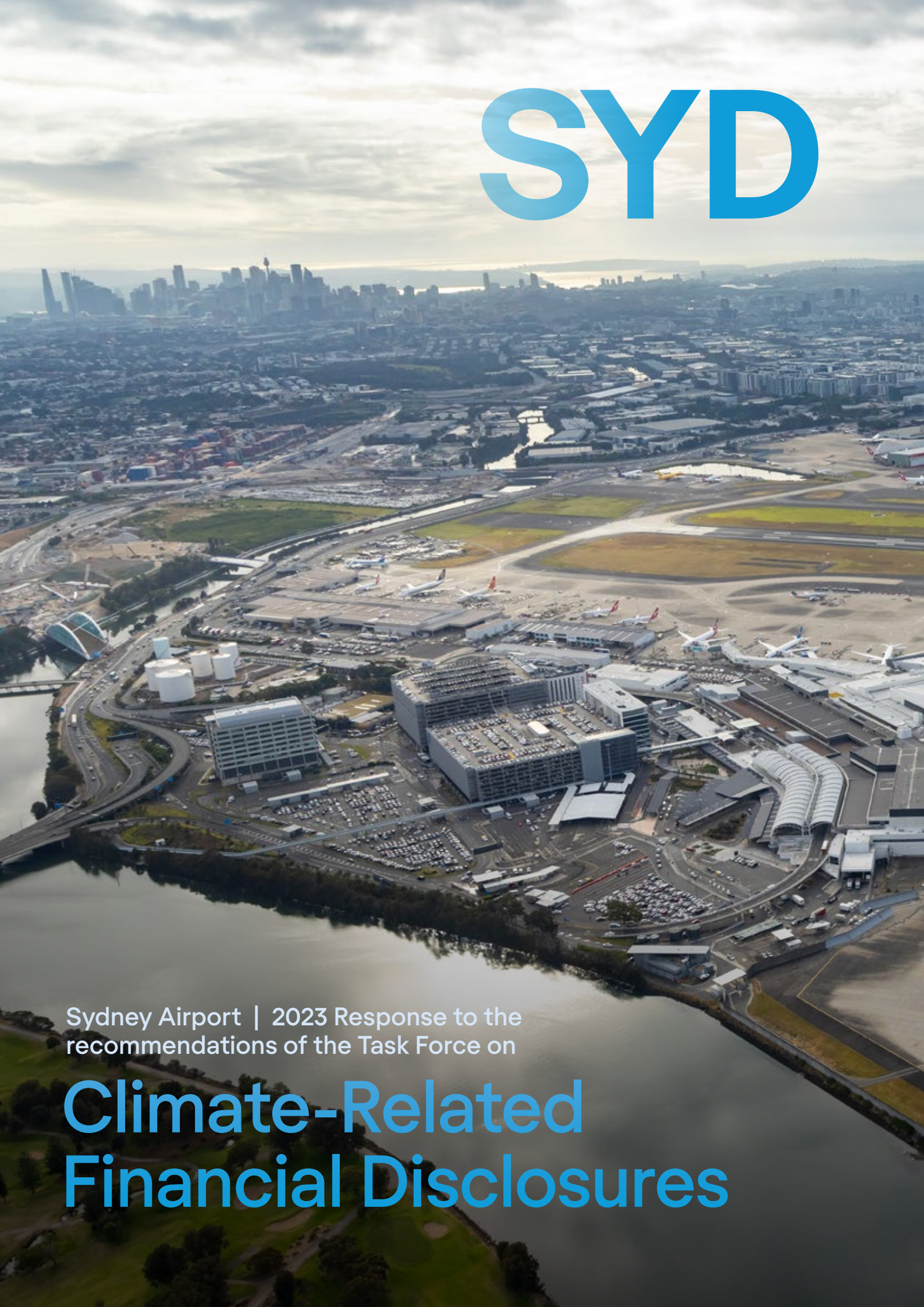


SYD

Sydney Airport | 2023 Response to the recommendations of the Task Force on

Climate-Related Financial Disclosures

Building resilience to climate change

Sydney Airport operates Australia's major gateway airport. We recognise that we serve an essential piece of regional and national infrastructure supporting our communities' mobility and economic growth.

Our operations deliver high levels of availability, reliability and resilience, and we recognise that climate change can potentially affect our business through physical and transition risks.

Aviation currently contributes ~2 per cent of global human-induced GHG emissions.[1] As a 'hard to abate' sector, we anticipate the industry will continue to come under greater focus and scrutiny as other industries, with clearer transition pathways, decarbonise and transition to a net zero future.

We are committed to improving the resilience of Sydney Airport to the current and emerging physical and transition risks posed by climate change, ensuring continued operations and growth.

Our 2023 achievements

We continued to improve and strengthen our climate adaptation and resilience throughout 2023, following a full refresh of our climate risk assessments and action plans in 2022.

Our key achievements over the last year are:

Governance

- We introduced a new sustainability sponsorship structure to provide clarity on ownership of the various sustainability and climate risk workstreams and initiatives that are in place across the organisation to support Sydney Airport's climate risk management.
- We held six Environmental, Social and Governance Steering Committee (ESG SteerCo) meetings in 2023, driving a culture of improved sustainability governance and performance within the organisation.
- We established a new Net Zero Working Group in May 2023, with a bi-monthly meeting cadence, to enhance governance over the delivery of our initiatives that support our commitment to achieve Net Zero (Scope 1 and 2) emissions by 2030. We held four meetings throughout 2023.

Strategy

- We finalised our Climate Action Plans; Decarbonisation and Adaptation, which provide an overarching strategy on Sydney Airport's approach to identifying and managing climate change risks and opportunities.

Risk management

- All physical and transition risks, identified during climate risk assessments, have been allocated actions for implementation, with a total of 96 actions (71 decarbonisation and 25 physical adaptation actions) identified to enhance the climate resilience of Sydney Airport's business model and operations.
- In 2023, these actions were incorporated into SYD's risk management framework and recorded in our risk management system (CAMMs), with each action having an assigned owner/s and due date.
- We commenced a heat island effect study that is scheduled to be completed in 2024 in response to emerging physical climate risks related to heat and hot/dry conditions identified in our climate risk assessments.

Metrics and targets

- Our emissions/m^2 target was not achieved in 2023 (an increase of 1%) due to a reduction in overall square meterage resulting from the P1 carpark closure. However, we achieved a 6% reduction in total Scope 1 and 2 emissions in 2023, compared to 2022.
- Energy efficiency projects implemented in 2023 are expected to deliver a saving of ~7.6 GWh in annual energy consumption and a ~6,000 tCO2e reduction in annual Scope 2 emissions.
- Contractual negotiations for Sydney Airport's future electricity supply have been completed, which will secure the equivalent of 100 per cent renewable electricity for the Sydney Airport precinct from 1 January 2025, through a Power Purchase Agreement (PPA) [2].

1. www.atag.org.
2. 100 per cent renewable electricity by 2025 will be achieved through large-scale generation certificates which will match/offset the Airport's electricity consumption, in conjunction with onsite solar PV.

Building resilience to climate change

Reporting against TCFD recommendations

We have been supporters of the Taskforce for Climate-related Financial Disclosures (TCFD) since 2017 and report annually in line with its framework.

From 2025, we will commence reporting against the International Financial Reporting Standards (IFRS) S2 Climate-related Disclosure Standards issued by the International Sustainability Standards Board (ISSB) until the Australian Sustainability Reporting Standards (ASRS) 2 climate disclosure standards are mandated.

TCFD recommended disclosure	Disclosure	Location
Governance		
Board oversight of climate-related risks and opportunities	2023 TCFD Report | **Governance and oversight of climate change**	Page 4
Management's role in assessing and managing climate-related risks and opportunities	2023 TCFD Report | **Governance and oversight of climate change**	Page 4
Strategy		
Risks and opportunities identified in the short, medium and long term	2023 TCFD Report | **Strategy**	Page 5
Impact of climate-related risks and opportunities on the organisation's strategy and financial planning	2023 TCFD Report | **Strategy**	Page 5
Describe the resilience of the organisation's strategy under different climate scenarios	2023 TCFD Report | **Strategy**	Page 5
Risk management		
Processes for identifying and assessing climate-related risks, and integration of climate-related risks into the overall risk management framework	2023 TCFD Report | **Climate-related risk management**	Page 10
Processes for managing climate-related risks	2023 TCFD Report | **Climate-related risk management**	Page 10
Metrics and targets		
Metrics used to assess climate-related risks and opportunities	2023 TCFD Report | **Metrics and targets**	Page 18
GHG emissions and related risks	2023 TCFD Report | **Metrics and targets**	Page 18
Targets used to manage climate-related risks and opportunities and performance monitored against those targets	2023 TCFD Report | **Metrics and targets**	Page 18

Building resilience to climate change

Meeting our TCFD roadmap

Progress against our TCFD roadmap can be seen in the table below. Next year, we will continue to implement our 2021-2024 TCFD roadmap, climate change resilience strategy and integrate climate change considerations into our business strategy.

