



海豐國際控股有限公司

SITC International Holdings Company Limited

(Incorporated in the Cayman Islands with limited liability)

Stock Code: 1308



2022

氣候相關財務披露報告

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES REPORT

目錄 Contents

3. 執行概要 Executive Summary
5. 背景 Background
6. 管治 Governance
8. 策略 Strategy
9. 氣候相關風險與機遇 Climate-Related Risks and Opportunities
24. 風險管理 Risk Management
31. 指標及目標 Metric and Targets
34. 附件 Appendix: 參考資料 Reference Materials



執行概要 Executive Summary

受新冠疫情影響，過去幾年全球經濟驟然急劇下滑。受制於各國疫情防控措施，國際航運業不可避免地遭遇前所未有的挑戰。儘管面臨種種挑戰，海豐仍盡力克服，並繼續為客戶提供亞洲區高品質的服務，同時亦以可持續及低排放的方式維持營運。

船舶在勘探及商業中均發揮著重要作用，是最古老的長途運輸形式。彼等是當代全球經濟的基石，因為現代貿易已經發展至沒有一個國家能夠完全自給自足的階段，且航運業可促進散裝及集裝箱貨物的有效運輸。船舶負責運輸從穀物和燃料到汽車的各種貨物，事實上，全球逾 90% 的貿易乃通過船舶進行。鑒於其高效率，航運有望繼續推動經濟活動，並預計該行業的規模將與全球經濟同步擴大。隨著供應鏈管理的精細化在各行各業的普及，海豐高頻率、高密度及海陸一體的服務成為客戶的首選。

The global economy experienced a precipitous and sharp decline over the past few years due to COVID-19 pandemic. Restricted by the epidemic control measures of various countries, the international shipping industry inevitably encountered unprecedented challenges. Despite facing numerous challenges, SITC has made every effort to overcome them and continues to provide high quality services to its customers in Asia, while also operating sustainably and with low emissions.

Ships have been instrumental in both exploration and commerce and represent the oldest form of long-distance transportation. They serve as a cornerstone of the contemporary global economy, as modern trade has progressed to a point where no nation can be completely self-sufficient, and the shipping industry facilitates efficient transportation of bulk and containerized goods. Ships are responsible for conveying a vast array of cargo, ranging from grains and fuel to automobiles, and in fact, over 90 percent of worldwide trade is conducted via ships. Given its high level of efficiency, shipping is poised to continue fuelling economic activity, and the industry's scale is expected to expand in tandem with the global economy. With the universalised of refined supply chain management in all industries we believe that, SITC's high-frequency, high-density and sea-land integrated services have become the first choice of customers.

執行概要 Executive Summary

為讓投資者對業績有更全面及可比較的理解，海運公司應在其監管文件中披露與重大可持續發展風險及機遇相關的指標，該等風險及機遇於近期及長期可能影響其價值。該等指標應包括正面及負面外部事物，以及對行業價值創造至關重要的非金融形式的資本。特別是，以下可持續發展議題將決定海運領域的競爭力：

- 旨在限制溫室氣體及空氣污染物的全球規例的影響，其將促使採用更節能、更清潔的發動機及燃料。
- 應對海上作業生態後果的安全規例，其可導致代價高昂的補救及處罰。

健全的事故及安全協定，其對於減少代價高昂的環境污染、人員傷亡及貨物損壞至為重要。員工安全議題亦變得越來越重要，因為世界各地的公司均面臨對工人健康及安全的更大責任。

《二零二二年氣候相關披露報告》（「本報告」）旨在幫助投資者及持份者理解海豐應對氣候變化的策略及其對公司的影響。本報告遵循氣候相關財務披露工作小組(TCFD)建議的四大支柱，以為分析及比較其他公司的披露提供統一框架。四大支柱及海豐的方法包括管治、策略、風險管理以及指標及目標。

為將海豐的氣候相關應對措施納入本報告中考慮，我們參考了海豐二零二二年年度報告及海豐二零二二年環境、社會和管治報告。我們在分析中亦遵循TCFD的建議。此外，在編製本報告時，還考慮了可持續發展會計準則委員會(SASB)發佈的《海運研究簡報》。

To provide investors with a more comprehensive and comparable understanding of performance, marine transportation firms should disclose metrics related to material sustainability risks and opportunities that could impact their value in the near- and long-term within their regulatory filings. Such metrics should encompass both positive and negative externalities, as well as the non-financial forms of capital crucial to the industry's value creation. In particular, the following sustainability issues will determine competitiveness within the marine transportation sector:

- The impact of global regulations aimed at limiting greenhouse gases and air pollutants, which is prompting the adoption of more fuel-efficient and cleaner-burning engines and fuels.
- Safety regulations that address ecological consequences of marine operations, which can lead to costly remediation and penalties.

Robust accident and safety protocols, which are essential in reducing costly environmental pollution, human casualties, and cargo damage. The issue of employee safety is also becoming increasingly important, as companies worldwide face greater accountability for workers' health and safety.

This 2022 Task Force on Climate-related Disclosures Report (the "Report") is designed to help investors and stakeholders comprehend SITC's strategy for coping with climate change and its effects on the company. The Report adheres to the four pillars recommended by the Task Force for Climate-related Financial Disclosures (TCFD) to provide a uniform framework for analysis and comparison with disclosures made by other firms. The four pillars and SITC's approach included governance, strategy, risk Management and metrics and targets.

To contextualize SITC's climate-related response in this Report, we have drawn references from the 2022 Annual Report and 2022 Environmental, Social and Governance Report of SITC. We have also aligned recommendations from the TCFD with our analysis. Additionally, the Marine Transportation Research Brief issued by the Sustainability Accounting Standards Board (SASB) was taken into account during the preparation of this Report.

背景 Background

海豐國際控股有限公司（「海豐」）是一家亞洲區領先的航運物流集團公司，提供綜合運輸及物流解決方案。海豐的主要業務主要涵蓋提供集裝箱運輸、貨運代理、船舶代理、堆場及倉儲等綜合物流服務。

作為亞洲負責任的綜合物流服務提供商，海豐致力於推動綠色低碳發展，以應對氣候變化這一全球使命。海豐正建立一個強大、可持續的企業，以為子孫後代提供支持及保護地球。

我們董事長楊紹鵬先生是「企業綠色發展研究院 / 中國企業家俱樂部」的理事，推動企業綠色成長，為社會可持續發展貢獻力量，做受人尊敬的學習型非營利組織是該組織的使命願景。

我們的非執行董事楊馨女士是大自然保護協會(TNC)大中華理事會理事，其積極參與氣候變化及生物多樣性保護方面的活動。

2022年海豐國際積極履行企業社會責任，通過企業綠色發展（海口）研究院和中國企業家協會理事企業向海南省紅十字會捐贈 100 萬人民幣，以實際行動助力海南疫情防控工作。

致力於低碳發展

作為一家亞洲綜合物流服務提供商，海豐秉持負責任企業的經營原則，並盡最大努力維持業務發展與企業社會責任的平衡。

鑒於當前環境惡化，採納《巴黎協定》變得越來越重要，並已成為國際氣候合作的轉折點。世界的目標是將全球變暖限制在遠低於 2°C 的水平，而許多國家正努力將溫度升高限制在較工業化前水平高 1.5°C。

海豐堅定支持《巴黎協定》並致力於推進減少碳排放，以保護環境、避免危險氣候變化及為子孫後代創造更美好的未來。

SITC International Holdings Company Limited (the "Company" or "SITC") is an Asia's leading shipping logistics company that provides integrated transportation and logistics solutions. SITC's key activities principally covered integrated logistics services such as the provision of container transportation, freight forwarding, shipping agency, depot and warehousing, etc.

As a responsible integrated logistics service provider in Asia, SITC is dedicated to promoting green and low-carbon development to tackle the global mission - Climate Change. SITC is building a strong, sustainable business that supports people and protects the planet for generations to come.

Our chairman, Mr. Yang Shaopeng, is a member of the "Enterprise Green Development Research Institute / China Entrepreneurs Club". The organization's mission and vision is to promote enterprises' green growth, contribute to society's sustainable development, and become a respected and learning-oriented non-profit organization.

Our non-executive director, Ms. Yang Xin, is a council member of The Nature Conservancy (TNC) Greater China Council. She actively engages in activities related to climate change and biodiversity conservation.

In 2022, SITC actively fulfilled its corporate social responsibility by donating one million Renminbi to the Hainan Red Cross Society through the Enterprise Green Development (Haikou) Research Institute and the China Entrepreneurs Association Director Enterprise, to support Hainan's epidemic prevention and control efforts through practical actions.

Commitment to Low Carbon Development

As an integrated logistics service provider in Asia, SITC upholds its business principle of being a responsible enterprise and with the best effort to maintain the balance of business development with corporate social responsibilities.

In the context of the deteriorating environment today, the adoption of the Paris Agreement has become increasingly important and a turning point in international climate cooperation. The world is aiming to limit global warming to well below 2 °C and many countries are pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels.

SITC strongly supports the Paris Agreement and is committed to promoting the reduction of carbon emissions to protect the environment, avoid dangerous climate change and create a better future for the next generations.

管治 Governance

企業管治原則

海豐已建立健全的可持續發展架構，設置各項關鍵績效指標（「KPI」），並改善內部管理體系，以進一步完善企業管治。其一直努力實現企業管治目標，即創造一個以信用為導向、高透明度、責任明晰的環境，以保證長期投資、金融穩定及商業誠信，從而為更強勁的增長及更加包容的社會提供支持。

管治架構

海豐奉行高水平的企業管治，通過建立清晰、高度透明的企業管治程序及體系，為公司長遠發展建立穩固根基，同時保障股東利益。

董事會負責監督有關環境、社會及管治事項、績效管理及目標進展的策略，並委任專責委員會－可持續發展委員會（「該委員會」），以就本公司的發展規劃提出建議，監察本公司的可持續發展政策、計劃及表現，並協調不同持份者。在此自上而下的方法中，該委員會由本公司四名執行董事組成，並下設一個由各相關部門負責人領導的 ESG 管治小組。



Corporate Governance Principles

SITC has established a robust sustainable development structure, set up various key performance indicators (“KPIs”), and improved its internal management system to further improve corporate governance. It has been striving to accomplish the corporate governance goal of creating a credit-oriented environment of high transparency and clear accountability, so as to secure long-term investment, financial stability, and business integrity. This, in turn, supports more robust growth and a more inclusive society.

Governance Structure

Upholding high-level corporate governance, SITC has established well-defined, highly transparent corporate governance procedures and systems to consolidate long-term corporate development and safeguard the interests of its shareholders.

The Board oversees the strategies on environmental, social and governance (“ESG”) matters, performance management and target progress, and appointed a dedicated committee - Sustainable Development Committee (the “Committee”) to put forward suggestions regarding the Company’s development plan, monitor the Company’s sustainable development policies, programmes and performances and co-ordinates with different stakeholders. In this top-down approach, the Committee comprise four executive directors of the Company and under this committee, there is an ESG Working Group which is led by heads of relevant departments.

