



SUSTAINABILITY REPORT 2021



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1. A MESSAGE FROM OUR CHAIRMAN AND CEO

Horizon continues to build on its commitment to sustainability – essentially the management of risks and opportunities in a way that best balances the long-term needs of all our stakeholders – our investors, employees and suppliers – as well as the wider community and the environment at large.

This year we are pleased to announce our progress on sustainability. True to our commitment last year, we prepared a 3 year Environmental Social and Governance (ESG) Action Plan to refine our goals, targets and activities in our ESG priority areas. Sustainability continues to be an important focus for Horizon with sustainability performance again forming part of executive KPIs. During the year, we implemented formal performance review procedures to engage with our employees and address any unconscious bias that may give rise to an imbalance in gender pay parity; we adopted revised HSE and Code of Conduct policies; we improved our cyber security following an independent IT security assessment and we published our first Modern Slavery Statement. In addition, we continue to be transparent with respect to our climate change resilience modelling and reporting obligations.

It is important to note that whilst we are not an operator of any of our oil producing assets, we have a high degree of influence and are successful in encouraging our joint ventures to minimise emissions and any loss of containment incidents, and to maintain the highest standards of safety and asset integrity.

We are acutely aware of the shifting sentiment away from fossil fuels – but conversely recognise that oil will be part of the energy mix for some time to come. In this challenging environment we work hard to ensure that our approach to sustainability is both right sized for Horizon and meaningful to our stakeholders and the wider community.



Mike Harding
Chairman



Chris Hodge
Chief Executive Officer



Sustainability continues to be an important focus for Horizon with sustainability performance again forming part of executive KPIs.

Chris Hodge
Chief Executive Officer

2. ABOUT THIS REPORT

Horizon produces oil in the Beibu Gulf, China which is sold into the Chinese domestic market, and in the Taranaki Basin, New Zealand which is mainly sold into Australia. Our oil assets are owned in joint venture and we are non-operating parties. We focus on optimising our existing asset portfolio, which has an anticipated economic life until the end of the decade, 2030.



This report is Horizon's eighth Sustainability Report. Our report is structured in accordance with our Environmental Social Governance (**ESG**) priority areas: Health, Safety & Environment (**HSE**), Governance, Our People and Communities and Climate Change. In each of these areas, we report as they relate to our corporate office. In the case of HSE and Climate Change, we also report on our activities in China and New Zealand, but on an equity basis and despite having no operational control. This is the second year Horizon is aligning its disclosures with the Taskforce on Climate-related Financial Disclosure (**TCFD**) recommendations; a table reconciling our disclosures against the TCFD recommendations is set out at the end of this report. This report applies for the period 1 July 2020 to 30 June 2021.

This report has not been externally assured.

3. SUSTAINABILITY HIGHLIGHTS

**We completed a
3 year ESG Action
Plan**

**Our Total Recoverable
Injury Frequency Rate in
China and NZ was below
Australian NOPSEMA
performance data**

**As a workforce,
we are 44% women**

Last year, we undertook a materiality assessment which identified our four key priority areas. This year we have prepared a 3-year ESG Action Plan to continue to mature our ESG credentials. We are proud of our increased focus and progressive achievements on sustainability and ESG, which have included:

Health, Safety & Environment

We report HSE performance statistics against the Australian NOPSEMA benchmark, and target above-benchmark TRIFR and LTIFR performance.

Governance

We have incorporated sustainability performance within executive KPIs and incorporated ESG considerations such as climate risk and bribery / corruption risk into risk reporting considered by the Board. We have conducted due diligence on our value and supply chain to identify and assess any incidence of modern slavery. We undertook an IT security assessment in recognition of heightened security risks. We developed a Whistleblower Policy and engaged Deloitte to run an independent service that enables whistleblowers to report suspected misconduct easily and anonymously.

Our People and Communities

Last year we approved a Parental Leave Policy with entitlements exceeding our statutory obligations. We also developed gender targets to increase women on the Board to 30% and to maintain women representation on the executive team of at least 20%.

Climate Change

In line with the TCFD recommendations, we initiated and continue financial risk modelling of our existing asset portfolio using the International Energy Agency (IEA) decarbonisation scenarios. We reported Beibu Scope 1 GHG emissions and Corporate Scope 2 emissions using the National Greenhouse and Energy Reporting (NGER) methodology and reported Maari Scope 1 GHG emissions are in line with our Operator under the New Zealand Emissions Trading Scheme (ETS). There are no Scope 2 emissions from Beibu or Maari as electricity consumed on the facilities is self-generated. We also reported Scope 3 GHG emissions from oil produced (on an equity basis) and corporate activities using the NGER methodology.

4. OUR APPROACH TO SUSTAINABILITY

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

Our Sustainability Governance

The Board oversees climate-related opportunities and risks through Horizon's strategic planning and Horizon's risk management framework. Horizon has a sustainability steering committee which is responsible for identifying, assessing and managing climate-related issues. The sustainability steering committee contains a majority of senior executives and draws on appropriate skills and expertise across the company.

Key Material Issues

Horizon's key materiality issues are summarised on page 6. 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.

