Climate-related Disclosures

THE STAR ENTERTAINMENT GROUP

Third Report, May 2022

Table of Contents

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 which is detailed in the Group Sustainability Strategy. The Star is currently working to align our current and new projects to the TCFD Recommendations through a progressive roadmap.

The Star has committed to a low carbon future by setting a target to achieve net-zero carbon emissions for its wholly owned and operated assets by 2030 as a long-term measure. The Group remains committed to immediate action through an interim carbon target to achieve a 30% reduction from 2013 – 2023 on an intensity basis.

This is our third disclosure, which reports on FY21 data and FY22 management practices and builds on our progress to date against the four Recommendations of Governance, Strategy, Risk Management and Metrics and Targets. The Star released our first disclosure report in 2020[1] and second in 2021[2].

[1] The Star's FY20 Climate-related Disclosures progress report can be found on the company website: https://www.starentertainmentgroup.com.au/wp-content/uploads/2020/12/Climate-Related-Disclosures-2020.pdf
[2] The Star's FY21 Climate-related Disclosures progress report can be found on the company website: https://www.starentertainmentgroup.com.au/wp-content/uploads/2021/07/Climate-Related-Disclosures-2021.pdf

1.2 Timeline of progress

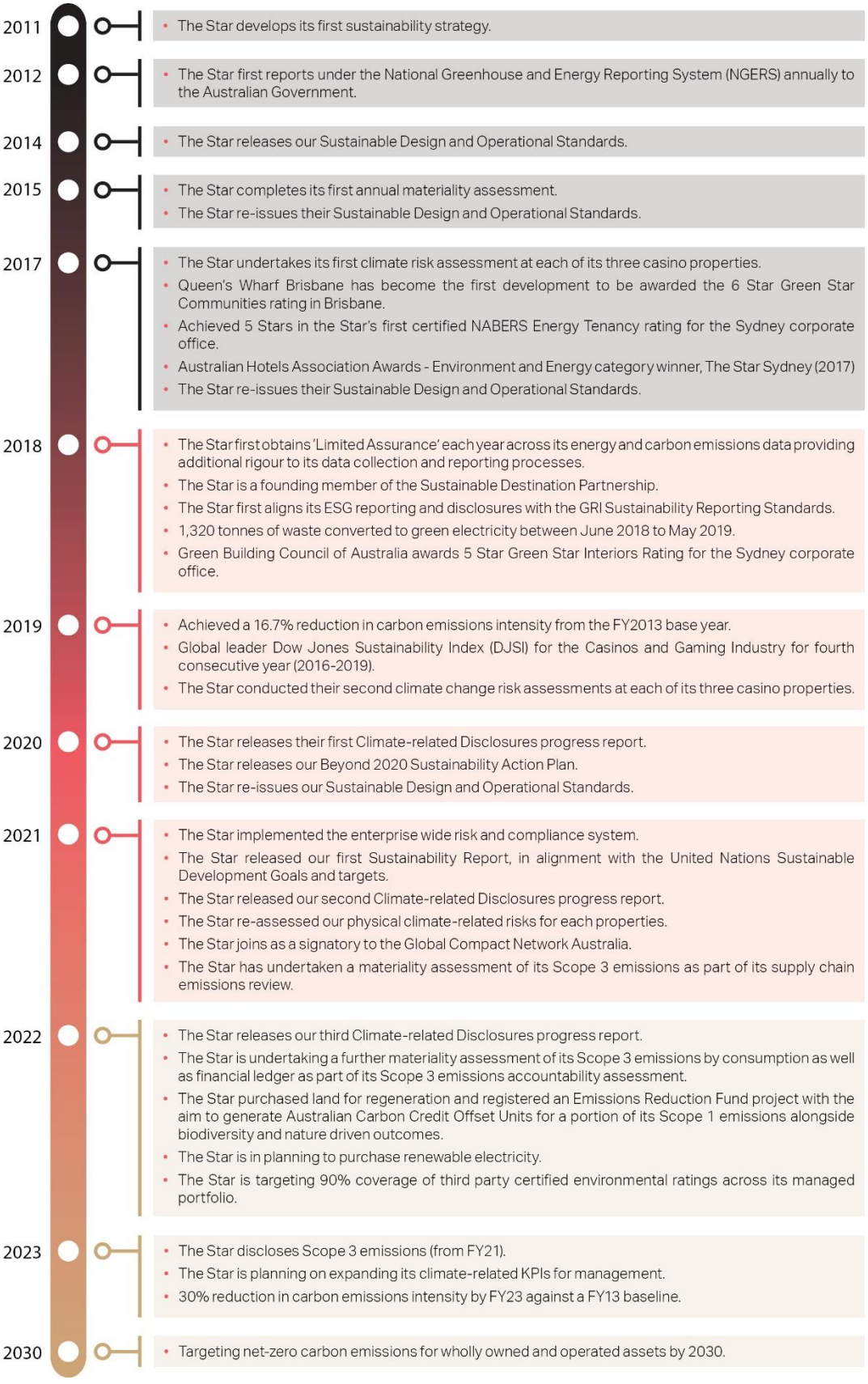

Figure 1 The Star's Sustainability Timeline

1.3 Highlights for FY22

KEY INITIATIVES AND PROGRESS ON DISCLOSURE	STATUS	TCFD alignment
The Star has appointed a new board member, Mr Michael Issenberg. He is currently Chairman of Tourism Australia and Reef Corporate Services Limited, the Responsible Entity of Reef Casino Trust.	/ *established - continue and improve*	Governance
The Star is committed to long term decarbonisation and is progressing through its pathway to reduce emissions from all operations	/ *established - continue and improve*	Governance
The Star re-assessed physical climate related risks for each of our three sites.	/ *established - continue and improve*	Strategy
The Star released our first Sustainability Report in 2021.	/ *established - continue and improve*	Strategy
The Star has acquired land and has registered an *Emissions Reduction Fund* project with the intent to create carbon offsets from a native tree planting project.	/ *established - continue and improve*	Strategy
The Star has completed user training for our Risk & Compliance System. Twelve sessions were ran and over 100 stakeholders attended.	*I established - continue and improve*	Risk Management
The Star has reviewed the effectiveness of the Risk & Compliance System and The Star's risk management and governance processes in managing climate-related risks.	/ *established - continue and improve*	Risk Management
The Star has undertaken a materiality assessment of its Scope 3 emissions as part of its supply chain emissions review.	/ *established - continue and improve*	Metrics & Targets
The Star is tracking towards a target of 30% reduction in carbon emissions by FY2023 and is implementing its steps in its net zero pathway.	/ *established - continue and improve*	Metrics & Targets
As part of The Star's Resilience Strategy, the business has completed modelling on the impact of shut down across its operational areas. The estimated impact of revenue loss is known.	/ *established - continue and improve*	Metrics & Targets

