

# SANDS ECO360

Experience  
sustainable  
events

THE ART OF DESIGN EXCELLENCE  
Intelligent engineering  
in action

UNFORGETTABLE EVENINGS  
Sustainability meets  
the runway

SCIENCE-BASED TARGETS  
Driving revenue growth  
while cutting carbon



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ArtScience Museum, Marina Bay Sands

# Experience sustainable events

The sun has set, and a crowd begins to gather in the heart of Singapore's Marina Bay. Festivalgoers are surrounded by an array of animated colors that bounce off countless exhibitions scattered along the promenade. Passing through a tunnel of spiraled lights, onlookers find themselves standing in front of the largest and most exuberant creation at the event. The lotus flower-shaped façade of the ArtScience Museum has been transformed into a glowing art projection, depicting nature in digital form onto the exterior of the building.

For only a few nights each year, the ArtScience Museum lights up for i Light, Asia's leading sustainable art festival. The event convenes artists, environmentalists, and spectators alike to celebrate sustainable lifestyles and energy conservation.



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# WELCOME

## FROM OUR CHAIRMAN

We are pleased to present our 2018 Sands ECO360 report, which marks the halfway point toward our 2020 sustainability goals.

This year was one of milestones and achievements for Las Vegas Sands. As we reflect on our journey and look toward the future, we envision building momentum on the foundation we've created. Our four pillars – Green Buildings, Environmentally Responsible Operations, Green Meetings and Events, and Stakeholder Engagement – anchor our Sands ECO360 strategy as we continue to evolve the program to focus on the most relevant environmental issues.

The iconic ArtScience Museum at Marina Bay Sands became the first known museum in the Asia-Pacific region to achieve LEED® certification and serves as both a platform for sustainability and an exceptional model of responsible operations. The Parisian Macao also achieved LEED® Silver for Building Design and Construction, making it the first building in Macao to obtain this certification.

Our program was once again recognized by leading environmental, social, and governance (ESG) indices that rank the world's largest companies on sustainability performance. Of the 7,000 companies participating, we were one of only 20 to achieve CDP's A List for both Climate Change and Water Security. We were also

recognized by the Dow Jones Sustainability Index, which considers various performance indicators including supply chain standards, labor practices, risk management, and ethical operations. Lastly, Sands China Ltd. was recognized by FTSE4Good, an ethical investment index series that also measures ESG performance.

At the beginning of our five-year cycle, we set science-based emission reduction targets intended to future-proof business growth. Our resort operations target requires a reduction in greenhouse gas emissions of 6% from our baseline in addition to conserving enough power to compensate for the entire energy consumption of newly opened resorts, including The Parisian Macao and The St. Regis Macao. Although we are only halfway through the five-year timeframe set to meet this goal, we have already achieved 97% completion. In parallel, our business has continued to grow, showing a 17.5% increase in net revenues since 2015. Our efforts indicate that it is possible to decouple business growth from environmental impact.

The persistent efforts of our sustainability teams, engineers, and facility operations have helped us to achieve such sizable carbon reductions. This year we implemented 38 energy efficiency projects that are expected to save more than 48 million kilowatt-hours of electricity annually. Our Team Members' individual actions have also contributed to the continued success of our sustainability program. In 2018, we



completed 252,933 Sands ECO360 actions to protect the environment, bringing us three quarters of the way toward meeting our 1 million actions goal by 2020.

As we look toward the future, we are motivated to continue advancing on our goals and to take on new challenges as they emerge.

### SHELDON G. ADELSON

Chairman of the Board and Chief Executive Officer and Treasurer, Las Vegas Sands Corp.

# SANDS ECO360 STRATEGY

We are constantly evolving our strategy to adapt to emerging trends, support new business opportunities, and foster environmental stewardship. Our recently adjusted approach narrows in on six key themes: energy, transportation, water, waste, food, and procurement. We mindfully address each theme within the four pillars of the Sands ECO360 program to ensure our initiatives span the full scale of the company's operations.



## Energy

### ENERGY EFFICIENCY

Design buildings that conserve electricity and deploy new technologies to reduce energy consumption.

### RENEWABLE ENERGY

Seek out renewable energy solutions, including onsite solar thermal and solar photovoltaic systems.



## Transportation

### FERRIES

Explore advanced technologies and increase fuel economy standards for our ferry fleet.

### BUSES

Optimize routes and utilize alternative fuel sources to decrease emissions.



## Water

### WATER EFFICIENCY

Upgrade fixtures and systems, enact water conservation policies, and encourage sensible water usage.

### WATER REUSE

Source non-potable water and harvest rain and condensate water for landscaping, restrooms, cooling towers, and other uses.



Sands  
ECO  
GLOBAL SUSTAINABILITY

# Key Theme Assessment

Identifying the right approach to incorporating relevant topics into a sustainability strategy is unique to each company. For us, considering criteria such as environmental impact, stakeholder relevance, risk, innovation, transparency, awareness building, and alignment with the existing strategy helped us prioritize the initiatives that matter the most.



nds  
360  
AINABILITY



## CONSTRUCTION WASTE

Responsibly handle construction waste from new developments, remodels, and renovations.



## Waste



## FOOD WASTE

Tackle one of our largest waste streams through reduction, donation, and diversion.

## ZERO WASTE EVENTS

Host and support green events that actively target high recycling rates.



## Food



## SUSTAINABLE FOOD

Incorporate efficiency into kitchen design, source eco-friendly ingredients, and provide sustainable cuisine in restaurant menus.



## Procurement



## SUSTAINABLE PRODUCTS

Address diverse product categories to procure sustainable items that are better for the environment and human health.

## PLASTIC REDUCTION

Eliminate plastic products where possible or replace them with eco-friendly alternatives.

# THE SECRET LIFE OF WASTE

Waste is an unseen part of the hospitality industry, but nevertheless an important sustainability issue that we are working to address throughout our business.

When products are thrown away, our Team Members and partners recapture as many of those resources as possible behind the scenes to give them a second life.

## GREEN BUILDINGS

### Key to building up resort recycling

We rely on our internal Sustainable Development Standards to combine leading environmental building practices from respected standards, such as LEED, with our expertise in resort design, construction, and operations. Waste minimization is a key theme embedded into these standards to guide our processes. We create our properties to have state-of-the-art waste management docks equipped with the newest recycling technology and designed to handle standard and specialty recyclables like food waste, cooking oil, and accidentally thrown-away utensils and glasses. During construction, we ensure building materials such as concrete and carpet are recycled. When remodeling our resorts, we offer gently used furniture to our Team Members at nominal prices.

## GREEN MEETINGS & EVENTS

### More than meets the eye

The large-scale conferences, meetings, and special events that we host take months to plan and a concerted effort to carry out. In addition to these resources, we must also consider the waste we generate and the various items that thousands of exhibitors and attendees bring to our properties every year. Pop-up booths, program flyers, visual displays, and decorative props are just some of the unique products we repurpose or recycle once our visitors have left. By tackling one waste category at a time, we are inching toward making zero-waste events standard practice at our meeting venues.



