

# MARRIOTT INTERNATIONAL, INC.

NEW YORK STOCK EXCHANGE – MAR  
Travel & Leisure

Marriott, in partnership with Conservation International, has become the first major global hotel company to calculate its carbon footprint and launch an integrated environmental strategy to address climate change. The plan includes specific new steps the company can take in five key areas: water, waste and energy; supply chain; green buildings; carbon offsets; and employee and guest engagement.

**Summary Score: 53**

## Company Information

Marriott International has more than 3,000 operated or franchised lodging properties in more than 65 countries. Marriott's hotel brands include Renaissance Hotels and its flagship Marriott Hotels & Resorts, Courtyard and Fairfield Inn, the Ritz-Carlton luxury chain and resort and time-share properties operated by Marriott Vacation Club International. Marriott additionally provides more than 2,000 rental units for corporate housing and manages 45 golf courses. As of year-end 2007, the company had approximately 151,000 employees.

### Contact Information

**Chairman/CEO:** J.W. Marriott, Jr.

**Website:** [www.marriott.com](http://www.marriott.com)

**Address:** 10400 Fernwood Rd., Bethesda, MD 20817, United States

## Board Oversight

**Score: 3**

### Board Committee/Member

None identified.

### Board Role

Marriott's five-point environmental strategy and long-term goals announced in April 2008 were presented to and approved by the Board of Directors in February 2008.

### Board Training

None identified.

## Management Execution

**Score: 10**

### CEO Leadership

In his letter to shareholders in the company's 2007 Annual Report, Chairman and CEO Bill Marriott states, "Sustainability means being a good corporate citizen and environmental steward, and promoting economic growth, diversity and inclusion in our communities worldwide." Marriott speaks regularly about his and the company's commitment to environmental issues and has blogged about climate change initiatives on the company's website.

### Company Strategy

Marriott unveiled a new five-point environmental strategy and long-term goals in April 2008. Building on the company's more than 20-years of resource conservation efforts, Marriott is now focusing on further reducing the company's water, waste and energy consumption; greening its supply chain; building greener hotels; helping to address climate change through avoided deforestation of the Amazon Rainforest and engaging its employees and customers in environmental efforts. The strategy was developed in collaboration with Conservation International.

### Executive Responsibility

Environmental and climate change issues are the responsibility of the company's Green Council, an enterprise-wide senior level council, chaired by Arne Sorenson, Executive Vice

# MARRIOTT INTERNATIONAL, INC.

President, CFO and President – Continental European Lodging; Ed Fuller, President and Managing Director, Marriott Lodging – International, and Kathleen Matthews, Executive Vice President, Global Communications and Public Affairs. In addition, Marriott’s Business Continuity department assesses how the company is addressing risk relative to climate change.

*External Initiatives* In April 2008, Marriott made a \$2 million commitment with the State of Amazonas in Brazil and the Amazonas Sustainable Foundation to protect 1.4 million acres of endangered rainforest and generate carbon offsets through the project. This commitment is part of a larger partnership with Conservation International, which helped the company develop its five-point environmental strategy. In addition, Marriott helped support the publication of the “Sustainable Hotel Siting, Design and Construction Guide”, a joint initiative between Conservation International and the Prince of Wales International Business Leaders Forum’s Tourism Partnership. The company is currently participating in the International Tourism Partnership’s Environmental Bench program to help establish best practices and measure results.

*Employee Training* Marriott recently held its second annual Green Fair with representatives from departments driving the company’s environmental initiatives and external vendors sharing green products and information at its headquarters in Bethesda, Maryland. News of the company’s latest green products, services and programs are shared with employees worldwide through internal communications and videos.

*Executive Compensation* None identified.

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## Public Disclosure

**Score: 7**

*Annual Report* Marriott’s 2007 Annual Report states in a “Sustaining our Progress” section: “In partnership with Conservation International, Marriott is ramping up its efforts to integrate environmental and sustainable practices into its business in 2008 in four key areas: supply chain; green buildings; waste, water and energy; and employee and guest engagement. This strategy builds on the company’s established plans to get greener, including an effort to reduce greenhouse gases by nearly 415,000 metric tons by 2010.” The report also highlights the Sanya Marriott Resort & Spa, on China’s Hainan Island, which has installed solar panels and a “gray water” tank to conserve water use.

*Securities Filings* No climate change mention.

*Other Disclosure* Marriott has a “Green Marriott” section on its website that provides information on the company efforts in water, waste and energy reduction; forest protection; greening its supply chain and buildings; and employee and guest engagement on environmental issues.

