



THE STAR

Climate-related Disclosures

THE STAR ENTERTAINMENT GROUP

June 2020

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1.0 Climate-related Financial Disclosure

1.1 Preamble

The Task Force on Climate-related Financial Disclosures (TCFD) was established in 2015 in response to market and regulatory challenges to produce and obtain information on climate-related risk for financial decision making. Launched in 2017, the TCFD Recommendations are a set of voluntary, consistent climate-related financial disclosures for use by investors, lenders and insurance underwriters to understand material risks.

The Star Entertainment Group (The Star) recognises the recommendations of the TCFD, and importantly that our investments may be susceptible to future changes in climate.

The Star is committed to improving the resilience of its business operations, assets, and the precincts in which its properties are located. We are currently working to align our current and new projects to the TCFD Recommendations through a progressive roadmap. This is our first disclosure reporting on the FY2019 year and on our progress to date against the four recommendations of Governance, Strategy, Risk Management and Metrics and Targets.

2.0 Governance

Disclose The Star’s governance around climate-related risks and opportunities.

TCFD RECOMMENDED DISCLOSURE	STATUS
Describe the Board’s oversight of climate-related risks and opportunities	● <i>established - continue and improve</i>
Describe management’s role in assessing and managing climate-related risks and opportunities	● <i>established - continue and improve</i>

The Board’s People, Culture and Social Responsibility Committee and Executive Committee maintain oversight of climate-related risks and opportunities. The Star also has an established National Sustainability Steering Committee to activate climate-related projects and develop a strategic business approach geared towards sustainability, notably through the reduction of energy use and promoting energy efficiency and using new technology to create ‘world class’ properties. The Committee also recommends metric and targets, which are submitted for approval to the Board committees.

Sustainability and climate change are standard agenda items quarterly at the Board’s People, Culture and Social Responsibility Committee. The Committee is kept abreast of The Star’s progress towards its targets. Initiatives delivered by the Steering Committee and Sustainability Team are overseen by the Executive Management Team with results delivered to the Board and reported externally within The Star’s Annual Report and Director’s Report.

KEY INITIATIVES AND PROGRESS ON DISCLOSURE	STATUS
The Board People, Culture and Social Responsibility Committee’s oversight and responsibility of climate-related risks and opportunities is disclosed publicly on the company website.	● <i>established - continue and improve</i>
The National Sustainability Steering Committee activates climate related projects and provides sustainability direction to the business’ strategic approach to operations.	● <i>established - continue and improve</i>

ROADMAP TO FURTHER ALIGNMENT

FY2021	The Star will further develop its processes by which management and the Board is informed of climate-related issues.
FY2022	The Star will continue to strengthen its approach to disclosure and outline how management and the Board monitor and oversee progress against climate-related goals and targets.
FY2023	The Star will provide insight into how the Board applies climate-related issues as a consideration for strategy and business planning.

Case Study – Beyond 2020, The Star’s Sustainability Action Plan

In the FY2020 financial year, The Star released its new Action Plan ‘Beyond 2020, The Star’s Sustainability Action Plan’ to support the delivery of the Sustainability Strategy pillars. This document communicates The Star’s Sustainability vision endorsed by the Group CEO and MD and the Board’s People, Culture and Social Responsibility Committee.

The Action Plan demonstrates management’s oversight of climate related issues including the endorsement of key mitigation and adaptation measures. The mitigation measures captured in the Action Plan include the announcement of The Star’s commitment to a low carbon future by establishing a Net-Zero 2030 target for its wholly-owned and operated assets.

The pathway to achieve this target includes the purchasing of renewable energy and the assessment of onsite solar, continuing the company’s energy efficiency program and developing a carbon offsetting strategy.

The adaptation measures in the Action Plan include the continual assessment of the physical risks of climate change upon our properties. The outcomes of these risk assessments produce future design and build recommendations and criteria that are captured in The Star’s Sustainable Design and Operational Standards, available on the company website.

The Board of Directors continue to have oversight of the Sustainability Strategy as detailed in the Directors Report within the Annual Report page 52:

<https://static1.squarespace.com/static/55f76728e4b0799db9586a8d/t/5da6aef6456b313d86c79a52/1571204899309/2019.09.18+-+The+Star+Annual+Report+2019.pdf>

3.0 Strategy

Disclose The Star’s actual and potential impacts associated with climate-related risks and opportunities, where such information is material.

