

HORIZON



2022 SUSTAINABILITY REPORT

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CONTENTS

OVERVIEW	01
1. Message from our Chairman and CEO	
2. About this report	
3. FY22 ESG Highlights	
4. Horizon’s priority areas and the UN SDGs	
5. Our Stakeholders	
6. FY22 ESG Performance Overview and FY23 Outlook	
A. HEALTH, SAFETY AND ENVIRONMENT	10
B. GOVERNANCE	13
C. PEOPLE – EMPLOYEES AND COMMUNITIES	16
D. CLIMATE CHANGE	20
GLOSSARY	35

We work hard to ensure that our efforts continue to be ‘right sized’ for Horizon and are meaningful to the broader community...

1. MESSAGE FROM OUR CHAIRMAN AND CEO

Horizon continues to develop and refine its commitment to sustainability in line with community expectations.

Notable achievements over the past year include HSE metrics well below industry benchmarks, the voluntary purchase of carbon units to offset the majority of FY22 Beibu project Scope 1 emissions, strengthening of our Sustainability Steering Committee (SSC) governance and the commencement of development of our decarbonisation strategy. In addition, Horizon supported community projects in both China and New Zealand. This year for the first time, we are reporting on how our commitments and actions support the United Nations Sustainable Development Goals (SDGs).

Overall, we are proud of our progress in each of the various components that comprise Sustainability – all of our employees and the Board are involved. We work hard to ensure that our efforts continue to be 'right sized' for Horizon and are meaningful to the broader community – and that we have achieved the right balance between community expectations, responsibility to our shareholders and our pivotal role in ensuring a smooth energy transition.

Our focus for the year ahead is not just to deliver on our short-term goals, but also to further refine our roadmap for the years and the decade ahead.



Mike Harding
Chairman



Richard Beament
CEO

2. ABOUT THIS REPORT

Throughout the reporting period, Horizon produced oil from two global locations: the Beibu Gulf, China which was sold into the Chinese domestic market; and the Taranaki Basin, New Zealand, where the oil was primarily sold in the Australian market. The anticipated economic life of both assets is expected to run through to 2030. Horizon participates in these operations as part of a Joint Venture (JV) agreement, with the assets being operated by CNOOC Weizhou Operating Company and Roc Oil for Beibu and OMV New Zealand for Maari. Therefore, in relation to this Sustainability Report, all asset-related activities, targets and metrics are viewed from and calculated based on Horizon's equity position, since Horizon has no operational control over the Beibu Gulf nor the Taranaki Basin assets. At a corporate level, Horizon has full operational control of its Head Office in Sydney.

This report has been approved by the Horizon Board. It provides an overview of Horizon's ESG performance for the 1st July 2021 to 30th June 2022 reporting period. For climate-related reporting this is the third year Horizon has used the recommendations in the Taskforce on Climate-related Financial Disclosure (TCFD) to guide our disclosures. A reconciliation table indicating our progress with the TCFD recommendations is located at the end of this report. While the company is not required to formally report under the National Greenhouse and Energy Reporting (NGER) Scheme, Horizon uses the methodology in this framework to calculate its Greenhouse Gas (GHG) emissions.

This Sustainability Report is structured around Horizon's Environmental Social Governance (ESG) Priority Areas, which are: Health, Safety and Environment, Governance, Our People and Communities, and Climate Change, with each aligned to relevant UN SDGs. Each Priority Area covers our corporate operations and sites: corporate office and equity-interest activities in China and New Zealand.



Horizon has made progress against its 3-year ESG Action Plan, developed in FY21. The ESG Action Plan provides the Company with a continual improvement, accountable framework around our sustainability-related actions, strategy, risk management and reporting.

This report has not been externally assured.

Horizon welcomes your feedback on this report via info@horizonoil.com.au

3. FY22 ESG Highlights

Health, Safety & Environment



LTI / TRIFR results were below the NOPSEMA** benchmark.

Initiated an Operational Readiness Assurance (ORA) review prior to the start-up of 12-8E.

**NOPSEMA : National Offshore Petroleum & Environmental Management Authority

Governance



Board Charter updated to formalise ESG oversight.

Sustainability Steering Committee role strengthened with the creation of SSC Charter.

Our People & Communities



Purchased 14,749t Gold Standard-verified, China-based community clean cookstove carbon units.

Flexible working arrangement retained post Covid-19 lockdowns, which has shown a great beneficial impact on staff productivity and morale.

Climate Change



The Company set an ambition to achieve Net Zero Scope 1, 2 & 3 GHG emissions by 2050 in line with the Paris Agreement.

Improved GHG data gathering process from our operators and more detailed GHG analysis.

4. HORIZON'S PRIORITY AREAS AND THE UN SDGs

Our Sustainability Vision

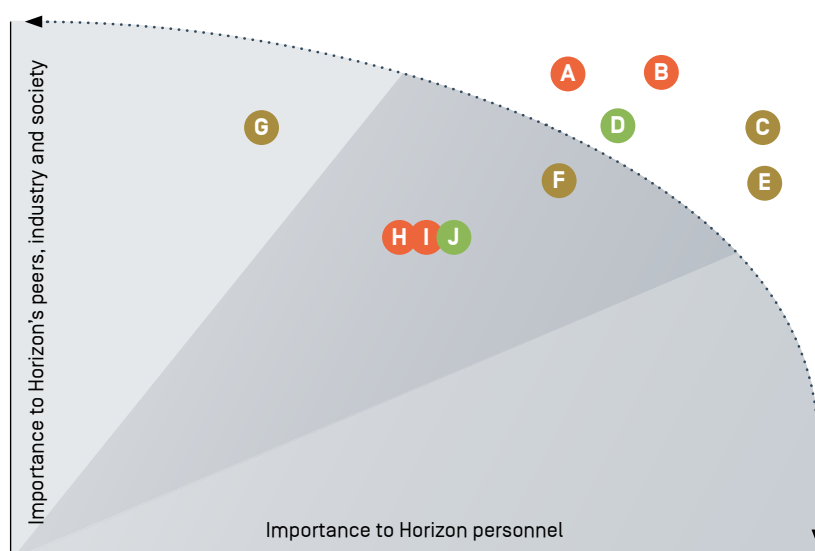
We have a role to play in the world's energy transition and we are committed to making the right kind of impact; through excellence in health and safety, reducing our emissions, and enhancing the communities where we operate.

Materiality Review

In 2020, Horizon engaged an independent sustainability consultant to undertake a materiality review of the environmental, social and governance issues that present risks or opportunities to the Company. The Materiality Review was conducted applying AA1000 Accountability Principles.

Horizon's Materiality Matrix is illustrated below. The vertical axis represents material issues identified by our peers, industry and the society in which we operate. The horizontal axis represents material issues identified by a cross-section of Horizon personnel. We plan to update our materiality assessment at least every three years.

Materiality: Horizon's key material environmental, social and governance issues arising from our operations



Material

- A Market Change
- B Transparency & Corporate Conduct
- C WHS & Community Safety
- D Climate Adaptation
- E Empowering Employees


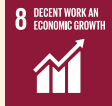



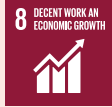







Watchlist

- F Community Investment
- G Gender Diversity
- H [Geo] Political Risk
- I Modern Slavery
- J Climate/Environment Resilience

● Environment ● Social ● Governance

4. HORIZON'S PRIORITY AREAS AND THE UN SDGS [cont'd.]

This year we started incorporating the UN SDGs into our reporting and integrating them into our business. We are committed to be actively working on SDGs to achieve the intended SDG outcomes. The below table demonstrates how our Priority Areas align with relevant SDGs.

HEALTH, SAFETY & ENVIRONMENT 	Horizon's first priority is the health and safety of our workforce and communities, and the protection of the environment in which we operate. We work closely with our operators in China and New Zealand to maintain asset integrity and have in place appropriate workplace management systems that reflect our high expectations for health and safety. Horizon maintains an active interest in our operators' programs to maintain our focus on safety.	UN Sustainable Development Goals   
GOVERNANCE 	Horizon is committed to making the right kind of impact and applying best practice consistently to what we do, whether in-country or in our overseas operations, such as China, and New Zealand. We promote, and are committed to a high standard of integrity, ethical and transparent behaviour in business.	UN Sustainable Development Goals  
OUR PEOPLE – EMPLOYEES & COMMUNITIES 	Our employees will deliver Horizon's future and so we want our employees to be proud to work for Horizon. Horizon recognises that it must empower employees and promote diversity so that its people can achieve their personal best. We also acknowledge the communities that we work in, and that our sustainability comes from investing in our communities.	UN Sustainable Development Goals  
CLIMATE CHANGE 	Horizon recognises the responsibility and role it has to play to advance clean, affordable energy for all by 2030 and reach net zero emissions by 2050. Horizon is using TCFD recommendations to guide our disclosures. We have participated in the Carbon Disclosure Project (CDP) and responded to the Climate Change questionnaire since 2020.	UN Sustainable Development Goals  




5. OUR STAKEHOLDERS


















Horizon is committed to making the right kind of impact and to do that we work together with our operators, JV partners and other stakeholders.





6. FY22 ESG PERFORMANCE OVERVIEW AND FY23 OUTLOOK

 Target met
  Target partially met
  Target not met

FY22 TARGET		FY22 PERFORMANCE
Health & Safety 	1. Achieve zero fatalities.	 Achieved, page 11.
	2. Achieve a TRIFR less than the NOPSEMA industry average for the reporting period.	 Achieved, page 11.
	3. Achieve a LTIFR less than the NOPSEMA industry average for the reporting period.	 Achieved, page 11.
Environment 	1. Achieve zero material or significant reportable environmental incidents.	 Achieved [the incident mentioned below is not material], page 12.
	2. Zero spills to the environment.	 A small spill (30 litres) from 12-8E during well flow back operation, page 12.
Governance 	1. Our employees are trained in relevant policies and procedures.	 Employees are trained in Horizon policies and procedures.
	2. Conduct annual assessments on our value and supply chain for incidences of modern slavery.	 Annual assessment carried out; Horizon published its FY21 Modern Slavery Statement in Dec-21. (FY22 Modern Slavery Statement will be published towards the end of 2022).
People – Our Employees & Communities 	1. Maintain at least 20% women employees in senior executive roles.	 The company maintained at least 20% women employees in the management team until the resignation of the Group's General Counsel and Company Secretary (not replaced), page 17.
	2. Target 30% women directors on the Board by 2022.	 The number of women directors on the Board remains at 1 in 6 (16.7%), page 17.
	3. Our employees to undertake performance reviews to evaluate and develop our people each year.	 Achieved, page 17.
Climate Change 	1. Offset 100% of Scope 1 and 2 emissions of current asset portfolio and corporate office by June 2022.	 Horizon is a participant in the NZ ETS. In 2022, Horizon purchased carbon units to offset the majority of our equity share of FY22 Beibu Scope 1 emissions, page 33.
	2. Support operator emissions reduction initiatives.	 Horizon proactively engages with the operators to reduce field emissions, page 32.