1.4 Key next steps for FY23

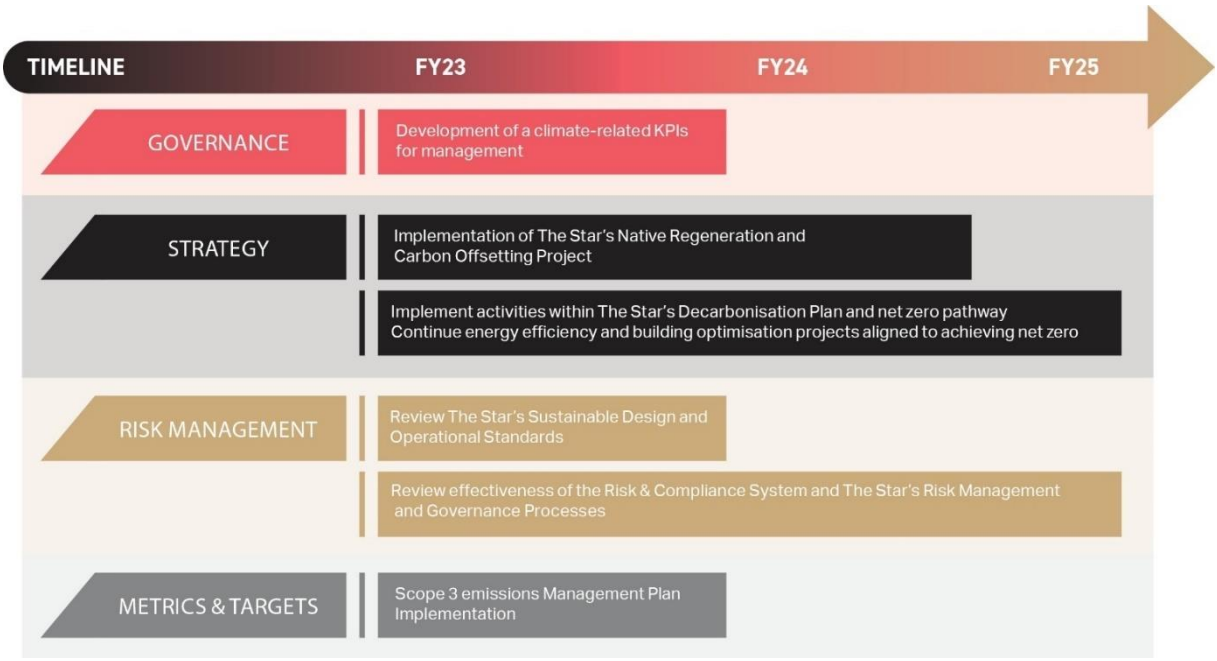

Figure 2 – Key Next steps

2.0 Governance

TCFD RECOMMENDED DISCLOSURE	STATUS
G1. Describe the Board's oversight of climate-related risks and opportunities	*established - continue and improve*
G2. Describe management's role in assessing and managing climate-related risks and opportunities	*established - continue and improve*

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

The Board's Remuneration, People and Social Responsibility Committee and Executive Committee maintain oversight of climate-related risks and opportunities.

Sustainability and climate change are agenda items at the Committee's quarterly meetings, and they receive regular progress updates towards The Star's targets. In FY21 The Group's Climate-related Financial Disclosure Report was included as a Board agenda item. Further disclosures made on TCFD, including the Star's pathway to net zero emissions by 2030, are outlined in the Board approved 2021 Sustainability Report[3].

The Board is ultimately responsible for the overall risk management strategy at The Star[4, 5] and is committed to leading practice in the management of climate change related risks and mitigation and adaption activities as outlined in the Star's Sustainable Design and Operational Standards [6]. The Star's Risk and Compliance Committee is responsible for approving the risk appetite statement and risk management framework[7].

Climate-related risks are managed in line with all other business risks and are captured by The Star's enterprise risk management system. Climate risks are monitored and reported against quarterly for compliance. Management and mitigation actions are reflected in The Star's reporting by due date and completion status. Line management at each business unit are accountable for their climate-related risks and are responsible for reporting their material risks to Group Legal & Group Risk who then report directly to the Remuneration, People and Social Responsibility Committee. For detail on the risk management process please refer to Section 4.0 Risk Management.

The Star 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[8].

The Committee also recommends metrics and targets, which are submitted for approval to the Board committees. 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, Director's Report and Sustainability Report.

A new member was appointed to the Board on 17th January 2022, Mr Michael Issenberg, subject to casino regulatory approvals being obtained. Mr Issenberg provides over 30 years' experience in the hotel industry and is currently Chairman of Tourism Australia and Reef Corporate Services Limited, the Responsible Entity of Reef Casino Trust.

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[3] The Star's Sustainability report can be found on the company website: https://www.starentertainmentgroup.com.au/wp-content/uploads/2021/11/TSEG-2021-Sustainability-Report.pdf

[4] The Board of Directors continue to have oversight of the Sustainability Strategy as detailed in the Directors Report within the Annual Report page 47 -48: https://www.starentertainmentgroup.com.au/wp-content/uploads/2021/09/2021-The-Star-Entertainment-Group.pdf

[5] The Star's Corporate Governance Statement can be found on the company website: https://www.starentertainmentgroup.com.au/corporate-governance/

[6] The Star's Sustainable Design and Operational Standards can be found on the company website: https://www.starentertainmentgroup.com.au/wp-content/uploads/2020/11/Sustainable_Design_and_Operational_Standards.pdf

[7] The Star's Risk and Compliance Committee Terms of Reference: http://www.starentertainmentgroup.com.au/corporate-governance/

[8] The Star's Beyond 2020, Sustainability Action Plan' can be found on the company website: https://www.starentertainmentgroup.com.au/wp-content/uploads/2021/04/Beyond-2020-The-Stars-Sustainability-Action-Plan.pdf

GOVERNANCE OF CLIMATE-RELATED RISKS AND OPPORTUNITIES AT THE STAR

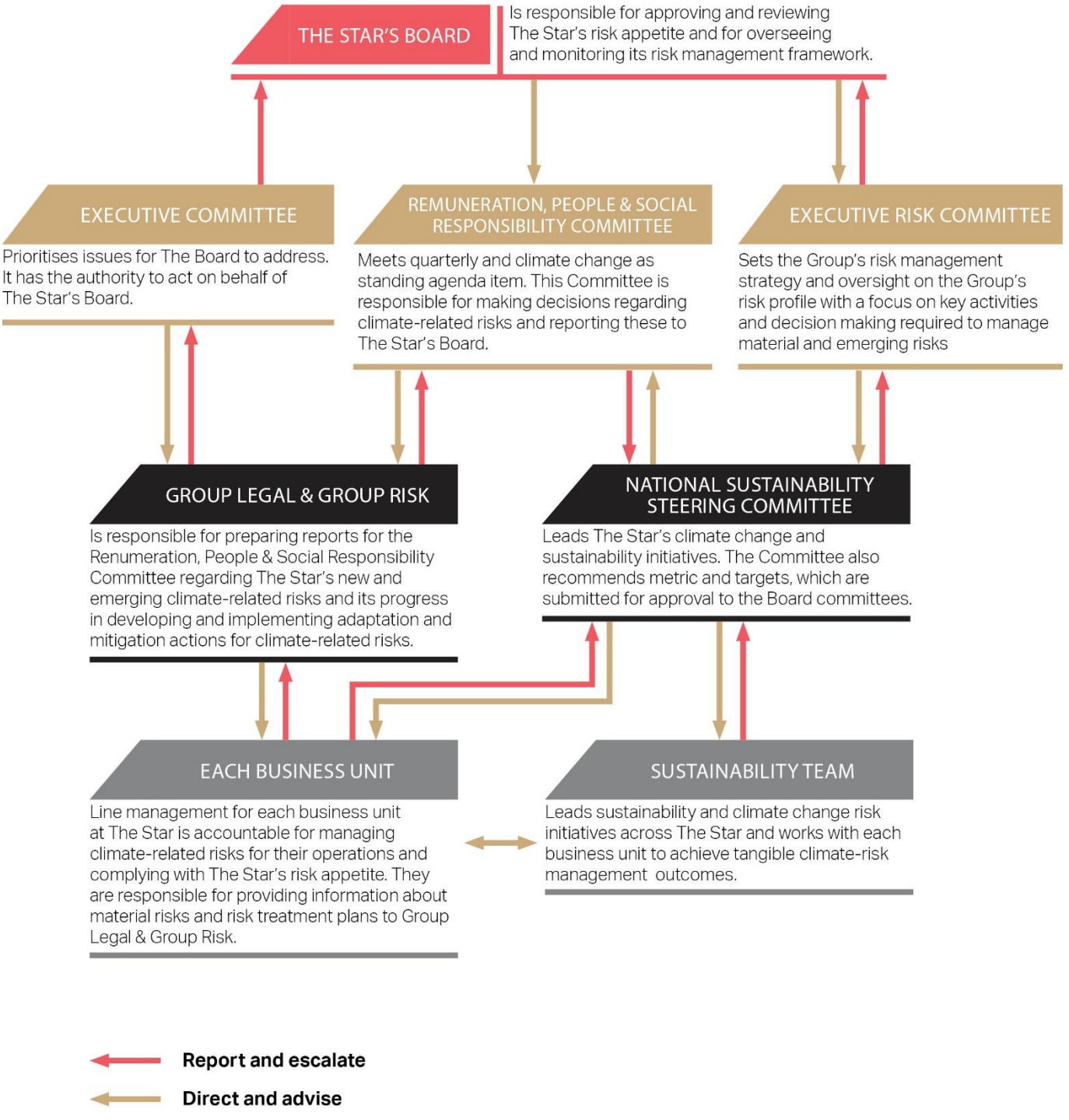


Figure 3 **The Star's governance process of climate-related risks and opportunities**