TCFD RECOMMENDED DISCLOSURE	STATUS
Describe the climate-related risks and opportunities The Star has identified over the short, medium and long term	● <i>established</i> - <i>continue and improve</i>
Describe the impact of climate-related risks and opportunities on the Star’s business, strategy and financial planning	● <i>initiated</i> – <i>develop and implement</i>
Describe the resilience of The Star’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	● <i>initiated</i> – <i>develop and implement</i>

In 2017, The Star engaged AECOM to undertake a climate change risk assessment of its assets and recommend actions to improve its resilience to future climate change. Risks were similar in nature to those found across the built environment. The risk assessment identified exposure to heat and storms across The Star’s three casino properties, and highest overall exposure, aggregated across all potential climate variables, for Treasury Hotel and Casino, Brisbane (current tenure expected to cease FY23) and The Star Gold Coast. Key risks identified across the three properties include:

- Extreme heat causing:
 - Increased pressure on cooling and air conditioning, leading to increased operation and maintenance costs and risk of system failure
 - Increased energy and water demand, leading to increased operational costs
 - Reduced network capacity – increase in blackouts
 - Increased heat stress events among stakeholders, with reduced comfort of patrons and guests, tenants, and operations and maintenance staff
 - Increased requirements for cooling and areas of respite, with reduced comfort of patrons and guests, tenants, and operations and maintenance staff
- Extreme rainfall causing:
 - Increased local flood events, limiting access and egress, with impacts to transport links
 - Greater intensity of runoff leading to drainage capacity issues for buildings (roof and ground level)
 - Increase in safety issues around stormwater detention basins and channels (areas at risk of localised flooding)
- Storm events, wind and hail causing:
 - Increase in safety issues for patrons and guests, tenants, and operations and maintenance staff
- Sea level rise and storm surge causing:
 - Permanent inundation of some areas – limiting access and egress (Gold Coast only)

This assessment was reviewed and updated in 2019 to include a preliminary assessment of transition risks and opportunities. From a range of plausible scenarios developed by peak climate science and government bodies, RCP8.5 and RCP2.6 were selected as the most appropriate representative concentration pathways to explore climate-related physical and transition risks (respectively) for The Star. The following figure provides an overview of the key physical and transition risks to The Star under each respective emissions pathway.

Transition risks associated with energy supply and rising costs have been identified by The Star, with adaptation actions planned for the course of 2020 and beyond.

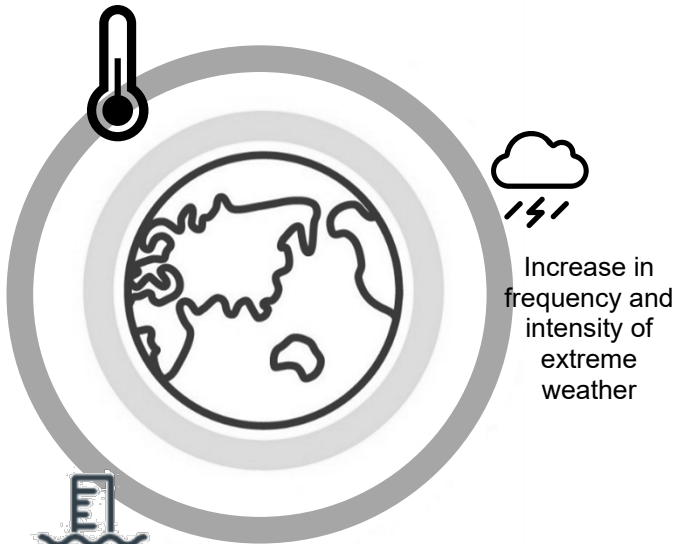
KEY INITIATIVES AND PROGRESS ON DISCLOSURE	STATUS
Climate-related risks were identified through physical climate risk assessment in 2017 and reassessed in 2019. These form part of The Star's operational risk register.	● <i>established - continue and improve</i>
Materiality assessments have been conducted annually since 2015 to identify and assess the significance of key ESG issues. Climate resilience is identified as an emerging/strategic issue that has the potential to impact on The Star's delivery of <i>world class properties</i> . The Materiality assessment process underpins the Sustainability Strategy.	● <i>established - continue and improve</i>

