PENSANA PLC Green Bond Framework July 2022





Background and Objective 4

Introduction to Pensana PLC 4

The Saltend Refinery in brief 4 The Longonjo mine and feedstock for Saltend 4

Pensana's sustainability contribution / principles 5 Why is Pensana's approach to sustainability different? 5 Contribution to UN SDGs 5 Sustainability governance 6 Risk and Opportunity 6 Reporting 6 Sustainability policies 7 Addressing climate risk and opportunity 7 Science, technology and maths (STEM), inclusivity and gender equality 8

Green Bond Framework 8

Use of proceeds 8 EU taxonomy alignment 8

Project evaluation and selection process 8 Selection of Saltend Chemicals Park 8 Saltend Refinery construction 9 Saltend Refinery operations 9 Feedstock criteria 9 End markets 9

Management of proceeds 9

Reporting & transparency 9

External review 9



PENSANA Plc

Background and Objective

Introduction to Pensana PLC

Pensana PLC ("Pensana") is in the process of establishing a world-class, independent, and sustainable supply chain for the rare earth metals vital for electric vehicle, wind turbine and other strategic green technology industries. Specifically, the company will produce 12,500 tonnes p.a. of rare earth oxides, of which 4,500 tonnes will be neodymium and praseodymium oxides (NdPr) representing an estimated 5% of the world market in 2025. The company was founded in 2006, currently has more than 40 employees, listed on the London Stock Exchange and headquartered in the UK. The company has a strong management team consisting of highly experienced individuals from the mining and rare earth industry.

Pensana will as a result of the construction of a brand-new rare-earth processing facility at Saltend Chemicals Plant in Hull, become a major employer in the Humber region. It is key to the Company's success to have clear focus on environment, social and governance (ESG) issues and puts significant emphasis on integrating sustainability into its operations.

In addition to being a provider of key rare earth metals to enable the energy transition, Pensana will adopt robust standards for sustainable operations and processing. Furthermore, Pensana will establish strict requirements to ethical and environmentally friendly sourcing of feedstock, complete with associated digital traceability to support its customers own sustainability ambitions.

In the full value chain from mining operations to the end-user, Pensana is positioned as an extractor and refiner of rare earth metals for super magnets.

The Saltend Refinery in brief

Pensana's Saltend Refinery will be the first major rare earth separation facility to be constructed in over a decade. It will be based at the Saltend Chemicals Park within the bounds of the Humber Freeport in the UK. The Humber Freeport status has a favourable financial and regulatory environment to enable Saltend to become one of the world's largest rare earth processing hubs. By importing sustainably sourced feedstock from around the world and processing it into high value oxides and metal products, the Saltend facility will provide Pensana with the potential to export to Europe and beyond. Pensana is aiming to establish Saltend as an attractive alternative to mining companies who may otherwise be limited to selling their products to China, having designed the facility to be easily adapted to cater for a range of rare earth feedstocks.

The Longonjo mine and feedstock for Saltend

Alongside the development of the Saltend Refinery, Pensana have also secured mining rights for extraction of rare earths in Angola in the planned Longonjo mine. The mine is being designed to operate at the highest sustainability standards through adoption of The International Finance Corporation's (IFC) Performance Standards covering eight areas of risk management, labour, resource efficiency, community, land resettlement, biodiversity, indigenous people and cultural heritage.

Further initiatives include developing а connection to hydro-electric power and a tailings storage facility to meet the recommendations of the Global Industry Standard on Tailings Management. Longonjo also benefits from Wood Plc's (a leading engineering consultancy working in partnership with Pensana) design for production of a clean, high-value, mixed rare earth sulphate for export from Angola utilising an existing railroad and port infrastructure.

The mined ore will be locally processed into a mixed rare earth sulphate (MRES) on site at Longonjo and then transported directly to Saltend via rail and ship, reducing the weight burden and as such further decreasing carbon emissions.

Other feedstocks for Saltend may be sourced and will be screened to ensure high sustainability standards and digital traceability are retained across the board.



Pensana's sustainability contribution / principles

Sustainability, or ESG, is a core area for Pensana. The company's mission statement is to, "build the world's first sustainable magnet metal supply chain to meet the burgeoning demand from EVs and offshore wind" and originates from a desire to provide a product that is key in renewable energy and EVs. Pensana is well positioned to contribute with critical metals to the growing supply chains for offshore wind and EVs.

