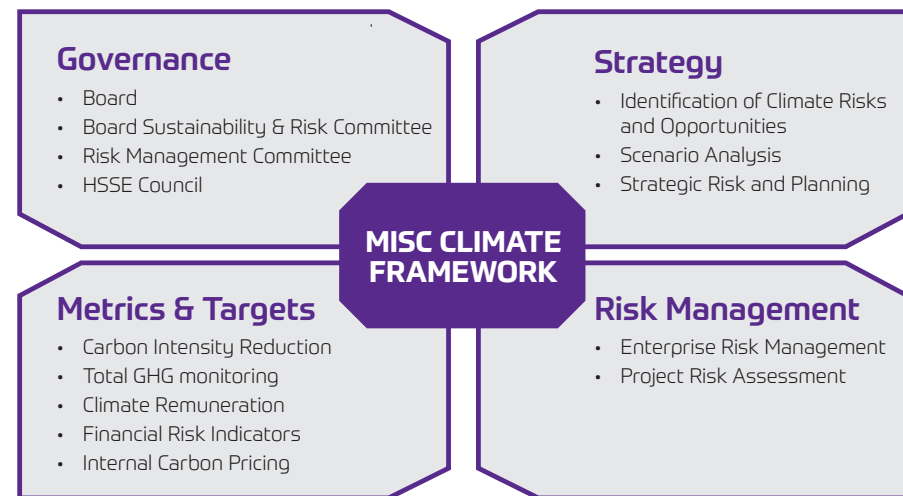


CLIMATE-RELATED FINANCIAL RISKS AND OPPORTUNITIES

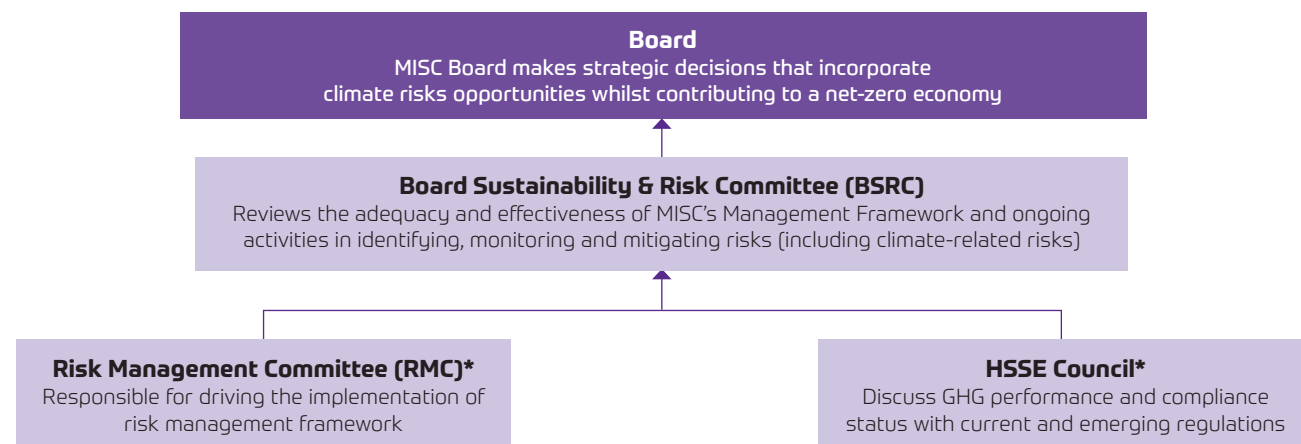
MISC's Climate Framework is based on the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations that represent core elements of climate management: governance, strategy, risk management, and metrics and targets. All TCFD thematic elements are reflected in the structure of our disclosures in the following sections.



Since 2021 we began implementing climate scenario analysis in line with the Intergovernmental Panel on Climate Change's (IPCC) sixth assessment report, to review and assess our business resilience under two global warming scenarios, a low emissions pathway (1.5 °C) and a high emissions pathway (4 °C). MISC Group became a TCFD Supporter in 2021 and issued our inaugural report in our Sustainability Report 2021, following the TCFD framework.

In this 2022 TCFD Report, we have expanded the scope of our TCFD initiatives to include our key enablers' business segments. We have also implemented climate-related risk integration measures into the existing risk management process and formalised the climate scenario analysis process into MISC's annual strategic planning exercise.

GOVERNANCE



* Chaired by the President/Group CEO (PGCEO). Members comprise Vice Presidents from each division and the Managing Directors / CEOs of MISC Group of Companies.

BOARD OVERSIGHT

The Board and BSRC consider climate-related issues when reviewing and guiding strategy, major plans of action, risk management policies, annual budgets, and business plans as well as setting performance objectives, monitoring implementation and performance, and overseeing major capital expenditures, acquisitions, and divestitures. On a quarterly basis, the Board through the BSRC monitors and oversees GHG performance and climate-related strategic initiatives' progress against goals and targets.

MANAGEMENT OVERSIGHT

The RMC holds quarterly meetings to review key business risks and ensures that mitigation plans are in place to manage such risks. The adequacy and effectiveness of the controls and the robustness of the mitigation actions are also addressed. These are then further deliberated by the BSRC and reported to the Board each quarter.

Group HSSE provides updates to the HSSE Council and BSRC on GHG performance against set targets including the assessment and management of climate-related issues each quarter.

Subsequently, the identified climate-related risks and mitigation strategies are refined and cascaded into the Group's risk register. These issues and strategies are monitored and brought to the RMC and the BSRC on a quarterly basis. Climate-related risks for investment opportunities are also assessed under Project Risk Assessments for approval by the Project Risk Assessments Sub-Committee (PRASC), BSRC and MISC's Board.

STRATEGY

CLIMATE-RELATED RISKS AND OPPORTUNITIES EMBEDMENT INTO BUSINESS STRATEGIES

The Corporate Planning division oversees the integration of climate-related risk and opportunities into the existing group-wide strategic planning exercise annually to facilitate strategic plans for the Group. During the annual strategic planning exercise, the business and climate-related risks and opportunities are considered for inclusion into the business strategies.

SHORT, MEDIUM AND LONG-TERM TIME HORIZONS

MISC Group has defined its short, medium and long-term time horizons in identifying climate risks and opportunities. In doing so, we take into consideration the useful life of our assets and the impact of these climate-related issues over the medium and longer terms.

| Time Horizon | Short Term Within the Next 5 years | Medium Term Current Year Up to 2030 | Long Term 2031 - 2050 |
|--|---|--|---|
| Time Horizon Rationale on Material Financial Impact | Any climate-related risks that have or are expected to have material financial impacts in the next 5 years from current and emerging climate legislation and market transition to low-carbon assets | Any climate-related risks that have or are expected to have material financial impacts in meeting the following expectations: <ul style="list-style-type: none"> IMO 2030 targets to reduce CO₂ emissions per transport work by at least 40% by 2030 compared to 2008 Considering the lifespan of a vessel is approximately 20-25 years, the shipping industry has to be able to develop commercially viable deep-sea zero carbon emission vessels by 2030 to meet IMO 2050 goals and Net-Zero GHG Emissions Commitment by 2050 | Any climate-related risks that have or are expected to have material financial impacts in addressing the risks and opportunities of the energy transition, global movement towards Net-Zero Economy by 2050 and IMO 2050 aspiration (50% reduction in total GHG compared to 2008) |

IDENTIFICATION OF CLIMATE-RELATED RISKS AND OPPORTUNITIES

MISC Group determines which risks and opportunities have a material financial impact on the organisation by considering the following matters:

- Climate-related driving forces that presents risks and opportunities for MISC Group. These driving forces are:
 1. Physical;
 2. Regulatory;
 3. Technological;
 4. Market; and
 5. Reputation & Social.