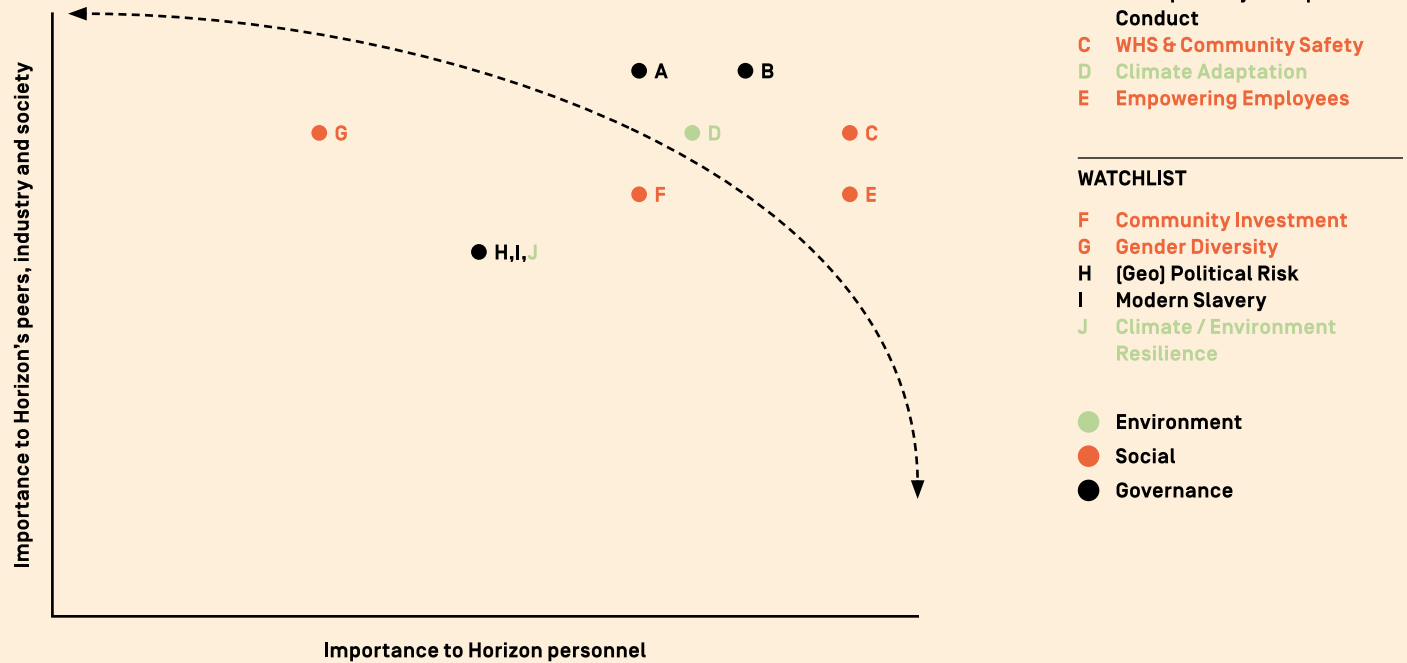
Materiality Review

In 2020, Horizon engaged a sustainability consultant to undertake a materiality review of the environmental, social and governance issues that present risks or opportunities to us, while taking into consideration the issues of most concern to Horizon personnel, and the society in which we operate. The materiality review was conducted applying the principles of AA1000 Accountability Principles Standard.

Horizon identified its material issues through a combination of researching its peers and industry, and conducting interviews with a broad and statistically significant cross-section of Horizon personnel. Following the identification process, Horizon's executive team prioritised and validated the identified material issues.

4. OUR APPROACH TO SUSTAINABILITY [Continued]

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

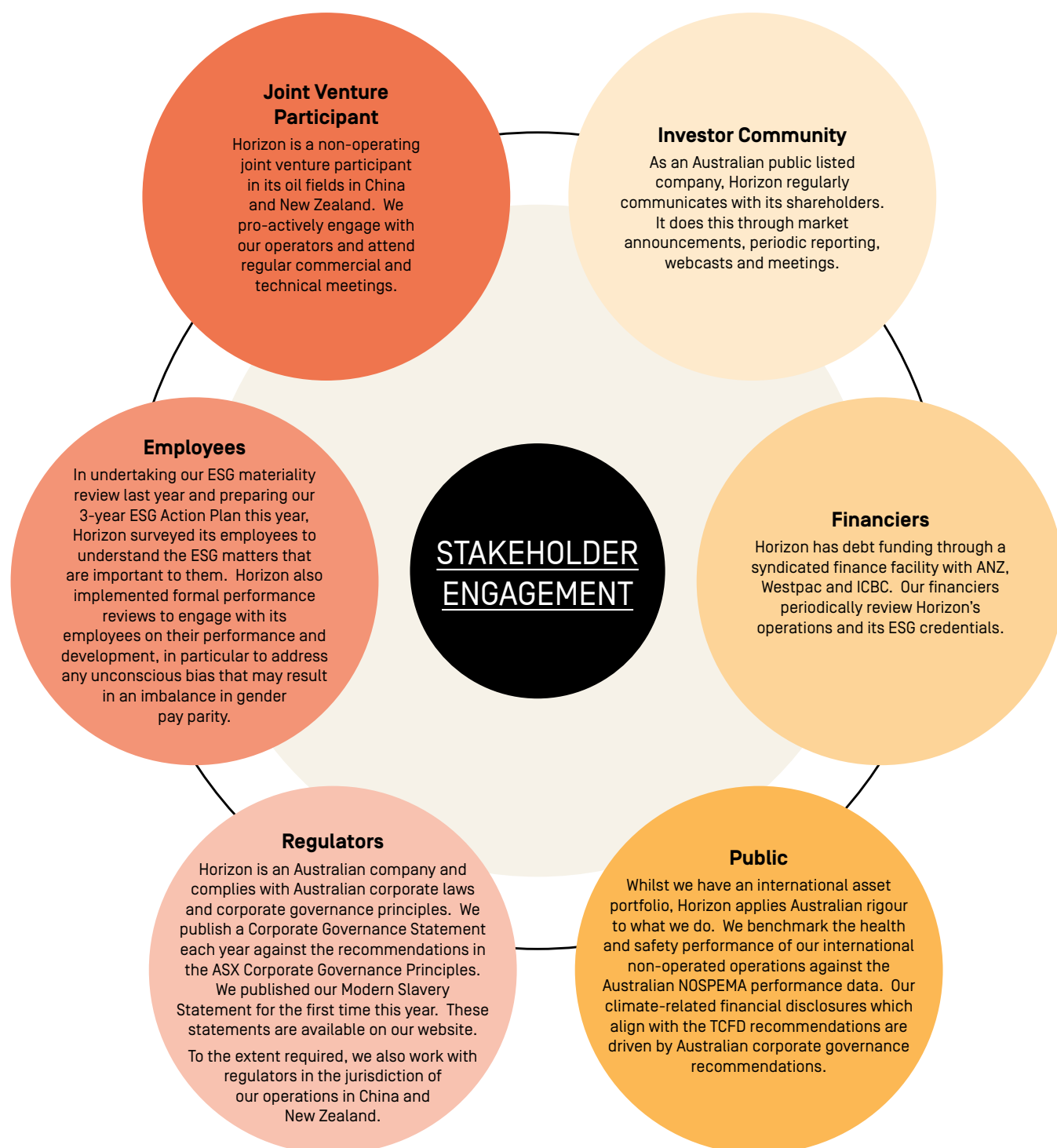


Horizon's Priority Areas

HEALTH, SAFETY AND 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 their focus on safety.
GOVERNANCE	Horizon is committed to making the right kind of impact and applying Australian rigour to what we do, whether in-country or in its foreign operations, such as China and New Zealand. We promote, and are committed to, a high standard of integrity and ethical and transparent behaviour in business.
OUR PEOPLE – EMPLOYEES AND COMMUNITIES	Our employees will deliver Horizon's future. 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.
CLIMATE CHANGE	Horizon recognises the responsibility and role it has to play to support a lower emissions future. Horizon is reporting for the second time against the TCFD recommendations. We are also participating for the second year in CDP.

