

# Climate Change Report

February 2023



# Contents

Acknowledgement of Country	2
Our Climate Change Position	3
Governance	4
Risk Management	6
Strategy	8
Metrics and Targets	15
Looking ahead	19
TCFD Index	20

## Acknowledgement of Country

We acknowledge the Traditional Custodians of the lands upon which we live and operate, and we pay our respects to the Elders past, present and emerging. We recognise Aboriginal and Torres Strait Islander people’s historical and ongoing connection to land and waters, and we embrace the spirit of reconciliation.

# Our Climate Change Position

At TPG Telecom, we are committed to playing our role in addressing climate change, both in reducing our operational greenhouse gas (**GHG**) emissions and as a responsible business working with communities, industry and governments to drive climate action. Our position on climate change supports the scientific evidence from the Intergovernmental Panel on Climate Change (**IPCC**), which states that recent global warming is a consequence of rising GHG emissions arising from human activity, with the rates of change over recent decades unprecedented compared to the last 2,000 years. We accept that the scientific evidence indicates potential negative social, physical and economic impacts on communities, businesses and governments, including risks to the telecommunications sector.

The risks from climate change are becoming increasingly apparent in the context of the recent succession of extreme weather-related events experienced across Australia. Understanding how climate change is likely to increase the frequency, intensity and duration of climate-related events over the coming decades is essential to inform our future business decisions. We need to transition to a low carbon economy to reduce the physical impacts of climate change. This transition presents both risks and opportunities across the economy.

We recognise the important role that the telecommunications industry will play in supporting the transition to a low-carbon economy through internet and mobile enabled technological solutions. In particular, connectivity is a key enabler for many decarbonisation solutions. In 2022, we formally committed to science-based emissions reduction targets, including achieving net zero by 2050. As part of our commitment to reduce GHG emissions from our operations, we seek to power our Australian operations with 100 per cent renewable electricity by 2025.

Understanding our role in a low-carbon future requires us to identify and manage the risks and opportunities related to climate change across both our operations and value chain. This year, we completed an assessment of transition and physical risks across our organisation to identify and prioritise our material climate-related risks and opportunities, in alignment with the Task Force on Climate Related Financial Disclosures (**TCFD**<sup>1</sup>) framework. Through this assessment, we selected three priority risks for qualitative climate scenario analysis, utilising three climate scenarios with varying levels of global warming associated with different decarbonisation ambitions. We understand that our approach to risk identification, assessment and management will need to evolve as our understanding of climate change impacts improves over time.

This is our inaugural Climate Change Report, following the TCFD framework. We recognise that this disclosure is integral to showcasing the actions, improvements and future planned initiatives that have been made within our business to improve our response to climate change. We also know that the sustainability reporting environment is evolving and so we are preparing for alignment with the International Sustainability Standards Board (**ISSB**) disclosure requirements, on both climate-related disclosures and general sustainability-related disclosures, once they have been finalised. While we acknowledge that we are relatively early in our climate journey, we are committed to accelerating our commitment to embedding the guiding principles of the TCFD framework to support our reporting against the ISSB disclosures.

<sup>1</sup> Available from: <https://www.fsb-tcfd.org/recommendations/>

# Governance

## Our governance structure

TPG Telecom has a comprehensive corporate governance framework to ensure that the desired strategic direction and focus areas are aligned with customer & community expectations and enterprise targets and objectives.

The TPG Telecom Board is accountable for overseeing and monitoring environmental, social and governance (ESG) risks and opportunities, as well as the implementation of the Sustainability Strategy. This is detailed within the TPG Telecom Board Charter<sup>2</sup>, which stipulates the role, function, and composition of the Board.

## Governance committees

To assist with the execution and delivery of its responsibilities and duties, the TPG Telecom Board has established the Audit & Risk Committee (ARC) and the Governance, Remuneration & Nomination Committee (GRNC). Further information on the Committees of the Board can be found in our Corporate Governance Statement<sup>2</sup>.

The ARC was established by the Board to assist with overseeing and reviewing the financial, audit, operational and risk management of TPG Telecom's business activities. As noted within the TPG Telecom ARC Charter<sup>2</sup>, the roles and responsibilities of the ARC as they relate to climate risk include:

- Reviewing significant developments in, and TPG Telecom's reporting strategy pertaining to, environmental, social and governance (ESG) reporting and disclosures; and
- Monitoring the effectiveness of TPG Telecom's ESG risk management, including compliance with relevant laws and regulations and review of public disclosures by TPG Telecom relating to its ESG risk management practices.

The GRNC was created by the TPG Telecom Board to assist with the oversight of corporate governance practices, the nomination of Directors, and consideration of policies surrounding remuneration paid. The roles and responsibilities of the Committee pertain to board performance and evaluation, remuneration and corporate governance more generally.

To support TPG Telecom's climate change commitments, in 2022 the TPG Telecom Board introduced an ESG performance measure in the Long Term Incentive plan for executives which is linked to TPG Telecom's achievement of its 2025 renewable energy commitment.

## Leadership teams

TPG Telecom's Chief Executive Officer (CEO) has been appointed by the Board with responsibility for the day-to-day management of the company. TPG Telecom's Executive Leadership Team (ELT) reports to the CEO, and meets regularly to monitor business performance, as well as to develop and execute strategy. This includes aspects of the Sustainability Strategy, including risks and opportunities related to climate change.

The Senior Leadership Team (SLT) is the leadership cohort that reports into the ELT. It holds monthly meetings to provide a forum to support the execution of company strategy, and to facilitate and enable consistent communications between key TPG Telecom members. In 2022, the SLT was briefed on climate change risk, its potential impacts to TPG Telecom and provided an overview of the purpose and scope of our climate risk program.

## Sustainability Strategy governance

The primary forum focused on the TPG Telecom Sustainability Strategy is the Sustainability Council, which meets on a quarterly basis. The Council consists of senior leaders from various business areas or functions across the organisation including sustainability, risk, finance, property and procurement, network infrastructure, customer (including consumer and enterprise & government), legal, regulatory and others. The Council is accountable for overseeing and monitoring the execution and delivery of the TPG Telecom Sustainability Strategy, which includes a number of initiatives focused on managing the issue of climate change as it pertains to the organisation. In 2022, the Council was provided with an overview on climate risk and TCFD reporting, as well as briefings on the purpose and scope of our climate risk program.