角色及職責

董事會

- 監督 ESG 事項的策略制定、績效管理及目標進程
- 至少每半年監管一次氣候相關議題及風險，以確保及時有效地識別及妥善管理相關風險
- 釐定 ESG 指標的重要性

可持續發展委員會

- 向董事會報告 ESG 事項的進展
- 就公司長期發展規劃向董事會提出建議
- 審視及檢查本公司 ESG 管理的各個方面
- 提出可持續發展政策及措施的改進建議
- 檢討氣候相關目標的關鍵舉措
- 監督本公司的氣候相關事項

ESG 管治小組

- 每月與各個中心及業務集團進行協調
- 監察及追蹤既定目標進度及舉措
- 向可持續發展委員會報告 ESG 相關事宜
- 評估相關 KPI 並向可持續發展委員會提供反饋

激勵計劃

採用激勵計劃，將評價與實現目標和管理氣候相關風險的目標相關聯。

Roles and Responsibilities

Board of Directors

- Supervises the strategy formulation on ESG matters, performance management and target progress
- Oversees climate-related issues and risks at least every half a year to ensure that the related risks are promptly and effectively identified and properly managed
- Determine the importance of ESG indicators

Sustainable Development Committee

- Report the progress of ESG matters to the Board
- Make recommendations to the Board on the company's long-term development plan
- Review and inspect all aspects of the Company's ESG management
- Propose improvement on sustainable development policy and measures
- Review key initiatives on climate-related targets
- Oversee the Company's climate-related issues

ESG Working Group

- Coordinate with each centre and business group on a monthly basis
- Monitor and track the progress of agreed targets and initiatives
- Reports ESG related matters to the Sustainable Development Committee
- Evaluates the relevant KPI indicators and provide feedback to the Sustainable Development Committee

Incentive Scheme

Adopting the incentive scheme that comments connect back to the goals of meeting the targets and managing climate-related risks.

激勵計劃 Incentive Scheme

職位 Position	激勵 Incentive	成就水平 Achievement level	目標 Target
高級管理層 Senior Management	公開表揚、獎金及股份 Public praise, bonus, and share	達成 Achieved 100%	將二氧化碳排放密度減少 40% Reduce carbon dioxide emission intensity 40%
	公開表揚及年假 Public praise and annual leave	達成 Achieved >80%	
	公開表揚 Public praise	達成 Achieved >60-79%	

策略 Strategy

海豐追求的策略是保持其業務對氣候變化的抵禦力，從而參考TCFD的建議進行氣候風險評估，以分析對不同營業單位的潛在影響，並制定減緩及適應氣候變化的計劃。

SITC pursue strategies to keep its business resilient against climate change, thereby conducted climate risk assessment with reference to the TCFD recommendations to analyse potential impacts on different business units and to develop plans to mitigate and adapt to climate change.



氣候相關風險與機遇

Climate-Related Risks and Opportunities

氣候相關風險

了解公司的業務組合有助於識別主要風險及其可能造成的影響。氣候相關風險分為兩類－實體風險及過渡風險。兩個風險類別按不同時間範圍加以考慮，即短期（0至3年）、中期（4至7年）及長期（8年以上）。

- 實體風險－由氣候變化的急性及慢性實體影響引致。不利氣候事件可能限制海豐新服務的發展，並影響其設施，使海豐招致額外成本及／或導致收入及盈利下降。氣候相關風險與機遇按三個時間範圍進行審查：短期、中期及長期。

- 過渡風險－由過渡至低碳經濟相關的行動引致，包括引入新的氣候政策或低碳技術。新的環境及可持續發展相關披露要求，或適用於海豐服務或海豐營運其他方面的法規或稅收，可能增加排放稅及碳價格等合規成本，進而可能會改變其商業模式。

Climate-Related Risks

Understanding the company's business portfolio can help to identify the major risks and impacts that could cause. The climate-related risks were categorized into two types: physical risk and transition risk. Two risk types were assessed across different time horizons - short-term (0-3 years), medium-term (4-7 years), and long-term (+8 years).

- Physical risks – those that arise from the acute and chronic physical impacts of climate change. Adverse climate events could restrict SITC's development of new services and impact its facilities which could expose SITC to additional costs and/or cause revenue and earnings to decline. Climate-related risks and opportunities are examined along three-time horizons: short-term, medium-term and long-term.

- Transition risks – those that arise from actions associated with the transition to a low-carbon economy, including the introduction of new climate policies or low-carbon technologies. New environmental and sustainability-related disclosure requirements, or regulations or taxes that apply to SITC's services or other aspects of SITC's operations could increase compliance costs such as emission tax and carbon price which could potentially change its business model.

氣候相關風險與機遇

Climate-Related Risks and Opportunities

風險 Risks	描述潛在氣候相關財務影響 Description of Potential Climate-related Financial Impacts	對海豐的潛在財務影響 Potential Financial Impacts to SITC		
		短期 Short Term	中期 Medium Term	長期 Long Term
實體風險 Physical Risk	<p>熱浪（急性） Heatwave (Acute)</p> <ul style="list-style-type: none"> 在農作物需求旺盛時，由於原材料成本上升，熱浪可能導致潛在的收入損失 僱員可能因酷熱天氣而無法在戶外工作。 Heat waves may lead to potential loss of revenue due to higher raw material costs when crops are on demand Employees may not be able to work outdoors due to extreme heat 	<ul style="list-style-type: none"> 原材料價格上漲導致收入下降 勞動力不足導致人員成本上升 Rising of raw material prices lead to decrease of revenue Insufficient labour force leads to rising personnel costs. 		
	<p>極端天氣（急性） Extreme Weather (Acute)</p> <p>氣候變化可能導致風暴、山火或洪災等極端天氣事件增加，進而導致海港嚴重中斷，迫使船舶調整計劃航線，以盡量減少干擾或延誤，且在最壞情況下，會導致貨物損失或對船舶本身造成損壞，並損害員工的安全。這可能會影響設施或供應鏈中的生產或元器件供應，增加成本並延遲或以其他方式影響生產營運及客戶的預期。</p> <p>Climate change can lead to increased extreme weather events such as storms, wildfires or floods which causes significant disruption at seaports forcing vessels to adjust planned routes to minimise disruption or delays and, in the worst-case scenario, cause loss of cargo or damage to the ship itself and harming employees' safety. This can affect the production or component supplies at facilities, or within the supply chain, increase costs and delay or otherwise impact both production operations and customers' expectations.</p>	<p>於二零二二年，由於極端天氣（颱風、強冷高壓等）的影響，避風、錨泊、避航船舶的租賃成本增加約 590 萬美元，較二零二一年有所增加。</p> <p>In 2022, due to the impact of extreme weather (typhoon, strong cold and high pressure, etc.), the increased rental cost of ships avoiding typhoons, anchoring, and evading navigation would be about US\$ 5.9 million, which is an increase from 2021.</p>		
	<p>洪災及衍生災（急性） Floods and Disasters (Acute)</p> <p>洪災及衍生災害增加可能影響業務營運及導致收入損失，因為其可對設施、船舶及僱員的出勤造成損害。</p> <p>Increase of floods and disasters can potentially affect business operation and revenue loss since it can cause damage to facilities, ships and employees' attendance.</p>	<p>發生洪災將影響客戶（貨運量）、運費、員工及設施，從而影響公司的收入及成本。</p> <p>Flooding will affect customers (cargo volume), freight rates, employees and facilities, thereby affecting company revenue and costs.</p>		

Climate-Related Risks and Opportunities

風險 Risks	描述潛在氣候相關財務影響 Description of Potential Climate-related Financial Impacts	對海豐的潛在財務影響 Potential Financial Impacts to SITC		
		短期 Short Term	中期 Medium Term	長期 Long Term
實體風險 Physical Risk	<p>全球氣溫上升 (慢性) Rise of Global Temperature (Chronic)</p> <p>全球氣溫上升亦令海洋溫度升高。其會改變海水的運動方式，不斷變化的水流及更加溫暖的海水會導致更強的風暴、更廣闊的低壓區域、以及七級以上強風的形成。氣溫升高亦會影響庫存的保存，從而增加成本，進而影響航線。</p> <p>Rise of global temperature which also increases the ocean temperature. It changes how waters move and shifting currents and warmer waters result in stronger storms, more instances of low-pressure areas, and a build-up of strong, gale-force winds, The increase of temperature also affects stocks preservation thus increasing cost, thus affecting shipping routes.</p>		<p>海豐的海運航線將更頻繁地受到風暴、強風及低壓的影響，導致貨物受損或偏航成本。</p> <p>SITC's marine routing will be more frequently affected by storms, strong winds and low pressure, resulting in cargo damage or deviation costs.</p>	
	<p>海平面上升 (慢性) Sea Level Rise (Chronic)</p> <p>隨著海平面上升，海豐靠近海岸的辦公室及設施將需要搬遷，且海港的基礎設施將面臨嚴重的結構完整性問題，有關設施會被淹沒及毀壞。</p> <p>As sea level rises, SITC's offices and facilities sitting near the shore will need to be relocated and the sea-ports' infrastructures will experience significant issues with their structural integrity which would be submerged and destroyed.</p>			<p>海豐的分支機構及堆場大多位於沿海地區。海平面上升（假設到二零五零年海平面將上升 0.20-0.29 米）將導致網點搬遷，從而令搬遷成本增加。</p> <p>Most of SITC's branches and storage yards are located in coastal areas. The rise of sea level (assuming that the sea level will rise by 0.20-0.29 meters in 2050) will cause the outlets to be relocated, increasing the cost of relocation.</p>
	<p>生物多樣性 (慢性) Biodiversity (Chronic)</p> <p>氣候變化可改變生態系統的生產效率，並增加海洋及沿海生態系統不可逆轉損害的風險。</p> <p>Climate change can alter ecosystem productivity and increase the risk of irreversible loss of marine and coastal ecosystems.</p>	<p>於二零二二年，公司花費約 290 萬美元安裝壓載水系統。到二零二四年，所有自有船舶將配備壓載水系統，此舉將令成本增加約 200 萬美元。</p> <p>In 2022, the company spent about US\$2.9 million on the installation of ballast water systems. By 2024, all self-owned ships will be equipped with ballast water systems, which will increase the cost by about US\$2 million.</p>		