5. OUR STAKEHOLDERS

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



A. HEALTH, SAFETY AND ENVIRONMENT

Health and Safety

Our Goal

- We will continue to outperform our peers and industry benchmarks through proactive engagement with our Operators

Our Targets

1. Achieve zero fatalities
2. Achieve a TRIFR less than the NOPSEMA industry average for the reporting period
3. Achieve a LTIFR less than the NOPSEMA industry average for the reporting period



Safety, Health and Security Engagement

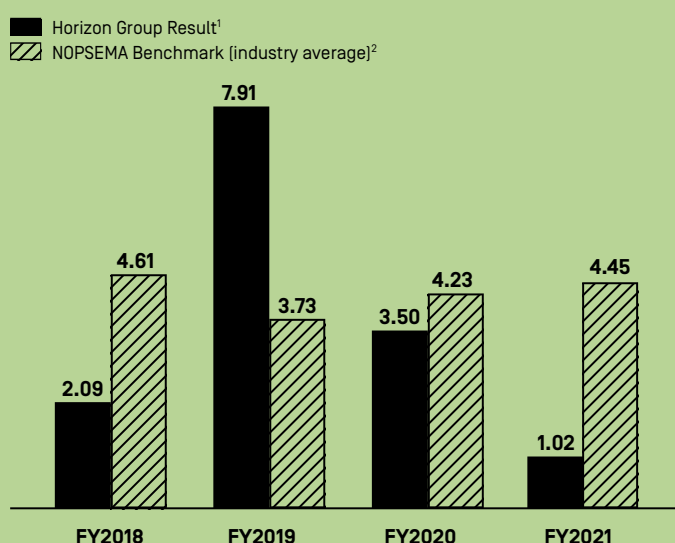
Horizon does not have operational control of its existing assets in China and New Zealand. Nonetheless, we proactively engage with our joint venture partners and operators through regular meetings and reporting to ensure asset integrity and promote all aspects of HSE in our operations. Travel permitting, we carry out site visits on an annual or biannual basis. For new projects or smaller management of change projects, we carry out technical oversight to ensure that process safety reviews demonstrate that 'as low as reasonably practicable' criteria are met. We follow up actions arising from incident investigations or regulatory audits. We maintain a database and monitor trends in all reported work related injuries and illnesses for both assets. Working with our operators, we use the information to identify any underlying problems and to decide on appropriate hazard control initiatives. Horizon's Board have oversight of all material HSE incidents, through regular incident reporting.

Occupational Injury and Illness Incidents

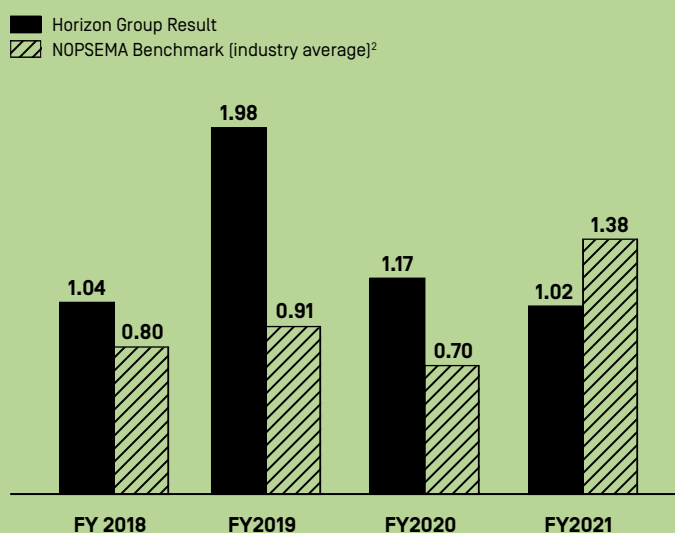
FY2021 has been a particularly busy period. On Beibu two infill wells were drilled, seven wells worked over, the fast track 12-8E development project is well underway and various debottlenecking modifications have been carried out on the produced water system. Maari has also seen a busy year with three well workovers, underwater inspection in-lieu of dry-dock (UWILD) and subsea survey campaigns and intermediate survey and repairs to one of the three steam boilers. Despite all of these activities, only one lost time incident was recorded (rolled ankle) and no fatalities occurred across Horizon's China and New Zealand assets.

We are proud of the HSE performance of our assets in FY2021, a testament to the capability and resilience of our operators, who have managed to maintain high standards, despite increased activity levels and the logistical challenges presented by the COVID pandemic. The last recorded LTI was a rolled ankle, in May 2021, during the Maari MR6A well workover. Prior to that, the last LTI was a low severity finger injury on Beibu in September 2019. We continue to work as a team with our operators to improve behaviours, and to ensure that robust and effective processes and systems are in place to minimise the likelihood of such event reoccurring. For FY2021, Horizon achieved a Total Recordable Injury Frequency Rate (TRIFR) of 1.02, less than the National Offshore Energy Regulator (NOPSEMA) industry average in Australia.

Total Recordable Injury Frequency Rate (TRIFR)



Loss Time Injury Frequency Rate (LTIFR)



¹ Includes all hours (contractor and operator) worked offshore for our two assets and Horizon corporate staff hours.

² The NOPSEMA benchmarks are derived from injury and hours worked data provided in quarterly reports. Horizon performance for any particular financial year is benchmarked against NOPSEMA average for the preceding financial year.

A. HEALTH, SAFETY AND ENVIRONMENT [Continued]

Environment

Our Goal

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

The operators of our New Zealand and China assets are members of the International Petroleum Industry Environmental Conservation Association (**IPIECA**). They maintain robust Environmental, Health and Safety Management Systems aligned to or certified to the ISO 14001 Standard, ensuring there are processes and practices in place to manage environmental impacts, risks and performance whilst meeting legislative and corporate requirements.