<sup>2</sup> Available on the [Investor Relations](#) section of our website.

## **Internal sustainability reporting**

The Head of Sustainability and the Group Executive Legal & External Affairs report regularly to the ELT, the ARC and the Board on sustainability matters, including those associated with climate change. It is this existing governance structure that drives our commitment to further understand the business implications of climate change and helps accelerate our response to climate-related risks. Progress updates from our climate risk roadmap will be included as an agenda item for Sustainability Council, ARC and the Board meetings as required.

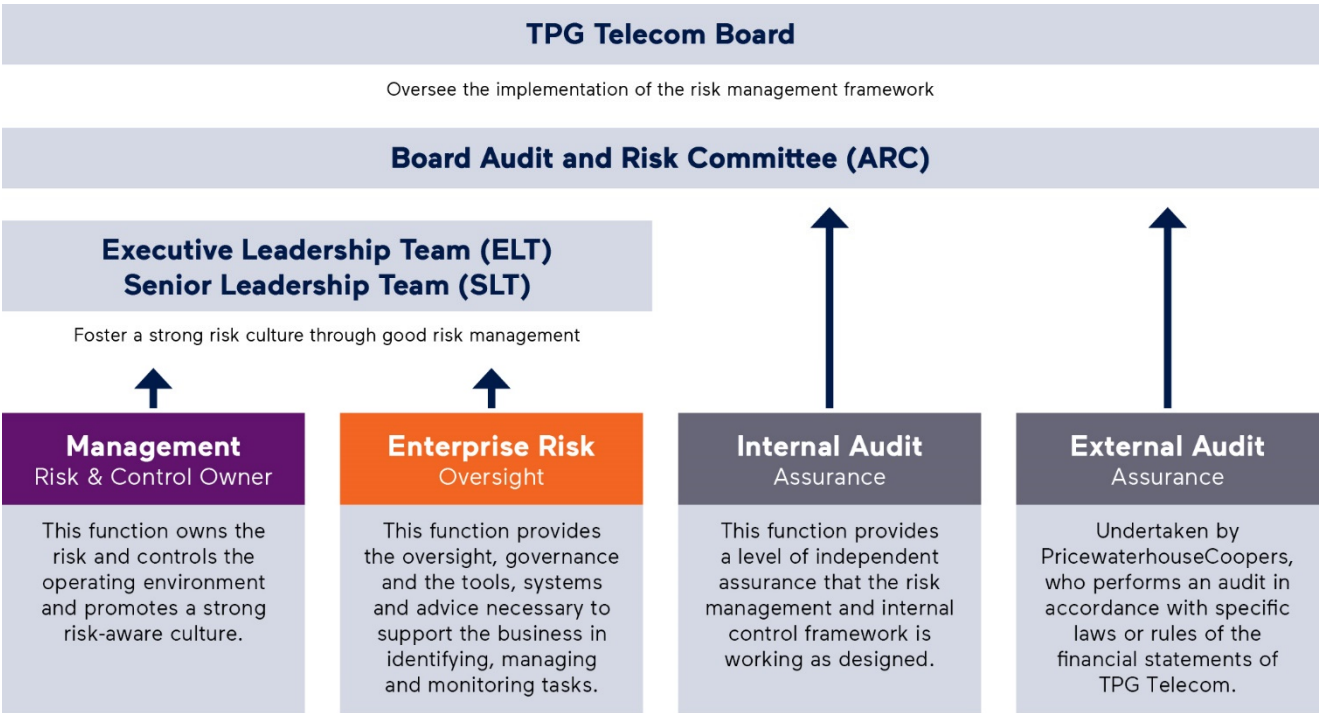
## **Going forward**

We are focused on the continuous improvement of our approach to managing climate risk and are committed to identifying and acting upon opportunities to strengthen our governance structures as they relate to climate risk management, reporting and performance.

# Risk Management

We are committed to maintaining an effective risk management system in accordance with regulatory requirements and corporate governance principles to meet the expectations of customers, shareholders, and regulators. This includes our focus on identifying, assessing and appropriately managing the impacts of climate risks. Our Risk Governance Structures and comprehensive Risk Management Framework are outlined in our 2022 Corporate Governance Statement<sup>3</sup>.

The Board-approved risk appetite statements set the expectations for the level of risk TPG Telecom is willing to take to achieve its strategic objectives. The TPG Telecom Risk Management Policy, Risk Management Procedure, Crisis and Emergency Plan and Business Continuity Procedure are the key documents that collectively underpin the risk management framework and guide the organisation to perform within the set risk appetite. The risk management framework is also aligned with ISO 31000:2018, the international Standard for risk management and other regulatory requirements and obligations.



<sup>3</sup> Available on the [Investor Relations](#) section of our website.

## Identifying climate risks

Material enterprise risks are defined as those that may prevent TPG Telecom from achieving its strategic goals and objectives. A detailed top-down risk assessment is undertaken by the Enterprise Risk function on an annual basis to identify material enterprise risks. This process involves interviews with key internal and external stakeholders such as management, external auditors and other consulting firms, as well as reviews of external market factors and regulatory requirements. Sustainability & Climate is classified as an 'enterprise risk' and is monitored and managed by relevant risk owners and reported to the ELT and ARC on a quarterly basis.

Each business unit is accountable for identifying, monitoring, and managing specific business risks and action plans, including those related to climate risk. The risk identification process occurs through several processes including business planning, risk workshops, governance forums and ongoing internal and external reviews. The risk identification process is supported by our risk taxonomy which is embedded in the risk management system and provides a consistent way to classify risks. The risk taxonomy includes risk categories for 'climate change, sustainability and environmental risk' to assist the business units to identify and raise climate risks. Climate change is also a contributing factor in existing risk categories which are also managed according to our risk management procedures.