氣候相關風險與機遇

Climate-Related Risks and Opportunities

風險 Risks	描述潛在氣候相關財務影響 Description of Potential Climate-related Financial Impacts	對海豐的潛在財務影響 Potential Financial Impacts to SITC		
		短期 Short Term	中期 Medium Term	長期 Long Term
<p>過渡風險</p> <p>Transition Risk</p>	<p>環保技術 Environmental Technology</p>	<p>隨著新技術(如可再生能源、能源效率)的出現,海豐可能須緊跟最新技術,以滿足更高的效率標準。此外,船舶改裝及升級現有設備的成本亦將增加。</p> <p>With the emergence of new technologies (such as renewable energy, energy efficiency), SITC may have to keep up with the latest technologies in order to meet higher standards of efficiency. Moreover, the cost of ship retrofitting and upgrading existing equipment would also be increased.</p>	<p>在船舶上安裝脫硫塔會增加公司的運營成本。據估計,改裝現有船舶的成本約為 500 萬美元,而安裝新船舶的成本約為 2,000 萬美元。</p> <p>Installing desulfurization towers on ships will increase the company's operating costs. It is estimated that the cost of refitting existing ships is about US\$5 million, and the cost of installing new ships is about US\$20 million.</p>	<p>新能源船舶包括生物能源、氫能、氨動力、電動船舶等。公司密切關注新能源船舶的技術成熟度及成本變化。根據現有船隊的規模,更新新能源船舶的總資本支出估計約為 30 億美元。假設在 10-20 年內更換,每年資本支出為 1.2 億至 2 億美元。</p> <p>New energy ships include bioenergy, hydrogen power, ammonia power, electric ships, etc. The company pays close attention to the technological maturity and cost changes of new energy ships. According to the size of the existing fleet, the total capital expenditure to update new energy ships is estimated to be about 3 billion US dollars. Assuming replacement in 10-20 years, the annual capital expenditure is US\$ 120-200 million.</p>

氣候相關風險與機遇

Climate-Related Risks and Opportunities

風險 Risks	描述潛在氣候相關財務 影響 Description of Potential Climate-related Finan- cial Impacts	對海豐的潛在財務影響 Potential Financial Impacts to SITC		
		短期 Short Term	中期 Medium Term	長期 Long Term
<p>過渡風險</p> <p>Transition Risk</p>	<p>政策及法規 Policy and Legal</p> <p>不同國家的政府可能會實施不同的政策，並且不斷提出新的法規，例如法規變動，以應對環境問題。此舉可能會增加營運成本並導致收入損失。</p> <p>Government of different countries may impose different policies and new regulations such as changes are continuously being proposed to address environmental concerns. This may increase cost of operations and lead to loss of revenue.</p>	<p>到二零二三年滿足 IMO 對所有船舶的能源效率指數(EEXI)和碳排放密度(CII)的要求。目前，自有船隊的 CII 評級為 B 級或以上，並已完成 EEXI 績效。二零二二年交付 20 艘新船以更換舊船。造船及船舶翻新的資本支出將為 4.5 億美元。二零二三年新船的資本支出預計將為 3.5 億美元。預計二零二四年新船的資本支出將為 2 億美元。</p> <p>To meet the requirements of IMO for energy efficiency index (EEXI) and carbon emission intensity (CII) of all ships by 2023. At present, the self-owned fleet has a CII rating of B or above and has completed EEXI performance. 20 new ships were delivered in 2022 to replace old ships, the capital expenditure for shipbuilding and ship renovation amounted to US\$450 million. The capital expenditure for new ships in 2023 is expected to be US\$350 million. Capex for new ships expected to be US\$ 200 million in 2024.</p>	<p>目前，公司已完成二零三零年碳排放密度降低 40%的中期目標。</p> <p>At present, the company has completed the medium-term goal of reducing carbon emission intensity by 40% in 2030.</p>	<p>到二零五零年，碳排放密度將降低 70%，並進一步降低 50%，到二零六零年實現零碳。根據現有船隊的規模，總資本支出估計約為 30 億美元。假設在 10-20 年內更換，每年資本支出為 1.2 億至 2 億美元，因此：</p> <ul style="list-style-type: none"> •增加運營和船舶改裝的成本，可能導致收入損失。 •增加供應鏈中斷，導致生產中斷，成本增加，減少企業收入，並導致消費價格上漲或消費不足。 <p>By 2050, carbon emission intensity will be reduced by 70%, and will be further reduced by 50%, and zero carbon will be achieved by 2060. According to the size of the existing fleets, the total capital expenditure is estimated to be about US\$ 3 billion. Assuming replacement in 10-20 years, the annual capital expenditure is US\$ 120-200 million, therefore:</p> <ul style="list-style-type: none"> • Increase cost of operations and vessel modification which could lead to loss of revenue. • Increase disruptions in supply chains that interrupt production, raise costs, decrease corporate revenues, and lead to higher prices or shortages for consumers.

氣候相關風險與機遇

Climate-Related Risks and Opportunities

風險 Risks	描述潛在氣候相關財務影響 Description of Potential Climate-related Financial Impacts	對海豐的潛在財務影響 Potential Financial Impacts to SITC		
		短期 Short Term	中期 Medium Term	長期 Long Term
過渡風險 Transition Risk	<p>市場趨勢及偏好 Market Trend and Preference</p> <p>市場上有許多替代脫碳燃料，如可再生電子燃料、甲醇及氫、生物燃料及氫氣等。然而，該等替代燃料的成本取決於原料的成本及可用性、用於生產的流程以及生產技術的成熟度。貨運收入可能受到所選擇的燃料、特定船舶的類型及大小、載貨量的影響，因此貨運收入可能受到影響。</p> <p>There are many alternative decarbonising fuels in the market such as renewable e-fuels, methanol and ammonia, biofuels and hydrogen, etc. However, the cost of these alternative fuels is determined by the cost and availability of feedstock, the process used for production, and the maturity of the production technology. The cargo revenue could be affected on the fuel of choice and the type and size of a given vessel, cargo capacity and thus cargo revenue could be affected.</p>	<p>公司興建智能自動化堆場項目，堆場內所有機械及設備均由電力及太陽能電池板供電。投資總額預計為3,200萬美元。</p> <p>The Company builds an intelligent automated depot project, and all the machinery and equipment in the yard are powered by electricity and powered by solar panels. The total investment is expected to be US\$32 million.</p>	<p>持續推進智能自動化堆場項目，資本支出預計為5,000萬美元。</p> <p>Continue to promote intelligent automated depot project, capital expenditure is expected to be US\$ 50 million.</p>	<p>持續關注生物能源等脫碳燃料的研發，積極為採用新能源作好準備。</p> <p>新能源燃料較傳統燃料貴約三倍，價格會隨著大規模生產而下降。此外，替代燃料的成本可能增加/降低取決於市場可用性、原料、技術發展以及由於替代燃料成本而對貨物收入的影響。</p> <p>Continue to pay attention to the research and development of decarbonized fuels such as bio-energy, and actively prepare for the adoption of new energy sources.</p> <p>New energy fuels are about three times more expensive than traditional fuels, and their prices will drop as they are produced on a large scale. Moreover, possible increase/decrease cost of alternative fuels subjected to the market availability, feedstock, technology development and impacts on cargo revenue due to cost of alternative fuels.</p>
	<p>能源價格上漲 Increase of Energy Price</p> <p>嚴格的排放標準會導致燃料成本增加，從而提高生產價格及輸出物要求（例如廢棄物處理）。</p> <p>The stringency of emission standard would increase the cost of fuels which increase production prices and output requirement (e.g., waste treatment)</p>	<p>公司目前採用低硫油，相較二零二一年，二零二二年燃料成本增加約1.5億美元，二零二二年重油成本增加約5,565萬美元。</p> <p>The Company is currently using low-sulphur oil, and the fuel cost increased by about approximately US\$ 150 million in 2022 and cost of heavy oil increased by approximately US\$ 55.65 million in 2022 compared with 2021</p>		<p>增加燃料成本，從而提高生產價格及輸出物要求。</p> <p>Increase the cost of fuels which increased production prices and output requirement.</p>

氣候相關風險與機遇

Climate-Related Risks and Opportunities

風險 Risks	描述潛在氣候相關財務影響 Description of Potential Climate-related Financial Impacts	對海豐的潛在財務影響 Potential Financial Impacts to SITC		
		短期 Short Term	中期 Medium Term	長期 Long Term
過渡風險 Transition Risk	<p>機構的聲譽會受到消費者偏好的轉變以及持份者的關注程度提高或持份者的負面反饋的影響。財務影響可能預見到，由於貨品／服務的需求減少、產能下降（例如規劃批准延遲、供應鏈中斷）、對員工管理及規劃的負面影響（例如吸引及挽留僱員）以及資本可用性減少，收入會減少。</p> <p>An organisation's reputation would affect by shifts in consumer preferences and increased stakeholder concern or negative stakeholder feedback. The financial implication might foresee revenue reduction from decreased demand for goods/services, decreased production capacity (e.g., delayed planning approvals, supply chain interruptions), negative impacts on workforce management and planning (e.g., employee attraction and retention) and reduction in capital availability.</p>			<ul style="list-style-type: none"> • 商品／服務的需求減少、產能減少（例如計劃審批延遲、供應鏈中斷） • 對員工管理及規劃產生負面影響（例如吸引及挽留員工） • 資本可用性降低（融資成本增加） <ul style="list-style-type: none"> • Reduced demand, reduced capacity for goods/services (e.g., planning approval delays, supply chain disruptions) • Negative impact on workforce management and planning (e.g., attracting and retaining employees) • Reduced availability of capital (higher financing costs)

氣候相關風險與機遇

Climate-Related Risks and Opportunities

按地區劃分的氣候相關風險

於上述氣候相關風險中，海平面上升被識別為海上物流行業中影響較大的風險，長遠來看，其將嚴重影響海豐航線掛靠的海港、辦事處及網點所在的低洼地區。假設遵循目前的碳路徑，以下說明海平面上升可能產生的與海豐營運地點相關的影響：

Climate-related risk exposures by geographic location

Upon the above mentioned climate-related risks, sea level rising is identified as the most impacting risk among the marine logistic industry, which in long run will severely affect the low-lying areas where SITC's seaport routes, offices and outlets are located. Assuming the current carbon path, below illustrates impacts associated with SITC's operation locations could arise from Sea Level Rising:

港口地點 Port Location	影響描述 Description of Impacts	海平面上升的財務影響 Financial Impacts from Sea Level Rise
上海（中國） Shanghai (China)	<p>預計亞洲沿海地區的海平面上升幅度高於全球平均海平面上升幅度，對於大量面向海洋的亞洲特大城市風險尤高：中國、印尼及越南沿海人口最多，暴露於風險之中。預計未來數十年人口及經濟資產面臨沿海災害的風險將會增加，特別是在非洲、東南亞及小島嶼人口快速增長的沿海地區¹。</p> <p>Higher than the global mean sea level rise is projected on Asian coasts especially high risk for a large number of Asian megacities facing the ocean: China, Indonesia and Vietnam which have the highest numbers of coastal populations exposed. Exposure of population and economic assets to coastal hazards is projected to increase over the next decades, particularly in coastal regions with fast-growing populations in Africa, Southeast Asia and Small Islands¹.</p>	<ul style="list-style-type: none"> ● 永久關閉當地製造業並影響港口運輸 ● 客戶需求及供應鏈變化，導致資產更新，商業模式調整。 ● 由於堆場擁堵及集裝箱船改道，停止接收入站集裝箱 ● 增加適應措施的年平均成本 ● Permanent closed of local manufacturing and impacted port traffic ● Changing needs of customers and supply chain would lead to asset and business model adjustments ● Stopped receiving inbound containers due to yard congestion and container ships being rerouted ● Increases the average yearly cost of adaptation measures
青島（中國） Qingdao (China)		
天津（中國） Tianjin (China)		
大連（中國） Dalian (China)		
寧波（中國） Ningbo (China)		
曼谷（泰國） Bangkok (Thailand)		
林查班（泰國） Chabang (Thailand)		
雅加達（印尼） Jakarta (Indonesia)		
海防（越南） Haiphong (Vietnam)		
巴生（馬來西亞） Klang (Malaysia)		
約翰內斯堡（南非） Joburg (South Africa)		
開普敦（南非） Cape Town (South Africa)		