TCFD pillar	Actions	2021	2022	2023
Governance	Further integrate climate considerations into strategic planning	In progress	Significant progress	Achieved
	Conduct Board and leadership deep dives on climate change	In progress	Achieved	Achieved
Strategy	Implement a climate change resilience strategy	In progress	In progress	Significant progress
	Continue to integrate climate change considerations into business strategy	In progress	Significant progress	Significant progress
	Review climate risks and integrate into department risk plans	In progress	Significant progress	Achieved
Risk management	Develop signposts to monitor changes in scenarios	Not achieved[1]	In progress	In progress
	Understanding potential financial impacts	In progress	In progress	In progress
Metrics and targets	Develop medium and long-term climate targets	Achieved	Achieved	Achieved

Not achieved · In progress · Significant progress · Achieved

1. Achievement of this action in 2021 was impacted by the COVID-19 pandemic.

Governance and oversight of climate change

The Board's Safety, Security and Sustainability (SSS) Committee is responsible for overseeing and reviewing the effectiveness of Sydney Airport's policies, strategies, initiatives and systems in relation to sustainability performance and reporting. Throughout the year, the SSS Committee met six times to assist the Board in overseeing sustainability performance and reporting.

The ESG SteerCo was established by Management to oversee and provide direction to the business on Sydney Airport's Sustainability Strategy and targets. Four ESG SteerCo meetings were held in 2023. Various cross-functional working groups across the business support the ESG SteerCo, which guide and deliver the various work streams and initiatives that underpin the achievement of Sydney Airport's Sustainability Strategy and targets.

Sydney Airport has four levels of ESG governance.

Board	Board
	SSS Committee
Management	ESG SteerCo
	Various working groups, e.g. Net Zero, Waste, Electrification and Modern Slavery

In 2023, we introduced a new sustainability sponsorship structure to provide clarity on ownership of the various sustainability workstreams and initiatives that are in place across the organisation. This sponsorship structure brings together the key actions identified in our climate risk register, as well as the various initiatives that support the delivery of our Sustainability Strategy. These initiatives have been organised by department and will facilitate development of objectives and key performance indicators (KPIs) for teams and individuals. Reporting cadences have also been implemented to support improved internal reporting and governance processes.

Strategy

This section presents key elements of Sydney Airport's latest scenario analysis and the implications of the analysis for our business strategy. It includes an overview of the risks and opportunities we have identified, which are presented in more detail in the subsequent section, Climate-Related Risk Management.

Sydney Airport's approach to climate-related scenario analysis

Scenario analysis is an important tool we use to identify climate risk over time and build our understanding of the resilience of our assets and our business to a changing climate.

Throughout 2022 and 2023, we updated our climate scenarios, using four divergent scenarios against which to test our resilience, adding a "Delayed Action" scenario to mature the analysis. Our scenario analysis was facilitated by climate risk and energy transition consultancy Energetics.

Sydney Airport has based three scenarios on the reference scenario frameworks published by the Intergovernmental Panel on Climate Change (IPCC) in the Sixth Assessment Report (AR6). These scenarios have been defined primarily by selected Shared Socio-economic Pathways (SSPs) and Representative Concentration Pathways (RCPs).[1] They are broadly consistent with the scenarios we analysed in 2018 and provide a range of physical and transition risk settings. Selection of the "bookend" scenarios ("Route to 1.5C" and "Climate Crisis") was also consistent with guidance from the Climate Measurement Standards Initiative.[2]

The fourth scenario ("Delayed Action") has been drawn on the framework provided by the "Delayed Transition" scenario developed by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS).[3] This scenario allows companies to examine the risks associated with a delayed switch from the world's current decarbonisation pathway to a pathway consistent with the Paris Agreement goals.

Key characteristics of Sydney Airport's selected climate-related scenarios for analysis

	1. Route to 1.5°C (1.5°C)	2. Current Trends (2-3°C)	3. Delayed Action (<2°C)	4. Climate Crisis (>4°C)
Core reference	SSP1-1.9	SSP2-4.5	NGFS Delayed Transition	SSP5-8.5
Description	**Immediate, sustained decarbonisation** driven by ambitious policies and high technological innovation, resulting in net zero global emissions around 2050	**Current policy, social, economic and technological trends continue.** The rate of increase in global emissions begins to decline post 2050	Delayed action creates a **shock transition in 2030** to a net zero emissions pathway. This results in net zero emissions around 2050, with higher costs, more technology constraints and higher temperature rise than in Scenario 1	Ongoing **fossil fuel-driven economic growth** and resource-intensive consumer choices turbo-charge emissions
Paris Agreement	Achieves Paris Agreement goal of limiting global warming to 1.5°C	Paris Agreement temperature goals are not achieved	Achieves Paris Agreement goal of limiting global warming to well-below 2°C	Total failure to achieve Paris Agreement goals
Transition risk profile	High	Medium	Very high	Low
Physical risk profile	Low	High	Low-medium	Very high

1. The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview, Riahi et al. 2017.
2. CMSI, 2020. Scenario analysis of climate-related physical risk for buildings and infrastructure: climate science guidance. Earth Systems and Climate Change Hub Report 21.
3. NGFS, 2022. NGFS Climate Scenarios for central banks and supervisors.

Strategy

These framework scenarios have been supplemented with industry-specific and Australia-specific information from multiple sources, including:

- International Energy Agency World Energy Outlook 2022 (IEA WEO 2022)
- Air Transport Action Group (ATAG) Waypoint 2050
- Australian Energy Market Operator (AEMO) Integrated System Plan (ISP) 2022
- IPCC Sixth Assessment (AR6): Climate Change 2022: Impacts, Adaptation and Vulnerability, Working Group II report
- CSIRO and Bureau of Meteorology 2015, Climate Change In Australia – East Coast Cluster Report
- World Bank Climate Change Knowledge Portal, Australia CMIP6 Climate projections
- Energetics' Fireline tool, which draws from data produced by the Electricity Sector Climate Information (ESCI) project (a collaboration between CSIRO, the Bureau of Meteorology and the Australian Energy Market Operator (AEMO).

Key scenario parameters and sources that have been utilised in the scenario analysis are summarised in the table below.

Key scenario parameters and their sources

Scenario parameters	1. Route to 1.5°C (1.5°C)	2. Current Trends (2-3°C)	3. Delayed Action (<2°C)	4. Climate Crisis (>4°C)
Physical characteristics				
Global temperature increase by 2100	~1.4°C	~2.7°C	~1.6°C	>4°C
Representative concentration pathway (IPCC AR6)	RCP1.9	RCP4.5	RCP2.6	RCP8.5
Socio-economic characteristics				
Shared socio-economic pathway (IPCC AR6)	SSP1	SSP2		SSP5
Economic dynamics (drawn from corresponding NGFS scenarios as well as SSP narratives[1])	Short-term inflationary impact of carbon policies. Overall strong economic growth maintained (NGFS "Net Zero 2050" scenario)	Economic indicators maintain historical trends, but are increasingly undercut by physical climate change impacts (NGFS "NDCs" scenario)	Inflation and unemployment will rise significantly just after 2030 peaking around 2035. The disorderly nature of transition affects financial asset valuations (NGFS "Delayed Transition" scenario)	Strong growth in the short term, eventually overwhelmed by physical climate change impacts (NGFS "Current Policies" scenario[1])
Economic impacts of climate change (corresponding NGFS scenarios, NIGEM, Remind model inputs[1])	Material negative impacts on annual GDP by 2050	Strong negative impacts on annual GDP by 2050	Strong negative impacts on annual GDP by 2050	Catastrophic impacts on annual GDP by 2050
Carbon price/costs of carbon regulation (IPCC, IEA WEO 2022, NGFS price curves for corresponding)	Rapid increase to 2030 and thereafter, with the increase slowing each decade slightly	Slow, gradual increase	Same as the *Current Trends* scenario until 2030, when prices will rise steeply until 2050	No carbon costs

1. The IEA and NGFS scenario sets do not include scenarios for the >4°C of global warming considered in "Climate Crisis". The NGFS "Current Policies" scenario considers temperature risk of >3°C, in which the negative impact of physical climate change on global GDP is modelled to reach nearly 8 per cent per year by 2050.