- Expected time horizon of the climate issue likely to be of a global concern;
- Likelihood of the climate issue to impact MISC business objectives; and
- The severity/financial impact of the climate risks on MISC business objectives.

MISC Group has identified both physical and transition climate-related risks and opportunities for our own business and across our value chain including upstream suppliers and downstream customers.

| | | | |
|--|--------------------------------|--|--|
| OVERVIEW OF MISC GROUP CLIMATE-RELATED RISKS AND OPPORTUNITIES | PHYSICAL | | <ul style="list-style-type: none"> • Increase in extreme wind and precipitation (acute) • Sea level rise (chronic) |
| | REGULATORY | | <ul style="list-style-type: none"> • Increasing environment / carbon policies and legislation |
| | TECHNOLOGICAL | | <ul style="list-style-type: none"> • Development of new technologies for low-carbon solutions • Training for the right expertise and skills required to manage new assets |
| | MARKET | | <ul style="list-style-type: none"> • Market interest shift towards low-carbon economy • Changing capital providers trends • Shift in customer expectations |
| | REPUTATION & SOCIAL | | <ul style="list-style-type: none"> • Talent retention and attraction • Being perceived as advanced or laggard in climate change action / failure to comply with regulation |



“All MISC vessels and offshore assets are designed to withstand extreme weather.”



CLIMATE-RELATED FINANCIAL RISKS AND OPPORTUNITIES

In the following tables that follow, we identify climate-related risks and opportunities with potential impact to our business over short- (0-5 years), medium- (up to 2030), and long-term (2031-2050) time horizons, as well as our strategies to manage and mitigate each risk. Risks are categorised into two groups as outlined by the TCFD:

1. Physical risks created from a changing climate and
2. Transition risks, created by the world's transition to a low-carbon economy.

Physical Risks – Acute extreme weather

According to the IPCC, in a 4 °C world where carbon policy fails to mitigate global average temperature increases, the frequency and severity of acute events will be more drastic than today. In a 1.5 °C world, these changes will be felt to a lesser extent.

Impact to Business

Time horizon: Medium to Long Term



- Operational delays
- Personal injury and asset damage
- Cost of compliance



- Marine repairs
- Remote inspection
- Specialised port management services
- Supply chain collaboration

Risks:

1. Increased costs resulting from operational delays/ disruptions due to extreme weather.
2. Increased number of personal injury and asset damage cases due to extreme weather resulting in increased insurance premiums.
3. Reputational impact from failure to deliver projects on time (due to disruption of asset newbuilding yards/port operations and supply chain operational disruptions caused by extreme weather).
4. Increased compliance costs as extreme weather can lead to increased risk of spill or leaks leading to damages and potential litigation.

Opportunities:

1. Potential increased revenue for:
 - Marine & Heavy Engineering segment on marine repairs as vessels will require frequent maintenance/ad-hoc repairs to withstand the increasing intensity of extreme weather.
 - Port Management & Terminal Services segment on remote inspection and heightened need for specialised port management services.
2. Increased collaboration across the supply chain or research and development for our shipping, offshore and Marine & Heavy Engineering business segments on asset design initiatives to better withstand extreme weather events and climate-related risks.

Management Approach

All MISC vessels and offshore assets are designed to withstand extreme weather. All vessels also receive weather maps, satellite images, and other information as provided by National Oceanic and Atmospheric Administration (NOAA) and guidance from port authorities. These vessels are able to survive extreme weather and the information systems on board allows the crew to safely navigate during extreme weather events. MISC vessels are equipped with reliable and accurate sensors, as well as complete weather monitoring solutions to enable predictions based on the sea state, wind, and all other weather conditions vital to the safety and operation of the vessel.

MISC continuously works to improve the specifications of its newbuild vessels to address acute physical risks. In addition, stringent safety controls are applied to vessel navigation. A comprehensive set of procedures have been introduced that cover passage planning, vessel management in bad weather, navigational equipment maintenance, resources management and contingency plans for various vessel emergencies.

At Group level, Group Crisis Management Plan (GCMP) is in place to govern crises at the corporate level. All operational-level emergency plans have clear linkages to the GCMP. These plans are integrated into our business continuity management and disaster recovery planning to mitigate business risk.

Physical Risks – Chronic extreme weather

According to the IPCC, in a 4 °C world where carbon policy fails to mitigate global average temperature increases, there will be severe changes in overarching climate patterns, including an average rise in sea level of 11.81 inches by 2030 and a reduction in worldwide productivity and GDP growth. In a 1.5 °C world, we expect the increase in chronic impacts to occur over a much longer timescale and to be more limited.

Impact to Business

Time horizon: Medium to Long Term



- Increased property maintenance cost
- Operational delays



- Less dredging maintenance cost

Risks:

1. Increased cost of property maintenance/reinforcements and relocations due to erosion from sea level rise/tidal wave changes.
2. Customer port and terminal area will be impacted and may impact the need for port management services.
3. Delays in shipment due to disruption to trading routes, ports and related infrastructure due to submergence, coastal flooding and coastal erosion.

Opportunities:

Reduced cost of business from less maintenance dredging (levelling of seabed) services for our Marine & Heavy Engineering business segment.

Management Approach

Chronic physical risks, including increasing sea levels, may have impacts on our shipping operations, offshore floating facilities, marine repairs and heavy engineering yards. We understand that the conditions and severity of risks may change over time. Therefore, MISC continues to monitor these risk indicators and develop specific mitigation measures to ensure resilience of the business infrastructures.

MISC progressively steps-up preventive inspection and monitoring measures including dredging activities to reinforce our coastal operational areas and cater for any impacts due to rise in sea levels and tidal waves.

Stance on Arctic Routes:

The melting of the ice caps may open up more Northern Sea routes which is said to improve the shipping routes between the Arctic region and Asia. One of the key instruments when considering any proposal involving trade in the Arctic routes is compliance with the Polar Code. The chapters in the Code each set out goals and functional requirements to include (amongst others) prevention of oil pollution, prevention of pollution from noxious liquid substances from ships, prevention of pollution by sewage from ships and prevention of pollution by discharge of garbage from ships. There is the aspect of restricting emission of black carbon from shipping operating in the Arctic regions. The Marine Environment Protection Committee's meeting for its 77th session (MEPC 77) also adopted a resolution on voluntary use of cleaner fuels in the Arctic, to reduce black carbon emissions. In this regard, MISC's current business model does not involve trading in areas governed by the Polar Code.

MISC's current business model does not involve trading in areas governed by the Polar Code.

CLIMATE-RELATED FINANCIAL RISKS AND OPPORTUNITIES

Transition Risks –
Regulatory

Increasing carbon-related policies and legislations such as the Energy Efficiency Existing Index (EEXI) and Carbon Intensity Indicator (CII), European Union Emissions Trading System (EU ETS) and the FuelEU Maritime Regulation will continue to increase the cost of compliance.

Decarbonisation is now one of the most critical challenges for the maritime industry. Bearing in mind the multiple pathways and degree of uncertainty surrounding each pathway, industry players are taking the necessary steps to reach the goal for the reduction of GHG emissions from shipping by at least 50 percent by 2050. Shipyards, engine manufacturers and energy companies are upgrading their operations and technologies to meet future emerging legislations.