6. FY22 ESG PERFORMANCE OVERVIEW AND FY23 OUTLOOK [cont'd.]

FY23 TARGETS

Health & Safety

Unchanged from FY22.

Environment

Unchanged from FY22.

Governance

FY22 targets + a new target:

- Greater Board oversight of ESG strategy and performance.

People – Our Employees & Communities

FY22 targets around gender equality remain unchanged, although these may be difficult to achieve given the small size of the company, we are committed to have this as ongoing goals. We have also added two new targets to support gender equality:

- Promote flexible working arrangements to encourage employees to return to work after parental leave.
- Equal opportunity to participate in development and training programs to support career growth.

In addition, we plan to work more with our operators and partners on community-based initiatives.

A new target is added:

- Work with our operators and partners to identify and participate in community-based projects.

Climate Change

FY22 targets are replaced with the following, driven by our new ambition to reach Net Zero 2050 and to continue progress on ESG matters within the company:

- Support operator emissions reduction initiatives.
- Develop a climate transition roadmap for inclusion in the FY23 Sustainability Report, to be released in August 2023.
- Apply an internal carbon price to help guide business decisions and viability of future projects and to ensure that the project is economic should a carbon price be imposed in the future.
- Continued improvements in Horizon's climate disclosures across the four thematic areas of TCFD (governance, strategy, risk management and metrics/targets).
- Continued participation in the Carbon Disclosure Project (CDP).

A. HEALTH, SAFETY AND ENVIRONMENT

Health and Safety

OUR GOAL



We will continue to outperform our peers and industry benchmarks through ongoing and active engagement with our operators

OUR TARGETS FOR FY23



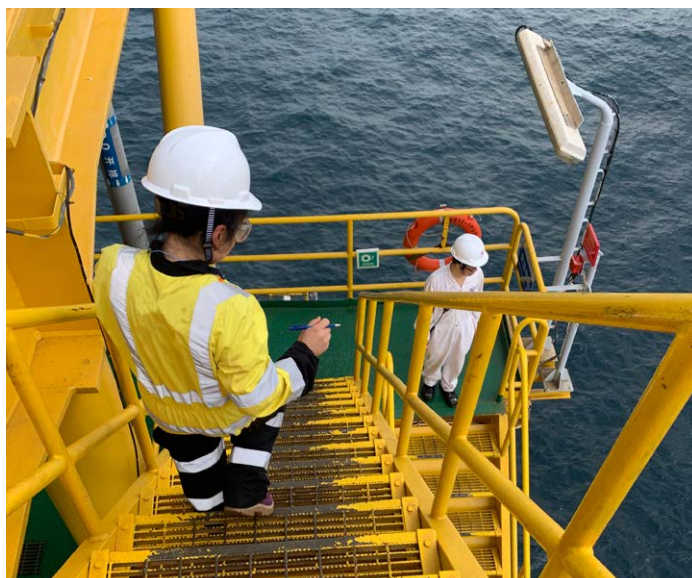
Achieve zero fatalities



Achieve a TRIFR less than the NOPSEMA industry average for the reporting period



Achieve a LTIFR less than the NOPSEMA industry average for the reporting period



COVID Response

For the past two years, Horizon has followed a safety plan, in accordance with NSW regulations, to support the safety of our staff and visitors in response to the COVID pandemic. Our work from home or office arrangements provided a practical and flexible approach to navigating the pandemic, whilst maintaining productivity and efficiency as well as supporting the wellbeing of our staff.

The operators for Beibu and Maari have maintained COVID protection frameworks and business continuity plans to minimise disruptions, as well as to minimise health risks to their workforces.

A. HEALTH, SAFETY AND ENVIRONMENT [cont'd.]

Health, Safety and Security Engagement

Horizon actively engages with our JV partners and operators through monthly meetings to discuss health, safety and security (HSS) issues and operators report monthly to Horizon on agreed metrics. For Management of Change (MOC) projects, we carry out technical oversight to ensure that process safety reviews demonstrate that ALARP¹ criteria are met.

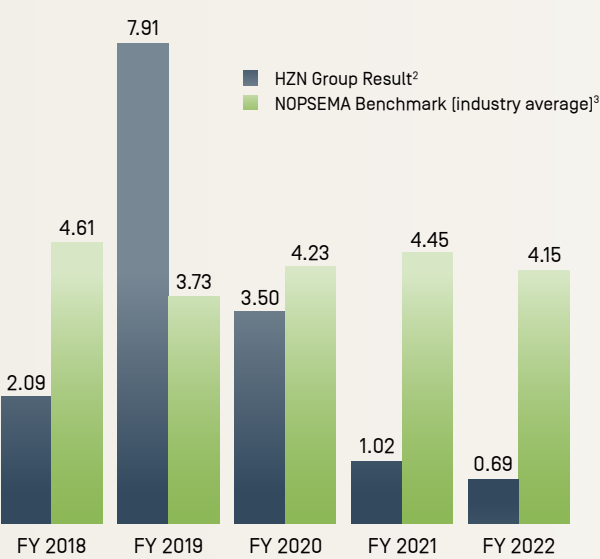
Horizon's Board have oversight of HSSE performance trends and all material HSSE incidents, through regular incident reporting. Horizon's HSSE Policy is available on our website.

To ensure all employees are prepared to support their peers and colleagues in an emergency, a first aid training and refresher course is regularly offered to all employees.

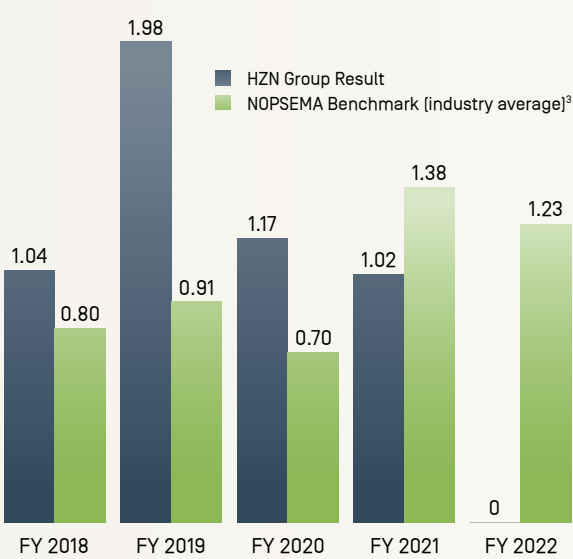
Horizon initiated an Operational Readiness Assurance review, prior to start-up of 12-8E development.



Total Recordable Injury Frequency Rate (TRIFR)



Lost Time Injury Frequency Rate (LTIFR)



1 As low as reasonably practicable.
2 Includes all hours (contractor and operator) worked offshore for our two assets and Horizon corporate staff hours.
3 The NOPSEMA benchmarks are derived from injury and hours worked data provided in quarterly reports. HZN performance for any particular financial year is benchmarked against NOPSEMA average for the preceding financial year.

Environment

OUR GOAL



We are committed to working with our operators to protect the environment in which we work

OUR TARGETS FOR FY23



Achieve zero material⁴ or significant reportable environmental incidents



Zero spills to the environment

Environmental Incidents

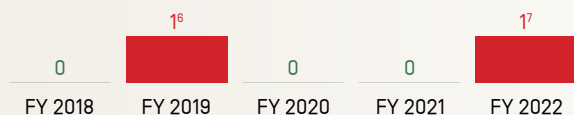
Horizon is fully aware of the environmental risks associated with our offshore assets. Our New Zealand and China asset operators are members of the International Petroleum Industry Environmental Conservation Association (IPIECA), and maintain robust HSE management systems aligned or certified to ISO 14001, ensuring there are processes and practices in place to manage environmental impacts, risks and performance.

Marine discharge consents are issued by regulators in accordance with relevant laws. Our operators ensure that quantities, quality, and dosage restrictions are adhered to through accurate measurement and record keeping. Any nonconformities are notified to the relevant regulator.

Reportable environmental incidents are summarised below. In FY22, there is one notifiable incident on 12-8E project, for a 30 litres oil spill to sea during well back-wash operation. Emergency response plan was initiated, the regulator was notified, incident investigation was carried out and corrective actions implemented.

Reported environmental incidents

HZN Group Result



Decommissioning

Decommissioning is a planned activity, which refers to the plugging and abandonment of wells, the safe removal of, or the plan to leave in-situ production related infrastructure and restoration of the environment. The platform installations, FPSO, equipment, subsea pipelines and other related subsea infrastructure will be removed or abandoned in-situ in a safe and environmentally responsible manner at the end of the field life, consistent with the requirements of the relevant country Government authorities, international conventions and guidelines.

Horizon and its JV partners maintain decommissioning cost estimates for all installed infrastructure, regardless of forecast cessation of production dates. Decommissioning liabilities and cost estimates are reflected in Horizon's cash flow forecasts and are an integral part of decision-making processes. We fully understand the importance of having an approved decommissioning plan, ahead of cessation of production, to ensure that the company will be financially and technically ready to take on decommissioning activities when required.

In New Zealand, The Crown Minerals (Decommissioning and Other Matters) Amendment Act received Royal Assent on 1st December 2021 and several new provisions are now in force. The new legislation strengthens the rules governing the petroleum sector's responsibility for decommissioning. New regulations, to support the new bill have yet to be finalised. Nevertheless, Horizon, along with the Maari JV partners, are pro-actively reviewing and assessing all actions arising from the new legislation, including the need for financial security.

For Beibu, China, preliminary decommissioning plans, safety and environmental assessments and cost estimates are available for all assets, including the recently installed 12-8E facilities. A decommissioning fund was established at the commencement of Beibu production and is fully funded for the 12-8W and 6-12 facilities (wellhead platforms and subsea pipelines) and PUQB central processing facility. Production based progressive contributions towards 12-8E (new development project consisting of a standalone platform with flowline tie-back to 12-8W) abandonment have commenced.

4 IPIECA defines a 'material issue' as any topic, that in the view of management or stakeholders, affects a company's performance significantly and informs external opinion. They tend to be issues that most affect value creation and the economic and reputation resilience of a company in a positive or negative way.