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

Our Targets

1. Achieve zero material³ or significant reportable⁴ environmental incidents
2. Zero spills to the environment

Detailed plans are in place for the prevention and remediation of spills. Such measures include:

- Hazard identification and risk assessment to demonstrate that oil pollution risks have been reduced to 'as low as reasonably practicable' (**ALARP**) levels;
- Preventive measures and maintenance to avoid leaks. This includes undertaking pro-active risk-based inspection and fitness for service assessments of equipment and piping for corrosion;
- Emergency spill response and contingency plans, approved by the regulators. Expertise, materials, and equipment for spill intervention are readily on hand and emergency drills are regularly performed;
- Clean-up and remediation procedures; and
- Maintaining regulator approved public liability insurance, covering the costs of potential damages caused by pollution.

Reportable environmental incidents are summarised in the table below:

ENTITY	Reported environmental incidents			
	FY18	FY19	FY20	FY21
Horizon Group Result	0	1 ⁵	0	0

³ 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.

⁴ 'Reportable' incidents are any environmental incidents that are reported to regulatory authorities.

⁵ Small lube oil system leak to sea (80-600 mls) reported to regulator.

0%

There were zero reported environmental incidents in 2021.



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

1. Our employees are trained in relevant policies and procedures
2. Conduct annual assessments on our value and supply chain for incidences of modern slavery

Commitment to ethical business conduct in all our business activities

We are committed to making 'the right kind of impact' and applying Australian rigour to what we do, whether in-country or in our international operations, such as China and New Zealand. We promote and expect from our people, a high standard of integrity, and ethical and transparent behaviour in business. During the year, the Board approved a revised Code of Conduct for Horizon. Our revised Code of Conduct makes a subtle but important change from simply a compliance mindset to focussing on making the right kind of impact. Horizon also completed its due diligence of its value and supply chain, publishing its first Modern Slavery Statement this year.



[Our Modern Slavery Statement for FY2020 is available on our website.](#)

Horizon's Governance

Horizon's Board had six members at the end of the reporting period, of which half were considered independent. After the reporting period, a new director associated with substantial shareholder, Samuel Terry, was appointed to the Board. As a result, the Horizon Board does not contain a majority of independent directors. Having said this, Horizon recognises that the qualifications, expertise and experience that its directors bring to the Board is of a high calibre and the structure of the Board is appropriate and right-sized for the ownership structure and scale of the company.

During the year, Horizon engaged Deloitte to evaluate its IT security in the context of heightened cyber security risks globally. The report did not identify any material deficiencies in Horizon's IT systems, but it did make recommendations for further improvements and Horizon is implementing those further actions.

Horizon reports on an 'if not, why not' basis against the ASX Corporate Governance Principles and Recommendations.



[Our Corporate Governance Statement for FY2021 is available on our website.](#)



Risk Management

The Board, through Horizon's Risk Management Committee, adopted an updated HSE Policy and Health, Safety, Security and Environment Management System. Horizon's HSE Policy is available on our website.

The Risk Management Committee oversees Horizon's risk management framework which applies a robust bottom-up approach to risk identification, assessment and evaluation of financial, operational, environmental, health and safety and social risks; applying the principles of the AS31000 standard.

Horizon's Risk Management Committee's role is to:

- review material risks and corresponding risk mitigation strategies and controls identified by the risk management system;
- review and supervise the implementation and administration by management of a comprehensive risk management system;
- review and supervise Horizon's insurance program, having regard to the nature of Horizon's business and the insurable risks associated with the business; and
- review and supervise the procedure for communication and escalation of risks by management to relevant stakeholders including the Board.

The Risk Management Committee has reviewed Horizon's 3 year ESG Action Plan.

C. PEOPLE – EMPLOYEES AND COMMUNITIES

Our People

Our Goals

- We support our team 'to punch above our weight' 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

1. Maintain at least 20% women employees in senior executive roles
2. Target 30% women directors on the Board by 2022
3. Our employees to undertake performance reviews to evaluate and develop our people each year

Horizon endeavours to engage and empower its employees. This year, Horizon engaged with its employees to prepare an ESG 3 year Action Plan, recognising that sustainability begins with our people.

Diversity

Horizon is proud of the diversity of its workplace. Last year we put in place a Parental Leave Policy that offered entitlements exceeding statutory obligations. This year, the company continued its commitment to promoting gender and other forms of diversity by working towards the FY2021 measurable objectives set by the Board. The progress during FY2021 against the measurable objectives is summarised below.

FY2021 MEASURABLE OBJECTIVE	FY2021 PROGRESS
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	Given challenging economic conditions, there has been no recruitment of new employees in the company during FY2021. The company is committed to increasing the representation of women in under-represented roles and has once again set this as a measurable objective for FY2022.
Encourage training and personal development to assist in furthering career goals	Given challenging economic conditions including remote working, there has been limited opportunity for attending training and personal development courses during FY2021.
Maintain a target of at least 20% women employees in the management team	The company has maintained at least 20% women employees in the management team.
Achieve a target of 30% women directors on the Board	During the financial year, the Board appointed Bruce Clement as a non-executive director. As a result of Bruce's appointment, the number of women directors on the Board fell to 1 in 6 (or 16.7%). The Board identified a skills gap on the Board for a director with broad practical and technical oil and gas experience. Horizon prepared a long-list of candidates for the role with a focus on inclusion of possible women directors. Horizon identified women nominees with suitable experience for the vacancy, but considered that their location and existing time commitments did not make them ideal candidates for the role. The company is committed to increasing the representation of women on its Board and has once again set this as a measurable objective for FY2022.

For FY2022, the Remuneration and Nomination Committee has re-iterated these objectives and also adopted a new objective focussed on addressing any imbalance in gender pay parity, as follows:



- 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. Whilst not a process specific to women employees, a formal and structured review process allows for management to review employee performance and benchmark employees against market and their peers, in particular to address any gender disparity in remuneration.