In 2022, we undertook a specific and detailed assessment of climate risks and opportunities to better understand the potential impact of climate change across the TPG Telecom group. (Refer to the Strategy section for further detail).

## Managing climate risks

The Enterprise Risk function is responsible for ensuring the successful implementation of the risk management framework as overseen by the ELT and the ARC. Regular reporting is provided to the ELT and ARC on the enterprise risk profile, which outlines the material risks to the organisation and on the Key Risk Indicators (**KRIs**) which measure performance within the set risk appetite.

In line with our risk management procedure, all risks, including climate-related risks, are assessed based on their likelihood and impact on our business and given a corresponding risk rating. Risk treatment plans are devised based on the risk rating which signifies the materiality to the organisation from a financial, operational, compliance and reputational lens. Our management of climate risk is demonstrated by the mitigating actions outlined in the Strategy section below.

# Strategy

In 2021, we launched our first company-wide Sustainability Strategy, which is aligned to our broader business strategy. Our Sustainability Strategy identifies four key areas where we consider we are well-placed to make a meaningful difference for our stakeholders. This includes customer wellbeing, environmental responsibility, inclusion and belonging, and the digital economy. These are underpinned by a set of fundamental, responsible business practices. Together, these represent our framework for creating a responsible and sustainable business.

We recognise that climate change may have an impact across all areas of our organisation, which is why understanding and managing risks related to climate change forms a key component of the environmental responsibility area of the Sustainability Strategy. To make sure we take sufficient action and continue to make progress in managing this important issue effectively, we made the following climate-related commitments at the launch of our Sustainability Strategy:

- Assessing climate-related risks and opportunities in line with the TCFD recommendations and integrating into our annual reporting and risk management framework.
- Setting a science-based target for reducing our GHG emissions, aligned to net zero.
- Powering our Australian operations with 100 per cent renewable electricity by 2025.

Our approach to climate risk is based on our assessment and understanding of climate-related risks and opportunities, and their integration into existing risk governance structures and processes. This year we developed a multi-year, forward-looking climate risk roadmap to support our full alignment with the TCFD framework. We are pursuing multiple initiatives to support climate mitigation actions to reduce our GHG emissions and adaptation measures to reduce our exposure to potential impacts for the whole organisation.

## Climate-related risks & opportunities

As a large, national telecommunications company, we have exposure to a range of physical and transition risks related to climate change. Some of our exposure to climate-related risks, like floods and fires, are already common occurrences in Australia and we have robust processes and controls in place to manage those events when and if they occur. However, we recognise that other potential impacts may emerge or have increased significance over time. Therefore, in 2022, we undertook a detailed assessment of climate-related risks and opportunities with the potential to impact our business in the future. Supported by external climate scientists and climate risk experts, we conducted desktop research, sector benchmarking and market scanning to identify telecommunication trends and potential risk exposures.

Interviews were held with internal stakeholders from various business units to understand current climate-related activities and obtain internal perspectives on broad risks and opportunities impacting our business. Through this process, additional risks and opportunities were identified and assessed in line with our risk management procedures. The final validation and prioritisation of these risks was overseen by workshops attended by subject matter experts.

As an outcome of this process, three key business risks and opportunities were prioritised for further analysis via a qualitative climate scenario analysis. These risks and opportunities are outlined in Table 1 below, detailing the potential impacts to our business, our strategic response, and approximate timeframes on when impacts may emerge.

The purpose of the scenario analysis is to better understand how these impacts may change over time, in order allow us the ability to incorporate any adjustments to our existing processes and controls to adequately manage them in the future.

The likelihood and severity of the potential impacts set out in Table 1 are unknown and may change over time. We have included in the Strategic Response column a range of mitigating controls to manage these impacts.



**Table 1: Prioritised climate-related risks and opportunities for TPG Telecom assessed in our first climate scenario analysis**

RISK DESCRIPTION	POTENTIAL IMPACTS	STRATEGIC RESPONSE
<b>Physical   Acute</b>		
<p><b>RISK</b>  <b>Increased severity and frequency of extreme weather events due to climate change:</b></p> <p>Risk of increased network service disruptions, affecting data centres, office spaces, mobile sites, key network hub sites and core infrastructure, due to extreme weather events (bushfires, flooding, heatwaves, etc.).</p> <p><b>OPPORTUNITY</b>  <b>Improved business resilience:</b></p> <p>Opportunity to improve business resilience by transitioning data centre infrastructure (e.g., relocating locations) to areas less exposed to bushfire and flood risk and serviced by reliable power sources.</p>	<ul style="list-style-type: none"> <li>● Productivity losses, including those of impacted customers, due to unplanned network service disruptions arising from extreme weather events.</li> <li>● Loss of telecommunications during a disaster impeding emergency response measures with potential reputational implications</li> <li>● Business interruption if failure to appropriately adapt to and plan for new conditions.</li> <li>● Equipment overheating during power failures leading to technological malfunctions and downtime.</li> <li>● Increased cost of moderating temperatures in data centres, retail stores and offices particularly during extreme heat events.</li> <li>● Reduced safety, wellbeing and productivity of employees and / or contractors that may be exposed to extreme heat if cooling requirements cannot be met.</li> </ul>	<ul style="list-style-type: none"> <li>● A Business Continuity Management Framework, aligned to international standards supports our ability to anticipate, respond to and effectively recover for business disruptions.</li> <li>● Our network resilience is continually and closely monitored, and a robust operational incident management process and a Crisis and Emergency response plan is in place for significant incidents.</li> <li>● Where possible, redundancy is built into the network via geographical diversity, ability to switch connectivity to alternative sites, battery and generators in key locations and portable base stations that can be deployed in the event of outages.</li> <li>● A cooling plan is in place to manage extreme heat over the summer months.</li> <li>● We maintain close alignment with the NSW Telco authority to identify high risk regions and actively manage emergencies.</li> <li>● Climate related impacts and risks such as bushfire, flood and severe wind are considered and managed or mitigated during the site acquisition process.</li> <li>● Response plans are developed that prioritises the restoration of the most critical sites.</li> <li>● An effective Health and Safety Management system is in place, and we adopt a risk-based approach to monitoring and managing the safety and wellbeing of our employees and contractors, this includes arrangements for exposure to extreme heat.</li> </ul>
<b>Emergence Time Frame</b> Short (next 5 years)		