辦事處 / 網點地點 Office/Outlet Location	影響描述 Description of Impacts	海平面上升的財務影響 Financial Impacts from Sea Level Rise
中國 China	<p>相對海平面上升導致低窪地區沿海洪水的頻率及嚴重程度增加。低窪地區的城市容易因淹澇而遭受嚴重的土地損失，且據估計，21世紀地面沉降的影響可能與氣候引起的海平面上升影響一樣，特別是中國、越南、印尼、泰國、菲律賓及日本。在東亞及整個亞太地區，若不採取適應措施，預計到2095年將有100萬人（範圍介乎30萬至220萬人）受到淹澇影響¹。</p> <p>Relative sea level rise contributes to increases in the frequency and severity of coastal flooding in low-lying areas. Cities that are of low-lying areas are prone to experience high land loss due to submergence and it is estimated that land subsidence could be as influential as climate-induced sea level rise over the 21st century, particularly China, Vietnam, Indonesia, Thailand, Philippines and Japan. In East Asia and the Asia-Pacific in general, without adaptation, 1 million people (range of 0.3–2.2 million) are projected to be affected by submergence by 2095¹.</p>	<p>由於土地及自然資本的永久性損失、基礎設施及有形資本的損失以及社會資本及移民的損失，海平面上升影響經濟增長及福利結果。該等影響將導致海豐搬遷辦事處，並增加支出成本，且如果購置土地及倉庫，會導致財產損失。</p> <p>Rising sea levels affects economic growth and welfare outcomes due to permanent loss of land and natural capital, loss of infrastructure and physical capital and loss of social capital and migration. These impacts would lead to office relocation for SITC and increase expenditure cost as well as property loss due to purchase of new lands and warehouse.</p>
越南 Vietnam		
新加坡 Singapore		
菲律賓 Philippines		
泰國 Thailand		
印尼 Indonesia		
柬埔寨 Cambodia		
馬來西亞 Malaysia		
緬甸 Myanmar		
日本 Japan		
韓國 Korea		

¹IPCC, 2022：《氣候變化2022：影響、適應和脆弱性》。政府間氣候變化專門委員會第六次評估報告第二工作组報告

¹IPCC, 2022: Climate Change 2022: Impacts, Adaptation and Vulnerability, Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change

Climate-Related Risks and Opportunities

氣候相關機遇

風險創造機遇，而氣候相關機遇可使公司從向低碳氣候適應型經濟過渡中獲益。隨著市場的發展，海豐將繼續探索擴大其可再生能源足跡的機會。

基於上述氣候相關風險造成的潛在財務影響，以下為促進海豐向低碳經濟過渡的氣候相關機遇：

氣候相關風險與機遇概覽

下表概述在不同時間範圍內可能出現的可能影響海豐業務運營及帶來機遇的氣候相關財務議題。

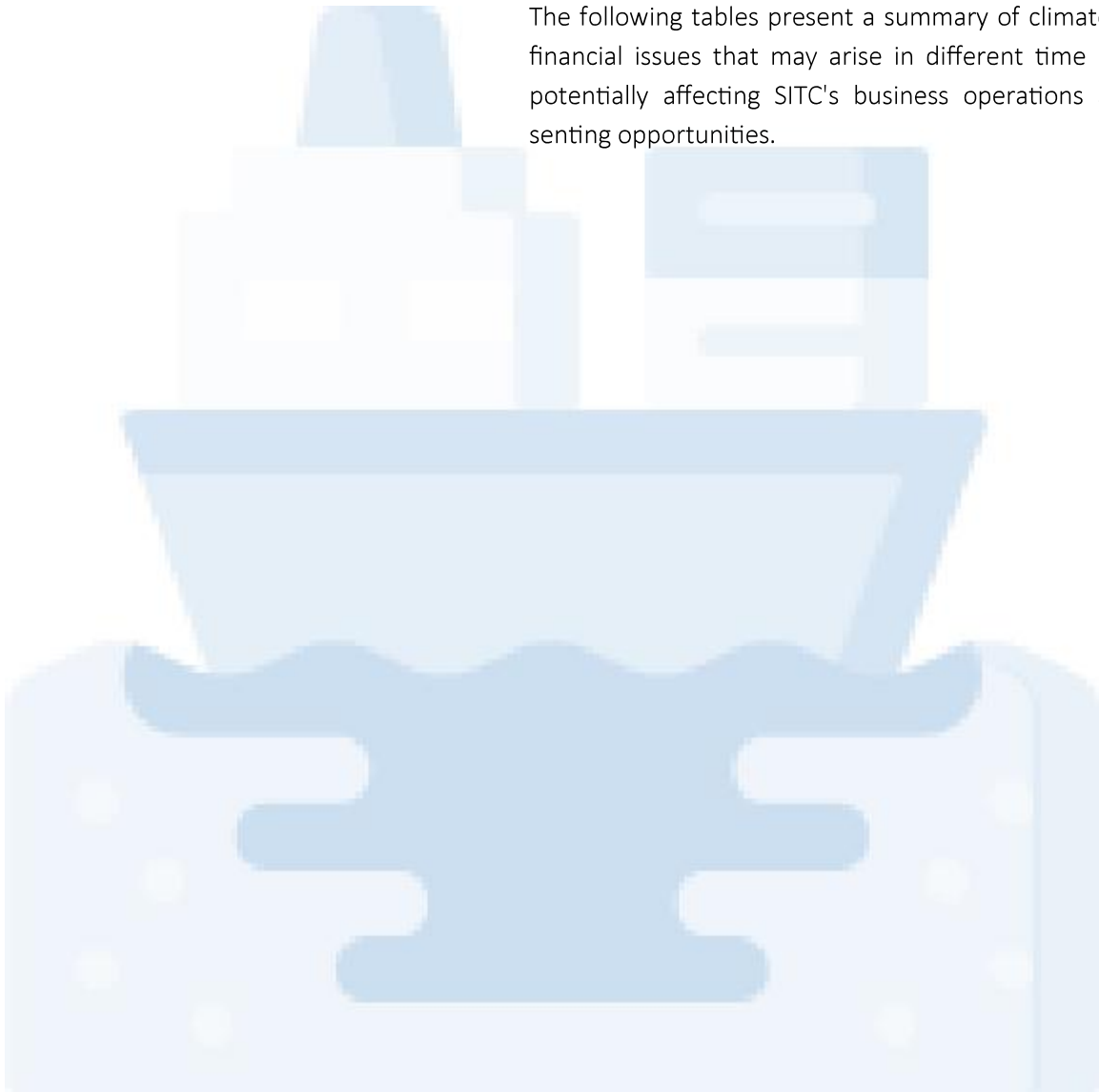
Climate-Related Opportunities

Risks create opportunities and climate-related opportunities can benefit a company from transitioning to a low-carbon climate-resilient economy. SITC will continue to explore opportunities to expand its renewable footprint as the market develops.

Based on the above potential financial impacts caused by climate-related risks, below are the climate-related opportunities to facilitate SITC's transition to a low-carbon economy:

Overview of Climate-Related Risks and Opportunities

The following tables present a summary of climate-related financial issues that may arise in different time horizons, potentially affecting SITC's business operations and presenting opportunities.



氣候相關風險與機遇

Climate-Related Risks and Opportunities

風險 Risks		氣候相關機遇 Climate-related Opportunities	對海豐的潛在財務影響 Potential Financial Impacts to SITC
實體風險 Physical Risk	熱浪（急性） Heatwaves (Acute)	<u>資源效率</u> <ul style="list-style-type: none"> 採用更加高效的生產及分配流程 循環利用 	<ul style="list-style-type: none"> 降低溫室氣體排放風險，從而降低對碳成本變化的敏感度 低排放技術的投資回報 降低未來化石燃料價格上漲的風險 提高資本可用性(例如，由於越來越多的投資者青睞低排放生產商) 對低排放貨品及服務的需求令收入增加 提高盈利能力，為持份者創造更高的價值與回報 提高供應鏈的可靠性及在各種條件下運營的能力 Reduce exposure to GHG emissions and therefore less sensitivity to changes in cost of carbon Returns on investment in low-emission technology Reduce exposure to future fossil fuel price increases Increase capital availability (e.g., as more investors favour lower-emissions producers Increase revenue through demand for lower emissions goods and services Improve profitability and create higher value and returns for stakeholders Increase reliability of supply chain and ability to operate under various conditions
	極端天氣（急性） Extreme Weather (Acute)	<u>能源</u> <ul style="list-style-type: none"> 最大限度地利用太陽能等可再生能源。 向生物燃料、氫及氨等替代燃料過渡，有助於減少溫室氣體排放，並符合新制定的法規。 採用自動化方案等數字技術，協助優化船舶運營，提高安全性，降低燃料消耗及排放。 通過優化船舶設計及節能設備提高船舶的能源效率，有助於降低燃料消耗及成本，最重要的是減少溫室氣體排放。 安裝脫硫塔，將燃料成本高的風險降至最低 	
	洪災及衍生災害（急性） Floods and Disasters (Acute)	<u>產品及服務</u> <ul style="list-style-type: none"> 擴充低排放貨品及服務 提升品牌價值，獲取高端客戶，並增加附加值 <u>抵禦力</u> 實施可持續航運慣例，如慢速航行及航線優化，可減少行業對海洋生態系統及生物多樣性的環境影響	
	全球氣溫上升（慢性） Rise of Global Temperature (Chronic)	<u>Resource Efficiency</u> <ul style="list-style-type: none"> Use of more efficient production and distribution processes Use of recycling <u>Energy Source</u> <ul style="list-style-type: none"> Maximise the use of renewable energy such as solar energy From the transition to alternative fuels such as biofuels, hydrogen, and ammonia, which can help reduce greenhouse gas emissions and comply with emerging regulations. 	
	海平面上升（慢性） Sea Level Rise (Chronic)	<ul style="list-style-type: none"> Adopt digital technologies such as automation scheme to help optimize vessel operations, improve safety, and reduce fuel consumption and emissions. Improving the energy efficiency of vessels by optimizing vessel design and energy efficient equipment which can help reduce fuel consumption and costs, most importantly also reducing greenhouse gas emissions. Installing a desulfurization tower to minimise the risk of high fuel cost 	
	生物多樣性¹（慢性） Biodiversity ¹ (Chronic)	<u>Products and Services</u> <ul style="list-style-type: none"> Expansion of low emissions goods and services Enhanced brand value, acquire high-end customers and increase added value <u>Resilience</u> Implement sustainable shipping practices such as slow steaming and route optimisation, which can reduce the environmental impact of the industry on marine ecosystems and biodiversity	

¹根據與參加 SASB 召集的行業工作小組的專家協商的結果，並被定義為最重要的可持續發展議題，將拉動海運行業的競爭力。

¹ Based on the results of consultation with experts participating in an industry-working group convened by SASB and defined as the most important sustainability issues will drive competitiveness within the Marine Transportation industry.