5 'Reportable' incidents are any environmental incidents that are reported to regulatory authorities.

6 Maari - Small lube oil system leak to sea (80-600 mls) reported to regulator.

7 Notifiable environmental incident on 12-8E, with 30 litres of oil spilt to sea during well back-wash operation. Emergency response plan was initiated, the regulator was notified, incident investigation was carried out and corrective actions implemented.

B. GOVERNANCE

OUR GOALS



We have a zero-tolerance policy on bribery and other forms of corruption. We will continue to strengthen and uphold the highest standard of integrity and ethical business conduct in all our business activities



We promote, and are committed to, a high standard of integrity and ethical and transparent behaviour in business

OUR TARGETS FOR FY23



Ongoing training of our employees in relevant policies and procedures



Conduct annual assessments on our value and supply chain for incidences of modern slavery



Greater Board oversight of ESG strategy and performance

Our Commitment to Ethical Business Conduct

Horizon is committed to making the right kind of impact and applying best practice to what we do. We promote and expect from our people a high standard of integrity, and ethical and transparent behaviour in business. During the year, Horizon published its [2021 Corporate Governance Statement](#) as the Board continues to review its policies and practices to reflect any applicable changes to governance standards and practice.

We also published our second [Modern Slavery Statement](#) (for FY21) in accordance with Australia's Modern Slavery Act 2018. We apply our risk management framework to assess the risk of modern slavery practices in our operations and supply chains and work with our JV partners to continue to identify and manage modern slavery risks in their operations.

Corporate Governance

As at the end of the reporting period, Horizon's Board consisted of six members, three of which are independent.

Horizon reports on an 'if not, why not' basis against the ASX Corporate Governance Principles and Recommendations. Our 2021 Corporate Governance Statement is available on the company's website, along with [corporate governance charters and policies](#). During FY22, Horizon's Board approved a Sustainability Steering Committee (SSC) Charter, formalising the role, scope and responsibilities of the committee to support Horizon's ESG governance.

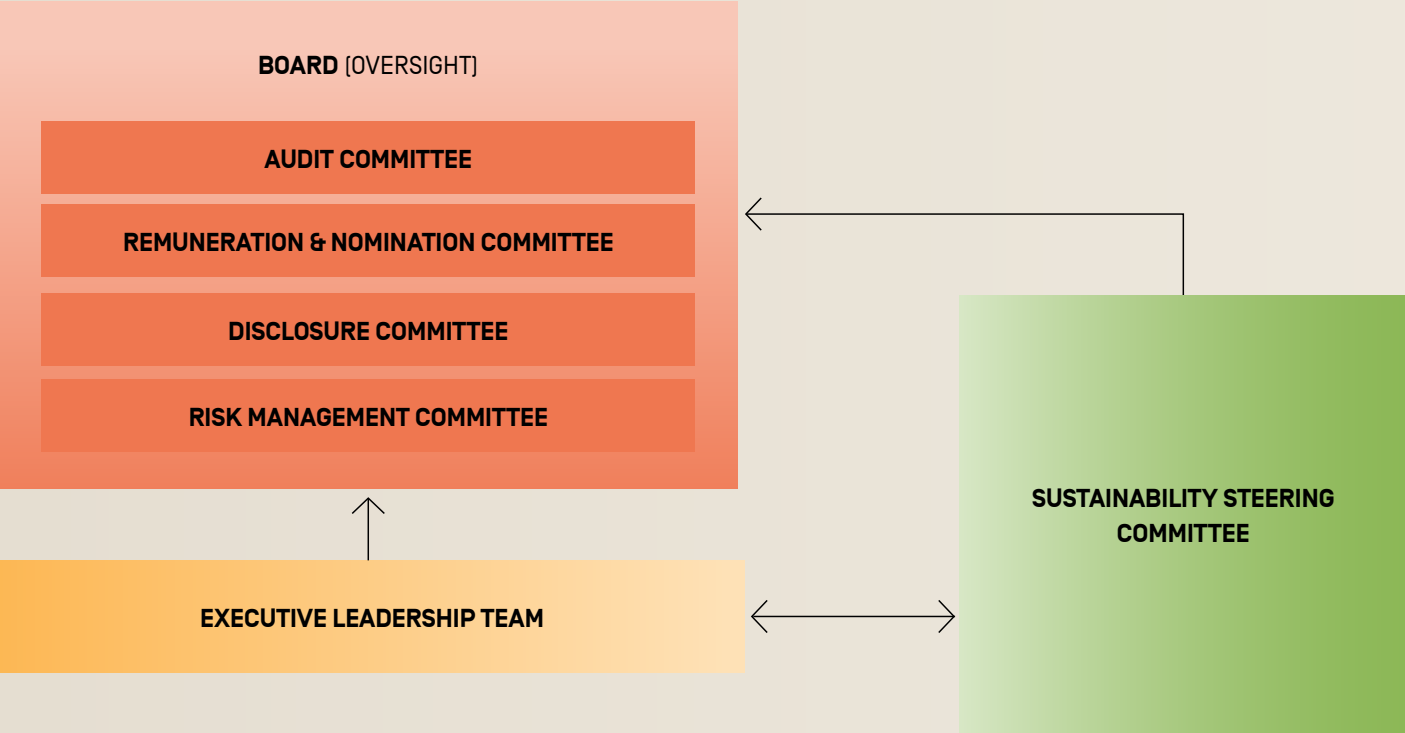
ESG Governance

The Board oversees climate-related opportunities and risks through our strategic planning and risk management frameworks. The Sustainability Steering Committee (SSC) assists the Board and the Risk Management Committee in fulfilling its oversight of Horizon's ESG Action Plan, policies, practices and performance. The SSC is represented by at least one member of Horizon's Risk Management Committee, two members from executive management and senior leaders and staff from Finance, Production and Development. Horizon's CEO is the Committee chairman and reports to the Board on all ESG matters, including strategic business decisions. The Committee is authorised, on approval from the Chairman, to obtain independent advice and institute investigations if necessary. Updates to climate-related issues is provided to the Board and Risk Management Committee at scheduled Board Meetings.

The role of the SSC is to support Horizon's Executive Leadership Team in integrating ESG into decision making and long-term planning and facilitate the implementation of the ESG Action Plan. The minutes from SSC meetings is distributed to the executive management. In relation to greenhouse gas emissions from Horizon's activities, these are tracked by the SSC and presented to the executive management monthly, along with any update to emissions forecast. The executive management is accountable for ESG strategy, through active management of identified functional risks and opportunities. They are also responsible for identifying and escalating risks and opportunities, and communicating Horizon's ESG goals, targets and performance to employees.

The Board is ultimately accountable for ESG strategy management, including climate-related matters. The Board ensures that management has in place appropriate processes for risk assessment, management, internal controls and monitoring the Company's performance against agreed benchmarks. The Board ensures material ESG risks and opportunities are identified and incorporated into Horizon's overall corporate strategy.

The chart below depicts the relationships between the Board, its sub-committees, the Executive Leadership Team and Sustainability Steering Committee.



B. GOVERNANCE [cont'd.]

Risk Management

The Risk Management Committee, responsible for all material operations and financial risks, advises the Board in fulfilling its responsibilities to identify, assess, monitor and manage risks and as appropriate, escalate and communicate identified material risks and their corresponding mitigation strategies and controls.

Horizon's **Risk Management Standard** applies a robust bottom-up approach to risk identification, assessment and monitoring of the below risk categories, applying the principles of AS31000. This framework effectively identifies short-, medium-, and long-term risks to the company in the following categories:

- Financial
- Operational
- Health and safety
- Environmental
- Climate change
- Legal and social

The Risk Management Committee reviews the company's Risk Report, which is updated no less than twice a year. Horizon assesses strategic risks and opportunities annually using a top-down analysis which is focused on the medium term and long term. Together with the bottom-up approach to risk identification and assessment, this provides a complete check and balance to Horizon's risk management process.

The Climate Change section of this report provides further information on corporate risk management work flows and how they pertain to climate change.



C. PEOPLE – EMPLOYEES AND COMMUNITIES

Our people

OUR GOALS

- 📍 We support our team to excel and are committed to diversity, innovation, teamwork and being an employer of choice
- 📍 We strive to make a positive impact in the communities we operate

OUR TARGETS FOR FY23

- 🎯 At least 20% women employees in senior executive roles through any future recruitment initiatives
- 🎯 30% women directors on the Board
- 🎯 Promote flexible working arrangements to encourage employees to return to work after parental leave
- 🎯 Equal opportunity to participate in development and training programs to support career growth
- 🎯 Work with our operators and partners to identify and participate in community-based projects

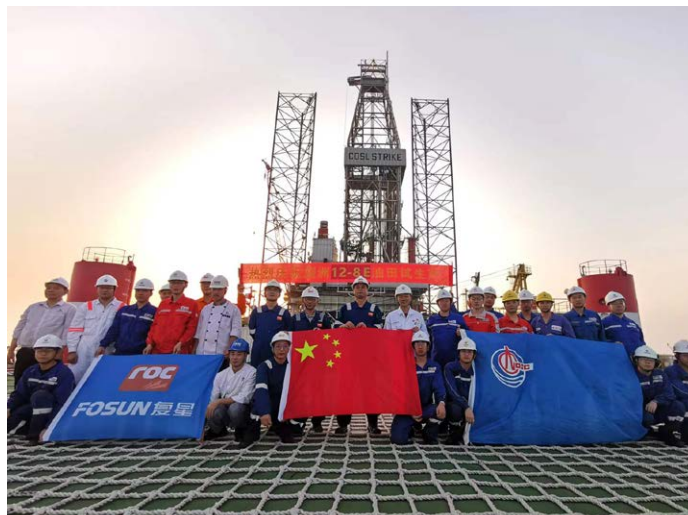
Employee Support

The COVID pandemic has put a strain on the physical and mental health of many people. We welcome feedback from our employees and take everyone's personal circumstances into consideration. We continue to offer a flexible working arrangement to support our staff.

Workforce Diversity

Horizon is proud of the diversity of its workplace – not just in terms of gender, but also ethnic background, skills and education. Horizon provides all employees with parental leave that offers entitlements exceeding Australian statutory obligations. This year, Horizon continued its commitment to promoting gender and other forms of diversity by working towards the FY22 measurable objectives set by the Board through the ESG Action Plan. Progress against the measurable objectives is summarised below.

