# NOTE 14 - Task Force on Climate-Related Financial Disclosures ("TCFD")

For the year ended November 30, 2022, we will include our climate-related financial disclosures, consistent with the TCFD recommendations, within our 2022 Annual Report. This is in accordance with the Listing Rule LR 9.8.6R requirements, which will be mandatory for us for the year ending November 30, 2022. We have voluntarily chosen to report our progress on climate related financial disclosures below, ahead of this mandatory requirement.

TCFD Pillar	Recommended disclosures	Page reference(s)
Governance	a) Describe the boards' oversight of climate-related risks and opportunities.	20-21
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	21
Strategy	a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	21-23
	b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	23-24
	c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	24-25
Risk Management	a) Describe the organisation's processes for identifying and assessing climate-related risks.	25
	b) Describe the organisation's processes for managing climate-related risks.	25
	c) Describe how processes for identifying, assessing, and managing climate- related risks are integrated into the organisation's overall risk management.	25-26
Metrics and Targets	a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	26
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	26
	c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	26-27

#### Governance

The Boards of Directors have ultimate oversight of climate-related risks and opportunities and are directly supported by members of executive management. The Boards of Directors have appointed our President and Chief Executive Officer ("CEO") Arnold Donald to the role of Chief Climate Officer ("CCO") in January 2022. Through this role, he leads the identification of climate-related risks and opportunities and oversees how these are embedded in our strategic decision-making and risk management processes. During 2022, climate-related matters were a recurring Board discussion item.

To further support our climate-related efforts, we created a Strategic Risk Evaluation ("SRE") Committee to identify, mitigate, and monitor climate-related risks and opportunities. The SRE Committee consists of members of executive management and advisors and reports to the CCO. The SRE Committee members are David Bernstein (Chief Financial Officer), Josh Weinstein (Chief Operations Officer), Bill Burke (Chief Maritime Officer), and Stein Kruse (Advisor to the CCO & Chairman of the Boards). The primary responsibilities and common recurring activities of the SRE Committee are to:

- Recommend climate strategy, goals, and metrics to the CCO, who will make ultimate recommendations to the Boards
- Enable practical implementation of climate goals approved by the Boards

An SRE Committee Charter was adopted and five SRE Committee meetings have taken place between its creation in January 2022 and June 2022.

#### Governance Structure

Direct primary responsibility for climate-related oversight, with direct support from senior-level management Supporting responsibility for oversight of integration of risk matters into Boards and compensation processes Management-level climate committee comprised of COO, CFO, CMO and Senior Advisor to Chairman & CEO



To enable the CCO and Boards of Directors to fulfil their responsibility to oversee climate-related risks and opportunities, a Board Environmental Social and Governance ("ESG") and TCFD Education Program has been established, with core education components and optional self-study courses. This ESG and TCFD Education Program has been developed with support from external advisors and the Senior Independent Director. The core education components of the Program are expected to be completed by January 2023.

Executive management is responsible for ensuring we have active plans and adequate resources to manage and/or mitigate principal and emerging financial and non-financial risks, including Health, Environmental, Safety & Security ("HESS") and compliance risks, identified by the business from the risk assessment processes that are integrated within our operations. As new risks emerge, executive management seeks to ensure they are properly reviewed and monitored. Climate-related risk management is considered part of management's responsibility.

We are continuously refining and enhancing our existing processes. During 2022, management performed a qualitative scenario analysis as described below, to further identify our climate related risks and opportunities over the short, medium and long-term. Our process for continuously identifying, assessing and managing climate-related risks and opportunities is being developed. Climate-related risks and opportunities are reported up to the SRE Committee. Please see pages 25-26 for details of our risk management process.

## Strategy

## Climate-related Risks and Opportunities

We have qualitatively applied two distinct plausible climate scenarios, which were used to generate the climate-related risks and opportunities listed below. We selected a "Steady Path to Sustainability" scenario, where an average warming is limited to below 1.5°C above pre-industrial levels by 2100, and a "Regional Rivalry" scenario, where an average warming rate of 3°C above pre-industrial levels is reached by 2100 (see further detail on pages 24-25).

As part of our qualitative scenario analysis, we conducted a series of workshops with the members of the SRE committee and a cross-section of management to identify material climate-related risks and opportunities over the following time horizons:

- Present 2025 (short-term)
- 2025 2035 (medium-term)
- 2035 2050 (long-term)

The short-term time horizon is consistent with the period we use for our Viability Statement. The medium-term time horizon aligns with our existing sustainability goals, while the long-term horizon is consistent with the useful life of our ships.