氣候相關風險與機遇

Climate-Related Risks and Opportunities

	風險 Risks	氣候相關機遇 Climate-related Opportunities	對海豐的潛在財務影響 Potential Financial Impacts to SITC
過渡 風險 Transition Risk	環保技術 Environmental Technology	<ul style="list-style-type: none"> 採用自動化方案等數字技術，協助優化船舶運營，提高安全性，降低燃料消耗及排放。 Adopt digital technologies such as automation scheme to help optimize vessel operations, improve safety, and reduce fuel consumption and emissions. 	<ul style="list-style-type: none"> 低排放技術的投資回報 提高資本可用性（例如，由於越來越多的投資者青睞低排放生產商） Returns on investment in low-emission technology Increased capital availability (e.g., as more investors favour lower-emissions producers)
	政策及法規 ¹ Policy and Legal ¹	<ul style="list-style-type: none"> 創造綠色價值 新的商業模式帶來進入新供應鏈的機會。 Green value creation New business model led to access to new supply chains. 	<ul style="list-style-type: none"> 營運排放減半 避免政策性處罰 提高客戶信任度 在市場上獲得競爭優勢 Halving emissions from operation Avoid penalty from policies Increase trust from customers Gain competitive advantages in the market
	市場趨勢及偏好 Market Trend and Preference	<ul style="list-style-type: none"> 進入新市場 利用公營部門的激勵措施 獲得需要投保的新資產及地點 Access to new markets Use of public-sector incentives Access to new assets and locations needing insurance coverage 	<ul style="list-style-type: none"> 通過進入新興市場（例如，與政府、開發銀行建立夥伴關係）增加收入 提高金融資產的多樣化水平（例如，綠色債券及基礎設施） Increase revenues through access to new and emerging markets (e.g., partnerships with governments, development banks) Increase diversification of financial assets (e.g., green bonds and infrastructure)
	能源價格上漲 Increase of Energy Price	<ul style="list-style-type: none"> 向生物燃料、氫及氨等替代燃料過渡，有助於減少溫室氣體排放，並符合新制定的法規。 降低溫室氣體排放風險，從而降低對碳成本變化的敏感度 降低未來化石燃料價格上漲的風險 From the transition to alternative fuels such as biofuels, hydrogen, and ammonia, which can help reduce greenhouse gas emissions and comply with emerging regulations. Reduce exposure to GHG emissions and therefore less sensitivity to changes in cost of carbon Reduce exposure to future fossil fuel price increases 	<ul style="list-style-type: none"> 營運排放減半及提高資本可用性（例如，由於越來越多的投資者青睞低排放生產商） Halving emissions from operation and increase capital availability (e.g., as more investors favour lower-emissions producers)
	聲譽 ¹ Reputation ¹	<ul style="list-style-type: none"> 提供長期目標，以抵禦管理層變化及業務優先順序的轉變 Provides long-term goals that will be resistant to changes in management and shifts in business priorities 	<ul style="list-style-type: none"> 贏得聲譽及公司形象 工作效率隨著員工的歸屬感增加而提高 提高品牌價值 Gain reputation and company image Increase productivity as staff feel sense of belonging Increase brand value
	事故及安全管理 ¹ Accidents & Safety Management ¹	<p>使社會利益與投資者利益保持一致</p> <p>Serve to align the interests of society with those of investors</p>	贏得聲譽及公司形象 Gain reputation and company image

¹ 根據與參加 SASB 召集的行業工作小組的專家協商的結果，並被定義為最重要的可持續發展議題，將拉動海運行業的競爭力。

¹ Based on the results of consultation with experts participating in an industry-working group convened by SASB and defined as the most important sustainability issues that will drive competitiveness within the marine transportation industry.

氣候相關風險與機遇

Climate-Related Risks and Opportunities

情境分析

TCFD 建議進行情境分析，以幫助公司從一系列看似合理的未來條件中有效識別及評估氣候相關風險對業務表現的潛在影響。根據氣候相關風險與機遇中識別的潛在財務影響，選定對行業最重大的影響，並實施不同的氣候相關情境。在本節中，採用兩種情境分析工具－國際能源署（「IEA」）使用的二零五零年淨零排放情境及政府間氣候變化專門委員會（「IPCC」）使用的共享社會經濟路徑(SSP)情境（SSP 1-1.9 及 SSP 8.5）。該等情境提供全面的數據，以評估海豐資產及運營在不同時間範圍內面臨的風險，該等數據可用於了解海豐可能面臨的影響，並識別相關應對措施。

情境 1：IEA 淨零排放情境

二零五零年淨零排放情境(NZE)是 IEA 的規範情境，其列示全球能源領域到二零五零年實現二氧化碳淨零排放的路徑，發達經濟體將先於其他經濟體實現淨零排放。此情境亦符合與能源相關的關鍵聯合國可持續發展目標(SDG)，其與將全球升溫限制在 1.5°C 以內且並無或具有限溫度超調（概率為 50%）相一致，並符合 IPCC 於其第六次評估報告中評估的減幅。

情境 2：IPCC 共享社會經濟路徑(SSP)情境

SSP 情境是 IPCC 用於系統審查可能的未來的方法。IPCC 發佈的 IPCC 第六次評估報告(AR6)的綜合報告(SYR)中報告了有關情況。此第六次評估報告概述了對氣候變化、其廣泛影響及風險以及減緩和適應氣候變化的認識狀況。SSP1-1.9 情境最接近地反映了《巴黎協定》下的 1.5°C 目標，而 SSP 5-8.5 則標誌著 SSP 情境頻譜的上限，具有較高指標的參考情境。

Scenario Analysis

Scenario analysis is recommended by TCFD to help companies effectively identify and assess the potential implications of climate-related risks on business performance from a range of plausible future conditions. Based on the potential financial implication as identified in section of climate-related risks and opportunities, the most significant impacts on the industry were selected and different climate-related scenarios were conducted. In this section, two scenarios analysis tools – the Net Zero Emissions by 2050 Scenario used by the International Energy Agency (“IEA”) and the Shared Socioeconomic Pathways (SSP) scenarios (SSP 1-1.9 and SSP 8.5) used by the Intergovernmental Panel on Climate Change (“IPCC”) were adopted. The scenarios provide comprehensive data to evaluate the exposure to risks to SITC’s assets and operations across different timeframes which could be used to understand the impacts SITC likely facing and to identify relevant resilience measures.

Scenario 1: IEA Net Zero Scenario

The Net Zero Emissions by 2050 Scenario (NZE) is a normative IEA scenario that shows a pathway for the global energy sector to achieve net zero Carbon dioxide (CO₂) emissions by 2050, with advanced economies reaching net zero emissions in advance of others. This scenario also meets key energy-related United Nations Sustainable Development Goals (SDGs) which is consistent with limiting the global temperature rise to 1.5 °C with no or limited temperature overshoot (with a 50% probability), in line with reductions assessed in the IPCC in its Sixth Assessment Report.

Scenarios 2: IPCC the Shared Socioeconomic Pathways (SSP) Scenarios

The SSP Scenarios is a method adopted by IPCC for systematically examining possible futures. They were reported in the Synthesis Report (SYR) of the IPCC Sixth Assessment Report (AR6) published under IPCC. This sixth assessment report summarises the state of knowledge of climate change, its widespread impacts and risks, and climate change mitigation and adaptation. SSP1-1.9 scenario reflects most closely a 1.5° C target under the Paris Agreement whilst SSP 5-8.5 marks the upper edge of the SSP scenario spectrum with a high reference scenario.

氣候相關風險與機遇

Climate-Related Risks and Opportunities

Scenario Comparison Overview 情境比較概覽

	IPCC (SSP 1-1.9)	IPCC (SSP 5-8.5)	截至二零五零年的淨零排放情境 (NZE) The Net Zero Emission Scenario by 2050 (NZE)
氣候情境 Climate Scenario			
熱浪 Heatwaves	假設熱浪的頻率、強度及持續時間減低 Assume the frequency, intensity and duration of heatwaves are reduced	假設熱浪的頻率、強度及持續時間增加 Assume the frequency, intensity and duration of heatwaves are increased	假設熱浪的頻率、強度及持續時間增加 Assume the frequency, intensity and duration of heatwaves are increased
溫度 Temperature	假設全球變暖被限制在 1.5°C Assume the global warming is limited to 1.5 °C	持續快速上升 Continue to increase rapidly	假設全球變暖被限制在 1.5°C Assume the global warming is limited to 1.5 °C
海平面 Sea level	假設到二零五零年海平面上升限制在 0.15-0.23 米左右 Assume sea level rise is limited to around 0.15–0.23 m by 2050	假設到二零五零年海平面上升限制在 0.20-0.29 米左右 Assume to sea level rise is approximately 0.20–0.29m by 2050	低 Low
洪災及衍生災害 Floods and Disasters	假設洪災的頻率及嚴重程度降低 Assumes the frequency and severity of floods are reduced	假設洪災的頻率及嚴重程度升高 Assumes the frequency and severity of floods are increased	假設洪災的頻率及嚴重程度降低 Assumes the frequency and severity of floods are reduced
生物多樣性 Biodiversity	假設由於實施保護和恢復生態系統的政策和措施，生物多樣性喪失的速度降低 Assume the rate of biodiversity loss is reduced due to implementation of policies and measures to protect and restore ecosystems	生物多樣性喪失持續 Biodiversity loss continues	假設由於實施保護和恢復生態系統的政策和措施，生物多樣性喪失的速度降低 Assume the rate of biodiversity loss is reduced due to implementation of policies and measures to protect and restore ecosystems

