



# TEMASEK

## **Temasek Climate Journey**

GPCA Climate Training

Nov 2023

# Temasek's commitment to addressing climate change

## Institution

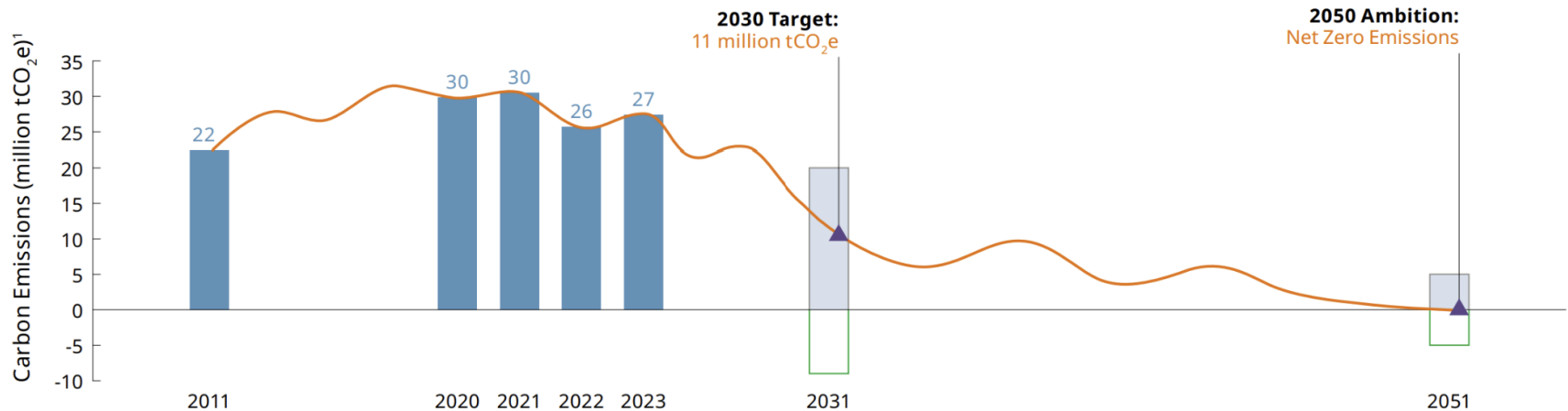
- **Carbon Neutrality:** Achieved our target of **carbon neutrality** as a company in 2020 and have maintained this status
- **Long Term Incentives:** A portion of our **long-term staff incentives** is aligned with our portfolio carbon targets

## Portfolio

- **2030 Target:** Reduce net carbon emissions attributable to our **portfolio to half the 2010 level** (11million tCO<sub>2</sub>e)
- **2050 Ambition: Net zero carbon emissions**
- **Internal Carbon Price: US\$50 per tCO<sub>2</sub>e** in 2022, aim to increase to US\$100 per tCO<sub>2</sub>e by 2030

(for year ending 31 March)

## Towards Net Zero



● Historical Total Portfolio Emissions<sup>2</sup> ● Total Portfolio Emissions<sup>2</sup> (Illustrative) ● Negative Emissions<sup>3</sup> (Illustrative)

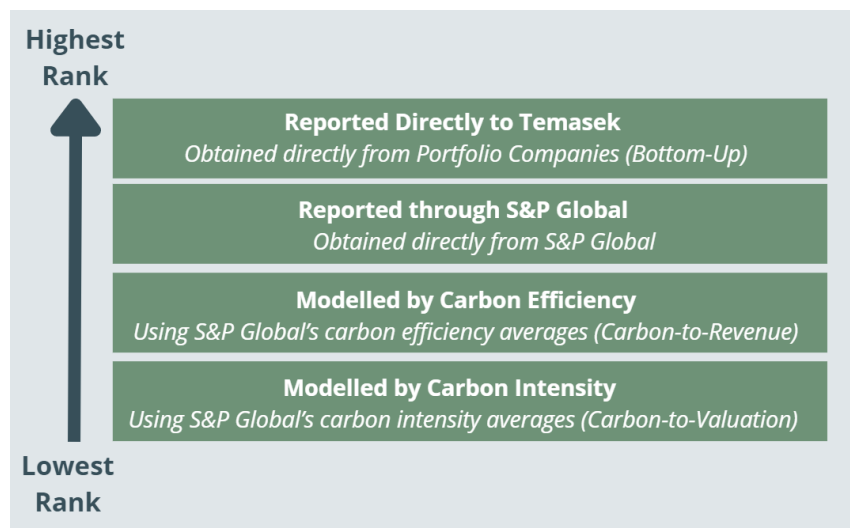
— Pathway for Net Portfolio Emissions (Illustrative)