Pensana's ESG initiatives are structured in four workstreams (climate and carbon; environment and ecology; colleagues and community and ethical business and corporate governance) with each addressing material ESG risks and opportunities and contributing to the United Nations Sustainable Development Goals. Pensana will publish a detailed ESG strategy as the development of Saltend and Longonjo and the associated value chains progress.

To demonstrate support for addressing climate change on a local level Pensana is a launch member of the Oh Yes! Net Zero coalition. This is a group of business, NGOs and public sector organisations working in partnership and with the local community to facilitate the Hull and Humber region becoming net zero.

Why is Pensana's approach to sustainability different?

Pensana will provide a low ESG risk source of rare earth magnets when compared to rival suppliers in the Asian market:

- Low carbon value chain initiatives. Including:
 - on mine processing, and thus transporting significantly lighter sulphate than ore.
 - Simple and modern logistics. Direct train from Longonjo mine to Lobito port and then ship directly to the Saltend plant in Hull. Meaning no need for diesel intensive road travel
 - Solar power incorporated into Saltend plant design

- Low risk social aspect of value chain. No precedent of illegal or artisanal mining in source areas.
- Strict local legislation on labour rights in both UK and Angola
- Full digital traceability of sustainability credentials allowing customers to know the journey and source of their raw materials
- Tailings aligned to latest international guidance
- Detailed environmental monitoring and management with independently determined limits coupled with transparent health, safety and environment reporting
- Further innovative solutions to address the climate crisis including partnerships with other businesses in the Humber area to look at options for material recycling and for future consumption of hydrogen in the generation of electricity

Contribution to UN SDGs

Pensana is a signatory to the UN Global Compact and will meet the annual requirement to submit a report on progress each year.

Pensana's rare earth processing plant at Saltend and its associated value chain will materially contribute to ten of the UN Sustainable Development Goals (SDG):



Pensana will, as part of its resettlement action plan (RAP) in Angola, invest in an agricultural education programme to assist the local communities whom rely on farming for food and income to improve the quality and sustainability of their farming thus improving the quality of life for their staff, families and communities.

As part of the RAP, minimising the impact on the local communities was a key area of focus. With this in mind, project boundaries have been set out resulting in zero displacement of the local community from their physical residences.

Sustainability governance **Strategy**

Pensana's business plan is aligned to meeting the growing global demand for rare earth metals in general and NdPr in particular. The extraction and processing of NdPr is crucial to supply of components for wind turbines and electric vehicles and will impact the ongoing de-carbonisation efforts. These products will impact carbon emissions and are forecast to be in high demand.

Pensana has voluntarily become a partner of the Taskforce for Climate-related Financial Disclosure (TCFD) demonstrating its focus on understanding its role in adapting to and addressing the climate crisis.

Pensana has addressed climate in its strategy and has tested the business strategy against climate models published by the International Energy Agency. The models forecast that there could be a sevenfold increase in demand for rare earth metals for use in clean energy technologies between 2020 and 2040^[1].

Pensana is also a founding partner of the *Oh Yes! Net Zero* campaign to promote net zero and climate action across the Humber region.

Pensana's chief Executive Officer (CEO) is responsible for implementation of ESG policies into the company's operations and oversees the delivery of ESG programmes. ESG performance is reported to the Board through an ESG sub-committee with specific remit for ESG strategy and implementation. The CEO is supported by the Sustainability Manager who reports directly into the CEO and coordinates delivery of ESG programmes.

Risk and Opportunity

ESG risk and opportunity identification is incorporated into the company risk assessment processes with ESG risks embedded in the company's primary risk matrix, which in turn is reviewed by the Audit and Risk Committee. As part of the development of the Saltend and Longonjo projects comprehensive environment and social impact assessment studies have been carried out, with assessments at Saltend complying with the stringent English planning laws. These will ensure that a comprehensive assessment of risks and noting of mitigations is achieved covering the spectrum of ESG.