氣候相關風險與機遇

Climate-Related Risks and Opportunities

	IPCC (SSP 1-1.9)	IPCC (SSP 5-8.5)	截至二零五零年的淨零排放情境 (NZE) The Net Zero Emission Scenario by 2050 (NZE)
氣候情境 Climate Scenario			
市場趨勢 Market Trend	廣泛採用可再生能源技術 Widespread uptake of renewable energy technologies	有限制的採用可再生能源技術 Limited uptake of renewable energy technologies	廣泛採用可再生能源技術 Widespread uptake of renewable energy technologies
能源價格 Energy Price	假設可再生能源技術的成本繼續迅速下降，使其相較化石燃料的競爭力日益增強 Assumes the cost of renewable energy technologies continues to decline rapidly, making them increasingly competitive with fossil fuels	由於缺乏促進可再生能源發展的措施和政策，對可再生能源的需求不足 The inadequate demand for renewable energy is attributable to the absence of measures and policies that facilitate the development of renewable energy.	化石燃料使用量大幅減少導致石油需求減少 Oil demand is reduced due to significant reductions in fossil fuel use
政策及法規 Policy and Legal	假設各國政府承諾採取氣候行動，制定支持快速向低碳經濟過渡的政策及法規，例如碳價格，鼓勵應用低碳技術，並支持新技術的研發 Assume commitment to climate action by governments, with policies and regulations that support the rapid transition to a low-carbon economy, such as price on carbon, incentivize the deployment of low-carbon technologies, and support research and development of new technologies	可能實施更嚴格的政策和法規 Likely to impose more stringent policies and regulations	假設各國政府承諾採取氣候行動，制定支持快速向低碳經濟過渡的政策及法規 Assume commitment to climate action by governments, with policies and regulations that support the rapid transition to a low-carbon economy
技術 Technology	隨著政府提供強有力的支持並繼續投資於新技術開發，技術快速發展 Rapid growth of technologies as governments provide strong support and continue to invest on new technologies development	新技術開發亟待研究 Urgent research on new technologies development	進一步部署可用技術及創新工作 Further deployment of available technologies and innovative efforts

Climate-Related Risks and Opportunities

情境分析是一個動態行為及重覆反饋過程，旨在幫助設想潛在的未來結果，而非預測未來。此氣候情境分析為評估氣候相關風險及機遇提供一種結構性方法—無論以定量還是定性方式，其亦開啟了關於實體及過渡風險如何影響海豐業務的更廣泛討論。

務請知悉情境分析不用於預測氣候變化。此分析旨在完善海豐對潛在氣候相關風險及機遇的理解並準備應對。

據估計到二零三零年，在截至二零五零年的淨零情境中，低碳燃料約佔總能源需求的 15%。雖然到二零三零年約一半的低碳燃料使用是以生物燃料的形式出現，並可在現有船舶上使用，但技術開發和相關政策支持對於使用其他燃料（特別是氨及氫）減少國際航運對石油燃料的依賴非常重要。由於船舶壽命長，因此庫存周轉緩慢，近期創新及零排放技術的採用對於將國際航運置於淨零情景路徑上至關重要。

應對策略

所面對的氣候相關風險與機遇有助海豐作出改進及提前規劃，以應對氣候變化的影響。氣候相關風險與機遇概覽一節所列應對措施乃為應對廣泛主要氣候相關情境（包括 2°C 或更低的情境）所導致的潛在財務影響。

Scenario analysis is a dynamic exercise and iterative process that is meant to help envision potential future outcomes, rather than predict the future. This climate scenario analysis exercise provided a structured way to evaluate climate-related risks and opportunities – both in a quantitative and qualitative manner, and it opened a wider discussion as to how physical and transition risks could affect SITC's business.

It is important to note scenario analysis is not used for predicting climate change. This analysis is to refine SITC's understanding and equip itself of potential climate-related risks and opportunities.

It is estimated that, by 2030, low-carbon fuels represent about 15% of total energy demand in the Net Zero Scenario by 2050 Scenario. While about half of low-carbon fuel use in 2030 is in the form of biofuels, which can be used in existing vessels, technological development and associated policy support will be important to enable the use of other fuels, particularly ammonia and hydrogen, in order to reduce dependency on oil-based fuels in international shipping. Because of long vessel lifetimes and thus slow stock turnover, near-term innovation and zero-emission technology adoption are critical to putting international shipping on the Net Zero Scenario pathway.

Resilience Strategy

The exposure to climate-related risks and opportunities facilitates SITC to make improvements and plan ahead to tackle the impacts of climate change. The resilience measures indicated in the “Climate-Related Risks and Opportunities” in this report are responding to the potential financial impacts brought by a range of major climate scenarios including a 2°C or lower scenario.

風險管理 Risk Management

管理流程

誠如「管治」一節所述，董事會及其由各部門代表組成的可持續發展委員會於每六個月至少監督及檢討一次 ESG 事項。考慮到其業務面臨的風險及機遇，董事會會與該委員會共同制定具體計劃予以應對。

重要性分析

重要性評估可幫助機構識別對其業務及持份者最重要的氣候相關風險與機遇。海豐每年透過分析員工、主要客戶、供應商、金融機構、股東、政府監管機構、媒體及其他持份者的關注及反饋意見進行重要性評估。如下所示重要性矩陣標記每個議題的評級。x 軸代表經濟、環境及社會議題對持份者的重要性，而 y 軸代表影響海豐業務的相關環境、社會及經濟的重要性。共識別出 21 個 ESG 相關議題。矩陣右上角列示的議題對環境、社會及其業務的影響較大：

Management Process

As mentioned in “Governance” in this Report, the Board and the Committee, which comprises representatives from each department of SITC are responsible to oversee and review ESG issues at least once every six months. Taking into account the risks and opportunities to the Company’s business, the Board works along with the committee to develop specific plans to address them.

Materiality Analysis

Materiality assessment can help organizations identify the climate-related risks and opportunities that are most significant to their business and stakeholders. SITC conducts materiality assessment on a yearly basis through analysing concerns and feedback from the employees, major customers, suppliers, financial institutions, shareholders, government regulators, media and other stakeholders. The materiality matrix as indicated below plots the ratings that are shown on of each topic. The x-axis represents the importance of economic, environmental, and social issues to stakeholders, while the y-axis represents the importance of the concerned environment, social and economic factors impacting SITC’s business. A total of 21 ESG related topics were identified. Topics that are shown on the upper right-hand corner of the matrix have a higher impact on the environment, society and its business:



風險管理 Risk Management

海豐將持續關注航運規例，並識別其運營中可能產生的重大氣候相關影響。此舉將使公司採取積極措施應對與適應氣候變化相關的國家舉措及國際公約。

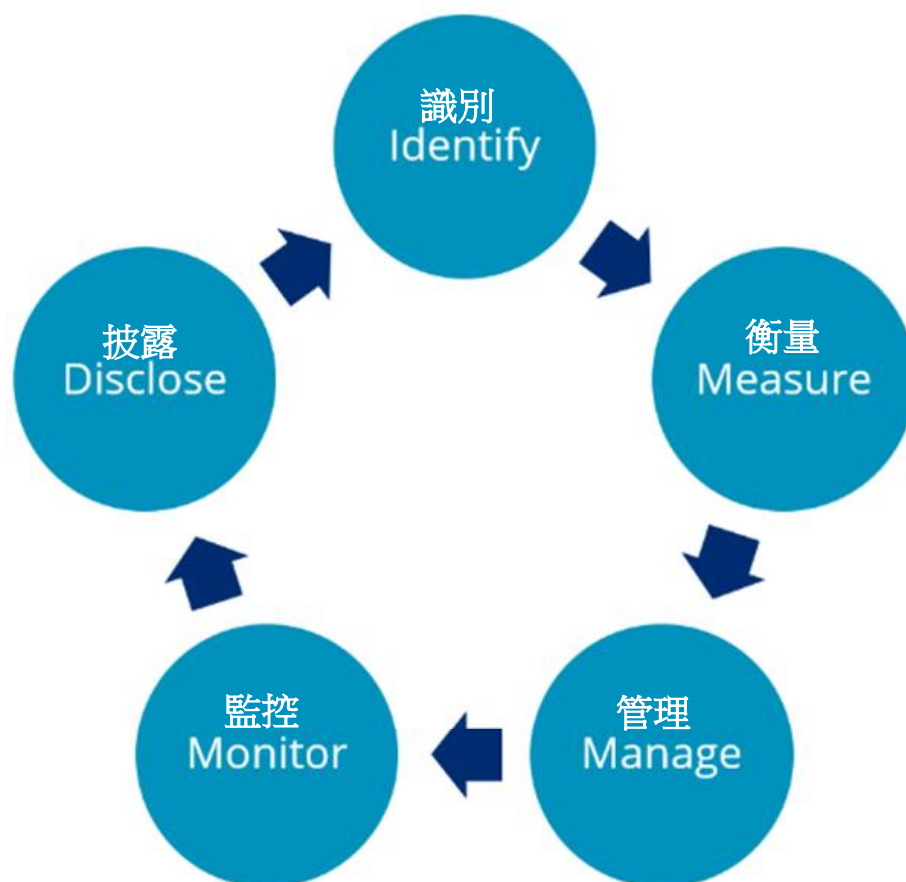
氣候相關風險分析

海豐採用系統的方法確定、評估及管理氣候相關風險。綜合風險評估計劃經過合理設計，可識別及管理與氣候變化相關的企業範圍風險，該等風險可能在短、中及長期內對海豐的業務產生重大影響。此風險評估涵蓋氣候相關的實體及過渡風險及其各自的財務影響。

SITC will maintain its focus on shipping regulations and identify significant climate-related impacts that may arise from its operations. This will enable the company to take proactive steps to address national initiatives and international conventions related to climate change adaptation.

Climate-Related Risks Analysis

SITC applies a systematic approach to identifying, assessing and managing climate-related risks. The comprehensive risk assessment program is reasonably designed to identify and manage climate change-related enterprise-wide risks that have the potential to significantly affect SITC's businesses over the short, medium, and longer terms. This risk assessment program covers exposures to both physical and transitional climate-related risks and their respective financial impacts.



示例和簡化的風險管理流程

Illustrative and simplified risk management process

風險管理 Risk Management

風險管理評估流程考慮了內部和外部持份者的看法、關注程度及意見。海豐理解持份者參與的重要性，彼等的反饋意見有助於海豐對氣候相關風險進行排序。通過了解影響海豐業務表現的不同氣候情境帶來的潛在風險，海豐選定了最重要的氣候相關項目並加以評級。

The risk management assessment process takes into account the perceptions, concerns and opinions of both internal and external stakeholders. SITC understands the importance of stakeholders' involvement and their feedbacks could facilitate SITC to prioritizing climate-related risks. By understanding the potential risks arising from different climate scenarios that would impact SITC's business performance, the most significant climate-related items were selected and rated by SITC.