Roadmap to further alignment to the TCFD Recommended Disclosures

ACTIONS FOR THE STAR TO UNDERTAKE IN THE NEXT THREE YEARS	RELEVANT TCFD DISCLOSURE(S)	TIMELINE
Develop climate-related KPIs for management	G1	FY23
Periodically review effectiveness of The Star's risk management system and governance processes for managing climate-related risks.	G1, G2	FY23

3.0 Strategy

TCFD RECOMMENDED DISCLOSURE	STATUS
S1. Describe the climate-related risks and opportunities The Star has identified over the short, medium and long term	*established - continue and improve*
S2. Describe the impact of climate-related risks and opportunities on the Star's business, strategy and financial planning	*established - continue and improve*
S3. Describe the resilience of The Star's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	*established - continue and improve*

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

In 2017, The Star undertook a climate change risk assessment of its assets and recommended 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 The Star Brisbane, The Star Gold Coast and The Star Sydney.

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, the representative concentration pathways (RCPs) - 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. RCP8.5 represents minimal effort to reduce emissions, while RCP2.6 represents strong mitigation efforts with early participation from all emitters followed by active removal of atmospheric carbon dioxide. A detailed overview of physical and transition risks were provided in the first climate disclosure report.

In 2021, The Star completed a physical risk assessment for each of its three sites. The assessment identified 12 priority 'high' risks for The Star across each of its three sites at 2030. Since the 2019 assessment, it was found that The Star had implemented a number of previously recommended adaptation actions.

Furthermore, The Star has captured extensive experience in the process of ceasing and commencing operations and has completed modelling on the impact of shut down across its operational areas. The estimated impact of revenue loss is known. Extensive modelling has been done on ceasing operations on a daily basis. Revenue loss as part of resilience planning has been beneficial during the periods of shutdown in relation to COVID 19.

Materiality

'Climate resilience' is a material issue to The Star. The Star conducts annual materiality assessments to identify prominent issues to its assets and operations. 'Climate resilience' encompasses climate risk management, minimising carbon emissions and supporting the transition to a net-zero economy. It is an issue that is expected to have a more strategic focus over a three to five year time horizon.

The Star has embedded 'climate resilience' into our business planning through prioritising energy efficiency projects, participation in Destination Stewardship and by having a significant contingency margin on all capital projects for extreme events, including those related to climate hazards.

These assessments are aligned to the relevant requirements of Global Reporting Initiative (GRI), AccountAbility AA1000 Principles Standard and the International Integrated Reporting Council Framework. It also considers the United Nations Sustainable Development Goals (SDGs). Refer to The Star Entertainment Group's Materiality Assessment on the company website.

Case study – Queensland Floods

Treasury Brisbane

Our Treasury Brisbane site did not flood during the 2022 Queensland Floods. This is due to the site's location on higher ground within the Brisbane CBD. Minor leaks were identified in the building during the event. Prior to the event, our Operations and Facilities Cleaning teams checked and cleared all the gutters and drains to prevent any blockages.

Our restaurant, *Will and Flow*, has had to close due to these floods. This venue is located on the Brisbane River. Through The Star's climate resilience planning, the furniture at this venue had been secured prior to the flooding event.

Queen's Wharf Brisbane

Queen's Wharf Brisbane has comprehensive stormwater management, which resulted in minimal impacts to the site during the 2022 floods.

The Riverline, Waterline Park and Goodwill Extension public realm zones adjacent to the Brisbane River were inundated during the floods and required significant remediation works post the event.

Access to the Queen's Wharf Brisbane site via Queen's Wharf Road was directly impacted by the floods. This resulted in delays to construction however access was still available via William, George and Margaret Streets.

The following extreme rainfall and flooding adaptation measures contributed to the Queen's Wharf Brisbane's climate resilience:

- The 1-in-100 year flood event level for the site is 5.4m, however our loading dock entrance is at 4.5m. To mitigate the flood risk at the loading dock, flood gates have been installed at the loading dock entrance. Multiple basement pump systems have been installed to ensure any water seepage is drained from the site.
- All major plant items have been installed at a level at least 0.5m above the 1-in-100 year flood event level in accordance with the Queensland Development Code and the Brisbane City Council Flood Overlay. This ensured that no critical equipment was impacted during the 2022 floods in the larger resort development.
- Queen's Wharf Brisbane has an emergency response plan in place, to ensure that our construction works are managed in the instance of an emergency. During the floods, the construction works were stopped, and any on-site personnel were evacuated.
- The pipe stormwater drainage system for the site has been designed to manage water flows for a 1-in-100 year flood event. This ensured that volume of rainfall over the site was removed from the site. This drainage system reduced the impacts of flooding on the site.

Bio-retention Basin

A bio-retention basin has been constructed at Waterline Park within the site to manage stormwater drainage from the adjacent Public Realm area.

This is a system of vegetation and filter substrate that treats stormwater through filtration. The bio-retention system has been designed to capture and filter stormwater runoff caused by extreme rainfall and storm events. The design includes a backflow prevention device to mitigate the risk of any spillage. This bio-retention basin was inundated during the 2022 floods and required reconstruction post the event.

A second bio-retention basin is yet to be constructed to cater for stormwater drainage from the Integrated Resort Development. All stormwater designs for the Queens Wharf Brisbane site have been developed to withstand 1-in-100 year rain events and to allow water to leave the site without impacting the building.

The Star's 2021 high physical climate risks

The following table provides an overview of the physical risks rated as 'high' at 2030 in The Star's 2021 physical climate risk assessment, how The Star is currently managing these risks and are planning to respond in future. The majority of The Star's 'high' risks are caused by extreme heat.

Priority risk statements	Applicable sites	Summary of existing controls	Future adaptation actions
Extreme Heat			
1. Increased pressure on cooling and air-conditioning (AC), leading to increased operation and maintenance costs and risk of system failure. 2. Increased energy and water demand, leading to increased operational costs. 3. Reduced network capacity, leading to an increase in the incidence of blackouts. 4. Increased heat stress events among stakeholders, with reduced comfort of patrons and guests, tenants, and operations and maintenance staff. 5. Increased requirements for cooling and areas of respite, with reduced comfort of patrons and guests, tenants, and operations and maintenance staff.	Treasury Brisbane The Star Sydney The Star Gold Coast Queen's Wharf Brisbane	• Heat is addressed in the Sustainable Design and Operational Standards. • For capital replacement of any HVAC facilities, The Star considers the projected increase in extreme heat days and heatwaves over 35°C and maximum mean temperature increase. • The Star's building optimisation and analytics platform identifies tuning and efficiency projects, which enhance thermal comfort. The Star completes regular maintenance of onsite chillers. • The Star completes energy and water audits every two years to ensure that short- and long-term efficiency opportunities are costed and presented to the business for implementation. • The Star sites undertake an annual shut-down day testing of evacuation and emergency preparedness procedures. The outcomes are documented and actioned. • The Star Sydney completed a capital upgrade project to seal parts of the main gaming floor in June 2020 to improve guest comfort levels. Revolving doors have been installed at the outdoor escalators and bar areas to reduce heat transfer. • The design of the Queens Wharf Brisbane includes indoor plants, water features and passive cooling. • At The Star Gold Coast, tinting has been provided on all glazing to reduce heat transfer into building.	• The Star will update its maintenance procedures for our cooling towers, to reduce the risk of a high Legionella count. • The Star will investigate the feasibility of onsite solar to reduce demand on energy during peak periods. • The Star will undertake a recycled water assessment to be conducted in 2023 to assess the use of recycled water in the boiler towers. • Install outdoor fans, an awning or water demisters to reduce the impact of heat stress on staff and patrons outside. • The Star Gold Coast and Treasury Brisbane have Emergency Planning Committees in place

