





#### **2022 SUSTAINABILITY REPORT**

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### **MESSAGE**

# FROM THE CHAIRMAN & MANAGING DIRECTOR

#### Arafura Rare Earths – a focus on sustainability

Welcome to Arafura's 2022 Sustainability Report.

Sustainability sits at the heart of Arafura's aspirations to become a leading global rare earths product supplier of choice. Implementing and maintaining a culture of sustainability is central to our single site ore-to-oxide business model.

A Board Sustainability Committee has been established to review long-term targets and aspirations and monitor progress towards these goals.

Arafura is a signatory to the United Nations' Sustainable Development Goals (UN SDGs) and has submitted its annual Communications of Progress, formally documenting our ongoing alignment with the SDG framework.

This year Arafura also began the process of attaining membership with the Initiative for Responsible Mining Assurance (IRMA). IRMA supports the advancement of responsible mining through independent third-party certification and verification of the social and environmental performance of mining operations.

Arafura has committed to achieving net-zero greenhouse gas emissions from the Nolans Project by 2050. Considerable activity was undertaken towards a detailed carbon reduction pathway for power generation at the project in support of this commitment. A draft term sheet has been developed for a power purchase agreement that will drive reduction in greenhouse gases over the course of the power station contract.

Arafura has also identified opportunities for onsite solar PV, solar thermal and wind generation which have the potential to deliver a significant penetration of carbon-free renewable power to the Nolans Project. The power purchase agreement (PPA) with the independent power provider (IPP) who will build, own and operate the power station will include commercial incentives to ensure power station emissions are progressively reduced to meet Arafura's 2050 net zero target.

Arafura is committed to providing a safe and inclusive workplace for our people. We have set clear diversity and training targets for the Nolans Project construction and operations phases and continue to be heavily focussed on maintaining high standards of health and safety across our organisation.

We continue to build on proactive and positive long-term engagement with Traditional Owners and communities local to the Nolans Project. Our intent is for the project's development to create a range of local economic and social opportunities, including employment and support for businesses. To this end, workshops were conducted in the Northern Territory throughout the year to provide local businesses with an indication of the opportunities that may be available through the Nolans Project.

Arafura's sustainability progress in the past 12 months positions us strongly to continue delivering value to our shareholders in the coming year.

None of this would be possible without the team we have in place at Arafura and we would like to thank all staff, contractors, partners and shareholders for their ongoing support.

# Implementing and maintaining a culture of sustainability is central to Arafura's single site ore-to-oxide business model



Mark Southey
CHAIRMAN



Gavin Lockyer

MANAGING DIRECTOR

#### **ARAFURA**

# **COMPANY OVERVIEW**

#### **ABOUT ARAFURA**

Arafura is headquartered in Perth, Western Australia and was listed on the Australian Stock Exchange in 2003 (ASX: ARU).

We are focused on becoming a leading global supplier of rare earth elements (REE), particularly the high-value and in-demand REEs Neodymium and Praseodymium (NdPr). As part of this, we are in the process of transitioning from exploration and development to construction and operation at the Nolans Project in the Northern Territory.



## **OUR VISION**

TO BE THE TRUSTED, LEADING RARE EARTHS PARTNER OF CUSTOMERS IN HIGH IMPACT TECHNOLOGIES AND ENDURINGLY LIFT THE SUSTAINABILITY OF OUR PLANET

#### **ABOUT RARE EARTHS**

Arafura's primary products from the Nolans Project will be rare earths which are essential to many important products used in modern society, particularly the green energy transition.

These include high-strength magnets, catalytic converters for automobiles, consumer electronics, energy efficient lighting, optics, super alloys and advanced ceramics. Demand for rare earths is forecast to grow strongly in the coming years, driven by the following trends:

- The transition towards more renewable forms of energy, particularly high efficiency wind generation;
- Advanced manufacturing and consumer products featuring robotics and automation;
- Low-emission technology concepts; and
- The evolution in automotive and future mobility trends, particularly in electric vehicle drive trains to increase efficiency and reduce electricity demand.

Arafura's offtake strategy targets original equipment manufacturers (OEMs) from geographic regions with supportive Export Credit Agencies. Arafura will be a responsible producer of NdPr oxide feedstock where provenance is easily traceable.

#### **ARAFURA**

## COMPANY VALUES

In July 2022 Arafura undertook a collaborative internal exercise to reinvigorate and refresh our company values.

We recognise that strong values enable sound decision-making and support our employees to understand their roles within the business and collaborate with one another. They also allow us to simply and clearly communicate our guiding principles to clients and customers, and ensure we build a business with people whose attitudes and priorities are aligned with ours.

The process resulted in five core Arafura values being defined. Internal 'value champions' have been assigned to support the modelling and promotion of these values at all levels of our business. More broadly, they will be brought to life through initiatives including leadership commitment and modelling; embedding in all process relating to our people; corporate and cultural alignment; and visual reminders.



## **OUR VALUES**



#### **NOLANS**

## PROJECT OVERVIEW

In production, Nolans will consist of a mine, process plant and supporting infrastructure located 135 kilometres north of Alice Springs.

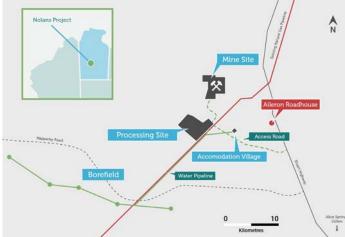
Neodymium and praseodymium (NdPr together) are two of the world's most sought-after rare earth elements. The Nolans Project is a globally significant NdPr project which, once in operation, will become a major supplier of this critical mineral to the high-performance rare earth permanent magnet sector.

Nolans is currently the only Australian NdPr focused project to have secured full environmental approvals for mining, beneficiation, extraction and separation.

Rigorous Federal and Northern Territory Government approval processes included an assessment of Arafura's ability to manage and mitigate all environmental and social aspects of the planned project, and the company's capacity to undertake progressive rehabilitation.

The Nolans Project's ore-to-oxide business model has received all environmental approvals to allow processing to occur in the Northern Territory. The project is expected to create more than 600 jobs during construction and more than 300 jobs in operation.





#### **NOLANS**

## PROJECT UPDATE 2022

The Front-End Engineering and Design process for the Nolans Project is now well underway and on track for completion at the end of 2022.

Throughout the financial year, detailed and steady progress has been made on all elements of the Nolans project development. This work has been undertaken by our integrated project management team, which includes staff that are either employed by, or seconded into Arafura. All statistics in this report take into account our full integrated project management team.

The Front-End Engineering and Design (FEED) process for the Nolans Project is now well underway and on track for completion at the end of 2022. Progress on the hydrometallurgical plant included detailed, risk and value engineering activities, and the completion of tendering, negotiation and selection of long-lead and critical mechanical equipment. Tendering of other equipment is largely completed in order to support the design and costing process. The construction scope of work and contract is ready for tendering. A range of innovations identified by potential contractors during maturity design reviews are likely to deliver significant savings.

As a result of a review of the delivery strategy for the Nolans sulphuric acid plant, Arafura has moved away from a modular solution in favour of a large single-train sulphuric acid plant to maximise cost effectiveness, improve by-product steam production, lower sulfur dioxide emissions and reduce sulphur consumption. This was in part due to potential cost savings of a single plant over a series of smaller modular plants.

The impact of this strategy is an increase in upfront costs through the movement of funds from sustaining capital (expended in years one and two) into pre-production capital. Importantly, the overall impact on the financial return on the project is minimal. Arafura has completed the scope of works and documents to commence tendering for the power station to short-listed independent power providers.

Considerable progress was made on the design and tendering of non-process infrastructure (NPI), which range from bulk earthworks and roads to water management and bore fields, as well as communications systems and the village. Each of these NPI elements is critical to timely project delivery.

Global macro-economic effects, particularly on supply chains and long-lead equipment deliveries, may impact the delivery schedule. A plan has been adopted that incorporates the commencement of procurement for long-lead equipment in advance of the start of early works construction.