RISK DESCRIPTION	POTENTIAL IMPACTS	STRATEGIC RESPONSE
<b>Transition   Technology</b>		
<b>RISK</b> <b>Transition to a low-carbon economy requiring renewable energy commitments:</b> Risk of increased financial costs due to increased energy demand by TPG Telecom operations associated with the transition to 5G services and the rising costs of renewable electricity LGCs and PPAs <sup>4</sup> .  <i>The increase in price of renewable sources poses both financial and reputational risk for TPG Telecom due to additional spend required to meet publicly disclosed renewable energy targets.</i>	<ul style="list-style-type: none"> <li>Financial impact as demand increases for LGCs and PPAs, which increases the costs to achieve the 100% renewable energy by 2025 target</li> <li>Financial impact arising from increased energy demand due to the transition to 5G services which increases the amount of purchased electricity required</li> <li>Reputational impacts should difficulty arise in our ability to meet publicly disclosed renewable energy targets due to cost or availability constraints</li> </ul>	<ul style="list-style-type: none"> <li>Our internal Renewable Energy working group was established to manage the achievement of our renewable energy target. It includes senior leaders from Finance, Procurement, Sustainability and Strategy.</li> <li>Energy costs are embedded within our budgeting and long-range planning processes.</li> <li>We designed a Renewable Energy Procurement Strategy to drive our go to market approach to meeting our target.</li> <li>Energy efficiency programs are in place across the organisation to design and implement solutions for our data centres, mobile network equipment and corporate &amp; retail footprint</li> </ul>
<b>OPPORTUNITY</b> <b>Resource Efficiency</b> Improved resource efficiency achieved by integrating operational improvements and on-site renewable electricity generation technology to manage energy consumption and reduce exposure to market electricity prices.		
<b>Emergence Time Frame</b> Short (next 5 years)		

<b>Transition   Reputation</b>		
<b>RISK</b> <b>Evolving stakeholders' expectations in relation to climate action, due to perceived impacts of climate change:</b> Brand and reputation risk from barriers to keeping up with investor and consumer expectations on climate change.	<ul style="list-style-type: none"> <li>Increased stakeholder scrutiny on TPG Telecom's sustainability progress may lead to potential reputational damage or loss of investors / investment if stakeholders feel progress is not meeting their expectations.</li> <li>Level of ambition regarding climate strategy not meeting public expectations may lead to poor public perception, resulting in loss of customers, investors and employees.</li> <li>Potential lack of alignment between climate change risk and internal policies and procedures could cause dislocated approach to managing risks and opportunities with potential to introduce resource and/or expenditure inefficiencies.</li> <li>Reducing operational Scope 1 &amp; 2 emissions enables Scope 3 emissions reductions for customers that use TPG Telecom products and services.</li> </ul>	<ul style="list-style-type: none"> <li>A program of ongoing engagement with key stakeholders exists through membership of peak bodies, participation in industry collaborations, individual meetings and a wide range of research, surveys and customer feedback channels.</li> <li>We undertake a formal materiality assessment refresh at least every three years.</li> <li>The development and continual evolution of the Sustainability Strategy, which is informed by our stakeholder engagement and materiality assessment processes, exists so that we continue to focus on topics and issues relevant to our key stakeholders.</li> <li>A process of continuous improvement of annual sustainability reporting is in place and focuses on alignment to globally-recognised frameworks.</li> <li>The risk management framework incorporates climate-related risk considerations.</li> </ul>
<b>OPPORTUNITY</b> <b>Products and services opportunities</b> Ability to align with increasing customer and shareholder expectations regarding emissions disclosure and reductions by demonstrating progress on Scope 3 emissions reduction targets, including those associated with embedded emissions from network infrastructure and customer use of products/services.		
<b>Emergence Time Frame</b> Medium (5 to 15 years)		

<sup>4</sup> LGCs: Large-scale Generation Certificates. PPA: Power Purchase Agreements

## Climate scenario analysis

Climate scenario analysis is an approach used to provide possible narratives for how differing climate trends might affect the impact and likelihood of climate risks and opportunities in future. To align with the TCFD recommendations, our scenario analysis considered three climate scenarios with distinctive GHG emissions levels: low, moderate, and high, which lead to different outcomes for physical and transition risks over the near-term (2030) and long-term (2050). These scenarios were developed by the international climate science community to inform the Intergovernmental Panel on Climate Change Sixth Assessment Report<sup>5</sup> and are known as the Shared Socioeconomic Pathways (SSPs)<sup>6</sup>. Details on the main characteristics of the scenarios we used are provided in Table 2 below.

Outputs from the analysis can help us to better understand and manage our resilience and potential vulnerabilities to future climate-related impacts on our organisation. This then allows us the ability to adjust our strategy, planning and operations accordingly.