**Sustainability Report:** *Social Responsibility Report 2007*, September 2008

**URL:** <http://www.marriott.com/socialresponsibility>

**GRI Accordance:** None identified.

*Carbon Disclosure Project* Answered Questionnaire (Public)

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**CDP6 Risk Disclosure** Marriott recognizes that governments are increasingly setting green building regulations and emissions standards that may apply to the company's properties. In addition, the company says that its properties could be affected by rising sea levels or the occurrence of natural disasters, as well as rising costs of energy. Despite standard insurance coverage, Marriott states, "Market forces beyond our control may nonetheless limit the scope of insurance coverage at reasonable rates."

**Public Policy** Marriott says it has shared the company's environmental strategy with local, state and federal legislators, including several members of the U.S. House Representatives. The company does not specify if it supports specific climate change regulatory frameworks.

## Emissions Accounting

Score: 12

GHG Emissions Inventory Year: 2007 Facility/Region: Global Protocol: GHG Protocol

Emissions	CO <sub>2</sub> e (Metric Tonnes)
Scope 1 (Direct)	532,864
Scope 2 (Indirect –Electricity)	2,450,014
Scope 3	—
Travel	—
Logistics	—
Products	—
Supply Chain	—

**Accounting Methods** Marriott provided energy consumption and source data for managed properties worldwide to Conservation International, which completed the calculation of its GHG emissions. The inventory includes electricity and gas consumption at nearly 1,000 managed hotels worldwide, its headquarters building and regional offices, as well as employee travel.

**External Verification** ICF audited Marriott's emissions inventory calculation and determined it to be a credible baseline for the company. ICF also made recommendations for future improvements to the inventory.

**Certified CO<sub>2</sub> Offsets** See Products & Services.

## Strategic Planning

Score: 21

Emissions Reduction Targets

	Target	Baseline Year	Target Year	Region
GHG Emissions (Absolute)	1 million tons	2000	2010	Company's carbon footprint
Energy Use	25% per available room	2007	2017	Fuel consumption
Renewable Energy	40 hotels	—	2017	Install solar power at up to 40 hotels

# MARRIOTT INTERNATIONAL, INC.

*Target Details* As part of the company's commitment to joining the US EPA Climate Leaders program in 2005, Marriott established a goal to reduce GHG emissions by 40,000 tons annually. In 2007, Marriott updated this goal to reflect the 2010 target. The company has also set various energy use and renewable energy goals for certain properties.

*Target Achievement* Marriott says that its energy efficiency programs have cut CO<sub>2</sub> emissions by nearly 4 million pounds.

*Energy Efficiency* In 2004, Marriott was selected by the Alliance to Save Energy to receive the "Star of Energy Efficiency" award. The company was also an early participant in the US EPA Climate Leaders program and was named an EPA ENERGY STAR Partner of the Year in 2005 and 2006. In 2007, Marriott received the ENERGY STAR Sustained Excellence Award for continued leadership in energy efficient management practices. Marriott has the most properties with ENERGY STAR certification in the hotel industry (more than 200) and plans to increase this number by 33 percent in 2008.

Marriott was also the first hospitality member of the US Green Building Council and the University of Maryland's Conference Center was the first hotel and conference center built to LEED standards. In addition, Marriott has set a goal to update its hotel design guidelines in line with the US Green Building Council's LEED standards by the end of 2009. The company expects to expand its portfolio of LEED-certified hotels across all Marriott brands and is pursuing LEED-Existing Building status for its headquarters building in Bethesda, Maryland, by the end of 2009.

The company has also been recognized by the state of California with its fifth annual "Flex Your Power" award for energy conservation efforts. In 2006, Marriott saved 4,700,000 kWh of electricity, 136,000 therms of natural gas and \$672,000. Finally, Marriott has arranged for employees on business travel to use the Hertz Green Collection—including hybrid rental vehicles with SmartWay certification from the US EPA.

*Renewable Energy* Marriott has set a goal to put solar power installations at up to 40 hotels by 2017. In June 2008, a New York City hotel managed by Marriott became the first hotel in the city to install a tri-generation plant to provide electricity, cooling and heating on-site. The high-efficiency micro-turbines are expected to reduce CO<sub>2</sub> emissions by about 1,700 tons annually.

*Emissions Trading* None identified.

*Products & Services* Marriott recognizes that consumer interest in climate change and environmental protection issues has grown and plans to leverage its efforts in these areas in customer loyalty programs.

As part of the company's commitment to preserve the Juma Sustainable Development Reserve in Amazonas, Brazil, the company will provide carbon offset opportunities to its customers. Marriott has also introduced a "green meeting" offering as well as a "Spirit to Preserve the Rainforest" group promotion in which 5 percent of the total costs of a group's guest rooms will help support the Amazonas project.