ROADMAP TO FURTHER ALIGNMENT

FY2021	<p>The Star will build on the assessments of physical and transition risks to consider how these risks may develop over short, medium and long-term horizons. A specific study will be undertaken on the potential material flooding risks to The Star, Gold Coast.</p> <p>The Star will also develop <i>Destination Stewardship</i> along with key local stakeholders, as a focus area in the next update to our Sustainability Strategy. <i>Destination Stewardship</i> aims to maintain cultural, environmental, socio-economic and aesthetic integrity of a place for local residents and visitors through sustainable tourism.</p>
FY2022	<p>The Star will use the information gathered from climate risk assessments to determine and disclose how these issues are factored into operational and strategic financial planning. This will also help to prioritise climate-related issues for specific properties, and at an enterprise level.</p>
FY2023	<p>The Star will develop greater understanding of the use of climate scenario analysis and how this can inform business strategies and investment decisions.</p>

Physical Risk Scenario – business as usual

Average global temperature increase of up to 3.2 to 5.4°C by the end of the century



Increase in frequency and intensity of extreme weather

Sea level rise of around 0.9 metres by 2100

The physical risk scenario (RCP8.5) assumes minimal effort to reduce emissions, which will continue to increase marked by the continued use of conventional fossil fuel energy to power cities homes and businesses.

With little action to reduce global emissions and a continued lack of policy direction, Australia’s climate is projected to become hotter, sea levels are expected to rise, and the frequency and intensity of extreme climate events will increase.

The increase in extreme weather conditions is likely to increase operational costs for The Star, result in damage to property and affect the safety of patrons, guests, tenants, and staff.

Key Physical Climate Risks for The Star



Storm events (including cyclones, wind and hail)



Sea level rise and coastal inundation



Increased rainfall intensity and inland flooding



Extreme heat

Understanding scenarios: A scenario describes a path of development leading to a particular outcome. Scenarios are not intended to represent a full description of the future, but rather highlight central elements of a possible future to draw attention to the key factors that will drive future developments. Scenarios are hypothetical constructs; they are not forecasts or predictions. (TCFD, 2017, p.2)¹

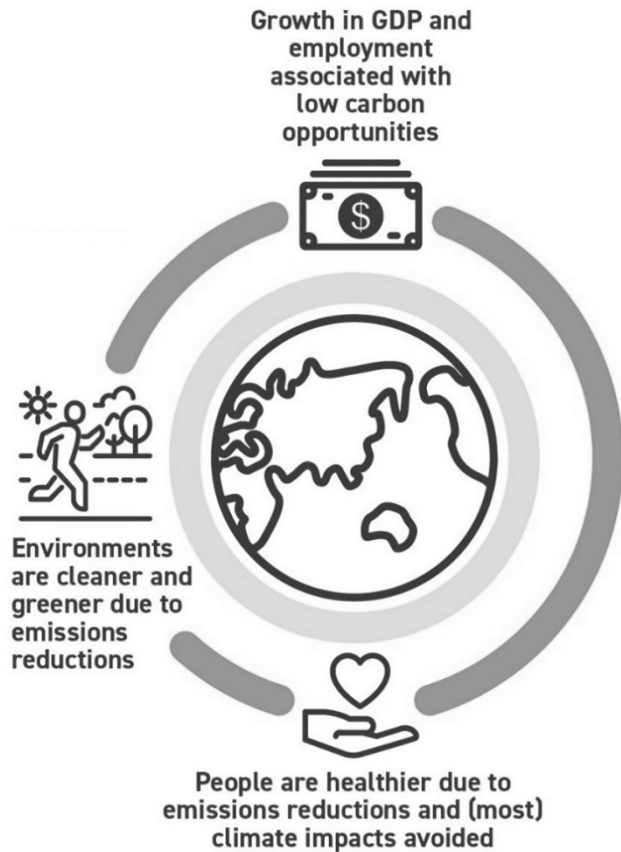
¹ Refer *Technical Supplement - The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities* <https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-TCFD-Technical-Supplement-062917.pdf>

Transition Risk Scenario – transition to a low carbon economy

The transition risk scenario (RCP2.6) assumes strong mitigation efforts and active removal of atmospheric carbon dioxide.

To achieve this scenario, Australia’s economy will have to undergo significant transformation, with an accelerated uptake of renewable energy sources, electric vehicles and improved energy efficiency, as well as changes to industry standards dictating how assets are built, maintained and operated.

While there will still be some physical impacts of climate change, it is anticipated that global temperature increases can be limited to 0.9 to 2.3°C by the end of the century.