Strategy

Key scenario parameters and their sources continued

Scenario parameters	1. Route to 1.5°C (1.5°C)	2. Current Trends (2-3°C)	3. Delayed Action (<2°C)	4. Climate Crisis (>4°C)
Industry characteristics				
Demand for air travel (IEA WEO 2022, corresponding scenarios[1])	A large segment of business travel shifts to teleconferencing; a large segment of leisure travel shifts from long-haul to short-haul (IEA's "Net Zero Emissions 2050" scenario (NZE2050))	Business travel demand growth is flattened, but overall travel continues to rise (IEA's "Stated Policies" scenario (STEPS))	Same as the *Current Trends* scenario until 2030, where demand falls more than in Route to 1.5°C scenario due to high carbon costs, regulations and social concerns (STEPS, switching to NZE2050)	Strong demand growth in the short-medium term
Aviation decarbonisation technology development (ATAG Waypoint 2050)	Major investment in airport infrastructure for storage and delivery of hydrogen. Widespread adoption of alternative propulsion options	Slow progress towards the adoption of alternative propulsion options	Same as the *Current Trends* scenario until 2030, after which investment increases rapidly, but supply constraints push up costs of technology deployment	Fuel efficiency gains achieved with natural advancement in current technologies
Sustainable Aviation Fuel (SAF) availability and uptake	An accelerated switch to low-carbon fuels. Investment in SAF production facilities scales up rapidly with government support	Some growth in SAF production capacity, with some developed countries implementing SAF fuel mandates. SAF production capacity will increase by 2050. However, there will be minimal economies of scale, and SAF costs will remain high	Same as the *Current Trends* until 2030, after which all economies accelerate investment in SAF and other biofuels	Minimal changes in SAF availability today, and SAF costs remain high. Uptake remains niche
Electricity decarbonisation (drawing on corresponding scenarios in AEMO ISP 2022)	Rapid grid decarbonisation and development of the hydrogen industry (AEMO's "Hydrogen Superpower" scenario)	Gradual decarbonisation (AEMO's "Progressive Change" scenario)	Same as the *Current Trends* scenario until 2030, after which rapid grid decarbonisation is implemented	Decarbonisation is not prioritised but happens gradually as high-carbon generators are replaced with lower-carbon options (AEMO's "Slow Change" scenario)

1. The IEA and NGFS scenario sets do not include scenarios for the >4°C of global warming considered in "Climate Crisis". The NGFS "Current Policies" scenario considers temperature risk of >3°C, in which the negative impact of physical climate change on global GDP is modelled to reach nearly 8 per cent per year by 2050.

Strategy

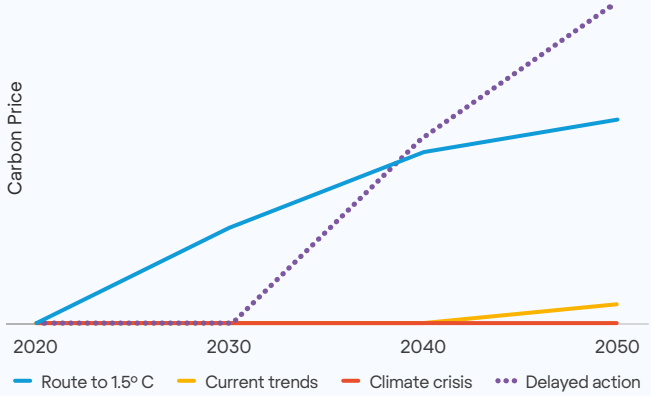
Although we have conducted qualitative scenario analysis, where available, quantitative inputs have been considered as illustrative indicators of the scale of impacts. For example, illustrative carbon price trajectories for each scenario have been considered as plausible projections of the costs of unabated emissions. Illustrative carbon price trajectories, supplemented with information on carbon price curves produced by a range of models, were presented as summarised in the figure below.

Use of illustrative carbon price ranges and trajectories to consider carbon policy costs by scenario[1]

- Scenarios consider carbon prices as proxies for policies that may not be explicit prices, but impose equivalent carbon costs
- Decarbonisation policies could be levies, taxes, regulations, subsidies, restrictions, etc. Each one imposes an explicit or implicit cost on emissions
- Prices at right are illustrative of the trend in carbon costs of each scenario
- Modelled carbon prices vary significantly, but in general prices in advanced economies in 2030 are:
  - Above US$200/tCO2e for scenarios achieving 1.5°C
  - US$10-90/tCO2e for scenarios based on current trends
  - Rising to US$80-770/tCO2e by 2035 in delayed action scenarios

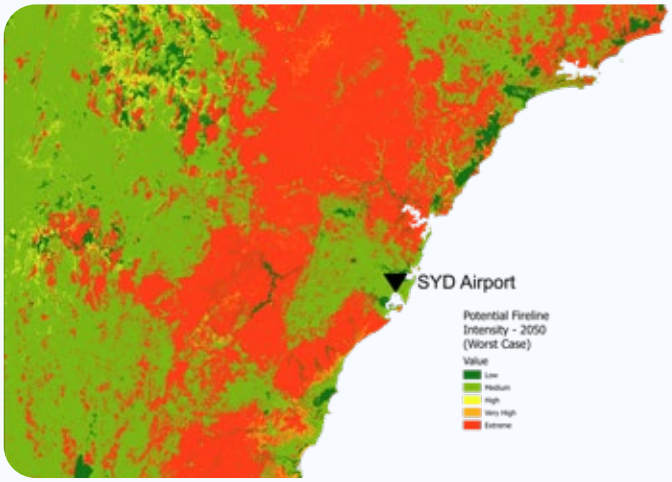
(Based on IEA, SSP, NGFS modelled carbon prices)

Projected global carbon prices from SSP and NGFS databases as indicators of policy intensity



Similarly, physical impacts across each scenario have been assessed with reference to the 10th and 90th percentile of climate projection data sourced from the IPCC's Sixth Assessment Report (AR6) and downscaled data produced as an outcome of CSIRO, BOM and AEMO's ESCI project, acknowledging that this data could provide indications of hazard only (rather than exposure and vulnerability). For example, bushfire hazard data for regions surrounding Sydney Airport allowed qualitative consideration of our direct and indirect exposures and vulnerabilities, as presented in the figure below.

Regional bushfire risk and implications for Sydney Airport



Bushfire risk in 2050 under Climate Crisis (>4°C) – 2050[2]

Fire weather across Australia is projected to intensify under all climate scenarios.

The region surrounding Sydney Airport is densely vegetated, raising fire risk in these areas.

Impacts to Sydney Airport include:

- Dense smoke obstructing visibility
- Outdoor worker health and safety
- Reduced attractiveness of Sydney/New South Wales as a travel destination

In order to assess how each of these four scenarios could, directly and indirectly, impact Sydney Airport, physical and transition risk workshops were held in 2022 and 2023 with internal representatives and subject matter experts across the business.

The physical risk workshop stepped through several levels of physical risk consideration:

- **Individual climate hazards** that Sydney Airport had analysed previously, both chronic and acute: extreme rainfall and flooding, sea level rise, storm surge, increased average temperatures, extreme temperatures
- **Additional individual climate hazards:** bushfires
- **Compounding climate events:** focusing on "wet and windy" and "hot and dry" combinations of climate hazards
- **Indirect impacts via climate risks to systems:** climate risks to aviation interdependencies, environmental assets (focusing on those that drive tourism), and broader economic activity

The transition risk workshop considered key risks and impacts

1. Based on IEA, SSP, NGFS modelled carbon prices.
2. Source: Energetics' proprietary bushfire risk tool, built in collaboration with CSIRO).

