

MGM Resorts International - Climate Change 2019

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

MGM Resorts International (NYSE: MGM) is an S&P 500 global entertainment company with national and international locations featuring best-in-class hotels and casinos, state-of-the-art meetings and conference spaces, incredible live and theatrical entertainment experiences, and an extensive array of restaurant, nightlife and retail offerings. MGM Resorts creates immersive, iconic experiences through its suite of Las Vegas-inspired brands. The MGM Resorts portfolio encompasses 30 unique hotel offerings including some of the most recognizable resort brands in the industry. Expanding throughout the U.S. and around the world, the company recently acquired the operations of Empire City Casino in New York and Hard Rock Rocksino in Ohio, which was rebranded as MGM Northfield Park. In 2018, MGM Resorts opened MGM Springfield in Massachusetts, MGM COTAI in Macau, and the first Bellagio-branded hotel in Shanghai. The 83,000 global employees of MGM Resorts are proud of their company for being recognized as one of FORTUNE® Magazine's World's Most Admired Companies®. For more information visit us at www.mgmresorts.com.

We're proud to be recognized for our commitment to being environmentally and socially responsible, including for our industry-leading diverse and inclusive culture, community engagement and philanthropy initiatives and a commitment to environmentally sustainable approaches in development and operations.

We have been consistently ranked among the top 500 of Newsweek Magazine's listing of green companies. PR News has recognized MGM Resorts as an Overall Leader in CSR Practices while our Chairman & CEO has been recognized as a Responsible CEO of the Year by Corporate Responsibility Magazine. FORTUNE Magazine's Magazine has named MGM Resorts one of the World's Most Admired Companies.

MGM Resorts International recognizes that climate change presents both risks and opportunities for its operations, and is pleased to participate in the CDP Climate Change 2019 survey to share our progress. MGM Resorts is committed to be a global leader in environmental sustainability, helping protect the planet while bringing value to our shareholders and stakeholders. Our company operates smarter and more efficiently as we extend sustainable business practices to existing properties and new projects. The results we achieve include using resources more efficiently; reducing construction impacts; minimizing waste; managing supply chains; and increasing awareness. This commitment helps our business grow responsibly.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2018	December 31 2018	No	<Not Applicable>

C0.3

(C0.3) Select the countries/regions for which you will be supplying data.

China, Macao Special Administrative Region
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Operational control

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of Individual(s)	Please explain
Board Chair	<p>In 2011 MGM Resorts International established the Corporate Social Responsibility (CSR) Committee of the Board of Directors. The Committee oversees the company's activities related to energy, environment and climate change, as well as the company's diversity and philanthropic programs. In addition, an Executive CSR Committee was formed, consisting of senior executives from a cross-section of the organization, and is chaired by MGM Resorts International Board Chairman and CEO. The result is that climate change and environmental sustainability management is being reviewed and guided at the highest level of the company, including by Board members, with direct oversight provided by the Board Chair and CEO.</p>

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	<p>Reviewing and guiding strategy</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Setting performance objectives</p> <p>Monitoring implementation and performance of objectives</p> <p>Overseeing major capital expenditures, acquisitions and divestitures</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p> <p>Other, please specify (Reviewing communications strategies on all CSR and climate related matters to all constituents including employees, management, customers and investors.)</p>	<p>The Corporate Social Responsibility (CSR) Committee of the Board of Directors provides oversight of climate-related issues. This involves including energy, environment, and climate change matters at regularly scheduled meetings of the Committee. A key example of the Board Committee's oversight is in setting of goals and prioritizing initiatives related to climate change. One example is in 2017 MGM established the goal of reducing its Scope 1 and Scope 2 carbon emissions by 50% per square foot by 2030, using 2007 as a baseline. At its regularly scheduled meeting the Board reviews progress against this goal. Another is that in 2018 the Board Committee reviewed and approved the development of a new 100 MW solar array for MGM, in North Las Vegas.</p>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Operating Officer (COO)	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The Chief Operating Officer (COO) of MGM Resorts International is the highest management-level position with direct responsibility for management of climate-related issues at MGM Resorts International. The COO reports to the company Chief Executive Officer (CEO) and Board of Directors (BOD). Both the CEO and BOD of MGM Resorts International have established Sustainability as a core company value. This core value of Sustainability is incorporated as one key pillar in the company's overall Corporate Social Responsibility (CSR) platform, along with Diversity and Philanthropy. As a core company value, adherence to Sustainability is embedded in all company operations. As part of the responsibility for all company operations, the COO is responsible for CSR, including Sustainability and climate-related issues.

