### MARINA BAY SANDS®

# 2013 Sustainability Highlights







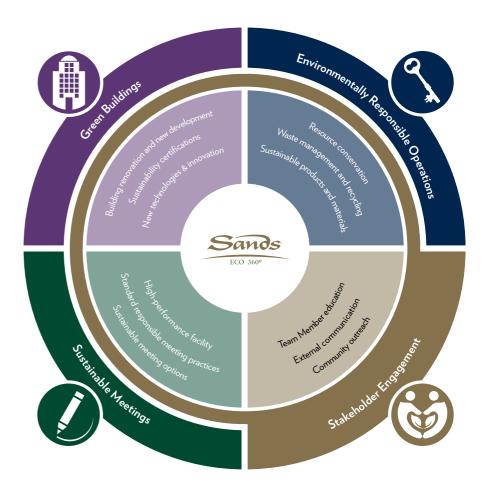
OVERVIEW GOVERNANCE GREEN BUILDINGS ENERGY WASTE MANAGEMENT PURCHASING GREEN MEETINGS

## Sands ECO360

Our ECO360 strategy is determined at a global level by Las Vegas Sands. The strategy is based on the issues identified as most important to our business, to stakeholders and society. The issues pertaining to our Sands ECO360 strategy are monitored through regular interaction with internal and external stakeholders across the business globally.

"A strong sustainability governance system and a commitment to train and engage Team Members has been essential for us to embed sustainable business practices into our operations. We are committed to upgrading our property with sustainability improvements, offer sustainable business solutions, engage key stakeholders and ensure that we constantly strive for sustainable business operations. We are an active contributor to the movement for corporate responsibility in Singapore and strive to enable the achievement of the Singapore Sustainable Blueprint."

Mr. Kevin Teng Executive Director, Sustainability





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#### Our Key Guiding Principles

#### Resource Management and Conservation

We are dedicated to the preservation of the environment and conservation of natural resources.

#### Business Integration

We will integrate environmentally sustainable and socially responsible practices into our daily business activities and with our supply chain.

#### Community Engagement

We are committed to actively participating in community and government sustainability initiatives, including supporting local employment and procuring local products and services.

#### Team Members

We are dedicated to providing a safe, healthy and environmentally-friendly workplace that

promotes diverse recruiting, and developing of individuals of all ages, cultural and racial backgrounds, and religious beliefs.

#### Reporting and Inclusivity

We will continuously strive to improve the measurement and transparent reporting of our sustainability performance, and create an inclusive dialogue with our stakeholders to consider their input.

#### Compliance

We promote responsible business conduct that upholds regulatory requirements and values cultural differences, and demonstrates best practices where formal legislation is not in place.

#### How We Manage Sands ECO360

Our Global Governance Structure

Las Vegas Sands President and Chief Operating Officer

Las Vegas Sands Sr. Vice President & Sustainability Officer

> Global Sustainability Department

Our Local Governance Structure



#### Engaging Team Members

Team Members are our most important stakeholder and their passion and involvement is responsible for the successful integration of Sands ECO360 into our daily operations. Our long-term goal is to make sustainability an integral part of our corporate culture by increasing awareness and understancing of sustainability among Team Members. The first official sustainability event for Team Members started in May 2012 and we have continued to host Sands ECO360 events 2-3 times every quarter.

Thank you to our Team Members for their enthusiastic participation in ou campaigns throughout 2013!



#### Beyond Earth Hou

Marina Bay Sands has a company-wide education programme to raise awareness of sustainability and encourage environmentally-friendly behaviour. Launched in February 2012, the programme includes paper reduction challenges, recycling drives, switch off-the-light campaigns and home tips for energy efficient practices.

Marina Bay Sands also participates in Earth Hour, an annual worldwide event organised by the World Wide Fund for Nature (WWF). The campaign encourages consumers from around the world to turn off non-essential lights for one hour.

Retailers joined Marina Bay Sands in switching off non-essential façade and outdoor lighting during Earth Hour 2013. Marina Bay Sands engaged over 4,000 Team Members. The challenges ranged from reducing energy consumption, food wastage to taking public transport to work.

#### Green Buildings

The LVS Global Sustainable Development Standards were launched in 2013 to provide sustainable project requirements for the development of new resorts and the renovation of existing properties. The standards are based on Leadership in Energy and Environmental Design (LEED) and Green Mark (GM) principles, including energy and water efficiency, indoor environmental quality, sustainable materials, and waste management. We also incorporated our global best practices such as comprehensive lighting standards, advanced loading dock environmental provisions, as well as back-of-house and front-of-house upstream recycling guidelines. We considered everything from energy efficient light bulbs and cooling systems to low Volatile Organic Compound paints and integrated room controls in our property.