Strategy

as follows, acknowledging that these would occur within the context of physical climate change impacts and economic conditions affected by both physical and transition risk drivers:

- **Policy** – carbon pricing, regulations to reduce emissions
- **Market** – consumer and airline preferences, competitors, low-carbon alternative transport options, energy pricing
- **Technology** – innovation and deployment of sustainable aviation fuel (SAF), hydrogen, low emission aviation technologies (e.g., electric aircraft), infrastructure investment and constraints
- **Reputation** – financial appetite for emission-intensive sectors, social view of emissions-intensive activities, climate litigation.

Scenario analysis: key insights

Key insights from Sydney Airport's climate scenario assessments include:

Transition risks

- Sydney Airport's most material sources of transition risk are outside its direct control. Whilst Sydney Airport has a limited role in overall aviation decarbonisation, there are opportunities to contribute to industry transformation efforts.
- Sustainable aviation fuel (SAF) will be essential for reducing transition risk across all scenarios. Sydney Airport can actively participate in SAF advocacy efforts to encourage uptake of supply and demand side market opportunities to stimulate a SAF industry within Australia.
- Stakeholder expectations regarding climate risk continue to evolve. It is critical that we keep abreast of these expectations and ensure that Sydney Airport is capable of meeting them.

Physical risks

- Between now and 2030, there is no material difference in physical risk profile across the scenarios, as historic emissions have already locked in global warming over this time period. Differences beyond this date will emerge, but many decisions may need to be made before the world's future warming pathway can be determined.
- Flood adaptation measures are already being investigated to enhance Sydney Airport's resilience to future intense rainfall and storm surge events. Further investigation is underway to assess the effectiveness of resilience measures against future hot/dry events.
- As with transition risk, much of Sydney Airport's exposure to physical risk is outside our direct control. However, Sydney Airport can improve the physical resilience of its own operations – and is doing so through its flood risk management and adaptation and urban heat island effect studies.

The output from these workshops, along with the climate scenario analysis, have formed the basis of our climate risk assessments.

Integration of scenario analysis into business strategy

In 2023, we updated and finalised our Climate Action Plans; Decarbonisation and Adaptation, which provide an overarching strategy on Sydney Airport's approach to identifying and managing climate change risks and opportunities identified in our climate risk assessment, outlined above. These supersede Sydney Airport's Climate Risk Action and Adaptation Plan (CRAAP), which was first drafted in 2019.

These Climate Action Plans take into account:

- Advances in climate science, climate scenario analysis, and decarbonisation trends as outlined above.
- Sydney Airport's progress since 2019 on the mitigating actions we have deemed necessary to undertake to manage its climate risks.
- New actions Sydney Airport has identified as a result of our more recent analysis.

The key risks and mitigating actions identified during the climate risk assessments and included in our climate action plans have been embedded into our risk management framework. This is discussed in more detail in the following section, Climate-Related Risk Management.

Climate-Related Risk Management

In this section, we set out Sydney Airport's priority transition and physical risks and the actions we are undertaking to address them. Priority risks are risks with a medium or high residual risk rating. In 2023, we continued to build upon and improve our approach to managing the physical and transition risks posed by climate change.

All priority physical and transition risks, identified during the climate risk assessments, have been allocated key actions for implementation. These actions describe mechanisms to embed climate change adaptation and mitigation into airport planning, strategy development, design and operations.

These actions have been reviewed and prioritised and risk owners and partners for implementation have been identified. Together, a total of 96 actions (71 decarbonisation and 25 physical adaptation actions), shared across 6 business units with 23 individual owners, have been identified to enhance the climate resilience of Sydney Airport's business model and operations.

In 2023, these actions were incorporated into our risk management framework and logged in our risk management system (CAMMs), with each action having an assigned owner/s and due date. These actions will be tracked through periodic reporting in line with Sydney Airport's existing risk management framework from 2024 onwards.

The following section outlines the key priority transition and physical risks, and existing and potential future controls, that have been identified during our climate risk assessments.

Transition Risks

As the Climate Crisis scenario assumes no action to reduce emissions and a resurgence of fossil-fuelled energy consumption, transition risk analysis focused on the other three scenarios (Route to 1.5 °C, Current Trends, and Delayed Action). Risks were evaluated against a 2050 time horizon.

Driver	Risk	Existing and potential *future* controls
Market	Energy pricing becomes increasingly volatile due to electricity market policy and governance failures leading to increased operational expenditure costs	• Delivery of energy efficiency measures (e.g, LED upgrades and HVAC optimsation) • Long term renewable power purchase agreements in place, due to commence 1 January 2025 • Internal financial approvals process incorporates sustainability targets • *Installation of onsite renewables (e.g. solar PV panels) to reduce grid electricity consumption*
	Failure to apply a shadow carbon price to the capital investment framework leads to a reduced return on invested capital	• Shadow internal carbon price developed, informed by climate scenario analysis • *Shadow carbon price to be embedded in commercial investment framework*
	Consumer preferences to reduce flight emissions leads to a reduction in demand	• Implementation and delivery of Net Zero 2030 Roadmap for Scope 1 and 2 emissions (which accounted for 13 per cent of our total emissions footprint in 2023) • Scope 3 ground operations emissions reduction initiatives underway or planned (e.g. GPU/PCA utilisation improvements, electrification of GSE fleet) • Sustainable aviation fuel and transport policy engagement and advocacy (e.g. Aviation Green Paper Submission, SAF Joint Advocacy statement with major east coast airports, Jet Zero council participation via AAA) • Airspace and airfield (design and operational efficiency) policy engagement and advocacy (e.g. Aviation Green Paper Submission, Jet Zero council participation via AAA) • *Scope 3 strategy development and implementation*
	Increased cost of raw materials for capital projects due to limited local and global supply	• Incorporate and embed Built Environment Sustainability Standards into design and project governance processes • *Total cost of ownership model to be incorporated into project evaluations*

Climate-Related Risk Management

Transition Risks continued

Driver	Risk	Existing and potential *future* controls
Policy and legal	Offset costs rise significantly (in a delayed transition scenario) as policy affects both supply and demand	• Implementation and delivery of Net Zero 2030 Roadmap for Scope 1 and 2 emissions (which accounted for 13 per cent of our total emissions footprint in 2023) • Carbon offset procurement strategy (currently under development) • Investigation and establishment of new nature-based carbon removal solution, where practicable (e.g. a potential blue carbon offset project is currently being investigated as part of our carbon offset procurement strategy)
	Growth in application and levels of carbon pricing increases costs of airfares, dampening aviation demand growth	• Engagement with airline partners on low/zero emissions fuel, aircraft and associated infrastructure requirements • Sustainable aviation fuel and transport policy engagement and advocacy (e.g. Aviation Green Paper Submission, SAF Joint Advocacy statement with major east coast airports, Jet Zero council participation via AAA) • Airspace and airfield (design and operational efficiency) policy engagement and advocacy (e.g. Aviation Green Paper Submission, Jet Zero council participation via AAA)
	Australian government carbon policy increasingly regulates airports and airlines, leading to reductions in development capacity and aviation growth	• Implementation and delivery of Net Zero 2030 Roadmap for Scope 1 and 2 emissions (which accounted for 13 per cent of our total emissions footprint in 2023) • Scope 3 ground operations emissions reduction initiatives underway or planned (e.g. GPU/PCA utilisation improvements, electrification of GSE fleet) • Sustainable aviation fuel and transport policy engagement and advocacy (e.g. Aviation Green Paper Submission, SAF Joint Advocacy statement with major east coast airports, Jet Zero council participation via AAA) • Airspace and airfield (design and operational efficiency) policy engagement and advocacy (e.g. Aviation Green Paper Submission, Jet Zero council participation via AAA) • *Scope 3 strategy development and implementation*
	More sustainable building standards increase total capital plan portfolio costs (2030 timeframe)	• Incorporate and embed Built Environment Sustainability Standards into design and project governance processes • Sustainability review and approval requirements within project stage gating process • *Recycling of construction materials onsite, where practicable, to avoid landfill disposal costs and reduce raw material costs* • *Shadow/internal carbon price to be embedded in the commercial investment evaluation framework* • *Explore partnerships with construction contractors to drive circular economy initiative/s*
Reputation	Access to affordable finance that meets debt investors' decarbonisation expectations	• Maintain current level of ESG disclosures, ratings and benchmarks • Prepare for and meet upcoming mandatory climate reporting disclosure requirements • Regular engagement with investors regarding decarbonisation expectations • Implementation and delivery of Net Zero 2030 Roadmap for Scope 1 and 2 emissions (which accounted for 13 per cent of our total emissions footprint in 2023) • *Scope 3 strategy development and implementation*