Key Transition Climate Risks and Opportunities for The Star



Shift in investment and finance sector appetite



Pressure on supply chains



Changing trends in the tourism sector



Technology shift in the energy sector



Changing policy for the property sector



Technology shift in the transport sector

4.0 Risk Management

Disclose how The Star identifies, assesses and manages climate-related risks.

TCFD RECOMMENDED DISCLOSURE	STATUS
Describe The Star's processes for identifying and assessing climate-related risks	● <i>established</i> - <i>continue and improve</i>
Describe The Star's processes for managing climate-related risks	● <i>established</i> - <i>continue and improve</i>
Describe how processes for identifying, assessing and managing climate-related risks are integrated into The Star's overall risk management	● <i>established</i> - <i>continue and improve</i>

The Star takes a structured approach to identifying, evaluating and managing those risks which have the potential to affect achievement of strategic objectives. The commentary relating to Principle 7 in the Company's Corporate Governance Statement describes The Star's risk management framework, which is based on ISO31000, the international standard on risk management. This risk framework is adopted in the identification and management of climate-related risks, consistent with the management of all other risks to The Star. The Corporate Governance Statement can be viewed on the Company's website.

Details of The Star's major risks and associated mitigation strategies are set out within the Directors Report, page 51 of the company's 2019 Annual Report. The mitigation strategies are designed to reduce the likelihood of the risk occurring and/or to minimise the adverse consequences of a potential event. However, some risks are affected by factors external to, and beyond the control of, The Star.

The Board is responsible for the overall risk management strategy and has delegated to its Risk and Compliance Committee responsibility for approving our risk appetite statement and risk management framework (refer to Risk and Compliance Committee Terms of Reference: <http://www.starentertainmentgroup.com.au/corporate-governance/>). The Star's risk management function is led by the Chief Legal and Risk Officer, who reports directly to the Chief Executive Officer.

Directors are briefed in detail about approach and response to risk management, and the practical perspective of understanding what The Star does as a business in regard to risk, what The Star's key risks are, and how the Risk function communicates with the Board via relevant Board committees. All directors are provided opportunities to attend meetings of the Board Risk & Compliance Committee in addition to their required duties and membership; it is commonplace to have all Directors attend this committee meeting in addition to their other Board Committee duties.

At an asset level, The Star's Sustainable Design and Operational Standards provide a framework to guide the design of its projects and ensure sustainable outcomes are achieved through the design, construction and operation of its assets.

The Standards outline eight sustainability themes that all new buildings and refurbishments must adhere to, including initiatives for Climate Mitigation and Adaptation Actions. This theme recognises that a comprehensive approach to climate risk delivers better understanding of potential impacts and co-benefits in terms of reporting and disclosure requirements for insurance purposes. The Standards are subjected to regular review to reflect changes in industry standards.

KEY INITIATIVES AND PROGRESS ON DISCLOSURE	STATUS
Climate-related risks form part of The Star’s overall risk framework and are managed in accordance with enterprise risk processes.	● <i>established - continue and improve</i>
The Sustainable Design and Operational Standards are applied to all retrofit and development projects to futureproof buildings and deliver operational efficiencies. This includes the mandatory assessment of projects against the Green Star Communities Adaptation and Resilience credit.	● <i>established - continue and improve</i>
To help manage climate-related physical risks and to design and build with a changing climate in mind, prioritised mitigation and adaptation actions have been developed and are included in The Star’s Sustainable Design and Operational Standards.	● <i>established - continue and improve</i>
All new buildings and significant redevelopment works must undergo and target a minimum 5 Star Green Star rating. A 6 Star Green Star Communities (v1) rating was achieved for the Queen’s Wharf Brisbane redevelopment and a 5 Star Green Star Interiors rating achieved for The Star’s Sydney corporate office.	● <i>established - continue and improve</i>

ROADMAP TO FURTHER ALIGNMENT	
FY2021	The Star will develop and disclose an overview of the process for identifying, assessing and responding to climate-related transition risks.
FY2022	The Star will communicate how it prioritises the actions to respond to climate-related risks, in line with other business considerations.
FY2023	The Star will look to engage with key stakeholders and its supply chain to encourage better climate-related disclosure within the tourism and gaming industry, and to improve our internal ability to respond to climate risks. We will review opportunities to investigate certain specific risks, such as the impact of heat waves on patron behaviour.

Case Study

The Star Gold Coast is a popular tourism and entertainment destination set against an iconic Australian beachside playground. The Star has undergone recent transformation and upgrades, with a suite of masterplan developments underway or approved for delivery in the future. As such, it is critical for this destination to not only be climate-aware, but climate responsive.