Our risks are defined as transition and physical risks. Opportunities are structured according to thematic areas of focus. Based on the outcomes of our workshops, we have initially selected three risks and two opportunities for further assessment and quantification through quantitative scenario analysis, which we are in the process of performing. Our 2022 Annual Report will include additional information on the output of our quantitative scenario analysis. Our initial selected risks and opportunities for further development and quantification are in *bold in* the table below:

Climate-related risks identified through qualitative scenario analysis

TCFD risk categories	Risk summary	Time horizon	
Markets and Products / Shifting Markets (1)	Cruising no longer aligns to consumers climate values	Medium Term	
	Reduced availability and access to fuel	Long Term	
	Unable to meet climate-related requirements reduces access to capital / insurance	Medium Term	
Policy and Legal (1)	Increased costs driven by climate-related regulations	Short-Medium Term	
	Risk is that cruising (as a carbon-intensive industry) is severely restricted or subject to bans	Medium Term	
Reputation (1)	Failure to attract and retain talent due to climate credentials	Medium Term	
	Increased demand for reducing carbon-intensive practices	Short Term	
Technology (1)	Lack of viable low carbon technology to replace fossil fuels	Medium Term	
Physical	Chronic climate change impacting supply chain availability and price	Medium term with expected increases in the long term	
	Itineraries are not viable due to extreme weather and/or sea level rise	Medium term with expected increases in the long term	

(1) Transition Risks

TCFD opportunity categories	Opportunity summary	Time horizon	
Energy source	Support the adaptation of sustainable technological advances for the cruise industry	Medium term	
Market Access	Access to new financing options available for organisations working on decarbonisation	Short-Medium term	
	Access to private destinations or islands with infrastructure built by us	Short-Medium term	
	Attract and retain new customers and improve reputation through sustainable itineraries and activities for changing climate-induced preferences	Short-Medium term	
	Positioning as a sustainability leader	Short-Medium term	
Products & Services	Opportunities for the ship to be the destination	Long Term	
Resilience	Engage with more sustainable and economically favourable alternative suppliers	Short Term	
	Improve resilience to physical climate risk through adaptation of itinerary routes and investment in port infrastructure	Short Term	
Resource Efficiency	Improved operational efficiencies arising from technological advancements	Medium term	
	Increased fuel efficiency through alternative itinerary planning and reduced energy use	Short - Medium term	
	Increased resource efficiency through reduced on-board energy demand and consumption	Medium term	

## Impacts

The impacts of climate-related risks and opportunities on the business presented in the tables above have been qualitatively assessed.

We presently consider transition risks to be the most significant in terms of likelihood and impact. The risks with the highest impact and likelihood of occurrence are associated with the transition to a low-carbon emission future, in a scenario where we have not been able to access low-carbon technology, or where these technologies do not exist and where we have reduced availability and access to fuel.

The climate-related opportunities with the highest impact are a mix of mitigation and adaptation opportunities. These include the positive impacts of supporting the (adaptation) of sustainable technological advances for our business, improved operational efficiencies from technological advancements, and more energy efficient itineraries from investing in port and destination projects.

Our short and medium-term decarbonization goals focus on reducing carbon emissions per Available Lower Berth Day ("ALBD") and carbon emissions per Available Lower Berth Kilometer ("ALB-km") and we are committed to long-term absolute carbon emissions reduction goals as part of our aspiration to be net carbon-neutral by 2050. Our ongoing efforts to achieve our 2030 goals include the delivery of larger more efficient ships as part of our ongoing newbuild program, some of which will replace existing ships in our fleet, as well as investing in energy efficiency projects for our existing fleet, designing more energy efficient itineraries and investing in port and destination projects to support these efforts. We continue to evaluate and implement changes to our various annual planning processes to further expand our focus on decarbonization.

The actions we are taking via our strategy and financial planning processes to manage the impacts of climate-related risks and opportunities are listed below.

## Newbuild Program and Supporting Innovation

As part of our plan for carbon footprint reduction, we lead the cruise industry's use of Liquid Natural Gas ("LNG") powered cruise ships with a total of 11 next-generation cruise ships that are expected to join the fleet through 2025, including six ships already in operation as of May 31, 2022. In total, these 11 ships are expected to represent 20% of our total future capacity. Whilst LNG is a fossil fuel and generates carbon emissions, LNG vessels generate up to 20% less carbon emissions than traditionally powered ships, while almost eliminating sulfur oxides, reducing nitrogen oxides by 85% and particulate matter by 95%-100%. The types of engines that we use are subject to small amounts of methane slip (the passage of un-combusted methane through the engine). There are different views relating to the measurement of the environmental impact of LNG, including the methane slip. Our disclosures report our emissions, including methane slip, as part of our total carbon emissions (reported as CO2e) using the 100-year global warming potential time frame and measured on a "tank to wake" basis. We are working closely with our engine manufacturers and other technology providers to mitigate methane slip.

