Climate change management approach

Climate change remains one of the most significant challenges facing society. As a leading energy company, the climate transition is embedded in our strategy and key to delivering on our purpose.

We unequivocally support the United Nations Framework Convention on Climate Change and the Paris Agreement, and measures to progressively reduce global emissions, including the aim to limit the world's temperature increase to 1.5°C above pre-industrial levels.[1]

As one of Australia's leading energy companies, we recognise our responsibility to show leadership in addressing the challenge of climate change and contribute to the delivery of Australia's international emission reduction commitments, while improving the affordability of energy and maintaining reliability for our customers.

We continue to progress work on updating our existing emissions reduction targets consistent with a 1.5-degree pathway. Our long-term aim is to achieve net zero Scope 1 and Scope 2 emissions by 2050.

We acknowledge our obligation to consider, manage and disclose climate risks impacting our businesses, and recognise that there is an expectation for companies like Origin to provide disclosure on the management of climate change risks and opportunities.

Taskforce on Climate-Related Financial Disclosures (TCFD)

The recommendations of the G20 Financial Stability Board's Taskforce on Climate-Related Financial Disclosures (TCFD) provide a framework to develop more effective climate-related governance and risk management and, as a result, more meaningful climate-risk related financial disclosures and are widely regarded as the preferred disclosure framework for climate change risk.

The voluntary recommendations request companies provide evidence of attention to climate change in four areas:

Governance

The organisation's governance around climate-related risks and opportunities.

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning.

Risk Management

The processes used by the organisation to identify, assess, and manage climate-related risks.

Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

Origin has been reporting against the TCFD framework since FY2018 and is committed to ongoing development of its climate-related financial disclosures. This document sets out Origin's approach to managing climate change risks and opportunities as we transition to a low-carbon economy, incorporating the recommendations of the TCFD.

[1] United Nations Climate Change, 'The Paris Agreement'.

Climate change governance

Origin recognises the importance of governance to support the consideration of climate related risks and opportunities.

Board

The Board, including its committees, considers, reviews and monitors climate-related risks and opportunities as part of investment considerations and regular financial and operational performance reviews.

The Board monitors progress on our emissions reduction targets and continuously considers climate-related risks and opportunities at least annually as part of the Company's strategic planning process, and throughout the year via consideration of business strategy. During FY2021 strategic topics included a deep dive on decarbonisation across the business, emerging business models in the electricity transition, battery storage opportunities and emerging climate-related risks.

The Board regularly invites relevant experts to inform Directors on the development of the Company's strategies. For example, a number of leading global experts presented external perspectives to the Board on a range of climate related matters, sustainable investment trends, energy policy and regulation, energy transition opportunities, energy storage outlook and future fuels including renewable hydrogen and other technologies.

During FY2021, the Board reviewed the roles and responsibilities of its Committees, in particular the oversight of sustainability related matters, including climate change. Effective from FY2022, the scope of the Health, Safety and Environment Board Committee has been expanded to include more sustainability matters, including climate change, and the committee has been renamed the Sustainability and Safety Committee.

The Risk Committee will retain responsibility for strategic and emerging sustainability-related risks, including climate change risk. The Sustainability and Safety Committee will have oversight and responsibility for the climate change related governance, target setting and disclosures. The Remuneration and People Committee is responsible for setting climate-related performance targets in Origin's remuneration framework.

Climate change risk is reported to the relevant Board Committee on a semi-annual basis, at a minimum, and that reporting frequency will continue in FY2022 for the Risk Committee and the Sustainability and Safety Committee. During FY2021, reporting to the Risk Committee included two deep dives that focussed on Origin's governance and risk management framework in relation to climate change risks.

The Risk Committee, Sustainability and Safety Committee and Remuneration and People Committee each meet at least four times a year.