# Hidden in plain sight

Seemingly simple traditional recycling systems no longer function as they used to. New waste legislation in Asian countries, along with the growing complexity of waste streams, is challenging consumers and recyclers all over the world to find solutions. Upstream, truly sustainable product alternatives often come with tradeoffs and compromises. Looking toward the future, a circular economy system can help us reinvent the way we think about and use resources.



## ENVIRONMENTALLY RESPONSIBLE OPERATIONS

### Solving food waste puzzles

Our resorts operate like mini cities, offering a range of services and experiences to our guests, from theater shows to fine dining and entertainment. We are continuously looking for ways to lower our waste footprint, not only through reducing, reusing, and recycling but also by leveraging behavioral science to change the habits that lead to waste generation in the first place. This year, we made it a priority to untangle the complexities of one of our largest operational waste streams, food waste. We doubled down on tracking and measuring our food waste to create more reliable baselines, streamlined kitchen inventory management to reduce over-buying, and even piloted new trays in our Team Member dining rooms to encourage portion control.



ENVIRONMENTALLY RESPONSIBLE OPERATIONS



STAKEHOLDER ENGAGEMENT



## STAKEHOLDER ENGAGEMENT

### Unlocking opportunities for waste action

What happens to a paper coffee cup, plastic straw, or disposable utensil once it has served its purpose? These are the conversations we are having with our restaurants, internal departments, decision makers, and more than 50,000 Team Members globally. Empowering individuals with knowledge through campaigns and activities is helping us drive change. We hired a recycling coordinator at The Venetian Resort Las Vegas, who focuses on educating more than 50 restaurants, shops, and retail stores throughout the resort on waste diversion and recycling best practices. To fully realize the potential of our internal Green Ideas crowdsourcing challenge, we implemented the winning Team Member's proposal to donate gently used suite items such as mirrors, hair dryers, and desk chairs to a local charity.



DEVELOPING

# GREEN BUILDINGS

Exceptional guest experiences start with design excellence and intelligent engineering. From ideation to construction, we create spaces that look beautiful while conserving natural resources.

As an Integrated Resort developer and operator, the way we build and run our properties matters to our business, the local community, and the environment. We leverage each initiative, from LED lighting to LEED certification, to create a foundation for sustainable operations.

Developed by the U.S. Green Building Council (USGBC), Leadership in Energy and Environmental Design (LEED) is an industry-leading rating system for the design, construction, and operation of high-performance green buildings. Our latest attainment of LEED Gold for Existing Buildings: Operations and Maintenance, for the iconic ArtScience Museum (ASM) at Marina Bay Sands, is a testament to both sustainable innovation and integrated environmentally sound practices.

## MERGING ARCHITECTURE AND ECOSYSTEM

ASM's lotus flower petals serve not only as an aesthetic architectural statement, but also as a rainwater capturing system, collecting about 100,000 gallons each year. The water is used to fill the outdoor lily pond and for flushing in restrooms, reducing our reliance on potable water.

## SHOWCASING INNOVATIVE ENERGY MEASURES

Unique museum exhibits require special cooling and humidity levels to preserve valuable artifacts. Despite these distinct requirements, the ASM structure is 47% more energy efficient than comparable building types. Optimized building systems and programmable lighting adjust throughout the day, only using energy when needed.

## REUSING RESOURCES RESPONSIBLY

We've carved out unique opportunities to collaborate with museum occupants on waste and circular economy solutions. Together with the onsite cafe, we collect coffee grounds and send them to a local supplier for mushroom growing. Partnerships like these, along with community and Team Member education, help us recycle more than half of all operational waste each year.





## HOSTING SUSTAINABLE EVENTS AND ENGAGING THE COMMUNITY

The ArtScience Museum serves as a platform for sustainability, by inviting the community to explore the nexus of art, science, and technology through careful curation of environmentally focused showcases, immersive art exhibits, and inspirational lectures.

49

Environmental films showcased at Singapore Eco Film Festival from 2016 to 2018

5<sup>th</sup>

Year as an i Light partner and sponsor

### ASM LIGHTS UP FOR SUSTAINABILITY

A vibrant display of illuminated art installations, crafted with LEDs and environmentally friendly materials, sets the Singapore skyline aglow each year during the i Light Singapore festival to encourage festivalgoers and the general public to adopt sustainable habits in their everyday lives. The ASM is a highlight of the event, offering a perfect canvas for renowned projection-mapping artists to showcase their creations on the façade and carry the message of sustainability into the community.

### ART AND SCIENCE ON SCREEN

Discovering nature through moving image, video, and film, ASM's rolling theater program includes solo showcases, creative documentaries, and local and international artists. The annual Singapore Eco Film Festival brings together inspirational environmental advocacy groups and storytellers to celebrate the planet. This year, the community and Team Members enjoyed 10 acclaimed eco-themed documentary films that explored topics ranging from primates in Tanzania, ocean health, and sustainable diets.



“Achieving LEED certification is more than implementing sustainable practices. It represents a commitment to making the world a better place and influencing others to do better.”

MAHESH RAMANUJAM,  
PRESIDENT AND CEO, USGBC



**RUNNING**

# ENVIRONMENTALLY RESPONSIBLE OPERATIONS

**2016–2018**  
REDUCTION EQUIVALENT TO THE ANNUAL  
EMISSIONS FOOTPRINT OF:



**Energy consumption is one of the most visible and relevant environmental impacts of our operations. Setting bold science-based targets is helping us drive carbon reductions globally.**

When the time came to refresh our sustainability strategy and establish new environmental targets for the 2016–2020 cycle, we leveraged strong, recognized methodologies to guide and inspire our program. We assessed international sustainability frameworks and decided to align our greenhouse gas (GHG) emissions reduction goals with the Science Based Targets initiative, a strong indicator of our commitment to energy efficiency.

Our goals are nothing short of ambitious given the headway made in previous years, our expected business growth, and external factors such as changes in weather patterns. For resort operations, our validated science-based targets (SBTs) mean that in addition to reducing our carbon footprint by 6%, we must also conserve enough energy to offset newly opened resorts.

We are making tremendous progress decoupling our GHG emissions from business growth. Since 2015 we have increased our net revenues by 17.5% and opened two new resorts, yet we have reduced our GHG emissions by more than 162,000 tons of CO<sub>2</sub>e. This reduction is equivalent to the GHG emissions from our two newly opened resorts, in addition to a 5.8% reduction from our baseline.

Since our first 2010 baseline, we have reduced absolute GHG emissions enough to compensate for 100% of the annual footprint of The Venetian Resort Las Vegas, The Parisian Macao, and The St. Regis Macao, as well as 48% of Marina Bay Sands.



