

# Embracing and Enhancing Sustainable Technology and Innovation



Sustainability Transition

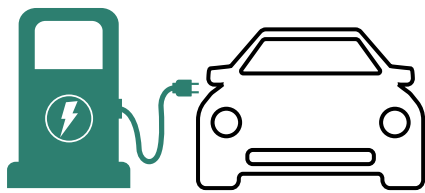


Climate Change Adaptation and Mitigation



Climate-friendly Mobility

# EMBRACING AND ENHANCING SUSTAINABLE TECHNOLOGY AND INNOVATION



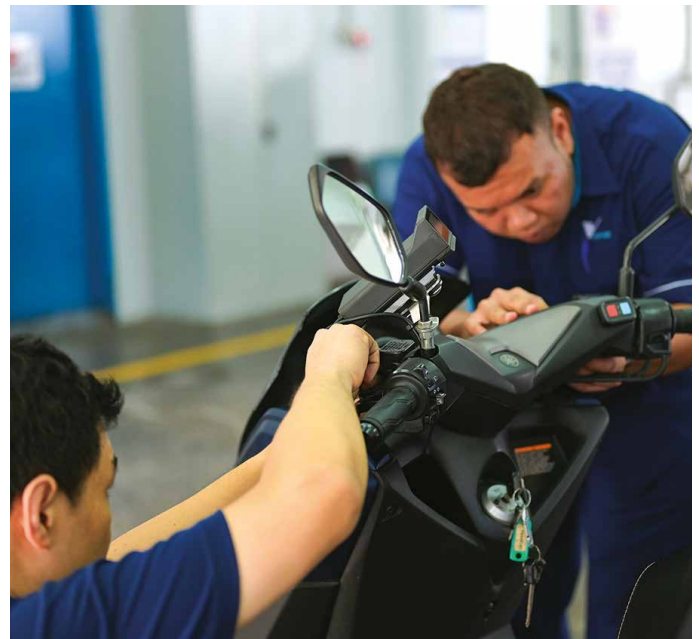
VICOM prioritises the adoption and advancement of sustainable technology and innovation to enhance service quality and efficiency while reducing environmental impact. By integrating cutting-edge, eco-friendly technologies and solutions for mitigation, the company is able to meet the evolving regulatory standards and customer demands for sustainable solutions.

## Sustainability Transition

Advancing the transition towards sustainability by embedding climate-friendly solutions within the organisation and strengthening VICOM's climate mitigation and adaptation resilience.

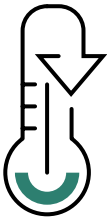
As one of the key testing and inspection services provider in Singapore, embedding sustainability and integrity across our operations is of utmost importance. Thus, it is crucial to implement climate mobility solutions and consider climate-related mitigation measures in our business strategy. Through the assessment of climate-related risks and opportunities, as well as the adoption of systems which offer climate-friendly transitions, VICOM aims to alleviate and minimise the impact of its operations on climate and environment.

Compulsory vehicle inspections to uphold road safety and environmental standards for all vehicles.



VICOM Inspectors carrying out OBU installation on a motorcycle.

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## CLIMATE CHANGE ADAPTATION AND MITIGATION

As the effects of climate change become increasingly discernible, it is crucial for businesses to adapt to, mitigate and, where possible, prevent any negative environmental consequences, through the implementation of strategic and effective strategies. Thus, VICOM endeavours to ensure that its businesses and assets remain resilient to climate risks, whilst accelerating its efforts to drive sustainability within and beyond its operations.

VICOM is strengthening its climate mitigation and adaptation measures through the identification and assessment of climate-related risks and opportunities.

It started aligning with the Task Force on Climate-Related Disclosures (TCFD) since 2022 and in October 2023,

published its first standalone TCFD report, providing stakeholders insights into how it identifies and assess climate-related risks and opportunities, as well as how it builds resilience through the commitment to carbon reduction targets, adoption of renewable energy and investment in green fleets. By actively transitioning its fleet towards cleaner alternatives, VICOM hopes to significantly reduce GHG emissions and minimise the impact of climate change.

In its first climate risk assessment, VICOM identified climate-related risks and opportunities through a screening exercise.