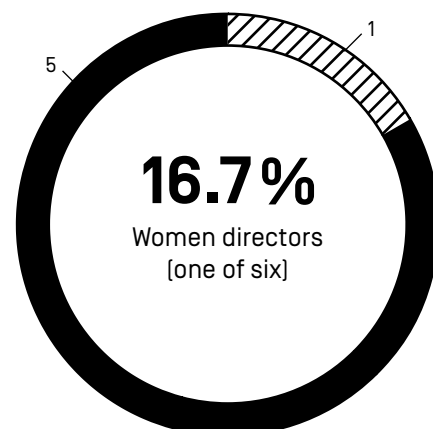
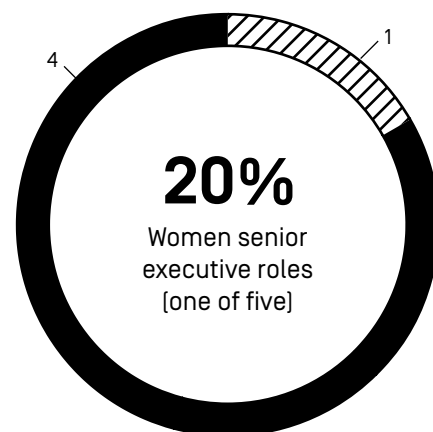
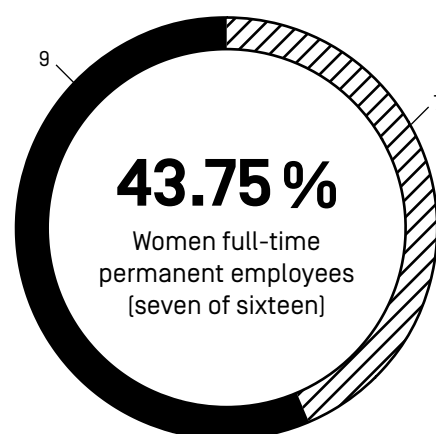


Our Communities

During the year, Horizon divested its operated asset portfolio in Papua New Guinea where it had been active in working with and assisting the local communities. Horizon, is currently a non-operator, but nevertheless takes an active interest in initiatives to work with local communities undertaken by our operators in both China and New Zealand.

The proportion of women in Horizon's workforce (as at 30 June 2021) is as follows:

 Female employees
 Male employees



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

The Task Force on Climate-Related Financial Disclosures (TCFD) publishes a voluntary framework to promote better disclosure of climate-related financial risks. A table reconciling our disclosures against the TCFD recommendations is set out at the end of this report.

Climate-related Governance and Risk

The Board oversees climate-related opportunities and risks through Horizon's strategic planning and Horizon's risk management framework. Building on its materiality review, this year Horizon prepared a 3 year ESG Action Plan to refine our goals, targets and activities in our ESG priority areas.

IAI MANAGEMENT'S ROLE

Horizon has a sustainability steering committee which is responsible for identifying, assessing and managing climate-related issues. The sustainability steering committee contains a majority of senior executives and draws on appropriate skills and expertise across the company.

IBI STRATEGIC PLANNING

As part of the company's strategic planning, Board and management review the strategic opportunities and risks facing the company across long, medium and short time horizons. Horizon forecasts an external outlook for future global energy mix, which it continually re-assesses based on industry forecasts and lead and lag indicators. Horizon also uses commodity price forecasting and scenario modelling (see section 'Resilience of our Portfolio') to identify and assess future outcomes. Climate change risks and opportunities are part of this decision-making process. Horizon's strategy is informed by this assessment.

Horizon supports the transition to a lower emissions economy.

With this in mind, Horizon is increasing its understanding and capability with respect to carbon capture and storage opportunities, specifically in the area of exploration and appraisal of potential carbon capture and storage sites. Horizon was accepted as a member of the Global Carbon Capture and Storage Institute in 2021. The institute provides access to a comprehensive technical database of publications on CCS projects and legislative developments and allows Horizon to participate in the working group meetings.

ICJ RISK MANAGEMENT FRAMEWORK

The Board delegates to the Risk Management Committee responsibility for Horizon's risk management framework. Horizon has in place a risk management framework that applies a robust bottom-up approach to risk identification, assessment and evaluation; applying the principles of the AS31000 standard.

Management reports to the Board material and uncontrollable risks twice a year, except for material changes to Horizon's risk profile which are reported to the Board as they arise. Horizon's bottom-up risk management framework focusses on operational, financial and environmental risks and is complemented by Horizon's top-down strategic risk review as part of the company's strategic planning.

IDJ 3 YEAR ESG ACTION PLAN

Last year, Horizon undertook a materiality review to identify the environmental, social and governance issues that present risks or opportunities to the business. This year Horizon prepared a 3 year ESG Action Plan which articulates Horizon's goals, targets and prospective actions under each of its four priority areas: Health and Safety, Governance, People - our employees and our communities and climate change.

Climate-related Risks and Opportunities

Horizon identifies, assesses and mitigates its climate-related risks and opportunities in accordance with its risk management framework (as discussed above).

IAI HORIZON CLIMATE-RELATED RISKS

	RISK TYPE	DESCRIPTION	POTENTIAL FINANCIAL IMPACTS	TIME HORIZON
PHYSICAL RISK	ACUTE & CHRONIC	Severe weather events such as cyclones impacting production in Beibu (CN) and Maari (NZ) fields	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
	REGULATION & LEGAL	Legislation and regulation to address climate change and risks associated with policy-driven transitions	Increased compliance costs, changes in demand and pricing, and potential litigation arising from non-compliance. Restrictions on use of carbon-intensive assets, stranded assets	Medium to long term
TRANSITION RISKS	TECHNOLOGY	Technological improvements or innovations that support the transition to a lower carbon, energy efficient economy	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
	REPUTATIONAL	Reputational damage arising from association with oil assets and partners with oil companies. Damage to reputation by targeted shareholder activism or divestment	Reduction of shareholder value and declining access to finance	Medium to long term
	MARKET	Institutional investors looking to manage ESG factors	More onerous ESG requirements to meet investor expectations and to qualify for financing, potentially impacting company growth and access to capital	Short, medium, and long term
	MARKET	Changes in supply, and demand for carbon-intensive assets resulting from new technologies as the market transition to a lower-carbon economy	Declining revenues, asset write-offs and reduction of shareholder value	Long term