Next steps in the Nolans Project development process include:

- Procurement of long lead and critical path equipment and materials.
- Finalisation of the main construction contracts for the bulk earthworks, permanent accommodation village, hydrometallurgical plant, beneficiation plant, installation of the sulphuric acid plant and other non-process infrastructure.
- Early construction works including development of the project borefields and installation of the construction camp, followed by main plant construction.
- Twenty-eight (28) month construction schedule from commencement of early works through to commissioning.
- Development of initial detailed mine designs, tendering of the mining contract followed by a six-month schedule for pre-production mining including mobilisation, pre-strip and ore mining prior to commencement of ore commissioning.

#### **NOLANS PROJECT**

# GREENHOUSE GAS EMISSIONS REDUCTION PATHWAY

Arafura is committed to achieving net zero by 2050 (refer to ASX announcement 29 November 2021).

An important step towards meeting this commitment was the development of a Greenhouse Gas Emissions Reduction Pathway for stationary power for the Nolans Project, which was released in January 2023 (refer to ASX announcement 31 January 2023). Arafura has chosen a pathway to achieve our 2050 Net Zero Emissions commitment which includes:

- Solar and wind electricity generation and use of battery storage, targeting 50 per cent of project power by 2030.
- Concentrated solar thermal generation, with thermal energy storage for steam generation, with transition commencing in 2030.
- Transition to renewable fuels for firming power, commencing in 2040.

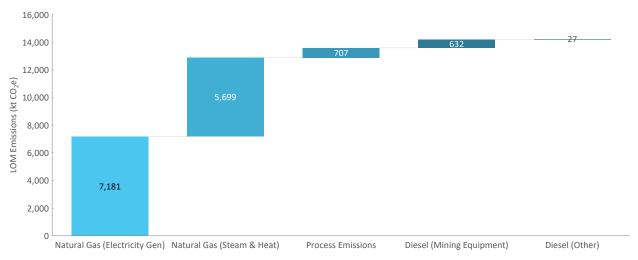
Future pathway updates will identify an abatement strategy for emissions from other sources, such as mobile plant and chemical processes.





#### Potential Emissions from the Nolans Project

The breakdown of the life of mine emissions for the Nolans Project by emissions source, if no emissions reducing technologies were to be introduced, is shown below. This estimate has been compiled based on the power plant configuration and energy use described in the Project Update (released 11 November 2022).



Breakdown of mine emissions, by source, if no emissions reducing technologies are introduced.

The key challenges for emissions reductions from the Nolans Project are:

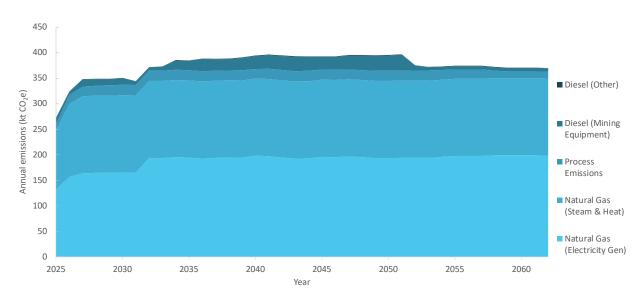
- Large stationary power requirement for metallurgical processing (e.g. mineral processing and refining).
- Large proportion of energy required as thermal energy (mostly steam).
- High availability and reliability requirements for stationary power.
- · Remote site with no electricity grid connection.

However, these challenges also present opportunities that include:

- The large thermal energy requirement means that energy can be stored as heat at relatively low cost, then discharged for use without incurring the significant energy losses which would occur if it was necessary to convert this energy back to electricity.
- The remote site provides opportunities for on-site deployment of renewables which would be more challenging in more built up locations.
- The lack of a grid connection means that the decarbonisation pathway for electrical power is wholly within the control of Arafura.

The variation in emissions sources over time, if no emissions reducing technologies were to be introduced, is shown below. Notable variations over time to the emissions profile include:

- A ramp up in energy use (and hence potential emissions) between 2025 and 2027 as the processing plant use is increased to full capacity.
- A 17% increase in potential emissions from electricity generation in 2032 due to start of chlor-alkai plant operations.
- An increase in emissions from the combustion of diesel in mining equipment between 2033 and 2050 as mining operations reach their peak, before reducing from 2051 onwards after mining is completed.



Variation in emission sources over time, if no emissions reducing technologies were to be introduced.

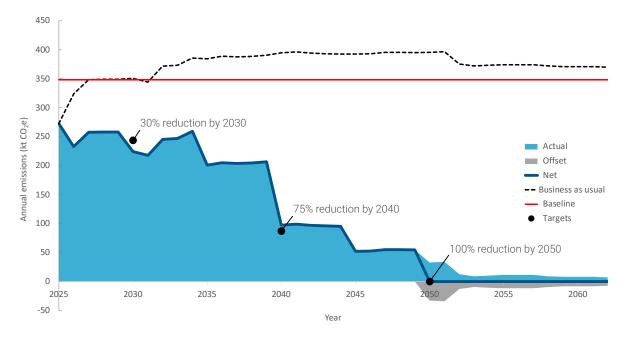
#### **Emissions Reductions Targets**

The development of the Greenhouse Gas Emissions Reduction Pathway for stationary power was an important precursor to confirmation of the Arafura 2030 and 2040 emissions targets, given that stationary power is the source of up to 90% of the forecast project emissions. The release of the pathway in January 2023 enables Arafura to commit with confidence to a 30% reduction in emissions from the Nolans Project by 2030 and a 75% reduction by 2040.

Target percentage emissions reductions are measured from a baseline based on forecast full plant capacity production in year three of the project (2027, 349 kt  $CO_2e$ ). On this basis, the 2030 annual emissions target for the Nolans Project is 244 kt  $CO_2e$ , whilst the 2040 target is 87 kt  $CO_2e$ .

The emissions reduction profile shown below is an estimate based on the implementation of the technologies outlined in the Greenhouse Gas Emissions Reduction pathway (released 31 January 2023) and the production volumes forecast in the latest Project Update (released 11 November 2022).

The chosen pathway is based on Arafura's current understanding of the Nolans Project's energy requirements, forecast costs of emissions reduction options and assumptions on the maturity and pace of development of emissions reductions technologies. Arafura anticipates that the pathway will be optimised as project definition increases and emissions reduction technologies are identified, matured or reduce in cost.



Emissions reduction profile for Nolans, including 10 year emission targets.

### Implementation Plan

The table below summaries the plan for implementation of the Greenhouse Gas Emissions Reduction Pathway for the Nolans Project.

GREENHOUSE GAS EMISSION SOURCE	NOW	2023 – 2025 PROJECT CONSTRUCTION	2026 - 2030 PROJECT OPERATIONS
Electrical	SODAR for on-site wind and solar resource data collection.	Confirm initial renewable electrical power requirements (e.g. target renewable energy fraction).	Construction and operation of solar PV field, wind turbines and EES and supporting infrastructure.
	Incorporation of electrical interfaces for renewable power into facility design.	Design of PV, wind and EES power solution.	
Thermal (200 °C steam)	Incorporation of interfaces for renewable steam into facility design.	Detailed investigation of thermal generation and TES options to confirm appropriate technology mix.	Design, construction and start-up of demonstration scale thermal generation and TES.
Firming power (electrical and thermal)	Consider ability of power generation equipment to run on alternative fuels during equipment selection.	Technology watch on availability and prices of 'drop-in' low emission sustainable fuels (e.g. bio fuels, or fuels synthesised from sustainable sources of hydrogen and carbon dioxide).	
Other emissions sources (e.g. mobile plant, high temperature heat and		Studies on options for GHG emission sources.	emission reduction for other
process emissions)		Update of GHG emissions re other emissions sources.	duction pathway to include

# SUSTAINABILITY AT ARAFURA

#### ARAFURA'S SUSTAINABILITY GOAL

"Arafura's ESG commitment is to be a trusted global leader and supplier of choice for responsibly mined and processed rare earth products, helping our customers deliver clean and efficient technologies. We are committed to delivering positive intergenerational economic, environmental and social benefits to our stakeholders."