Impact to Business

Time horizon: Short to Medium Term



- Cost of compliance
- Carbon tax
- Decreased asset value

Risks:

1. Increase in compliance cost to cater for higher possibilities of leak and spillage which leads to subsequent higher clean-up or restoration cost.
2. Increased cost of compliance (e.g. newer technology) to meet growing stringent environmental and climate policies and regulations.
3. Higher operational costs due to potential carbon tax incurred and older vessels on conventional fuel.
4. Reduced potential for contract extension due to high carbon emissions/non-compliant for customers regulatory requirement (high cost of compliance for customer) resulting in decreased asset value and risk of stranded assets.



- Collaboration on low-carbon solutions
- Market increase in low to zero-carbon vessels, new inspections and training

Opportunities:

1. Increased opportunities for our shipping, offshore and Marine & Heavy Engineering business segments to collaborate on low-carbon solutions/new technologies with customers, resulting in cost sharing and potential full investments from customers.
2. New business for our shipping and offshore business segments by providing low to zero carbon assets.
3. New revenues for our Port Management & Maritime Services from provision of environmental-related inspections for future legislation for marine transport industry.
4. Increased revenue for Maritime Education & Training business on the ability to provide new or enhanced training syllabus due to new/GHG adaptation retrofits/new asset class vessels.

Management Approach

Regulatory and compliance risks associated with current or emerging regulations is a part of MISC's climate-related risk assessments. The compliance requirements and costs associated with relevant regulations in the countries and regions in which we operate are considered as part of our compliance programmes and processes to ensure compliance with the requirements.

We proactively keep abreast with maritime legislation and the unilateral decisions of maritime nations. MISC is guided by the IMO regulations, guidelines and strategy in addressing GHG emissions from international shipping.

IMO's MEPC has adopted an initial strategy to reduce GHG emissions from ships. The MEPC aims to reduce total annual GHG emissions by at least 50% by 2050 compared to 2008 while pursuing efforts to phase them out entirely.

The Energy Efficiency Design Index (EEDI) has been driving technical efficiency improvements in new ships since 2013. Incrementally tightened every five years, the EEDI is expected to stimulate continued innovation and the technical development of all the components influencing the energy efficiency of a ship from its design phase.

New and emerging climate-related regulations include:

- The EEXI, which comes into force on 1 January 2023, adopted by IMO, requires existing ships to improve their technical efficiency to a required energy efficiency standard. Vessels that do not meet the minimum design efficiency standard will require technical modifications to achieve compliance.
- The carbon intensity indicator (CII) scheme is IMO's new requirement to be enforced commencing 1 January 2023, which will rank ships on a scale of A (best) to E (worst) based on the ship's operational CO₂ intensity. Vessels rated D for three consecutive years or Rating E will be required to

carry out corrective action plans to reduce their CO₂ intensity to achieve Rating C. The plan must be documented in the Ship's Energy Efficiency Management Plan (SEEMP).

- New and innovative emission reduction mechanisms are being considered, possibly including market-based measures (MBMs), to incentivise GHG emissions reductions.
- The European Union Emissions Trading System (EU ETS) is expected to be fully extended to shipping in 2024 and will apply to ships over 5,000 gross tonnes performing voyages for the purpose of transporting cargo for commercial purposes, and arriving at, within, or departing from ports under the jurisdiction of an EU member state.
- The FuelEU Maritime Regulation is expected to apply to 5,000 GT vessels from 2025 and is aimed at increasing the use of low-carbon fuel by introducing limits to GHG intensity of energy used onboard ships that trade in EU waters.

MISC continually monitors compliance with existing regulations and any new or emerging regulatory developments as part of its risk assessment and assurance process via the following activities:

- Annual sharing sessions by industry experts and analysts to share insights on market outlook including any new or emerging regulatory developments.
- Participation in maritime industry forums to exchange ideas and keep abreast of developments in climate-related legislations.
- Engagement with various stakeholders including but not limited to regulatory bodies, classification societies, flag states, marine departments of the various countries and customers.
- Conduct internal assurance activity relating to Regulations and Law (R&L), where we undertake the self-assessment of our compliance level on both existing and emerging regulations including twice yearly attestation by the relevant businesses on compliance towards relevant R&L.
- Carry out detailed studies on technological options and CAPEX allocations are then planned out to ensure compliance with current and emerging legislation.

Transition Risks –
Technological

Global climate policies and commitments have accelerated the development of new technologies on low-carbon solutions. Keeping updated with new technologies requires resources to conduct research and development including training for the right expertise and skills required to manage new low-carbon technologies.

Impact to Business

Time horizon: Short to Medium Term



- Increase in CAPEX/OPEX
- Pilot cost in new technologies
- Cost of reskilling

Risks:

1. Increased CAPEX and OPEX on implementation of new low-carbon solutions.
2. Investment cost in research and development offering products and technologies aimed at reducing carbon emissions.
3. Increased cost of reskilling existing talents and employing more talent to manage new low-carbon technologies.
4. Risk of technological uncertainty – technologies may not perform as expected nor provide solutions to meet emerging regulations.
5. Autonomous (including digitalisation) of port management may reduce the market need for seafarers and port management services.



- Energy cost savings
- Collaboration on low-carbon solutions
- New shore to sea services/ floating assets and training

Opportunities:

1. Annual cost savings from reduced cost of fuel and electricity consumption.
2. Increased opportunities to collaborate on low-carbon solutions with customers, resulting in cost sharing or potential full investments from customers.
3. Take a market-leading position in adopting new low-carbon technology.
4. New revenue from
 - Enhanced technologically innovative services for shore to sea services for Port Management & Maritime Services.
 - New offshore floating renewables (offshore wind industry) due to expertise in floating assets by our Offshore Business segment.
 - Increased opportunity for our Maritime Education & Training business segment, to provide niche and structured training opportunities required in managing new vessel classes.

Management Approach

We have been improving the technological design of our vessels in terms of energy efficiency to meet the expectations of our stakeholders. Initiatives have been undertaken for our newbuilds and retrofitting existing vessels with green technologies include energy efficiency measures and emissions reduction system. For example, since 2019 we have introduced the dual-fuel system into our newer petroleum vessels.

As members of the Getting to Zero Coalition, we share its ambition of getting commercially viable deep-sea zero-carbon emission vessels powered by zero-emission fuels into operation by 2030. MISC has partnered with strategic players

on The Castor Initiative. This joint development project is aimed at developing commercially viable ammonia-fuelled tankers to support a decarbonised future for the shipping industry.

MISC's Petroleum and Product business segment is also exploring GHG abatement technologies to reduce methane emissions from LNG fuelled vessels and carbon capture technologies for retrofitting its existing fleet. At MISC Group level, incubation workgroups are formed to review GHG abatement technologies that are suitable for adoption on MISC vessels.

MISC has partnered with strategic players on The Castor Initiative aimed at developing commercially viable ammonia-fuelled tankers to support a decarbonised future for the shipping industry.



Transition Risks – Market

Shift in customer expectations towards a low-carbon economy resulting in energy transition to alternative fuels/renewable energy will most likely reduce the global need for fossil fuels. This may impact market size requirements for oil and gas tankers, offshore assets and the need for heavy engineering fabrication works. In addition, changing capital provider trends towards net-zero and sustainable investments, will reduce capital availability for fossil fuel related projects.