Reporting

Pensana will report its annual progress on ESG through the business' annual reporting process, covering all four of the workstreams (climate and carbon: environment and ecology; colleagues and community ethical and business and corporate governance). Τo continually develop its ESG performance the company will develop a robust, publicly available, ESG strategy. The strategy will show how Pensana plans to further reduce its ESG impact by publishing a series of KPIs and ambitions across the ESG suite with a particular focus on identified material issues (including greenhouse gas emissions, water consumption, health and safety). These will be aligned to ensuring the company delivers against its material ESG risks and opportunities and are across all four of its ESG pillars, which apply throughout the business' value chain:

- We care about addressing the climate crisis
- We care about protecting the natural environment
- We care about our colleagues and the communities in which they live
- We care about operating an ethical business with strong corporate governance

¹ https://www.iea.org/reports/the-role-of-critical-minerals-inclean-energy-transitions/executive-summary

PENSANA Plc

These ambitions will consider issues material to Pensana and, to ensure true and robust performance, interim targets will be set using baseline data from the business once operational.

In order to achieve this comprehensive monitoring and reporting of KPIs will be phased in as data become material through the project. This monitoring will include, as a minimum, scopes 1, 2 and 3 greenhouse gas emissions, data on water and energy usage, quantitative metrics on health and safety and environmental performance, and updates on community relations and business ethics performance.

To support the implementation of a digitally traceable supply chain, Pensana has developed Principles of Sustainable Procurement standard which highlights the expectations of all its suppliers. This document will be continually enhanced over the life of the business and encourage suppliers to drive their own ESG forward alongside Pensana. Progress of ESG initiatives will be reported annually and the business will use external assurance resources for material ESG data and claims.

Sustainability policies

Pensana lists its publicly available ESG policies on its website at www.Pensana.co.uk.

These document the commitment to strong corporate governance and best practice by embedding environmental and social best practice across the business.

The company has a strong ethos of a zerotolerance policy for health and safety for its employees and suppliers and, as a minimum, will be in compliance with environmental laws, regulations, tenements and permit conditions as well as working environment rules and regulations.

Addressing climate risk and opportunity

Pensana is in a strong position to generate revenue from global energy transition and net zero ambitions. The company is aiming to minimise the climate impact from within its own operations and value chain. The business has instructed a team of independent academics under the direction of HCV Africa to independent complete an climate risk assessment of the Longonio mine site to physical climate explore risks and opportunities outward to the 2040s, with a particular focus on water resources. Furthermore, the business is fully adhering to the comprehensive statutory requirements for climate assessment of the Saltend site, including assessments on resilience to physical climate risks such as flooding. Any outcomes, along with outputs from a business wide transitional climate risk and opportunity review will be fed into the group risk matrix, mitigated as required and where relevant made available as part of the principal risk register.

To demonstrate the business' commitment to consideration of greenhouse gas emissions prior to construction of Saltend, Pensana has committed to:

- Incorporate Solar PV cells into the building design
- A Coastal location of the UK based processing facility at Saltend so no additional land-based travel after arrival of materials in the UK
- Making by-products available to other industries to displace virgin materials thus reducing carbon emissions and environmental impacts of new extraction projects
- Consideration of upstream scope 3 emissions in reagent purchasing decisions to promote lower carbon solutions in the upstream supply chain

Selecting px Group's Saltend chemicals plant provides opportunities to work with the sites other residents to further reduce the environmental impact. For example, Pensana has signed a cooperation agreement with Equinor to form a working group to share technical and commercial information to develop a low energy method for recycling of end-of-life magnets at Pensana's rare earth hub in Saltend Chemicals Park.

In January 2022, Pensana signed a cooperation agreement with leading energy provider, Equinor, to form a working group to share technical and commercial information to develop a low energy method for recycling of

end-of-life magnets Saltend. The at partnership with Equinor supports Pensana's commitment to the circular economy as it looks to recycle an addressable annual market of 4,000 tonnes of end-of-life permanent Recycling permanent magnets. magnets utilising hydrogen not as fuel, but as a whilst benefitting from reductant, the decarbonised power supply within Saltend, offers a clean alternative using 88% less energy than virgin magnet manufacture and aligns with Pensana's continued efforts to produce a sustainable supply chain for these critical materials. Equinor has submitted plans for its 'Hydrogen to Humber (H2H) Saltend' hydrogen production facility into phase two of the UK Government's Cluster Sequencing Process. The facility will be supported by the potential supply of hydrogen to Pensana and other regional hydrogen users, which could be a world first and a catalyst for the Humber to achieve net zero.