#### UN GLOBAL COMPACT & THE SUSTAINABLE DEVELOPMENT GOALS





Arafura acknowledges the need for collaboration in solving the challenges facing the world and recognises the SDGs as a means of maximising collective impact. To align our operations with the SDGs, Arafura is a participant in the UN Global Compact. This will enable us to better engage at a national level with stakeholders from government, civil society and communities to map out a shared approach. Arafura is confident that we can contribute to many of the 17 SDGs. In 2022, Arafura submitted its annual Communication on Progress online as part of the inaugural UNGC Early Adopter Programme, which will become a requirement next year for all participants.

#### INITIATIVE FOR RESPONSIBLE MINING ASSURANCE (IRMA)



Initiative for Responsible Mining Assurance

Mining is a complex and intensive process that causes environmental and social change no matter where it occurs. The Initiative for Responsible Mining Assurance (IRMA) envisions a world in which the mining industry respects human rights and the aspirations of affected communities; provides safe, healthy and respectful workplaces; avoids or minimises harm to the environment; and leaves positive legacies. As a further commitment to sustainability, Arafura has become the first

rare earths company to join the IRMA certification initiative and is now a pending member. In 2022, Arafura completed the IRMA Ready Assessment, which was developed for companies that are not yet in production. but allows them to document their policies, systems and intentions that will allow them to measure their social and environmental management at their mine sites in accordance with the IRMA Standards. Full Membership will be attained when Arafura completes an independent audit against the IRMA Standards, providing verification to customers at a global level.

Arafura's marketing strategy is to secure binding offtake agreements with tier one automotive component makers and original equipment manufacturer automotive groups who are transitioning to low carbon technologies driven by government policy and consumer demand. These groups have not traditionally contracted directly with resource companies. Our customers, who are now securing their procurement at the origin of the value chain (our Nolans Project), therefore rely on third-party assessments or a recognised certification to demonstrate compliance to their heightened ESG conscious stakeholders where reputational risk for poor ESG compliance is escalating. Historically the rare earth industry has been tarnished with poor environmental performance and a lack of transparency. Arafura's adoption of the IRMA Standards certification provided an opportunity to differentiate and align with the ESG value proposition offered by a project developed in a tier one mining jurisdiction under a stringent regulatory regime. Arafura will be one of the few rare earth projects globally that will be processing an ore to oxide product at a single site, enabling traceability across the entire supply chain from mine to end-use application of product. Customers can be assured of the providence from which the raw materials were mined and processed, aligning with Arafura's goal to be the supplier of choice for responsibly mined and processed rare earth products.

## WORLD ECONOMIC FORUM | STAKEHOLDER CAPITALISM FRAMEWORK

In partnership with globally recognised accounting firms, the World Economic Forum (WEF) identified a set of global, cross-industry baseline disclosures and ESG metrics for companies to analyse their ESG performance and communicate it to their stakeholders.

Disclosures were drawn from existing commonly used voluntary standards including the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB) and the Taskforce on Climate-Related Financial Disclosure (TCFD), across four pillars considered the most critical for business, society and the planet.

This makes the framework a logical and appropriate starting point for Arafura as we move into construction. The remainder of this sustainability report is based upon the WEF disclosure and ESG metric framework outline in the diagram below.



### SUSTAINABLE VALUE CREATION

## PRINCIPLES OF GOVERNANCE



The definition of

governance is evolving as organizations are increasingly expected to define and embed their purpose at the centre of their business. But the principles of agency, accountability and stewardship continue to be vital for truly 'good governance'.



#### **PLANET**



An ambition to protect

the planet from degradation, including through sustainable consumption and production, sustainably managing resources and taking urgent action on climate change, so that it can support the needs of the present and future generations.



#### **PEOPLE**



An ambition to end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfill their potential in dignity and equality and in a healthy environment



#### **PROSPERITY**



An ambition to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature.



#### ARAFURA'S ADOPTED SUSTAINABILITY FRAMEWORK

### PILLAR 1

# PRINCIPLES OF GOVERNANCE

#### **WEF Definition**

The definition of governance is evolving as organisations are increasingly expected to define and embed their purpose at the centre of their business. But the principles of agency, accountability and stewardship continue to be vital for truly good governance.









#### THEME

## **GOVERNING PURPOSE**

#### Metric

## **Setting purpose**

#### **WEF Definition**

The company's stated purpose, as the expression of the means by which a business proposes solutions to economic, environmental and social issues. Corporate purpose should create value for all stakeholders, including shareholders.

#### **2022 DISCLOSURE**

Arafura's ESG commitment is to be a trusted global leader and supplier of choice for responsibly mined rare earth products, helping our customers deliver clean and efficient technologies. We are committed to delivering positive intergenerational economic, environmental and social benefits to our stakeholders.



## **OUR PURPOSE**

TO DELIVER OUTSTANDING VALUE TO OUR PEOPLE, COMMUNITY, CUSTOMERS AND SHAREHOLDERS BY BEING THE TRUSTED, LEADING RARE EARTHS PARTNER OF CUSTOMERS IN HIGH IMPACT TECHNOLOGIES.



## **QUALITY OF GOVERNING BODY**

#### Metric

## Governance body composition

#### **WEF Definition**

Composition of the highest governance body and its committees by: competencies relating to economic, environmental and social topics; executive or non-executive; independence; tenure on the governance body; number of each individual's other significant positions and commitments, and the nature of the commitments; gender; membership of under-represented social groups; stakeholder representation.

Arafura's Board is comprised of directors with a collective tenure of more than 35 years with the business. They bring depth of expertise and a diverse range of skill sets to their positions.

Arafura's Corporate Governance Statement and Board Charter can be found on our website: www.arultd.com

BOARD MEMBER	ROLE	INDEPENDENCE	TENURE AS AT NOV 2022	NUMBER OTHER SIGNIFICANT POSITIONS AND COMMITMENTS, AND THE COMMITMENTS	GENDER	MEMBERSHIP OF UNDER- REPRESENTED GROUPS	STAKEHOLDER REPRESENTATION
Mark Southey	Non-Exec. Chairman	Independent	5 yrs and 1 mths	Independent Non-Exec. Director - Fleetwood Corp. (ASX: FWD)	М	No	No
Gavin Lockyer	Managing Director and Chief Executive Officer	Non- independent	9 yrs and 7 mths	None	М	No	No
Chris Tonkin	Non-Exec. Director	Independent	12 yrs and 2 mths	None	М	No	No
Quansheng Zhang	Non-Exec. Director	Non- independent	6 yrs and 3 mths	None	М	No	ECE Nolans Investment Company Pty Ltd
Cathy Moises	Non-Exec. Director	Independent	3 yrs and 3 mths	Chairman - Pacgold Ltd; Non- Exec. Director - WA Kaolin Ltd; Non-Exec. Director - Australian Potash Ltd; Non-Exec. Director - Podium Minerals Ltd	F	Yes	No
Darryl Cuzzubbo	Non-Exec. Director	Independent	1 yr and 4 mths	None	М	No	No



#### Mark Southey

Qualifications: BSc (Hons) in Engineering with Business Studies, an MBA from the University of Sydney Business School and is a Graduate of the Australian Institute of Company Directors (GAICD) and a member of Engineers Australia (MIEAust).

Mr Southey has extensive global experience in the industrial and natural resources sectors covering all aspects of asset management, maintenance, design and engineering, and major capital project development and execution. He is well versed in public company board and institutional investor engagement and has a background in both senior operational and financial roles. Mr Southley is a member of Arafura's Sustainability Committee.

Mr Southey has previously held senior executive positions with Honeywell and ABB both in Australia and internationally, and more recently was part of the global executive leadership team within WorleyParsons, a leader in the engineering, procurement and construction of projects in the energy and resources sector where he held the position of Group Managing Director for the Minerals, Metals and Chemicals Sector. Mr Southey is also a Non-Executive Director of Fleetwood Corporation (ASX: FWD) and an advisory board member for Gas Cleaning Technologies LLC (Dallas).