Impact to Business

Time horizon: Medium to Long Term



- Market resizing due to energy transition
- Increased cost of borrowings

Risks:

1. Increased adoption of renewable energy may impact demand for fossil fuels, thus reducing market need for current oil and gas related services.
2. Risk of investors avoiding exposure to oil and gas related businesses.
3. Increased cost of borrowing and reduced capital availability as financial institutions are more reluctant to act as intermediaries.
4. Insurance companies may be reconsidering their underwriting policies based on their climate risk policies.



- Low carbon solution services from new income streams

Opportunities:

1. Increased revenue through:
 - Ability to venture into full EPCIC with our internal competency and engineering capability in low-carbon technologies and collaboration with low-carbon solution providers.
 - Ability to offer modifications/retrofits/conversions on vessels and assets to reduce GHG emissions.
 - New business opportunities within the renewables segment (e.g. offshore wind farm projects).
 - Tapping into new gas market areas (e.g. liquid CO₂ carrier in supporting the carbon capture, utilisation and storage (CCUS) initiative).
 - Potential revenue stream from the option for minimum manning on Floating Storage Unit facilities which enhance safety and reduce cost in the long run.
2. Reduced cost of borrowings with increased chances for preferential rate (sustainability linked loans /green financing) from capital providers as an early mover on low-carbon technology.

Management Approach

MISC is gearing up to cater to customers' preferences for low-carbon solutions. Since 2019, our Petroleum fleet (AET) has been progressively introducing LNG dual-fuel vessels and as of 2022, we have a total of 11 dual-fuel engines vessels (with 3 under construction). In 2021, AET partnered with Daphne Technologies to pilot the use of GHG abatement technology to reduce methane slips from our LNG dual-fuel vessels.

The Castor Initiative aims to develop zero-carbon emission vessels (ZEV) to address the shift towards a low-carbon economy. MISC expects to progressively change its fleet to ZEV latest by 2030 as part of its Net-Zero GHG Emissions commitment by 2050. We have an MOU with a charterer to deliver our initial 2 units of ammonia fuelled zero-carbon emission Aframax vessels by 2025 and 2026.

In addition, some of the low-carbon technologies installed on our offshore assets recently include the Flare Gas Recovery System, Combined-Cycle Power System, Condensate Recovery System and Variable Speed Drive.

In addressing the market risks on the potential market resizing of oil and gas business opportunities towards renewable energy typed opportunities, our shipping and offshore business

segments are exploring new gas-related cargo carriers and alternative energy offshore assets to serve new energy transition market areas.

Our MISC 2050 business strategy enables MISC to explore innovative ideas that will produce assets and services to support the value chain of the following two pillars of growth:

- Renewable Energy.
- Waste-to-Value.

Being the connectors to bridge the land-based economy with the emerging ocean economy, our existing business can support our future new pillars of growth as follows:

- Marine & Heavy Engineering business segment is well positioned to construct sea-worthy assets that can support the ocean economy.
- Our offshore and shipping business segments have vast experience on operating and leasing large-scale assets that float on the seas.
- MISC shipping businesses provide specialised services that transport energy (molecules) across the globe to meet the demands of energy producers, energy importers and traders.
- Our existing marine-related business engineering and operating expertise will be our fundamental strengths as we explore possibilities in the emerging ocean economy.



Transition Risks – Reputation and Social

Being perceived as either advanced or a laggard on climate change action could impact our reputation with customers and may impact talent retention and attraction.

Impact to Business

Time horizon: Short to Long Term



- Brand equity to attract customers and talents

Risks:

1. Poor climate performance may reduce MISC's brand equity, which may result in:
 - Being less competitive and attractive to customers and capital providers.
 - Difficulty to attract and retain talent as the newer generation may not wish to be associated with oil and gas related businesses.



- Investments in low-carbon technologies
- Stewardship position in decarbonisation

Opportunities:

1. Investments in low-carbon technologies and GHG performance may lead to inspiring better trust in the company and reputation benefits.
2. Taking a stewardship position and driving advancements in decarbonisation technology will attract and retain talents.

Management Approach

MISC operates in maritime and energy-related industries, both of which are highly scrutinised by stakeholders in terms of transparency on their environmental stewardship efforts.

MISC introduced several measures and initiatives to address reputational risks including:

- Setting GHG emissions intensity reduction goals;
- Committing to Net-Zero GHG emissions by 2050; and
- Communicating sustainability efforts and achievements to internal and external stakeholders.

MISC has a shared responsibility to demonstrate its commitment to driving positive decarbonisation efforts within the shipping industry and locally through our:

- Role as a strategic partner of the Global Maritime Forum;
- Signatory to Getting to Zero Coalition since 2019; and
- Corporate Friends of Climate Governance Malaysia.

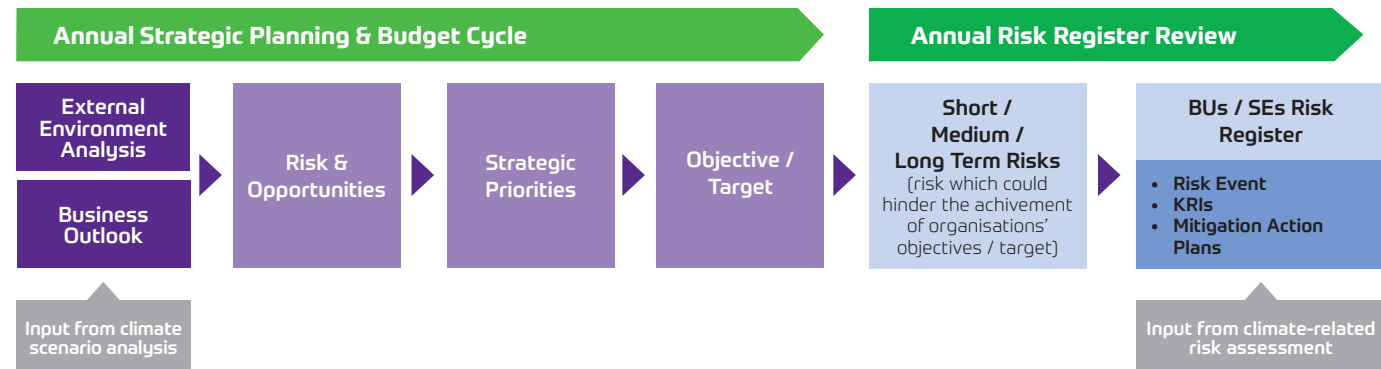
Our progress in addressing climate-related challenges will enhance our reputation, increase trust and strengthen our position as a leading global industry player in contributing towards climate action.

At MISC, we understand that advancement in green technology will require new skillsets and talent. Plans are in place to reskill resources and align with new business partners on new low- or zero-carbon technologies which will reposition MISC's stewardship position in driving advancements in decarbonisation technology.

“Our progress in addressing climate-related challenges will enhance our reputation, increase trust and strengthen our position as a leading global industry player in contributing towards climate action.”

RISK MANAGEMENT

MISC Group evaluates climate risk as part of its strategy and business planning process and Enterprise Risk Management (ERM) framework. Project Risk Assessment (PRA) is conducted to identify risks before starting a new capital-intensive project. The PRA enables the business to identify and implement appropriate controls to mitigate the project risks.



STRATEGIC RISK

In identifying our strategic climate risks, we consider the following factors:

- The external environment analysis which includes considering the impact of climate-related scenarios on our business outlook; and
- Existing and emerging regulatory requirements related to climate change.

Material risks and opportunities will be translated into strategic priorities as part of our five-year rolling business plan. A risk or opportunity is deemed material if has a high chance of occurrence and has substantial financial impact on MISC objectives.