Within the reporting year, the COO managed climate-related issues in part through the operation of the Corporate Sustainability Division (CSD). The CSD is led by a Senior Vice President and Chief Sustainability Officer (CSO). The CSO is responsible for the development, execution, and management of environmental sustainability strategies within the company, including the reduction of greenhouse gas emissions and all climate-related issues. The CSO reports directly to the Chief Operating Officer (COO) of MGM Resorts International.

One example of the management of climate-related issues by the COO and the CSO is the regular assessing and monitoring of company progress against relevant goals. In 2017 MGM Resorts established the goal to reduce its Scope 1 and Scope 2 greenhouse gas emissions by 50% by 2030, using 2007 as a baseline. The CSD prepares a report of "Key Environmental Performance Metrics" and "Additional Environmental Performance Metrics" as part of this process. As of 2018, MGM had achieved total reduction of Scope 1 and Scope 2 greenhouse gas emissions of 34% since 2007 against the goal of 50%. The COO will assess and establish operational strategies and tactics, including the establishment of appropriate operating and capital budgets, to ensure substantial progress against this goal.

This path of direct Board oversight, through the senior most Operating and Sustainability Executives at the Company, is a direct result of the priority and value sustainability and overall Corporate Social Responsibility (CSR) plays at MGM Resorts International.

Environmental sustainability strategies revolve around the following areas of focus, as articulated in MGM's formal Environmental Policy, released in January 2018.

- 1) Climate
- 2) Energy
- 3) Water
- 4) Materials
- 5) Engagement

All operating entities of MGM Resorts, with guidance provided by the Corporate Sustainability Division (CSD), have developed practices dedicated to progress within each of the five focus areas above. Specific operational tactics for climate change management are present within each of these focus areas. The focus areas with the most direct climate-related impacts relate to "Climate" and "Energy", and the work MGM Resorts does on Climate Policy within "Engagement".

Climate-related issues are monitored and reported both internally and externally on a continual basis, both in the form of internal data and metrics, as well as policies and trends external to the company. MGM Resorts actively participates in the political and regulatory processes at the local, state, federal, and international levels as they relate to the promotion of environmental responsibility and effective management of climate-change.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

Yes

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Who is entitled to benefit from these incentives?

Chief Operating Officer (COO)

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

Climate-related issues are incorporated in annual Key Performance Indicators (KPIs) that all company management employees and above are responsible for. Specific climate-change related KPIs include the development, implementation, and active monitoring of comprehensive energy management plans at all company resorts. Further, MGM Resorts has publicly stated both energy and greenhouse gas emissions goals that are actively managed.

Who is entitled to benefit from these incentives?

Chief Sustainability Officer (CSO)

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

Climate-related issues are incorporated in annual Key Performance Indicators (KPIs) that all company management employees and above are responsible for. Specific climate-change related KPIs include the development, implementation, and active monitoring of comprehensive energy management plans at all company resorts. Further, MGM Resorts has publicly stated both energy and greenhouse gas emissions goals that are actively managed.

Who is entitled to benefit from these incentives?

Executive officer

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

Climate-related issues are incorporated in annual Key Performance Indicators (KPIs) that all company management employees and above are responsible for. Specific climate-change related KPIs include the development, implementation, and active monitoring of comprehensive energy management plans at all company resorts. Further, MGM Resorts has publicly stated both energy and greenhouse gas emissions goals that are actively managed.