Science, technology and maths (STEM), inclusivity and gender equality

Pensana is actively seeking professional and aspirational females with STEM backgrounds, particularly those who come from diverse and/or disadvantaged backgrounds and want to be part of creating solutions for a sustainable future. The Company is engaging with engineering centres of excellence, Universities of Leeds and Lincoln, local authorities and engagement experts to offer a range of opportunities and training for those from all backgrounds from the outset of hiring and throughout operations

Green Bond Framework

To establish a green bond framework is aligned with Pensana's over-arching strategy of building the world's first sustainable rare earth metal supply chain. The framework is prepared in alignment with the 2021 Green Bond Principles by the International Capital Market Association ("ICMA") and contains the four core components required by ICMA.

Use of proceeds

The net proceeds from Pensana's Green Bond Issue shall exclusively be used to finance project related capex or costs incurred for the construction of the Saltend Refinery.

For the avoidance of doubt, the Saltend Refinery will not own nor operate and will not invest in fossil or nuclear energy generation projects.

EU taxonomy alignment

Rare earth metal supply chains which meet the taxonomy's requirements on mitigation, water, circular economy, pollution and ecosystems, are eligible under the EU taxonomy under section 3.1 (manufacture of low carbon technologies). It is estimated that c. 95% of Pensana's forecast revenue will be generated from the sale of NdPr oxides, to be used in permanent magnets that will be applied to EU taxonomy aligned products which will predominantly be electric vehicles and wind turbines.

Pensana's commitments in respect of the environment are demonstrated in the business's environment policy which is available on the company's website.

Pensana's commitment to associated veracity, traceability and commitment to lowering carbon emissions, provides the opportunity to support the electric vehicle market in with the taxonomy post 2030 when life cycle and well to wheel emissions thresholds are suggested to be applied.

Project evaluation and selection process

The Saltend Refinery project has been evaluated by the management and board of directors of Pensana and both the location and development are found to be in line with Pensana's strategy and requirements.

Selection of Saltend Chemicals Park

The Saltend facility is located within the world class Saltend Chemicals Park, a cluster of leading chemicals and renewable energy businesses at the heart of the UK's energy estuary and is a host to a range of companies including BP Petrochemicals technology, INEOS, Air Products, Triton Power, Nippon Gohsei and Tricoya.

The Saltend site provides Pensana with "plug and play" access to utilities including water, power and gas. The location has been designated for development specifically for activities that benefit Green Port Hull. This £500m investment aims to develop jobs and infrastructure related to offshore wind and decarbonisation projects in the region. Pensana fits within this development and will support the development of future opportunities supplying critical materials to industry and attracting further green developments in the region. These developments are all industries that benefit from being close to the international Port of Hull only 2km from the site.

Saltend Refinery construction

As part of the construction process at Saltend the business has ensured that all UK planning permitting requirements are and being followed. This includes comprehensive assessments on flood risk, nature and biodiversity, noise and visual disruption to ensure the site adheres to the robust planning and permitting laws within UK legislation and works in tandem with the opinions of local stakeholders. Furthermore, the business will plant new trees on the site to ensure the site has a habitat net gain

Saltend Refinery operations

ESG has been embedded into the operations at Saltend. The business plans to build solar PV cells into the roof of the construction to increase to low cost on site renewable power. The site is well located to take advantage of future operations including the potential for future on site hydrogen production to support recycling of rare earth material to support the business' ambitions to support the circular economy. The facility will create 450 jobs during construction and 125 high value full time jobs.

Feedstock criteria

Pensana are openly committing to developing a sustainable and digitally traceable supply chain with all feedstock meeting high sustainability criteria.

End markets

It is estimated that c. 95% of Pensana's forecast revenue will be generated from the sale of NdPr oxides, to be used in permanent magnets that will be applied in green low carbon technologies such as electric vehicles and wind turbines.

Management of proceeds

The net proceeds from the green bond will be transferred to a designated escrow account under the administration of Nordic Trustee. The proceeds will be released according to a preagreed release mechanism.

Reporting & transparency

Pensana will report progress against its ESG goals through the business' annual reporting process. Further Pensana will report on the construction process of the Saltend Refinery and the utilisation of the net proceeds from the green bond issue in its quarterly reports.

External review

Pensana has obtained an external third-party opinion on its Green Finance Framework, a second opinion from Cicero, to secure alignment with national and international guidelines. The second opinion has received Light Green accreditation and a governance score of Good from the Centre for International Climate and Environmental Research (CICERO). The second opinion and other information on Pensana's sustainability efforts are available at: https://pensana.co.uk/sustainability.