INVESTMENT DECISIONS

Climate-related risks and opportunities are considered in project risk assessments and project economics, which are reflected in Management and Board Final Investment Decision (FID) papers. MISC prioritises risks and opportunities, including those related to climate challenges by assessing the severity of the potential impacts of the risk and the scale of the opportunities.

As part of MISC's investment decisions, the following considerations are undertaken to estimate the potential size and scope of identified climate-related risks of carbon emissions of new assets before proposing options to mitigate, transfer, accept, or control those risks:

- Existing and emerging regulatory requirements related to climate change including applicable external carbon prices;
- Potential low-carbon technologies to improve the emission, efficiency, and performance of the asset (including sensitivity assessment using internal carbon pricing – shadow price comparisons); and
- Total greenhouse gas and intensity rates of the new asset and alignment with MISC's climate commitments.

ENTERPRISE RISK MANAGEMENT (ERM)

Risk management activities are undertaken at service/ business units/subsidiary levels across the Group. Risk reports are reviewed and monitored by the Corporate Planning division quarterly before being escalated to the Risk Management Committee and deliberation by the BSRC and subsequently reported to MISC Board. As part of MISC's ERM process, service /business units and subsidiaries are required to perform an annual review of their risk profiles, with emphasis on linking risks to MISC's business objectives, which includes climate-related risks, its impact and mitigation plans.

MISC adopts the PETRONAS Resiliency Model (PRM), which provides an integrated view for managing risks. It is also guided by international best practice on risk management as per ISO 31000 and the Malaysian Code of Corporate Governance (MCCG) 2021.

SCENARIO ANALYSIS

The impact of several pathways and assumptions on MISC's business was modelled using two GHG scenarios — a Low GHG and a High GHG Scenario in 2100, taking a snapshot of the pathway in 2050:

- A low emissions scenario in accordance with limiting global temperature rise to 1.5 °C; and
- A high emissions scenario where temperatures rises 4 °C from pre-industrial levels.

The scenario modelling assumptions were sourced from:

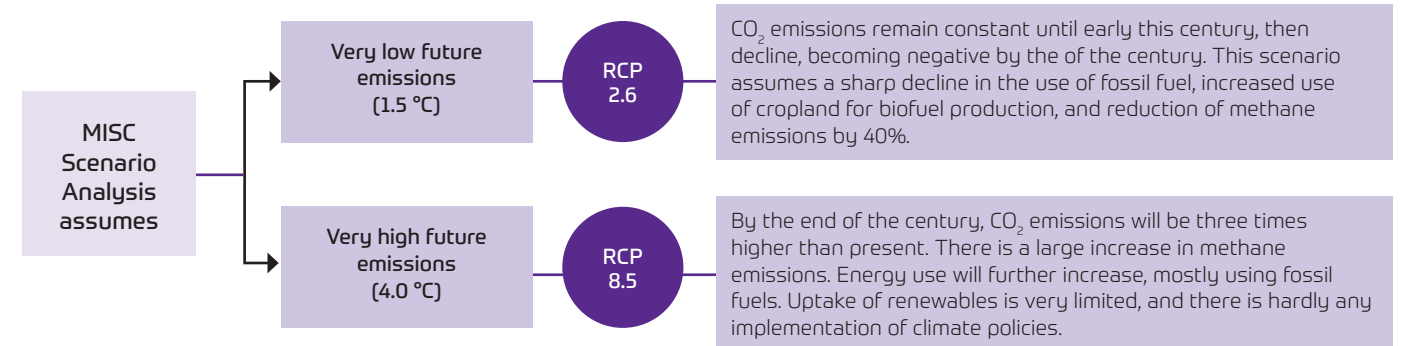
- Intergovernmental Panel on Climate Change (IPCC);
- Representative Concentration Pathways (RCP 2.6 and RCP 8.5);
- Shared Socioeconomic Pathways (SSP);
- International Energy Agency (IEA); and
- The International Renewable Energy Agency (IRENA).

RCP Scenario – Scenario Definition

| | |
|---|--|
| Representative Concentration Pathways (RCP) Scenario | A set of scenarios created by the IPCC assuming the different outcomes of climate change depending on the performance of greenhouse gas emissions policies. It refers to the degree of influence force that changes the energy balance of greenhouse gases, etc. |
|---|--|

RCP Scenario – Projection Per Scenario

| MISC Scenario Analysis (°C) | Scenario | CO ₂ concentration in 2100 | Projection of temperature rise from 2081 to 2100 | | Projection of sea-level rise from 2081 to 2100 | |
|-----------------------------|----------|---------------------------------------|--|------------|--|------------|
| | | | Average | Range | Average | Range |
| 1.5 | RCP 2.6 | 421ppm | 1.6 °C | 0.9~2.3 °C | 0.49m | 0.35~0.69m |
| 4.0 | RCP 8.5 | 936ppm | 4.3 °C | 3.2~5.4 °C | 0.89m | 0.54~1.13m |



To understand and connect the political, business and social responses to climate change and associated global carbon budgets, emissions pathways and the expected physical climate-related impacts, the climate analysis and scenarios were derived based on the following driving forces:

| Driving Forces | Low Emissions Scenario (In line with a 1.5 °C world) | High Emissions Scenario (In line with a 4.0 °C world) |
|--------------------------------|--|--|
| ENVIRONMENTAL | <ul style="list-style-type: none"> • Sea level rise already occurring • Changes in sea wave patterns • Extreme weather effects on infrastructure and communities | <ul style="list-style-type: none"> • Sea level rise worsening • Greater risks in absence of mitigation measures • Unpredictable sea wave patterns • Greater frequency and impacts of extreme weather |
| POLITICAL & LEGAL | <ul style="list-style-type: none"> • International collaboration • Policies to support 'Net-Zero' transition • Government incentives and collaboration on: <ul style="list-style-type: none"> - Carbon pricing - GHG legal frameworks and acts - Industry environmental standards | <ul style="list-style-type: none"> • Carbon pricing not broadly adopted or at a lower price • Large differences across regions and countries on environmental standards and requirements |
| TECHNOLOGICAL | <ul style="list-style-type: none"> • Renewable and carbon-neutral fuel developments • Collaborations and investments increasing on CCUS technologies and cross-sector CCUS adoption | <ul style="list-style-type: none"> • Process efficiency focus and slower shift towards best performing technologies • Lack of collaboration • Increased costs of energy transition • Lack of funding to deploy CCUS on a large scale |
| ECONOMIC | <ul style="list-style-type: none"> • GDP growth: between 1.5%-2.5% annually • Rapid transformation towards renewables and as a large part of energy systems • National energy transition plans in place | <ul style="list-style-type: none"> • GDP growth: between 1.3% - 2.3% annually • Slower transformation towards renewables |
| REPUTATION & SOCIAL | <ul style="list-style-type: none"> • Stakeholder pressure for climate risk management • Trends in working age populations and customers concerned on company ESG performance | <ul style="list-style-type: none"> • Increased pressure and urgency placed on companies for action • Heightened working age populations and customers concerned on company ESG performance |

