

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 Energy, Waste, Water, Plastic & Packaging, Sustainable Sourcing, and Biodiversity. 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. Since 2012, the integrated resort has lowered its overall carbon footprint by over 50%, decoupling its environmental impact from business growth.

Climate Response

- Since 2012, Marina Bay Sands has reduced its carbon footprint by over 50 per cent.
- The integrated resort'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 lightings (over 60,000 lightings) 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 generate enough energy to power all lighting features on the Sands SkyPark. This helps Marina Bay Sands save 70 tonnes of carbon emissions annually.

Water

- 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 July 2016 to collect and recycle water from 4,000 air-conditioning units across its three hotel towers. This saves an average of 70,000 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, close to 160 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 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 February 2023, 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.

Waste 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:
 - o 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 or plant-based ones across selected restaurants operated by the integrated resort.
 - o 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.
 - 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.
- Since 2013, Marina Bay Sands diverted over 7.8 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 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 2020 and 2022, over 26,000kg 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 2019, over 10,000 kg of items were donated to Red Cross.

Sustainable Food

- In 2017, Marina Bay Sands announced a landmark partnership 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. Through this partnership, Marina Bay Sands is also transforming the Asia Pacific supply chain by funding research on artificial intelligence application for fisheries on the Great Barrier Reef and investigating aquaculture farming practices in Vietnam. Having banned shark fin in 2014 and red garoupa in 2017, Marina Bay Sands continues to receive consultation from sustainable fishery experts and conservationists on species to avoid and is expanding its traceability programme with DNA testing and product trackbacks.
- Marina Bay Sands sources from local producers and farmers. Locally-grown produce such as kale
 and microcress are used in its culinary operations. Responsibly-farmed local barramundi 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. These herbs are used in signature dishes and drinks prepared by the MICE banquet team. No chemical pesticides or fertilisers are used at the garden, 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 2022, 98.9 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

- 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 carbon neutral MICE 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 and Convention Centre became the first carbon neutral MICE venue
 in Singapore. Marina Bay Sands' investment in Renewable Energy Certificates (RECs) and carbon
 offsets covers 100 per cent of the carbon emissions generated from the meeting venue's gas and
 electricity consumption.
- June 2019 Sands Expo and 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.
- November 2018 ArtScience Museum at Marina Bay Sands was awarded the prestigious LEED® (Leadership in Energy and Environmental Design) Gold certification under the 'Existing Buildings: Operations & Maintenance' rating system, making it the first museum in Asia Pacific to be given this honour.
- 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.

^{*} The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is the nationally accepted benchmark for the design, construction and operation of high-performance green buildings in the United States