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	0	2	Short-term is generally considered to be between 0 and 2 years.
Medium-term	2	5	Medium-term is generally considered to be between 2 and 5 years.
Long-term	5	20	Long-term is generally considered to be between 5 and 20 years and beyond.

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	Climate-change related metrics and risks are reported to the Corporate Social Responsibility (CSR) Committee of the Board of Directors. Risk management plans are under continual review and refinement as warranted by business conditions.

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

The Chief Operating Officer (COO) of MGM Resorts International is responsible for and works with the Corporate Sustainability Division (CSD) to identify strategic objectives, risks, and opportunities around environmental responsibility and climate-related issues.

Specific climate-related risks are identified through the following assessment process steps:

1. Regular interaction of CSD with all property operators directly responsible for climate-related activities
 - a. For instance, monthly meetings with property Facility executives directly responsible for engineering and building maintenance
 - b. Operator Councils such as the MGM Waste Management Council that meets at regular intervals to share best practices in property waste management
2. Identification of climate-related risks incorporating the following categories:

- a. Physical
- b. Regulatory
- c. Reputation

3. Assessment of climate-related risks according to the following factors:

- a. Likelihood
- b. Time horizon
- c. Magnitude of impact (modest, substantive, and severe)

Step No. 3 results in the identification of specific operational tactics to mitigate climate-related risks. These include the establishment of operational and capital budgets for the purpose of energy and water conservation, pro-active interactions with appropriate regulatory bodies at the local, state, and federal levels, and response to feedback provided by customers and employees. These operational tactics generally consider a 1-3 year implementation time horizon, with certain of these extending beyond 6 years (such as broad energy conservation and sourcing objectives along with greenhouse gas emissions reductions targets).

Climate-related risks may overlap multiple categories identified in No. 2 above. For example, a severe drought of extensive duration in Las Vegas or other regions in which we operate could adversely affect our business and results of operations. More than 80% of our hotel rooms are located in Las Vegas, making such a drought in Las Vegas a material risk with a severe financial impact potential. A modest (low) financial impact is defined as a potential impact with a net present value of less than \$1.0M. A substantive (medium) financial impact is defined as any potential impact with a net present value between \$1.0M and \$10.0M. A severe (high) financial impact is defined as any potential impact with a net present value of \$10.0M or greater.

Specific operational tactics deployed as a result of the risk management process are informed by the internal experience of MGM Resorts and its Board, along with pertinent trends, policies, and activities of other companies and industries as well as those of local, state, and Federal governmental agencies. All property operators execute annual strategic plans, with continual monitoring, reporting, and support provided by CSD. The plans are informed by this process. Further the process for identifying climate-related risks is part of the broad overall risk management function at MGM Resorts International.