Management

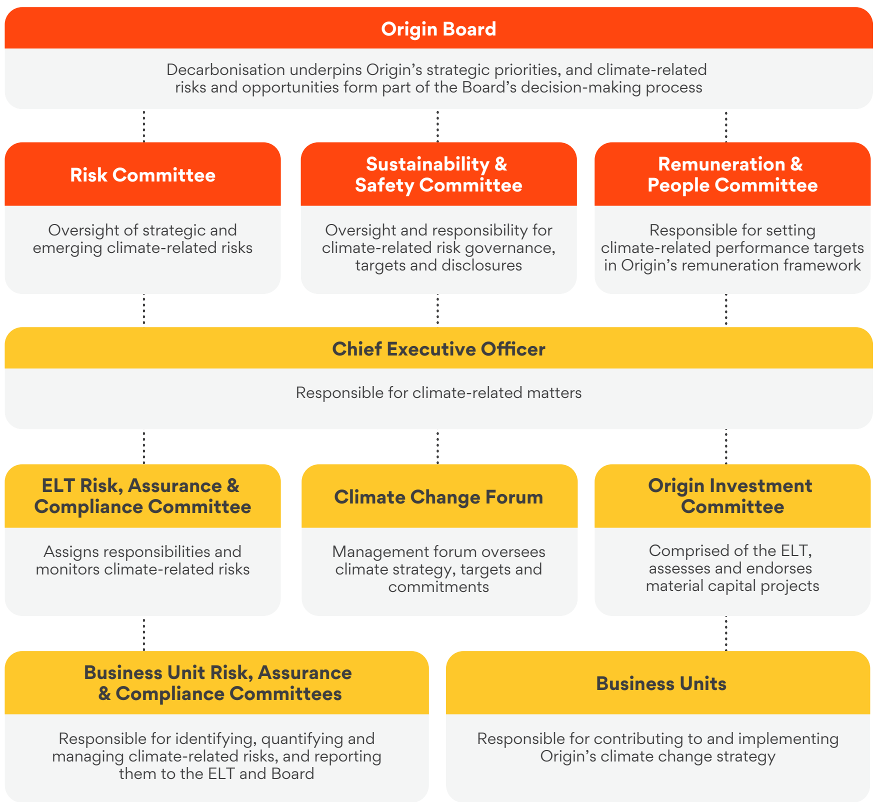
The Chief Executive Officer (CEO) is the most senior individual with responsibility for climate-related matters.

In FY2021, the Climate Change Forum was established, chaired by the CEO with senior representatives from across the business with responsibility for climate-related matters. The role of the Climate Change Forum is to support the coordinated implementation of our company-wide climate change strategy and our emissions reduction targets and commitments. The Climate Change Forum reports quarterly to the Executive Leadership Team and will report at least semi-annually to the Sustainability and Safety Committee.

The Executive Leadership Team Risk, Assurance and Compliance Committee (ELT RAC) is the primary executive level risk governance committee at Origin. Its principal role is to enable the CEO and Executive Leadership Team to discharge their responsibilities under Origin's Risk Management Policy and Risk Management Directive. These responsibilities include:

- identifying and assigning responsibilities for strategic and emerging risks including climate-related risks;
- climate change risk governance (which is reviewed at least annually); and
- monitoring regular business unit risk-related reports and the quarterly Strategic Risk Report.

Origin's climate change governance framework



The ELT RAC also reviews any escalated risks that arise within business unit risk, assurance and compliance meetings in accordance with protocols.

Through their business unit RACs, the Executive General Manager, Integrated Gas, the Executive General Manager, Energy Supply & Operations and the Executive General Manager, Future Energy and Technology are responsible for identifying, quantifying and managing climate-related risks and reporting them to the relevant executive committee, the Board and the Board's Risk and Sustainability and Safety Committees.

The Origin Investment Committee (OIC) is comprised of Origin's Executive Leadership Team, and is responsible for the formal review and approval process of Origin's capital expenditure and investment decisions. The OIC assesses material investments, including against a range of climate-related scenarios.

A climate change target is included in key executives' short-term incentive plans, defined as a percentage reduction in Origin's Scope 1 emissions from a FY2017 baseline. The climate change target comprises 10 per cent of the 40 per cent non-financial targets within the CEO's short-term incentive plan.

Risk management framework

Origin's approach to risk management aims to embed a risk-aware culture in all decision making and to manage risk in a proactive and effective manner.