#### Water Conservation

Based on an audit of water consumption in 2012, we identified conservation opportunities and in 2013 completed 85% of our rectification plans. Despite significant business growth, our water consumption has decreased by 2%. We face the challenge of reducing our water consumption further as most plumbing fixtures are already "low flow" – over 90.7% of our plumbing fixtures are high efficiency (3- or 4-tick) under the Singapore Green Labelling Scheme. We encourage our guests to reduce their water consumption and further developed a continuous water reduction plan with measures that will be implemented in 2014-2015.



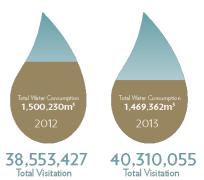
Delayed-action, self-closing taps and constant flow regulators are installed in bathrooms to minimise water usage, reducing water consumption by more than 350,000 m<sup>3</sup> of potable water annually.



Water reduction from 2012 = 30,000 m<sup>3</sup> equivalent to the monthly supply for 1.600 4-room flats.



Rainwater is harvested on the roof of the ArtScience Museum for the flush water toilet systems.



Third party certification is important to us because it gives confidence to our guests and Team Members that Marina Bay Sands meets international building performances by achieving higher level



FarthCheck

Singapore Building **Construction Authority** 2013: Green Mark Gold

#### Public Utilities Board Certified

In 2011, the Public Utilities Board (PUB) certified Marina Bay Sands with "Water Efficient Building (Basic)" for our water conservation efforts. We aim to achieve "Water Efficient Building (Gold)" certification by 2014.

EarthCheck is an internationally recognised environmental management system that evaluates economic, social and environ-

The BCA Green Mark Scheme was launched in January 2005 by Singapore's Building Construction Authority (BCA) as a



Property-wide reduction from 2012 = 16,000 MWh, a 10% reduction in carbon footprint

### Energy

At the end of 2012, we developed an understanding of the energy usage in our operations. In 2013, our goal was to establish and implement a 3-year energy improvement plan (2013-2015) to reduce energy consumption through 140 facility improvement measures. The 3-year energy improvement plan is an ongoing effort and we will continue to reduce our energy consumption to achieve our target of a 12% reduction by the end of 2015.



## Energy Saving Case Study in MICE\*

With over 240 meeting rooms and 75,074 sq. metres of exhibition halls, energy management is critical to ensuring both optimal guest comfort and efficient resource usage. As a result, we transitioned all of our lighting and cooling systems from traditional building management systems to cutting edge automated technology. This included pioneering in Singapore a customised technology to interface our event booking software with the building controls such that air conditioning loads adjust real-time based on individual rooms' event schedules. In addition, we installed occupancy sensors in our meeting rooms to precisely control lighting levels.

**9%** 2013: 54,540mWh 2012: 60,046mWh

The actions taken in the above case study are a contributing factor in a 9% total energy reduction in MICE by the end of 2013.

\*MICE is the acronym used to define the operation of Meetings, Incentive Conventions and Exhibitions

#### Energy Upgrade

We undertook a 'Re-Commissioning and Energy Upgrades' project over the past 18 months with a focus on reducing the energy consumption of our air conditioning systems. As a result facility improvement measures have been implemented that optimise the performance and operation of the air conditioning systems.

We estimate that the energy reduction from the implemented measures is approximately 48 million kWh of electricity per year or 33,600 metric tons of carbon dioxide. This amount of energy and carbon reduction can be stated equivalently as the following [graphic right]:

Wade H. Conlan
Principal
exp U.S. Services Inc.



-or-



The power consumed by 7,150 homes in Singapore with an average size of 110 m<sup>2</sup>

\_or\_



The consumption of 78.150 barrels of oil



"Sands ECO360 has inspired and led to so many concrete, sustainable actions across our property; such as our own herb garden; food waste digesters which reduce our environmental impact; and our purchasing guidelines that ensuring that vendors procure from sustainable sources. I am so honoured to have the opportunity to shape our sustainable business operations, and every single action will contribute to protecting our planet and future generations."

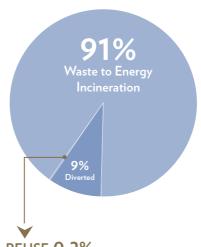
Mr. Benny Zin Chief Operating Officer, Marina Bay Sands



#### Waste Management

We manage our waste by focusing our 3R (reduce, reuse and recycle) efforts on three key aspects – measuring waste and recyclables; educating our guests and Team Members; and adopting the latest waste diversion technology. In 2012, we developed a waste management improvement plan that targeted to improve our property recycling rate by 10% from a 2011 baseline by the end of 2015.

By August 2013, we had successfully implemented a comprehensive system to measure our general waste and more than 10 types of other waste/recyclable streams including paper, plastic, cardboard, aluminium, glass, cooking oil, horticulture waste, batteries, AV equipment, light bulbs, linens, food waste and A&A (Additions & Alterations) construction waste.



**REUSE 0.2%** 

Food, soap, and other donations

#### **RECYCLE 97.4%**

Cooking oil, linen, bulbs, glass, wood, paper, cardboard, metal, plastic, playing cards, and horticulture

RECOVER 0.7% (Food digesters)
Food

#### **DISTRIBUTION 1.7%**

Assets re-distributed within MBS or given to Team Members

The above graph reflects data from August - December 2013.