Gavin Lockyer

Qualifications: BBus, ACA, FTA

Gavin graduated with a Bachelor of Business in Accounting and Finance in Western Australia in 1987 and has subsequently become a member of both Chartered Accountants Australia and New Zealand and the Finance & Treasury Association of Australia.

He joined Arafura in 2006 as Chief Financial Officer and Company Secretary after previously holding several senior finance and treasury positions in global mining companies including Newcrest and Newmont following a successful international investment banking career in Australia and London.

Gavin's diverse, global experience has provided management and leadership opportunities in a range of disciplines including; Accounting, Financial & Investment Banking, Major Resource Development & Operations, and Global Bank Treasuries. Over the past 20 years his career has exposed him to business practices in North America, Europe, and Australasia.



**Chris Tonkin** 

Qualifications: BSc (Hons) Metallurgy and Chemistry, BA Economics and Politics, MBA

Chris Tonkin has over 40 years' experience as a senior business executive with a broad multiple industry background in resources, telecommunications and banking and finance covering project finance, business generation, management, technical and strategy development roles. He began his career as a metallurgist and environmental specialist, diversifying into commercial roles at several major industrial companies and subsequently into project finance, corporate and project advisory roles at AIDC, The Chase Manhattan Bank, KPMG Corporate Finance and ANZ, where he was instrumental in the successful financing of many resources, telecommunications and infrastructure projects within Australia and globally. Chris was Head of Natural Resources Project Finance at ANZ for a number of years, leading a highly successful team of project financiers.



#### Quansheng Zhang

Qualifications: Doctoral degree in Engineering and Masters degree in Geophysical Prospecting

Quansheng Zhang is based in Nanjing in the People's Republic of China and is the General Manager of Hong Kong East China Non-Ferrous Mineral Resources Co Ltd (HKECE). Mr. Zhang has over 30 years of mineral prospecting and exploration experience, and expertise in mineral resource surveys and geophysics.



#### **Cathy Moises**

Qualifications: BSc (Hons) in Geology from the University of Melbourne and a Diploma of Finance and Investment from the Securities Institute of Australia

Cathy Moises has extensive experience in the resources sector having worked as a senior resources analyst for several major stockbroking firms including McIntosh (now Merrill Lynch), County Securities (now Citigroup) and Evans and Partners where she was a partner of that firm. More recently in 2017-2019, Cathy was Head of Research at Patersons Securities Limited. Ms Moises is also on the Sustainability Committee for Australian Potash

Ms Moises brings substantial experience to Arafura in company management, capital markets and institutional investor engagement. Her key areas of industry experience include gold, base metals, mineral sands and the rare earths sector. Ms Moises is Chairman of Arafura's Sustainability Committee.



#### **Darryl Cuzzubbo**

Qualifications: BEng Mechanical (Hons 1), Masters of Science (Total Quality Management), MBA

Darryl has over 30 years' experience in global roles in multi-commodity resources, services and manufacturing, holding both Senior Executive and Executive Director roles over a very successful career. He brings a wealth of knowledge and experience in both the resources and manufacturing sectors having run major operational assets and led the development and execution of significant breakthrough strategies to deliver major projects. Mr Cuzzubbo is a member of Arafura's Sustainability Committee.

Darryl was formerly Chief Manufacturing and Supply Officer as well as Group Executive and President of Auspac Asia while at Orica Pty Ltd, joining Orica in 2015 after a 24-year career with BHP where he held senior positions including 3 years as President of Olympic Dam with responsibility for operations, expansion projects and organisation wide transformational change programs. He has a broad international perspective, having experience in running operations across over 30 countries and has the ability to understand and work across diverse cultures to deliver results.

#### THEME

## STAKEHOLDER ENGAGEMENT

#### Metric

## Material issues impacting stakeholders

#### **WEF Definition**

A list of the topics that are material to key stakeholders and the company, how the topics were identified and how the stakeholders were engaged.

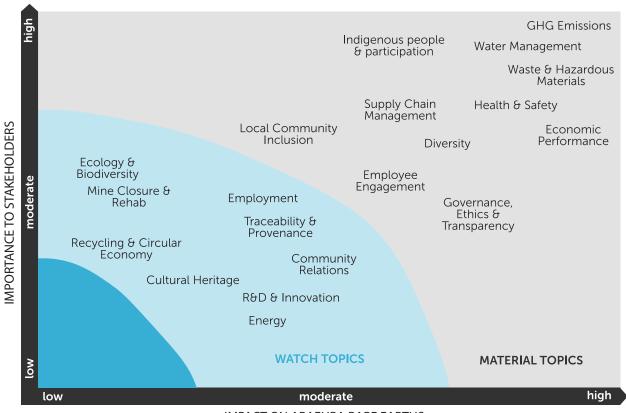
Arafura engaged a third party ESG specialist in 2021 to perform a materiality analysis with select stakeholders, where potential topics were analysed for impact on Arafura and its stakeholders.

Twenty topics were identified as being relevant, with 11 topics being identified as material to Arafura and its stakeholders.

The other nine topics have been designated 'watch topics' for potential future materiality. This process allowed Arafura to rank which sustainability issues to focus on – which issues were 'material' to our business.

The materiality matrix below presents the issues in two dimensions: their importance to our stakeholders and their likely impact on our business.

Appendix II outlines the development phase targets for 14 of the topics and progress towards each at the end of FY2022.



IMPACT ON ARAFURA RARE EARTHS

## **ETHICAL BEHAVIOUR**

#### Metric

## **Anti-corruption**

#### **WEF Definition**

- Total percentage of governance body members, employees and business partners who have received training on the organisation's anti-corruption policies and procedures, broken down by region.
   a) Total number and nature of incidents of corruption confirmed during the current year, but related to previous years; and b) Total number and nature of incidents of corruption confirmed during the current year, related to this year.
- 2. Discussion of initiatives and stakeholder engagement to improve the broader operating environment and culture, in order to combat corruption.

Arafura does not run it's own anti-corruption training. All staff, board members, and key contractors receive a copy of the Anti-bribery and Corruption Policy (as well as the Code of Conduct and Whistle-blower Policy) for acknowledgment when they commence employment, and then annually. Links to these policies can be found on our website: <a href="https://www.arultd.com">www.arultd.com</a>

Arafura commits to ensuring it Board, executives and senior staff undertake anti-corruption training in 2023.

TO BE DISCLOSED	2022 DISCLOSURE
Total % of the Board members (executive and non-executive), ELT and board committees that have received anti-corruption training	0%
Total % of employees that have received anti-corruption training	0%
Total % of business partners that have received anti-corruption training	0%
Total number of confirmed corruption incidents that relate to previous years	0
Total number of confirmed corruption incidents that relate to the current FY2022	0
Nature of each of the corruption incidents confirmed	Not Applicable. No corruption incidents identified or confirmed.
Initiatives undertaken to improve the broader operating environment in the industry	None
Stakeholder engagement activities undertaken to improve the broader operating environment in the industry	None

#### THEME

## **ETHICAL BEHAVIOUR**

#### Metric

## Protected ethics advice and reporting mechanisms

#### **WEF Definition**

A description of internal and external mechanisms for:

- 1. Seeking advice about ethical and lawful behaviour and organisational integrity.
- Reporting concerns about unethical or unlawful behaviour and lack of organisational integrity.

All staff upon commencement of employment are provided with, and have ongoing access to, Arafura's policies related to ethical and lawful behaviour and integrity.

Links to these policies are provided on our website: www.arultd.com

TO BE DISCLOSED	2022 DISCLOSURE
Internal mechanisms for seeking advice about ethical and lawful behaviour and organisational integrity.	There is a commitment from the Board, Management and staff to adhere to Arafura's values. Internal mechanisms and points of contact are described in Arafura Rare Earths Limited Code of Conduct, Whistle-blower Policy, and Securities Trading Policy. All staff, upon commencement of employment are required to acknowledge these policies. Staff also have access to Arafura's Employee Assistance Program.
External mechanisms for seeking advice about ethical and lawful behaviour and organisational integrity.	The external mechanisms for seeking advice are described in Arafura's policies as noted above, in particular the Whistle-blower Policy.
Internal mechanisms for reporting concerns about unethical or unlawful behaviour and lack of organisational integrity.	The internal mechanisms for reporting concerns are the same as those for seeking advice and are described in Arafura's policies.
External mechanisms for reporting concerns about unethical or unlawful behaviour and lack of organisational integrity.	The external mechanisms for reporting concerns are described in Arafura's policies as noted above, in particular the Whistle-blower Policy.