**Table 2: Summary of the scenarios used in our first qualitative climate scenario analysis**

SCENARIO AMBITION	OVERVIEW	SCENARIO ATTRIBUTES	KEY OUTCOMES
<b>High Emission Scenario</b> <i>"No Climate Action"</i> >4°C Scenario <sup>7</sup> SSP5-8.5 <sup>8</sup> 2030 and 2050 <sup>9</sup>	<b>Baseline of how global emissions would evolve if governments and markets make no changes to their existing policies and investments in low carbon technologies</b>	In this scenario, transition risks are low while physical risks are high, arising from barriers to mitigation efforts. Globally, multiple climate-related hazards are projected to increase, including: <ul style="list-style-type: none"> <li>● Flood and extreme precipitation</li> <li>● Extreme heat and bushfires</li> <li>● Sea level rise</li> <li>● Water stress</li> </ul>	<b>Physical risks dominate</b> <ul style="list-style-type: none"> <li>● Emission reduction policies are limited to the current policies, and global coordination on tackling climate change is lacking.</li> <li>● Continued use of fossil fuels, and energy intensive activities and lifestyles.</li> <li>● Momentum in clean energy is insufficient to offset the effects of an expanding global economy and growing population.</li> <li>● Effects of climate change require significant investments in adaptation measures to protect assets, infrastructure and communities.</li> </ul>
<b>Moderate Emission Scenario</b> <i>"Current Targets &amp; Pledges"</i> >2°C Scenario SSP2-4.5 2030 and 2050	<b>Emissions are curbed based on existing policies and announced commitments, including Nationally Determined Contributions, but fall short of meeting the Paris Agreement targets</b>	In this scenario, there are intermediate challenges to adaptation and mitigation leading to higher transition risks compared to the high emission scenario, including: <ul style="list-style-type: none"> <li>● Carbon pricing policies</li> <li>● Energy policies</li> <li>● Litigation risks</li> </ul> Note that in this scenario, projected changes in multiple climate-related hazards are possible, but the magnitudes vary compared to the high emission scenario.	<b>Insufficient decarbonisation</b> <ul style="list-style-type: none"> <li>● Emissions are curbed based on existing policies and announced national commitments to reduce emissions, but fall short of meeting the Paris Agreement.</li> <li>● Slow implementation of policies due to political, institutional and societal barriers.</li> <li>● The transition to a low carbon economy is disorderly, uncoordinated and delayed. Transition happens faster in certain regions compared to others leading to differences in regional policies and implications on cost of doing business and global trade (e.g., carbon border tax).</li> </ul>

<sup>5</sup> Available at: <https://www.ipcc.ch/assessment-report/ar6/>

<sup>6</sup> Described in Riahi et al. (2017) available at: <https://www.sciencedirect.com/science/article/pii/S0959378016300681>

<sup>7</sup> Global warming level by 2100

<sup>8</sup> Associated IPCC AR6 Scenario

<sup>9</sup> Time horizons assessed

SCENARIO AMBITION	OVERVIEW	SCENARIO ATTRIBUTES	KEY OUTCOMES
<b>Low Emission Scenario</b> <i>"Aggressive Mitigation"</i> 1.5°C Scenario Physical: SSP1-2.6 Transition: SSP1-1.9 <sup>10</sup> 2030 and 2050	<b>Aggressive emission reduction scenario</b> to meet the Paris Agreement, marked by global collaboration by governments, society and industry to lead steep decarbonization	This scenario has the highest transition risks associated with ambitious mitigation efforts, including: <ul style="list-style-type: none"> <li>● Carbon pricing</li> <li>● Increase regulations and policies</li> <li>● Reputation risks and opportunities</li> <li>● Product, market, energy, resource efficiencies</li> </ul> Although global warming levels are lower than the other scenarios, physical impacts can still occur.	<b>Transition risks and opportunities dominate</b> <ul style="list-style-type: none"> <li>● Globally coordinated effort to reduce emissions and avert the worst effects of climate change in line with the Paris Agreement.</li> <li>● Accelerated transition to renewables and electrification, and aggressive regulations limiting the extraction and use of fossil fuels in all major economies.</li> <li>● Assumes the world achieves Sustainable Development Goals by 2030.</li> </ul>

<sup>10</sup> SSP1-1.9 was selected as the low emissions scenario to assess transition risks and opportunities as it represents a far more ambitious pathway with greater technology, policy and consumer action compared to SSP1-2.6

## Scenario analysis key findings (Australia) – physical risk

The qualitative climate scenario analysis focused on the physical risk statement:

*“increased severity and frequency of extreme weather events due to climate change”*

The analysis found that our organisation has exposure to multiple physical hazards including extreme heat, bushfire weather conditions, extreme rainfall and severe weather (including storms, wind gusts and tropical cyclones). However, the severity of the risk to our business varies across Australia and between the three different scenarios.

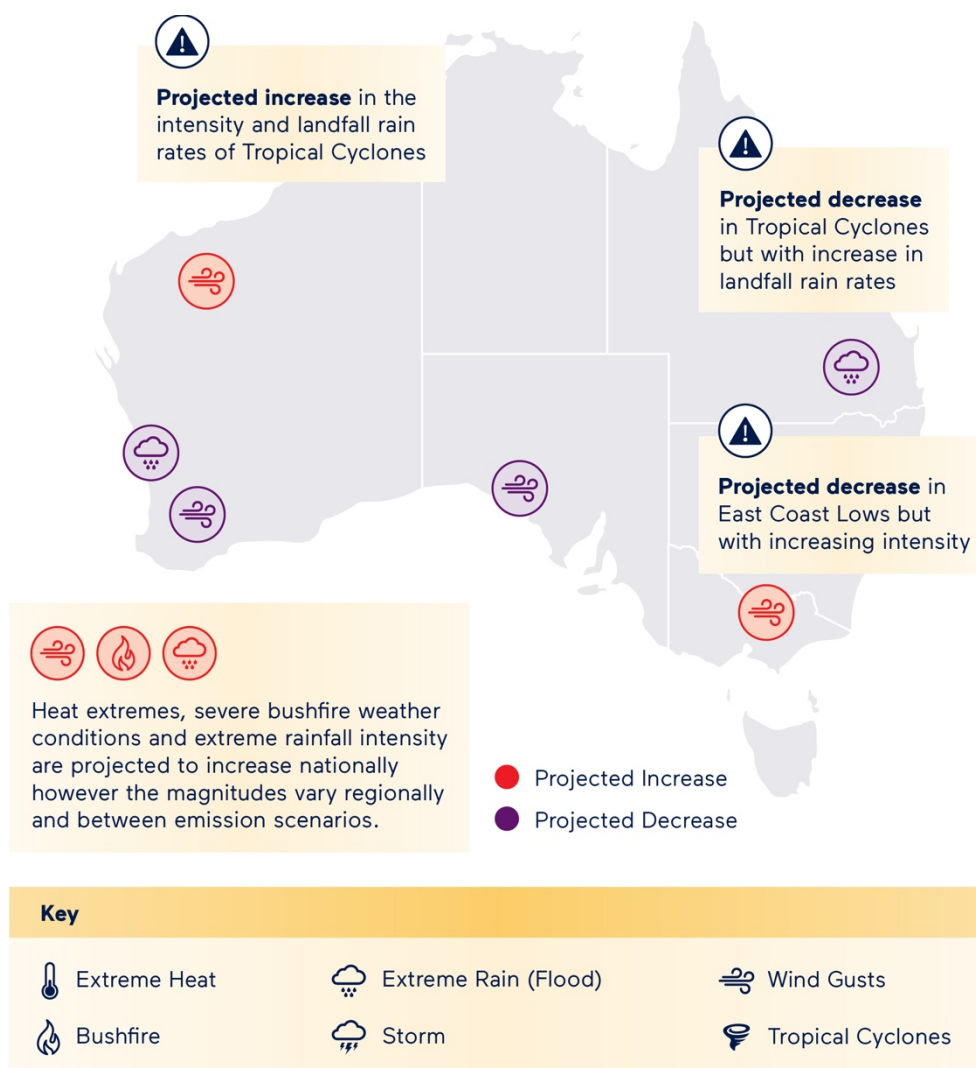
For example, the magnitude and frequency of projected increases of extreme heat events and bushfires are larger