*Research & Development* None identified.

*Supply Chain Management* Marriott is engaging its top 40 vendors to supply price-neutral greener products across 12 categories of its \$10 billion supply chain. While some of the first products to be rolled out included pens from recycled plastics and environmentally-friendly towels which reduce water use, the company has not addressed the carbon footprints of its suppliers or other climate-specific issues.

# CARNIVAL CORPORATION

NEW YORK AND LONDON STOCK EXCHANGES – CCL  
Travel & Leisure

While Carnival has not made public a formal strategy to address the risks and opportunities posed by climate change, the company is working on new fuel efficiency and emissions reduction technologies for use both onboard and on shore. Individual operating lines also have varying annual fuel reduction plans in place. Finally, the company is an active participant in industry association collaborations around fuel efficiency, cleaner fuels, emissions trading for the shipping industry and other issues.

**Summary Score: 44**

## Company Information

Carnival is the world's largest cruise operator with about a dozen cruise lines and about 85 ships carrying seven million passengers. Carnival operates in North America primarily through its Princess Cruise Line, Holland America and Seabourn luxury cruise brands, as well as its flagship Carnival Cruise Lines unit. The company operates additional brand lines in Europe as well as the Cunard luxury transatlantic liners. Carnival operates as a dual-listed company with UK-based Carnival plc, forming a single enterprise under a unified executive team, and had approximately 81,200 employees as of 2007.

### Contact Information

**Chairman/CEO:** Micky Arison

**Website:** [www.carnivalcorp.com](http://www.carnivalcorp.com)

**Address:** 3655 NW 87th Ave., Miami, FL 33178-2428, United States

## Board Oversight

**Score: 4**

### Board Committee/Member

Health, Environmental, Safety & Security (HESS) Committee

### Board Role

Carnival Corporation & Carnival plc operate as a dual listed company with single corporate governance. The Health, Environmental, Safety & Security (HESS) Committee of the Boards of Directors supervises and monitors policies, programs, and compliance with HESS legal and regulatory requirements. The Vice President – Maritime Policy & Compliance makes quarterly reports to the HESS Committee concerning these issues and on a quarterly basis the HESS Committee reports to the full Board of Directors on issues raised by these quarterly reports. The Committee's charter does not specifically mention climate change.

### Board Training

None identified.

## Management Execution

**Score: 9**

### CEO Leadership

Carnival's Chairman/CEO and Vice Chairman/COO formally defined the company's environmental strategy through its Health, Environmental, Safety & Security policy statement. The statement was approved in October 2007.

### Company Strategy

Carnival's overall environmental strategy is guided by the company's Health, Environmental, Safety & Security policy. However, this policy does not specifically mention climate change-related issues. The company is investing in research and development of new fuel efficiency technologies and strategies and also participates in industry-wide initiatives to develop climate change solutions for the maritime industry.

# CARNIVAL CORPORATION

<i>Executive Responsibility</i>	Carnival's Corporate Maritime Policy & Compliance Department, headed by a Vice President, is responsible for providing an integrated approach to management of HESS matters. This includes establishing HESS Policy and standards, conducting HESS audits of Carnival's operating lines and measuring and reporting on HESS-related performance. Each Operating Line of the company also has an Environmental Management Executive responsible for implementing Environmental Management Systems and monitoring environmental performance. These executives have direct access to the Operating Line CEOs as well as the Vice President, Marine Policy & Compliance.
<i>External Initiatives</i>	Carnival has been a member of the Global Environmental Management Initiative (GEMI) for four years collaborating on tools and strategies to help businesses address environmental, health and safety issues. Through GEMI, Carnival representatives worked on developing a climate change business planning tool. The company is also a sponsoring member of UK-based Shipping Emissions Abatement and Trading (SEAaT), a cross-industry group whose mission is to encourage and facilitate emission reductions from shipping.
<i>Employee Training</i>	Carnival has established a Corporate Environmental Awareness and Training Standard. All shipboard and applicable shoreside personnel receive general environmental awareness training, while some employees receive job-specific environmental training. In addition, Carnival is developing shipboard educational programs for both guests and crew on energy conservation.
<i>Executive Compensation</i>	During FY 2007, Carnival offered incentives related to environmental performance, including fuel consumption reduction, to some shipboard managers.

