

Sustainability

At Marina Bay Sands, sustainability lies at the heart of its business operations. Guided by its global sustainability strategy, Sands ECO360, the integrated resort incorporates best practices, cutting-edge technologies and methodologies to reduce its overall environmental impact.

Marina Bay Sands operates with the highest commitment to reduce its environmental impact, with goals in Climate Response, Recycling & Circularity, Water Stewardship, Sustainable Sourcing, Biodiversity and Culture & Capacity Building. It has an ambitious global commitment to the Science Based Targets Initiative pledging to reduce Las Vegas Sands' Greenhouse Gas (GHG) emissions by 17.5% by 2025.

Climate Response

- Since 2014, Marina Bay Sands has reduced its carbon footprint by 24.4 per cent.
- The integrated resort's S\$50 million Intelligent Building Management System has over 125,000 data points tracking lighting, heating, air-conditioning and water supplies. This system, along with other efficiency measures, has helped Marina Bay Sands save over 7.4 million kWh of energy annually since 2012.
- 90 per cent of Marina Bay Sands' property lighting (over 60,000 lights) are energy efficient.
- A 145 kWp solar power system sits atop the Sands SkyPark one of the highest locations of solar panels in Singapore. The 536 solar panels covering an area of 880 m² atop the SkyPark walkway produce approximately 150,000 kWh of solar energy annually, enough to power all lighting features on Sands SkyPark. This helps Marina Bay Sands save 55 tonnes of carbon emissions annually.

Water Stewardship

- Marina Bay Sands' water stewardship strategy focuses on conserving water through efficiency, increasing water reuse and recycling, and protecting water ecosystems that benefit the local environment. High-efficiency equipment and low-flow fixtures remain a core focus of its approach to reduce overall water use. In addition, the integrated resort drives behavioural change through Team Member training.
- Marina Bay Sands rolled out a condensate water recovery project in 2016 to collect and recycle water from 3,000 air-conditioning units across its three hotel towers. This saves an average of 77,000 litres of water a day over four times the average monthly water consumption of Housing and Development Board flats in Singapore. The recycled condensate water is used for water features around the property, exterior landscaping and to irrigate plants at the hotel. Since implementation, more than 200 million litres in water savings have been reaped from the condensate water recovery system.
- In 2021, Marina Bay Sands collaborated with three signature restaurants with the highest water intensity to adopt a multi-pronged approach of upgrading equipment and tools, Team Member education, and driving accountability by regularly sharing consumption data via a customised dashboard. This resulted in an average reduction in water consumption of 14.2%, and the behavior-based strategy has become a blueprint for water reduction at other restaurants.



- In collaboration with long-time partner, WASH Foundation, Las Vegas Sands launched the *Drop by Drop Project* in 2019. The project reinvests savings from Las Vegas Sands' water stewardship efforts into innovative projects supporting local water champions in Macao and Singapore. Funding from the project aims to increase local water resiliency, reinvigorate ecosystems, incubate new water solutions and engage the community.
- In 2021, Conservation International Singapore received a grant from the *Drop by Drop Project* to support the development of a five-part virtual learning series to boost ocean literacy and the understanding of biodiversity. The series has reached over 5,000 students in Singapore. In 2022, Marina Bay Sands extended the partnership to fund the '10 for Zero' Competition. The award recognises and empowers a pioneer cohort of 10 of Singapore's brightest youth advocating for a future of net zero carbon emissions and zero waste, as well as ocean and freshwater conservation.
- In 2023, Marina Bay Sands completed its Irrigation System upgrade, adding soil sensors to a stateof-the-art cloud-based system, ensuring plants are only watered when necessary. This progressive upgrade has saved 31 million litres of water over the past year.