for a higher emissions scenario compared to a lower emissions scenario, particularly over longer timeframes. For extreme rain, flooding, storm and wind gusts and tropical cyclones, the projected outcomes vary regionally and projected changes do not always align to a high or low emissions scenario.

While we have a set of mitigating controls currently in place to manage these impacts (noted in Table 1 above), further investigation will be required to determine potential impacts for these physical hazards where the outcomes are uncertain and volatile.

We will also incorporate the outputs of this (and any future climate scenario analysis) into the existing operational and risk management procedures for areas of the business that may be impacted.

**Figure 1: Graphical summary of major climate changes across Australia**



## Scenario analysis key findings – transition risk

The qualitative climate scenario analysis also examined how our prioritised transition risks related to the following risk statements:

*“transition to a low-carbon economy requiring renewable energy commitments”*

and

*“evolving stakeholders’ expectations in relation to climate action due to perceived impacts of climate change”*

While impacts may vary under multiple scenarios and time horizons, the analysis showed that transition risks associated with electricity costs and brand and reputation are projected to increase. These impacts include:

**Electricity costs:** Electricity is the major source of GHG emissions related to our operations. In Australia, the electricity system is undergoing a transition to renewable sources due to reduced technology costs and government policy. Short term electricity prices are likely to be high but may decrease with technology development and innovation. Key insights of the analysis include:

- Under a low emissions scenario there is a transition to a low carbon economy and higher carbon prices. This indicates a high level of government policy and regulations around GHG emissions reduction.
- Potential exists for significant price volatility and capacity constraints in the electricity market, depending on the scenario.
- A public GHG emissions reduction strategy may include reputational risk and brand damage if sufficient renewable energy supply is not available.

**Brand and reputation:** There is increasing interest from stakeholders, including consumers, shareholders, and employees, in business commitment to sustainability and managing risks related to climate change. This includes greater demands for robust and transparent reporting, and credible GHG emissions reduction targets. Key insights of this analysis include:

- Consumer, investor and employee preference for companies with market leading emission reduction targets will increase rapidly under a low emissions scenario.
- Trends, such as increased requirements for climate-related financial risk reporting, are likely to be amplified. This may result in increased requirements from investors for emission reduction targets, GHG emissions reporting and related strategic responses, and financial impacts (as seen in the draft ISSB disclosure requirements).

Similar to the physical risk analysis above, we have a set of mitigating controls currently in place to manage these impacts (noted in Table 1 above). We will continue to monitor changes in energy costs and stakeholder expectations over time and work to embed outputs of this (and any future climate scenario analysis) into the existing operational and risk management procedures for areas of the business that may be impacted.

## Scenario analysis summary

The key findings of this climate scenario analysis will assist when setting future business strategy and financial planning, particularly on prioritising mitigations to build resilience across our organisation to climate change. While we have existing strategies to mitigate the risks and impacts (noted in Table 1 above), we recognise that undertaking a climate scenario analysis is not a one-off exercise. Rather, it is an activity that we will periodically undertake to broaden our understanding of how multiple climate-related risks and opportunities may impact our organisation.

We are looking to expand the current climate scenario assessment to quantify the materiality of operational and financial impacts across our organisation. More action will be required at the conclusion of the quantitative climate scenario analysis as we further understand the materiality of climate change to our aspects of our business and embed these findings into our financial decision-making processes.

# Metrics and Targets

## Targets

TPG Telecom has set a number of targets to support our climate ambition and to drive meaningful progress towards reducing our environmental impact. To make our targets robust and credible, we have taken a data-driven approach to inform target setting. As our business changes over time, we will re-visit our targets so that they continue to be ambitious and effective in driving the changes required to limit the impacts of climate change. For each of our targets, we have an internal strategy and program plan in place to drive their achievement. Our current commitments are outlined in Table 3 below.

**Table 3: Our targets**

ACTION	STATUS	SDG ALIGNMENT
Powering our Australian operations with 100% renewable electricity by 2025.	In progress	11 SUSTAINABLE CITIES AND COMMUNITIES
Setting a science-based target for reducing our greenhouse gas (GHG) emissions, aligned to net zero.	Achieved	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Assessing climate risks and opportunities in line with the Task Force on Climate-related Financial Disclosures (TCFD) and integrating into our annual reporting and risk management framework.	Achieved	13 CLIMATE ACTION
Continuing to expand felix as a carbon neutral brand and product targeting one million trees planted.	In progress	

## Progress towards setting science-based emissions reduction targets

In 2021, we mapped out the GHG emissions footprint of our operations (Scope 1 & Scope 2 emissions) for the first time. In 2022, we engaged third-party consultants to assist us to map out our Scope 3 emissions profile for the 2021 reporting period. The result of this work was a complete picture of our GHG emissions footprint, not just for our own operations, but across our entire value chain.

This emissions footprint was then used as a baseline against which we developed our science-based emissions reduction targets.