C2.2c

(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	<p>MGM Resorts is affected by a broad array of current regulations that present multiple potential operational risks. One example of an area of such regulation is Energy Efficiency Policy. MGM Resorts International actively supports legislation at State and Federal levels to encourage utility and end-user energy efficiency measures, as well as the use of combined heat and power (CHP). The company also supports efforts in developing lighting policy standards through the U.S. Department of Energy (DOE). These regulations, and their effects, present operational risks in that they may impact the cost of implementing energy conservation initiatives, both within the Company and elsewhere. These risks are identified in the first step in the MGM Resorts climate-related risk management process, interaction between the Corporate Sustainability Division (CSD) and property operators. They are then further identified and assessed as to the magnitude of potential impact through the remaining steps and utilized in applicable tactics such as the development of energy conservation budgets, which are ultimately approved by the Chief Operating Officer (COO). As such, MGM takes an active role in the promotion of policies to help facilitate such measures at the most attractive terms possible in the communities in which it does business. A second example of a potential risk area in terms of supply influenced by current regulation is in the area of water conservation and management. More than 80% of the hotel rooms of MGM Resorts exist in Las Vegas, an area of potential drought. As such, MGM actively supports organizations to develop sound water policy. These groups include WaterStart, Springs Preserve, ONE Drop, and the Southern Nevada Water Authority. These efforts help to mitigate future potential water supply disruption risks that may impact business operations in Las Vegas. Third, there are current regulations affecting operational risk in energy supply markets. As such, MGM actively supports the development of renewable energy through regulatory processes. In jurisdictions such as Nevada, the adoption of more renewable energy helps to lower the overall regional emissions of greenhouse gases. Lower emissions help to mitigate future forms of carbon costs such as potential carbon taxes as well as diversify local economies and improve local health.</p>
Emerging regulation	Relevant, always included	<p>Emerging regulations may affect MGM Resorts in a myriad of ways and present ongoing climate-related operational risks. For instance, MGM Resorts has provided input on several energy efficiency and sustainability bills in Nevada and continues to participate in Legislative and Regulatory processes in climate-change related areas. These efforts serve to diversify the future supply of energy, a critical business resource to all company operations. One specific example is emerging Renewable Energy Policy. Emerging policy in this area presents operational risk in that it may affect the future cost of energy and the implementation plans of MGM Resorts to increase its share of energy sourced from renewable resources. This risk is a critical component of the MGM risk management process in that it begins with the first step in the process, interaction of the Chief Operating Officer (COO), Corporate Sustainability Division (CSD) and company departments such as Government Affairs. Emerging policy elements are assessed in terms of their potential impacts on the costs or timeline of Company plans. Tactics are then developed and approved as part of the risk management process such as targeted interaction with regulatory bodies at the local, state, and Federal levels. Prior company activities as a result of this process have included interactions with the Nevada State Legislature and the Governors Panel on climate change, the Harry Reid Blue Ribbon Energy Panel, the Southern Nevada Solar Energy Lab Development Committee, and frequent interactions with state representatives for input on energy related issues. MGM Resorts has provided input on several renewable energy related bills in Nevada. Most notably, in April 2019, MGM supported SB 358 which was signed into law, and substantially increased the renewable portfolio standard (RPS) in Nevada.</p>