The table below summarises the parameters and scope of the risk and opportunity screening.

Table 1. Scope and parameters of climate-related risk and opportunity screening

PARAMETERS	SCOPE	
Country	Singapore	
Baseline year	2022	
Timeframe	Short-term: up to 2030 Medium-term: up to 2040 Long-term: up to 2050	
Scenarios explored	1.5°C warming (NGFS Net-Zero by 2050, IEA NZE 2050 & RCP 2.6) > 3°C warming (NGFS Current Policies, IEA STEPS & RCP 8.5)	
Risks	<b>Transition risks</b> <ul style="list-style-type: none"> <li>• Carbon pricing</li> <li>• Changing customer expectations</li> <li>• Low carbon economy transition policies and regulations</li> <li>• Reputational risks</li> <li>• Technology shifts</li> </ul>	<b>Physical risks</b> <ul style="list-style-type: none"> <li>• Floods</li> <li>• Heatwaves (Rising mean temperatures)</li> <li>• Storms and cyclones</li> <li>• Wildfires</li> <li>• Rising sea levels</li> <li>• Droughts (Water scarcity)</li> </ul>

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VICOM’s risk and opportunity screening and the initial climate scenario analysis performed in 2023 was based on a snapshot of our business in 2022 (the baseline year) and included scenarios and time horizons aligned with the latest climate science practices. This included the different short (up to 2030), medium (up to 2040) and long-term (up to 2050) time frames, which are aligned with VICOM’s internal strategy and risk management planning and also serve as guide for the target setting and strategic decision making. Based on them, the company is able to effectively prioritise and select actions and strategies for managing key sustainability-related risks and opportunities that may arise in the future time horizons.

In addition, the targets set for VICOM’s annual ESG Balance Scorecard (BSC), which ties 25 percent of the management bonus to ESG-related performance, are informed and contextualised by the longer-term targets that have been set across the different time horizons. This ensures that current ESG targets and performance remain better aligned with the goals in the short-, medium- and long-term timeframes.

The detailed analysis was based on two scenarios, namely a 1.5°C warming scenario and a >3°C warming scenario. The orderly scenario (1.5°C scenario) assumes climate policies are introduced and rapid decarbonisation is undertaken, whereas the hot house scenario (>3°C scenario) assumes that climate policies and action are limited and insufficient for the impacts of climate change. The climate impacts are modelled for these two scenarios for all short, medium and long-term timeframes. For more information on the scenarios explored, refer to page 6 of our TCFD Inaugural Report 2023.

Finally, both transition and physical risks and opportunities were considered in the screening analysis. The long list of potential climate-related risks and opportunities as per the TCFD was consulted and the shortlisted risks and opportunities mentioned in Table 1 are further explored below.

The full process of the climate risk scenario analysis can be summarised in four steps:

Figure 3. Four steps of climate scenario analysis



The following section captures a summary of steps one and two of the full process. For more information, kindly refer to VICOM’s TCFD Report 2023.

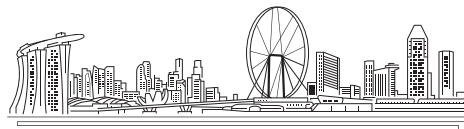
The climate-related risk and opportunity screening included review of the full list of potential climate-related risks and opportunities as per the TCFD through a qualitative desktop research. The exercise followed the scope presented in Table 1.

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Transition risks arise from actions associated with a transition to a low-carbon economy, such as newly introduced climate policies and regulations, low-carbon technologies, carbon pricing, or changes in consumer preferences and market sentiment. Physical risks are those that arise from the physical impact of climate change, both chronic (impact over a period of time, such as temperature increase or sea level rise) and acute (impact by extreme events, such as floods, storms or wildfires).

The results of the screening exercise are outlined in Table 2 below, where we have identified the potential level of risk.