One of two food digesters on property



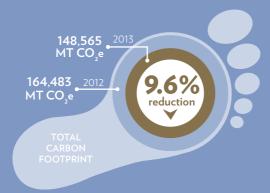
Recycling bins across the property



#### Total Emissions

Our total emissions figure was derived using the GHG protocol, which classifies emission by source and verified by Trucost, and independent third party.

We have included scop 1 and 2 emissions.



#### Our 'No Shark's Fin' Policy

We implemented a 'Shark's Fin Free Plan' in October 2013, removing Sharks Fin from all menus from our owned outlets and moving forward we are committed to not purchasing shark's fin for new clients. Team Members were educated through training and on property collaterals. Our contracted clients who have selected shark fin for their upcoming event prior to our "Shark's Fin Free Plan" received a formal letter encouraging them to switch to alternatives for their menu.

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#### Sustainable Purchasing

2013 was a milestone year for our procurement and supply chain practices. We standardised global reporting based on our Sustainable Procurement Policy (SPP) which follows LEED (Leadership in Energy and Environmental Design) and SGLS (Singapore Green Labelling Standards) criteria. The SPP contains clearly defined criteria for nine product categories that should be sourced locally. We worked with suppliers to collect environmental information and sustainability certification for their products to evaluate compliance against these new standards.

"In all honesty without the MBS project we wouldn't have been able to grow so fast as a social enterprise. The project and the maintenance in particular has helped us extend our team so that we can work on our social goals and the social part of our business such as supporting the boys home and other charities. Having MBS as a client has also made it much easier for us when speaking to developers and other institutions."

Bjorn Low Farmer, Edible Gardens

31% of purchases across 9 product categories meet SPP criteria





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#### Sustainable Meetings

Our ECO360 Meetings programme was launched in 2013 in accordance with our own global best practices and the Singapore Sustainable Meeting standards. With the ECO360 Meetings programme, we are able to provide clients with responsible meeting practices as part of our standard services at no additional cost. Our customisable programme offers additional options which can help clients meet their event's specific sustainability priorities.



- **1** Waste minimisation efforts offered including a zero waste component to your event. Recycling opportunities offered where possible.
- **2** Our Green Harvest Menus offer sustainable food and beverage options sourced locally or regionally to reduce food miles and lower the emission of greenhouse gases during transportation.
- **3** A dedicated service Team Member who helps clients coordinate all aspects of their sustainable meeting.
- **4** Sub-metering of MICE floors allows organisers to effectively track energy usage across specific event spaces.
- **5** Meeting room set-ups that help to reduce the impact of your event while communicating the sustainable goals of your event.
- **6** The Event Impact Statement provides a comprehensive report covering energy and water consumption, recycling rate, carbon emissions and the highlights of sustainable initiatives. A credible tool to report the results to event attendees and other stakeholder groups.



#### Responsible Business Forum

The issues identified for the Responsible Business Forum (RBF) were carbon emissions, perceived scarcity of local food, potential waste from stage set production, delegate communication, catering and materials and high energy demand. The RBF team worked with us to reduce the carbon footprint and contribute to the local community via Sands ECO360 and Sands for Singapore. The event produced 249.3 tonnes of  $CO_2$  equivalent with 96% attributed to emissions from

air travel and 4% from the venue. The RBF team offset SGD16,000, split equally into two projects in the region additionally with 88% of the total waste generated being diverted from landfills through recycling and converting food waste to energy. All of our suppliers signed our policy to support the sustainability programme and four key suppliers provided energy consumption data tracked using a metering system. Other efforts included minimising electricity consumption, eliminating bottle water use, removing pre-set water, paper and mints from tables, the use of mobile applications for event information, offering locally and regionally sourced vegetarian harvest menus, providing recycling options and encouraging attendees to participate in the "Soap-for-Hope" activity.

Source: Responsible Business Forum Sustainability Report 2013

#### Event Sustainability Management & Global Standards



We chose ISO 20121 as an evaluation framework to further integrate sustainability into our operations. ISO 20121 is an international standard which specifies the requirements for organisations who wish to implement, maintain and improve an event sustainability management system.



In 2013, we were the first building outside of the United States to achieve the APEX/ASTM Venue Level One certification. The APEX/ASTM is a standard for environmentally sustainable meetings created through a partnership of the Convention Industry Council's APEX initiative and ASTM international.

The 2nd Responsible Business Forum on Sustainable Development has been recognised as one of the world's greenest and most sustainably-produced events in 2013 and this was largely due to the industry leading commitment of our host venue and sustainability partner, Marina Bay Sands."

### Contact Us

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Online: www.marinabaysands.com/sustainability

or for more details, download our annual sustainability report at

sands.com/sands-eco-360/our-strategy.html