## RISK AND OPPORTUNITY OVERSIGHT

#### Metric

# Integrating risk and opportunity into business processes

#### **WEF Definition**

Company risk factor and opportunity disclosures that clearly identify the principal material risks and opportunities facing the company specifically (as opposed to generic sector risks), the company appetite in respect of these risks, how these risks and opportunities have moved over time and the response to those changes. These opportunities and risks should integrate material economic, environmental and social issues, including climate change and data stewardship

Arafura has a Risk Management Policy which sets our Company's approach to identifying and managing risk. The Board is responsible for deciding the nature and extent of the risks it is prepared to take to meet its objectives. This policy can be found on our website: www.arultd.com

See <u>Appendix I</u> for 2022 disclosure details related to risk.

Arafura commits to developing an opportunity register in 2023.

# PILLAR 2 PLANET

#### **WEF Definition**

An ambition to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations.



## **CLIMATE CHANGE**

#### Metric

## Greenhouse gas emissions

#### **WEF Definition**

For all relevant greenhouse gases (e.g. carbon dioxide, methane, nitrous oxide, F-gases etc.), report in metric tonnes of carbon dioxide equivalent ( $tCO_2$ e) GHG Protocol Scope 1 and Scope 2 emissions. Estimate and report material upstream and downstream (GHG Protocol Scope 3) emissions where appropriate.

Climate change and greenhouse gas emissions are a significant global issue. Arafura's current operations comprise of three offices located in Perth, Darwin and at the Aileron Roadhouse near the Nolans Project site. Scope 1 and 2 emissions have been calculated for the existing operations and are disclosed below.

The main source of future emissions for Arafura will come from the Nolans Project. In 2021, Arafura engaged a sub-consultant to complete a greenhouse gas audit and prepared a report based on the design and operating cost estimates (which include the power and steam consumption as well as other factors such as mining volumes and fuel usage). The assessment was conducted in accordance with the Australian Government's National Greenhouse and Energy Reporting Scheme administered by the Clean Energy Regulator.

In 2022, Arafura has worked on finalising the front-end engineering design (FEED) of the Nolans Project in preparation for the final investment decision (FID). The Nolans Project GHG emissions assessment has been updated to reflect the current design and is summarised in this report (see page 10 of this report).

TO BE DISCLOSED 2022 DISCLOSURE

Metric tonnes of carbon dioxide equivalent GHG Protocol Scope 1 and Scope 2 emissions.

69 (tCO<sub>2</sub>eq)

#### **Actions implemented in FY22**

- Progressed technical studies into decarbonisation options for site.
- Commenced real data gathering studies into additional renewable energy potential (the wind resource is unknown in this region).
- Technical studies into medium term deep decarbonisation opportunities – H2, concentrated solar thermal (CST) and advanced storage.
- Development of IPP contract with vendors incorporating emission reduction targets.

#### **Next steps**

- Define medium term emissions targets (see page 10 of this report).
- Publish GHG Emissions Reduction Pathway (published 31 January 2023).
- Thermal and electrical renewable power feasibility studies.
- Incorporate carbon price into project financial model.
- Progress feasibility studies into decarbonisation of other supply chain elements (metalising plant).

## **CLIMATE CHANGE**

#### Metric

## **TCFD** implementation

#### **WEF Definition**

Fully implement the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). If necessary, disclose a timeline of at most three years for full implementation. Disclose whether you have set, or have committed to set, GHG emissions targets that are in line with the goals of the Paris Agreement – to limit global warming to well below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C – and to achieve net-zero emissions before 2050.

Arafura is committed to climate action and is planning to implement the four TCFD recommendations tied to governance, strategy, risk management, and metrics and targets. Our timeline for full implementation of the recommendations of the TCFD is by the end of FY2025.



Arafura published the Greenhouse Gas Emissions Reduction Pathway for the Nolans Project in January 2023. Next steps to implement the pathway will include feasibility studies in to the thermal and electrical renewable power generation options. We expect the pathway to continue to develop over time, as emissions reduction technologies evolve in maturity and cost. We will update and publish the GHG emissions forecast for the project at least annually.

The Nolans Project intends to contract an Independent Power Provider (IPP) to provide electrical and thermal energy to the site. A successful partnership with the IPP will be an important part of achieving emissions reductions, since the emissions from power generation form the majority of the project's forecast emissions.

Arafura is currently tendering the IPP contract. Bidders are required to demonstrate how their proposed methodology for delivering greenhouse gas emissions reductions will support Arafura's net zero by 2050 goal. Our intention is that final power purchase agreement (PPA) with the IPP will include appropriate commercial incentivisation to ensure adequate emissions reductions are achieved.

TO BE DISCLOSED	2022 DISCLOSURE
Have you fully implemented the recommendations of the TCFD?	No
When will Arafura implement TCFD?	Arafura will fully implement the recommendations of the TCFD in 2025.
Have you set GHG Emissions target aligned with the Paris Agreement?	Yes. Arafura commits to become Net Zero by 2050 in accordance with the SBTI framework, which requires emissions reductions in line with the goals of the Paris Agreement.

## **NATURE LOSS**

#### Metric

## Land use and ecological sensitivity

#### **WEF Definition**

Report the number and area (in hectares) of sites owned, leased or managed in or adjacent to protected areas and/or key biodiversity areas (KBA).

Caring for the environment is integral to Arafura's business.

We are committed to ensuring our performance in this field is approached with the same rigor as finance, production and safety.

In 2022, Arafura submitted the Nolans Project Mining Management Plan to the NT Government. The plan constitutes the basis for Arafura's mining authorisation, and includes a Biodiversity Management Plan.

The Biodiversity Management Plan provides a framework for biodiversity management across the project site as well as providing information which is to be used in decision making and project management, detailed planning and methods of work, and provide for a record of performance.

Towards the end of 2022, Arafura conducted pre-clearance flora, fauna and weed surveys as required by our approvals, in preparation for construction in early 2023. As no additional significant site works were undertaken over the past reporting period, no additional ecological studies or works were required.

#### TO BE DISCLOSED

#### Number of sites owned, leased or managed that are in or adjacent to key biodiversity areas (and the hectares of each site).

#### 2022 DISCLOSURE

- One site owned. Perth Office Head Office is in the CBD of Perth Western Australia, within the Northern Swan Coastal Plain. <a href="https://www.keybiodiversityareas.org/site/factsheet/26933">www.keybiodiversityareas.org/site/factsheet/26933</a>.
- Total ha of site is: 0.06 ha.

## FRESHWATER AVAILABILITY

#### Metric

### Water consumption and withdrawal in waterstressed areas

#### **WEF Definition**

Report for operations where material: megalitres of water withdrawn, megalitres of water consumed and the percentage of each in regions with high or extremely high baseline water stress, according to WRI Aqueduct water risk atlas tool. Estimate and report the same information for the full value chain (upstream and downstream) where appropriate.

Arafura understands that groundwater is a precious resource and that our use of water must be managed to prevent loss and excess use, leaving water for future generations and other beneficial uses.

The project design team has been working to reduce water consumption within the processing plant at every opportunity.

One of the main uses of water for the processing plant is the production of desalinated water using reverse osmosis (RO), which is purified water that is required for the rare earth processing. Arafura has recently included a supplementary RO plant within the processing plant design that will specifically treat dirty water process streams, producing clean water for reuse in the plant.

In addition, the reuse of dirty water within the process plant has been expanded to minimise the use of clean RO water and borefield water.