Climate-Related Risk Management

Transition Risks continued

Driver	Risk	Existing and potential *future* controls
Technology	Low emissions aviation technologies (e.g., electric ground support equipment) require significant infrastructure investment and agreement between stakeholders on needs, location and timing	• Engagement with airline partners and ground handlers on low emissions infrastructure requirements • Assess and incorporate electrification impacts on electrical capacity demand into services and master planning processes • *Future infrastructure requirements to be identified, costed and incorporated into annual corporate planning and master planning processes*
	Insufficient Australian and global investment in sustainable aviation fuels and low emissions aviation technologies creates supply/price shocks, affecting demand for air travel	• Engagement with airlines, SAF producers, manufacturers, industry associations, and research organisations • Sustainable aviation fuel and transport policy engagement and advocacy (e.g. Aviation Green Paper Submission, SAF Joint Advocacy statement with major east coast airports, Jet Zero council participation via AAA)
	Delayed deployment of low emissions technologies leads to mismatch between Sydney Airport's infrastructure investment and infrastructure needs	• Engagement with airline partners and ground handlers on low emissions infrastructure requirements • *Future infrastructure requirements to be identified, costed and incorporated into annual corporate planning and master planning processes* • *Investigation and implementation of Jet Fuel Infrastructure storage and bridger requirements to enable safe and efficient transfer of small-scale SAF deliveries*
	Disorderly transition increases costs of decarbonisation opportunities	• Implementation and delivery of Net Zero 2030 Roadmap for Scope 1 and 2 emissions (which accounted for 13 per cent of our total emissions footprint in 2023) • Scope 3 ground operations emissions reduction initiatives (e.g. GPU/PCA utilisation improvements, electrification of GSE fleet) • *Scope 3 strategy development and implementation* • *Shadow/internal carbon price to be embedded in the commercial investment evaluation framework*
	Reduced short haul passenger volumes driven by an increase in alternative low carbon options (e.g., high speed rail, vertical take off and landing (VTOL) aircraft)	• Infrastructure that connects into multi-modal transport options • *Future VTOL operations to be considered in strategic planning and airspace design consultation*

Climate-Related Risk Management

Physical risks

Physical risk impacts are projected to worsen across all scenarios due to the impact of historical emissions. Whilst actions are applicable to all or multiple scenarios, the level and speed of adaptation required differ across scenarios. Risks were evaluated against a 2050 time horizon.

Driver	Risk	Existing and potential *future* controls
Greater rainfall and storm frequency and intensity	Flooding (from extreme rainfall or storm surge) results in partial loss of critical airport communication systems, lighting, buildings, utilities, and infrastructure leading to operational disruptions	• Flood modelling undertaken to inform future infrastructure upgrades and requirements for airfield and landside development projects • Efficient stormwater drainage systems in place • Regular inspections and maintenance schedules in place for critical airfield and lighting infrastructure • Maintenance teams in place to repair damage and/or drainage failures • Thunderstorm Warning System • Fog certified equipment deployment • Satellite landing systems deployment • Airfield management Serviceability Procedures (e.g., temporary closure of taxiways) • Airport Emergency Planning and Business Continuity Planning documents address significant flooding event/s and respective stress testing is performed • *Climate scenario modelling to be addressed in master planning, design governance, and project gating processes* • *Flood resilient infrastructure requirements to be costed into Corporate Planning*
	Higher insurance premiums and requirements due to coverage for flood and storm damage, and more frequent insurance claims	• Flood modelling undertaken to inform future infrastructure upgrades and requirements for airfield and landside development projects • Resilience and adaptation measures disclosed to insurers
	Increase in physical safety risk to workers in low points in the event of extreme rainfall	• Efficient stormwater drainage systems in place • Safety procedures in place for airport workers • Evacuation procedures and training • Airport Emergency Planning and Business Continuity Planning documents address significant flooding event/s and respective stress testing is performed
	Ponding water attracting bird activity increasing aviation safety risks	• Aviation Safety Management System (SMS) procedures (wildlife counts, passive/active wildlife hazard management) • Regular airside grass mowing • Integrated Vegetation Management grass trials
Sea level rise and tidal intrusion	Operational disruptions, increased frequency and duration of repair and maintenance activities due to permanent sea level rise and/or cyclical tidal intrusion	• Sydney Airport Flood Model and flood assessment framework incorporated into design governance and master planning processes • Efficient stormwater drainage systems • Regular inspections and maintenance of critical airfield and lighting infrastructure • Maintenance teams in place to repair damage and/or drainage failures • *Upgrades for flood resilient infrastructure requirements to be costed into Corporate Planning* • *Airport design and location of critical infrastructure to be aligned to flood modelling*
	Reduced land for future development capacity due to permanent sea level rise and potential for tidal intrusion, limiting business growth	• Flood modelling undertaken to inform future infrastructure upgrades and requirements for airfield development projects • Ongoing engagement with local government during planning and design considerations • *Climate scenario modelling to be addressed in master planning, design governance, and project gating processes*

Climate-Related Risk Management

Physical risks continued

Driver	Risk	Existing and potential *future* controls
Extreme heat/ heatwaves	Increased staff and/or passenger medical incidents due to heat exposure	• Safety procedures in place for outdoor workers, baggage handling system, and ramp staff • First aid training • Design of buildings/refurbishments for increased heat loads • *Heat mitigations on the ramp e.g., shade*
	Aircraft turnaround delays at off-peak times (midday) from extreme heat causing slot constraints at peak times	• Aircraft ground handling procedures • *Early engagement with airlines on potential slot impacts of delays caused by extreme heat events* • *Adaptation of existing safety response procedures for severe heat waves/compound events*
	Aircraft load restrictions increase over time impacting the commercial viability of some routes. Additional aviation fuel may be required as the number of hot days per year increases, reducing seating and cargo	• *Early engagement with airlines on potential aircraft load restrictions* • *Maximise aircraft movements at off-peak times*
Widescale economic shocks from extreme weather	Acute or chronic extreme weather events cause widescale economic shocks leading to reduced demand for air travel	• Policy engagement and advocacy (refer to page 17 for examples of Sydney Airport's advocacy efforts) • *Diversifying aviation routes*
Compound events	Compound events (when bad weather and climate drivers combine) resulting in frequent and severe operational disruption, infrastructure damage and reduction in airport capacity with not much time in between to recover	• Flood modelling undertaken to inform future infrastructure upgrades and requirements for airfield and landside development projects • Airfield management serviceability procedures (e.g., temporary closure of taxiways) • Emergency management planning and preparation • *Extreme events to be factored into Sydney Airport's renewal and construction program* • *Climate scenario modelling to be addressed in master planning, design governance, and project gating processes*
Decline in local and international environmental assets	Decline in local and international environmental assets leads to reduced services to affected locations and lower tourism passenger volumes	• Policy engagement and advocacy (refer to page 17 for examples of Sydney Airport's advocacy efforts) • *Diversifying aviation routes*

Climate-Related Risk Management

Climate-related opportunities

Sydney Airport's contribution to climate change solutions can also present new opportunities. For example, this might include:

- Supporting airline partners with electrification, low emission fuels infrastructure, use of fuel-efficient aircraft and solutions to improve industry emissions.
- Lower operating costs by reducing energy consumption through energy efficiency measures and onsite solar PV (examples of which are outlined on page 16), and reducing water consumption through water efficiency measures and water recycling and storage.
- Offering renewable electricity to our tenants through our PPA, which will provide the equivalent of 100 per cent renewable electricity, for participating tenants.
- Enhancing our industry's response to climate change by engaging with stakeholders.

Managing climate-related risks and opportunities through our Climate Resilience Strategy

Sydney Airport's climate-related risks and opportunities are addressed through our Climate Action Plans (Adaptation and Decarbonisation) which form our Climate Resilience Strategy. In summary, our climate action plans have four main components.

These are:

- **Energy efficiency and carbon reduction**
- **Asset adaptation and future proofing**
- **Business resilience and carbon emissions reduction**
- **Advocacy for a low carbon economy**

Energy efficiency and carbon reduction

Energy efficiency is a key pillar of our Net Zero 2030 Roadmap, that supports our Net Zero 2030 commitment for Scope 1 and 2 emissions.