**2011-2015**  
 REDUCTION EQUIVALENT TO THE ANNUAL  
 EMISSIONS FOOTPRINT OF:

THE VENETIAN RESORT  
 LAS VEGAS  
 (100%)



A MACAO THE VENETIAN MACAO

THE VENETIAN RESORT LAS VEGAS

SANDS CASINO RESORT BETHLEHEM



**MILLIONS OF LED  
 LIGHTS**

Transitioning to LED lighting requires significant testing and engagement with internal departments to ensure we maintain the desired ambience for our guests. Despite this challenge, our properties in Macao have reached 98% LED lighting in 2018, while our other properties are well on their way.



**COOKING UP  
 SUSTAINABILITY IN  
 OUR KITCHENS**

While chefs are preparing delicious meals for our guests, they don't have time to balance airflow and optimize kitchen energy consumption. We've installed ventilation technologies in The Parisian Macao and Marina Bay Sands that automatically switch on when needed, preventing the escape of cool air. Four hoods, newly installed this year, are expected to save 830,000 kilowatt-hours of electricity annually.



**ARTIFICIAL  
 INTELLIGENCE FOR  
 ENERGY EFFICIENCY**

Our teams are harnessing the power of big data and machine learning to fast-track the detection and remediation of building issues, such as overcooled meeting spaces or lighting in empty rooms. The smart systems relay information to our engineers, who can then quickly optimize performance.

# GREEN MEETINGS AND EVENTS

Shaping modern gatherings means going beyond coordination to curate meaningful meetings with environment, wellness, and community in mind. Inspired by a vision for a sustainable future, we create holistic solutions for groups of all kinds.

## Sands ECO360 Program 2018

Finding purpose in meetings and events

### TRACKS

#### ENVIRONMENT

Considering the planet from **planning to participating**. Hosting events in our highly efficient venues coupled with customized sustainability initiatives takes encounters from good to green and beyond.

#### WELLNESS

Staying happy, healthy, and **productive**. Between sessions, attendees can revitalize mind and body with resort amenities and carefully chosen invigorating activities.

#### COMMUNITY

Connecting people with **purpose and inspiration**. Bringing our non-profit partners and event organizers together to support local charities and create lasting memories for guests.

### AGENDA

8 AM - 10 AM

#### MARINA BAY SANDS

#### ENVIRONMENT

### Green Meeting Concierges – Advising Clients on Eco Initiatives

End-to-end sustainability planning captured our client's environmental aspirations and included initiatives like earth-friendly menus, plastics reduction, and badge take-back programs. With support from our Green Meeting Concierge services, 3,200 attendees were able to attend our most sustainable meeting to date, Schneider Electric's 2018 Innovation Summit.

10 AM - 11 AM

#### LAS VEGAS SANDS CORP.

### Coffee Break

Fuel up with Fairtrade, Smithsonian Bird Friendly, and Rainforest Alliance-certified coffee and tea.

11 AM - NOON

#### LAS VEGAS SANDS CORP.

#### WELLNESS

### Blending Productivity and Relaxation in our Connected World

In a fast-paced and digital era, attendees want to recharge while meeting up. We partner with planners to curate spa, beauty, and fitness amenities alongside meeting mediation rooms, yoga sessions, and morning runs – helping attendees maintain vitality and balance while traveling.

NOON - 2 PM

#### THE VENETIAN RESORT LAS VEGAS

#### ENVIRONMENT

#### WELLNESS

### Lunch and Learn: Catering to the Modern Culinary Mindset

The way meeting planners evaluate food and beverage options has quickly evolved, as people increasingly crave healthy and flavorful menu options. Until recently, banquets did not know how to address these trends effectively. At The Venetian Resort, the Honest Food Program offers vegan and vegetarian options, gluten-free items, and balanced protein sources.

2 PM - 4 PM

#### SANDS CHINA LTD.

#### ENVIRONMENT

### Aspiring for Zero

Sands China Ltd. developed a Zero Waste Events strategy with ways to reduce waste throughout event planning and execution. In 2018, paperless, strawless, and plastic bottle-free initiatives were integrated into The Sands Macao Fashion Week and The Sands Supplier Excellence Awards.

4 PM - 5 PM

#### THE VENETIAN RESORT LAS VEGAS

#### COMMUNITY

### Partner Event: Building up Community with Kit Builds at IMEX

Paying it forward is good for the soul. At the IMEX conference Giving Back Booth, attendees assembled 600 hygiene kits for the homeless made from unused toiletries. In partnership with Clean the World, our resorts packaged 80,000 kits in 2018.

## MESSAGE FROM OUR KEYNOTE

**AILYNN SEAH**, VICE PRESIDENT OF SALES,  
MIC & ASSOCIATION, MARINA BAY SANDS



# The Power of M: Meaningful Meetings

The MICE industry has traditionally been measured mainly on its contributions to the tourism sector, and evaluated almost exclusively in terms of economic benefits. But there are so many other powerful and meaningful benefits that go beyond dollars and cents to transcend into impact. Meetings can take on Meaning and when harnessed properly, they can unleash Power in the local communities.

Increasingly, we find event organizers turning to our meeting and sustainability teams to provide expertise and execution know-how to incorporate meaningful activities into their programs, deepen engagement with their delegates, and provide sustainability planning.

This year, we collaborated with partners from the Schneider Electric Innovation Summit as well as the 7th Responsible Business Forum on Sustainable Development to create menus with earth-friendly and locally sourced food items that are better for the planet and the community.

In previous years, we teamed up with meeting clients such as Forever Living and Flight Centre along with Rise Against Hunger to organize food-packing activities with their meeting participants and 50 Marina Bay Sands staff volunteers. More than 315,000 nutritious meals were packed within a span of a few hours, which were later distributed by Food Bank Singapore to the elderly and those with low incomes.

It is always heartening to work with like-minded clients who share the same vision of creating a positive impact for communities and the environment.

For me, this creates Meaning and puts Meaningfulness back into Meetings.

That's the Power of M!

*Ailynn Seah*

A handwritten signature in black ink that reads "Ailynn Seah".