C. PEOPLE – EMPLOYEES AND COMMUNITIES [cont'd.]



FY22 MEASURABLE OBJECTIVE	PROGRESS IN FY22
<p>Increase the representation of women in management roles and under-represented roles with a focus on the structure of its recruitment and selection practices at all levels to ensure a diverse range of candidates are considered [same as FY21].</p>	<p>Following the PNG divestment during FY21, Horizon has reduced its headcount and there has been no recruitment of new employees. The staff reductions resulted in an increase in the mix of women employees to 50%, covering all areas of the business, from technical to financial and commercial. Horizon maintained a focus on broadening the roles of existing women employees to ensure there is further opportunity for personal growth and development in their careers.</p> <p>Horizon is committed to maintaining and increasing the representation of women in all roles that are considered under represented by women and has once again set this as a measurable objective for FY23.</p>
<p>Maintain a target of at least 20% women employees in senior executive roles [same as FY21].</p>	<p>Horizon maintained at least 20% women at management level until the resignation of the Group's General Counsel and Company Secretary in September 21. Due to a continued effort to manage corporate costs, these roles were absorbed into the existing executive team with no additional recruitment undertaken.</p> <p>Horizon remains committed to increasing female representation in its senior executive roles, and this remains a measurable FY23 objective.</p>
<p>Achieve a target of 30% women directors on the Board [same as FY21].</p>	<p>During the financial year, the Board appointed Nigel Burgess as a Non-Executive Director representing Horizon's new substantial shareholder – Samuel Terry Asset Management. As a result of Nigel's appointment and following the retirement of Gerrit de Nys, the number of women directors on the Board remains at 1 in 6 (or 16.7%).</p> <p>Horizon is committed to increasing the representation of women on its Board and has once again set this as a measurable objective for FY23.</p>
<p>Implement structured annual performance review processes to provide all employees with the opportunity for review and discussion of their performance, remuneration and opportunities for development and training.</p>	<p>During the financial year, a structured annual performance review process was introduced enabling all employees to participate and discuss diversity and development opportunities at Horizon.</p> <p>Horizon is committed to continue supporting the development of its employees and have embedded this annual performance review process into routine annual processes.</p>

C. PEOPLE – EMPLOYEES AND COMMUNITIES [cont'd.]

For FY23, the Remuneration and Nomination Committee has re-iterated most of the above objectives and also adopted new objectives focused on supporting the development and career growth of female employees and promoting flexible work arrangements to support female participation in the workplace. The additional objectives are as follows:

- Equal opportunity to participate in development and training programs to support career growth. This follows on from the annual performance review process implemented during FY22, and seeks to ensure that development and training programs are offered to all staff to promote development.
- Promote flexible working arrangements to encourage employees to return to work after parental leave. This aims to ensure increased workplace participation for female employees, and cater for individuals needs.

The proportion of women in Horizon’s workforce (as at 30 June 2022) is as follows:

Full-time permanent employees 50%





Senior executive roles 0%



Directors 16.7%








 = One female employee  = One male employee



Our Communities

Horizon takes an active role in initiatives with local communities that are undertaken by our operators in both China and New Zealand.

Our New Zealand Operator has ongoing engagement with several iwi and hapū groups, including those who relate to the Maari permit area. Furthermore, the Maari JV indirectly contributes financially to some of the community engagement projects undertaken by our New Zealand Operator. Three of our key projects are summarised below.

Project	Description	Start Date	Relevant UN SDGs
Rotokare Scenic reserve	Reintroduction of endangered birds and regeneration of the reserve.	2012 – ongoing	
Taranaki Air Ambulance	Supporting emergency life-saving flights for the Taranaki community	2012 - ongoing	
Healthy Homes	Support low-income families by providing insulation to 10,000 homes in Taranaki area.	2016 - ongoing	  

In April 2022, the 12-8E development project achieved first oil extraction. The field is under the jurisdiction of the Beihai city in the Guangxi Province in China. Horizon, along with its JV partners, made a substantial donation to various schools in the Guangxi Province. In consultation with the local government, the JV identified specific schools that urgently require funds for infrastructure and facilities improvements.

Horizon plans to continue working with our operators and partners to identify and participate in meaningful community based projects. The company has included this as an additional target for FY23.

During FY22, the Company voluntarily purchased carbon units through Cool Effect for a “Cooking with Gas” project in the Sichuan province in China. The project builds methane digesters that break down human and animal waste to create clean methane gas, which is then used for cooking. One of Horizon’s key selection criteria for an appropriate offset project was to invest in a Chinese project with a strong community dimension, to partially offset Beibu emissions. The “Cooking with Gas” project is a Gold Standard-verified project with co-benefits in five UN SDGs: good health, clean water and sanitation, affordable and clean energy, decent work and economic growth and climate action. For more information, refer to the Carbon Offset section under Climate Change.



D. CLIMATE CHANGE

OUR GOALS



We have a role to play in the world's energy transition and we're committed 'to going beyond easy' in tackling climate change



We are committed to integrating climate risk into our business decisions and organisational strategy

OUR TARGETS FOR FY23



Support operator emissions reduction initiatives



Develop a climate transition roadmap for inclusion in the FY23 Sustainability Report (to be released in August 2023)



Apply an internal carbon price to help guide business decisions and viability of future projects and to ensure that projects are economic should a carbon price be imposed in the future



Continued improvements in Horizon's climate disclosures across the four thematic areas of TCFD (governance, strategy, risk management and metrics/targets)



Continued participation in the Carbon Disclosure Project (CDP)

D. CLIMATE CHANGE [cont'd.]

During the first half of FY22, Horizon set an ambition to reach Net Zero Emissions by 2050, consistent with the Paris Agreement on Climate Change. Horizon considers that the oil and gas industry has a critical role to play in the energy mix over the next few decades to ensure sustained economic development, improvements in the quality of life and the eradication of poverty. We are focused on delivering reliable and affordable oil (and possible future gas) production over the transition period whilst minimising the impact on the environment. To achieve this, we are focussed on:

- Working with our operators to progress carbon emission and energy reduction initiatives to what can be realistically achieved.
- Progressively working towards offsetting all direct emissions from our producing fields.
- Evaluating the climate impacts of all potential growth projects to ensure they are consistent with our ESG strategy.
- Transparent and full disclosure of the environmental impact of our operations, aligned to the TCFD framework.
- Developing a reduction and offsetting strategy on Scope 3 emissions with the initial focus on services directly supporting our operations.

Horizon is currently developing a decarbonisation and climate transition roadmap which will be released in the FY23 reporting period.

Carbon Disclosure Project

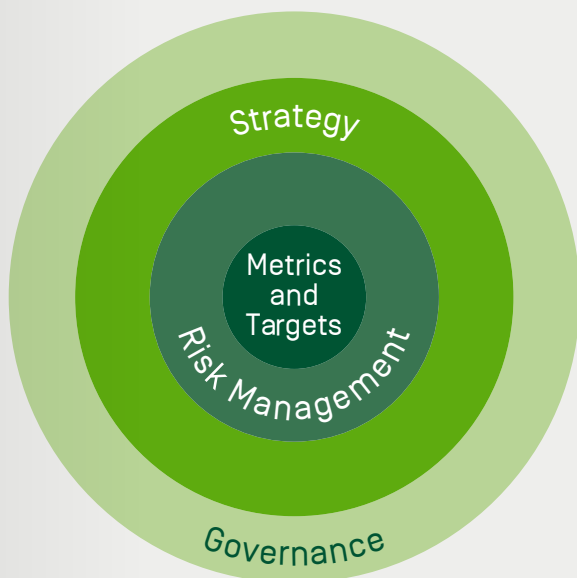
Since 2020, Horizon has participated in the Carbon Disclosure Project (CDP). During the reporting period, the Company responded to the full Climate Change Questionnaire (2021), which is fully aligned with the TCFD Framework. Horizon scored a B-, falling into the "Management Band" (classified as taking coordinated action on climate issues). The CDP score report will help Horizon to improve its environmental stewardship through benchmarking and comparison with industry peers. Horizon will continue to participate in CDP's online response system for climate change, and has set this as one of our goals for FY23.

Taskforce on Climate-related Financial Disclosure (TCFD)

This Climate Change section of Horizon's Sustainability Report follows the recommended TCFD disclosures, around the four thematic areas. The report disclosures are reconciled with the TCFDs in the table on page 34.

Governance

For climate-related Governance, please refer to the **Governance** section, on page 13.



Strategy

Taking into consideration the economic life of our current asset portfolio, Horizon has applied the following time horizons to the identification of climate-related risks and opportunities.



Short	Medium	Long
1 to 3 years	3 to 8 years	8 years plus

Risk and Opportunity Categories

TRANSITION RISK		RESOURCE EFFICIENCY & ENERGY SOURCE OPPORTUNITY	PRODUCTS, SERVICES & MARKETS OPPORTUNITY
<p>Transitioning to a lower-carbon economy will involve extensive regulation, legal, technology, and market changes and risk associated with these changes.</p>		<p>Reduction of operating costs by reducing crude oil consumed as fuel and GHG emissions, improving efficiency across production processes.</p>	<p>Increased revenues through access to new and emerging markets, such as carbon capture and storage. Increased opportunity to diversify business activities.</p>
<p>Physical risk can be both acute and chronic. Acute physical risks are event-driven, including increased severity of extreme weather events, such as cyclones, hurricanes, or floods. Chronic physical risks are longer-term shifts in climate patterns (e.g. sustained higher temperatures) that may cause sea level rise or chronic heat waves.</p>			

D. CLIMATE CHANGE [cont'd.]

Strategy

[a] Climate-related Risks and Opportunities

Horizon identifies, assesses and mitigates its climate-related risks and opportunities in accordance with its risk management framework. The bottom-up assessment process considers the climate-related risks by geographic region, covering our producing assets in China and New Zealand. The process has identified similar risks for both regions but our approach to mitigate these risks have some subtle differences due to government regulation and local requirements.