The Company has an overarching Risk Management Policy defining our approach to risk management and oversight. Our risk management framework supports the identification, management, and reporting of material risks in areas such as health and safety, environment (including climate change), finance, reputation and brand, legal and compliance and social impacts. Our framework is aligned with the ISO 31000 - *Risk Management - Guidelines*.

In general, risks are identified that have the potential to affect Origin's ability to meet its business objectives and are categorised into four broad categories: strategic, operational, financial or project risks.

Management is responsible for the design and implementation of the risk management and internal control systems to manage the Company's risks. Management reports to the Risk Committee on how material risks are being managed and the effectiveness of controls in place to mitigate those risks. All risks that meet our reporting thresholds are reported to the Board quarterly.

Climate-related risks are identified, assessed and managed using Origin's Risk Management Framework in the same way as all other risks at Origin.

Within our Risk Management Framework, climate change risk is considered a strategic risk for Origin and is monitored by the CEO, supported by the management committees described above. Specific climate-related risks tend to be categorised as either strategic or operational risks and are identified and managed by the Executive Leadership Team member responsible for the relevant part of Origin's business. Strategic risks are defined as internal or external uncertainties affecting Origin's strategy and strategy execution. Operational risks are defined as internal or external uncertainties affecting Origin's processes, people and systems.

Climate change risk is a strategic risk reported in the Operating and Financial Review of our Annual Report. Further details on our Risk Management Framework can be found in the Operating and Financial Review.

Strategy

Managing climate change risks and opportunities

We consider the effect of decarbonisation on the value of our assets over the short, medium and long terms, and we recognise that climate-related impacts and opportunities must be considered across our business. The transition to a low-emissions energy sector is a key strategic priority for Origin.

Origin actively monitors the latest global climate change science published by leading international organisations to help assess potential risks and opportunities for our portfolio. Through the governance and management structures noted above, we seek to manage our portfolio to be resilient and to be able to adapt to the energy transition, and the increasing expectations of our stakeholders.

Capital allocation and climate resilience

Origin's investment and capital expenditure decisions are made within a governance framework so that our investments are consistent with our strategy, meet certain investment hurdles and are consistent with our purpose. Origin's existing operations require capital expenditure to ensure they continue to play their part in providing safe, reliable and affordable energy, and meet regulatory commitments. Origin continues to allocate growth capital to digital and low carbon customer solutions.

All major Origin capital expenditure and investment decisions are subject to a formal review and approval process, overseen by the OIC, against a range of climate-related scenarios and incorporating a price on carbon.

Origin is progressing work on updating our existing emissions reduction targets consistent with a 1.5°C pathway. We aim to be net zero by 2050 for our Scope 1 and 2 emissions. Origin continues to review its capital allocation governance framework as part of updating our emissions reduction targets.

Climate change scenario analysis plays a role in our assessment of the assets we should hold, invest in, dispose of and acquire. We have previously published scenario analysis on the value of our generation portfolio to evaluate the impacts of 2°C and 1.5°C pathways.[1]

We continue to look beyond the risks of climate change and actively seek out climate-related business opportunities for Origin, including opportunities that allow us to utilise our existing competitive advantages.

[1] Origin Energy, Resilience of Origin's generation portfolio to a low-carbon economy.

Climate-related risks

Under the TCFD framework, Origin's climate-related risks can be classified as transitional or physical, and can extend from product development through to resource extraction with many different activities in between. Transitional risks include policy and legal, technology, market and reputation, while physical risks can be classified as either chronic or acute. The table below outlines Origin's key transitional and physical risks, and how we are managing them.