Recycling and Circularity

- The property is guided by an E3R strategy Eliminate, Reuse, Replace and Recycle to tackle single-use plastic. The strategy involves identifying ways to eliminate plastic products and packaging, finding reusable alternatives, replacing single-use products with quality alternatives, and looking for ways to recycle even more. Examples include:
 - Umbrella dryers located at The Shoppes at Marina Bay Sands are expected to eliminate the use of over 27,000 plastic bags per year.
 - Marina Bay Sands has replaced plastic straws with paper biodegradable or compostable options across selected restaurants operated by the integrated resort.
 - In 2022, Marina Bay Sands launched a new Southeast Asian counter in its Team Dining Room. Historically, non-Muslim Team Members could only use disposables to enjoy Halal dishes. The removal of these disposables resulted in a cleaner food waste stream, leading to a higher percentage of post-consumer food waste being treated. This eliminated the use of over one million disposable plates and bowls annually.
 - Having embarked upon an extensive third-party analysis of potential packaging materials with an external thought leader and material engineer, Marina Bay Sands reviewed all its water packaging options. Recycled polyethylene terephthalate (rPET) was determined to be the most sustainable choice in Singapore at present beyond reusable serviceware. Hence, Marina Bay Sands has transitioned to rPET water bottles made from bottles collected and recycled in nearby Malaysia across the entire integrated resort. Using rPET bottles promotes circularity and bolsters demand for recycled plastics. Water dispensers are also installed throughout Sands Expo & Convention Centre to encourage guests to refill using their own bottles.
 - Secondary packaging was eliminated for amenities in the renovated hotel rooms, with highquality, multi-use materials used for in-room slippers and natural materials such as bamboo used for combs, razors, and toothbrushes.
 - Reusable laundry bags for Team Members were introduced in 2023, with the aim of eliminating 13,000 single-use plastic covers annually.
 - Over one million discarded chopsticks have been repurposed across the property including an industry-first, innovative menu cube with embedded QR codes and reusable dietary indicators at Sands Expo. Over 1,500 in-room wooden plaques were fabricated from chopsticks, allowing guests to indicate their preference for linen change in the hotel rooms.



- Since 2013, Marina Bay Sands diverted over 9.7 million kg of food waste from landfills.
- Food waste tracking technology is implemented at selected kitchens to help chefs measure, monitor
 and reduce food waste from the start at the food preparation phase. The property's five aerobic
 digesters break down remaining food waste into non-potable water, reducing waste to landfill. The
 integrated resort is also currently piloting a fully circular processing technology that converts food
 waste into insect or pet feed.
- Marina Bay Sands has established long-term partnerships with Food from the Heart and The Food Bank Singapore to donate unserved food to its beneficiaries. Between 2016 and 2023, over 51,000kg of food was donated to the wider community, benefiting those in nursing homes, family service centers, and soup kitchens.
- Lost and found items such as clothing and accessories that are not collected within 60 days are donated to Singapore Red Cross. Since 2018, over 50,000 kg of items were donated to Singapore Red Cross.
- Construction waste is dealt with responsibly, with 60 per cent of such waste being diverted in 2023, as the integrated resort undergoes a US1.75 billion reinvestment project to transform the property.

Biodiversity

- Since 2015, Marina Bay Sands has worked with the World Wide Fund for Nature Singapore (WWF) to improve responsible procurement within the integrated resort and transform its supply chain. Under the programme, Marina Bay Sands is supporting seven aquaculture farms and one fishery in Malaysia and Singapore in their journeys towards more sustainable farming practices. Since 2020, close to 50 per cent of Marina Bay Sands' seafood has been responsibly sourced. In 2023, the resort signed a new three-year partnership with WWF to evaluate the deforestation risks associated with agri-commodity products bought by the resort.
- In 2023, the integrated resort staged the Asian debut of Sensory Odyssey: Into the Heart of Our Living World at ArtScience Musuem, raising awareness of natural environments. A participating event was designed at the end of the exhibition, encouraging the public to paste paper leaves on a pledge wall, as the resort funded the planting of a mangrove tree in Sarawak. Together with WWF Singapore, Marina Bay Sands eventually donated \$\$90,000 and planted 20,000 mangrove trees in the largest mangrove forest in Sarawak.
- With over 150 plant species, Marina Bay Sands attracts many varieties of local wildlife including bee colonies. In 2023, an estimated 120,000 bees were rehomed, offering a chance for these bees to thrive again in nature.