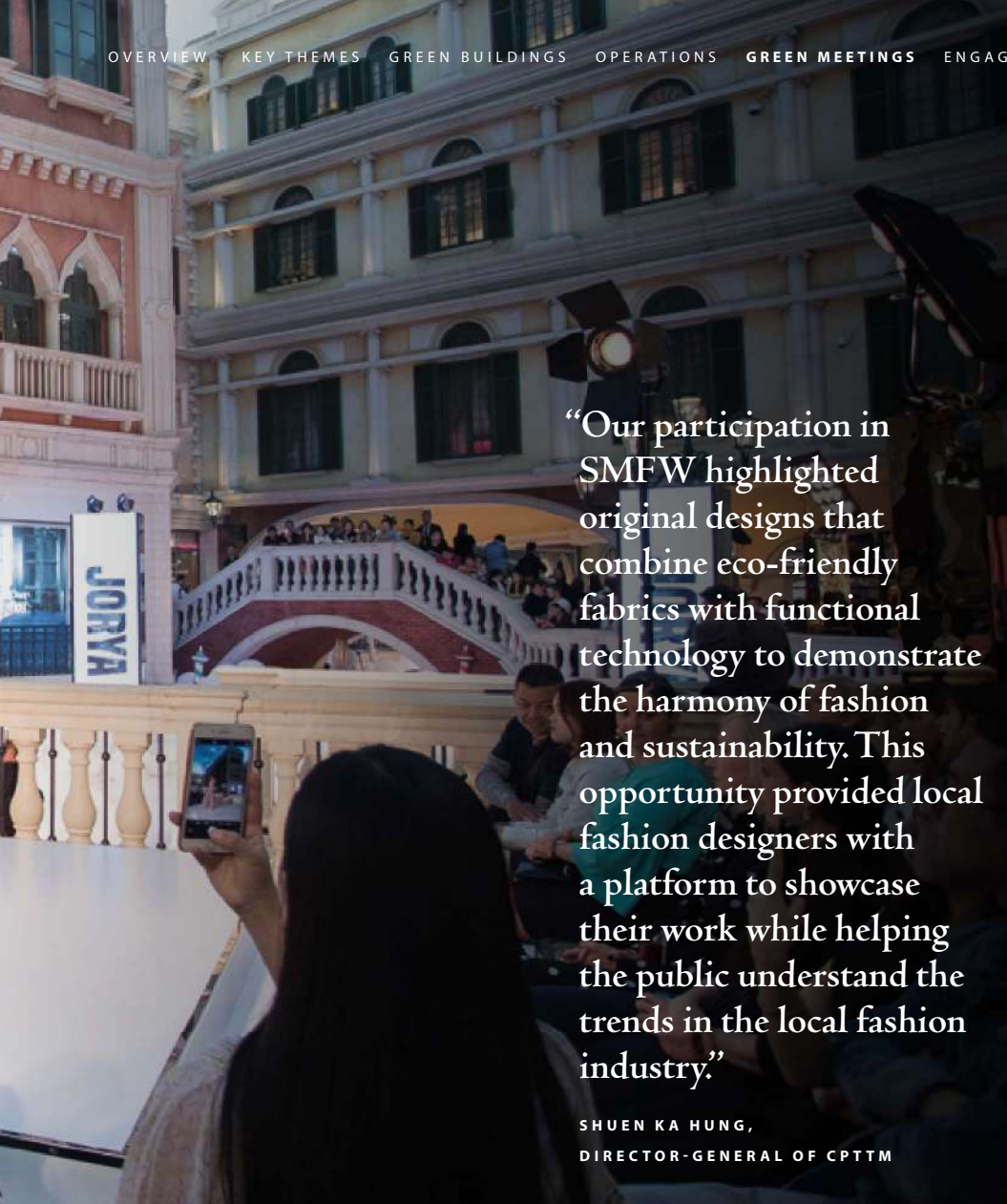




HOSTING

# UNIQUE GREEN EVENTS

Our green meeting and events program extends to celebrations of all shapes and sizes. We aim to infuse even our most extravagant events with sustainability.



“Our participation in SMFW highlighted original designs that combine eco-friendly fabrics with functional technology to demonstrate the harmony of fashion and sustainability. This opportunity provided local fashion designers with a platform to showcase their work while helping the public understand the trends in the local fashion industry.”

SHUEN KA HUNG,  
DIRECTOR-GENERAL OF CPTTM

## SUSTAINABILITY MEETS THE RUNWAY

Leading luxury and lifestyle couture designed by fashion powerhouses and innovative creatives strutted down the Venetian Macao runway, bringing the second annual Sands Macao Fashion Week (SMFW) to life. The promise of opulent evening gowns, cashmere blazers, and sleek chic styles drew in hundreds from Hong Kong, Beijing, and other cities around the world. Amid designs by fashion classics, such as Armani and Calvin Klein, were smaller names like Nuno Lopes, a Macanese designer who has been featured in the likes of Vogue and London Fashion Week.

In partnership with the Macau Productivity and Technology Transfer Centre (CPTTM), a local private-public collaboration, the event

spotlighted environmentally friendly and locally designed collections by 10 young Macanese artists in an exclusive catwalk and a pop-up educational exhibit. The Fashion Rejuvenation display featured items from outdoor apparel to ball gowns made of recycled and eco-friendly fabrics, such as vegetable fibers and recycled plastic bottles.

Behind the scenes of the exclusive VIP gala, zero-waste elements were integrated into the celebrations by eliminating plastic bottles and printed materials like program brochures, banners, and backdrops. The menu featured sustainable seafood and was thoughtfully planned to ensure any leftover food that could not be donated to Team Member Dining Rooms was fit for use in the on-site food waste recycler.



## SUSTAINABILITY UNDER THE STARS

Haute Cuisine is The Venetian Resort’s annual event that brings together the culinary arts with sustainability. This year, Maitres Cuisiniers de France prepared delectable vegan, vegetarian, and other tapas-style small plates for guests to enjoy. Dinnerware was made of sustainable bamboo, while the wine glasses from the event were given as take-home favors. Eco-decor, including a sparkling reclaimed chandelier and a living green wall, created a relaxed and luxurious ambience.



## ELEGANT ECO-WEDDINGS

Tying the knot at Marina Bay Sands can now be both an elegant and an eco-friendly affair. A new wedding package, crafted for environmentally minded couples, offers sustainability without compromise. Certified sustainable seafood, succulent plant centerpieces that double as parting gifts, and silk flowers that use less water and energy are signature elements of this wedding bundle.

EXPANDING

# STAKEHOLDER ENGAGEMENT

Partnerships help create initiatives that matter to the community and our business. Over the years, we have developed strong relationships with our suppliers, Team Members, communities, guests, and other organizations. These collaborations allow us to address our common environmental needs and make our program stronger.



## Sourcing water and energy smart towels

Together with our long-term terrycloth and linen supplier, Standard Textile, we introduced a new line of luxury eco-conscious towels that save thousands of gallons of water and use significantly less energy and chemicals to launder.

STAKEHOLDER: **SUPPLIERS**



## Serving communities in need

In an ongoing partnership with Clean the World, our Team Members packaged 80,000 hygiene kits to provide those in need with shampoos, soaps, and toothbrushes. The kits divert unused hotel room amenities from landfill, and support sanitation and disaster relief efforts around the world.

STAKEHOLDER: **COMMUNITIES  
AND TEAM MEMBERS**







## Raising eco-awareness with our retail shops

We invited our retail and restaurant mall tenants to participate in a Sands ECO360 awareness campaign to conserve energy, water, and waste. As part of the initiative, one Marina Bay Sands tenant, Calvin Klein, stood out by cutting its electricity consumption by 23% during a three-month-long energy challenge.