Table 2. Climate-related risk screening results<sup>6</sup>



## SINGAPORE

PHYSICAL	1.5°C warming	● Heatwaves (Rising mean temperatures)
	>3°C warming	<ul style="list-style-type: none"> <li>● Floods</li> <li>● Droughts (Water scarcity)</li> <li>● Rising sea levels</li> <li>● Heatwaves (Rising mean temperatures)</li> </ul>
TRANSITION	1.5°C warming	<ul style="list-style-type: none"> <li>● Carbon pricing</li> <li>● Low carbon economy transition policies and regulations</li> <li>● Technological shifts and innovation</li> <li>● Changing customer expectations</li> <li>● Reputational risks</li> </ul>
	>3°C warming	<ul style="list-style-type: none"> <li>● Carbon pricing</li> <li>● Low carbon economy transition policies and regulations</li> <li>● Technological shifts and innovation</li> <li>● Changing customer expectations</li> <li>● Reputational risks</li> </ul>

**Legend**

Potential impact magnitude\*:

- Moderate risk
- High risk

\* Magnitude is determined through well referenced literature and data sets on climate risk indicators and is determined through observed and projected trends in physical risks from the Climate Analytics' Climate Impact Explorer and the World Bank Climate Change Knowledge Portal.

7 Table 2 only presents the shortlisted climate-related risks which are likely to have a potentially moderate or high impact on VICOM's business operations and financials. Some of the physical and transition risks have not been presented in this table (for example storms and typhoons) as they were deemed to have a lower or negligible impact on VICOM's operations in Singapore in the scoped timeframes and scenarios. The full list of identified shortlisted climate-related risks and opportunities and their accompanying potential impacts that are pertinent to VICOM can be found in pages 9-12 of VICOM's TCFD Inaugural Report 2023.

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To inform the potential magnitude of impact from the identified climate-related risks to VICOM, the screening exercise references available, appropriate and well referenced literature such as the International Energy Agency (IEA) World Energy Outlook<sup>8</sup>, Climate Analytics' Climate Impact Explorer<sup>9</sup> and the Network for Greening the Financial System (NGFS)<sup>10</sup>, as well as the latest understanding of climate science from the IPCC Sixth Assessment Report<sup>11</sup>.

After the initial shortlisting enabled by the climate-related risk and opportunity screening exercise, we continued to explore the climate-related risks and opportunities in more detail and map the associated business and financial impact to the relevant risks and opportunities where data was available (step three and four). These steps are further explored in the next section.

The results from the scenario analysis subsequently aided in the formulation of action plans and responses to guide our climate-related strategies.

## Our performance

Based on the mapped risks, we were able to perform a more detailed quantitative climate scenario analysis to identify the potential financial exposure to climate-related risks and opportunities and strengthen our understanding of the expected financial impacts to the business as well as the business' resilience to the identified risks. It must be noted that the climate scenario analysis results for physical risks were determined on the assumption that no action was undertaken by VICOM to mitigate and adapt to the pertinent

climate risks. The results also do not differentiate between business units.

Overall, in the assessment of both physical and transition risk, it was determined that some risks apply directly to VICOM as 'first-order' risks, and other risks have more indirect impact as 'second-order' risks. First-order risks are risks which directly affect VICOM's operations and assets. For instance, physical risks such as floods can cause damage to VICOM's property. On the other hand, second-order risks have a more indirect impact and are experienced by the company through cost pass-through. For example, VICOM does not experience direct implications of carbon taxes, due to the nature of operations, however, the indirect impact of increasing carbon taxes may be felt, as the electricity prices continue to rise in the future. As carbon taxes do not directly affect VICOM currently and remain as a second-order risk, the transition risk of rising carbon prices is excluded from the overall direct financial impact diagram below (figure 3). However, as this risk is relevant when talking about transitioning to a lower carbon economy, it is explored separately under a 'what if' scenario.

Through the scenario analysis, it is concluded that unmitigated climate risks result in potential additional financial impact for the respective year.

Among the quantified physical risks, costs of higher cooling spending due to rising temperatures appears to be the most significant first-order risk in terms of potential additional financial impact under all timeframes and scenarios.