Horizon Climate-related Risks

	RISK TYPE	DESCRIPTION	POTENTIAL FINANCIAL IMPACTS	TIME HORIZON
PHYSICAL RISKS	ACUTE	Climate change increases the severity, duration and frequency of extreme weather events in the Beibu Gulf (Block 22/12) and/or offshore Taranaki (Maari).	Declining revenue due to disruptions to operations and supply chains, increased repair costs, write-off of physical assets damaged by weather events, unable to meet operational budgets and KPIs leading to a decline in expected shareholder returns.	Short, medium, and long term
	CHRONIC	Rising ambient temperature in the Beibu Gulf and/or Taranaki.	Impacting Block 22/12 and Maari installations, reducing operating envelope buffer, requiring upgrade or retrofit of operating equipment.	Long term
TRANSITION RISKS	POLICY & LEGAL	Changes in legislation and regulation in response to climate change and risks associated with policy-driven transitions.	Increased compliance costs, insurance premiums, changes in demand and pricing, and potential litigation arising from non-compliance. Onerous operating conditions for late-life assets, reducing revenue and profitability, leading to early retirement of existing assets.	Short, medium and long term
	TECHNOLOGY	Technological improvements or innovations support and accelerate the substitution of existing products with lower carbon emissions options.	The development of non-conventional energy systems could ultimately reduce demand for petroleum products [greater impact on liquid fuels than gas is anticipated] that are produced by Horizon's assets, leading to reduced revenue.	Long term
	REPUTATION	Reputational damage arising from association with oil assets and partners with oil companies.	Targeted operator or shareholder activism, assets divestment, and reduction of shareholder value.	Medium to long term
		Institutional investors looking to manage ESG factors.	More onerous ESG requirements to qualify for financing, potentially impacting company growth and access to capital.	Short, medium, and long term
	MARKET	Changes in demand for carbon-intensive assets and increased costs of materials.	Declining revenues, early retirement of assets and reduction of shareholder value.	Long term

Horizon Climate-Related Opportunities

OPPORTUNITY	DESCRIPTION	POTENTIAL FINANCIAL IMPACTS	TIME HORIZON
Resource Efficiency and Energy Use	Plant modifications and capital projects to reduce energy consumption and asset field emissions.	Improved operating efficiency and reduced use of liquid fuel and Scope 1 emissions, resulting in lower operating costs for the business.	Short, medium and long term
Products & Markets	Diversify business activities.	Increased revenues through access to new and emerging markets. Horizon is evaluating potential investment in carbon offset projects and carbon capture and storage opportunities, specifically in the area of exploration and appraisal of potential carbon capture and storage sites.	Medium to long term.

D. CLIMATE CHANGE [cont'd.]

Strategy

[b] Resilience of our Portfolio

Horizon's current asset portfolio shows resilience to climate change-related financial risk through its economic life in a range of decarbonisation scenarios. The risk of our low-cost Beibu and Maari production assets being stranded in a carbon-constrained world is low. Both fields are expected to remain economic until at least the end of the existing licence periods in 2027/2028.

ASSET	SCENARIOS	FY23&24 NPV	PROJECT NPV	ECONOMIC LIFE	COMMENT
Maari	IEA STEPS	●	●	●	Positive oil prices and CO ₂ prices impact.
	IEA APS	●	●	●	Positive oil prices impact partially mitigated by higher CO ₂ prices.
	IEA SDS	●	●	●	Economics slightly lower due to moderately lower oil prices and higher CO ₂ prices.
	IEA NZE 2050	●	●	●	Asset economics impacted by significantly lower oil prices and higher CO ₂ prices.
Beibu	IEA STEPS	●	●	●	Positive oil prices impact.
	IEA APS	●	●	●	Positive oil prices impact from 2023 to 2027 partially mitigated by the lower oil price in 2028.
	IEA SDS	●	●	●	Economics slightly lower due to moderately lower oil prices and higher CO ₂ prices.
	IEA NZE 2050	●	●	●	Asset still shows robust economics with significantly lower oil prices and higher CO ₂ prices.

● Positive/negligible impact ● Moderate negative impact ● Significant negative impact

Refer to 2021 IEA Climate Scenarios table on page 25 for more information on IEA scenarios.

Across each of the IEA decarbonisation scenarios, Horizon's Beibu and Maari production assets remain NPV positive, and the economic life of the production assets is not shortened.

Climate Scenario Analysis

A. Methodology

We have applied each of the IEA scenarios to Horizon's base case modelling⁸, namely IEA forecast commodity pricing and IEA forecast carbon pricing, to evaluate the potential impact on the Net Present Value (NPV) of our assets. We have compared the NPV impact for each IEA scenario with Horizon's base case to determine the resilience of Horizon's current asset portfolio. Resilience was assessed based on whether the IEA scenarios resulted in a material impact to the asset NPV or the current forecast economic life of each project or asset. We also examined the impact over the short and medium term. Horizon's base case assumptions demonstrate that the Beibu and Maari projects are economic until at least the end of the existing licence periods in 2027 and 2028 respectively.

B. IEA scenarios

Horizon's scenario analysis utilises the IEA's commodity demand and supply data, and associated commodity price forecasts for the following four scenarios:

⁸ Beibu and Maari's CO₂ volumes forecasts are based on extrapolation of historical production data, and internal assumptions and forecasts.

D. CLIMATE CHANGE [cont'd.]

Strategy

2021 IEA Climate Scenarios

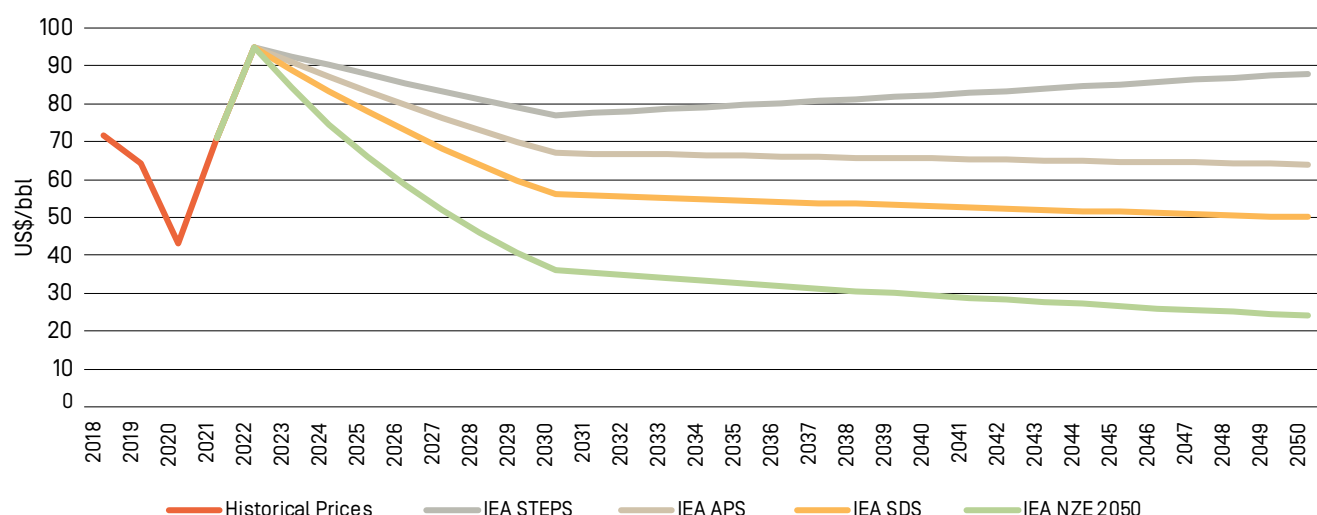
KEY FEATURES	IEA SCENARIOS			
	Stated Policies [STEPS]	Announced Pledges [APS]	Sustainable Development [SDS]	Net Zero Emissions by 2050 [NZE 2050]
Overview	Reflects prevailing policy settings and explores where the energy system might go without additional policy implementation.	Assumes that all climate commitments made by governments around the world will be met in full and on time.	Reflects a pathway of limiting global temperature rises to "well below 2°C", and represents a gateway to achieving the outcomes targeted by the Paris Agreement.	Sets out a pathway for the global energy sector to achieve net zero CO ₂ emissions by 2050, with advanced economies reaching net zero emissions in advance of others.
World Oil Demand	Oil demand plateaus at 104 mb/d in the mid-2030s and declines very gradually to 2050.	Oil demand peaks after 2025 at 97 mb/d and declines by around 1 mb/d per year to 2050.	Oil demand gradually declines to 87.6 mb/d in 2030 and drops to 47.0 mb/d in 2050.	Oil demand falls sharply to 72 mb/d in 2030 and continues falling to 24 mb/d by 2050.
World CO₂ Emissions	34.2Gt in 2020; 36.3Gt in 2030; 35.3Gt in 2040; 33.9Gt in 2050.	34.2Gt in 2020; 33.6Gt in 2030; 26.7Gt in 2040; 20.7Gt in 2050.	34.2Gt in 2020; 28.5Gt in 2030; 16.4Gt in 2040; 8.2Gt in 2050.	34.2Gt in 2020; 21.1Gt in 2030; 6.3Gt in 2040; 0Gt in 2050.

Source: IEA

C. IEA commodity price forecasts

Horizon's scenario analysis applies IEA forecast commodity prices in 2030 and 2050, and Horizon's internal assumptions associated for each scenario.

Global Oil Prices by Scenario⁹



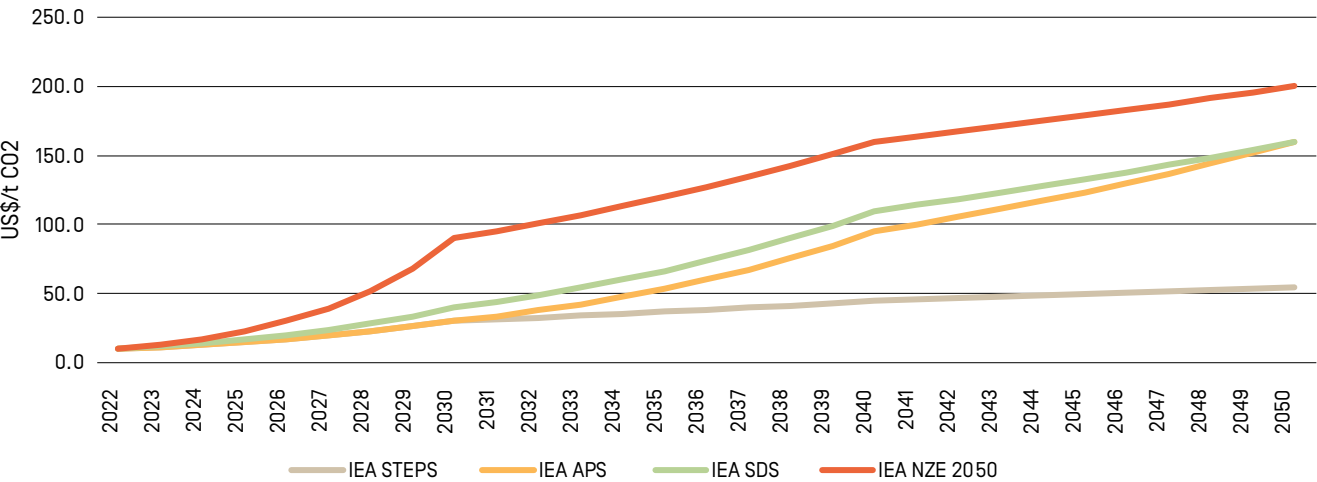
Source: historical prices from ICE. 2030 and 2050 price forecasts from IEA World Energy Outlook 2021, assuming no inflation.