## Public Disclosure

Score: 11

<i>Annual Report</i>	In CEO Micky Arison's letter to shareholders in the 2007 Annual Report he mentions deploying the first prototype exhaust gas scrubber system in Alaska in an effort to reduce air emissions.
<i>Securities Filings</i>	In the Risk Factors section of the company's 2007 Form 10-K, Carnival discusses current and pending climate legislation in the EU and US. The company states, "While not all are likely to become law, this is a strong indication that additional climate change related mandates will be forthcoming in the future... These and other unforeseen regulatory developments have the potential to affect our operations and increase our environmental compliance costs."
<i>Other Disclosure</i>	Carnival recently published its third annual Environmental Management Report for FY 2007. The report includes a section on environmental performance, with performance data primarily focused on ship operations and including a discussion of greenhouse gas (GHG) emissions.

**Sustainability Report:** *Fiscal Year 2007 Environmental Management Report*, April 2008

**URL:** [http://media.corporate-ir.net/media\\_files/irol/14/140690/Environmental\\_Management\\_Report\\_FY07.pdf](http://media.corporate-ir.net/media_files/irol/14/140690/Environmental_Management_Report_FY07.pdf)

**GRI Accordance:** None identified.

<i>Carbon Disclosure Project</i>	Answered Questionnaire (Public)
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# CARNIVAL CORPORATION

**CDP6 Risk Disclosure** Carnival recognizes that various international, federal and state-level regulatory developments related to GHG emission controls could adversely impact the shipping industry through increased compliance costs. The company also says that adverse weather conditions or natural disasters could influence sales and profitability. Operating costs, including fuel, food and transportation, could also increase due to scarcity and supply chain disruptions caused by market factors related to climate change. The company has instituted a formal Enterprise Risk Management process that addresses these potential risks.

**Public Policy** Carnival participates in International Maritime Organization and EU climate policy discussions through its membership in Cruise Lines International Association, the European Cruise Council, the UK Chamber of Shipping and via the International Chamber of Shipping. The company has also taken a leadership role in developing shore power for cruise ships at US ports and participates in a working group that is establishing international standards for shore power. Carnival has also participated in various industry seminars related to carbon trading, greater fuel efficiency and use of cleaner fuels in cruise ships.

## Emissions Accounting

Score: 8

GHG Emissions Inventory Year: 2007 Facility/Region: Global Protocol: GHG Protocol

Emissions	CO <sub>2</sub> e (Metric Tonnes)
Scope 1 (Direct)	9,858,164
Scope 2 (Indirect –Electricity)	82,106*
Scope 3	—
Travel	—
Logistics	—
Products	—
Supply Chain	—

\* Electricity purchased for shipboard operations is 100 percent renewable so no emissions are allocated to this purchased electricity. Shoreside Scope 2 emissions are estimated for owned and leased facilities.

**Accounting Methods** Scope 1 emissions were calculated for shipboard operations and estimated for shoreside operations. CO<sub>2</sub> emissions were calculated using conversion factors published by the UK National Air Emissions Inventory, UK Greenhouse Gas Inventory, Digest of UK Energy Statistics DTI 1998, and Greenhouse Gas Inventory Reference Manual IPCC 1996. Global Warming Potential factors were also used to calculate CO<sub>2</sub>e amounts for HFCs, methane and nitrous oxide.

**External Verification** Currently, Carnival does not externally verify emissions data; however, the company plans to have the information externally verified or audited in the future.

**Certified CO<sub>2</sub> Offsets** None identified.

# CARNIVAL CORPORATION

## Strategic Planning

Score: 12

### Emissions Reduction Targets

	Target	Baseline Year	Target Year	Region
Energy Use	See below	—	—	By operating lines

#### Target Details

Carnival subsidiary lines have established fuel reduction plans ranging from 0.25 to 2.5 percent based on the previous year's normalized performance figures and budgets. These plans are part of their ISO 14001 Environmental Management System objectives.

#### Target Achievement

From 2005 to 2007, Carnival overall achieved a 4.4 percent reduction in fuel consumption. The company lowered its CO<sub>2</sub> emission intensity by 2.5 percent between FY2005 and FY2006 and by 2 percent between FY2006 and FY2007, both in terms of Kg CO<sub>2</sub> / ALB-km. ALB is "Available Lower Berth," a commonly referenced cruise industry indicator used to normalize data by passenger capacity.

#### Energy Efficiency

Carnival invests in fuel efficiency and other climate change-related projects through training, research and installation of new technologies. Some technologies implemented or being considered include vessel shore power installations, marine coating technology to reduce ships' drag and fuel consumption, improved HVAC systems, energy efficient lighting, evaporator management utilizing waste heat to produce fresh water and optimization of diesel generators. In addition, Carnival operates the only shipboard plasma incinerator in the cruise industry. Plasma incineration technology allows a ship to burn waste very efficiently and produce reduced air emissions and ash by-products.