As part of the 2017 physical risk assessment, the property (in line with areas on the Gold Coast) was found to be highly exposed to extreme heat, extreme rainfall, storm events and sea level rise and storm surge, and a number of factors contribute to this exposure:

- The site is located on an island within the Gold Coast canal system which is susceptible to coastal inundation along the low foreshore areas
- The main gaming floor is susceptible to hot days and nights, as well as humidity, as a result of inefficiencies for the air conditioning system
- Periods of rainfall are thought to be associated with a decline in patron and guest numbers and past events are recalled to have resulted in areas of localised flooding around the precinct.

Adaptation options were developed to respond to climate risks linked to this exposure, with a view to implement the adaptation options over a short (now – 5 years), medium (5 – 10 years) or long-term (10+ years) timeframe. A snapshot of the progress of adaptation options responding to key climate risks is provided below.

CLIMATE RISK	ADAPTATION ACTIONS	STATUS
Extreme heat increasing pressure on cooling and air conditioning	<i>Over the short term</i> , investigate measures to reduce heat transfer into the building envelope, such as use of green space/vegetation and / or pressurised revolving doors.	● <i>established - continue and improve for each capital project</i>
	<i>Over the long term</i> , as part of future capital replacement of any HVAC facilities, consider the projected increase in extreme heats days (and heatwaves) over 35°C and an in maximum mean temperatures increase.	● <i>established - continue and improve</i>
Extreme rainfall causing increased local flood events, limiting access and egress	<i>Over the short term</i> , ensure regular inspection of stormwater pits and pumps, with maintenance and clearing if required, to prevent overflow and flooding.	● <i>established - continue and improve</i>
	<i>Over the short term</i> , implement a proactive program to raise awareness amongst staff, tenants, patrons, guests and the wider community around appropriate responses to extreme rainfall and flash flooding events.	● <i>established - continue and improve</i>
	<i>Over the short term</i> , undertake a study on the potential material flooding risks to the property.	● <i>initiated – develop and implement</i>
Sea level rise causing permanent inundation of some areas – limiting access and egress	<i>Over the medium term</i> , investigate combining hard and soft defence options to minimise the impact of storm tide inundation and ensure building and infrastructure design accommodates storm tide levels.	● <i>initiated – develop and implement</i>
Storm events increasing safety issues for patrons and guests, tenants, and operations and maintenance staff	<i>Over the short term</i> , implement a proactive program to raise awareness amongst staff, tenants, patrons, guests and the wider community around appropriate responses to storm events and necessary emergency evacuation or shelter-in-place procedures.	● <i>initiated – develop and implement</i>
	<i>Over the short term</i> , implement an early warning system for storm events for staff, tenants and patrons.	● <i>initiated – develop and implement</i>

5.0 Metrics and Targets

Disclose the metrics and targets used to assess and manage The Star’s relevant climate-related risks and opportunities, where such information is material.

TCFD RECOMMENDED DISCLOSURE	STATUS
Disclose the metrics used by The Star to assess climate-related risks and opportunities in line with its strategy and risk management process	● <i>established</i> - <i>continue and improve</i>
Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	● <i>established</i> - <i>continue and improve</i>
Describe the targets used by The Star to manage climate-related risks and opportunities, and performance against targets	● <i>initiated – continue and improve</i>

The Star has set a bold ambition to target net-zero carbon emissions by 2030 for its wholly owned and operated assets. To support the target, a comprehensive energy and emissions management strategy will be introduced focussed on the purchase of renewable energy, energy optimisation and efficiency measures and establishing a balanced carbon offsetting approach. Several other environmental targets have been established to reduce The Star’s overall resource use.

Resource consumption boundary and assurance

Consistent with the approach adopted for The Star’s annual reporting under the National Greenhouse and Energy Reporting (‘NGER’) Act 2007, all facilities within The Star’s operational control are reported on within the Annual Report. The Star’s properties are only located in Australia, therefore all properties are within scope.