	Relevance & inclusion	Please explain
Technology	Relevant, always included	<p>Technological changes present risk in terms of the potential for MGM Resorts to fail to keep up with industry best practices and customer expectations in climate-related areas. As such, best practices are studied both within the operations of MGM Resorts as well as in organizations and industries external to the company. These risks are identified in the MGM risk management process through interaction of the Corporate Sustainability Division (CSD) and key property operators. Operators provide direct company day-to-day experience, while the CSD provides a broad perspective through external research. Tactics developed include the use of existing and emerging technologies such as practices to establish and advance smart-building systems and energy management platforms. These help to mitigate the risk of rising energy costs and lower the dependence on fossil fuels. Specific tactics are prioritized according to the relative potential impacts they represent. These may be in the form of energy conservation to be achieved and thus the mitigation of future rising operating costs. All such tactics are ultimately approved by the Chief Operating Officer (COO). Specific risks to the company include failing to keep up with best-in-class standards in terms of energy management within the hospitality industry. MGM Resorts, through the Corporate Sustainability Division (CSD), maintains constant monitoring of emerging technologies. The best concepts are incorporated into the annual capital budget dedicated exclusively to the promotion of energy and water conservation initiatives. Continual investment in appropriate technologies helps to strengthen the reputation of MGM Resorts as a leader in Sustainability. This, in turn, helps to mitigate the risks of losing competitive position or advantages, as well as the erosion of market share and customer reputation. We are also focused on technology to enhance the guest experience. For example, our eCommerce platform provides our guests and business partners a premier digital experience where they have the ability to create an all-inclusive experience from accommodations to dining and entertainment with real time recommendations provided based on the preference. Directly climate-related impacts include messaging on the sustainable practices of each resort such as information on recycling and conservation programs.</p>
Legal	Relevant, always included	<p>The overall Strategic Plan for Sustainability at MGM Resorts serves as a framework and guides all company actions to reduce the environmental impact of operations. Activities taken to influence policy at the local, state, and national level are reviewed in the context of this framework and with senior management and/or the Corporate Social Responsibility (CSR) Committee of the Board of Directors. Further, key stakeholders both internal and external to the organization are consulted where appropriate. These efforts result in the development and support of applicable legislation and regulations affecting environmental responsible operations and practices. Potential legal risks include the assessment of environmental-related fines. MGM operations are under the effects of many regulations with multiple jurisdictions. An example includes the regulation of facility air emissions by the U.S. Environmental Protection Agency (EPA) and the Clark County Department of Air Quality in the Las Vegas region. Risks in this area are reviewed as part of the MGM risk management process via interactions between the Corporate Sustainability Division (CSD), property operators, and the Legal department. MGM operators continually maintain operational best practices in this area and work regularly with pertinent officials to comply with all applicable regulations. The practices are incorporated into Standard Operating Practices (SOPs). These efforts serve to mitigate the risk of any non-compliance assessments or fines.</p>
Market	Relevant, always included	<p>Discerning customers in the hospitality industry are demanding higher environmental and climate-related standards from the resorts they choose to visit. Failing to meet these growing standards risks the loss of business and the erosion of long-term market share. As such, market elements including Climate Change and Environmental Sustainability Awareness are examined as part of the MGM Resorts risk management process. MGM Resorts has participated with the World Travel and Tourism Council (WTTC) and International Tourism Partnership to standardize measurement and communications of Greenhouse Gas Emissions to guests across the hospitality industry, as well as provide input and guidance for the WTTC in developing sustainability policy and direction. Potential operational risks include the loss of revenues or erosion of market share of resort customers seeking greater transparency of the environmental impact of their guest experience. To address these risks, one example tactic is MGM has developed a proprietary package of sustainable options when planning a business meeting or convention. This has been accomplished as part of the MGM risk management process through the interaction of the Corporate Sustainability Division (CSD) with operators in the MGM Hotel and Convention departments, first to identify the customer demand, and second to work to meet and exceed this demand. As a result, MGM creates a fully customized environmental impact assessment of these events where requested. These best practices are incorporated into annual strategic plans to mitigate the risk of market share loss and improve the brand and reputation of MGM Resorts.</p>

	Relevance & inclusion	Please explain
Reputation	Relevant, always included	A strong driver of the overall environmental sustainability efforts at MGM Resorts, including all climate change related efforts, is the ability for these efforts to advance the company's reputation. In particular extensive renewable energy efforts have a discernible positive impact on company reputation among multiple stakeholders. A key example of potential risk in this area is the risk to the company represented by the perception of MGM Resorts to be a significant consumer of energy; and in particular, of fossil-fuel based, carbon intensive forms of energy. This risk has been clearly identified as part of the risk management process of MGM Resorts through the interaction of the CSR Committee of the Board of Directors, the Chief Operating Officer (COO), the Corporate Sustainability Division (CSD), property operators, and departments such as Marketing and Human Resources. Feedback from both customers and employees has been assessed. Further, a comprehensive Request for Proposal (RFP) for renewable energy was deployed. Detailed proposals have been assessed and examined both in terms of Sustainability and financial elements in the long-term. As a result, in 2018 MGM established the goal to have 50% of its energy sourced from renewable resources by 2030. As a key tactic in this goal, in 2018 MGM Resorts announced a partnership with Invenergy, North America's largest independent renewable energy company, to develop a 100 megawatt (MW) solar energy facility 25 miles north of Las Vegas to be exclusively dedicated to the Las Vegas properties of MGM Resorts. This is one example of the Company taking aggressive and proactive actions to make meaningful progress in Sustainability and to mitigate any reputational risks to the Company in the area of climate-risk management.
Acute physical	Relevant, always included	Extreme weather conditions or climate-change may cause property damage or interrupt business, which could harm the business and results of operations at MGM Resorts. Certain company casino properties are located in areas that may be subject to extreme weather conditions, including, but not limited to hurricanes in the United States and severe typhoons in Macau. Such extreme conditions may interrupt operations, damage properties, and reduce the number of customers who visit MGM facilities in such areas. In addition, operations could be adversely impacted by a drought or other cause of water shortage. An extensive duration of drought in Las Vegas or in other regions in which MGM operates could adversely affect business and results of operations. More than 80% of company hotel rooms are located in Las Vegas, making such a drought in Las Vegas for instance, a material risk with a substantive financial impact potential. These risks are actively incorporated into key strategic plans including annual insurance levels and limits. Further, MGM takes an active role in climate-risk management such as diversification of its annual energy supply plan to incorporate increasing levels of renewable energy. The company also supports water conservation and advanced water management technologies to mitigate potential supply risks in areas such as Las Vegas. This is a key part of the climate-related and overall risk management process and plans at MGM Resorts.
Chronic physical	Relevant, always included	Chronic physical risks include potential water supply issues in drought affected areas such as Las Vegas. These issues are included in the climate-related risk management process of MGM through extensive research by the Corporate Sustainability Division (CSD). As part of its mandate, CSD focuses on water conservation and management issues. This includes interaction with local experts and regulatory bodies such as the Southern Nevada Water Authority (SNWA). CSD leverages the work of the SNWA in its efforts to assess the long-term supply of and demand for water in the Las Vegas area. The need for conservation and responsible water management is clear. In response, MGM has assessed its need to exhibit leadership in this area, and the risk to the Las Vegas community and market future water challenges potentially represent. As such, MGM Resorts MGM provides funding to several water conservation, awareness and outreach efforts, including WaterStart, Springs Preserve, and ONE Drop in support of the broader goal of promoting Sustainability both within and external to the Company. These efforts help to mitigate future potential water supply disruption risks that may impact business operations in Las Vegas. Further, MGM provides extensive education to its employees through its Green Advantage platform and associated media. In addition, MGM provides messaging for guests and means to conserve water such as through towel and linen reuse programs and water conserving options when planning meetings and conventions at company facilities.