氣候相關項目 Climate-related Item	整體評級 Overall Rating
政策及法規 Policy and Regulation	1
能源成本 Energy Cost	2
市場趨勢及偏好 Market trend and preference	3
環保技術 Environmental Technology	4
極端天氣 Extreme Weather	5
洪災及衍生災害 Floods and Derived Disasters	6
熱浪 Heat Waves	7
全球氣溫上升 Rise of Global Temperature	8
海平面上升 Rise of Sea Level	9
生物多樣性 Biodiversity	10

備註：1=最重要到10=最不重要

Remarks: 1 = highly important to 10 = the least important

風險管理 Risk Management

根據氣候情境的排序，下表評估海豐於各種情境中所採取的策略計劃及行動的潛在抵禦力。在此情況下，風險及抵禦力的時間範圍將自二零二零年至二零五零年，並相信該範圍更加合適，因為如果時間範圍太短或太長，則存在不確定性：

Based on the prioritised climate scenarios, the below table evaluates the potential resiliency of SITC's strategic plans and actions that took place in the range of scenarios. In this context, the time horizons for the risks and resilience would be from 2030 to 2050 which the Company considers appropriate as there are uncertainties if the time horizon is either too short or too long:

氣候情境 Climate Scenario	IPCC (SSP 1-1.9)	IPCC (SSP 5-8.5)	截至二零二一年的淨零排放情境 (NZE) The Net Zero Emission Scenario by 2021 (NZE)	海豐的應對行動及策略 SITC's Resilience Actions and Strategies
	風險描述 Description of Risks			
政策及法規 Policy and Legal	<p>假設各國政府承諾採取氣候行動，制定支持快速向低碳經濟過渡的政策及法規，例如碳價格，鼓勵應用低碳技術，並支持新技術的研發</p> <p>Assume commitment to climate action by governments, with policies and regulations that support the rapid transition to a low-carbon economy, such as price on carbon, incentivize the deployment of low-carbon technologies, and support research and development of new technologies</p>	<p>可能實施更嚴格的政策和法規</p> <p>Likely to impose more stringent policies and regulations</p>	<p>假設各國政府承諾採取氣候行動，制定支持快速向低碳經濟過渡的政策及法規</p> <p>Assume commitment to climate action by governments, with policies and regulations that support the rapid transition to a low-carbon economy</p>	<ul style="list-style-type: none"> • 緊跟新訂政策及法規，提早適應並降低違規成本 • 跟蹤貨船的技术變化 • 將所有貨船維持 C 級或更高等級 • 處置老舊船舶及更新船隊以獲得其他更新船型，以提高遵守新法規的能力 • 確保租賃船舶遵守相關條款 • 參與碳交易市場 • Keep up with new policies and regulations, allow for early adaptation and reduce the cost of violations • Keep track to technological changes for cargo ships • Maintain a rating of C or higher for all cargo ships • Dispose of older ships and update the fleet for other newer ship model to improve the ability to comply with new regulations • Ensure the chartered ships are complying with relevant clauses • Participate in the carbon trading market
能源價格 Energy Price	<p>假設可再生能源技術的成本繼續迅速下降，使其相較化石燃料的競爭力日益增強</p> <p>Assumes the cost of renewable energy technologies continues to decline rapidly, making them increasingly competitive with fossil fuels</p>	<p>由於缺乏促進可再生能源發展的措施和政策，對可再生能源的需求不足</p> <p>The inadequate demand for renewable energy is attributable to the absence of measures and policies that facilitate the development of renewable energy.</p>	<p>化石燃料使用量大幅減少導致石油需求減少</p> <p>Oil demand is reduced due to significant reductions in fossil fuel use</p>	<ul style="list-style-type: none"> • 船舶採用環保燃料，以減輕燃料成本的增加 • 優化路線及保持經濟航速以減少消耗 • 使用低能耗設備 • 勻速航行，合理控制能耗峰值，以避免能源需求 • 優化流程，推動全員節能減排，引入能耗管理考核指標，以控制成本及消耗 • Adopt environmentally friendly fuels for ships to alleviate the increase in fuel costs. • Optimize routes and maintain economical speeds to reduce consumption • Use low energy consumption equipment • Maintain stable speed and reasonably control the energy consumption peak to avoid energy demand. • Optimize the process, promote energy conservation and emission reduction to all employees, introduce consumption management assessment indicators to control costs and consumption

風險管理 Risk Management

氣候情境 Climate Scenario	IPCC (SSP 1-1.9)	IPCC (SSP 5-8.5)	截至二零二一年的淨零排放情境 (NZE) The Net Zero Emission Scenario by 2021 (NZE)	海豐的應對行動及策略 SITC's Resilience Actions and Strategies
	風險描述 Description of Risks			
市場趨勢 Market Trend	<p>廣泛採用可再生能源、環保船舶及零排放設施</p> <p>Widespread uptake of renewable energy, environmental-friendly vessels and zero emission equipment</p>	<p>有限制的採用可再生能源、環保船舶及零排放設施</p> <p>Limited uptake of renewable energy, environmental-friendly vessels and zero emission equipment</p>	<p>廣泛採用可再生能源技術、環保船舶及零排放設施</p> <p>Widespread uptake of renewable energy, environmental-friendly vessels and zero emission equipment</p>	<ul style="list-style-type: none"> 把握最新能源技術資訊 關注替代能源的發展及其市場應用 僅接觸符合環保要求的供應商，以維護商業聲譽 推廣自動化及零排放技術，並優化現有系統以及資產組合，實現供應鏈零排放 打造海豐的自主綠色低碳發展路徑，提升行業競爭力 Grasp the latest energy technology information Pay attention to the development of alternative energy and its application in the market Approach only suppliers which meet the environmental requirements to maintain business reputation. Promote automation technology and zero emission equipment, optimizing the existing system and asset portfolio to achieve net zero in supply chain Building SITC's self-independent green and low-carbon development to enhance competitiveness in the industry
技術 Technology	<p>隨著政府提供強有力的支持並繼續投資於新技術開發，技術快速發展</p> <p>Rapid growth of technologies as governments provide strong support and continue to invest on new technologies development</p>	<p>新技術開發亟待研究</p> <p>Urgent research on new technologies development</p>	<p>進一步部署可用技術及創新工作</p> <p>Further deployment of available technologies and innovative efforts</p>	<ul style="list-style-type: none"> 對潛在技術進行試點測試，以避免不必要的損失 研究查核技術的發展及成熟度，以確保更好性能 Conduct pilot test on potential technology to avoid unnecessary loss Conduct research to check the development and maturity of technology as to ensure better performance
極端天氣 Extreme Weather	<p>假設在全球變暖被限制在 1.5°C 的情況下，極端天氣的發生率降低</p> <p>Assume the rate of extreme weather reduced given that the global warming is limited to 1.5 °C</p>	<p>假設極端天氣的發生率因全球變暖超過限定水平而增加</p> <p>Assume the rate of extreme weather increased as the global warming exceeded the limit level</p>	<p>假設在全球變暖被限制在 1.5°C 的情況下，極端天氣的發生率降低</p> <p>Assume the rate of extreme weather reduced as the global warming is limited to 1.5 °C</p>	<ul style="list-style-type: none"> 繼續研究及投資可提前預測極端天氣的技術 提前規劃航運時間表及路線，以便在必要時提前安排繞道 分析繞航及暫停時間，減少或降低船舶等資產損失 制定預防方案及應急方案，並將根據最新監管標準及業務營運定期檢討及更新，確保所有僱員均充分了解方案中規定的程序 做好集裝箱綁紮，防止落水及貨損 購買相關保險 定期進行安全檢查，以消除事故隱患 Continue to research and invest in technologies for predicting extreme weather in advance. Advance planning on shipping schedule and routing to allow early arrangement for detours if necessary Analysing the time of deviation and suspension to minimise/avoid vessels and property loss Establish a prevention plan and emergency plan which would be reviewed regularly and updated according to the latest regulatory standards and business operation, and ensure all employees are well aware of the procedures stipulated in the plans Strengthen lashing to containers to prevent falling into the sea and causing damage to the cargo Purchase relevant insurance Conduct regular safety inspections to eliminate hidden dangers of accidents.

風險管理 Risk Management

氣候情境 Climate Scenario	IPCC (SSP 1-1.9)	IPCC (SSP 5-8.5)	截至二零二一年的淨零排放情境 (NZE) The Net Zero Emission Scenario by 2021 (NZE)	海豐的應對行動及策略 SITC's Resilience Actions and Strategies
	風險描述 Description of Risks			
洪災及衍生災害 Floods and Disasters	假設洪災的頻率及嚴重程度降低 Assumes the frequency and severity of floods are reduced	假設洪災的頻率及嚴重程度升高 Assumes the frequency and severity of floods are increased	假設洪災的頻率及嚴重程度降低 Assumes the frequency and severity of floods are reduced	<ul style="list-style-type: none"> 跟蹤天氣資訊、媒體及政府通告，以提前採取預防措施 採用預警系統，提前通知即將發生的洪水及其他自然災害，以便僱員能夠採取行動保護自己及海豐的設施 豐富場站基地及貨運結構，提高抗風險能力 做好土地使用規劃，以避免在洪泛區及沿海地區等高風險地區發展業務，從而減少洪災及其他自然災害的風險 加強安全培訓及演練，提高員工安全意識 在發生洪災時，執行海豐的危機管理方案 購買相關保險，以彌補洪災及其他自然災害的影響 與客戶互動，以建立信任，改善溝通，並確保根據業務的特定需求及情況量身定製災害準備及應對工作 Keep track of weather information, media and government notice to take precautions in advance Early warning systems to give advance notice of impending floods and other natural disasters, allowing employees to take action to protect themselves and SITC's facilities Enrich site bases and cargo structure to improve the ability to resist risks Good land use planning to reduce the risk of floods and other natural disasters by avoiding business development in high-risk areas, such as floodplains and coastal zones. Strengthen safety training and drills, improve employee's safety awareness In case of flooding, implement SITC's crisis management plan Purchase relevant insurance for recovering from the impacts of floods and other natural disasters Engaging with customers to build trust, improve communication, and ensure that disaster preparedness and response efforts are tailored to the specific needs and circumstances of the business
熱浪 Heatwaves	假設熱浪的頻率、強度及持續時間減低 Assume the frequency, intensity and duration of heatwaves are increased	假設熱浪的頻率、強度及持續時間增加 Assume the frequency, intensity and duration of heatwaves are increased	假設熱浪的頻率、強度及持續時間增加 Assume the frequency, intensity and duration of heatwaves are increased	<ul style="list-style-type: none"> 縮短戶外作業時間，並減少室外作業場地數量 為僱員提供防暑及降溫物資 關注天氣預報，安裝智能檢測設備，以提早預防 必要時部署自動化作業系統，以減少人員需求 預先購買意外傷害保險 已建立客戶處理程序，確保有效回應客戶 積極開拓不同市場，以增加客戶群，並優化客戶及供應來源，以減少對單一來源的依賴 Shorten the outdoor operation time and reduce the number of outdoor operation sites Provide heatstroke prevention and cooling materials to employees Pay attention to the weather forecast and install smart detection equipment allow early prevention Deploy automated operation system to reduce personnel demand when necessary Purchase accident insurance in advance Established customer handling procedures to ensure efficient respond to customers Actively explore different markets to increase customer groups and optimize customers and supply sources to reduce dependence on a single source