In 2023, we implemented a number of energy efficiency initiatives that we expect to deliver a reduction of 7.6 GWh of annual energy consumption (representing a ~11 per cent decrease to Sydney Airport's 2019 baseline load). These energy savings are anticipated to deliver approximately 6,000 tCO2e of annual Scope 2 emissions reduction.

The majority of these energy savings have been delivered by two key programs:

- An extensive LED lighting upgrade program continued in 2023, with a specific focus on terminal buildings and runways. These LED lighting replacements are estimated to deliver an overall energy consumption saving of ~4.6GWh per year, which in turn is expected to deliver an emissions reduction of ~3,031 tCO2e per year.
- Our T1 international terminal heating, ventilation and air conditioning (HVAC) optimisation program was completed late 2022, which is estimated to result in ~1.8GWh of energy savings per year. This program is expected to deliver an emissions reduction of ~1,377 tCO2e per year.

In 2023, we finalised an Energy Efficiency Framework, benchmarked against the Energy Management System standard ISO 50001, with an action plan endorsed and underway for 2024. This framework is intended to provide a structured approach to energy management to operationalise our net zero commitments. This Framework will aim to align with the ISO 50001 standard, which is a proven approach to achieving continuous improvement in energy performance.

Refer to the Metrics and Targets section for further details on our Scope 1 and 2 emissions.

Asset adaptation and future proofing

We recognise physical impacts of climate change may present risks to our assets and operations now and into the future. Adaptation measures focus on our physical risk response. Asset adaptation and future proofing can lower our exposure to climate hazards and extreme weather.

Sydney Airport's Climate Action Plan: Adaptation was developed throughout 2022 and 2023 and outlines our approach to physical climate risk management.

Sydney Airport's most material physical climate risks, which have been stress-tested through qualitative scenario analysis, mainly stem from wet/windy compound events, with lesser but significant risks from hot/dry compound events. Indirectly, Sydney Airport can also be impacted through a reduction in air travel demand through declining environmental assets or widespread economic shocks resulting from extreme weather.

Flood modelling for wet/windy events

Sydney Airport's extensive flood modelling was developed and built upon throughout 2021 and 2022. This modelling assessed a range of climate change scenarios (inc. Representative Concentration Pathways (RCP) 2.6, 4.5, 8.5) to quantify the risks to Sydney Airport. The outcomes of these studies are being incorporated into Sydney Airport's business continuity and operational resilience plans, as well as the revised Built Environment Sustainability Standards.

Urban heat island effect study for hot/dry events

Sydney Airport's climate risk assessment identified that extreme heat events are expected to increase in frequency and intensity due to climate change. The impact of these extreme heat events is expected to amplify the urban heat island effect, especially in an airport setting with extensive hard surfaces and sparse dry grass in combination with low tree/canopy cover.

The specific risks of such extreme heat on airport operations, assets, infrastructure and people are relatively less understood.

In 2023, we commissioned an urban heat island effect study to identify risks associated with extreme heat, particularly hot/dry compound events, at the airport and to recommend strategies and actions to mitigate these risks. This study is scheduled for completion in early 2024.

We plan to use the key outputs of this study to inform Sydney Airport's 2046 Master Plan and Built Environment Sustainability Standards.

Managing climate-related risks and opportunities through our Climate Resilience Strategy

Business resilience and carbon emissions reduction

During 2023, we made significant progress on several initiatives identified in our Net Zero 2030 Roadmap (Scope 1 and 2 emissions). Refer to the Metrics and Targets section for further details on these initiatives.

We also continued to drive reductions in our Scope 3 ground operations emissions through the following initiatives:

- **Tenant (third party) energy use:** We plan to reduce emissions related to tenant electricity use through Sydney Airport's renewable Power Purchase Agreement (PPA), which will come into effect from 1 January 2025. This will supply the equivalent of 100 per cent renewable electricity to tenants, (where Sydney Airport has existing power supply arrangements) through the associated Large Scale Generation Certificates (LGC's), which Sydney Airport will look to retire on behalf of, or in collaboration with, our tenants[1].
- **Auxiliary Power Units (APU):** To reduce APU emissions (Jet A1 fuel burn) whilst aircraft are on gate, Sydney Airport is implementing several initiatives to improve utilisation of Ground Power Units (GPU) and Pre-conditioned Air (PCA) across the precinct. Improved utilisation of this equipment reduces the need for aircraft to burn Jet A1 fuel whilst on gate, thereby significantly reducing emissions. Such initiatives include GPU infrastructure upgrades, system implementation for utilisation measurement, and other policy and governance mechanisms. We expect that the renewable PPA will further contribute to this reduction, as the equivalent of 100 per cent renewable electricity will be provided through the GPUs from 1 January 2025 onwards.
- **Ground Service Equipment (GSE):** GSE are owned and used by ground handling agents at Sydney Airport to provide ground and baggage handling services for airlines. Transitioning the GSE fleet across the precinct to electric alternatives (eGSE) will reduce the emissions associated with GSE vehicle fuel burn and is expected to ultimately eliminate these emissions once the Airport has the equivalent of 100 per cent renewable electricity supply, through the PPA. This transition will involve Sydney Airport installing eGSE charging infrastructure across the precinct, as well as working collaboratively with ground handling agencies and airlines to encourage them to transition their GSE fleet to electric alternatives. A detailed GSE transition strategy is under development and is due for completion in 2024.

Refer to the Metrics and Targets section for further details on our Scope 3 emissions.

Advocacy for a low carbon future

In the medium- to long-term, Sydney Airport believes that sustainable aviation fuel (SAF) is the primary pathway for aviation to credibly decarbonise[2]. While Australia is well placed to become a significant global producer of SAF and other renewable fuels, production of SAF in Australia is dependent on the timely development of clear government policy to establish a local market and catalyse private sector investment in SAF refining capacity. In realising these priorities, Australia can play an outsized role in the decarbonisation of the aviation sector and become a world leader in the production of SAF.

In 2023, Sydney Airport continued its advocacy efforts for SAF.

Sydney Airport is a member of Bioenergy Australia's Sustainable Aviation Fuel Alliance for Australia and New Zealand (SAFAANZ) working group alongside aviation industry peers and fuel producers.

Aviation Jet Zero Council

Sydney Airport applauds the Australian Government's establishment of a Jet Zero Council in Australia and looks forward to continuing to participate to achieve action and policy to support aviation decarbonisation.

In 2023, Sydney Airport supported the Jet Zero Council through the participation in the Australian Airports Association (AAA) Sustainability Working Group which is delivering Workplan item #5 (identifying changes required to airport operations and infrastructure that will support decarbonising aviation). This item is scheduled for submission to the Australian Government in 2024.

Sydney Airport also advocates for the NSW Government to develop a SAF investment prospectus for NSW and to consider establishing grants, funding, and assistance programs to stimulate the development of a SAF bioeconomy in NSW.

Aviation Green Paper

As part of Sydney Airport's Aviation Green paper submission, we worked with Melbourne and Brisbane airports, in collaboration with IFM Investors (one of SAAH owner groups), to form a joint airport advocacy position to advance a domestic SAF industry in Australia. Sydney Airport's Aviation Green Paper submission can be found here.