TO BE DISCLOSED	2022 DISCLOSURE
Water withdrawn by Arafura in FY2022 in on site operations (in ML)	0
Water consumed by Arafura in FY2022 in on site operations (in ML)	0
Portion of water consumed in high or extremely-high water stress areas	0% - None of Arafura's operations are within areas of high or extremely-high water stress. Arafura's value chain in FY2022 primarily consisted of professional services.



# PILLAR 3 PEOPLE

#### **WEF Definition**

An ambition to end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment.















#### THEME

## **DIGNITY AND EQUALITY**

#### Metric

## Diversity and inclusion

#### **WEF Definition**

Percentage of employees per employee category, by age group, gender and other indicators of diversity (e.g. ethnicity).

Arafura believes empowering and promoting social and economic inclusion, irrespective of age, sex, disability, race, ethnicity, origin, religion or other status is an important aspect of good people management.

Arafura has set an employment commitment of 4% indigenous employees and 10% local employees from the central Australia region during the Nolans construction phase. A higher target of 20% indigenous employment has been set for the operation phase.

#### **TARGET**

Target for construction at Nolans

EMPLOYMENT COMMITMENT

INDIGENOUS EMPLOYMENT

4%

LOCAL EMPLOYMENT FROM THE CENTRAL AUSTRALIA REGION 10%

Arafura's diversity policy can be found on our website: <a href="https://www.arultd.com">www.arultd.com</a>

TO BE DISCLOSED		2022 DISCLOSURE
Percentage by employee category*		
	Full-time	76%
	Part-time	7%
	Casual	4%
	Contractor	13%
Percentage by gender		
	Male	67%
	Female	33%
	Other	0%
Percentage of employees per age group		
	Under 31	20%
	31-50 years old	52%
	Over 50 years old	28%
Percentage by other diversity measures		
	Indigenous	0%

<sup>\* 54%</sup> of people are employed by outside organisations on a secondment basis to Arafura, but are considered employees for reporting if they source all of their income through working on the Nolans Project.

## **DIGNITY AND EQUALITY**

#### Metric

## Pay equality

#### **WEF Definition**

Ratio of the basic salary and remuneration for each employee category by significant locations of operation for priority areas of equality: women to men, minor to major ethnic groups, and other relevant equality areas.

Arafura is committed to pay equality between diversity groups (such as sex, ethnicity etc.) for the same or similar roles.

Currently the vast majority of roles within the organisation are unique making measure of pay equality challenging.

TO BE DISCLOSED	2022 DISCLOSURE	
Ratios of pay Full-time employees (Perth Head Office)	Base salary	Total remuneration
Male: Female	146%	147%
Under 31 years old: 31-50 years old	57%	57%
31-50 years old : Over 50 years old	76%	76%

<sup>\*</sup> Numbers of personnel in categories other than "full-time" are insufficient to fully anonymise.

## **DIGNITY AND EQUALITY**

#### Metric

## Wage level

#### **WEF Definition**

Ratios of standard entry level wage by gender compared to local minimum wage. Ratio of the annual total compensation of the CEO to the median of the annual total compensation of all its employees, except the CEO.

Arafura adheres to the WEF rationale that fair compensation and benefits contribute to the economic well-being of employees, since the distribution of wages and income is crucial for eliminating inequality and poverty.

TO BE DISCLOSED	2022 DISCLOSURE
CEO total remuneration as a percentage of median total remuneration of employees	242%

TO BE DISCLOSED		2022 DISCLOSURE <sup>†</sup>
Ratio of Lowest Wag	ge to Minimum Wage*	
Male	Full-time - Lowest wage : minimum wage	1.4
	Part-time - Lowest wage : minimum wage	1.1
	Casual - Lowest wage : minimum wage	3.2
Female	Full-time - Lowest wage : minimum wage	1.2
	Part-time - Lowest wage : minimum wage	1.6
	Casual - Lowest wage : minimum wage	1.7

<sup>\*</sup> Minimum wage based on the Australian Mining Industry Minimum Wage outlined in the table below. The disclosures provided below for 2022 assume 1,950 hours per annum.

AUSTRALIAN MINING INDUSTRY MINIMUM WAGE	AUD/HOUR
Full-time	23.05
Part-time	23.05
Casual	28.81

#### THEME

## **DIGNITY AND EQUALITY**

#### Metric

# Risk of incidents of child, forced or compulsory labour

#### **WEF Definition**

An explanation of the operations and suppliers considered to have significant risk for incidents of child labour, forced or compulsory labour.

Such risks could emerge in relation to:

a) type of operation (such as manufacturing plant) and type of supplier; and b) countries or geographic areas with operations and suppliers considered at risk.

#### **2022 DISCLOSURE**

None of Arafura's operations or key suppliers are considered to have significant risk for incidents of child labour or forced/compulsory labour.

Arafura's direct activities are all located within Australia, which is a Low Risk location, and the primary suppliers to Arafura in FY2022 were engineering firms providing professional services from Australian offices.

To further mitigate the risk of child and forced/compulsory labour being part of Arafura's supply chain, Arafura reviewed the ESG credentials of its suppliers prior to engagement.

## **HEALTH AND WELLBEING**

#### Metric

## Health and safety

#### **WEF Definition**

The number and rate of fatalities as a result of work-related injury; high-consequence work-related injuries (excluding fatalities); recordable work-related injuries; main types of work-related injury; and the number of hours worked. An explanation of how the organisation facilitates workers' access to non occupational medical and healthcare services, and the scope of access provided for employees and workers.

Maintaining high standards of health and safety lies at the heart of our organisation's integrity, prosperity and sustainability. We take the safety of our workers, contractors and suppliers seriously, and are proud of our safety record.

Arafura records all field work injuries and communicates all incidents in monthly reports to the Board. In FY22, our operations resulted in zero injuries. In FY23, our focus will be on developing an on-site safety culture and updating our policies and procedures to reflect the expansion of our activities as we move into construction.

0
0
0
0
N/A
66,873
Yes. All employees have access to an employee assistance program (EAP).
To deliver a range of services for work or non-work related issues designed to enhance employee well-being using counselling, prevention and intervention strategies.
Access is provided through an operated 24-hour phone service.

#### THFMF

## **HEALTH AND WELLBEING**

#### Metric

## **Training provided**

#### **WEF Definition**

Average hours of training per person that the organisation's employees have undertaken during the reporting period, by gender and employee category (total number of hours of training provided to employees divided by the number of employees). Average training and development expenditure per full time employee (total cost of training provided to employees divided by the number of employees).

Arafura staff have received a diverse range of training over the past year increasing technical competencies within the organisation. This includes training in project management (CERT 4), cultural awareness, sales, and mental health first aid.

TO BE DISCLOSED			2022 DISCLOSURE	
Hours of training provided		Number of people	Total	Av. per person
	Full-time	35	1,338	38.2
	Part-time	3	18	6.0
	Casual	2	41	20.5
	Contractor	6	0	0.0
Hours of training provided by gender				
	Male	31	1,028	33.2
	Female	15	369	24.6
	Other	0	0	0
Training and development expenditure				
	Full-time	35	\$5,672	\$162

## PILLAR 4 PROSPERITY

#### **WEF Definition**

An ambition to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature.





#### THEME

## **EMPLOYMENT AND WEALTH GENERATION**

#### Metric

## Absolute number and rate of employment

#### **WEF Definition**

Total number and rate of new employee hires during the reporting period, by age group, gender, other indicators of diversity and region.

Total number and rate of employee turnover during the reporting period, by age group, gender, other indicators of diversity and region.

TO BE DISCLOSED			2022 DIS	CLOSURE	
		# of new hires	% of new hires	# of employees who left	% of employees who left
Number of new	Male	7	50%	4	67%
and leaving	Female	7	50%	2	33%
employees by	Other	0	0%	0	0%
gender	Total	14		6	
Number of new	Under 31	3	21%	1	17%
and leaving	31-50 years old	8	57%	4	67%
employees by age	Over 50 years old	3	21%	1	17%
	Total	14		6	
Number of new and leaving employees by other diversity measures	Indigenous	0	0%	0	0%

#### THEME

## **EMPLOYMENT AND WEALTH GENERATION**

#### Metric

### **Economic contribution**

#### **WEF Definition**

- 1. Direct economic value generated and distributed (EVG&D), on an accruals basis, covering the basic components for the organisation's global operations, ideally split out by:
  - Revenues
  - Operating costs
  - Employee wages and benefits
  - Payments to providers of capital
  - Payments to government
  - Community investment
- 2. Financial assistance received from the government: total monetary value of financial assistance received by the organisation from any government during the reporting period.