	Relevance & inclusion	Please explain
Upstream	Relevant, always included	Upstream risks include potential supply disruptions as the result of climate-related factors of important products purchased by MGM Resorts. For example, climate change may impact in particular certain agriculture food products. This risk is incorporated into the MGM climate-related risk management process through interaction of the Corporate Sustainability Division (CSD) with property operators and the Global Procurement department. In order to assess this risk detailed procurement data has been ascertained and examined. This has included the segmentation of more than \$2.9 billion of 2018 annual company spend into appropriate purchased goods categories. These categories are then assigned relevant carbon emissions impact factors according to global standards as established by the Quantis Scope 3 Evaluator tool. The relative carbon impacts of critical spend categories can then be established. This helps to identify the categories of purchases that are most susceptible to future climate change related risks. This result, in turn, informs where the company should focus mitigation efforts in terms of potential climate-related procurement risk.
Downstream	Relevant, always included	Downstream risks include potential customer erosion or loss of market share in response to climate-related issues. Potential climate-related risks falling into this category are incorporated into the climate-related risk management process of MGM Resorts via the assessment of feedback from both company internal and external stakeholders. This assessment is conducted continuously by the Corporate Sustainability Division (CSD), property operators such as in Hotel and Convention Services, and the Marketing Departments. For example, multiple Convention Services departments at MGM Resorts proactively interact with current and prospective meetings and conventions customers as to their expectations and requirements in the areas of Sustainability when planning a meeting or convention at a MGM facility. This feedback is examined in terms of the resources needed to deliver on the Sustainability requests, the potential business impact (in terms of incremental business or loss of market share), and the time frame needed. The process results in a greater awareness of customer needs by MGM and informs the overall strategic plan for Sustainability. One specific tactic that has been developed to alleviate this risk is that MGM actively helps convention customers estimate the carbon emissions associated with their convention at company facilities. MGM also estimates the relative emissions reduction associated with hosting a convention at an MGM facility vs. other similar venues. This service is incorporated into a fully customized, proprietary package of climate-related services to the convention customer segment. These practices serve to mitigate risks associated with reputational status among convention clients, a material segment of the overall visitor base of the company.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

The Chief Operating Officer (COO) of MGM Resorts International is responsible for and works with the Corporate Sustainability Division (CSD) to identify strategic objectives, risks, and opportunities around environmental responsibility and climate-related issues. The COO is also responsible for overseeing all efforts to manage and mitigate climate related risks and take advantage of climate-related opportunities.