While fossil fuels are currently the only viable option for our industry, we are closely monitoring technology developments and partnering with key organizations on research and development to support our carbon emission reduction goals. For example, we are partnering to evaluate and pilot maritime scale battery technology and methanol powered fuel cells and working with classification societies and other stakeholders to assess lower carbon fuel options for cruise ships including hydrogen, methanol, eLNG, and biofuels. We are promoting the use of shore power, enabling ships to use shoreside electric power where available while in port.

The Mærsk McKinney Møller Center for Zero Carbon Shipping is a not-for-profit, independent research and development center working with industry players across the energy and shipping sectors to mature viable decarbonization pathways for shipping globally. Together with its partners, the Center facilitates the development and implementation of new energy and maritime technologies and accelerates the transition by defining strategic ways to drive the required systemic and regulatory change. In January 2021, we became a mission ambassador to the Center's work through a formalized network and information flow. Joining the Mærsk McKinney Møller Center for Zero Carbon Shipping is another important step in establishing a path to zero emission cruising over time.

## Investing in projects that improve energy efficiency

Energy efficiency projects are specifically identified, reviewed, and approved as part of capital planning. An Internal Decarbonization Premium is being added to the cost of fuel during the planning process and is used to evaluate the payback period and return on investment for projects. The non-newbuild capital plan process is being enhanced by closer monitoring of spend related to energy efficiency projects. Additionally, approved capital spend for energy efficiency projects cannot be reallocated to projects that are not energy efficiency related without CCO approval.

#### Designing more energy efficient itineraries

We continue to evaluate and implement changes to our various annual planning processes to further support our focus on decarbonization. Itinerary planning is a key lever in our low carbon transition and consideration of climate risk is already integrated into the ongoing process of itinerary planning. This process is being enhanced through the recently adopted Corporate Itinerary Decarbonization Reviews which evaluate the itinerary planning process of each brand, focused on topics and metrics related to decarbonization to ensure the processes are robust and adequately focus on carbon reduction.

#### Investing in port and destination projects

Other strategic decisions, including how and where to invest in new infrastructure, are informed by climate-related risks and opportunities and will be further informed by the outputs of our quantitative scenario analysis. A climate study was undertaken for two of our port investments at Grand Port (Grand Bahama Island) and Half Moon Cay Pier Project (Bahamas), to enhance climate resilience. Furthermore, our investments in these ports and destinations will support our efforts to design more energy efficient itineraries based on their strategic locations.

#### Scenario Analysis

We have qualitatively applied two distinct plausible climate scenarios, which were used to generate the risks and opportunities assessed.

#### Steady path to sustainability (1.5°C by 2100)

Climate: Average temperature increase limited to below 1.5°C above pre-industrial levels by 2100.

**Narrative overview:** Under the 1.5°C Steady Path to Sustainability scenario, the world takes the rapid and strong policy measures required to meet the ambition of the 2015 Paris Agreement. Low carbon technologies take over from fossilfuels, but under this scenario significantly reduced economic growth is just as important for reaching net zero emissions by 2050.

Under this scenario, transition risks are most material and our resilience is therefore dependent on our ability to effectively adopt low carbon technologies. This will help us to adhere to increasing decarbonization requirements set out by key drivers identified in a low-carbon transition scenario, including existing and emerging regulation, consumer preferences, and talent markets. Ultimately, the availability and effective adoption of low carbon technologies, most notably in the alternative fuels and resource efficiency spaces, could impact our organization. As a result, our most impactful opportunity is the enhancement of our reputation and competitiveness, by supporting the adaptation of sustainable technological advances for the cruise industry. This will also further help us to mitigate the risks associated with access to jurisdictions, access to capital and adherence to regulation.

Regional Rivalry (3°C by 2100)

Climate: Average temperature increase of 3°C above pre-industrial levels by 2100.

**Narrative overview:** The 3°C scenario explores a possible route in which the world is seeing an emergence of tribalism and nationalism. Low international priority for addressing environmental concerns leads to strong environmental degradation in some regions. The combination of impeded development and limited environmental concern results in poor progress toward climate sustainability. Growing resource intensity and fossil fuel dependency along with difficulty in achieving international cooperation and slow technological change imply high challenges to mitigation.

This scenario presents a higher emissions future where physical risks are most material. Business resilience under this scenario is dependent on our ability to adapt to extreme weather events and chronic physical risks, which have the potential to limit access to jurisdictions and impact supply chain resilience due to economic and physical damage. Under this scenario we can remain resilient by taking advantage of opportunities to adapt the business model to support business continuity. These adaptions may include ship or private locations becoming the destination, as well as adapting itineraries and investing in port and destination projects.

## **Risk Management**

The qualitative scenario analysis is the foundation of our climate-risk identification and assessment process and began with the evaluation of all possible climate-related risks we may face, to generate an initial list of possible risks. Input from key stakeholders in the business was obtained through workshops to identify additional climate risks and opportunities and refine the list before prioritizing the list of risks and opportunities identified. Assessment of these risks was performed by the SRE committee and a cross section of management, who qualitatively evaluated the impact and likelihood of these risks and opportunities. Certain financial, regulatory and reputational risks and opportunities, as described on pages 22-23, were then selected for more detailed quantitative scenario analysis.