8 IEA, 2022, World Energy Outlook 2022. <https://www.iea.org/reports/world-energy-outlook-2022>

9 Climate Analytics, Climate impact explorer. <https://climate-impact-explorer.climateanalytics.org/>

10 NGFS, Scenarios Portal. <https://www.ngfs.net/ngfs-scenarios-portal/>

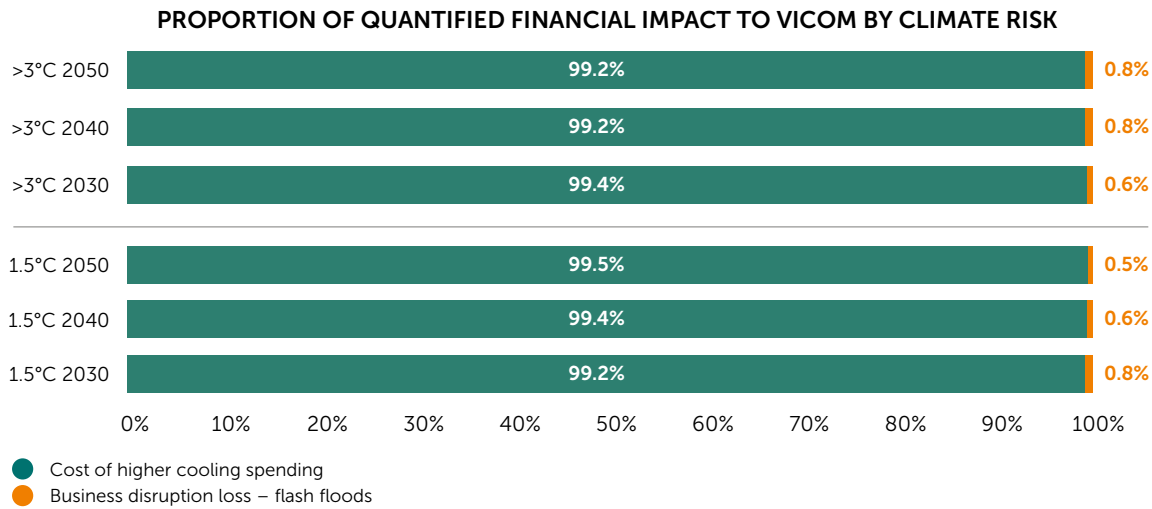
11 IPCC, Sixth Assessment Report, 2022. <https://www.ipcc.ch/assessment-report/ar6/>

12 Carbon prices is a term that is inclusive of carbon taxes, emissions trading schemes and other related instruments that capture the cost of GHG emissions. However, in the context of VICOM's location of operations – Singapore, the main form of carbon pricing impacting VICOM is carbon tax.

13 Risk impacts estimated based on our current inputs are considered to be majorly financially material if the financial impact is >5% of VICOM's 3-year average EBITDA (FY2020, 2021 and 2022).

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Figure 3. Proportion of additional financial impact by climate risk for the respective year<sup>14, 15</sup>



While potential carbon prices in the form of carbon taxes presently remain a second-order risk to VICOM, they may account for a large proportion of the additional financial costs in future. The impact from carbon tax has been modelled on a 'what if' scenario basis, i.e. if carbon taxes were applicable to VICOM, the potential impact was quantified.

Taking the company's existing decarbonisation measures (e.g. solar panel installations, EV transition plan and heat recycling) into consideration, we applied a 'what if' scenario for VICOM in our climate scenario analysis. The 'what if' scenario models the financial implication for VICOM if VICOM were affected by the carbon pricing scheme, providing a financial quantification of the additional impact of carbon taxes. Under this 'what if' scenario, a comparison between an 'unmitigated' option (i.e. no carbon reduction plan, business as usual, no mitigation measures) and a 'mitigated' option (i.e. considering VICOM's current plan to reduce carbon emissions, mitigation measures applied) was explored. To determine the appropriate carbon prices for each scenario and time horizon, we referenced the IEA World Energy Outlook 2021<sup>16</sup>.

Overall, under both the 1.5°C and >3°C scenarios, the additional costs incurred in the mitigated option are projected to be significantly lower than the additional costs in the unmitigated scenario across all three timeframes. Under the mitigated scenario, VICOM estimates the range of additional financial carbon costs increases to be 12% – 95% lower than the costs in an unmitigated scenario across all timeframes. This stems from lower projected Scope 1 and 2

emissions over the 2030, 2040 and 2050 timeframes when decarbonisation plans are in place.