Next, we analysed each of the various sources in detail to identify potential emission reduction interventions related to our most material sources. These intervention opportunities were then modelled by taking into consideration our baseline, our projected business growth, and the Science Based Target initiative (SBTi<sup>11</sup>) criteria. The result of the modelling was the development of our near- and long-term emissions reduction targets, underpinned by a set of emission reduction pathways to guide how we will achieve them.

These interventions are the enablers for the emission reduction targets that we have set, in-line with the SBTi requirements. TPG Telecom commits to the following:

Near-term targets:

- reduce absolute Scope 1 & 2 GHG emissions 95% by 2030 from a 2021 base year;
- reduce absolute Scope 3 GHG emissions (from purchased goods and services, use of sold products, fuel and energy related activities, and upstream leased assets) 30% by 2030 from a 2021 base year.

Long-term target and net-zero target:

- reduce absolute Scope 1, 2 & 3 GHG emissions 90% by 2050 from a 2021 base year.
- reach net-zero GHG emissions across the value chain by 2050 from a 2021 base year.

Detailed information regarding calculation methodologies and metric definitions are available within our Sustainability Report.

This target-setting process allowed us to identify and prioritise those areas where emissions are highest and where we have an opportunity to best influence third-party emissions reduction strategies. Key aspects of our emission reduction interventions include:

- Scope 1 & 2 emissions: powering our operations with 100 per cent renewable electricity, which is aligned with our existing renewables target; and
- Scope 3 emissions: achieving reductions through engaging with key suppliers to encourage the setting of emission reduction targets and working with them to achieve them.

These targets and pathways have been submitted to the SBTi.

<sup>11</sup> Science Based Targets Initiative



## Progress towards assessing climate risks and opportunities

At the launch of our first Sustainability Strategy, we stated our intention to adopt the TCFD framework and produce a standalone climate change report as part of our 2022 Annual Reporting suite.

To achieve this, we undertook a significant climate risk project in 2022. Described throughout this report, it included:

- current state climate risk maturity assessment and peer benchmarking;
- detailed physical and transition risk identification and assessment;
- qualitative scenario analysis of three key physical and transition risks across short, medium and long term timeframes; and
- development of a multi-year climate risk roadmap.

Climate risk management is a continuous and evolving action that will be monitored and reviewed as necessary to build climate resilience into the business' operations and strategy.

## Progress towards achieving our renewable energy target

In 2022 our internal Renewable Energy working group was established to manage the achievement of our renewable energy target. It includes senior leaders from Finance, Procurement, Sustainability and Strategy. This working group then designed our Renewable Energy Procurement Strategy to drive our go to market approach in meeting our target. This is expected to be supported through a combination of Large-scale Generation Certificates (**LGCs**) and long-term Power Purchase Agreements (**PPAs**) that are equivalent to our electricity consumption and aligned with our Energy Management Policy.

## Continuing to expand felix as a carbon neutral brand

felix was launched in 2020 as Australia's first telco brand powered by 100 per cent renewable electricity. Not only does this remain true, it also continues to be certified as a carbon neutral service by the Australian Government's Climate Active initiative. Achieving these commitments helped us to better understand what was required to expand to our entire organisation.

For example, the work that went into a powering felix by 100 per cent renewable electricity led directly to our commitment to power our entire Australian operations with renewable electricity from 2025 onwards.

In 2022, felix continued to help drive innovation throughout TPG Telecom. The process felix went through to achieve its carbon neutral certification was a vital contribution towards the mapping of TPG Telecom's Scope 3 GHG emissions footprint and setting of our emissions reduction targets.

Additionally, the felix rollout of eSIM in early 2022 directly led to our ability to roll this out to a number of our other brands.

In September, less than two years from launch, felix achieved the milestone of 500,000 trees donated around the world. With over 650,000 trees planted by year end, we expect felix to achieve its one million trees planted goal during 2023.

## Performance metrics

We track a number of internal and external metrics related to climate risk. Internally, the current risk ratings and status of mitigating actions are reviewed by the ELT and the ARC on a quarterly basis. Externally, we track metrics designed to monitor progress towards our key climate commitments.

We are also preparing for alignment with the ISSB disclosure requirements once they have been finalised. As such, we are developing the internal processes required to be able to report accurately on the metrics included within the disclosure standards, including our industry-specific metrics.

As outlined in our GHG emissions profile, the current metrics we capture and report on include:

- Scope 1, Scope 2 and Scope 3 emissions for both our Australian and overseas operations, enabling us to track progress against our science-based emission reduction targets; and
- Total renewable energy consumption by the organisation, allowing us to report on progress against our renewable energy target.

As we progress the understanding of our exposure to climate-related risks, additional metrics will be considered in future disclosures.



## GHG emissions profile

### Our operations

We have calculated the Scope 1 & 2 emissions associated with our operational activities, as indicated in Table 4 below. Our largest source of emissions from our operations is from electricity consumption by our mobile and fixed networks, data centres, and our corporate and retail footprint. Our Scope 1 emissions, from fuel usage related to vehicles and electricity generators, currently accounts for only 1.1 per cent of our Scope 1 & 2 emissions footprint. As such, our commitment to powering our Australian operations with 100 per cent renewable electricity by 2025 is expected to reduce our operational emissions footprint by as much as 99 per cent.

**Table 4: TPG Telecom energy (TJ) and GHG emissions (ktCO<sub>2</sub>-e)**

CATEGORY	2021	2022
Energy consumed	1,237	1,291
Scope 1 emissions	4.8	2.8
Scope 2 emissions (market-based) <sup>12</sup>	224.4	224.8
Scope 1 & 2 emissions (market-based)	229.2	227.6

### Our value chain

This year we conducted an initial assessment of our Scope 3 emissions profile, an essential exercise to:

- understand our largest sources of Scope 3 emissions;
- inform the establishment of appropriate emissions reductions targets; and
- support future decisions and options on how to reduce our emissions.

The GHG Protocol Scope 3 Standard<sup>13</sup> categorises emissions into upstream and downstream emissions:

- Upstream emissions are indirect GHG emissions related to purchased or acquired goods and services.
- Downstream emissions are indirect GHG emissions related to sold goods and services.