STAKEHOLDER: **TENANTS**



## Reducing food waste in our kitchens

Thoughtful meal planning, diligent Team Member training, creative low- and zero-waste recipes, and useful equipment such as blast chillers, are enabling us to minimize food waste in our kitchens. Testing of new tracking and measurement technologies uncovers further waste reduction opportunities.

STAKEHOLDER: **CHEFS**



## Providing guests with non-plastic alternatives

Our guests understand how single-use plastics can slip through the recycling process and make their way into our ecosystems. At Sands China Ltd., we eliminated 2.2 million plastic straws and are expanding our efforts to reduce water bottles on the casino floor and find plastic-free alternatives for our hotel rooms.

STAKEHOLDER: **GUESTS**



## Building relationships with water organizations

We met with water authorities in all three regions where we operate to deepen our understanding of local water-related challenges and opportunities. This newfound knowledge will improve our conservation, resiliency, and water stewardship programs.

STAKEHOLDERS: **GOVERNMENT AND UTILITIES**



## Launching projects to protect marine life

Joining forces with suppliers and non-profit organizations like WWF and FishWise has resulted in identifying more sustainable seafood options, better fish farming standards, and improved supply chain traceability.

STAKEHOLDERS: **NON-PROFITS AND SUPPLIERS**



## GLOBAL GOALS

# OUR TARGETS

The United Nations 17 Sustainable Development Goals (SDGs) have unified the world in creating a shared vision for people and planet, both now and into the future. This urgent call to action brings governments and businesses together to tackle pressing global issues.

In 2016, at the beginning of our five-year goal setting and reporting cycle, we established a new baseline and aligned our strategy with the SDGs. To identify where our largest environmental impacts and our most significant opportunities lie, we evaluated how each of the 17 SDGs relates to our company's operations. With principled prioritization in mind, we adopted SDGs 6 (clean water and sanitation), 7 (affordable and clean energy), and 12 (responsible consumption and production), using an approach that we tailored to our business.

Energy, water, and waste have been cornerstones of the Sands ECO360 program since its inception. Embracing the SDGs has heightened our sense of purpose as a company and reinforced our determination to meet our goals. By strategically dedicating resources toward energy efficiency, water conservation, and responsible consumption, we hope to create the future that we all envision.

## Strategic Integration

### CHASING ASPIRATIONS

We have integrated the SDGs into our sustainability strategy using a tactical approach that focuses only on those goals, targets, and indicators that our business can directly influence.

### TRANSLATING ASPIRATIONS INTO TARGETS

Once we had selected the most relevant and meaningful SDGs, we translated the bold intent of these goals into actionable targets that our business can measure and manage. We defined what SDG terms such as "doubling" and "substantially increasing" energy and water-use efficiency meant for our operations over given time horizons.

### TURNING TARGETS INTO ACTIONS

The unwavering and resolute 15-year timeline proposed by the United Nations requires forward-thinking planning and ambitious innovation beyond our standard five-year cycle, in addition to rapid implementation of existing technologies in the short term. Developing internal action plans and roadmaps at our resorts helps us carry out tangible initiatives globally.

### CONVERTING ACTIONS INTO RESULTS

Ongoing measurement of our environmental performance ensures that we don't lose sight of our goals. Although we may not always reach our milestones, we are committed to reporting on our progress to strengthen accountability.

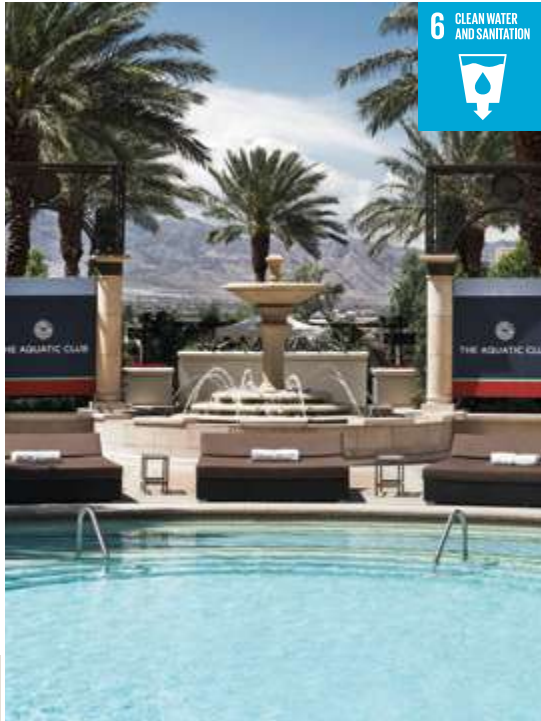
### USING RESULTS TO SHAPE THE FUTURE

Our sustainability program is not static, nor is our adoption of the SDGs. While our primary focus is on progress under our selected goals and existing targets, we periodically review new opportunities and emerging environmental issues for integration into our strategy.





**7** AFFORDABLE AND CLEAN ENERGY



**6** CLEAN WATER AND SANITATION



**12** RESPONSIBLE CONSUMPTION AND PRODUCTION

## Energy

Our resorts make up tens of millions of square feet of building space, all of which requires energy to cool down and light up. Since 2016, we've invested more than \$35 million in energy efficiency technologies and implemented 191 projects to reduce our electricity consumption and greenhouse gas emissions.

2020 TARGETS<sup>1</sup> (SBT<sup>2</sup>)

**6%**  
Reduction for resort operations

**6%**  
Reduction for ferry operations

PROGRESS TO DATE

**5.8%**  
Reduction for resort operations

**10.1%**  
Increase for ferry operations

## Water

Water is integral to the experience we strive to create for our guests. Exquisite pools and spas, lush landscapes, and elegant fountains create a refined ambience at our resorts. We balance luxury with responsibility by using non-potable water wherever possible, exploring innovative water technologies, and developing water conservation procedures.

2020 TARGET<sup>1</sup>

**3%**  
Reduction per square foot<sup>3</sup>

PROGRESS TO DATE

**3.3%**  
Reduction per square foot<sup>3</sup>

## Waste

We host thousands of guests and visitors in our resorts each day. By targeting key areas where we can reduce, reuse, and recycle, we proactively manage our waste footprint. We assess banquets, restaurants, and dining halls for food waste minimization, recycle more than 27 types of items, and eliminate unnecessary products to reduce waste generation.