Priority risk statements	Applicable sites	Summary of existing controls	Future adaptation actions
Increased Rainfall Intensity and Inland Flooding			
6. Increased local flood events, limiting access and egress, with impacts to transport links 7. Greater intensity of runoff leading to drainage capacity issues for buildings (roof and ground level) 8. Increase in safety issues around stormwater detention basins and channels (areas at risk of localised flooding)	Treasury Brisbane The Star Sydney The Star Gold Coast	• Extreme rainfall is addressed in the Sustainable Design and Operational Standards. • Implementation of a proactive awareness program for appropriate responses to extreme rainfall and flash flooding events. • Regular inspections of stormwater pits and pumps, with maintenance and clearing if required, to prevent overflow and flooding. • All stormwater designs for the Queens Wharf have been developed to withstand 1-in-100-year rain events and to allow water to leave the site without impacting the building. • Emergency egress paths at the Queens Wharf have been reviewed by an independent certifier to ensure flood events do not compromise emergency exit. The Star has identified one event which would require a manual intervention by redirecting occupants to an alternative exit. • The Star Sydney has installed a green roof which covers over 8,000 sqm. The green roof reduces storm water runoff and increases water quality. • At The Star Sydney, a capital works program identified leaks in the roof that resulted in the replacement of the roof membrane. • The Star Sydney has an Emergency Planning to discuss emergency preparedness and management issues. Outcomes are implemented into emergency management and preparedness procedures. Wardens undertake testing drills to ensure that they are prepared to make decisions in emergency situations.	• The Star will undertake a review of the emergency evacuation routes and designated assembly areas for asset emergency procedures and plans. This will include checking pedestrian access and assembly areas. • The Star Gold Coast and Treasury Brisbane will explore the establishment of an emergency management committee and relevant site procedures using the lessons learnt from the Sydney site. • The Star will continue to provide regular inspection of stormwater pits and pumps, with maintenance and clearing if required, to prevent overflow and flooding. • The Star will continue to monitor for flooding issues at the Queen's Wharf Brisbane during periods of extreme rainfall.
Sea level rise and storm surge			

Priority risk statements	Applicable sites	Summary of existing controls	Future adaptation actions
9. Permanent inundation of some areas – limiting access and egress	The Star Gold Coast	• Sea level rise and storm surge are addressed in the Sustainable Design and Operational Standards. • The Star is investigating the combination of hard and soft defence options to minimise the impact of storm tide inundation and ensure building and infrastructure design accommodates storm tide levels. • The Star Gold Coast is situated at a higher elevation than surrounding areas and is therefore less likely to be impacted by sea level rise. Flood gates have been installed on site to prevent inundation.	• The Star Gold Coast will ensure that all building and infrastructure design will accommodate storm tide levels. The Star will maintain all existing flood mitigation equipment to ensure correct operation during storm tide advancements.
Storm Events (Including Cyclones, Wind and Hail)			
10. Increased storm and hail damage to utilities and services (condenser coils, signage, plant items on roof)	The Star Gold Coast	• Storm events including wind and hail are addressed in the Sustainable Design and Operational Standards. • The Star has implemented an early warning intercommunications system (EWIS) to communicate with staff, tenants and patrons in the event of a storm. • Staff receive training on emergency procedures, to ensure that they can implement the procedures during emergency situations. • Roof check of the sites are conducted prior to an extreme weather event. • The site undertakes annual evacuation exercises to test their procedures. • Emergency Management Plans which include provisions for guests to shelter in place and an allocated assembly point. • At The Star Gold Coast, all exposed utilities are secured and when wind speeds reach certain levels areas or departments take reactive measures such as removing furniture The Star GC has an SOP island wide. Also, the new Tower 1 has a weather station interfaced with the BMS. • The morning Hotel Assistant Manager (HAM) will monitor the predicted wind speeds as per the existing SOP and should wind speeds be forecasted. to exceed	• The Star will be developing an operational environmental management plan and stormwater management plans with an appropriate external consultant. • The Star Gold Coast and Treasury Brisbane will stay informed of cyclone activity and monitor for severe weather warnings. • At the Queens Wharf, The Star will secure the umbrellas at Will and Flow, to prevent them entering the river in the event of extreme wind. Integrate into the Asset Strategy. • The Star Gold Coast and Treasury Brisbane have Emergency Planning Committees in place.
11. Increase in safety issues for patrons and guests, tenants, and operations and maintenance staff	Treasury Brisbane The Star Gold Coast		

Priority risk statements	Applicable sites	Summary of existing controls	Future adaptation actions
		42kms the HAM will communicate to appropriate stakeholders as per the SOP to secure furniture	
Bushfires			
12. Increase in safety issues for patrons and guests, tenants, and operations and maintenance staff	Treasury Brisbane The Star Gold Coast	• The Star's operational teams will look at the Bureau of Meteorology website and contact media personnel, prior to a predicted bushfire event.	• Implement a proactive communication prior to bushfire season, to raise awareness amongst staff, tenants and patrons about the health dangers of smoke and poor air quality and the importance of having a bush fire management plan • Emergency Operations Committee will manage the impact of bushfire smoke for staff, tenants and patrons as needed. Properties will monitor impacts of environmental conditions and if required will activate an emergency operations centre

Table 1 The Star's 2021 high physical climate risks

The Star's key transition risks and opportunities

In 2019, The Star completed a transition risk assessment. The assessment identified six key drivers which will influence our transition to a low carbon economy. The table below provides a summary of the key findings.

Key transition risk and opportunities	The Star's response
Shift in investment and finance sector appetite *Financial and commercial markets have the potential to drive the shift to a low carbon economy more quickly than changes in the policy, legal, and technological landscapes alone.*	The Star is committed to disclosing our climate-related physical and transition risks and ongoing commitments to climate resilience on an annual basis. By undertaking physical climate risks assessments every two years, we are ensuring that we understand our exposure to climate hazards and potential insurance implications. We include climate risk and exposure as a part our due diligence activity. As we take a proactive approach to supporting the transition to a low carbon economy this is likely to be supported by financial institutions who are prioritising investment in this area. The Star is targeting a 30% reduction in carbon emissions by FY2023 against a baseline of FY13. The Star continues to monitor performance quarterly against this target and is implementing its steps in its net zero pathway. Performance is tracking against the interim target: 23.6% reduction since in the last financial year, carbon emissions intensity from base year FY13. We are achieving this by prioritising energy efficient upgrades, renewable energy installation or retrofit activities across our sites.