Outcome of MISC Group Climate Scenario Analysis

| Risk Category | Element | Potential Risks and Opportunities | Low Emissions Scenario (1.5 °C) | High Emissions Scenario (4.0 °C) |
|---------------|---------------------------------|--|--|--|
| Physical | Acute | Extreme weather (acute) | Minimal impact as assets today is built to withstand certain extreme weather conditions | Increased OPEX to maintain and reinforce assets due to extreme heightened weather conditions |
| | Chronic | Sea level rise (chronic) | Increased cost of property maintenance/reinforcements and relocations due to erosion from sea level rise/tidal wave changes | Increased OPEX to relocate or implement adaptation measures for operations at coastal locations |
| Transition | Regulatory | Increasing environmental/carbon regulations | Escalating compliance cost due to increasingly heightened carbon regulations - capital expenditure (CAPEX) and operational cost (OPEX) | Increased compliance cost due to moderately increasing carbon regulation - CAPEX and OPEX |
| | Technological | Development of new low-carbon solutions technologies | Increased investment cost in low-carbon technologies | Increased investment cost in low-carbon technologies |
| | | Training for the right expertise and skills | Increased talent development cost (OPEX) | Increased talent development cost (OPEX) |
| | Market | Shift in customer and market expectations towards low-carbon economy | Reduced market demand for petroleum production, storage and transportation assets and logistics services | Moderate reduction in market demand for petroleum production, storage and transportation assets and logistics services |
| | | Changing capital providers trends | Lack of funding/Increased interest rates for conventional marine fuelled assets | Increased interest rates for conventional marine fuelled assets |
| | Reputation & Social | Being perceived as advanced/laggard in climate change | Increased OPEX to attract and retain talents | Moderate increased OPEX to attract and retain talents |
| | Talent retention and attraction | | | |

LOW Insignificant to minor to impact to MISC's current business objectives **MEDIUM** Moderate impact to MISC's current business objectives **HIGH** Major impact to MISC's current business objectives

1.5 °C SCENARIO

This scenario correlates and is aligned with the Paris Agreement to keep average global warming well below 2 °C and continue all efforts to limit the rise in temperatures to below 1.5 °C. In this scenario, global governments are collaborating on carbon regulations and policies. There is higher gross domestic product (GDP) growth and a significant transition to renewables with continued growth in energy demand. Increased interest and demands are made from various stakeholder groups regarding climate change. Extensive research and development on alternative energy, renewables, carbon removal and rapid technological improvements on emissions reductions exist. There is a continued adoption and awareness of changing environmental regulations on carbon pricing and other legal frameworks, supported by climate action across industries.



- Reduced market demand for petroleum production, storage and transportation



- Repurpose assets as alternative fuel floating storage
- Short-medium term demand for LNG vessels

CLIMATE RISKS

Increasing environmental/carbon policies and legislation driving towards a rapid energy transition to renewables, cleaner and/or non-fossil fuelled energy sources may impact our shipping and offshore business segments resulting in reduced market demand for petroleum production, storage and transportation assets and logistics services. As a result, it is expected that there will be increased compliance costs in the form of increased CAPEX and operational costs for future and existing assets. Stringent environmental regulations may cause assets to be sold prematurely if they cannot be climate-proofed without considerable investment. However, these decommissioned assets open up other opportunities for repurposing these assets as floating storage for the alternative green fuel market and other circular economy opportunities in the future ocean economy.

CLIMATE OPPORTUNITIES

MISC's Gas Assets & Solution (GAS) business segment is expected to continue to have short- to medium-term transition opportunities due to strong demand and market growth for cleaner sources of energy; and relatively reduced carbon tax for clean fuel such as LNG. Beyond the medium-term horizon, LNG as a transition fuel may still see growth especially with emerging advanced technological improvements to reduce methane slip emissions from LNG and incentives by government policies to adopt cleaner energy as transition fuels prior to full adoption of renewables and other zero-carbon energy fuels. Our shipping business segment, Gas Assets & Solutions and Petroleum & Product Shipping, can benefit from increased revenue from new vessels and asset classes that can cater for market demand to meet growing stringent environmental and low-carbon related legislation. These new business segment and low-carbon services can allow MISC to enter new markets as an

alternative energy transporter such as an alternative fuel transporter or stored renewable energy.

An increased global carbon tax may increase MISC's cost of operation in the short term. In the longer term, it will also promote investments in the carbon capture and storage (CCS) market and low-carbon or more efficient GHG abatement technologies. Our Shipping and Offshore Business segments have an opportunity to collaborate with supply chain partners and customers to improve the GHG performance of assets in the medium- to long-term.

We expect that our market reputation will improve as business partners recognise us as a low-carbon solution provider contributing to net-zero and the circular economy. Seizing opportunities to take leadership positions in the market will increase competitiveness and opportunities for new contracts. These opportunities may increase revenue and help attract and retain talents within the organisation. In this scenario, collaboration across the value chain and the advancement of technology to build zero-carbon emission vessels with high energy efficiency and optimised resource utilisation will enable increased cost-sharing for retrofitting and investment plans. Sustainable annual cost savings from lower energy consumption may also compensate for higher research and development and CAPEX allocation.

The Marine & Heavy Engineering business segment is expected to seize business opportunities and increase revenue by offering modifications, retrofits and conversions to vessels and floaters, as they race to comply with stringent future climate legislation. Opportunities for the Marine & Heavy Engineering business segment would include the provision of fabrication services to incorporate CCS onto oil and gas offshore assets and for renewable energy assets.

We expect that our market reputation will improve as business partners recognise us as a low-carbon solution provider contributing to net-zero and the circular economy.

CLIMATE-RELATED FINANCIAL RISKS AND OPPORTUNITIES

4 °C SCENARIO

Global climate action institutions are fragmented with most countries not supporting the transition to net-zero. Increased competition for scarce resources drives inequality and lower growth for renewables. There is lack of concerted action and hence technological progress towards effective solutions is delayed. New technologies to reduce GHG and slow down the effects of climate change are adopted at a slower pace. There is also lack of information surrounding future risks with carbon prices increasing less rapidly and unclear legal frameworks. Sea level rise worsens with unpredictable sea wave patterns and greater frequency of extreme weather.



- Operational delays
- Personal injury and asset damage
- Cost of compliance



- Rapid development in vessel design
- Existing business growth

CLIMATE RISKS

In this scenario, increased maintenance costs and CAPEX can be expected. Vessels and offshore assets require more frequent maintenance to withstand increasing extreme weather. Additional CAPEX may be required to reinforce the building sites and fabrication yard infrastructure of our Marine & Heavy Engineering and Maritime Education & Training business segments. Our shipping and non-shipping segments may experience reduced revenue due to delays and disruptions to operations and reparations.

Decreased transportation routes or sudden route changes due to extreme weather events may further increase operating costs. There could also be increased exposure to liability from personnel injuries and asset damage caused by increasing storm surges, changes in precipitation, and greater intensity and frequency of typhoon/cyclone events.

CLIMATE OPPORTUNITIES

Weatherproofing and protecting this infrastructure from floods will help them withstand strong waves from rising sea levels. However, we believe this scenario will result in the rapid development of better vessel designs that can withstand extreme climates. Our Marine & Heavy Engineering segment could offer modifications, retrofits or conversions on vessels and offshore structures to deal with or withstand extreme weather more effectively. As the energy transition to alternative or renewable energy will be much slower, the oil and gas industry will continue to grow to meet increasing global demand for energy. Hence, our Offshore Business and Petroleum & Product Shipping segments will see a continuation of growth opportunities.

CLIMATE STRATEGY

MISC Group's climate strategy is divided into two time horizons to decarbonise existing business and mitigate our long-term financial impacts by positioning ourselves competitively in the net-zero economy:

- A transition plan for short and medium-term risks; and
- A long-term climate strategy

LOW-CARBON TRANSITION PLAN (SHORT TO MEDIUM TERM, UP TO 2030)

During this transition period, each business segment has developed a decarbonisation plan to contribute to MISC Group's Net-Zero GHG emissions commitment by integrating climate factors across MISC's business strategy and financial planning (including usage of internal carbon pricing) and deploying low-carbon technologies for our newbuilds.