2020 TARGET<sup>1</sup>

**5%**  
Increase in the diversion rate

PROGRESS TO DATE

**2.7%**  
Increase in the diversion rate

**Notes**

1. Targets use a 2015 baseline
2. Science-based target
3. Reduction per gross square footage includes both conditioned and non-conditioned space to account for outdoor landscaped areas

SANDS ECO360 ACTIONS

783,260  
achieved from 2016 to 2018

1,000,000  
2020 target

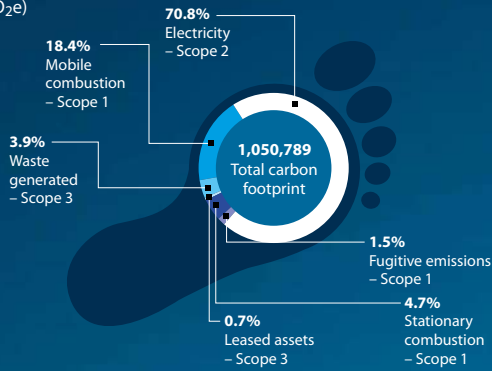


# ENVIRONMENTAL PERFORMANCE

## Emissions Performance

### CARBON FOOTPRINT

(MT CO<sub>2</sub>e)



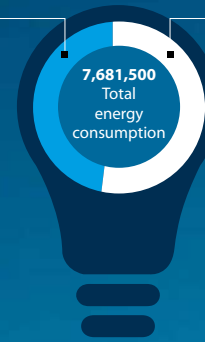
### ENERGY CONSUMPTION

(GIGAJOULES)

**Direct energy**  
3,691,305

*By source:*  
Non-renewable  
Gasoline: 27,001  
Diesel: 2,424,880  
Jet kerosene: 240,108  
Natural gas: 811,040  
LPG: 181,326

**Renewable**  
Solar thermal: 6,748  
Biodiesel: 202



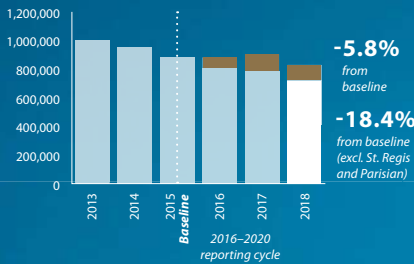
**Indirect energy**  
3,990,195

*By source:*  
Non-renewable  
Electricity: 3,743,232  
Heating: 10,204  
Cooling: 235,595  
**Renewable**  
Solar PV: 1,163

## Resort Operations

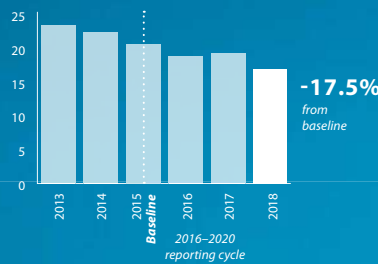
### EMISSIONS (ABSOLUTE)

SCOPE 1 & SCOPE 2 (MT CO<sub>2</sub>e)



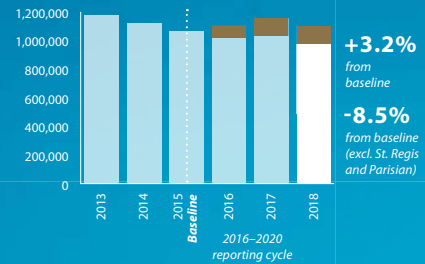
### EMISSIONS (INTENSITY)<sup>1</sup>

SCOPE 1 & SCOPE 2 (MT CO<sub>2</sub>e / 1,000 SQ. FT.)



### ELECTRICITY (ABSOLUTE)

(MWh)

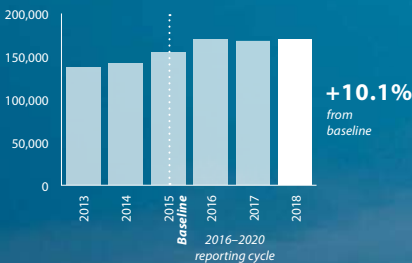


2020 target: 6% reduction from the 2015 baseline

## Ferry Operations

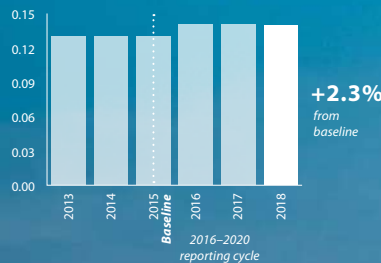
### EMISSIONS (ABSOLUTE)<sup>1</sup>

(MT CO<sub>2</sub>e)



### EMISSIONS (INTENSITY)<sup>1</sup>

(MT CO<sub>2</sub>e/NAUTICAL MILE)



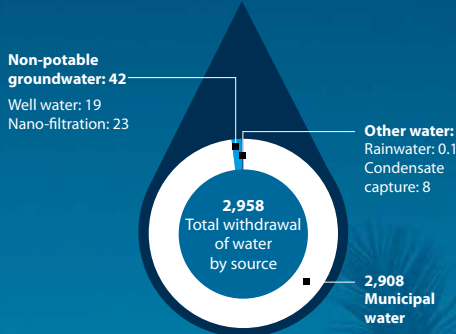
■ Entire portfolio  
■ The St. Regis Macao and The Parisian Macao



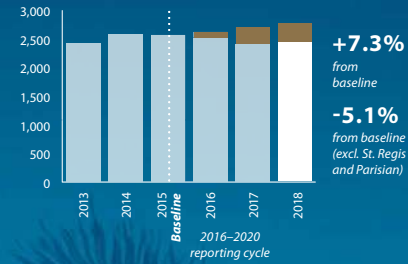
We have made tremendous progress against a suite of energy performance indicators. We reduced absolute Scope 1 and Scope 2 emissions of our entire Integrated Resort portfolio by 5.8%, and by 18.4% for legacy properties. Although 6.1 million additional square feet of building space became operational this year, we were able to decrease our emissions intensity by 17.5%. We are continuously evaluating technologies to increase ship fuel efficiency.

# Water Performance

## TOTAL WATER WITHDRAWAL (MILLION GALLONS)

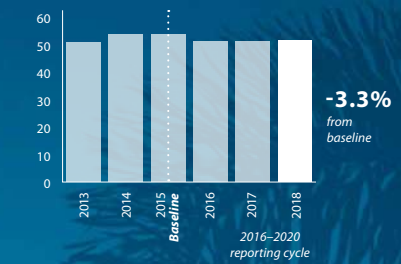


## WATER ABSOLUTE<sup>2,3</sup> (MILLION GALLONS)



■ Entire portfolio ■ The St. Regis Macao and The Parisian Macao

## WATER INTENSITY<sup>1</sup> (GALLONS / SQ. FT.)



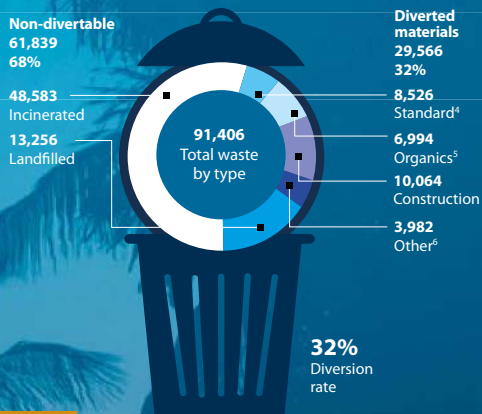
2020 target: 3% reduction from the 2015 baseline



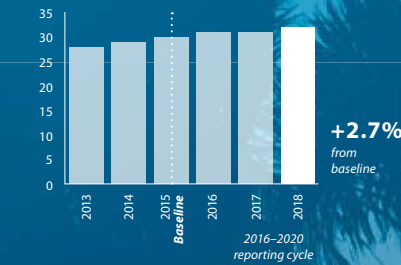
Excluding the newly opened The St. Regis Macao and The Parisian Macao, we reduced absolute water consumption by 5.1% from the 2015 baseline at our existing resorts.