Carnival is also evaluating shorter routes and changes of destination ports in its itineraries to identify opportunities to reduce fuel consumption. For example, bringing forward the departure time and delaying the arrival time by half-an-hour allows a ship to cruise from one port to another at efficient speeds with lower fuel consumption, resulting in reduced GHG emissions.

#### Renewable Energy

Electricity purchased for shipboard operations is 100 percent renewable.

#### Emissions Trading

Carnival does not currently engage in emissions trading.

#### Products & Services

Carnival sees potential commercial opportunities due to climate change in higher demand to visit environmentally protected remote areas being impacted by climate change, such as the Antarctic and Alaska, as well as the possibility to participate in carbon offset programs. The company also believes that as it improves onboard environmental practices there is an opportunity to attract customers concerned about climate change.

#### Research & Development

Carnival is continually researching, pilot testing and evaluating emerging technologies related to fuel efficiency, shipbuilding design and other areas.

#### Supply Chain Management

None identified.

# STARWOOD HOTELS & RESORTS WORLDWIDE, INC.

NEW YORK STOCK EXCHANGE – HOT  
Travel & Leisure

Starwood has established a public policy on environmental sustainability and is implementing green building practices that address climate change issues. Of particular note is the company's recent launch of a new hotel brand, ELEMENT, which has committed all properties to achieving LEED certification from the US Green Building Council. Starwood will study best practices achieved at the ELEMENT hotels to expand to the rest of its properties as well.

**Summary Score: 18**

## Company Information

Starwood Hotels & Resorts Worldwide is one of the world's largest hotel and leisure companies, with nearly 900 properties in some 100 countries. Its hotels consist of luxury brands such as Four Points, Sheraton, Westin, St. Regis, The Luxury Collection and W Hotels. Some 400 of the company's hotels are owned and operated by franchisees; the company owns or leases about 75 locations. As of the end of 2007, the company had approximately 155,000 employees.

### Contact Information

**Chairman:** Bruce W. Duncan

**CEO:** Frits van Paasschen

**Website:** [www.starwoodhotels.com](http://www.starwoodhotels.com)

**Address:** 1111 Westchester Ave. White Plains, NY 10604, United States

## Board Oversight

**Score: 0**

*Board Committee/Member* None identified.

*Board Role* Starwood says on its website that it will issue an annual environmental sustainability report to its Board of Directors.

*Board Training* None identified.

## Management Execution

**Score: 7**

*CEO Leadership* In an April 2008 press release announcing the company's ELEMENT brand commitment to LEED certification, CEO Frits van Paasschen said, "With the launch of ELEMENT, we're creating a new way to build hotels and guest experiences through the lens of environmental responsibility. By testing and refining ELEMENT in our own laboratory, we are developing an economically responsible LEED-certified hotel concept that is accessible to developers and designed to be replicated, promising a more sustainable future."

*Company Strategy* Starwood has established a public policy on environmental sustainability to facilitate company-wide alignment around green program goals. Through collaboration with hotel owners, franchisees, suppliers and business partners, Starwood says it will actively work to reduce its environmental impact by conserving natural resources, minimizing waste and pollution, enhancing indoor environmental quality, establishing and reporting on key environmental performance indicators and raising environmental awareness among the company's associates, guests and communities. Starwood's green initiatives will target existing builds, new builds and property conversions as well as address the corporate procurement strategy.

# STARWOOD HOTELS & RESORTS WORLDWIDE, INC.

<i>Executive Responsibility</i>	Starwood is currently building a staff infrastructure to support the development and execution of green initiatives. With executive leadership, the company is centralizing efforts and seeking guidance from environmental sustainability experts to develop a database of leading practices in environmental stewardship for its hotel portfolio.
<i>External Initiatives</i>	<p>Starwood is a member of US Green Building Council and, through its commitment to LEED certification with its ELEMENT brand, has become a recognized USGBC Portfolio Program Partner. This is a leadership program for owners, tenants and managers in the green building movement who seek to integrate green building into their standard business practices.</p> <p>In addition, in the UK Starwood is part of the Hospitality Energy Consortium, a group of hotel companies who partner in energy procurement. In 2005, Starwood and the Consortium joined with the Carbon Trust to study energy consumption and carbon footprint management.</p>
<i>Employee Training</i>	Starwood is building internal expertise on environmental issues through staff training on opportunities for greater environmental stewardship and a dedicated internal website. An energy conservation toolkit and training program has been distributed to every Starwood hotel in Europe, Africa and the Middle East. The company's Architecture and Design team has also participated in workshops on the US Green Building Council's LEED certification program.
<i>Executive Compensation</i>	None identified.