The reporting boundary for sources of greenhouse gas (GHG) emissions and energy consumption includes all sources of purchased electricity and natural gas (as invoiced by energy retailers) for all facilities that The Star has operational control over within the financial year (from 1 July to 30 June). The boundary of Scope 1 and Scope 2 GHG emissions from those facilities is therefore limited to all purchased natural gas and electricity procured for the facilities under this operational control boundary. The Star’s Basis of Preparation can be found on the company website:

<https://www.starentertainmentgroup.com.au/sustainability>

Annual limited assurance includes selected sustainability metrics, limited to those aspects listed below, for the year ended 30 June 2019:

- ▶ Total Scope 1 GHG emissions (tonnes of carbon dioxide equivalent (tCO₂-e))
- ▶ Total Scope 2 GHG emissions (tonnes of carbon dioxide equivalent (tCO₂-e))
- ▶ Total energy consumed for The Star (expressed in gigajoules (GJ))

The Star’s Assurance Report can be found on the company website:

<https://static1.squarespace.com/static/55f76728e4b0799db9586a8d/t/5d818cb82eff252b93ef42ee/1568771259181/2019.09.02+-+The+Star+Assurance+Report.pdf>

Emissions and Energy Reporting

In the 2019 financial year, The Star’s total emissions in carbon dioxide equivalents (CO₂-e) from purchased gas and electricity were 106,845 tonnes. This footprint equates to an increase of 1,276 tonnes from FY18 however an overall decrease of 1.6% from base year FY2013 which produced 108,595 tonnes. On an intensity basis, carbon emissions per square meter remain in line with FY18 at 0.35 tonnes CO₂-e/SQM and carbon emissions per visitor remain at 5.6 kg CO₂-e/visitor despite a small reduction in visitor numbers and a reduction in overall square meters due to redevelopment

works for the new Sovereign Resort at The Star Sydney. Overall carbon emissions intensity per square meter have reduced 15.5% from base year FY13 towards The Star’s targets.

A small increase in absolute emissions and energy consumption was expected from FY18 to FY19, due to the opening of The Darling Gold Coast in FY18 (and accounting for a full year of operation in FY19) and the increase in construction activities at The Star Gold Coast with the refurbishment and construction projects.

The Star’s total energy consumption from purchased gas and electricity for the 2019 financial year was 639,726 gigajoules (GJ), which was a 2.4% increase from FY2018. Energy consumption per visitor increased in FY19 by 2.6% from 33.18 MJ/visitor in FY18, however decreased 8.5% overall from base year FY13. Energy consumption intensity per square meter also increased by 2.6% from FY18 from 2.06 to 2.11 (GJ/per square meter in FY19, however reduced overall by 9.6% against base year FY13. Energy consumption intensity increased in FY19 due to the increase of construction on site and is expected to reduce once enhancements and build activities conclude.

KEY INITIATIVES AND PROGRESS ON DISCLOSURE	STATUS
<p>The Star reports GHG emissions (in line with the GHG Protocol methodology), water usage, and energy usage in line with anticipated regulatory requirements within its Annual Report and describes changes to metrics over time.</p>	<p>● <i>established - continue and improve</i></p>
<p>Metrics, including targets and KPIs, are recommended at the Steering Committee level which are then submitted for approval by the Executive Committee and the Board’s People, Culture and Social Responsibility Committee. This is disclosed on the company website.</p>	<p>● <i>established - continue and improve</i></p>
<p>The Star reports carbon emissions for absolute consumption, as well as emissions intensity per visitor and emissions intensity per m² of conditioned space (space that is mechanically heated or cooled).</p>	<p>● <i>established - continue and improve</i></p>
<p>The Star has implemented targets to minimise each property’s environmental footprint and improve the sustainable use of resources including:</p> <ul style="list-style-type: none"> ● Requirement for each property to develop operational resource reduction plans to deliver annualised targeted environmental savings and maximise energy efficiency opportunities ● Target to achieve net-zero carbon emissions by 2030 for wholly owned and operated assets ● 30% reduction in carbon emission intensity by financial year 2023 based on a financial year 2013 baseline year (per m²) ● 30% reduction in potable water consumption intensity by financial year 2023 based on a financial year 2013 (per m²) 	<p>● <i>established - continue and improve</i></p>

ROADMAP TO FURTHER ALIGNMENT

FY2021	The Star will investigate ways to quantify and report on the impact of physical climate risks, including how planning measures can reduce recovery costs and lost revenue.
FY2022	The Star will review its near-term reduction targets to ensure alignment with the longer term vision of achieving net-zero emissions by 2030.
FY2023	The Star will consider the appropriateness of other metrics and targets, such as assessment of avoided GHG emissions through life cycle assessment, or developing revenue or procurement goals for products/services designed for a low carbon economy.