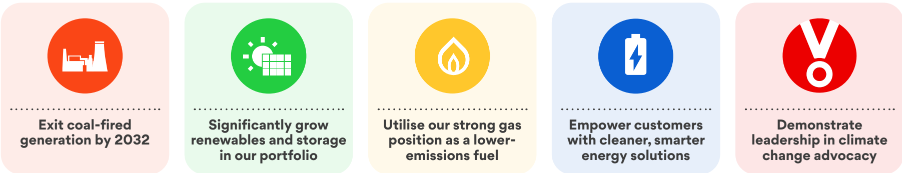
<table>
<tr><th>TCFD Risk Type</th><th>Description</th><th>Management</th></tr>
<tr><td colspan="3">Transition Risks</td></tr>
<tr><td>Policy & Legal</td><td>• Changing government regulation, including regulatory intervention, government investment in generation, climate change policy and the emergence of new legislation or reporting requirements may result in increased regulatory requirements and associated costs or impact the ability for Origin to participate in future generation investments.
• Climate change related litigation.</td><td>• Climate-related risks are considered from both financial and non-financial perspectives as part of Origin's governance framework and decisionmaking process.
• Climate-related commitments and disclosures are regularly reviewed and updated to take into consideration up to date science, regulatory requirements and stakeholder expectations.
• Origin continues to advocate for a coordinated and long-term energy policy at the national level to give industry the confidence to invest in new electricity generation and gas supply.
• Origin engages proactively with all levels of government and regulatory bodies on energy and climate policy, including through policy submissions and directly with relevant departments and minister's offices, as well as indirectly through various Industry Associations.</td></tr>
<tr><td>Technology</td><td>• In part driven by a response to climate change, the growth of low emissions technologies, distributed generation and demand management is empowering consumers to own, generate and store electricity, consuming less energy from the grid, and Origin is exposed to risks and opportunities relating to new digital, and lowcarbon technologies.
• The emergence of new markets, technologies and business models in renewable generation, battery storage, distributed generation, and new participants in these markets has the potential to disrupt Origin's business model.</td><td>• Origin actively participates and invests in technological developments through local and global start-up accelerator programs, trialling new energy technology and new products and business models.
• In parallel, Origin is growing its distributed generation and home energy services businesses and endeavouring to mitigate the impact of this risk on its core energy businesses by seeking to offer superior service, reducing cost to serve and participating in new markets and technologies through innovative products and services.
• Origin is pursuing opportunities in low-carbon technologies such as hydrogen, e-mobility, and carbon management.</td></tr>
<tr><td>Market</td><td>• Risks include the ongoing decarbonisation of energy markets and changes in the volume or source of energy demanded by customers due to price, consumer behaviour, community expectations, mandatory energy efficiency schemes, Government policy, weather and other factors. This change in demand for energy could:
– reduce Origin's revenues and adversely affect Origin's future financial performance; and/or
– restrict optimising future financial opportunities if Origin fails to adequately prepare.</td><td>• Our strategy for transitioning to a carbon constrained future is to focus on and invest in lowering existing and future carbon emissions across our portfolio.
• In Energy Markets this includes:
– Exiting coal-fired generation by 2032, at the latest.
– Growing our supply of renewable generation.
– Using the flexibility in our gas supply and peaking generation capacity to manage the intermittency of renewables.
– Investing in leading-edge technologies to drive greater efficiency in operations and reduce emissions.
• In Integrated Gas, this includes:
– Reducing and removing operational emissions from Australia Pacific LNG through upgrading equipment and changed processes.
– Engaging in early phase activities in carbon capture and storage, credible carbon offsets and low carbon customer solutions, including renewable hydrogen and ammonia.
• We are investing in new technology to support Origin's ability to meet future increases in energy demand. This includes developing data-based customer propositions and better predicting customer demand through our artificial intelligence orchestration platform, which connects and controls distributed assets and IoT devices, and applying advanced data analytics capability.
• Climate change scenario analysis, including around market risks, forms part of our business planning with the goal to provide operational and financial resilience.</td></tr>
</table>