⁹ Oil prices forecasts are based on HZN's internal assumptions and IEA's oil price forecasts in 2030 and 2050. Inflation has been assumed to be minimal.

D. IEA carbon price forecasts

Horizon's scenario analysis applies IEA forecast carbon prices and Horizon's internal assumptions associated with each scenario.

China Carbon Price Forecast¹⁰



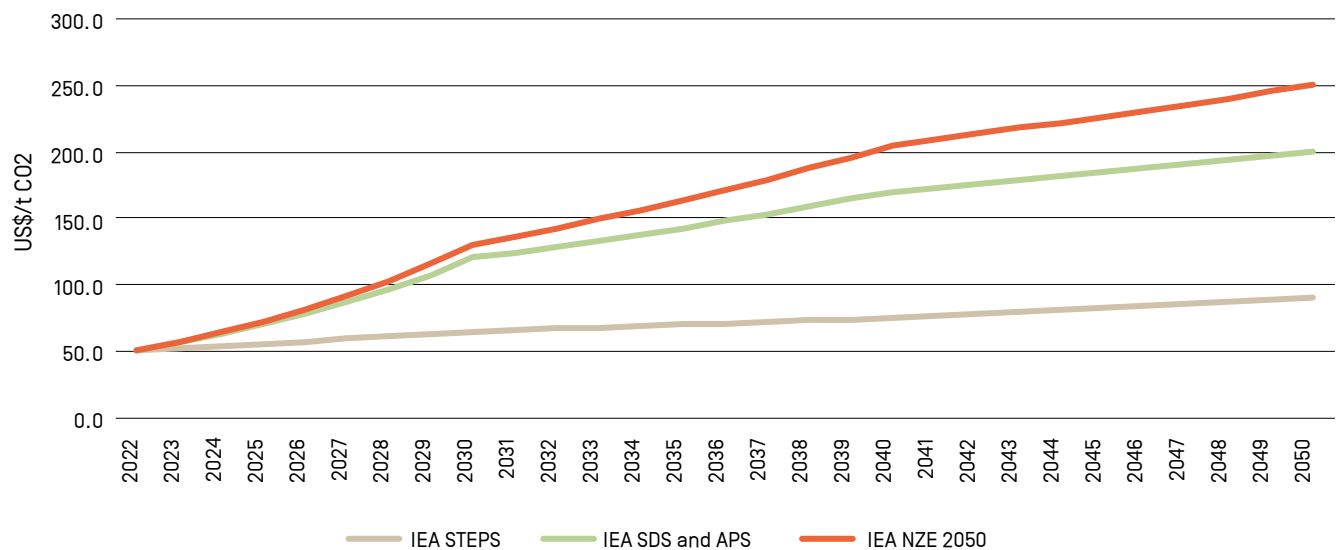
Source: 2030, 2040 and 2050 price forecasts from IEA World Energy Outlook 2021, assuming no inflation.

¹⁰ The 2022 forecast China CO₂ price represents a combination of the actual market prices and HZN's internal assumptions. Prices from 2022+ in this figure are based on a linear extrapolation from the 2022 forecast China CO₂ price and the CO₂ price forecasts in World Energy Outlook 2021 in 2030, 2040, and 2050 assuming a China national emissions trading scheme for the oil and gas industry starts from 2022 for the purpose of this report.

D. CLIMATE CHANGE [cont'd.]

Strategy

New Zealand Carbon Price Forecast¹¹



Source: 2030, 2040 and 2050 price forecasts from IEA World Energy Outlook 2021, assuming no inflation.

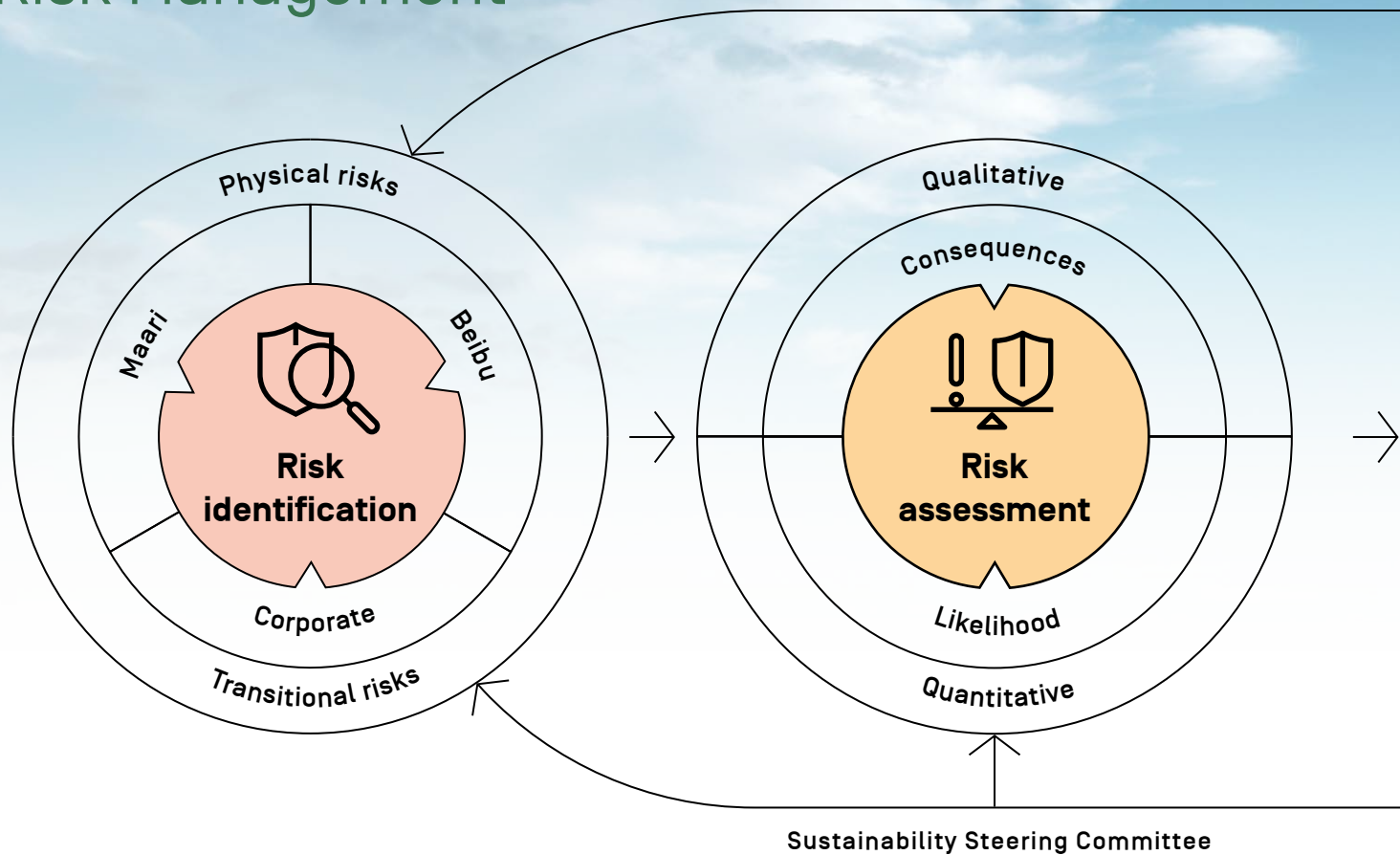
Importantly, Horizon already models carbon pricing in its base case portfolio analysis. Horizon's base case modelling applies a carbon price of US\$50/t CO₂e inflated at 5% per annum across its producing asset in New Zealand, and applied the IEA APS CO₂ pricing across its producing assets in China. This is based on the assumptions that: (a) New Zealand maintains its current Emission Trading Scheme and (b) an offset regime applies in China.

E. Limitations of our analysis

The IEA scenarios are based on reported 2021 data. As a result, the commodity price forecasts do not consider the prices currently being realised in the market, particularly the oil price increase due to the Ukraine-Russia war and the associated sanctions imposed on Russia by the U.S. and its European allies. Our current climate scenario analysis also does not include detailed consideration of geopolitical tensions or Gross Domestic Product (GDP) implications that are likely to escalate in cases where decarbonisation is accelerated. Detailed analysis of physical climate risk scenarios is ongoing and will further evolve over future years.

¹¹ The 2022 forecast New Zealand CO₂ price represents a combination of the actual market prices and HZN's internal assumptions. Prices from 2022+ in this figure are based on a linear extrapolation from the 2022 forecast New Zealand CO₂ price and the CO₂ price forecasts in World Energy Outlook 2021 in 2030, 2040, and 2050. New Zealand's IEA STEPS CO₂ price forecasts are assumed to be the same as the European Union's price forecasts.

Risk Management



Risks are reviewed regularly for any potential change and changes are promptly communicated within the organisation. Material risks are continuously monitored through several channels and a variety of reports.



