “Semi-hard Coking Coal” ..... lower in rank to hard coking coals. Semi-hard coking coals typically have Crucible Swelling Numbers between 4 and 6
- “Semi-soft Coking Coal” ..... lower ranked coking coals used as either a coking blend component or as Pulverised Coal Injection (PCI) coal
- “Sub-bituminous Coal” ..... a coal that can be distinguished from lignite by its black colour and its lack of a distinctly woody structure and texture, and from Bituminous Coal from its slacking in the weather (formation of cracks in and pervasive dehydration of those portions exposed to weathering)
- “thermal coal” ..... also referred to as steaming coal, is primarily used as an energy source in the generation of electricity. Other applications include direct heating, space and water heating, process heating and cement manufacturing. Thermal coal covers all black coals other than those which are specifically designated as coking coal
- “Volatile Matter” ..... the percentage of components in the coal primarily representing organic compounds and mineral impurities, excluding inherent (dry) moisture
- “Weak-Sticky Coal” ..... a coal typically used as thermal coal for gasification and power-generation. However with additional treatment it can be used as low-grade coking coal