Changing trends in the tourism sector *The transition to a low carbon economy is likely to have widespread cost implications for the tourism sector, ultimately increasing the cost of travel for tourist and visitors, particularly the increasing costs of air travel for international travellers.*	The Star recognises that the quality of the natural and built environment within which its assets are located is a key factor in attracting visitors to its venues. We understand that climate-related risks to the broader environment and changing trends in tourism may therefore have knock-on effects for our ability to attract visitors. The Star is a founding partner and active member of the City of Sydney's Sustainable Destination Partnership. The Sustainable Destination Partnership is a collaboration between the City of Sydney and hotels, backpacker hostels, serviced apartments, cultural institutions and entertainment venues, who are working together to make Sydney a sustainable destination. The partnership collaborates to improve the environmental performance of Sydney's accommodation and entertainment venues, invest in renewable energy, recycled water, waste avoidance and management and other sustainable solutions that support Sustainable Sydney 2030, engage with regulators and governments on key environmental policy and regulatory issues, and champion and promote our objectives and outcomes to the broader sector and wider community.
Changing policy for the property sector *Changes to the minimum requirements for Green Building Council of Australia Green Star ratings and changes to the National Construction Code to include carbon neutral requirements for existing buildings have the potential to trigger extensive retrofits or the need to purchase offsets.*	Through our Sustainable Design and Operational Standards, we are planning for the capital cost of building retrofits to meet energy efficiency or net zero requirements, and/or the cost of purchasing offsets. These standards have enabled us to achieve a 6 Star Green Star Communities Rating and we are committed to 6 Star Green Star Design and As Built Ratings for all new commercial buildings at the Queen's Wharf Brisbane. Our design creates open spaces, shading and parklands to enhance permeable surfaces. A climate scenario analysis was conducted on the design as a part of the 2021 physical climate risk assessment and several recommendations were identified, including the prioritisation of thermal comfort at the site. The Star develops Strategic Asset Plans for its sites and completes Energy and Water audits across its properties. Capital has been committed for energy efficiency upgrades which is captured in the Group's Energy and Water Project Pipeline. Audits help us to prioritise asset replacement in terms of end of life, energy use and carbon impact. The Group's Sustainable Design and Operational Standards specify Climate Mitigation and Adaptation Actions that must be included in the design of new buildings and significant asset refurbishment. The Standards ensure climate resilience and the 2021 actions from physical climate risk assessment will included in future strategic asset plans and planning.
Pressure on supply chains *The ways in which supply chains will be affected by climate change are varied and complex, shifts in the availability, supply and demand for certain commodities, products, and services will have a major influence on commercial outcomes for The Star.*	The Star collaborates with supply chain stakeholders to gain a better understanding of the costs associated with a shift towards a low carbon economy. We have undertaken a materiality assessment of Scope 3 emissions as part of our supply chain emissions review. By spend, four category groups were responsible for almost 50% of The Group's Scope 3 emissions: Capital Development Projects (26%), the purchase of meat for Hospitality food services (11%), third party activities for marketing (4%) and the purchase of dry goods (4%). The Star will develop management plans for the most material scope 3 emissions sources and update its procurement strategies to encourage carbon neutral suppliers and products with lower embedded carbon in the supply or manufacture. The Star is working with its supply chains to identify resource substitutes/ diversification to improve resilience to potential impacts to these products and services. The Star's Supplier Code of Conduct is issued to all suppliers. The Star is engaging with its suppliers on a range of ESG areas as part of its Modern Slavery response and as part of ongoing supply chain evaluation. We have a guest engagement program and ensures that key sustainability messages are promoted through to guests, visitors and tenants. Staff are surveyed on their views of our sustainability program either through a materiality assessment process or other survey tools. Feedback has been encouraged on the Group's 2021 Sustainability Report containing detailed climate risk information and a contact email address provided.

Technology shift in the energy sector *Australia's energy market has changed dramatically in recent years, ultimately leading to increases in energy prices paid by consumers.*	The Star will contract renewable energy across its properties as part of its net zero 2030 pathway and has committed to renewable energy in its 2021 Sustainability Report. The proportion of energy use required for The Star's assets reflects the 24-hour operation of gaming, hotels and facilities. As part of the Group's net zero pathway to 2030, over 5% reduction is to be achieved through energy efficiency. The management strategies include capital projects to upgrade plant, equipment and green buildings and to ensure all buildings connect to the Group's building optimisation and analytics system to identify and implement savings from tuning and rectification projects. Advances in technology will largely benefit The Star's ability to achieve emissions reductions targets and conform more easily to any future policy regulations. To ensure that The Star receives the most benefit from these opportunities, it will be important to anticipate near term technological advances. The Star does this by maintaining a watching brief for changes in legislation, green building standards and information of influencing macro climate change issues.
Technology shift in the transport sector *The transport sector is transforming with the electrification of transport options, the growth of alternate transport options such as ridesharing, and upcoming autonomous capabilities in vehicles.*	The Star is planning electric vehicle charging stations across its sites as part of future planning upgrades. In addition, through its membership, of the Sustainable Destination Partnership and through precinct planning for accessibility, The Star has sought to increase the accessibility to its venues.

Table 2 The Star's transition risks and opportunities

Roadmap to further alignment to the TCFD Recommended Disclosures

ACTIONS FOR THE STAR TO UNDERTAKE	RELEVANT TCFD DISCLOSURE(S)	TIMELINE
Develop a framework derived from the physical and transition risk assessments to be applied to business decisions with a value over a certain threshold.	S2	FY23
The Star will continue to undertake physical risk assessments across each of our three sites.	S2	FY23
The Star to review the formal engagement methods of continuous feedback with key stakeholders including employees, tenants, visitors, supply chain and utility and service providers and enhance with regards to climate resilience.	S3	FY23
The Star will re-assess its transition risks and opportunities and identify new adaptation actions.	S2	FY24+
Continue to receive continuous feedback with key stakeholders including employees, tenants, visitors, supply chain and utility and service providers, with specific intent to address climate related issues (e.g., annual sustainability survey, provisions within renewal contracts).	S2	FY24+

Case study – Rainwater Harvesting
The Star has implemented several initiatives to capture and harvest rainwater. Rainwater harvesting has enabled our Gold Coast and Queen's Wharf sites to reduce their potable water requirements. At the Gold Coast, our Tower 1 has a 4 star NABERS water target and has rainwater harvesting which is used for landscaping on level 6. The Darling utilises recycled water in bathroom amenities. We are conducting a gap analysis of our water meter network and correcting all damaged meters across the site. Our Queen's Wharf site has grey water recycling and an automatic monitoring system that records both consumption and demand of water. This system collects data from all meters, automatically alerts our facilities management staff of system failures, records and processing of data on energy use or water consumption at user adjustable intervals and raises an alarm when the water use has increased beyond certain parameters. The Queen's Wharf Brisbane development has WELS 6 Star Rating fixtures & fittings for taps and urinals and WELS 4 Star Ratings for toilets.

4.0 Risk Management

TCFD RECOMMENDED DISCLOSURE	STATUS
RM1. Describe The Star's processes for identifying and assessing climate-related risks	/ *established - continue and improve*
RM2. Describe The Star's processes for managing climate-related risks	/ *established - continue and improve*
RM3. Describe how processes for identifying, assessing and managing climate-related risks are integrated into The Star's overall risk management	/ *established - continue and improve*

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

The Star manages climate related risks alongside all other business risks. In 2020, The Star adopted and implemented an enterprise-wide risk management framework and system. A standardised risk management approach across The Star enables risks to be consistently identified, managed and communicated. Risks are rated based on potential for occurrence and business impact.

Climate-related risks are integrated into its overall risk profile and appetite. The Star is committed to proactively and systematically managing the risks within its business operations and embedding risk management in all business processes.

The risk management framework is consistent with the Australian/New Zealand Standard (AS/NZS ISO 31000:2009 Risk management – Principles and guidelines). It will review its appetite annually and review the Risk Management Framework every two years.

Details of The Star's major risks and associated mitigation strategies are set out within the Directors Report of the company's 2021 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 Star's Climate-related disclosure reports can be found on the company website alongside adaptation and mitigation actions which are updated annually and included within The Star's Sustainable Design and Operational Standards.

In 2021, The Star conducted an assessment of our physical climate risks across each of our three sites.

2021 physical climate-related risk assessments

In 2021 The Star completed physical climate risk assessments of our three existing assets – The Star Sydney, The Star Gold Coast and Treasury Brisbane. The assessment focused on the physical climate-related risks associated with extreme heat, bushfire, drought, sea level rise and coastal flooding and extreme storms.