Climate related risks, in turn, are incorporated into overall risk management strategies and inform the annual strategic plans of all operating units.

The process for managing climate-related risks and opportunities is summarized via the steps below:

1. Identification of climate-related risks per the process detailed in the response to CDP Question C2.2b involving the interaction of the Chief Operating Officer (COO), Corporate Sustainability Division (CSD), property operators, and outside experts as required
2. Prioritization of each climate-related risk according to assessment of likelihood, time horizon, and magnitude of impact (modest, substantive, and severe)
3. Development of specific tactics to be deployed to address and mitigate each climate-related risk
4. Deployment of specific tactics to mitigate each climate-related risk
5. Ongoing monitoring of tactic deployments and re-assessment of risks as required

In many cases, the identification and assessment of a climate-related risk results in the identification of a commensurate climate-related opportunity (i.e. the potential to demonstrate company leadership in adequately addressing a risk common to entities outside of MGM Resorts). Each opportunity is then subjected to the same steps number 2-5 as presented above accept the steps are to address each potential opportunity and realize its benefits.

A key example of a climate-related physical risk, and associated opportunity, to MGM is the risk of a severe drought of extended duration in Las Vegas or in other regions in which MGM operates. More than 80% of company hotel rooms are located in Las Vegas, making such a drought a severe risk with a substantive financial impact potential. In 2018 the Las Vegas properties of MGM Resorts generated more than \$5.7 billion of revenue. Through its climate-related risk mitigation process, MGM has identified multiple tactics that have been deployed to mitigate this risk. These include developing educational programs locally in Las Vegas about the importance of water conservation and working with regional municipalities such as the Southern Nevada Water Authority (SNWA) to develop sound water policy. Further, MGM provides funding to several water conservation, awareness and outreach efforts, including WaterStart, Springs Preserve, and ONE Drop in support of the broader goal of promoting Sustainability both within and external to the Company. These objectives are included in annual operating budgets that are approved once per year by the COO and the CSR Committee of the Board of Directors of the company, with updates provided quarterly during each year. The result is a material contribution to a more robust water system in Las Vegas. These efforts, in turn, have realized the opportunity for MGM Resorts to be recognized as a global leader in the responsible management of water resources, informing multiple examples of communications both internal and external to the company.

A key example of a climate-related transitional risk and associated opportunity to MGM is in the area of evolving markets for electricity. The company has analyzed high levels of volatility in market prices for energy as well as growing consumer demand for greater shares of renewable energy. As a result, MGM has taken significant steps to diversify its overall portfolio of electricity and energy. In October 2016, MGM completed a transaction to convert the Las Vegas properties of the company from fully-bundled electric service with the

local utility, NV Energy, to distribution-only service (DOS). This allowed the company to control its portfolio of electricity supply and source its electricity from the wholesale market. The transaction was the result of a case adjudicated by the Public Utilities Commission of Nevada (PUCN). MGM paid a total one-time exit fee of \$87M to complete the transaction. As a result, MGM in 2018 announced a partnership with Invenergy, North America's largest independent renewable energy developer to design and construct a utility-scale, 100-megawatt solar photovoltaic (PV) array for the exclusive use of the Las Vegas properties of MGM Resorts.

