SUSTAINABLE VALUE CHAIN

Lobito Port

The state-of-the-art Lobito Port is connected directly to the Benguela railway line which provides an efficient low-carbon transport mechanism. Once loaded it travels to the port in Hull where it is unloaded directly to the plant with no need for carbon-intensive road travel.

Longonjo Mine

Longonjo mine will be constructed aligned to best ESG practice. This has included instructing an independent Environment and Social Impact Assessment during the planning stage, building a power line to enable use of hydropower as part of operations and adjusting the mine area to exclude areas of biodiverse and cultural significance.

Longonjo MRES Plant

The on-site Mixed Rare Earth Sulphate (MRES) plant will process ore separate MRES product. This means more raw material will remain on site and Pensana will be transporting a product of lower weight and volume, reducing shipping requirements and carbon emissions.

Mine TSF

The tailing storage facility (TSF) mine will be constructed in line with the Global Industry Standard on Tailings Management, the leading ESG standard in the sector. This means the TSF will be built and monitored and aligned to the latest leading safety and social standards.

Reagant Manufacture

Carbon emissions from chemical reagent production (scope 3) will be considered in procurement decisions to ensure that the impact on the global climate is minimised.

Yorkshire Energy Park

Pensana have signed a letter of intent securing private wire connection to battery storage operated by Yorkshire Energy Park under which it will have access to 4 MW rising to 10 MW of low carbon electricity for 10 years.

Hydrogen2Humber

Pensana have signed a cooperation agreement with Norwegian company Equinor with respect to potential offtake of hydrogen to facilitate recycling of used rare earth magnets.

Saltend Chemicals Park

The Saltend processing plant will be built within the existing Saltend Chemicals Park which allows Pensana to plug-and-play into utilities, and existing infrastructure. This means shared expertise and facilities to manage environmental risk.

ANGOLA LUANDA Saltend, Humber Freeport U Mine TSF Lobito Port Longonjo Mine Longonjo MRES Plant Reagant Manufacture



PENSANA PIC



The Saltend plant will operate aligned to robust English law which sets high standards for mitigating health, safety and environmental risks.

The design will include solar panels for self-generation of renewable energy, and the business is also exploring future connections to benefit from the investment in renewable power from North Sea wind.

By-Product Production

Purchase and Use **Opportunity for Waste and**

The NdPr separation process will result in other products being created. These products might not necessarily be primary revenue-generators, but to ensure Pensana minimises its waste going to landfill, routes to market for by-products are currently



Pensana is aiming to support the circular economy by investing in research and infrastructure to develop a recycling facility for rare earths. This will reduce the quantity of used-magnets going