Executive management is responsible for ensuring we have active plans and adequate resources to manage and/or mitigate principal and emerging financial and non-financial risks, including HESS and compliance risks, identified by the business from the risk assessment processes that are integrated within our operations. As new risks emerge, executive management seeks to ensure they are properly reviewed and monitored.

We are continuously refining and enhancing our existing processes. The SRE Committee was established to oversee the identification, assessment, management, and monitoring of climate-related risks and opportunities. They provide recommendations to the CCO, who ultimately provides recommendations to the Boards of Directors. Our process for continuously identifying, assessing and managing climate-related risks and opportunities is being further developed, and we will include a description of this process in our 2022 Annual Report.

Overall, the Boards of Directors are responsible for determining the strategic direction of the company and the nature and extent of the risk assumed by it. The Boards of Directors carry out a robust risk assessment to ensure that principal and emerging risks, including those that would threaten its business model, future performance, solvency or liquidity are effectively managed and/or

mitigated to help ensure the company is viable. Within our risk management framework, the Boards of Directors have ultimate oversight of climate-related risks, which has been identified as a principal risk, please see the Governance pillar for description of how climate related risks are overseen.

## Metrics and Targets

# Metrics

The metrics which are currently used in addressing our climate-related risks and opportunities are disclosed below. Please see the Strategy pillar for a list of our most likely and most impactful risks and opportunities, which have been raised through our risk identification and assessment process. The SRE committee recommends metrics to the CCO, who will make ultimate recommendations to the Boards, as described on page 20.

Our Scope 1 and 2 emissions are reported within our 2021 Annual Report. We quantify, report, and obtain third-party verification (under ISO-14064-3:2006) over our annual greenhouse gas ("GHG") emissions, including our direct (Scope 1) and indirect (Scope 2) emissions, which comprise our total GHG inventory. Our 2022 GHG emissions will be included in our 2022 Annual Report as part of our reporting requirements. We are also assessing and baselining our scope 3 emissions in 2022 and expect to begin disclosing scope 3 emissions data in the future.

Targets

We have made progress over the past 15 years reducing our carbon emission intensity and achieving our 2020 goal three years early (in 2017). We have also made progress towards our 2030 carbon intensity reduction goals of 40% from a 2008 baseline, measured in both grams of CO2e per ALB-km and kilograms of CO2e per ALBD. Through 2019, we reduced our carbon emission intensity on a lower berth distance basis by 25% relative to 2008 all while growing our capacity by 47%. Furthermore, because of our efforts, we peaked our absolute Scope 1 and 2 emissions in 2011.

We decided to update the baseline year for both goals to 2019 from 2008. This new baseline year will help us better communicate recent progress against our climate goals to our investors and stakeholders, and modernizes our disclosures in alignment with developing best practice and reporting standards. Both 2030 goals require a 20% decrease from 2019. With the updated baseline year, we have strengthened our goal measured in kilograms of CO2e per ALBD since the initial 2030 goal would only have required a further 15% reduction from 2019 levels. Our goal measured in grams of CO2e per ALB-km remains the same.

# Carbon Intensity (g CO2e/ALB-km)



# Carbon Intensity (kg CO2e/ALBD)



To support the mitigation of the climate-related risks identified relating to the restriction of carbon-intensive industries and fossil fuels, we have set the following 2030 Climate Action goals and will report on our progress in our 2022 Annual Report:

2030 Climate Action Goals	Goal	Baseline	Time Horizon
Achieve 20% carbon intensity reduction relative to our 2019 baseline measured (grams of CO2e per ALB-km)	20%	2019	2030
Achieve 20% carbon intensity reduction relative to our 2019 baseline measured (kilograms of CO2e per ALBD)	20%	2019	2030
Having peaked our Scope 1 and 2 carbon emissions in 2011, we will continue to reduce emissions over time, and identify a pathway to decarbonization.	N/A	2019	2030
Reduce absolute particulate matter air emissions by 50% relative to our 2015 baseline.	50%	2015	2030
Increase fleet shore power connection capability to 60% of the fleet.	60%	Ongoing	2030
Expand liquefied natural gas (LNG) program.	Ongoing	Ongoing	2030
Optimize the reach and performance of our Advanced Air Quality System program.	Ongoing	Ongoing	2030
Expand battery, fuel cell, and biofuel capabilities.	Ongoing	Ongoing	2030
Reduce scope 3 supply chain emissions associated with food procurement and waste management.	Ongoing	Ongoing	2030
Identify carbon offset options only when energy efficiency options have been exhausted.	Ongoing	Ongoing	2030