The GHG Protocol Scope 3 Standard further categorises Scope 3 emissions into 15 distinct categories. We have reported Scope 3 emissions according to these categories, applying the relevance test to report against categories relevant to our business. Information on the emission factors used can be found in our Sustainability Report.

**Table 5: Telecom Scope 3 GHG emissions breakdown, 2021 baseline (ktCO<sub>2</sub>-e)**

CATEGORY <sup>14</sup>	EMISSIONS	PERCENTAGE
1&2: Purchased goods and services and capital goods	1,059.7	79.8%
11: Use of sold products	209.2	15.8%
3: Fuel- and energy related activities	25.1	1.9%
4: Upstream transportation and distribution	11.2	0.8%
8: Upstream leased assets	9.1	0.7%
9: Downstream transportation and distribution	6.0	0.5%
5: Waste generated in operations	4.7	0.4%
7: Employee commuting	1.4	0.1%
12: End-of-life treatment of sold products	1.1	0.1%
6: Business travel	0.4	0.0%
Total Scope 3 emissions	1,327.9	100.0%

Our Scope 1, 2 & 3 emissions have been calculated using methodologies consistent with the Greenhouse Gas Protocol and aligned to the requirements of the SBTi and we use an operational control approach to define the organisational boundary for our emissions footprint. Detailed information regarding calculation methodologies and metric definitions are available within our Sustainability Report.

<sup>12</sup> To support our science-based emissions reduction targets, we report our Scope 2 emissions using the market-based method as our primary method. Our location based Scope 1 & 2 emissions are 259.6 for 2021 and 268.5 for 2022.

<sup>13</sup> [GHG Protocol – Corporate Value Chain \(Scope 3\) Accounting and Reporting Standard](#)

<sup>14</sup> These GHG Protocol categories are not relevant to TPG Telecom: 10: Processing of sold products, 13: Downstream leased assets, 14: Franchises and 15: Investments. Footprint calculated on the 12-month period ending 31 December 2021.

## Energy consumption

Table 6 below demonstrates the progress against our commitment to power our Australian operations with 100 per cent renewable electricity by 2025. For the 2021 reporting period, we consumed approximately 323 gigawatt hours (GWh) of electricity in our Australian operations. In 2022, this increased to 346 GWh. As we transition to 5G technology, we anticipate that our energy consumption will continue to increase.

**Table 6: TPG Telecom electricity sources (GWh)<sup>15</sup>**

CATEGORY	2021	2022
Total electricity consumed	325	347
Electricity consumed - Australia (GWh)	323	346
Renewable electricity <sup>16</sup>		
Renewable Energy Target (RET)	57	61
Jurisdictional RET	17	17
Total renewable electricity	74	78
% Renewable electricity - Australia	23%	23%

From 2021 to 2022, the proportion of renewable electricity consumption for our Australian operations was stable at 23 per cent.

<sup>15</sup> In addition to our Australian operations, we consume a small amount of energy in our Guam and Manila operations, accounting for approximately 0.4% of our total annual consumption.

<sup>16</sup> Relates to non-voluntary renewable electricity, reported as per [Climate Active Electricity Accounting, April 2021](#).

# Looking ahead

We are committed to improving our identification, assessment, management and disclosure of climate-related risks and opportunities to support our understanding of, and the necessary actions required to mitigate, the impacts of climate change on our organisation. To track our progress, we have developed an internal, multi-year climate risk roadmap that lays out the initiatives and actions we need to take in order to deliver a mature approach to managing climate risk as an organisation. This roadmap includes the key initiatives and proximate timeframes for achievement and has been endorsed by the Board.

## Tracking our progress

Through our Sustainability Strategy and annual Sustainability Report, we will continue to measure and report our Scope 1, 2 & 3 emissions footprint and track progress towards meeting our renewable energy target and emissions reduction targets. We will also continue to assess the materiality of climate change to our business through future planned quantitative climate scenario analyses that will support the integration of climate risks into our financial decision-making process. We will also look to determine the impact of climate-related risks and opportunities on the business, strategy and financial planning as our climate journey continues.

## Our climate risk roadmap

The multi-year roadmap of actions for climate risk management was presented to the ARC and Board for their endorsement. It was based on a gap analysis, peer benchmarking and the results of our initial climate scenario analysis.

Highlights of our roadmap include:

- Conduct quantitative climate scenario analysis to assess materiality of climate change across our value chain, in order to understand potential financial impacts;
- Establish an internal Climate Risk working group, comprised of members of the SLT and Sustainability Council, to drive roadmap implementation;
- Investigate options for activities that will support the attainment of net-zero emissions; and
- Develop a detailed decarbonisation roadmap for our operations and value chain.

We recognise that the TCFD is a guidance framework and disclosures can start at any time, as well as at different levels of detail, given the complexity of climate-related issues. We acknowledge that the sustainability reporting environment is evolving and while we are currently using the TCFD framework as our guide, we are planning to utilise the below initiatives so that we are prepared to report against the ISSB disclosure requirements, once they have been finalised.

# TCFD Index

TCFD RECOMMENDED DISCLOSURES	LOCATION
<b>Governance</b>	
a. Describe the Board’s oversight of climate-related risks and opportunities.	Governance section pg. 4
b. Describe management’s role in assessing and managing climate-related risks and opportunities.	Governance section pg. 4
<b>Risk Management</b>	
a. Describe the organisation’s processes for identifying and assessing climate-related risks.	Risk Management section pg. 6
b. Describe the organisation’s processes for managing climate-related risks.	Risk Management section pg. 6
c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation’s overall risk management.	Risk Management section pg. 6
<b>Strategy</b>	
a. Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.	Strategy section Table 1 pg. 8
b. Describe the impact of climate-related risks and opportunities on the organisation’s businesses, strategy, and financial planning.	Strategy section Table 1 pg. 8
c. Describe the resilience of the organisation’s strategy, taking into consideration different climate-related scenarios, including a 2C or lower scenario.	Climate scenario analysis section pg. 11
<b>Metrics and Targets</b>	
a. Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Performance metrics section pg. 16
b. Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	GHG emissions profile section pg. 17
c. Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Targets section pg. 15

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