# Waste Performance

## DIVERTED MATERIALS (SHORT TONS)



## WASTE DIVERSION RATE (%)<sup>1</sup>



2020 target: 5% increase from the 2015 baseline



We increased our waste diversion rate by 2.7% from the 2015 baseline. We are continuously looking for opportunities to reduce, reuse, and recycle in our operations and exploring innovative waste solutions as global recycling markets become more complex.

### Notes

1. Graph refers to our entire portfolio. The other graphs without footnotes demarcate The St. Regis Macao and Parisian Macao from our entire portfolio.
2. For our Las Vegas properties, 2016 serves as the baseline year. Malfunctioning water meters in 2015 inadvertently altered our annual water consumption data.
3. We adjusted our absolute water consumption for 2016 due to a reporting error.
4. "Standard" includes: plastic, aluminum, cardboard, paper, glass, and metal.
5. "Organic" includes: food waste, food donations, horticultural waste, and cooking oil.
6. "Other" includes: recovered assets, batteries, e-waste, donations, light bulbs, soap, and shampoo amenities.

PROPERTY SPOTLIGHT

# Sands China Ltd.

## Defining leadership in Macao

With millions of visitors to our resorts in Macao annually, each sustainability initiative we implement has the potential to move the needle on important issues. From reducing water bottles and eliminating plastic straws to procuring towels designed for water efficiency and plant-based food alternatives, we take a holistic approach to our key environmental themes and continuously look for new ways to innovate.



## AWARDS AND CERTIFICATIONS

### 2018 AWARDS



LEED<sup>®</sup> Silver for Building Design and Construction (The Parisian Macao)



Macao Green Hotel Platinum Award (The Venetian Macao)



Macao Green Hotel Gold Award (The Parisian Macao, Four Seasons Hotel Macao)



ASHRAE<sup>2</sup> Honorable Mention for Building Design



FTSE4Good Index Series 2018

### PREVIOUS AWARDS



Pacific Asia Travel Association (PATA) Gold Award Environment, 2017



EarthCheck Bronze Benchmarked, 2014 (The Venetian Macao)



ISO 20121 Event Sustainability Management Systems, since 2014 (The Venetian Macao, The Parisian Macao)



Macao Green Hotel Gold Award, since 2011 (The Venetian Macao)



Macao Green Hotel Gold Award, since 2013 (Sands Cotai Central)



Macao Green Hotel Gold Award, since 2015 (Sands Macao)

### Notes

1. The U.S. Green Building Council's LEED<sup>®</sup> green building program is the pre-eminent program for the design, construction, maintenance, and operation of high-performance green buildings. Learn more at [usgbc.org/LEED](http://usgbc.org/LEED).
2. American Society of Heating, Refrigeration, and Air Conditioning Engineers

### PROPERTY INFORMATION

**Location:** Macao (SAR), China

**Year opened:**

Sands Macao (2004);

The Venetian Macao (2007);

The Plaza Macao/Four Seasons Hotel Macao (2008);

Sands Cotai Central (2012),

including The St. Regis Macao (2015);

The Parisian Macao (2016)

**Number of Team Members:** 26,100

**Number of rooms:** 12,341

**Meeting square footage:** 1.7 million

### Bedtime Story

During the renovation of The Venetian Macao we collaborated with a local organization to recycle 4,125 of our mattresses and box springs, resulting in more than 70 metric tons of metal being recycled.

# 10%

REDUCTION IN GHG EMISSIONS  
COMPARED TO 2017

This represents the equivalent of GHG emissions from 13,557 passenger vehicles driven for one year.<sup>1</sup>

### Running on Alternative Fuel

Twenty-five percent of shuttle buses are now running on compressed natural gas (CNG). CNG is better for local air quality as it emits fewer pollutants than conventional fuels.



### Innovative Eco-Eating

In partnership with Green Mondays, many of our Team Members participated in Green Mondays, enjoying vegetarian menus once a week, while guests discovered plant-based dishes in 14 restaurants through the Green Cuisine program.

# Ist

2018 has been a year of firsts for Sands China Ltd. The Parisian Macao became the first Integrated Resort in Macao to obtain LEED for Building Design and Construction certification. The Venetian Macao became the first to receive the Macao Green Hotel Platinum Award, while The Parisian Macao and the Four Seasons Hotel Macao each obtained their first Gold Award. We were also selected for inclusion in the FTSE4Good Index Series, a globally recognized responsible investment index.

“Our Sands ECO360 program helps us reduce the environmental impact of our operations and create positive change in the hospitality industry in Macao and on a broader scale. We humbly accept the recognitions we received for the year 2018 while acknowledging that sustainability is a journey.”

MERIDITH BEAUJEAN, DIRECTOR OF SUSTAINABILITY, SANDS CHINA LTD.

<sup>1</sup>. Based on U.S. EPA Greenhouse Gas Equivalencies Calculator, December 2018 update.

PROPERTY SPOTLIGHT

# Marina Bay Sands

## Committed to innovation

At Marina Bay Sands, we continue to push the boundaries on sustainability. From diverting construction waste, to innovative energy management solutions, to green events and strategic sustainable sourcing, we are always looking for new ways to integrate environmentally friendly practices into our operations. Strong collaboration with suppliers, event organizers and thought leaders allows us to stay ahead of the curve.

**100%**  
of water used for irrigation, fountains, and herb gardens is from non-potable sources such as our condensate capture and rainwater harvesting systems.

**One Fish at a Time**  
28% of our seafood is now sustainable. Through our commitment to responsible sourcing and our partnership with WWF, we are on track to achieve our goal of 50% sustainably sourced seafood by 2020.



**Spotlight on Electronic Waste**  
More than 3,000 Team Members participated in e-waste workshops and a recycling drive. During the first week of the drive, 1,500 lb of used personal electronic items were collected for recycling.



**50.9%**  
DIVERSION RATE IN 2018,  
COMPARED TO 26.4% IN 2017

The property increased focus on construction waste recycling during 2018, and in total diverted approximately 11,048 metric tons from landfill.