1. The extent to which SYD's Scope 3 emissions related to tenant energy use can be reduced is dependent on the individual contractual arrangements that Sydney Airport will have in place with existing and future tenants.
2. https://www.iata.org/en/programs/environment/roadmaps/

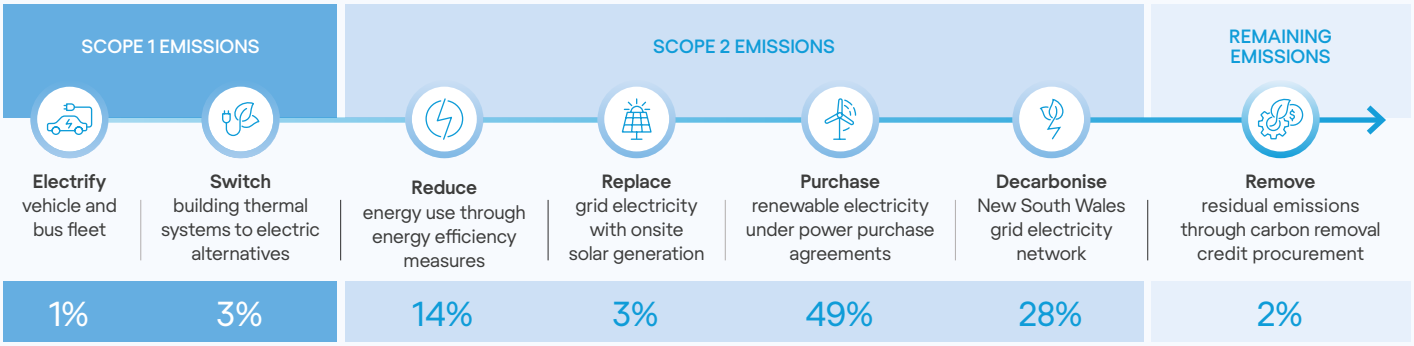
Metrics and targets

Net Zero (Scope 1 and 2 emissions) by 2030

In May 2021, we announced our commitment to achieve Net Zero for emissions under our operational control (Scope 1 and Scope 2 emissions) by 2030. We have developed a detailed roadmap to support this commitment, which was approved by the SAAH Board during the year.

This roadmap details the key initiatives that Sydney Airport plans to implement to reduce and eliminate our emissions (where practicable), and the estimated timing and potential emissions savings from these initiatives. Our Net Zero Roadmap directly addresses our Scope 1 and 2 emissions, which accounted for 13 per cent of our total emissions footprint (Scope 1, 2 and 3 emissions) in 2023.

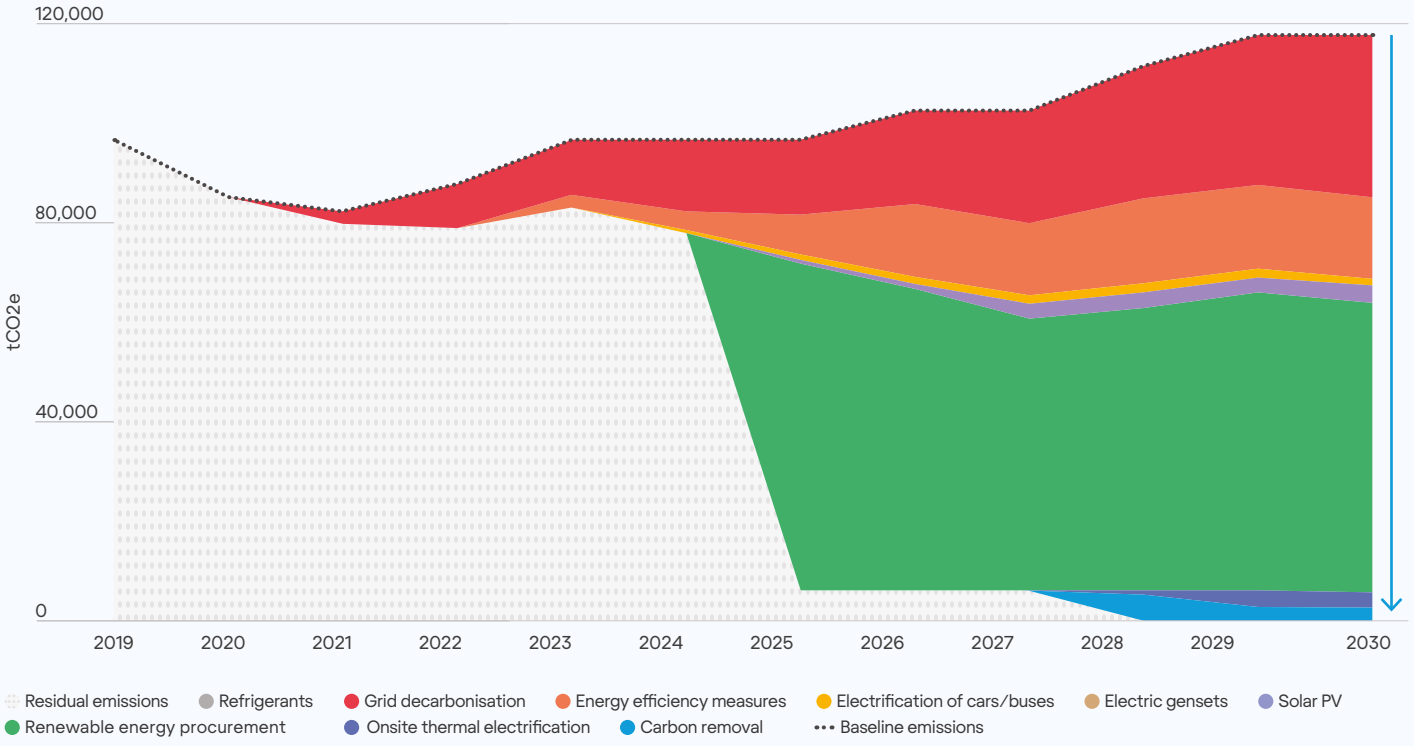
Net Zero 2030 roadmap



% contribution to overall achievement of Net Zero Roadmap for Scope 1 and 2 emissions by 2030.

Layered Net zero 2030 roadmap — Scope 1 and 2 emissions (tCO2e)

Our trajectory towards net zero is outlined in our layered roadmap below.



Metrics and targets

During 2023, we made significant progress on several initiatives identified in our Net Zero 2030 roadmap (Scope 1 and 2 emissions).

These include:

- Completion of contractual negotiations for Sydney Airport's future electricity supply, which will secure the equivalent of 100 per cent renewable electricity for the Sydney Airport precinct from 1 January 2025, through a Power Purchase Agreement (PPA), and is intended to effectively eliminate Sydney Airport's scope 2 (market-based) emissions from 2025.
- Commencement of an onsite Solar PV feasibility assessment that is intended to determine suitable locations and generating capacity (rooftop and ground-mounted) for solar PV panels to be installed across the precinct. The first tranche of this project is aiming to deliver at least 3.4 MWp of additional solar capacity to the airport and is due for approval in 2024.
- Development of a vehicle electrification transition strategy, which is planned to deliver an optimised roadmap for converting up to 65 of Sydney Airport's light vehicle internal combustion engine fleet to electric alternatives, where suitable, by 2030 and the supporting charging infrastructure plans (also due for completion in 2024).
- Commencement of a carbon offset procurement strategy, with the support of industry specialists, which is intended to build and optimise our procurement framework for the purchase of carbon credits as per the Net Zero 2030 Roadmap. We plan to surrender carbon credits to offset Sydney Airport's residual Scope 1 and 2 emissions from 2025 (for achievement of ACA Level 4+) and from 2030 (for Net Zero Scope 1 and 2 emissions). As part of this strategy development, we are also exploring opportunities for developing a bespoke blue carbon removal program.

Carbon Offsets

In 2023, we offset 1,395 tCO2e, which covers Sydney Airport's transport-related Scope 1 emissions and staff travel-related Scope 3 emissions. Offsets were sourced from international and Australian emissions avoidance projects (a wind farm and savanna fire management project).

Read more about our 2023 emissions performance and how we plan to achieve Net Zero Scope 1 and 2 emissions by 2030 in the Environmental Management section of our 2023 Sustainability Report.

Greenhouse gas emissions

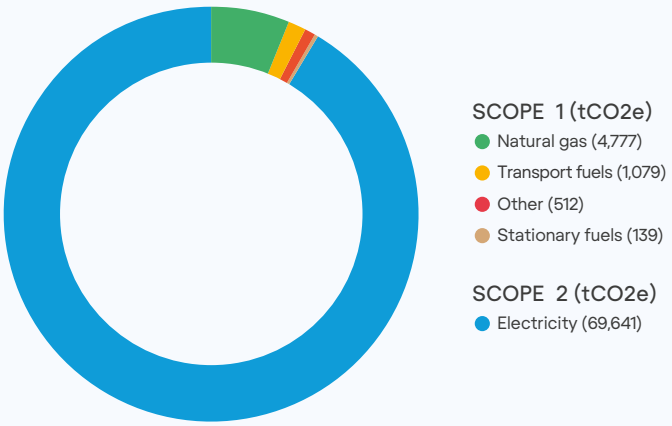
Scope 1 and Scope 2 emissions

Emissions under our operational control (Scope 1 and 2 emissions) were 76,149 tCO2e in 2023. While there was a 1 per cent increase in emissions intensity as discussed on page 20 of our 2023 Sustainability Report, we have achieved a 6 per cent decrease in Scope 1 and 2 emissions compared to 2022. Electricity use (Scope 2 emissions) was again the largest contributor to our carbon footprint in 2023, accounting for 91 per cent of Scope 1 and 2 emissions. Total Scope 1 and 2 emissions accounted for 13 per cent of Sydney Airport's total emissions (Scope 1, 2 and 3 emissions), whilst Scope 3 emissions accounted for 87 per cent.