Our transition decarbonisation plans include to:

- Progressively decommission our older fleet and progressively replace these with dual-fuel vessels that possess low methane slip engines and add on methane and nitrous oxide scrubbing technologies;
- Increase the use of renewable energy on our assets;
- Explore and invest in low-carbon technologies on zero-carbon emission vessels - The Castor Initiative where we are collaborating with strategic value-chain partners to develop ammonia-fuelled vessels for deep-sea transportation;
- Explore and build strategic partnerships with key technology providers of carbon removal technologies for assets both in the shipping and non-shipping business segments;
- Explore new business along the value chain of Renewable Energy and Waste-to-Value, leveraging our floating ocean asset business knowledge; and
- Continuously improve the technical and operational efficiency of existing ships.

- Fleet renewal to dual-fuel vessels
- Renewable energy
- Explore low-carbon technologies & zero-carbon emission vessels
- Partnership with CCS technology providers
- New business - renewable energy and waste-to-value
- Technical and operational efficiency

MISC's GHG INTENSITY TARGET 2030

MISC's interim milestone target to reduce 50% of our shipping fleet's GHG intensity by 2030, compared with the base year of 2008, positions the Group to meet IMO 2030 and GHG related regulations.

Between now and 2030, so as to lower our GHG intensity, we are working on various initiatives to improve both the technical and operational efficiency of our ships to make them more efficient, transforming our fleet to high efficiency dual-fuel newbuilds and exploring advanced GHG adaptation technologies to minimise methane slip.

HIGH EFFICIENCY DUAL-FUEL NEWBUILDS

Our LNG dual-fuel VLCCs are among the world's most environmentally friendly vessels in the shipping industry. Our latest LNG dual-fuel VLCCs are fitted with advanced technologies, including an M-type, electronically controlled, gas-injection (MEGI) engine, which will reduce methane emissions when compared to low pressure engines. All our dual-fuel vessels can achieve 99% reduction in sulphur oxide (SOx) emission, 85% reduction in nitrogen oxides (NOx), 95% less particulate matter (PM) and up to 30% less CO₂ on gas mode by design when compared to marine gas oil. The vessels also feature a hybrid vertical bow that lowers hull resistance, improves fuel efficiency and reduces ship vibrations.

Our dual-fuel DPSTs are also fitted with volatile organic compound (VOC) recovery systems. These captured VOCs are reused as a supplementary fuel which, in combination with a more efficient system for dynamic positioning and a range of power and automation solutions, saves roughly up to 4,000 tonnes of fuel per year per vessel compared with conventional DPSTs of the same size, delivering significant cost savings, alongside substantial emissions savings.

Our latest LNG carriers will be equipped with eco efficient technologies such as X-DF 2.1 engines with Intelligent Control by Exhaust Recycling (iCER) System and Air Lubrication System, which will contribute to the reduction of GHG emissions.



TECHNOLOGICAL AND OPERATIONAL EFFICIENCY

We have implemented/installed the following on our vessels to increase fuel efficiency and reduce energy consumption:

- Propeller Boss Cap Fin which eliminates vortex from the centre of the streamflow, increases ship speeds and lowers fuel consumption;
- Advanced Anti-Fouling Paint - Coated with tributyltin-free (TBT-free) to minimise the release of harmful biocides into the marine environment; and
- Ecoshield Rudder Paint - Assist in reducing cavitation damage to vessels.

Our GAS and petroleum fleet have been certified with the ISO 50001 energy management standard, which provides a continuous improvement framework to improve the energy efficiency of our shipping operations.

RESPONSIBLE SUPPLY CHAIN

MISC Group has committed to Net-Zero Greenhouse Gas Emissions by 2050. Part of this commitment includes Scope 3 - value chain emission reductions. We have developed our inventory for Scope 3 emissions to understand the materiality and manage the risks and opportunities associated with emissions from MISC's value chain. We will monitor our material Scope 3 emissions and look into Scope 3 reduction emissions in the near future.

As part of our Responsible Supply Chain Strategic Initiative, we are committed to drive sustainable practices with our suppliers. Our aim is to look for collaboration/business partners opportunities on low-carbon solutions as we move towards decarbonisation of our operations and promote Circular Economy across our value chain.

THE CASTOR INITIATIVE - ZERO CARBON EMISSIONS VESSEL

To achieve our 2030 – 2050 milestone, we understand that this is not something that MISC can realise alone. We need to work alongside with value chain partners across the maritime industry in The Castor Initiative, where we are committed to develop a commercially viable ammonia fuelled zero carbon emissions vessel before 2030.

In 2022, Lloyd's Register, Samsung Heavy Industries (SHI) and MISC via its subsidiary, AET, signed a Memorandum of Understanding (MOU) for the development and construction of two very large crude carriers (VLCC) which can be operated on zero-emission fuel. The three companies, all founding members of The Castor Initiative, are taking the lead to encourage the use of green ammonia as propulsion fuel, with the first of these dual-fuel tankers entering into service in late 2025 and the second in early 2026.

CLIMATE-RELATED FINANCIAL RISKS AND OPPORTUNITIES

OFFSHORE FLOATING ASSETS LOW-CARBON SOLUTIONS

New technologies are explored regularly and installed on our offshore assets if feasible to improve energy efficiency and reduce or capture carbon emissions. Some of the technologies installed on our offshore assets are Flare Gas Recovery System, Combined-Cycle Power System, Condensate Recovery System and Variable Speed Drive.

Our Offshore Business Unit will submit bids for Exploration & Production (E&P) projects which contributes to lower carbon foot print and new asset solutions for the “Clean Energy transition” opportunities.

MARINE & HEAVY ENGINEERING (MHB)

Our Marine & Heavy Engineering has transition plans to increase the use of more renewable energy and electrification of the yard’s activities.

MHB has capabilities to conduct a full EPCIC with our internal competency and engineering capability in low-carbon technologies and collaboration with low-carbon solution providers to offer modifications/retrofits/conversions on vessels and assets to reduce GHG emissions.

TALENT UPSKILLING

Apart from improving the decarbonisation technology within the services we offer, we pay close attention to upskilling our people on the upcoming new technologies and the importance of reducing climate impacts and all related ESG issues.

LONG-TERM PLAN (2031-2050)

NET-ZERO GHG EMISSIONS COMMITMENT

MISC Group is committed to Net-Zero GHG emissions by 2050. This commitment covers our own operations and those impacted across our value chain. As part of our long-term plans to stay resilient to climate change, MISC’s existing business model would continue to evolve in the following two dimensions:

Decarbonisation of our existing operations to meet the growing demands of the market for the sustained growth of our existing portfolio, which includes:

- Progressively converting our fleet and ensuring all newbuilds are zero-carbon emission vessels from 2031 or sooner if possible;
- Retrofitting carbon removal technologies on recent assets (ie. vessels with remaining lifespan of 15 years);
- Increasing the use of renewable energy on our vessels, offshore assets and land operations; and
- Continuously deploying digital energy-efficient technologies and increasing operational efficiencies.

In parallel we will be exploring new business income streams in line with MISC 2050 vision that can support the value chains of Renewable Energy and Waste-to-Value pillars

INTEGRATED MARINE SERVICES (EAGLESTAR)

Our Integrated Marine Services business segment is undergoing transition plans to improve skills and capabilities of seafarers in adapting new technology related to low-carbon solutions. With this newly acquired technological skillsets, Eaglestar will have the ability to serve beyond maritime industry and diversify into other industrial usage.