TCFD Risk Type	Description	Management
Reputation	• Rapidly changing stakeholder expectations and perceptions of our contribution to or detraction from the transition to a low carbon economy, particularly in relation to the transition of Eraring and the role of gas as a transition fuel could result in the increasing cost of, or losing access to, debt and equity capital and insurance, as well as impact our social licence to operate, our reputation amongst communities and customers, and the ability to attract and retain talent.	• Origin has medium term emissions reduction endorsed by the Science Based Targets initiative. We aim to reach net zero Scope 1 and 2 emissions by 2050. • We are progressing work on updating our existing emissions reduction targets consistent with a 1.5°C pathway, and we will continue to review our capital allocation governance framework as part of updating our emissions reduction targets. • We have a short-term emissions reduction target is linked to executive remuneration • Origin proactively engages with its capital and insurance providers to ensure they are well informed of our climate change strategy, commitments and targets. • Origin's capital allocation process and investment decisions incorporate a price on carbon. • Origin engages with communities to understand, mitigate and report on environmental risks associated with its projects and operations.
Physical Risks		
Chronic	• Changing weather patterns impact on the demand for energy.	• Our strategy of increasing our supply of renewables and storage and investing in new technology and products supports Origin's ability to meet future increases in energy demand. Origin is applying advanced data analytics capability to better predict customer demand and enable Origin to develop data-based customer propositions. • Origin uses the flexibility in its gas supply and peaking generation capacity, as well as the flexibility of Eraring Power Station, to manage the intermittency of renewables. We are also increasing the intra-day ramping of Eraring and running 3 of 4 units outside of summer.
Acute	• The resilience of our assets to changing and more frequent and severe weather conditions, including floods, droughts, and bushfires, all of which could disrupt our operations or impact the efficacy of our assets.	• Origin has extreme weather event preparation processes including seasonal readiness activities and emergency response plans. • Our operational planning and design processes incorporate extreme weather events, while investment decisions for major growth projects incorporate potential financial losses from natural disasters.

Decarbonisation strategy

We have a five-pillar approach to progressively decarbonise our business and manage the climate change risks and opportunities we face as we transition to a low carbon economy. Further details are included in our 2021 Sustainability Report.

Our five-pillar decarbonisation strategy



Metrics and targets

In 2017, we became the first company in Australia to set science-based emissions targets independently approved by the Science-Based Target Initiative (SBTi). Our medium-term, SBTi-approved targets cover Scope 1, Scope 2 and Scope 3 equity emissions. One way we are planning to meet these targets is by exiting coal-fired generation by 2032, or earlier.

We continue to progress work on updating our existing emissions reduction targets consistent with a 1.5-degree pathway, and we aim to achieve net zero Scope 1 and 2 emissions by 2050.

Our emissions reductions targets are:

- Aim to achieve net zero Scope 1 and 2 emissions by 2050
- Science-based medium-term emissions reductions targets:[1]
  - Reduce Scope 1 and Scope 2 emissions by 50 per cent by 2032
  - Reduce Scope 3[2] emissions by 25 per cent by 2032
- Short-term emissions reduction target to reduce Scope 1 emissions by 10 per cent on average over FY2021-FY2023 (linked to executive remuneration).

We continue to target 25 per cent of our owned and contracted generation capacity being made up of renewables and storage and expect to achieve this target once current developments fully come online.

We use several metrics to measure our emissions and our performance against our targets. These can be found in our 2021 Sustainability Report and our sustainability performance data tables.

We report our Scope 1 and Scope 2 emissions under the *National Greenhouse and Energy Reporting Act, 2007 (NGER)*. The reported Scope 1 and Scope 2 emissions from Origin's Eraring generation assets and Integrated Gas business undergo external, limited assurance audits annually.

We are not required to report our Scope 3 emissions under NGER, however, we believe it is important that entities take responsibility for influencing emissions reduction throughout the value chain and as such we measure and report our equity Scope 3 emissions data. We calculate Scope 3 emissions based on the Greenhouse Gas Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard and Scope 3 guidance documents.[3]

Released September 2021

Further information about Origin's performance can be found on our website originenergy.com.au

[1] Equity emissions targets are from a FY2017 baseline. Emissions on an equity basis capture the emissions relating to the assets we own, including our generation fleet and Origin's 37.5 per cent share of Australia Pacific LNG, including the downstream operations and non-operated areas.

[2] Origin's Scope 3 emissions target does not include Australia Pacific LNG's exported LNG volumes, purchased LPG and corporate emissions, which meets SBTi's minimum two-thirds coverage requirement.

[3] Greenhouse Gas Protocol, Corporate Value Chain (Scope 3) Standard.