IBI HORIZON CLIMATE-RELATED OPPORTUNITIES

OPPORTUNITY	DESCRIPTION	POTENTIAL FINANCIAL IMPACTS	TIME HORIZON
RESOURCE EFFICIENCY	Commercial opportunities arising from new technologies as the market transitions to a lower-carbon economy	Improved operating efficiency and accelerated technological innovation, resulting in lower operating costs for the business	Medium to long term
PRODUCTS & SERVICES	Diversify business activities	Increased revenues through access to new and emerging markets. Horizon is pursuing 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 [Continued]

NOTES

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



Horizon categorises climate-related risks and opportunities in line with the TCFD framework, as follows:

TRANSITION RISK	PHYSICAL RISK	RESOURCE EFFICIENCY OPPORTUNITY	PRODUCTS & SERVICES
Transitioning to a lower-carbon economy will involve extensive regulation, legal, technology, and market changes and risk associated with these changes.	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.	Reduction of operating costs by improving efficiency across production and distribution processes, buildings, machinery/appliances, and transport/mobility, including broader materials, water, and waste management. Innovation in technology is likely to assist in such reductions.	Increased revenues through access to new and emerging markets, such as carbon capture and storage.

Greenhouse Gas Emissions

Our Targets

1. Offset 100% of Scope 1 and 2 emissions of current asset portfolio and corporate office by June 2022
2. Support operator emissions reduction initiatives

The National Greenhouse and Energy Reporting (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, to report their Scope 1 and Scope 2 emissions. Horizon has no oil and gas operations in Australia nor operational control of its oil operations in China and New Zealand. Accordingly, Horizon is not required to report under the NGER scheme.

Whilst Horizon does not report under the NGER scheme, it has applied the methodology from the NGER scheme and National Greenhouse Accounts Factors to calculate Beibu's Scope 1 and Scope 3 emissions, Maari's Scope 3 emissions and Corporate Scope 2 and Scope 3 emissions. There are no Scope 2 emissions from Beibu or Maari as electricity consumed on the facilities is self-generated (rather than purchased). Emissions from fuels used to generate electricity is included under Scope 1 emissions.

For Beibu, the NGER calculated Scope 1 emissions are comparable to the operator supplied annual (calendar year) emissions (approximately +/- 10% for CY2019 and CY2020) with the variances largely being attributable to the use of different emissions factors.

For Maari, the operator supplied emissions are used to report Maari Scope 1 emissions, which are the basis for carbon units purchased and surrendered to the New Zealand government under New Zealand's emissions trading scheme (ETS).

D. CLIMATE CHANGE [Continued]

SCOPE	DESCRIPTION (PRIMARY CATEGORY)	ACCOUNTING BASIS	ACCOUNTING TONNE-CO ₂ e	
			FY21 [excl. offsets]	FY21 [incl. offsets]
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	40,955	16,902
SCOPE 2	Emissions related to purchased electricity at our office facilities in Sydney, Port Moresby and Kiunga (Note, PNG offices divested during the reporting period).	Equity	25	25
SCOPE 3	Emissions related to the final use of produced oil from our non-operated producing fields in China and New Zealand	Equity	574,878	574,878
TOTAL EMISSIONS INTENSITY [Scope 1 + Scope 2]		Equity	0.03tCO ₂ e/boe	0.01 tCO ₂ e/boe
TOTAL EMISSIONS INTENSITY [Scope 1 + Scope 2 + Scope 3]		Equity	0.46 tCO ₂ e/boe	0.44 tCO ₂ e/boe

Horizon offsets its greenhouse gas emissions by purchasing carbon credits under the New Zealand ETS. By offsetting its greenhouse gas emissions, Horizon reduces its effective total Scope 1 and 2 emissions by about 59 percent and total Scope 1, 2 and 3 emissions by about 4 percent.

Horizon's FY2021 Scope 1 emissions (excluding offsets) have reduced by over 30% compared to FY2020. This is largely due to the shutdown of one well in Maari, which is a high gas producer. With the reduction in gas produced, there is less surplus gas to flare after meeting fuel gas requirement, hence reducing Scope 1 emissions. The crude oil production did not reduce as significantly as the gas production from the shutdown of the well, as the Maari field continues to benefit from water injection and production optimisations. As a result, the Scope 1 and Scope 2 emissions intensity has also reduced by approximately 26% compared to FY2020.

Horizon continues to assess options for emissions reductions. In May 2021, Horizon conducted an internal carbon initiative workshop, where actions and initiatives to reduce and manage carbon emissions were identified and discussed. All actions have been set with a priority ranking and assigned a lead responsible person.

IA1 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. For our Beibu field in China, gas from the WZ6-12 wellhead platform is used for power generation with excess gas commingled with gas from other fields. This integrated gas utilisation approach minimises flaring.

Beibu's operator has developed an Energy Saving Work Plan for 2021, including changing fluorescent lights on WZ12-8W and WZ6-12 platforms to LED energy saving lights and a plan to improve heat exchanger efficiencies. To raise awareness, the operator has also held an Energy Conservation Week, where each facility is required to engage in energy saving activities.

For our Maari field in New Zealand, the joint venture has developed a plan under which it considers initiatives to reduce Scope 1 emissions, which in the short to medium term 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;
- improve boiler fuel combustion efficiency; and
- implement energy efficiency measures, minimise heating requirements to the process, and heat losses.

The estimated Scope 1 carbon abatement, associated with the above initiatives is approximately 6,100 tCO₂e per annum [on an equity basis].

D. CLIMATE CHANGE [Continued]

Resilience of our Portfolio

[A] SUMMARY OF THE RESILIENCE OF HORIZON'S CURRENT ASSET 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.

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.

ASSET	SCENARIO	SHORT-TERM NPV	MEDIUM-TERM NPV	ECONOMIC LIFE	COMMENT
Maari	IEA Stated Policies	○	○	○	Positive oil prices and CO ₂ prices impact.
	IEA Delayed Recovery	○	○	○	Positive CO ₂ prices impact partially mitigated by lower oil prices.
	IEA Sustainable Development	○	●	○	Asset still shows robust economics with lower oil prices and higher CO ₂ prices.
Beibu	IEA Stated Policies	○	○	○	Positive oil prices impact.
	IEA Delayed Recovery	○	○	○	Economics slightly lower due to oil prices.
	IEA Sustainable Development	○	●	○	Asset still shows robust economics with lower oil prices and higher CO ₂ prices.