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## Public Disclosure

Score: 1

<i>Annual Report</i>	No climate change mention.
<i>Securities Filings</i>	No climate change mention.
<i>Other Disclosure</i>	Starwood does not publish a separate sustainability report. The company's website includes a Social Responsibility section that addresses climate change-related issues and makes public the company's Environmental Sustainability Policy Statement.
<i>Carbon Disclosure Project</i>	Answered Questionnaire (Not Public)
<i>Public Policy</i>	None identified.

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## Emissions Accounting

Score: 0

<i>GHG Emissions Inventory</i>	Starwood says it will begin publicly disclosing its carbon footprint this year through participation in the Carbon Disclosure Project.
<i>Certified CO<sub>2</sub> Offsets</i>	None identified.

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# STARWOOD HOTELS & RESORTS WORLDWIDE, INC.

## Strategic Planning

Score: 10

<i>Emissions Reduction Targets</i>	None identified.
<i>Energy Efficiency</i>	<p>In April 2008, Starwood announced its first LEED-mandated brand, ELEMENT, which will include several energy efficiency features. In addition to all ELEMENT hotels, Starwood has a number of other new build projects in pursuit of LEED certification. The company is in the process of revisiting standards and incorporating environmental sustainability into core business practices. Starwood standards will be influenced by recognized certifications such as LEED, Green Seal and Canada's Green Key as well as proven practices from the field.</p> <p>In addition, Starwood utilizes the Six Sigma methodology for a number of energy efficiency improvement projects. Starwood recently launched an initiative within North America to replace guest room incandescent lights with compact florescent lamps within all Westin, Four Points and Sheraton properties. A number of properties also utilize occupancy sensors and/or key card control systems to conserve energy. Starwood has installed 11 fuel cell power plants in 5 properties across North America. Sheraton San Diego Marina has one of the largest commercial fuel cell installations in the world. Fuel cell power plant technology runs off of natural gas and efficiently provides electricity and thermal energy to properties while generating near zero carbon emissions.</p> <p>Finally, Starwood hotels often offer shuttle services to guests and the company will be exploring the use of fuel efficient shuttles for this purpose.</p>
<i>Renewable Energy</i>	The ELEMENT hotels will also purchase wind power to offset 70 percent of electricity use for the first two years of operation as part of their LEED certification.
<i>Emissions Trading</i>	None identified.
<i>Products &amp; Services</i>	<p>Starwood has begun to address growing consumer interest in environmental issues by launching its ELEMENT brand of hotels, its first LEED-mandated brand. More than 20 ELEMENT hotels are scheduled to open by the end of 2009 and this will be the first major hotel brand to commit to LEED certification. While the hotels will incorporate many energy efficiency elements, one unique feature is that guests driving hybrid cars will be rewarded with priority parking. Guests and staff also have access to bicycles.</p> <p>The company is also in the process of establishing its first Green Meetings program inclusive of a carbon offsetting option for corporate clients and meeting planners. The company has partnered with Sustainable Travel International in the development of a carbon offset program to offer guests and meeting planners.</p>
<i>Research &amp; Development</i>	The new ELEMENT brand designated its first hotel in Lexington, Massachusetts as a working laboratory to test green construction, products, design and operations. Using these findings, the ELEMENT brand has created a road map for developers regarding cost-effective green building and the certification process. Starwood's research indicates that LEED certification is achievable at a minimal cost premium with initial investment payback within a few years, given associated operational savings.
<i>Supply Chain Management</i>	None identified.

# MGM MIRAGE

NEW YORK STOCK EXCHANGE – MGM  
Travel & Leisure

While MGM MIRAGE is currently formalizing its strategy to address the risks and opportunities posed by climate change, the company has pursued green building and energy efficiency initiatives at various properties, most notably at the CityCenter complex set to open in late 2009 in Las Vegas, Nevada.

**Summary Score: 14**

## Company Information

MGM MIRAGE is one of the world's largest development companies with significant holdings in gaming, hospitality and entertainment. The company owns and operates 17 properties located in Nevada, Mississippi and Michigan, and has 50 percent investments in four other properties in Nevada, New Jersey, Illinois and Macau. MGM MIRAGE also has new casinos and resorts under development in Las Vegas, Atlantic City, China and Abu Dhabi. In 2005, the company acquired Mandalay Resort Group and today has approximately 67,000 employees.

## Contact Information

**Chairman/CEO:** J. Terrence Lanni

**Website:** [www.mgmmirage.com](http://www.mgmmirage.com)

**Address:** 3600 Las Vegas Blvd. South, Las Vegas, NV 89109, United States

## Board Oversight

**Score: 0**

*Board Committee/Member*

None identified.