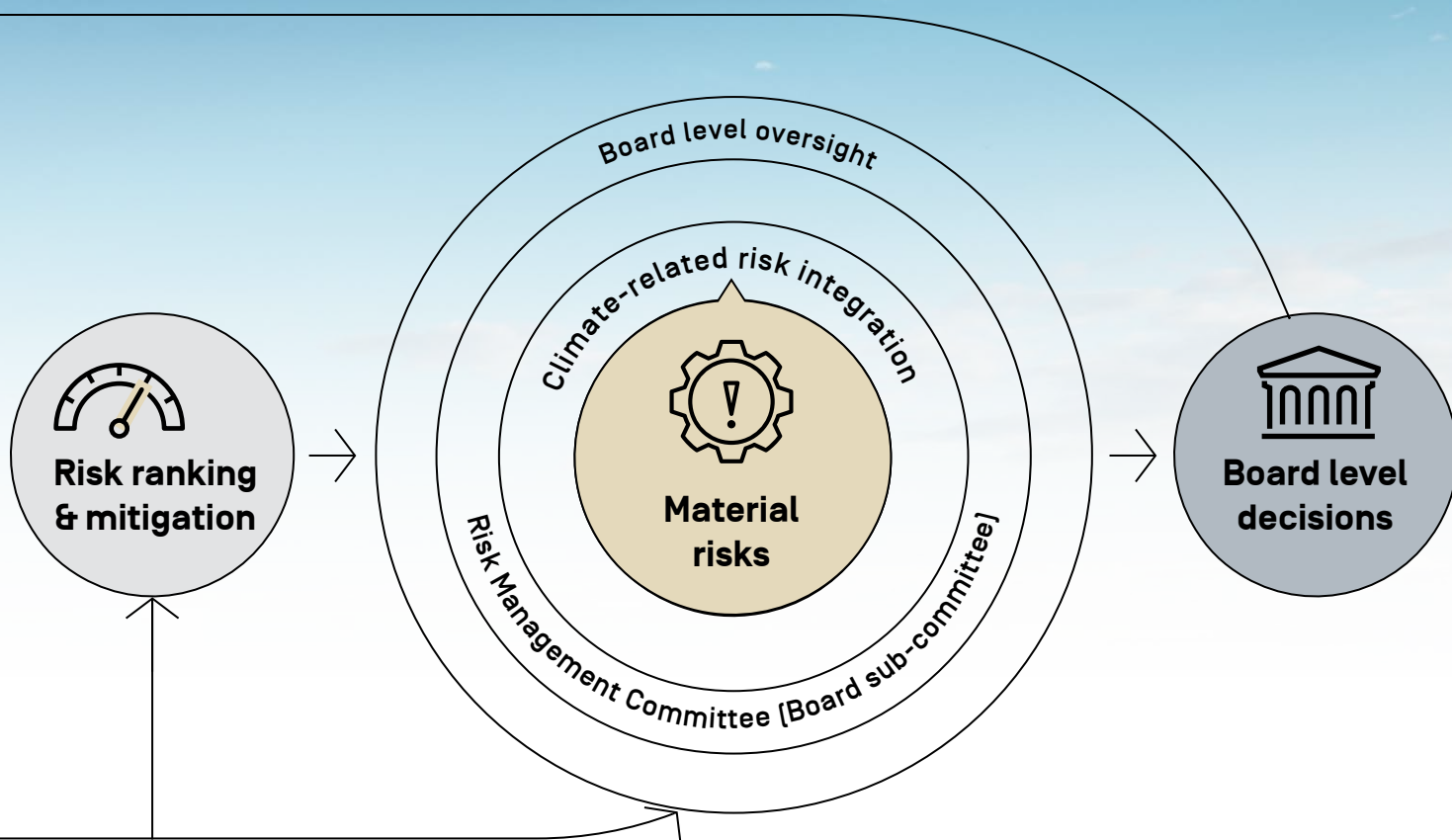
Risk identification

The identification process considers climate-related risks by the business units in different geographic regions. For each business unit [Corporate in Sydney, Maari in New Zealand and Beibu in China] we follow the climate-related risk categories as recommended in the TCFD implementing guidance. We consider both physical risks and transition risks are relevant to our business units, as demonstrated in the previous sections. As our business units operate in different geographic regions, we take local regulation and market conditions into consideration when identifying climate-related risks for that business unit.



Risk assessment

The identified risks are assessed applying qualitative and quantitative methods to determine how likely the scenario is to occur and the potential consequences to our business. The likelihood and severity will determine the risk level, following Horizon's risk matrix.



Risk ranking & mitigation

For each identified risk, we consider the mitigation measures that could effectively reduce the risk and assign a risk owner. All identified risks are reviewed holistically, guided by the risk level, to identify material risks from climate change that would expose Horizon's business. For all risks, possible mitigation measures are considered to reduce Horizon's risk exposure. While all climate-related risks are of importance, we prioritise those risks that are considered to have a material impact to the business.



Material risks

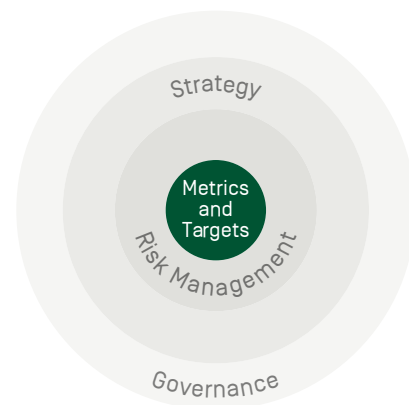
Climate-related risks that are considered material are integrated into Horizon's overall risk management. The material risks, and mitigation measures are included in Horizon's risk report, together with all other material risks to the business. These risks are also highlighted in the internal Sustainability Report to the Board, and are discussed at the Risk Management Committee.



Board Level Decisions

Board level decisions with specific actions are developed to manage the material risks. The actions may not necessarily reduce the risk immediately but a process to address the risks and position Horizon to be resilient to those risks in the medium to long term.

Metrics



A. GHG Emissions

The NGER scheme, established by the *National Greenhouse and Energy Reporting Act 2007*, is Australia's national framework for reporting greenhouse gas emissions. The NGER scheme requires companies with operational control over facilities, which emit greenhouse gases above specified thresholds, report their Scope 1 and Scope 2 emissions. Horizon has no oil and gas operations in Australia nor has operational control of its oil operations in China and New Zealand. Accordingly, Horizon is not required to report under the NGER scheme. However, Horizon estimates Beibu's Scope 1 and Scope 3 emissions, Maari's Scope 3 emissions and Corporate Scope 2 and Scope 3 emissions using the National Greenhouse Accounts (NGA) Factors. There are no Scope 2 emissions from Beibu or Maari as energy consumed on the facilities falls into Scope 1.

For Beibu, the calculated Scope 1 emissions are comparable to the Operator supplied annual (calendar year) emissions, with the reconciled variances largely attributable to the use of different emissions factors and the fuel gas allocation. During FY22, we have worked on tightening the differences by using the Operator's fuel gas allocation for the joint venture system.

For Maari, the Operator supplied Scope 1 emissions are the basis for carbon units purchased and surrendered to the New Zealand government.

Scope 3 emissions are largely the end-use of produced crude oil, and a small percentage from transportation, refining and storage of crude oil, services to support field operations, business travels and staff commuting. Due to the lack of visibility of our full upstream and downstream value chain, there are limitations in our Scope 3 estimates. Our Scope 3 emissions are estimated with a set of assumptions following the National Greenhouse Account Factors. Emissions accounted for include crude oil product used as fuel, allowances have also been made for fugitive emissions during transportation, refining and storage of crude oil, and estimated helicopter fuels, corporate business travels and staff commuting.

SCOPE	DESCRIPTION (PRIMARY CATEGORY)	ACCOUNTING BASIS	FY22
SCOPE 1	Emissions related to the consumption of fuel gas and crude fuel (Maari only) to produce electricity and the flaring of gas at our non-operated producing fields in China and New Zealand	Equity	42,908 tCO ₂ e
SCOPE 2	Emissions related to purchased electricity at our office facilities in Sydney.	Equity	20 tCO ₂ e
SCOPE 3	Emissions related to the final use of produced oil from our non-operated producing fields in China and New Zealand.	Equity	575,286 tCO ₂ e
TOTAL EMISSIONS INTENSITY (Scope 1 + Scope 2)		Equity	0.03 tCO₂e/boe
TOTAL EMISSIONS INTENSITY (Scope 1 + Scope 2 + Scope 3)		Equity	0.46 tCO₂e/boe

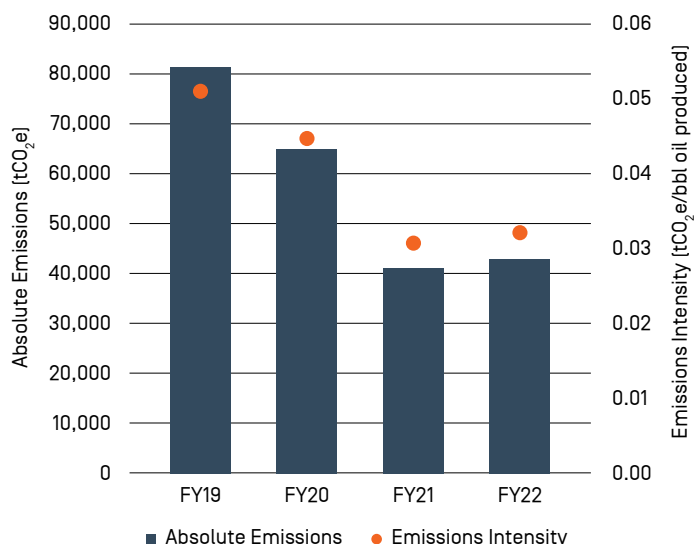
D. CLIMATE CHANGE [cont'd.]

Metrics

The graph to the right shows the absolute GHG emissions and emissions intensity from FY19 (July 2018). In 2018, Horizon's interest in Maari increased from 10% to 26%, therefore FY19 is used as the base year to allow for a comparable trend analysis on an equity basis. Horizon's internal process updates the GHG emissions trending every month, and a review is carried out for changes in GHG emissions relating to field activities. This process provides visibility on our emissions performance, allows an understanding of the drivers for emissions variation and is one of the tools to determine possible ways to reduce field Scope 1 emissions.

The reduction in emissions from FY19 to FY21 is mainly contributed by the reduction in associated gas, which declines as reservoirs deplete. Notwithstanding gas depletion and high gas producing well shutdown, our operators also implemented various carbon reduction measures during FY21 and these contributed to approx. 6,000 tCO₂e reduction (on an equity basis). Our assets require a minimum amount of gas for fuel use to support operations. Once gas from Horizon's own fields becomes insufficient for fuel, gas (for Beibu) will be imported from other fields or crude oil (for Maari) will be used to supplement fuel gas shortages. Therefore, it is not expected that there will be any significant reduction in Scope 1 emissions for the remaining useful life of the assets. Although limited, there are some Scope 1 emission reduction opportunities to pursue, and Horizon, together with our operators, continue to investigate these opportunities. Refer to the section "Initiatives to reduce scope 1 emissions" for further details.

Horizon Scope 1 GHG Historical Emissions and Emissions Intensity



B. Energy Use

Direct energy use on Horizon's assets arises from the combustion of natural gas or crude oil for fuel to generate steam and/or power, and a small amount of diesel to support the day-to-day operations. A small amount of energy also arises from the onshore warehouse and Horizon's corporate office.

The overall energy use for Beibu is expected to increase from Q2 2022, compared to previous years due to production from the new WZ12-8E field. Power is supplied to the 12-8E platform from existing power generation sets on the central processing facility (PUQB). As we aim to maximise value from the existing fields, annual workovers may require a change-out to larger downhole pumps, which would increase overall power demand. Our Operator is transparent on any changes they make on the facilities and subsurface, and always looks for energy conservation opportunities. The Operator has an Energy Saving Work Plan and holds regular Energy Conservation weeks to raise awareness within the staff working on the facilities.

