BW LPG

# Climate-Related Physical and Transition Risks & Potential Financial Impacts

We discuss the climate-related transition and physical risks that we face in our daily operations, and how we plan to mitigate them.

## Transition Risks: risks related to the transition to a lower-carbon economy.

| Risk | Potential Risks | Potential Impact | Potential Mitigation |
|---|---|---|---|
| **Policy and Legal** | Shipping will be impacted by the implementation of a carbon tax. The industry faces increasingly stringent emissions reporting obligations, and companies may adopt more climate-related obligations in charter-hire contracts. There may also be further restrictions on the use of conventional fossil-based bunkers. | Carbon taxes will increase operating costs due to higher cost of using compliant fuels. Service capacity may be reduced as vessels slow down to comply with emissions regulations. Assets that cannot meet compliance requirements may have to be retired early. Charter-hire rates may be increased to offset higher operating costs and investment in new technology. | To reduce cost exposure, companies can participate in the carbon market and leverage public-sector incentives. Early adoption of next-gen vessel technology and participation in the development of low-emissions fuel supply chain can be beneficial in the long run and reduce early retirement of assets. |
| **Technology** | The ability to collect and make sense of data is critical to optimise assets and performance. A growing trend of automation and digitalisation will require investment into new equipment and qualified employees for the company to remain competitive against peers. | Existing technology can quickly become obsolete, and assets may be retired early. This can translate into higher capital costs to upgrade IT infrastructure, deploy new technology and invest in training. | We are an early adopter of next-gen vessel technology, and we explore renewable energy programs and invest in energy efficiency measures to build our expertise in emission reduction. By conducting risk and impact assessments of decarbonisation pathways, we ensure that we make informed choices and the best long-term plans. |
| **Market** | As the world transitions to cleaner-burning energy, there may be changes to the LPG supply chain and demand for LPG, affecting LPG shipping demand. Unfavorable developments in regulations or reduction in LPG supply may increase the cost of LPG and fossil-based fuel. | Underutilisation of vessel reduces freight rates and the company’s time-charter income. Overall operating expenses and voyage costs can increase due to off hire maintenance and reduced scale of operations. We may also lose market share if we do not adopt preferred decarbonsing practices to meet investor expectations. | Our Product Services Division helps maintain high commercial utilisation on our vessels. Becoming a first mover in low carbon shipping can increase access to new clientele and markets. |

BW LPG

| Risk | Potential Risks | Potential Impact | Potential Mitigation |
|---|---|---|---|
| **Reputation** | Shipping has a reputation for pollutive operations. The industry may face increasing concerns from stakeholders on long-term business viability, especially for the shipping of hydrocarbons. This is apparent in regulatory developments such as the EU taxonomy, which imposes restrictions on capital markets. | We may see a reduced investor and lending base. Correspondingly there may be an increase in the cost of financing due to regulatory restrictions and stricter financing criteria. | We continue to optimise and ensure proper fleet maintenance. We also invest in research and development (R&D) of next generation technologies for low carbon vessels to maintain service quality and manage stakeholder expectations. |
| **Operational** | As the industry adopts new technology and alternative fuels, safety remains a concern. Our vessels may face disruptions or delays from regulatory compliance, and there may also be supplier service interruption as they cope with raw material shortages or supply chain disruptions. | We may face increased cost for PPE (Personal Protective Equipment), high training costs, penalties due to stricter charter-hire contacts, increased operating costs from operational delays, and increased voyage costs due to re-routing around “no- sail” zones and zero-emission shipping routes. | We conduct additional crew training to upgrade and reskill workers to support new practices on board and on shore, thus reducing potential disruptions. We ensure supply chain diversification and continuously enhance our third-party risk assessment and compliance audit to build a resilient supply chain. |
| **Financing** | As the focus on climate change continues to grow, stakeholders in the financial sectors such as banks and capital markets may change their financing and investing criteria to the detriment of industries that are perceived as more pollutive. | We may face increased credit risk exposure and the possibility of downward asset repricing. Reduced investor base and non-compliance with sustainability metrics could also increase our costs due to higher interest rates. | We communicate with stakeholders to keep abreast of ESG requirements and developments and work to ensure alignment with requests from the financial sector. Continued dialogues with lenders and investors builds our relationships with financial stakeholders to diversify our financing base. |

**Physical Risks: risks related to the direct impact on assets from climate-related events, and indirect impacts on global supply chain & resources.**

| Risk | Potential Risks | Potential Impact | Potential Mitigation |
|---|---|---|---|
| **Acute** | The industry in general faces increased severity and frequency of extreme weather conditions, such as hurricanes. Extreme weather poses risks to life and assets, extend voyage duration, and vessels also face accelerated deterioration due to weather damage. | We may face delays in cargo delivery, incur increased costs from repair or costs from reinforcements to vessel to ensure crew safety. Any loss of cargo may be a financial liability. In addition, insurance premiums may increase, and scope of coverage may be reduced. Due to damage from weather-related incidents, vessels' useful life may be reduced, and operating costs increase. Crewing-related costs may also increase if there is a labor shortage due to weather-related incidents. | Through scenario analyses we explore how frequency, intensity, and location of extreme weather events can impact operations. We adopt available technology to assess and forecast extreme weather conditions and optimise vessel re-routing especially when risk areas are identified. We work with suppliers to monitor and assess risks to ensure supply chain resilience. To ensure maximum coverage in the event of extreme weather incidents, maintaining good rapport with P&I Clubs ensures a climate-adapted insurance cover. |
| **Chronic** | Vessels can face disruptions during port calls due to damage to port facilities. Extreme and unpredictable weather patterns threaten our operational integrity and risk management plans. | We may see increased port costs as ports raise fees to cover expenses incurred from weather-related incidents. Disrupted trade routes may increase voyage duration and costs. Maintenance and repair costs may increase, crew changes may be impacted, resulting in the increase in crewing-related costs. | |

*****

Updated: March 2022