The 2021 assessments built upon the assessments undertaken in previous years. They involved identifying additional existing climate hazards and past extreme events, The Star's climate-related risks and their respective likelihood and consequences. For each risk, the existing control measures and future adaptation actions were identified. The adaptation actions were tailored to each asset.

The results of the risk assessments are provided in the Strategy section above.

Risk Management Framework

The Star's risk management framework comprises of seven steps:

1. **Establish the context:** The Star considers the full range of underlying assumptions that underpin its business and strategic objectives, to determine the potential risks that might affect The Star's business and strategic objectives.
2. **Risk identification:** The Star identifies potential sources of risk, areas of impact, events that could happen and the potential causes and consequences of risk events to The Star. This includes any risks associated with not doing something including, for example, not implementing climate change adaptation measures.
3. **Risk analysis:** The Star analyses each risk to understand it, factor the risk into decision-making processes, evaluate it against The Star's risk appetite and effectively treat the risk. This includes assessing the consequences, likelihood, the effect and reliability of existing controls in place to reduce the risk and identifying potential risk treatments. The Star has developed its consequence, likelihood and control effectiveness criteria.
4. **Risk evaluation:** The risk analysis provides The Star with an overall risk rating for each risk. The rating of each risk is determined using The Star's risk matrix. The risk ratings are evaluated to assist The Star in determining the priorities for risk treatment and whether a risk is within The Star's risk appetite.

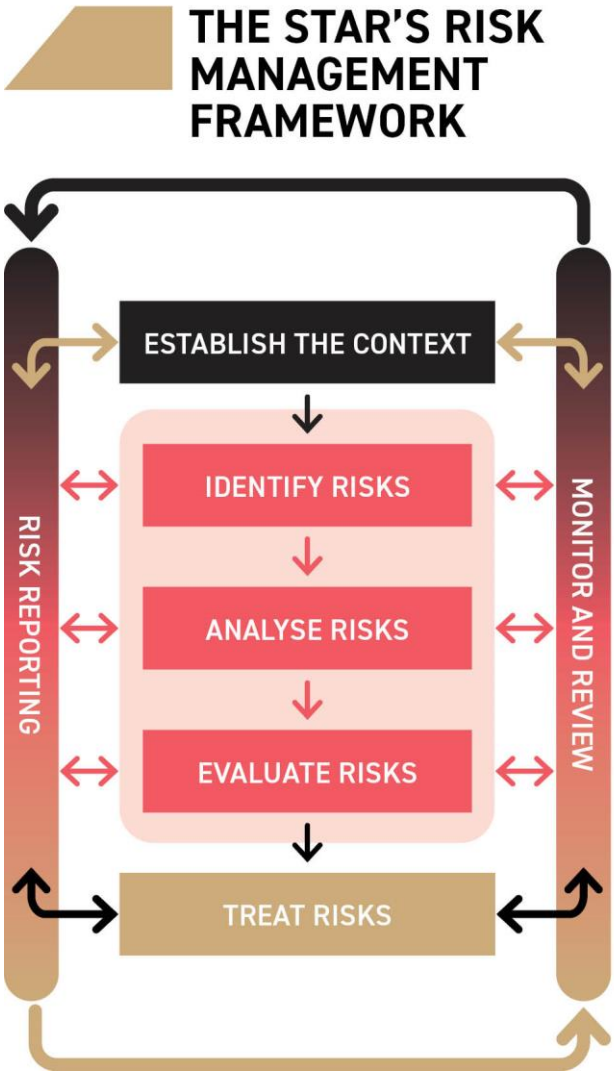


Figure 4 The Star's risk management framework

5. **Risk treatment**: Risks which have a risk rating considered to be unacceptably high are treated to modify the level of risk. Risks are treated by taking steps to reduce the magnitude of the potential consequences of a risk event; and/or likelihood of those consequences occurring. The objective of this step is to reduce risk(s) to a level which is within The Star's risk appetite.
6. **Risk reporting:** Group Legal & Group Risk is responsible for preparing reports to the Board's relevant sub-committees. Climate-related risks are reported to the Remuneration, People and Social Responsibility Committee. Each business unit is responsible for providing information about its material climate-related risks and related risk treatment plans so that Group Legal & Group Risk can prepare reports. For details on external reporting and governance of The Star's climate-related risks please refer to Section 2.0 Governance.
7. **Monitoring and review:** All aspects of this Risk Management Framework are continuously monitored and regularly reviewed to ensure that The Star's risk profile remains current and the controls in place remain current.

The Star's Risk & Compliance System

In 2020, The Star's risk team converted all relevant records into the risk & compliance system, to establish it as the single source of all core risk information for the organisation. The transition to the risk & compliance system will allow The Star to add and modify risks and actions as they arise and provide more flexibility and transparency to senior leaders. It provides the ability to track actions through a central resource accessible to leaders and provide dashboard reporting to risk owners within the organisation.

Each risk has a unique ID and key words, which can be used to search for specific risks. Climate-related risks are tagged with 'Environment' as a key word. The risk & compliance system allows users to view risks in varying levels of detail, including user dashboards. A range of risk reports can be generated for governance, monitoring and review purposes.

The organisation is already familiar with the new risk & compliance system, as it used for incident reporting. However, to ensure that it is properly utilised to capture risks and for reporting, The Star has developed user training which is in the process of being rolled out across The Star. In FY21 User system training was provided to over 100 stakeholders.

The Star reviews the Risk Management Framework bi -annually. All amendments are endorsed by the Executive Risk Committee and The Star's Board. The Star takes a continuous improvement approach to supporting systems and processes as the risk maturity of the organisation progresses.

Our work with insurers

The Star proactively provides our Climate-related disclosure reports Sustainable Design and Operational Standards to our insurers during our insurance renewal. Flood risk management is assessed as part of operations as and proactive discussions are held each year with insurers. This active management of climate related risks supports the underwriters in developing the most commercially viable insurance premium.

Roadmap to further alignment to the TCFD Recommended Disclosures

ACTIONS FOR THE STAR TO UNDERTAKE	RELEVANT TCFD DISCLOSURE(S)	TIMELINE
Review and update The Star's Sustainable Design and Operational Standards.	RM2	FY23
Review effectiveness of the risk & compliance system and The Star's risk management and governance processes in managing climate-related risks.	RM3	FY23
Collaborate with supply chain partners, including utility providers, to understand and address system interdependencies and potential risks that may arise from climate-related events.	RM1, RM2, RM3	FY23+
Periodically review adaptation actions from the physical risk assessments and update the Sustainable Design and Operational Standards as appropriate to strengthen the resilience of future construction and development projects.	RM2	FY23+
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. The Star will review opportunities to investigate certain specific risks, such as the impact of heat waves on patron behaviour.	RM3	FY23+

5.0 Metrics and Targets

TCFD RECOMMENDED DISCLOSURE	STATUS
MT1. Disclose the metrics used by The Star to assess climate-related risks and opportunities in line with its strategy and risk management process	*established - continue and improve*
MT2. Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 Greenhouse gas (GHG) emissions, and the related risks	*established - continue and improve*
MT3. Describe the targets used by The Star to manage climate-related risks and opportunities, and report performance against targets	*initiated – continue and improve*

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

The Star has a target of net-zero carbon emissions by 2030 for its wholly owned and operated assets and is targeting a 30% reduction in carbon emissions by FY2023 against a baseline of FY2013.

To support the net-zero target, The Star has developed its net zero pathway and Decarbonisation Plan. The plan focusses on implementing energy efficiency initiatives, increasing renewable energy procurement and electrify gas-consuming equipment.

The Star continues to monitor its performance quarterly against achieving a 30% reduction of carbon emissions by FY2023 and is implementing steps in its net zero pathway. Performance is tracking against the interim target: 23.6% reduction since in the last financial year, carbon emissions intensity from base year check FY13.