Arafura makes significant financial contributions to local, regional and national economies directly through the payment of taxes to the government and royalties to the CLC, as well as to our workforce and suppliers through salaries and the payment of invoices for work undertaken.



In FY22 we contributed \$29 million to the Australian economy and approximately \$2.2 million to the Northern Territory economy through supplier payments, wages, taxes and rent. This amount is expected to increase significantly as we commence construction at the Nolans Project and then ramp-up to production.

TO BE DISCLOSED	DISCLOSURE - NT	DISCLOSURE - AUSTRALIA
Revenue		\$0
Operating costs		\$27 million
Employee wages and benefits (direct employees only)		\$2.8 million
Payments to providers of capital		\$0
Payments to government		\$0
Community investment		Minor sponsorship and donations
Total monetary value of financial assistance received by Arafura from any government during the FY 2022 reporting period.		\$0

#### THFMF

## **EMPLOYMENT AND WEALTH GENERATION**

#### Metric

### Financial investment contribution

#### 1. WEF Definition

- Total capital expenditures (CapEx) minus depreciation, supported by narrative to describe the company's investment strategy.
- Share buybacks plus dividend payments, supported by narrative to describe the company's strategy for returns of capital to shareholders.

Arafura understands that investment is a key driver of an economy's growth and Arafura's capacity to expand its operations and create additional employment.

Arafura did not have any material capital expenditure in FY22. Given there was no revenue generated or dividends paid, and none expected until production begins, a supporting strategy is not yet required.

TO BE DISCLOSED	DISCLOSURE - NT	DISCLOSURE - AUSTRALIA
CapEx minus depreciation spent in FY2022		\$0
Explanation of the purpose of that CapEx with respect to Arafura investment strategy		Not Applicable. No CapEx spent in FY2022.
Share buy backs		0
Dividend payments		\$0
Explanation of the company's strategy for return of capital to shareholders		Not Applicable. No Project Capex Spent in FY2022.

#### THFMF

## INNOVATION OF BETTER PRODUCTS AND SERVICES

#### Metric

## Total R&D expenses

#### **WEF Definition**

Total costs related to research and development.

Recent R&D activities include:

## Phosphoric acid purification testing using VSEP nano-filtration technology

Phosphoric acid purification aims to remove impurities from raw phosphoric acid produced in the phosphate extraction plant to produce a clean product which is safe to use in the production of fertiliser products. Producing a saleable phosphoric acid product is an important component to minimising the environmental impact of the project, as the alternative is to treat the acid as a waste, resulting in significantly more material to residue storage and a significantly higher carbon footprint for the project.

#### Dewatering testing of the beneficiation tailings

Testing of dewatering techniques has resulted in significantly reduced water content in the tailings being sent to storage. This reduces make-up water requirements of the beneficiation plant and the quantity of water that needs to be extracted from production bore. This, in-turn, minimises the impact of the process plant on the groundwater aquifer.

#### Chloride removal from cerium extraction raffinate

Cerium extraction raffinate contains significant sulphuric acid, as well as the non-cerium rare earth elements (REE) that have been recovered from crude cerium hydroxide. This raffinate also contains sufficient chloride, that if recycled back to rare earth extraction (for recovery of the contained REE and acid), would pose a significant corrosion problem across the rare earth and phosphate extraction plants. Being able to recover and reuse this acid minimises the consumption of reagents and therefore minimises the carbon footprint for the project, and the generation of waste residue.

#### **Corrosion testing**

The intent of this program was to identify suitable metals for fabrication of equipment, that would withstand the chemical environment and operating conditions experienced across the Nolans project. As a significant quantity of carbon dioxide is invested in the production of steels, the selection of metal alloys with sufficient longevity makes commercial sense, and is also environmentally responsible.

TO BE DISCLOSED	DISCLOSURE
Total spent on R&D in FY2022	AU\$313,973 of which Arafura received a tax refund of AU\$152,277.

#### THEME

## **COMMUNITY AND SOCIAL VITALITY**

#### Metric

## Total tax paid

#### **WEF Definition**

The total global tax borne by the company, including corporate income taxes, property taxes, non-creditable VAT and other sales taxes, employer-paid payroll taxes, and other taxes that constitute costs to the company, by category of taxes.

Reporting of total tax paid provides information on Arafura's contribution to government revenues that support governmental functions and public benefits in the Northern Territory and more widely in Australia.

TO BE DISCLOSED	DISCLOSURE
Corporate income tax*	\$0
Property tax	\$0
GST	Paid: \$3,175,613
Other sales tax	\$0
Employer-paid payroll taxes	FBT: \$4,369 Payroll tax: \$353,610 PAYG: \$1,325,724
TOTAL	\$ 4,859,316

<sup>\*</sup> Arafura is in the process of developing the Nolans Project and incurred a net loss of \$35.558 million in FY2022.

## OVERALL SUMMARY

#### **WEF Statement**

Corporations that align their goals to the long-term goals of society, as articulated in the SDGs, are the most likely to create long-term sustainable value, while driving positive outcomes for business, the economy, society and the planet. This is the true definition of stakeholder capitalism.

The WEF framework disclosure metrics align with 15 of the 17 Sustainable Development Goals. SDGs 2 (Zero Hunger) and 11 (Sustainable Cities and Communities) are not included in the WEF assessment framework



### SUSTAINABILITY REPORT

# WEF FRAMEWORK DISCLOSURE SUMMARY

This report outlines Arafura's sustainability disclosures for 2022 as per the guidance provided by the World Economic Forum's set of global, cross-industry baseline disclosures and ESG metrics. Moving forward, Arafura plans to continue reporting against this framework and extend reporting to include a greater set of extended metrics outlined within the framework. The table below summarises the status of disclosures for Arafura in 2022.

PILLAR	THEME	METRIC / EXTENDED METRIC	2022 DISCLOSURE STATUS
Principles of	Governing Purpose	Setting purpose	Disclosed
Governance	Quality of Governing Body	Governance body composition	Disclosed
	Stakeholder Engagement	Material issues impacting stakeholders	Disclosed
	Ethical Behaviour	Anti-corruption	Disclosed
		Protected ethics advice and reporting mechanisms	Disclosed
	Risk and Opportunity Oversight	Integrating risk and opportunity into business process	Disclosed
Planet	Climate Change	Greenhouse gas emissions	Disclosed
		TCFD Implementation	Disclosed
	Nature Loss	Land use and ecological sensitivity	Disclosed
	Fresh Water Availability	Water consumption and withdrawal in water-stressed areas	Disclosed
People	Dignity and Equality	Diversity and inclusion (%)	Disclosed
		Pay equality (%)	Disclosed
		Wage level (%)	Disclosed
		Risk for incidents of child, forced or compulsory labour	Disclosed
	Health and Wellbeing	Health and safety	Disclosed
	Skills for the Future	Training provided (#, \$)	Disclosed
Prosperity	Employment and Wealth	Absolute number and rate of employment	Disclosed
	Generation	Economic contribution	Disclosed
		Financial investment contribution	Disclosed
	Innovation of Better Products and Services	Total R&D expenses (\$)	Disclosed
	Community and Social Vitality	Total tax paid	Disclosed