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

Source: IEA

[B] CLIMATE SCENARIO ANALYSIS METHODOLOGY

A. Methodology

We have applied each of the IEA scenarios to Horizon's base case modelling⁶, 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 assumes that the Beibu and Maari projects are economic until at least the end of the existing licence periods in 2027 and 2028 respectively.

⁶ Beibu and Maari's CO₂ volumes forecasts are based on extrapolation of historical production data, and internal assumptions and forecasts.

D. CLIMATE CHANGE [Continued]

B. IEA scenarios

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

TABLE 1: 2020 IEA CLIMATE SCENARIOS

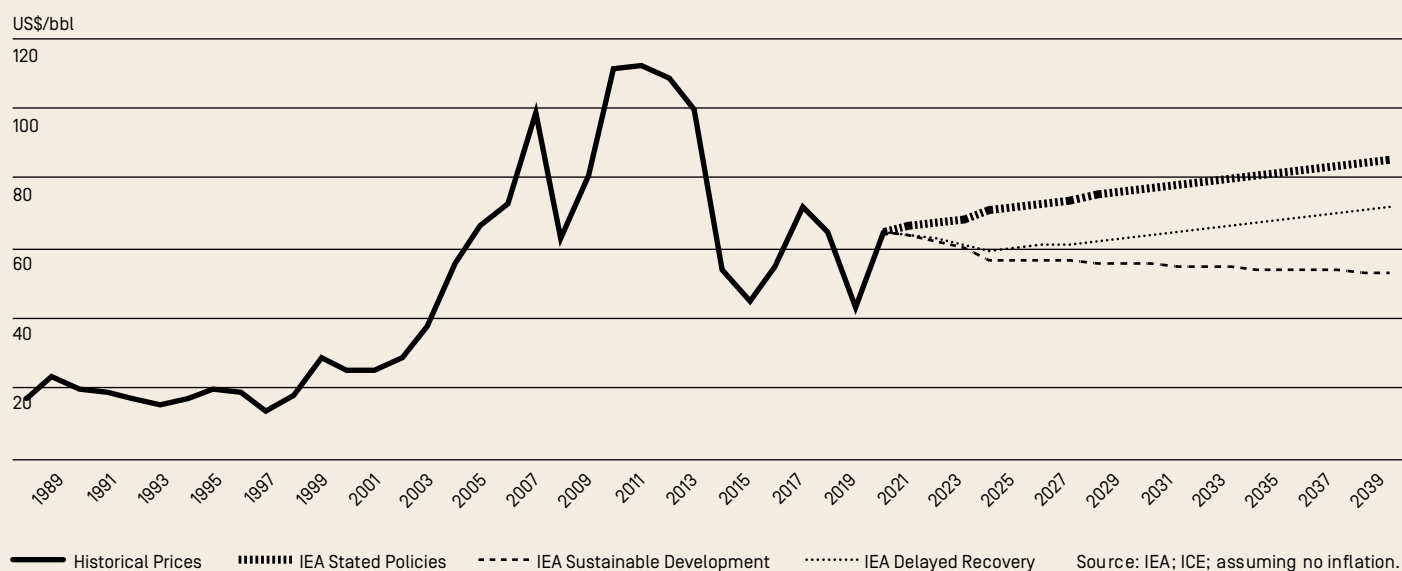
KEY FEATURES	SCENARIOS		
	IEA STATED POLICIES [STEPS]	IEA SUSTAINABLE DEVELOPMENT [SDS]	IEA DELAYED RECOVERY [DRS]
Overview	COVID-19 brought under control in 2021 and steady recovery in economic activity	Same economic and public health assumptions as the STEPS but assumes global energy systems being shifted onto the sustainable development trajectory	Same policy assumption as the STEPS but assumes more prolonged COVID-19 outbreaks and weaker economy growth
Oil Demand	Oil demand recovers to its pre-crisis levels by 2023: 99.9 mb/d in 2025; 103.2 mb/d in 2030; 104.1 mb/d in 2040.	Oil demand moves downward: 92.5 mb/d in 2025; 86.5 mb/d in 2030; 66.2 mb/d in 2040.	Oil demand does not exceed 2019 levels until 2027 and plateaus at just under 100 mb/d
CO₂ emissions	CO ₂ emissions do not surpass 2019 levels until 2027 and continue to climb to 36Gt by 2030	Increasing pace of emissions reductions and CO ₂ emissions fall to under 27Gt in 2030	CO ₂ emissions reduced compared with the STEPS and flatten below 2019 levels at 34Gt.

Source: IEA

C. IEA commodity price forecasts

Horizon's scenario analysis applies IEA forecast commodity prices associated for each scenario.

Figure 1: Global Oil Prices by Scenario⁷



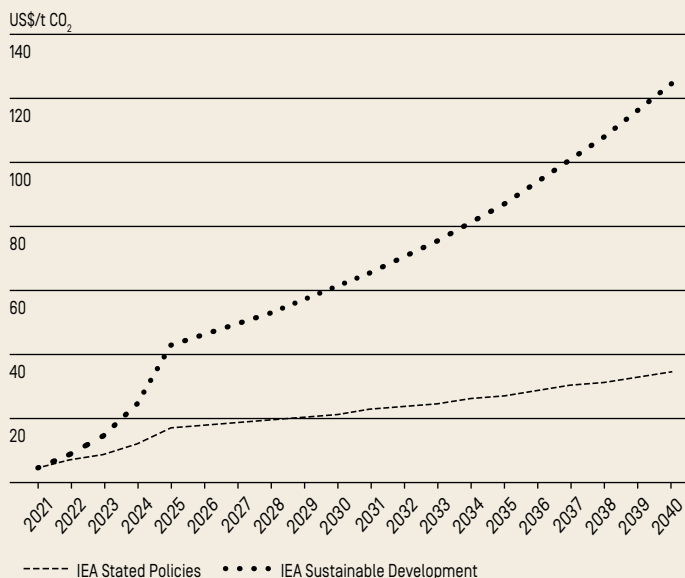
⁷ 2021 oil price represents a combination of actual oil prices and market consensus forecasts. Prices from 2021+ have been extrapolated from the IEA 2020 World Energy Outlook. Inflation has been assumed to be minimal.