Achieving net-zero carbon emissions by 2030 will reduce energy demand and operational expenditures for The Star. It will also align The Star with the RCP 2.6 scenario, where strong mitigation measures are implemented to limit the increase in global average temperatures and the exacerbation of The Star's climate hazards.

The Star has operational resource plans for each property to measure progress and consumption. The COVID-19 pandemic restrictions resulted in reduced capacity, lower visitor numbers and venue closures. In comparison to FY2020, energy consumption was greater in FY2021 due to periods of closure being less than FY2020.

The Star is committed to improving the resilience of our business operations, our assets, and the precincts in which our properties are located. As part of The Star's Resilience Strategy, the business has completed modelling on the impact of shut down across its operational areas. The estimated impact of revenue loss is known. Extensive modelling has been done on ceasing operations on a daily basis. Revenue loss as part of resilience planning has been beneficial during the periods of shut down in relation to COVID 19.

Green financing

Water

The Star has established water efficiency programs. One program involves the Property Operations teams at The Star Sydney receiving training on measuring tap flow rates and advice on how to adjust fittings accordingly. This program extended to leak detection and rectification and contributed to the reduction in water use in FY2021.

Since implementation of the program at The Star Sydney, over 350 taps throughout the property have been addressed by Property Operations and we're expected to save over 20,000 litres per day and $23,000 in water savings per annum.

In addition to this program, in 2021 The Star Sydney commenced a program to install plumbed water stations across the building. To date, 31 plumbed water stations have been installed, replacing the previous refillable 15 litre water bottle fountains.

With over 3,300 15 litre water bottles previously purchased for The Star Sydney each year, the program is not only reducing bottled water purchases and plastic, truck movements in the loading docks have also been significantly reduced through this initiative and team members are utilising their

water bottles more than paper drinking cups. The initiative ensures a continuous supply of water for team members, no bottle storage issues and saves $36,454 per year.

Additionally, the Scope 3 carbon emissions once attributed to supplier transport when delivering replacement water bottles have been eliminated. The rollout of the drinking fountains will be expanded to additional sites within the property in 2022

Energy

During FY21, we progressed a number of energy efficiency projects at The Star Sydney and The Star Gold Coast with some closing during the financial year and others rolling over into quarter one of FY2022. At The Star Sydney, four of the main gaming floor air handling units are being upgraded with the project scheduled for completion in early 2022.

The efficiency gains from the upgrade is expected to save 220MWh in energy and 178 tonnes of carbon emissions per annum. Additionally, a refrigeration upgrade program was completed for The Star Sydney's cool rooms, and the new refrigeration units are expected to improve energy efficiency in these areas by 15%

At The Star Gold Coast, our $1.4 million steam boiler rectification project is due for completion in October 2021. Our upgraded system optimises heat transfer through a unique spiral rib heat exchanger that is fully emersed in water. This technology not only extends boiler longevity, but is highly efficient, transferring the most amount of heat in the most compact space and delivering associated ventilation efficiencies through electronic control fans.

The Star Donates to Flood Support

Our former CEO, Matt Bekier was pleased to join Queensland Premier Annastacia Palaszczuk, Cameron Dick MP and Shannon Fentiman MP to launch the Queensland flood appeal with a $200,000 package of support to help flood -affected Queenslanders get back on their feet.

This includes $100,000 to GIVIT.org.au and $100,000 for the flood appeal to support the amazing work Australian Red Cross, Lifeline Australia (Queensland), The Salvation Army Australia (Queensland) and Vinnes Queensland do in our community.

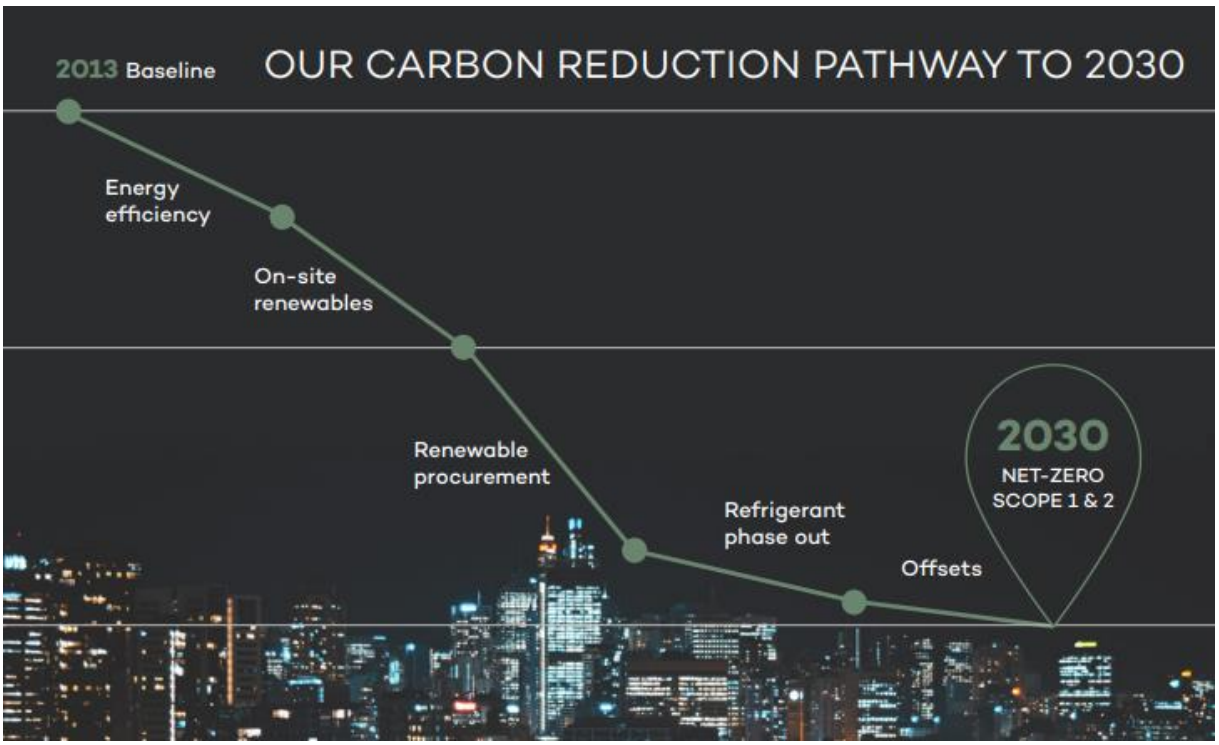


Figure 5 Carbon reduction pathway

Emissions and Energy Performance

Our FY2021 carbon emissions were comprised of 8,953 Scope 1 emissions and 89,466 Scope 2 emissions. On an intensity basis, carbon emissions per square metre increased by 3.4% from 0.31 tonnes CO2-e per square metre in FY2020 to 0.32 tonnes CO2-e per square metre in FY2021.

METRIC	FY20	FY21	VARIANCE
Energy (GJ)	555,911	571,370	15,459 (GJ) (+2.8%)
Carbon emissions (tonnes)	94,945	98,419	3,474 tonnes (+3.7%)

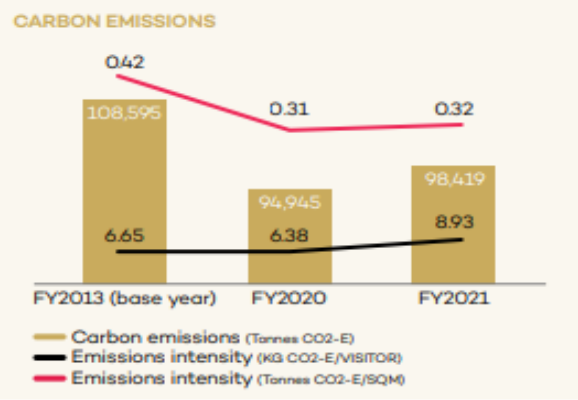
Overall carbon emissions intensity per square metre reduced by 23.6% in FY2021 from FY2013 (base year) contributing positively to our Group target to achieve a 30% reduction in emissions intensity per square metre by FY2023 against base year FY2013.