## APPENDIX I- RISK OVERSIGHT

			Ω	Q1 FY2022	Q2,3,	Q2,3,4 FY2022		
ACTIVITY	EX	EXTREME AND MAJOR RISKS IDENTIFIED	RAW RISK RATING	RISK RATING POST MITIGATION	RAW RISK RATING	RISK RATING POST MITIGATION	MOVEMENT OF RISK IN FY2022	RESPONSE TO RISK MOVEMENT IN FY2022
Schedule Risk	•	Unable to demonstrate value creation within acceptable time frame to fund each project stage including operations e.g. short term funding risk.	25	18	25	18	No movement	Not Applicable. Risk stable during FY2022. Mitigations reviewed and updated quarterly as needed.
Alignment Risk	•	Company fails to align business process objectives and performance measures with enterprise objectives and strategies e.g. Sales and Marketing or project funding strategies are misaligned.	23	17	23	17	No movement	Not Applicable. Risk stable during FY2022. Mitigations reviewed and updated quarterly as needed.
Competition / Industry Risk		Changes in industry e.g. Policy change, structural change to supply chain (e.g. importation of monozites and other feedstock).	24	21	24	21	No movement	Not Applicable. Risk stable during FY2022. Mitigations reviewed and updated quarterly as needed.
Funding Risk (Long Term)		Unable to complete offtake and project finance in an acceptable timeframe. Unique nature of NdPr market, level of project funding required and technical risk associated with the Project may not attract funding from traditional sources. The company's share price is linked closely to the NdPr price and market sentiment. The ability to raise capital is largely linked to market sentiment for NdPr product	25	17	25	17	No movement	Not Applicable. Risk stable during FY2022. Mitigations reviewed and updated quarterly as needed.
Licence to Operate Risk	•	Actual or potential threat of adverse effects on environment, unable to obtain community acceptance.	24	σ	24	σ	No movement	Not Applicable. Risk stable during FY2022. Mitigations reviewed and updated quarterly as needed.
Illegal Acts Risk	•	Illegal acts are committed by employees or key consultants, predominantly (but not limited to) as a result of operating in foreign jurisdictions. Can result in fines, sanctions, loss of reputation or imprisonment for Company officers.	24	Q	24	0	No movement	Not Applicable. Risk stable during FY2022. Mitigations reviewed and updated quarterly as needed.
Business Continuity Risk	•	Business cannot recover in a timely manner following a disaster recovery event e.g. Project delay or loss of IP.	23	12	23	12	No movement	Not Applicable. Risk stable during FY2022. Mitigations reviewed and updated quarterly as needed.
IT Security (Cyber Risk)	•	Viruses, encrypted files and other unwarranted data enter the server and email databases and disrupt daily operations.	23	4	23	4	No movement	Not Applicable. Risk stable during FY2022. Mitigations reviewed and updated quarterly as needed.
IP Management Risk		Systems for capturing data and IP for project development are not effective or do not exist, resulting in loss of competitive advantage or project failure.	23	0	23	σ	No movement	Not Applicable. Risk stable during FY2022. Mitigations reviewed and updated quarterly as needed.

		Q1	Q1 FY2022	Q2,3	Q2,3,4 FY2022		
ACTIVITY	EXTREME AND MAJOR RISKS IDENTIFIED	RAW RISK RATING	RISK RATING POST MITIGATION	RAW RISK RATING	RISK RATING POST MITIGATION	MOVEMENT OF RISK IN FY2022	RESPONSE TO RISK MOVEMENT IN FY2022
Environmental and Social Risks	<ul> <li>Business reputation and social license to operate is affected if sustainability, climate change and environmental impact is not carefully monitored and considered.</li> <li>Potential for sustainability, including lack of action on climate change, to be an impediment to offtake and project funding, particularly through government linked organisations (ECAs).</li> </ul>	21	72	21	15	No movement	Not Applicable. Risk stable during FY2022. Mitigations reviewed and updated quarterly as needed.
Confidentiality Risk	• Communication and early release of market sensitive information as the number of staff, contractors and consultants grow as the Company progresses toward a Final Investment Decision and other significant milestones.	¥ Z	Y/	25	22	Risk included from Q2 FY2022	New risk identified for inclusion in the risk register from Q2 FY2022. Mitigations reviewed and updated quarterly as needed.
Climate Risk	Due to the impact of climate change and more extreme weather patterns/events there is a risk that the design, construction and operation of the plant and associate mining infrastructure etc will not be suitable for such adverse weather conditions, thus increasing costs and affecting revenue.	A/A	V/V	18	10	Risk included from Q2 FY2022	New risk identified for inclusion in the risk register from Q2 FY2022. Mitigations reviewed and updated quarterly as needed.

## APPENDIX II- MATERIAL TOPIC TARGETS

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TOPIC	MATERIAL TOPIC	WEF PILLAR ALIGNMENT	SUSTAINABILITY REPORT STATUS	DEVELOPMENT PHASE TARGETS	LIKELIHOOD OF ACHIEVEMENT: END OF DEVELOPMENT PHASE	NOTES
-	Reporting framework	Principles of Governance	Follow WEF framework best practice.	Report against WEF framework.	Completed - N/A	WEF utilised in this current report.
64	GHG emissions	Planet	Perform climate footprint analysis and set net-zero target.	Detailed roadmap of path to net-zero released by Arafura Board, with firm targets over the short, medium and long-term.	On Track	Arafura is currently updating with release in Q3 FY22//23.
က	Water management	Planet	Site water balance is calculated.	Water reduction study performed during front end engineering and design.	On Track	Arafura is still in FEED, so water balance is still being calculated.
4	Waste and hazardous materials	Planet	Approved plans to mine and process ore to oxide at a single site.	Waste plans approved by government. Report against NPI regulations.	On Track	Mining authorisation awaiting approval by NT Government.
ro	Healthy and safety	People	Zero harm/injuries in FY21.	Development of on-site safety culture and review of policies and procedures.	On Track	Zero reportable incidents in FY21. Development of construction OHS systems is ongoing in preparation for FID and early works construction commencement.
9	Economic performance	Prosperity	Inaugural reporting of performance using GRI indicators.	Increase goods and service payments to drive positive economic impact.	On Track	Will commence once FID is announced.
<b>~</b>	Indigenous people and participation	People	Native Title Agreement executed with Registered Native Title Bodies Corporate.	Execute our current 'Local and Indigenous Employment Plan' including 20% indigenous employment target.	On Track	Plan development ongoing with Central Land Council and Department of Trade and Tourism Jobs Department.
<b>&amp;</b>	Supply chain management	Principles of Governance	Supply chain mapped and categorised.	Establish a procurement on-boarding process and develop supplier code of conduct and quality manual that include sustainability requirements (still to be defined), including a requirement that suppliers undertake sustainability reporting.	On Track	Will commence once FID is announced.
6	Diversity	People	Reported on age and gender diversity metrics.	Increase employment proportions of under- represented groups.	On Track	Age and gender development reported this FY. Currently updating indigenous engagement strategy with CLC and DITT

					TARGETS	
TOPIC	MATERIAL TOPIC	WEF PILLAR ALIGNMENT	SUSTAINABILITY REPORT STATUS	DEVELOPMENT PHASE TARGETS	LIKELIHOOD OF ACHIEVEMENT: END OF DEVELOPMENT PHASE	NOTES
10	Local community inclusion	Prosperity	Territory Benefit Plan' submitted to NT Government.	Set targets for local employment. List tenders to ICN-NT to maximise contracts with local businesses. Host local jobs and contracts expoto get the local communities ready for business.	Completed - N/A	Jobs and project update presented at roadshows in 2022 in Alice Springs, Ti Tree, Tennant Creek, Katherine and Darwin.
=	Ecology and biodiversity	Planet	All baseline studies included in environmental approvals which have been granted.	Biodiversity monitoring and management included in environmental management systems.	On Track	Mining authorisation awaiting approval by NT Government.
12	Mine closure and rehab	Planet / Principles of Governance	Draft mine closure plan approved as part of project approvals.	Full mine closure plan to be written.	Completed - N/A	Mine closure plan submitted to DITT. Mining authorisation awaiting approval by NT Government.
13	Employee engagement	People	100% of employees receiving performance reviews.	Development of employee training and development policy.	On Track	On track for further development once FID is announced.
4	Governance, ethics and transparency	Principles of Governance	Inaugural sustainability report.	Sustainability Committee formed.	Completed - N/A	



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