*Board Role*

MGM MIRAGE says that its Energy and Environmental Services division is ultimately subject to the oversight of the Board's Corporate Audit Committee. As future sustainability efforts are implemented, performance assurance and audit measures will be determined.

*Board Training*

None identified.

## Management Execution

**Score: 7**

*CEO Leadership*

Chairman and CEO J. Terrence Lanni mentions sustainability and energy efficiency efforts in his letter to shareholders in the company's 2007 Annual Report. President and COO Jim Murren also spoke at an August 2008 National Clean Energy Summit held at the University of Nevada. He outlined various energy efficiency initiatives at the company.

*Company Strategy*

MGM MIRAGE's approach to sustainability has been to identify the environmental impacts of its operations, implement strategic plans for sustainability at the property and corporate levels and measure and report the outcomes of its efforts. This strategy is focused on five core areas including natural resource conservation, design and construction, procurement, waste management and education and communication. The company has not made public a climate change-specific strategy.

*Executive Responsibility*

MGM MIRAGE created an Energy and Environmental Services division, headed by a Senior Vice President, in early 2006. While some division employees are working specifically on LEED certification for the company's major new development in Las Vegas, CityCenter, others are

# MGM MIRAGE

looking at overall environmental performance of the company's ten other properties in Las Vegas. Cindy Ortega is Vice President of Energy and Environmental Services.

*External Initiatives* None identified.

*Employee Training* MGM MIRAGE has provided sustainability training for all construction workers, designers and consultants on its CityCenter project as well as training on LEED requirements for all Crystals retail tenants. In addition, the company has offered Strategic Plan for Sustainability workshops for executives of each of its Las Vegas properties. Individual properties have also formed "green teams" to develop and implement sustainability plans. For the company's CityCenter project, new hire orientation includes a sustainability training module.

*Executive Compensation* None identified.

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## Public Disclosure

**Score: 2**

*Annual Report* In his letter to shareholders in the 2007 Annual Report, Chairman and CEO J. Terrence Lanni writes, "MGM MIRAGE continues to develop and expand our commitment to sustainability which brings tremendous value to communities and shareholders alike...CityCenter leads the way, as a nationally renowned sustainable development on course for certification under Leadership in Energy and Environmental Design (LEED) standards. Efforts are also being investigated and implemented in many other aspects of our many operations— from procurement to waste management, from construction to renovation—the principles of sustainability help our business grow and our planet thrive."

*Securities Filings* No climate change mention.

*Other Disclosure* MGM MIRAGE does not publish a separate sustainability report or include relevant information on its website.

*Carbon Disclosure Project* Declined to participate.

*Public Policy* None identified.

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## Emissions Accounting

**Score: 0**

*GHG Emissions Inventory* In late 2007, MGM MIRAGE engaged a third party to help the company conduct a GHG emissions inventory. Results of this engagement are not yet completed.

*Certified CO<sub>2</sub> Offsets* None identified.

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## Strategic Planning

**Score: 5**

*Emissions Reduction Targets* None identified.

*Energy Efficiency* Since 2006, MGM MIRAGE Las Vegas properties have implemented technologies and practices that reduced annual electricity consumption by nearly 50 million kWh. In 2008, the company also implemented upgrades to natural gas burning equipment that will reduce energy consumption by nearly 46,000 MMBtu.

## MGM MIRAGE

The company's largest sustainability project is a joint venture with Dubai World to open CityCenter, a 67-acre hotel and residential complex on the Las Vegas Strip in late 2009. The company is pursuing the US Green Building Council's LEED certification and aiming to make the 18-million-square foot, multi-use project one of the world's largest environmentally sustainable urban communities. Planned features in the hotel rooms include:

- Energy efficient lighting with a planned 50 percent improvement over code requirements for guestrooms in the ARIA Hotel Tower and Vdara.
- Green settings on the room's remote system to allow guests the opportunity to voluntarily "green their stay" by indicating their preferred light level, room temperature and frequency of linen and towel changes.
- Programmable systems to automatically put a room into unoccupied status upon checkout turning down or off the heating/cooling system, televisions, lights and any appliances.

In addition, Siemens has contracted to build a \$100 million on-site power plant and to help provide the site with energy efficiency technologies and a water reclamation system. The project will also include green roofs and a property-wide monorail system that will connect with the company's ten other properties on the Las Vegas Strip. Overall, CityCenter is designed to achieve a more than 30 percent improvement in energy efficiency over current building codes.