▲ Calendar year emissions data and targets are reported in the subsequent financial year

Source: For Temasek's full TCFD disclosure, please reference: <https://www.temasek.com.sg/en/sustainability/focusing-on-climate-change>

# Measuring Temasek's portfolio (financed) emissions

## Sources of Emissions Data



## Scope of Emissions

- **Scope 1 and Scope 2 emissions** of the underlying companies
- **Scope 3 emissions** currently excluded

## Attribution Approach

- Temasek's ownership interest in each company, "equity share approach" (*not the PCAF enterprise value approach*)

## Asset Classes

- **Included:** Listed Equity, Private Equity
- **Excluded:** Funds, Credits

# Temasek's pathway to decarbonising the portfolio

Temasek deploys a **three-prong approach** to drive decarbonisation across our portfolio and beyond



## Investing in Climate-aligned Opportunities

- Investments in carbon efficient businesses and decarbonization solutions
- Strategic partnerships to scaleup and accelerate decarbonization

Through GenZero and other investments:

- Nature-based and tech-based solutions that result in emissions removals
- Enable a transparent and robust carbon market / measurement reporting and verification (MRV)

## Enabling Carbon Negative Solutions



- Engaging portfolio companies to accelerate climate transition
- Catalysing decarbonisation solutions in hard to abate sectors (e.g. SAF for aviation)



## Encouraging Decarbonisation Efforts in Businesses

# Investing in climate-aligned opportunities



## I. Carbon Footprint Analysis

Carbon emissions

Carbon intensity

Carbon efficiency

Carbon spread



## II. Climate Risks (Physical & Transition)



### Physical risk analysis is built on:

- Reviewing climate hazards expected by geographical area
- Analysing potential impacts of those hazards on company assets and how company is mitigating those risks

### Assessment of vulnerability of physical assets



### Transition risk includes discussion on:

- Upcoming regulatory changes around transport emissions
- Evolving customer preference lower emissions and use of sustainable materials in manufacturing

### Review of product portfolio and strategic positioning



## III. Climate Opportunities (if applicable)

Climate opportunities can include:

Resource efficiencies and cost savings

Development of new products & services

Access to new markets

Increased customer demand

Supply chain resilience

# Internal carbon pricing in the form of a carbon spread

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**Carbon Spread = Current emissions\* (tCO<sub>2</sub>e p.a.) x Carbon price / Market Value (US\$)**

## Applicable Investments

Applicable to all equity and equity like (e.g. convertible, preferred) investments  
Currently, does not apply to credit and other non-equity investments

## Key Inputs Required

Scope 1 & 2 carbon emissions tonnes p.a. for the latest full year  
Carbon price updated to US\$50 per tonne for FY23

# Encouraging decarbonisation in businesses

Dimensions	Description
<b>1</b> <b>Governance &amp; Organisational Competencies</b>	An organization's ability to manage climate risks and capture opportunities, including (i) board oversight, (ii) senior management's leadership, accountability (e.g., KPI and incentives), and management of the company's climate change strategy and goals, and (iii) organization wide climate competencies.
<b>2</b> <b>Strategy</b>	Integration of climate-related risks and opportunities into the company's strategy including capturing new sources of revenue / innovation from the transition, decarbonization / efficiency of operations, and building long-term resilience.
<b>3</b> <b>Capital Allocation</b>	Strategic allocation and availability of capital to fund decarbonization plans and develop green growth to achieve GHG targets and Paris alignment.
<b>4</b> <b>Scenario Planning</b>	Incorporation of various scenarios resulting from material climate-related risks and opportunities (e.g., ambition level/ degrees and time horizon) to test the resilience of business strategy and operations, and to guide transition strategy.
<b>5</b> <b>Risk Management</b>	Incorporation of all relevant climate related risk factors (e.g., physical, transition, reputation, legal) into risk management systems and processes, including decisions to mitigate, adapt, and transfer risks.
<b>6</b> <b>GHG Reduction Targets &amp; Progress</b>	Setting of near-, medium- and long-term GHG reduction targets, including net-zero ambitions, across scope 1, 2, 3 (where material), and scope "4" (avoided / reduced GHG); tracking of progress against the targets.
<b>7</b> <b>External Involvement &amp; Engagement</b>	Alignment and engagement in trade associations, coalitions and partnerships that are advancing climate progress.
<b>8</b> <b>External Verification &amp; Disclosures</b>	Climate-related disclosures that are aligned to market standards and encompasses all material considerations, which are also independently verified.