As a result, this highlights the importance and benefits of planning and implementing decarbonisation strategies and solutions aimed at reducing VICOM's overall emissions. Simultaneously, this demonstrates its resilience to the second-order transition risk of increased carbon costs and highlights the firm's commitment to advancing climate mobility.

While climate science is able to more strongly support the quantification of climate risks, there are also business opportunities arising from the increased focus on the changing climate. Opportunities most pertinent to VICOM operations in this regard are sustainable food systems and sustainable building materials. At the moment, the scale of these opportunities is difficult to quantify due to the lack of data. However, they may be quantified in the future when data around these opportunities becomes available.

For more details on each quantified risk, please refer to pages 14-18 of our [full TCFD report here](#).

In 2024, VICOM further evaluated the outstanding areas of alignment of our climate disclosures, extending the identification and assessment of climate-related risks to the entire value chain.

We performed an in-depth value chain mapping exercise by collecting information on our key suppliers in all geographies

14 Impact from carbon costs is not considered in the total additional financial impacts as it is an indirect impact and is explored separately. The total financial impact thus consists of the physical risk impacts only.  
 15 This study **estimates the annual additional and proportionate financial impacts for a single year** and does not model the rate of change of impacts across 2022 and 2050 (i.e., impacts are not cumulative). Therefore, should a physical climate risk event occur, the impact would be larger. Refer to VICOM's TCFD Inaugural Report 2023 for more information.  
 16 IEA World Energy Outlook 2021, pg 329.

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to better understand the products and services that are key to our operations. We also studied the impacts to the downstream areas of our supply chain, including our customers, and the resale and end of life activities.

As we are completing the detailed analysis of the key risks and opportunities and potential implications and next steps, we are also preparing for a more robust disclosure in our FY2025 report that would fully align with the IFRS S2 reporting requirements.

## Looking forward

Considering the above, VICOM strives to effectively manage, mitigate and adapt to physical climate risks. The company has established standard operating procedures and Business Continuity Plans ("BCPs") in preparation for possible business disruptions arising from sustainability climate-related risks such as flash flood risks and higher mean temperatures.

Its BCPs seek to mitigate the risks of disruption and catastrophic loss to operations, people, information databases and other assets. These plans include alternative recovery centres, operational procedures to maintain communication, measures to ensure continuity of critical business functions, protection of employees and customers and recovery of information databases. For example, in the event of power failures caused by floods, VICOM has BCPs to safeguard its employees and ensure business continuity. The company updates and tests its BCPs regularly to ensure efficacy and familiarise its employees with drills and emergency responses to possible climate-related threats and hazards.

Furthermore, as VICOM continues to align its climate disclosure to the IFRS S2 reporting requirements, the climate scenario analysis will be further reviewed and updated. This will include considerations around the value chain and business model, current and anticipated effects of these risks and also any assumptions and measurement uncertainty that may prevail. Further considerations to our overall climate-related resilience will also be reviewed at this juncture.

Additionally, VICOM sets aside a portion of its financial resources to mitigate climate-related risks and capitalise from associated opportunities, such as those mentioned above.

This is exemplified by VICOM's new service offerings in the space of hybrid and EV battery testing and health-checking as markets transition towards the electrification of vehicle fleets. At the same time, increased vehicle electrification likely results in greater demand to recycle battery waste. As such, as more battery recycling companies establish operations in Singapore, SETSCO has also developed the capability to test for extracted metals in the end-of-life lithium-ion batteries.

In doing so, VICOM strives to enhance the Group's operational readiness and resilience to possible potential business disruptions while capitalizing on climate-related opportunities.

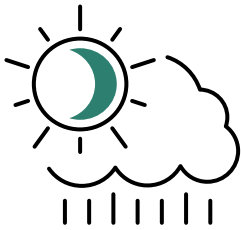
Going forward, VICOM strives to further strengthen its climate reporting and align with market practices, regulatory requirements, and peer-reporting practices. Additionally, when data becomes more readily available, it will improve and expand the quantification of climate risks and opportunities in this climate scenario analysis.



