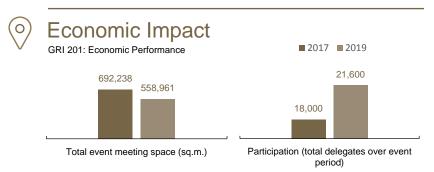
# Marina Bay Sands | Singapore

ECO360 MEETING IMPACT STATEMENT

CLIENT NAME: Sample Association
EVENT NAME: World Sample Congress

**EVENT TYPE: Conference** 

**EVENT DATES: 11 – 21 January 2019** 





## Social Impact

Health & Air Quality

Designated smoke free venue

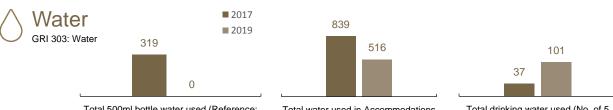
### Labour Rights

Employees covered by the Ministry of Manpower Employment Act



## **GHG Emissions**

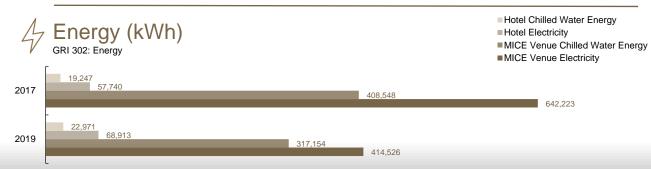




Total 500ml bottle water used (Reference: Similar size event used 7,500 bottles)

Total water used in Accommodations (m3)\*\*

Total drinking water used (No. of 5 gallon Water Barrels)



<sup>1</sup> Please note that to compensate for potential inaccuracies a 5% buffer has been added to the total.

<sup>2</sup> Estimate based on the latest EarthCheck data

# Marina Bay Sands | Singapore

ECO360 MEETING IMPACT STATEMENT

**CLIENT NAME: Sample Association** 

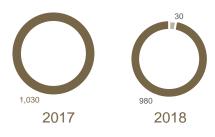
**EVENT NAME: World Sample Congress 2019** 

**EVENT TYPE:** Conference

**EVENT DATES: 11 – 21 January 2019** 



## Food & Beverage



Harvest meals

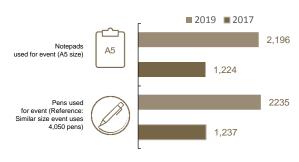
Non-harvest meals

Harvest menu ingredients are sourced locally within 400km

# $\bigcirc$

# Paper & Materials Usage

GRI 301: Materials



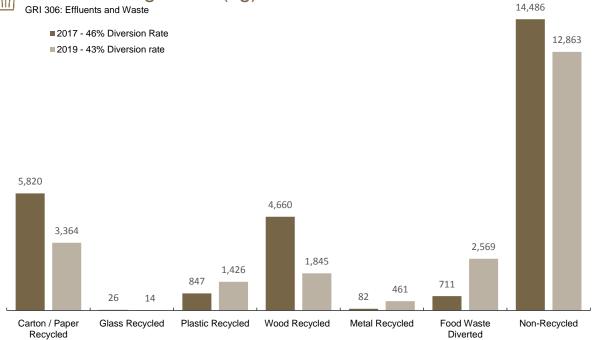


 $100\% \hspace{0.2cm} \text{of materials used that are} \\ \text{recycled input materials (notepads, flipcharts)}$ 

Paper type is: 80gsm wood-free FSC Paper

# m

## Waste Management (kg)



# Marina Bay Sands | Singapore

ECO360 MEETING IMPACT STATEMEN

**CLIENT NAME: Sample Association** 

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**EVENT TYPE: Conference** 

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### Assumptions for Calculations

#### **CONFERENCE CENTRE**

- 1. Total sq meters used for calculation includes meeting rooms, conference space and corridor spaces.
- 2. Objective of the calculation is to obtain incremental energy and water use occurring during the event.
- 3. Prefunction area utility usage is included in the calculation.
- 4. Total water usage also includes chilled and hot water consumption delivered from an offsite resource.
- 5. Sorting and recycling for the Marina Bay Sands Convention Centre takes place off-site and the recycling rate is provided by a recycling/composting vendor.

#### HOTFI

- 1. Per room energy and water use is based on a standard Marina Bay Sands room and latest EarthCheck data as of 2015.
- 2. Marina Bay Sands waste is pre-sorted at the recycling dock and further sorting takes place at an off-site facility.
- 3. Recycling rate is obtained from the recycling vendor and is prorated based on the conference guest occupancy.

### Factors Used for CO<sub>2</sub> Equivalent Emissions Calculation

#### **ELECTRICITY**

- 1. A grid emission factor of 0.000355 metric tons CO<sub>2</sub>/kWh was used and is based on the direct Emissions Factor from the vendor.
- 2. Note that baseload emissions (emissions from power plants that run all the time) are not considered.
- 3. A conversion factor of 0.21 was used to convert kWrh to kWh.

### **NATURAL GAS**

- Emission Factor of 0.005 metric tons CO<sub>2</sub>/therm is obtained from EPA.
- 2. Note that this is the CO<sub>2</sub> equivalency for natural gas burned as a fuel, not natural gas released to the atmosphere.
- 3. Direct methane emissions released to the atmosphere (without burning) are about 21 times more powerful than CO<sub>2</sub> in terms of global warming effect on the atmosphere.

#### RECYCLING

1. Emission factors from EPA's Waste Reduction Model (WARM) are used: 2.87 metric tons CO<sub>2</sub>E/ton of waste recycled instead of landfilled.

### SUMMARY OF CONVERSION METRICS

- 1. 0.005 metric tons CO<sub>2</sub>/therm
- 2. 0.000355 metric tons CO<sub>2</sub>/kWh
- 3. 2.87 metric tons CO<sub>2</sub>E/ton of waste recycled instead of landfilled
- 4. 0.00892 metric tons CO<sub>2</sub>/gallon of gasoline
- 5. 5.1 metric tons CO<sub>2</sub>E/vehicle/year

### Marina Bay Sands Sustainable Certifications











Note: "The Marina Bay Sands ECO360 Meetings Impact Statement ("Data") is provided to end users on an "as is" basis. Marina Bay Sands Pte Ltd and any other third party as may be involved in or related to the making or compiling of any part of the Data make no representations or warranties of originality, accuracy, timeliness, completeness, non-infringement, merchantability and fitness for any particular purpose. Each user of the Data assumes the entire risk of any use the end user may make of the Data. In no event shall Marina Bay Sands Pte Ltd and any other third party as may be involved in or related to the making or compiling of any part of the Data, be liable to the end user, or any other person, for any direct or indirect damages, including, without limitation, any lost profits, lost savings or other incidental or consequential damages arising out of this agreement or the use/inability to use such Data for any purpose."