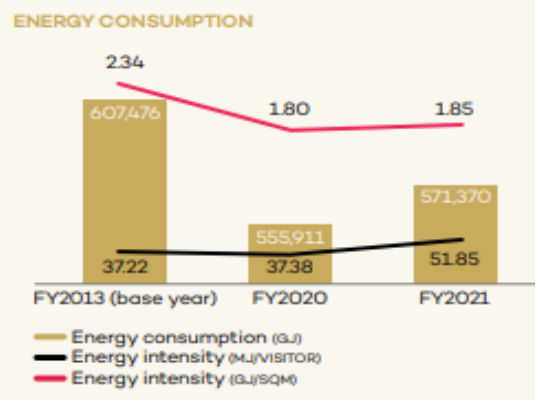
With 11 million visitors in FY2021 (a decrease on FY2020 visitor numbers which were also affected by COVID-19 property closures) carbon emissions intensity on a per visitor basis increased from 6.38 kilograms CO2-e per visitor in FY2020 to 8.93 kilograms CO2-e per visitor in FY2021.

Our total energy consumption from purchased gas and electricity for FY2021 was 571,370 gigajoules (GJ), representing a 2.8% increase from FY2020 which was 555,911 GJ and a 5.9% decrease from base year FY2013. On an intensity basis, energy per square metre increased by 2.6% from 1.8 GJ per square metre in FY2020 to 1.85 GJ per square metre in FY2021 and decreased by 20.7% against base year FY2013. Energy consumption per visitor increased in FY2021 by 38.7% from 37.38 MJ per visitor in FY2020 to 51.85 MJ per visitor in FY2021, as a result of decreased visitation due to COVID-19 restrictions.

Energy consumption per visitor increased 39.3% overall from base year FY2013. Impacts of property closures and state and international border restrictions as a result of COVID 19 removed visitation to our properties with the exception of some hotel and food takeaway services which operated as ‘essential services’.

During these times, visitation was reduced considerably. However, energy services including HVAC, surveillance, lighting and lift services among other building services remained in operation, and as a result, our buildings operated with a substantial baseload which could not be fully shut down. The increase in carbon emissions and energy consumption both on an absolute and intensity basis in FY2021 was expected compared to FY2020, as the periods of closure in FY2021 had been less than the previous year. In FY2021, both large scale plant upgrades and energy efficiency initiatives in our Energy and Water Project Pipeline continued to be delivered, contributing to energy and carbon emissions reductions within the year.





Notes: The Star's total carbon emissions, as reported, equate to emissions from purchased gas and electricity only, which aligns with group-wide targets that cover our material sources of carbon emissions.

Figure 6 **The Star's FY2021 total carbon emissions and intensity, in comparison with the base year (FY2013) and the previous year (FY2020)**

Figure 7 **The Star's FY2021 total energy consumption and intensity, in comparison with the base year (FY2013) and the previous year (FY2020)**

Emissions Reduction Fund Project

The Star has commenced an Emissions Reduction Fund Project to support its target to achieve net zero emissions by 2030 for its owned and managed assets.

The project *Lower Wonga Native Revegetation Project* in QLD will establish permanent plantings of a mix of native tree species on land that was predominantly used for agricultural purposes for at least five years prior to project commencement. The tree species are native to the local area.

More information about this project can be found on the project registration page by searching 'ERF171691' at http://www.cleanenergyregulator.gov.au/

Scope 3 emissions

In FY2021, The Star committed to measuring its most material Scope 3 emissions which are our indirect emissions that occur in the value chain, including both upstream and downstream emissions.

In March 2021, The Star completed a Value Chain Emissions Mapping and Materiality Assessment to understand the Group's most material Scope 3 emissions by spend. The boundary of the assessment included all assets that The Star has operational control over as per the NGER Act.

Material Scope 3 emission sources

By spend, four category groups were responsible for almost 50% of The Star's Scope 3 emissions. Capital Development Projects were responsible for 26% of Scope 3 emissions and the purchase of meat for Hospitality food services was responsible for 11%.

Third party activities for Marketing and the purchase of Dry Goods each contributed 4%. The Star will develop management plans for the more material Scope 3 emissions sources and update its procurement strategies to encourage carbon neutral suppliers and products with lower embedded carbon in the supply or manufacture.

The four major category groups responsible for almost 50% of The Star's Scope 3 emissions are detailed in Table 3.

Table 3 The Star's material Scope 3 emission sources

Category Group	Subcategory	% of Scope 3 Emissions
Capital Projects	Contract Works - Building	26%
Hospitality	Meat	11%
Marketing	Agents and acts	4%
Hospitality	Dry Goods Grocery	4%

In FY2022-23, the Star will focus on refining its Scope 3 inventory using direct source data provided by suppliers where available, as well as incorporate other relevant emission sources such as waste and employee commuting.

The Star will continue to examine its highest spends within our key product categories to understand which are the most carbon intense, how it can make considered choices and how it can reduce embedded emissions from being selective in regard to product and service procurement. The Star will seek opportunities to reduce embedded emissions in its supply chain over time. This includes sourcing lower embedded carbon building products where available, reducing waste volumes generated, increasing organics processing, diverting more product streams to recycling and by reducing employee travel.

Case study – The Star's net zero and Decarbonisation Plan
In December 2019, The Star set a target to achieve net zero Scope 1 and Scope 2 emissions by 2030 for wholly owned and operated assets. In 2021, the Group published its pathway to achieve net zero emissions by 2030 comprising energy avoidance and energy efficiency initiatives, Power Purchase Agreements for renewable energy up to 100%, electrification, refrigerant reduction, onsite solar/renewables where possible, and offsetting. Given the increased pressures on more rapid decarbonisation, the release of new protocols and green building standards and the Group's commitment to leadership in sustainability across the industry, the Group is taking further steps to plan for net zero before 2030 in its strategic planning and in the formation of its new ESG strategy. The pathway to net zero was supported by a cost and feasibility assessment and considered the availability and cost of carbon offsets in the future. It is comprised of the following: • Energy efficiency • 100% renewable electricity • Onsite renewables • Refrigerant phase out • Electrification and gas phase out • Offsets The Star is currently developing its decarbonisation activities and targets in order to meet its net zero objective by 2030 by implementing internal controls, considering electrification in strategic asset plans and has registered an Emissions Reduction Fund project to create carbon offsets for a portion of its emissions footprint.

Resource consumption boundary and assurance

The Star reports under the National Greenhouse and Energy Reporting ('NGER') Act 2007 for all facilities within The Star's operational control[9]. The Star reports on and receives assurance of the following metrics[10], for the year ended 30 June 2021:

- 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))
- Recycling rate (%)
- Water consumption (KL)

Roadmap to further alignment to the TCFD Recommended Disclosures

ACTIONS FOR THE STAR TO UNDERTAKE	RELEVANT TCFD DISCLOSURE(S)	TIMELINE
Disclose The Star's Scope 3 emissions.	MT1, MT2	FY23
The Star will finalise its net zero and decarbonisation plan	MT1, MT2	FY23
Investigate opportunities to roll out rainwater capture / harvesting across the portfolio of assets to reduce potable water requirements for cooling demand and reduce costs for operations.	MT3	FY23
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.	MT3	FY23+

[9] The Star's Basis of Preparation can be found on the company website: https://www.starentertainmentgroup.com.au/sustainability

[10] The Star's Assurance Report can be found on the company website: https://static1.squarespace.com/static/55f76728e4b0799db9586a8d/t/5f646426d9c41a5f9a3b38f7/1600414759682/FY2020+-+The+Star+Entertainment+Group+-+EY+Assurance+Opinion.pdf