Sustainable Food

- Marina Bay Sands sources from local producers and farmers. Locally grown produce such as kale
 and microcress are used in its culinary operations. Responsibly sourced seafood is also served at
 the integrated resort.
- The integrated resort has an on-property herb garden at Levels 4 and 5 of Sands Expo & Convention Centre that grows 30 different herbs such as spearmint, rosemary, basil, and turmeric. A trial of two mobile hydroponics displays started in 2023 at Sands Expo, showcasing live plants



and herbs. An average of 12kg of herbs from both sources are used in signature dishes and drinks prepared by the MICE banquet team every month. No chemical pesticides or fertilisers are used in the gardens and the displays, ensuring that the harvested produce is safe for consumption.

Culture and Capacity Building

- The integrated resort reviews its sustainability goals annually. A comprehensive sustainability Learning and Development framework guides the activities designed to deepen Team Members' sustainability knowledge. In 2023, 97.3 per cent of Team Members participated in at least one sustainability activity.
- The integrated resort's ArtScience Museum, which explores the intersection of art, science, culture
 and technology, has been a keen advocate of sustainability. The Museum collaborates with
 industry-leading partners such as National Geographic, Eco-Business, and WWF Singapore to
 stage exhibitions, programmes and educational activities to raise awareness of environmental
 threats such as climate change and biodiversity loss.

Key Sustainability Accolades

- March 2024 ArtScience Museum at Marina Bay Sands became the first museum in Asia Pacific
 to be awarded the LEED® (Leadership in Energy and Environmental Design) Platinum certification
 under the 'Building Operations & Maintenance: Existing Buildings' rating system, up from its
 previous Gold certification in 2018.
- October 2023 Marina Bay Sands received the inaugural Singapore Hotel Sustainability Award by the Singapore Hotel Association, in recognition of its sustainability efforts.
- February 2023 Marina Bay Sands became the largest hotel in Singapore to be certified to the Global Sustainable Tourism Council (GSTC) Industry Criteria for Hotels and Accommodations as a result of the integrated resort's continued efforts in implementing innovative sustainable solutions.
- May 2022 Marina Bay Sands achieved the Events Industry Council (EIC) Sustainable Event Standards for Venues Platinum certification, the highest rating possible, for its commitment to sustainable events and operations. This achievement is a milestone jump from its previous Gold certification in 2020 and a continued testament to the property's long-term commitment to environmental protection and sustainable events.
- May 2022 Marina Bay Sands was awarded the Special Award for Sustainability by the Singapore Tourism Board (STB) for being the first fully offset events venue in Singapore, leveraging smart technology in its operations to support sustainability, and for incorporating sustainability into its offerings and programmes.
- September 2020 Sands Expo became the first fully offset MICE venue in Singapore. Marina Bay Sands' investment in Renewable Energy Certificates (RECs) and carbon offsets covers 100 per cent of energy usage at Sands Expo and ArtScience Museum.
- June 2019 Sands Expo & Convention Centre achieved the LEED® (Leadership in Energy and Environmental Design) Platinum, a global symbol of sustainability recognition. Marina Bay Sands is the first integrated resort in Asia Pacific to attain this certification for its MICE venue.



- May 2019 Marina Bay Sands was recertified under the MICE Sustainability Certification programme (Intermediate Level for venue). As the first venue in Singapore to achieve this certification in 2016, the integrated resort went above and beyond the basic certification criteria with initiatives such as event impact statements and energy saving features at its venue.
- January 2018 Marina Bay Sands received the ASEAN Green Hotel Award 2018-2020 and the ASEAN MICE Venue Award 2018-2020 at the 2018 ASEAN Tourism Standards Awards, in recognition of its green MICE initiatives and contributions to sustainable tourism.
- 2018 Marina Bay Sands was recertified as a Green Mark Platinum building by the Building and Construction Authority.