### AWARDS AND CERTIFICATIONS

**2018 AWARDS**

-  LEED<sup>1</sup> Gold for Building Operations and Maintenance for ArtScience Museum
-  Singapore BCA<sup>2</sup> Green Mark Platinum recertification
-  ISO 20121 Event Sustainability Management Systems recertification
-  Singapore Green Hotel Award 2017–2018<sup>3</sup>
-  ASEAN Green Hotel Award 2018–2020
-  ASEAN MICE Venue Award 2018–2020

**PREVIOUS AWARDS**

-  APEX/ASTM<sup>4</sup> Venue Level 1, since 2013
-  ISO 20121 Event Sustainability Management Systems, since 2014
-  Singapore BCA Green Mark Platinum, 2015
-  Distinction Award for waste reduction, 3R Awards for Hotels, 2016
-  MICE Sustainability Certification, Singapore Association of Convention and Exhibition Organisers and Suppliers, 2016
-  Grand Award Winner for Environment, Pacific Asia Travel Association, 2016
-  National Environment Agency 3R Award for Shopping Malls, 2017

1. The U.S. Green Building Council's LEED® green building program is the pre-eminent program for the design, construction, maintenance, and operation of high-performance green buildings. Learn more at [usgbc.org/LEED](http://usgbc.org/LEED).  
2. The Building Construction Authority Green Mark certification is a green building rating system to evaluate a building for its environmental impact and performance in Singapore.  
3. Presented by the Singapore Hotel Association and supported by the Building and Construction Authority, National Environment Agency, Public Utilities Board, and Singapore Tourism Board.  
4. APEX/ASTM is the meeting industry's first set of standards for environmentally sustainable meetings, created through a partnership between the Accepted Practices Exchange and American Society for Testing and Materials.



PROPERTY INFORMATION

**Location:** Singapore

**Year opened:** 2010

**Number of Team Members:** 10,101

**Number of rooms:** 2,561

**Meeting square footage:** 1.2 million

*“We believe that green initiatives not only benefit the environment, but are also, in the long run, critical for our guests’ and Team Members’ engagement. Furthermore, sustainability benefits our company by driving efficiency and productivity in our operations – green business is good business.”*

KEVIN TENG, EXECUTIVE DIRECTOR OF SUSTAINABILITY AND PROPERTY DEVELOPMENT, MARINA BAY SANDS



PROPERTY SPOTLIGHT

# The Venetian Resort Las Vegas

## Creating positive change

Built on the site of the legendary Sands Hotel and Casino, the Venetian Resort Las Vegas created a foundation for the growing Las Vegas Sands enterprise. We honor this legacy every day by developing and implementing sustainability programs that continue to benefit the community, our guests, and the environment.

### AWARDS AND CERTIFICATIONS

#### 2018 AWARDS



APEX/ASTM<sup>1</sup> Venue Level 2 recertification



Stella Awards, Best Green Initiative, Far West region, Gold



US EPA WasteWise Regional Award for the Pacific Southwest



TripAdvisor GreenLeaders Gold Certification, 2018

#### PREVIOUS AWARDS



LEED<sup>2</sup> Silver for New Construction<sup>3</sup>, 2008



LEED Gold for Existing Buildings, 2010, 2016



APEX/ASTM Venue Level 2, since 2013



TripAdvisor GreenLeaders Gold Certification, 2015, 2016, 2017



Sustainability Leading Company Award, Nevada Hotel and Lodging Association, 2016



PROPERTY INFORMATION

**Location:** Las Vegas, Nevada

**Year opened:**

Sands Expo (1990); The Venetian Resort (1999); Venezia at The Venetian (2003); The Palazzo at The Venetian (2007)

**Number of Team Members:** 8,625

**Number of rooms:** 7,092

**Meeting square footage:** 2.1 million

“Sustainability has no boundaries; our Team Members realize that great change starts with small actions that collectively create a domino effect. We are constantly evolving in innovation, creativity, collaboration, and finding new opportunities to support our planet and community.”

PRANAV JAMPARI, EXECUTIVE DIRECTOR OF SUSTAINABILITY,  
THE VENETIAN RESORT AND SANDS EXPO

**Supporting Future Leaders**

When a Las Vegas second-grader learned how plastic bags can harm life in our oceans, he wrote to The Venetian Resort asking for help. We responded to his heartfelt letter by presenting his school with 500 reusable shopping bags.



22 million

GALLONS OF WATER

In 2018, we completed the expansion of our nano-filtration system, increasing the source of purified non-potable water for irrigation, fountains, and cooling towers. Our Palazzo horticulture system is 100% off the municipal water grid.

**Greening Our Local Schools**

We recently expanded our partnership with Green Our Planet by coming together for The Great Garden Build. More than 50 Team Members helped construct vegetable gardens for local schools across the Las Vegas Valley that will help support STEM (science, technology, engineering, and math) and environmental education.



**Green Events Speak Fashion**

During 2018, The Venetian Resort hosted Fashion Forward, a student design challenge modeled after the popular TV show *Project Runway*. The event was 100% paperless, strawless, and plastic bottle-free.



**Big Bad Baler**

In September 2018, we upgraded our recycling technology by investing in a new horizontal baler at our recycling dock. This allows our recycling process to be cleaner, safer, and more efficient.

**Club Ride Rolls Out Awards**

The property's clean commuting initiative won the first ever Star Award for Commitment of Excellence, specifically created for partners that demonstrate long-standing engagement with the Regional Transportation Commission of Southern Nevada's Club Ride program.

1. APEX/ASTM is the meeting industry's first set of standards for environmentally sustainable meetings, created through a partnership between the Accepted Practices Exchange and the American Society for Testing and Materials.  
2. The U.S. Green Building Council's LEED® green building program is the pre-eminent program for the design, construction, maintenance, and operation of high-performance green buildings. Learn more at [usgbc.org/LEED](http://usgbc.org/LEED).  
3. The gaming floor is not part of the LEED certification.



Las Vegas Sands Corp. (LVS) is the pre-eminent developer and operator of world-class Integrated Resorts that feature luxury hotels; gaming, retail, entertainment, convention, and exhibition facilities; celebrity chef restaurants; and many other amenities. Starting with a single property in 1990, the reach of LVS now extends worldwide, from Las Vegas to Macao, and from Bethlehem (PA) to Singapore. Our Integrated Resorts have become premier destinations for travel enthusiasts around the world.

Mott 32, The Venetian Resort Las Vegas

# Sands

ECO360  
GLOBAL SUSTAINABILITY

## Experience Sands ECO360

Our responsibility to the planet is as important to us as our commitment to the comfort and well-being of our guests and Team Members.

The Sands ECO360 global sustainability strategy is designed to help minimize our environmental impact. It reflects our vision to lead the way in sustainable building development and resort operations. Driven by an aspirational idea, made possible through the dedication and hard work of our Team Members, we continue our journey to a more sustainable future.

For more information, visit our website:

<https://www.sands.com/sands-eco-360.html>

Please take a moment to tell us what you think by contacting us as [SandsECO360@sands.com](mailto:SandsECO360@sands.com)