D. CLIMATE CHANGE [Continued]

D. IEA carbon price forecasts

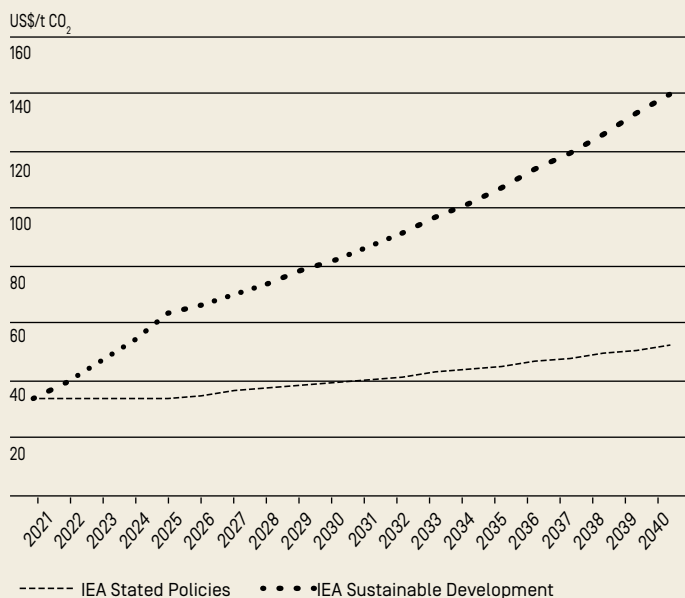
Horizon's scenario analysis applies IEA forecast carbon prices associated with each scenario.

Figure 2: China Carbon Price forecast⁸



Source: IEA, Cooleffect, Climate Bridge; assuming no inflation.

Figure 3: New Zealand Carbon Price forecast⁹



Source: IEA, Commtrade; 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 USD 34\$/t CO₂e inflated at 3% per annum across its producing assets in New Zealand and applied the IEA STEPS 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] that an offset regime applies in China.

E. Limitations of our analysis

The IEA scenarios are based on reported 2020 data. As a result, the commodity price forecasts do not consider the prices currently being realised in the market, particularly the oil price rally due to OPEC+'s control over output and strong recovery in oil demand. 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.

⁸ The forecast 2021 China CO₂ price represents a combination of the actual market prices and Horizon's internal forecast. Prices from 2021+ in this figure are based on a linear extrapolation from the forecast 2021 price and the CO₂ prices in World Energy Outlook 2020 assuming a China national emissions trading scheme starts from 2021 for the purpose of this report. Carbon prices in the DRS are close to those of the STEPS.

⁹ The forecast 2021 to 2026 New Zealand CO₂ price are based on NZU forward curve. Prices from 2027+ in this figure are based on a linear extrapolation from the forecast 2026 price and the CO₂ prices in World Energy Outlook 2020. Carbon prices in the DRS are close to those of the STEPS.

D. CLIMATE CHANGE [Continued]

Reconciliation against TCFD Recommendations

GOVERNANCE Disclose the organisation's governance around climate-related risks and opportunities	
Board oversight of climate-related risks and opportunities.	Horizon reports on its governance and management framework for climate-related risks and opportunities on page 16.
Management role in assessing and managing climate-related risks and opportunities.	
STRATEGY 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	
Climate-related risks [opportunities and threats] identified over short, medium and long term.	Horizon reports on the climate-related risks and opportunities over the short, medium and long term on pages 17 to 18.
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 three IEA published scenarios. The results of our modelling are on pages 20 to 22.
RISK MANAGEMENT Disclose how the organisation identifies, assesses and manages climate-related risks	
Processes for identifying and assessing climate-related risks.	Horizon sets out how it identifies, assesses and manages climate-related risks on pages 16 to 18.
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 Disclose the metrics and targets used to assess and manage the relevant climate related risks and opportunities where such information is material	
Metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Horizon models the resilience of its asset portfolio as described on pages 20 to 22, and qualitatively assesses climate-related risks and opportunities on pages 21 to 23.
Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Horizon reports its GHG emissions, and the steps it is taking to reduce its emissions, on pages 18 to 19.
Targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Horizon's GHG emissions targets are set out on page 18. Horizon is continually developing initiatives to manage climate related risks and opportunities.

6. GLOSSARY

Beibu	Offshore oil production operation in the Beibu Gulf China, of which Horizon has a working interest
CCS	Carbon Capture and Storage
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
DRS	IEA Delayed Recovery scenario. <i>"The spread of the Covid-19 pandemic is brought under control during the course of 2021 in the Stated Policies Scenario (STEPS) and the Sustainable Development Scenario (SDS), and the subsequent economic recovery means that the global economy is only 5% smaller by 2025 than it would have been under a precrisis trajectory. There is however a risk that these assumptions are too optimistic. In the Delayed Recovery Scenario (DRS), we explore what might happen if this turns out to be the case."</i> https://www.iea.org/reports/world-energy-outlook-2020/a-delayed-recovery
GHG Scope 1	Direct greenhouse (GHG) emissions that occur from sources that are controlled or owned by an organisation
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
IEA	International Energy Agency
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
Medical Treatment Injury	Any work-related loss of consciousness, injury or disease requiring more than minor first aid treatment by a medical practitioner or registered medical personnel but not resulting in lost time or restricted work duties
NOPSEMA	The National Offshore Petroleum Safety and Environmental Management Authority - Australia
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
SDS	IEA Sustainable Development Scenario: <i>"The IEA's Sustainable Development Scenario outlines a major transformation of the global energy system, showing how the world can change course to deliver on the three main energy-related Sustainable Development Goals simultaneously, that is ...to achieve universal access to energy (SDG 7), to reduce the severe health impacts of air pollution (part of SDG 3) and to tackle climate change (SDG 13)."</i> https://www.iea.org/reports/world-energy-model/sustainable-development-scenario
STEPS	IEA Stated Policies Scenario: <i>"The Stated Policies Scenario reflects the impact of existing policy frameworks and today's announced policy intentions. The aim is to hold up a mirror to the plans of today's policy makers and illustrate their consequences for energy use, emissions and energy security."</i> https://www.iea.org/reports/world-energy-model/stated-policies-scenario
TCFD	Taskforce on Climate-related Financial Disclosures
TRIFR	Total Recordable Injury Frequency Rate = Total Recordable Injuries per million hours
UWILD	Underwater inspection in lieu of dry docking
WHS	Work Health and Safety



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Sustainability Reports, please visit
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