With our advantage in industrial engineering experience and skills in ship management, Eaglestar is exploring plans to develop own pool of experts on new green technology and serve beyond maritime industry and diversify into other industrial usage.

PORT MANAGEMENT & MARITIME SERVICES (MMS)

As part of transition plan for our Port Management & Maritime Services, we are exploring the following:

- Usage of low to zero carbon tugboats;
- Provision of enhanced technologically innovative services for shore to sea services of our Smart Port Management System; and
- Provision of low-carbon remote inspection services for new alternative fuel cargo vessels.

DECARBONISATION OF EXISTING OPERATIONS

As the ZEVs gain commercial viability, MISC will embark on progressive fleet conversion to these ZEVs latest by 2030.

While we progressively increase our ZEV fleet after 2030, we take cognisance of the GHG emitted from our existing fleet. Therefore we are considering the need to upgrade our existing fleet with the using CCS technology to safely capture and store away excess carbon. However this is subject to the advancement and maturity level of the technology, regulations and supply chain for CSS to become a viable option for international shipping.

As our upcoming offshore assets are going to be equipped with more GHG reduction technologies, we expect to see reductions in our scope 3 emissions after 2030. We have plans to engage with our supply chain on the reduction of their GHG emissions which will result in our overall scope 3 decreasing in the coming years.

RESIDUAL EMISSIONS

MISC recognises that we will still need to address residual emissions that cannot be abated. Therefore, we are exploring nature-based offset solutions that can bring our total GHG towards a net-zero state by 2050.

NEW INCOME STREAMS - MISC 2050

As we move towards 2050, the world will progressively undergo energy transition into renewable and alternative energy sources to mitigate climate change. The development of new business opportunities or income streams into our present portfolio mix is a crucial step to ensure that the Group continues to remain resilient and relevant.

We believe we can actively remain relevant by explore the opportunities to be part of two distinct value chains:

- Renewable Value Chain
- Waste-to-Value chain

Together, both the growth of our existing business portfolios and the new MISC 2050 business ventures will reshape a new MISC Group business model that will provide financial sustainability for MISC in the years leading up to 2050.

TASK FORCE ON CCUS

Identified as one of the credible and viable ways to reduce carbon footprints towards achieving a net-zero GHG emissions energy ecosystem, CCUS has enormous potential that can be explored and developed to support decarbonisation efforts across various industries globally.

The task force pooled the knowledge and expertise across the Group to create a team that is tactically focused, strategically integrated, and ready to face the transition ahead. The team comprises representatives from Gas Assets & Solutions, Offshore Business, Petroleum & Product Shipping, Integrated Marine Services, Marine & Heavy Engineering and Port & Terminal Services business segment who will be responsible for facilitating collaboration and unlocking the value to drive MISC Group’s CCUS initiative.

In 2022, MISC took the first step of our MISC 2050 journey, in which we set up a task force which undertook the evaluation of innovative solutions in the area of Carbon Capture, Utilisation and Storage, also known as CCUS.

Recently in January 2023, MISC has signed respective Memorandum of Understandings (MOU) with Mitsui & Co., Ltd., Samsung Heavy Industries (SHI) and ANDRITZ AG (ANDRITZ) to explore opportunities on carbon capture and storage (CCS) solutions in the maritime value chain which include identifying storage hubs, development of floating solutions and carbon capture parts and equipment.

METRICS & TARGETS

MISC Group’s key metrics used to measure and manage climate-related risks and opportunities include:

- GHG intensity performance (in annual emissions ratio in unit of gCO₂e/ton. nm) for historical periods and 2050 projection;
- Total GHG: Scope 1, 2 and 3;
- Internal carbon price;
- Revenue from low-carbon services;
- Operating expenditure on low-carbon or energy reduction; and
- Energy consumption.

Refer to the Performance Data section for our climate-related key performance metrics and Our Decarbonisation Pathway section for Total GHG Projection 2050.

Methodologies used to calculate or estimate climate-related metrics are included in the Reporting Principles & Data Assumptions section.

GREENHOUSE GAS TARGET & COMMITMENT

| Interim Milestone Target | 50% GHG intensity reduction by 2030 |
|--------------------------|--|
| Scope (Boundary) | <ul style="list-style-type: none"> • Gas and petroleum shipping fleet which falls within MISC’s GHG Organisational Boundary (Financial Control) • Ships not subjected to the requirements of Regulations 21 and 25 of MARPOL Annex VI are excluded |
| Base Year | 2008 |
| Target Type | CO ₂ e intensity |
| Measurement Metric | AERCO ₂ e (gCO ₂ e/t-nm) |
| Scope Boundary | All greenhouse gases (GHG); <ul style="list-style-type: none"> • Carbon Dioxide (CO₂) • Methane (CH₄) • Nitrous Oxide (N₂O) |

CLIMATE-RELATED FINANCIAL RISKS AND OPPORTUNITIES

| Long-Term Commitment | Net-Zero Greenhouse Gas Emissions by 2050 | |
|----------------------|---|--|
| Scope (Boundary) | All greenhouse gases (GHG); <ul style="list-style-type: none"> • Carbon Dioxide (CO₂) • Methane (CH₄) • Nitrous Oxide (N₂O) | MISC Group of Companies' Value Chain: <ul style="list-style-type: none"> • MISC operations (Scope 1 & 2) • Material upstream and downstream operations to MISC (Scope 3) |
| Measurement Metric | AERCO ₂ e (gCO ₂ e/t-nm) | |

Refer to Reporting Principles & Data Assumptions section for details on calculation methodologies.

CLIMATE-RELATED REMUNERATION

In 2022, MISC included climate-related strategic initiatives and annual GHG emission intensity targets as part of ESG-related key performance indicators (KPI) into the 2022 Group Balance Scorecard. Related business units and subsidiaries that have direct control over carbon management or tasked to implement climate-related risks and opportunities including attainment of targets are rewarded through work performance for their contribution to the improvement of the company's carbon and energy performance.

MISC's Nomination and Remuneration Committee (NRC) reviews ESG-related performance of senior management's scorecard and remuneration. The NRC also conducts performance appraisals on the Company and President/Group CEO, covering the elements of financial, strategic initiatives, operations, HSSE and people development. The NRC makes appropriate recommendations to the Board to approve, based on the Company's performance against the balanced scorecard.

In addition, our MISC 2022 Board KPI included the need to consider sustainability risks and opportunities in decision-making processes.

INTERNAL CARBON PRICING

In 2022, MISC explored the usage of internal carbon pricing and its application as an assumed cost to emissions associated with a given investment or project, in order to better understand our climate impacts.

Beginning 2023, an internal carbon price of USD50/ton CO₂e shall be used to calculate the carbon cost for each new investment. Initially, leading to the full implementation of the internal carbon pricing for financial investment decisions, the cost of carbon would be projected throughout the asset lifespan as one of the factors to be considered in the sensitivity analysis of projects.

Moving Forward

We are on track and progressing with projecting monetary values and time horizons for climate change risks and opportunities. When completed, this analysis will be included in our future disclosures as we move towards quantitative climate-related risks and opportunities disclosure.

We continue to actively promote low-carbon asset solutions to our customers. The Group will engage with customers, suppliers and other stakeholders throughout the value chain to strive for a mutual understanding of our approach to addressing climate change.

We will continue to make further enhancements to provide consistent and transparent annual disclosures to our stakeholders, in line with the TCFD recommendations.