VICOM conducts regular fire drill exercises to familiarise staff on the safe and orderly evacuation procedure from the building in the event of a fire.



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## CLIMATE-FRIENDLY MOBILITY

The Singapore Green Plan 2030 ("SGP30") highlights the importance of Singapore's sustainability transition. With the aim of running on cleaner energy by 2040, the National Electric Vehicle Centre ("NEVC") advocates for the shift away from Internal Combustion Engine ("ICE") cars towards the widespread usage of Electric cars ("EV") in support of the SGP30.

VICOM aligns to the above through promoting the use of EVs and expanded its services to include the testing and inspection of EVs, as well as EV charging systems ("EVCS").

VICOM strives to embed climate-friendly mobility in its organisation, through the usage of EVs and EVCS testing and inspection services.

### Our Initiatives

One of the key targets within Singapore's nationwide EV roadmap involves the installation of 60,000 EV charging points by 2030. The shift towards EVs has resulted in higher requests for testing services. In 2024, VICOM's inspectors undertook certifications and in-house training to provide EV vehicle inspections, reaffirming its role as contributors to climate-friendly mobility.

## EXPANSION OF EV-RELATED TESTING SERVICES TO INCLUDE EV CHARGER INSPECTION SERVICE

In FY2024, in partnership with Starcharge, SETSCO expanded its EV-related testing services to include EV charger inspection services, covering everything from inspections to commissioning support for new EVCS. Training and preparation for the six-person inspection team began late last year, with inspections commencing in March 2024.

We successfully completed 589 Preventive Maintenance inspections, 256 Licensed Electrical Worker services, 1 Corrective Maintenance service, and 15 Testing and Commissioning operations for EV chargers.

- Area of Impact: Emissions and Air Quality
- Energy
- Innovation and Growth
- Public Health and Safety



SETSCO collaborates with Starcharge in performing EV Charging Station (EVCS) inspection service to ensure public safety.

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Additionally, VICOM acquired 3 EV vans in FY2024 as it aims to meet its target of progressively transitioning half of its existing fleet of ICE vehicles to EVs by 2030, with the aim of a complete switch by 2040.

The company also conducts open dialogues and reviews to explore new solutions and technologies that support its sustainability transition and alignment to SGP30. The switch to cleaner energy remains at the forefront of its considerations. In FY2024, VICOM has completed the installation of solar panels at the last of its 6 sites, paving the way for a full solar energy production.

In alignment with its parent company, CDG, VICOM has a vehicle transition plan in place to reduce carbon emissions, outlining the steps to fully transition traditional ICE vehicles to electric, hybrid-electric and hydrogen vehicles by 2040. Forming the basis of VICOM’s carbon reduction targets, VICOM’s emissions reduction pathway in the transition plan

was modelled to align with CDG’s Science Based Target Initiative (“SBTi”) 1.5°C scenario, which was validated and approved by SBTi in June 2022.

VICOM also set carbon emissions targets which are consistent with reductions necessary to limit global warming to 1.5°C above preindustrial levels, aligning with the goal of the Paris Agreement.

At the same time, VICOM promotes sustainability through an annual contribution of S\$2000 for five years to the Singapore office of the International Sustainability Standards Board.

### Our performance

Currently, VICOM has a fleet of over 60 vehicles across its operations in Singapore and Malaysia and over half of them are compliant with the Euro V and above emission standards. In FY2024, VICOM purchased 3 new EVs.



TYPE OF VEHICLE	FY2024 <sup>17</sup>	FY2030	FY2040
Internal Combustion Engine (Diesel & Petrol)	92%	49%	0
Electric Vehicles	8%	51%	100%

### Looking Forward

In the coming years, VICOM aims to increase cleaner vehicle procurement by progressively transitioning half of its existing fleet of ICE vehicles to EVs by 2030, with the end goal of an entire green fleet by 2040. At the same time, VICOM strives to be a leader in climate-friendly mobility by researching, revamping, and developing solutions to eliminate inefficiencies in its use of limited resources, ultimately reducing emissions.

17 Inclusive of SETSCO Malaysia figures.