### *Renewable Energy*

The CityCenter project will also include a \$13 million co-generation power plant. The combined heat and power plant will utilize excess heat for pools and hot water needs.

### *Emissions Trading*

None identified.

### *Products & Services*

MGM MIRAGE offers Green Meeting Services through its convention and group sales.

### *Research & Development*

None identified.

### *Supply Chain Management*

None identified.

# LAS VEGAS SANDS CORP.

NEW YORK STOCK EXCHANGE – LVS  
Travel & Leisure

Las Vegas Sands has not made public a formal strategy to address the risks and opportunities posed by climate change. There is no evidence of board or executive leadership with respect to climate change, and the company has not set greenhouse gas (GHG) emission reduction targets. However, the company has pursued green building and energy efficiency initiatives at various properties. The company did not comment on this profile by deadline.

**Summary Score: 7**

## Company Information

Las Vegas Sands, a hotel, gaming and resort development company, owns the Venetian Resort Hotel Casino and the Palazzo Resort Hotel Casino, both in Las Vegas, Nevada. The company also owns attached conference and exhibition centers in Las Vegas. In Asia, the company owns the Sands Macao and The Venetian Macao Resort Hotel and is developing integrated resort properties in Macao and Singapore. As of 2007, the company had approximately 28,000 employees.

### Contact Information

**Chairman/CEO:** Sheldon Adelson

**Website:** [www.lasvegassands.com](http://www.lasvegassands.com)

**Address:** 3355 Las Vegas Blvd. South, Las Vegas, NV 89109, United States

## Board Oversight

**Score: 0**

<i>Board Committee/Member</i>	None identified.
<i>Board Role</i>	None identified.
<i>Board Training</i>	None identified.

## Management Execution

**Score: 2**

<i>CEO Leadership</i>	Chairman and CEO Sheldon Adelson accepted LEED certification for The Palazzo Las Vegas in April 2008 and stated in the press release, "From the beginning, we were determined to create Las Vegas' first truly eco-friendly property and we are extremely proud to have achieved it and be recognized for it. There is an increasing necessity to employ 'green' construction principles and we are proud to be a leader in the evolution of environmentally-focused building practices, not only on the Las Vegas Strip, but at Las Vegas Sands' properties throughout the world."
<i>Company Strategy</i>	None identified.
<i>Executive Responsibility</i>	None identified.
<i>External Initiatives</i>	None identified.
<i>Employee Training</i>	None identified.
<i>Executive Compensation</i>	None identified.

# LAS VEGAS SANDS CORP.

## Public Disclosure

Score: 0

<i>Annual Report</i>	Las Vegas Sands does not publish a separate annual report; relevant information can be found in the company's annual Form 10-K.
<i>Securities Filings</i>	No climate change mention.
<i>Other Disclosure</i>	Las Vegas Sands does not publish a separate sustainability report or include relevant information on its website.
<i>Carbon Disclosure Project</i>	No response.
<i>Public Policy</i>	None identified.

## Emissions Accounting

Score: 0

<i>GHG Emissions Inventory</i>	None identified.
<i>Certified CO<sub>2</sub> Offsets</i>	None identified.

## Strategic Planning

Score: 5

<i>Emissions Reduction Targets</i>	None identified.
<i>Energy Efficiency</i>	<p>In April 2008, The Palazzo Las Vegas was awarded a Silver LEED certification by the U.S. Green Building Council and named the largest LEED-certified building in the world. The US Department of Energy also presented The Palazzo with "The Energy Innovator's Award" which recognizes businesses that have successfully developed or deployed energy efficiency or renewable energy technologies or policies. The Palazzo's energy efficiency and conservation efforts include:</p> <ul style="list-style-type: none"><li>■ Artificial turf, drip irrigation and moisture sensors in planted areas result in over a 75 percent reduction in irrigation needs.</li><li>■ Air conditioning controls in guest suites that automatically setback by several degrees when guests are not present and reset to the desired temperature upon return.</li><li>■ Team member service areas equipped with lighting occupancy sensors that shut off lights when no one is in the area.</li><li>■ Interior plumbing fixtures that use 37% less water than conventional buildings as a result of water-efficient showerheads, high efficiency toilets and low-flow lavatory faucet aerators.</li></ul>
<i>Renewable Energy</i>	Swimming pools at The Palazzo are heated with an expansive solar pool heating system. In the summer, the excess solar energy not needed for the pools is directed to the hotel's hot water system, reducing the need to heat water for guest suites.
<i>Emissions Trading</i>	None identified.
<i>Products &amp; Services</i>	None identified.
<i>Research &amp; Development</i>	None identified.
<i>Supply Chain Management</i>	None identified.