For Maari, the Operator always aims to keep steam consumption and energy use at a minimum, including implementing energy efficiency measures, minimising heating requirements to the process and heat losses. In the last two years several initiatives have been implemented to optimise steam demand during normal operation. This includes intermittent heating of the FPSO cargo, in lieu of the previous continuous mode. Steam demand increases significantly during the cargo offtake period due to operating two cargo offloading pumps and heating of cargo. Offtake generally occurs every three – four months, an optimum offtake frequency is determined by the Operator following careful planning according to production levels. Our Operator is committed to continue minimising fuel gas, crude oil and diesel use, as well as improving boiler combustion efficiency. These optimisations will not only help to reduce energy use but also reduce Scope 1 emissions, given the declining gas rates.

For our Sydney-based corporate office we opted to go with a carbon neutral energy plan during FY22, which offsets our office electricity use. The carbon neutral energy plan is certified under the Australian Government's Climate Active Carbon Neutral Standard.

C. Initiatives to Reduce Scope 1 Emissions

Horizon proactively engages with the operators of its production assets in China and New Zealand to reduce Scope 1 emissions.

Our Beibu field in China sits within the Weizhou oil production area, where gas from various fields is combined for power generation and excess gas is flared. Although gas from our field is flared, this integrated gas utilisation approach minimises overall energy use and flaring from the Weizhou area. Over the years, energy saving and carbon reduction measures within the scope of the oilfield installations have been implemented, and whilst further immediate opportunities for reductions in Scope 1 emissions is currently limited, opportunities may become available with project changes and enhanced technology.

For our Maari field in New Zealand, the JV has developed a plan under which it considers initiatives to reduce Scope 1 emissions, which include:

- Improve frequency of gas, diesel and crude oil sampling for better emissions reporting.
- Minimise flaring, especially with the reduction in gas production, optimise the utilisation of the available gas for fuel.
- Minimise condensate and steam losses.
- Reduce steam demand and energy from the facilities, thus minimising crude oil use as fuel when produced gas cannot meet fuel gas demand.

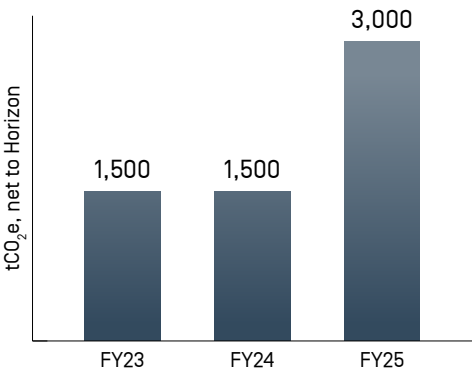
The implementation of the above measures resulted in an emissions reduction in the order of 6,000 tCO₂e in FY21 in addition to reduced use of crude oil as fuel.

During FY22, the Maari Joint Venture identified other initiatives that could lead to additional emission reductions. One such example is a facility modification being implemented to replace the onboard boiler freshwater generators with Reverse Osmosis (RO) units, which will continue to produce boiler feed quality water without the consumption of steam. This modification reduces the steam demand from the boilers, thus reducing the fuel demand to run the boilers.

Long term initiatives to reduce emissions being considered include further boiler efficiency improvements and possible low pressure vapour recovery.

Horizon maintains a log of emission reduction initiatives. All actions have a priority ranking and assigned a lead responsible person. The carbon initiative register is reviewed and updated regularly by the Sustainability Steering Committee. Estimated emission reductions associated with these initiatives are summarised in the table below for the next three financial years.

Estimated emissions reduction quantities for initiatives currently being progressed.



D. Carbon Offsets

Horizon recognises that carbon offsets play an important role in moving towards a net zero future. Verified offset projects lead to real reductions or carbon sequestration as well as additional co-benefits that add long-term social and/or ecological value.

Horizon is a participant in the New Zealand Emissions Trading Scheme (NZ ETS). Under the Scheme, we purchase New Zealand Units (NZUs) and surrender the equivalent NZUs that equal to 100% of Maari's field emissions annually (on an equity basis). Our purchase and surrender of NZUs under NZ ETS are completely aligned with and are a key component of New Zealand's Net Zero by 2050 commitment, and accordingly is a key pillar of our own transition strategy. The majority of the NZUs surrendered by Horizon to date have been forestry and carbon sequestration related.

Sichuan – ‘Cooking with Gas’ project

During FY22, Horizon voluntarily purchased 14,479 carbon units through Cool Effect for a “Sichuan – Cooking with Gas” project, which equates to the majority of Horizon’s equity share of FY22 Beibu Scope 1 emissions. The project exclusively targets low-income rural households in China’s Sichuan province, building methane digesters that break down human and animal waste to create clean methane gas, which is used in clean cookstoves. Using methane for cooking replaces burning coal or wood and reduces carbon emissions. The Sichuan Household Biogas project is a Gold Standard-verified project (POA GS 1239 or GS ID 7049) incorporating five UN SDG co-benefits: good health and wellbeing (SDG 3), clean water and sanitation (SDG 6), affordable and clean energy (SDG 7), decent work and economic growth (SDG 8) and climate action (SDG 13). The project verification and monitoring reports are available on the [website](#).

Certified SDG Impacts



Project type



Biogas - Heat

Verification



Gold Standard
Certified Project



During FY22, Horizon voluntarily purchased

14,479 carbon units

through Cool Effect for the ‘Sichuan – Cooking with Gas’ project, which offsets the majority of Horizon’s equity share of FY22 Beibu Scope 1 emissions.



Reconciliation against TCFD Recommendations

GOVERNANCE <i>Disclose the organisation's governance around climate-related risks and opportunities</i>	
Board oversight of climate-related risks and opportunities.	Horizon discloses its governance and management framework for climate-related risks and opportunities on page 13 to 15.
Management role in assessing and managing climate-related risks and opportunities.	
STRATEGY <i>Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's business, strategy and financial planning where such information is material</i>	
Climate-related risks [opportunities and threats] identified over short, medium and long term.	Horizon discloses and defines climate-related risks and opportunities over the short, medium and long term on pages 22 to 23.
Impacts of climate-related risks, [opportunities and threats] on organisation's businesses, strategy and financial planning.	
Resilience of organisation's strategy taking into account different climate scenarios, including a 2°C scenario.	Horizon has modelled the resilience of its current asset portfolio applying four IEA published scenarios. The results of our modelling are on page 24.
RISK MANAGEMENT <i>Disclose how the organisation identifies, assesses and manages climate-related risks</i>	
Processes for identifying and assessing climate-related risks.	Horizon sets out how it identifies, assesses and manages climate-related risks on pages 28 to 29.
Processes for managing climate-related risks.	
How processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	
METRICS AND TARGETS <i>Disclose the metrics and targets used to assess and manage the relevant climate related risks and opportunities where such information is material</i>	
Metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Horizon uses global oil price and carbon price to assess climate-related risks and opportunities in line with its strategy as described on pages 24 to 27.
Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Horizon reports its GHG emissions, and steps it is taking to reduce its emissions, on pages 30 and 32.
Targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Horizon is in the process of developing a decarbonisation roadmap, including targets setting to manage climate related risks and opportunities.

4. GLOSSARY

Beibu	Offshore oil production operation in the Beibu Gulf China, of which Horizon has a working interest
CDP	Formerly, the Carbon Disclosure Project. CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts. CDP's website address is: https://www.cdp.net/en
GHG Scope 1	Direct greenhouse (GHG) emissions that occur from sources that are controlled or owned by an organization
GHG Scope 2	Indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling
GHG Scope 3	Emissions which are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain
HZN	The Company, Horizon Oil
IEA	International Energy Agency
IEA APS	IEA's Announced Pledges Scenario (APS) takes account of all climate commitments made by governments around the world including Nationally Determined Contributions (NDCs) as well as longer-term net-zero targets and assumes they will be met in full and on time. The global emissions difference between the APS and the NZE represents the "ambition gap" that needs to be closed for governments to achieve the goals agreed in the 2015 Paris Agreement
IEA NZE 2050	IEA's Net Zero by 2050 scenario presents a roadmap for the energy sector to transition to a net zero energy system by 2050. It assumes that advanced economies will reach net zero in advance of 2050 and sets out an emissions trajectory consistent with a 50% chance of limiting the global temperature rise to 1.5°C without a temperature overshoot
IEA SDS	IEA's Sustainable Development Scenario (SDS) is compatible with the Paris Agreement's less ambitious "well-below 2°C" goal. It assumes all energy-related SDGs and all current net-zero pledges are achieved, with advanced economies reaching net zero emissions by 2050, China by 2060 and all others by 2070 at the latest. It has a 50% probability of limiting global temperature rise to 1.65°C, assuming no extensive net negative emissions. With some net negative emissions after 2070, temperature rise could be reduced to 1.5°C by 2100
IEA STEPS	IEA's Stated Policies Scenario (STEPS) does not take for granted that governments will meet all announced goals. It instead looks at where the energy system might go without additional policy implementation, looking at existing policies and measures and those under development. The global emissions difference between the STEPS and the APS represents the "implementation gap" that needs to be closed for governments to achieve their announced decarbonization targets
Lost Time Injury	Occurrences that resulted in a fatality, permanent disability or time lost from work of one day/shift or more. These exclude medical treatment cases, restricted work cases and first aid cases
LTIFR	Lost Time Injury Frequency Rate = Lost Time Injuries per million hours
Maari	Offshore oil production operation in the Taranaki Basin New Zealand, of which Horizon has a working interest

4. GLOSSARY [cont'd.]

Medical Treatment Injury	Any work-related loss of consciousness, injury or disease requiring more than minor first aid treatment by medical practitioner or registered medical personnel but not resulting in lost time or restricted work duties
NZ ETS	New Zealand Emissions Trading Scheme
Recordable Injuries	Lost Time Injuries + Medical Treatment Injuries + Restricted Work Injuries
Restricted Work Injury	An injury or occupational illness that results in the injured person being assigned to a work assignment after the day the accident occurred, where this assignment does not include all the other normal duties of the person's regular job
SSC	Sustainability Steering Committee
TCFD	Taskforce on climate-related disclosures
TRIFR	Total Recordable Injury Frequency Rate = Total Recordable Injuries per million hours
UN SDG	United Nations Sustainable Development Goals
WHS	Work Health and Safety

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