Scope 1 emissions in 2023 were 6,508 tCO2e. Sydney Airport's Scope 1 emissions are primarily made up of natural gas used for thermal heating (73 per cent) and transport fuels used by Sydney Airport fleet and contractor vehicles across the precinct (17 per cent). Scope 1 emissions remained consistent compared to 2022 (~1 per cent decrease).

Scope 2 emissions in 2023 were 69,641 tCO2e, which were driven by electricity usage across the airport precinct (excludes tenant electricity use). This is a 6 per cent decrease in Scope 2 emissions compared to 2022. This decrease was primarily driven by a reduction in the NSW grid emissions factor (as a result of an improved renewable energy mix), as well as energy efficiency programs that were delivered in 2023 (as outlined on page 17), which offset the increase in energy demand driven by a 33 per cent increase in passenger numbers.

Sydney Airport's 2023 Scope 1 and Scope 2 footprint



Metrics and targets

Scope 3 emissions

Scope 3 emissions in 2023 were 489,103 tCO2e, which represent 87 per cent of Sydney Airport's total emissions (Scope 1, 2 and 3 emissions). Total Scope 3 emissions increased by 9 per cent compared to 2022, which was primarily driven by the 14 per cent YoY increase in aircraft movements and the 33 per cent YoY increase in passengers travelling to and from the airport.

The majority of Sydney Airport's Scope 3 emissions in 2023 were made up of aircraft Landing and Take-off (LTO) cycle emissions (up to 3,000 feet). LTO emissions in 2023 were 317,026 tCO2e, which was a 13 per cent increase from 2022. This increase is reflective of the 14 per cent YoY increase in aircraft movements, as the aviation industry continues to recover towards pre-pandemic levels.

Surface access emissions, which are driven by passengers, Sydney Airport staff and airport workers travelling to and from the airport, were 90,937 tCO2e emissions in 2023. This was a 5 per cent decrease from 2022. This was primarily driven by changes to the mix of modes by which people travelled to and from the airport in 2023 (e.g. train, bus, car) and updated assumptions regarding average distances travelled.

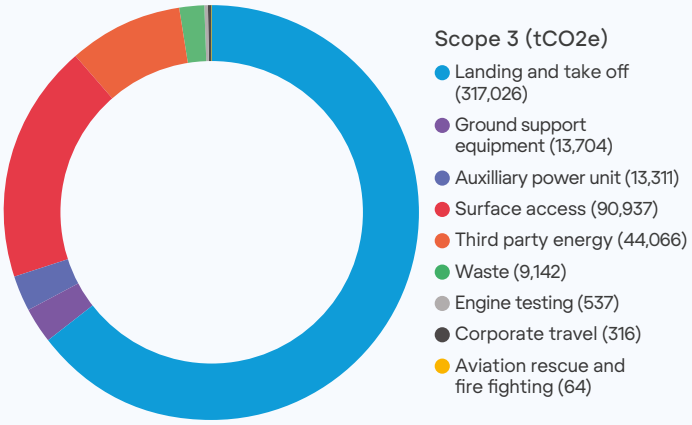
In 2023, our Scope 3 emissions from airport ground operations were 80,824 tCO2e. Ground operations emissions comprise of emissions related to; aircraft auxiliary power unit (APU) usage, ground service equipment (GSE) fuel usage, tenant energy use, waste, engine testing and Aviation Rescue and Fire Fighting. These emissions increased by 9 per cent compared to 2022, primarily due to the 14 per cent increase in aircraft movements, as the aviation industry continues to recover to pre-pandemic levels.

This year, we also began a deep dive review into our Scope 3 emissions modelling, to ensure we continue to improve the accuracy and availability of our Scope 3 data sets and underlying assumptions. We plan to continue this review throughout 2024 and update Scope 3 emissions data and baselines where required. We expect that this will have a material impact on our overall emissions footprint.

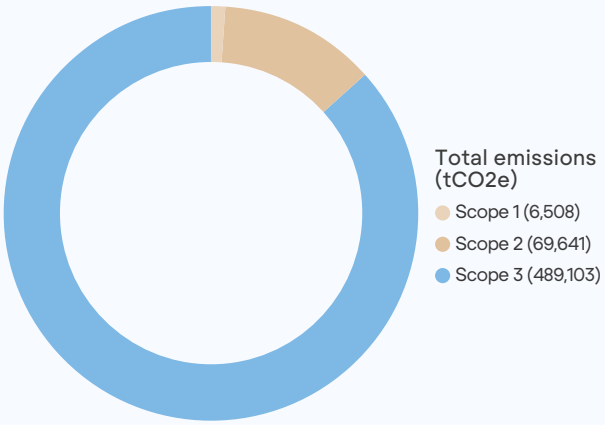
This will include estimating full flight emissions as part of our Scope 3 footprint per the requirements of Airport Carbon Accreditation Level 4+ (Transition).

For further details on Sydney Airport's progress on our key Climate Resilience Scope 3 targets, please refer to page 17.

Sydney Airport's 2023 Scope 3 footprint



Sydney Airport's 2023 total carbon footprint



Metrics and targets

Performance data

	2023	2022	2021	2020	2018-19
Greenhouse gas emissions (tCO2e)					
Total Scope 1 & 2 (Location based)[1]	76,149	80,949	71,382	75,854	83,620
Scope 1	**6,508**	**6,603**	**5,886**	**5,612**	**5,755**
Natural gas	4,777	5,269	4,938	4,316	4,080
Stationary fuels	139	119	122	140	134
Transport fuels	1,079	756	476	838	1,270
Other	512	476	350	319	271
Scope 2[2]	**69,641**	**74,346**	**65,496**	**70,242**	**77,865**
Electricity	69,641	74,436	65,496	70,242	77,865
Scope 3	**489,103**	**450,169**	**234,538**[5]	**276,821**[5]	**883,983**
Landing and Take Off	317,026	279,958	151,482	165,121	431,445
Ground Support Equipment	13,704	11,659	5,886	6,005	29,380
Auxiliary Power Unit	13,311	11,037	5,810	6,150	49,247
Surface Access	90,937	96,044	27,226	37,594	289,583
Third party energy	44,066	44,305	41,555	58,320	74,491
Waste	9,142	6,415	2,015	3,021	8,968
Engine testing	537	490	488	452	696
Corporate travel	316	192	15	53	81
Aviation Rescue and Fire Fighting	64	70	61	105	92
Emissions intensity					
Total emissions Intensity[3] (kgCO2e/ PAX)	1.94	2.75	8.9[5]	6.7[5]	2.4
Total emissions Intensity[4] (kgCO2e/ m^2)	106.2	104.8	92.7	101.5	111.38
Carbon Offsetting (tCO2e)					
Total offsets	1,395	947	1,044	785	N/A
Energy					
Total energy consumption (GJ)	456,089	455,673	404,825	412,564	446,544
Natural gas	92,710	102,259	95,819	83,758	79,184
Stationary fuels	1,914	1,630	1,745	1,815	1,924
Transport fuels	15,446	10,859	6,842	12,007	18,067
Electricity (excl. renewables)	343,433	338,792	297,735	312,184	344,607
Renewable	2,586	2,429	2,684	2,800	2,763

1. GHG inventory is compiled in line with the National Greenhouse and Energy Reporting Act and the National Greenhouse Accounts Factors.
2. Consists 100% of electricity consumption by Sydney Airport Corporation Limited.
3. Calculated by dividing total Scope 1 and 2 emissions by total number of passengers. Offsets purchased for Scope 1 emissions deducted. Includes T3 domestic terminal from 2020 onwards.
4. Calculated by dividing total Scope 1 and 2 emissions by total floor area (excludes transport-related Scope 1 emissions). Offsets purchased for Scope 1 emissions deducted. Includes T3 domestic terminal from 2020 onwards.
5. Impacted by the Covid-19 pandemic.

SYD