風險管理 Risk Management

氣候情境 Climate Scenario	IPCC (SSP 1-1.9)	IPCC (SSP 5-8.5)	截至二零二一年的淨零排放情境 (NZE) The Net Zero Emission Scenario by 2021 (NZE)	海豐的應對行動及策略 SITC's Resilience Actions and Strategies
	風險描述 Description of Risks			
溫度 Temperature	<p>假設全球變暖被限制在 1.5°C</p> <p>Assume the global warming is limited to 1.5°C</p>	<p>持續快速上升</p> <p>Continue to increase rapidly</p>	<p>假設全球變暖被限制在 1.5°C</p> <p>Assume the global warming is limited to 1.5°C</p>	<ul style="list-style-type: none"> 就業務營運改造及採用節能設備，如太陽能電池板及其他可再生能源設施 制定航線應急方案 採取物理降溫方法 關閉閑置設備 採用儲能系統，以降低燃料消耗 必要時調整工作時段，以減少能源使用量 Renovate and adopt energy-saving equipment, such as solar panels and other renewable power facilities, to business operation. Contingency plan on shipping routes Adopt physical cooling methods Switch off idled equipment Adopt energy storage system to reduce fuel consumption Adjust working hours if necessary to reduce energy usage
海平面 Sea level	<p>假設到二零五零年海平面上升限制在 0.15-0.23 米左右</p> <p>Assume sea level rise is limited to around 0.15-0.23 m by 2050</p>	<p>假設到二零五零年海平面上升限制在 0.20-0.29 米左右</p> <p>Assume to sea level rise is approximately 0.20-0.29m by 2050</p>	<p>低</p> <p>Low</p>	<ul style="list-style-type: none"> 在選址時評估海平面上升的風險 根據不同國家頒佈的海平面上升指引，定期檢查及評估現有場所的風險 跟蹤海平面上升的速度，因為此舉將有助於在需要搬遷場所時尋找合適的地點 儘量採用租賃土地及倉庫的方式，防止長期資產的損毀 Assess the risk of sea level rise during the site selection Inspect and assess the risk of the existing sites regularly in accordance with the sea level rise guidelines promulgated by the different countries Keep track of the rate of sea level rising as this will help for sourcing suitable spots in case of the need for site relocation. Land and warehouse rental instead of buying to prevent damage to long-term assets
生物多樣性 Biodiversity	<p>假設由於實施保護和恢復生態系統的政策和措施，生物多樣性喪失的速度降低</p> <p>Assume the rate of biodiversity loss is reduced due to implementation of policies and measures to protect and restore ecosystems</p>	<p>生物多樣性喪失持續</p> <p>Biodiversity loss continues</p>	<p>假設由於實施保護和恢復生態系統的政策和措施，生物多樣性喪失的速度降低</p> <p>Assume the rate of biodiversity loss is reduced due to implementation of policies and measures to protect and restore ecosystems</p>	<ul style="list-style-type: none"> 關注政策變動 在設計或建造新船舶時，海豐始終考慮環境要求，以保護生物多樣性 選擇避免傷害敏感海域的航線 選擇環保型供應商 Pay attention to policy changes. When designing or constructing new ships, SITC has always put into consideration of environmental requirements to protect biodiversity Select shipping routes that would avoid harming the sensitive marine areas Select environmentally friendly suppliers

指標及目標 Metric and Targets

海豐致力於到二零六零年將全球二氧化碳排放量減少到淨零，並將全球平均氣溫的長期升幅限制在 1.5°C。為此，海豐已制定碳減排目標及舉措，為過渡至低碳經濟作準備。

為實現減碳目標，海豐的業務營運始終嚴格遵守環保法規，特別是全面遵守國際海事組織(IMO)制定的強制性技術及操作措施與排放標準。IMO 完全支持聯合國發展目標，是負責防止船舶產生海洋及大氣污染的聯合國專門機構。

於二零二二年，海豐啟用 20 艘低成本、高效率的新船舶，以減少排放。新船型增強了船隊運力，大大提高了能源使用效率。於未來幾個月內，海豐計劃更換更多舊船，並交付 14 艘新船。本公司亦一直積極關注新能源船舶的發展，並於二零二二年初租用第一艘液化天然氣(LNG)集裝箱船「MV TIGER LONGKOU」，標誌著探索新能源船舶邁出第一步。

SITC is committed to reducing the global CO2 emissions to net zero by 2060, limiting the long-term increase in average global temperatures to 1.5°C. As for this, SITC has established carbon reduction targets and initiatives to prepare for the transition to a low-carbon economy.

To achieve the carbon reduction targets, SITC's business has been strictly operating in accordance with environmental regulations, in particular full compliance with mandatory technical and operational measures and emission standards set by the International Maritime Organization (IMO). The IMO wholly supports the United Nations development goals and is the United Nations specialized agency with responsibility for the prevention of marine and atmospheric pollution by ships.

In 2022, SITC launched 20 low-cost and high-efficiency new ships to cut down emissions. The new ship model has an enhanced fleet capacity and greatly improved the efficiency of energy use. In the coming months, SITC is planning to replace more old ships and deliver 14 new ships on board. The Company has also been actively focusing on the development of new energy ships and in the early year 2022, chartered the first Liquefied natural gas (LNG) powered container ship "MV TIGER LONGKOU", marking the first step in the exploration of new energy ships.



指標及目標 Metric and Targets

氣候相關指標及目標

海豐執行以下披露主題及指標。該等選定指標與溫室氣體排放（噸二氧化碳當量）、廢氣排放（噸）及燃料消耗（噸）尤為相關：

Climate-Related Indicators and Targets

The below are the disclosure topics and metrics executed by SITC. These selected metrics are specifically associated with greenhouse gas emissions (tCO₂e), air emissions (ton) and fuel consumption (ton) :

溫室氣體排放總量 Total Greenhouse Gas Emissions

	二零二零財政年度 FY 2020	二零二一財政年度 FY 2021	二零二二財政年度 FY 2022
範疇 1 – 直接溫室氣體排放（噸二氧化碳當量） Scope 1 – Direct GHG Emissions (Ton of CO ₂ e)	1,505,664	1,708,807	1,782,454
範疇 2 – 間接溫室氣體排放（噸二氧化碳當量） Scope 2- Indirect GHG Emissions (Ton of CO ₂ e)	2,476	2,939	3,530
溫室氣體密度（公噸/每萬美元） GHG Density (Mt/Ten Thousand U.S Dollar)	8.95	5.68	4.34

燃料消耗及廢氣排放 Fuel consumptions and air emissions

	二零零八財政年度 FY 2008	二零二零財政年度 FY 2020	二零二一財政年度 FY 2021	二零二二財政年度 FY 2022
燃料消耗（噸） Fuel Consumption (Ton)	205,910	463,644	527,162	556,536
二氧化氮總密度（克/每 TEU 公里） Total NO ₂ Intensity (g/TEU KM)	4.702	2.364	2.171	2.048
二氧化硫總密度（克/每 TEU 公里） Total SO ₂ Intensity (g/TEU KM)	0.5843	0.2929	0.2721	0.2537

指標及目標 Metric and Targets

鑒於本報告中論述的氣候相關風險，海豐已制定與氣候變化相關的短、中及長期目標作為未來目標，以進一步促進《巴黎協定》的實施。

短期目標

自二零二三年起，所有現有船舶的能效指數(EEXI)及碳排放密度(CII)均將達到 IMO 的最新要求。

中期目標

到二零三零年，二氧化碳排放密度較二零零八年降低 40%。

長期目標

到二零五零年，二氧化碳排放密度較二零零八年降低 70%，二氧化碳總排放量減少 50%，並於二零六零年實現零碳目標。

In view of the climate-related risks discussed in this Report, SITC has established the future targets in short, medium and long-term goals associated with climate change to further contribute to the Paris Agreement.

Short-term Target

From 2023, all existing ships' energy efficiency index (EEXI) and carbon emission intensity (CII) will meet the latest requirements of IMO.

Medium-term Target

Reduce carbon dioxide emission intensity by 40% by 2030 compared to 2008

Long-term Target

By 2050, the intensity of carbon dioxide emissions will be reduced by 70% compared with 2008, the total carbon dioxide emissions will be reduced by 50%, and the goal of zero carbon will be achieved by 2060.



附件: 參考資料 Appendix: Reference Materials

作者 Author	來源 Source
海豐	關於海豐 https://www.sitc.com/en/
IEA	二零五零年淨零排放情境 https://www.iea.org/reports/global-energy-and-climate-model/net-zero-emissions-by-2050-scenario-nze
IEA	二零二二年世界能源展望 https://iea.blob.core.windows.net/assets/830fe099-5530-48f2-a7c1-11f35d510983/WorldEnergyOutlook2022.pdf
IEA	能源轉型中的能源安全 https://www.iea.org/reports/world-energy-outlook-2022/energy-security-in-energy-transitions#abstract
IEA	二零五零年淨零排放—全球能源行業路線圖 https://www.iea.org/reports/net-zero-by-2050
IEA	二零五零年淨零排放—對淨零排放示範項目的需求 https://iea.blob.core.windows.net/assets/76426d5e-0c9c-4f9f-809f-feca6bde702e/TheNeedForNetZeroDemonstrationProjects.pdf
IPCC	第六次評估報告(AR 6) https://www.ipcc.ch/site/assets/uploads/2023/03/Doc4_Approved_AR6_SYR_SPM.pdf
IPCC	第六次評估報告—附件 ii https://www.ipcc.ch/report/ar6/wg2/chapter/annex-ii/
IPCC	《氣候變化 2022：影響、適應和脆弱性》。政府間氣候變化專門委員會第六次評估報告第二工作組報告 Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change
IMO	關於 IMO https://www.imo.org/
香港天文台	全球海平面 https://www.hko.gov.hk/en/climate_change/proj_global_sea_level.htm
氣候數據	了解—共享社會經濟路徑(SSP) https://climatedata.ca/resource/understanding-shared-socio-economic-pathways-ssps/
香港交易所	《按照 TCFD 建議彙報—氣候信息披露指引》 https://www.hkex.com.hk/-/media/HKEX-Market/Listing/Rules-and-Guidance/Environmental-Social-and-Governance/Exchanges-guidance-materials-on-ESG/guidance_climate_disclosures.pdf
TCFD	實施工作小組關於氣候相關財務披露的建議（二零二一年十月） Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures, October 2021
國際可再生能源機構(IRENA)	二零五零年航運業脫碳的路徑（二零二一年） A pathway to DECARBONISE THE SHIPPING SECTOR By 2050 (2021)
SASB	《海運研究簡報》 Marine Transportation Research Brief
UNCTAD	案例研究 23：泰國拉姆查班港 Case Study 23: Port of Laem Chabang, Thailand https://resilientmaritimelogistics.unctad.org/guidebook/case-study-23-port-laem-chabang-thailand
Stockholm Environmental Institute (SEI)	為亞洲沉降城市奠定基礎 Putting a floor under Asia's sinking cities https://www.sei.org/about-sei/press-room/putting-a-floor-under-asias-sinking-cities/



SITC

海豐國際控股有限公司

SITC International Holdings Company Limited

Stock Code: 1308

Address: 31/F, Shui On Centre, 6-8 Harbour Road, Wanchai, Hong Kong

Telephone: 852-28500302

Email: lhwx@sitc.com