The system, when completed by late 2020, will enable MGM to procure a significant portion of its energy from renewable resources, as well as provide economic diversification from the volatile market costs of energy. The system is now incorporated into the annual energy plan of the company, with quarterly updates provided to the COO and CSR Committee of the Board.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Supply chain

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Increased pricing of GHG emissions

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

For MGM Resorts, global Scope 2 GHG emissions are generated from the 30 unique hotel and resort destinations operated by the company. These Scope 2 emissions are the result of purchased electricity in each of the markets in which the company operates. The total volume of this purchased electricity is approximately 1.3 billion kilowatt hours annually at about \$90 million of operating expense. This annual purchased volume of electricity includes the climate-related risk of higher operating costs as the result of the potential for higher carbon-intensive sources of electricity to be associated with higher prices in the future. This includes the potential for the imposition of carbon taxes being implemented in the jurisdictions in which the company operates.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

18000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The financial impact figure is 20% of the current annual operating cost of purchased electricity. This 20% adjustment is the result of a review of recent historical market prices of electricity from high carbon-intensive sources versus low carbon-intensive sources.

Management method

MGM Resorts manages the risk of increased operating costs resulting from total Scope 2 GHG emissions through the following actions: 1. MGM has established the goal of achieving 50% of its electricity from renewable resources 2. MGM has completed a review of available onsite rooftop space suitable for solar photovoltaic (PV) installations in order to source more renewable electricity 3. In 2016 commissioned the final phase of the 8.3 megawatt rooftop solar PV installation at Mandalay Bay in Las Vegas 4. MGM actively supports legislation designed to increase the share of renewable electricity of the wider grid, most recently via SB 358 signed into law in Nevada in April 2019 5. MGM works with all energy providers to increase the share of renewable electricity A significant case study is the October 2016 transaction completed by MGM for its Las Vegas properties to exit the sales system of the local utility and source its electricity from the wholesale market. This was adjudicated by the Public Utilities Commission of Nevada (PUCN). Following this transaction MGM announced a partnership with Invenergy to develop a 100 megawatt utility-scale solar PV plant for the exclusive use of its properties. This plant will begin operation by the end of 2020 and will significantly increase the share of electricity sourced from renewable means at the company. The cost of management of \$87.0 million is the one-time exit fee of the October 2016 transaction imposed on MGM by the PUCN.

Cost of management

87000000

Comment

The cost of management is the one-time exit fee paid by MGM Resorts to exit the fully-bundled sales system of NV Energy, the local electric utility in Las Vegas. The transaction enabled MGM to source its electricity from a greater share of renewable resources, thus mitigating the potential effect of rising market prices of fossil-fuel based energy.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Mandates on and regulation of existing products and services

Type of financial impact

Increased costs and/or reduced demand for products and services resulting from fines and judgments

Company- specific description

MGM Resorts International operates 14 resorts in Las Vegas. Of these, 12 are included in the U.S. Environmental Protection Agency (EPA) Title V Air Emissions Permit of MGM Resorts under the Clean Air Act. These 12 resorts in Las Vegas collectively total more than 60% of all global MGM Resorts Scope 1 emissions and more than 56% of all global Scope 2 emissions. As holders of this Title V Air Emissions Permit, MGM must adhere to strict operational requirements and regulatory oversight as to the control of air emissions of certain facility assets such as boilers and other heating and cooling equipment. Failure to properly comply carries the climate-related risk of regulatory penalties including fines which would increase operating costs at these 12 Las Vegas resorts.

Time horizon

Medium-term

Likelihood

Unlikely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

500000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The financial impact figure is a high-end estimate of a potential fine as a result of a failure to comply with air emissions regulations at both the local and Federal levels. This high-end estimate was calculated via review of historical fines assessed in the Las Vegas area by local and Federal regulators and adjusting these figures relative to the large presence in the local market the 12 affected Las Vegas resorts of MGM Resorts represent.

Management method

MGM Resorts actively manages the climate-related risks associated with failure to comply with regulatory oversight of its US EPA Title V Air Emissions Permit via the following actions: 1. Development of a complete inventory of all affected assets at each applicable resort 2. Development and deployment of best-practices in operational record keeping of all affected assets 3. Monitoring of air emissions on a continual basis 4. Reporting of air emissions to required regulatory agencies 5. Compliance with on-site audits of regulatory agencies For the reporting year of 2018 MGM Resorts was not subject to any penalties or fines from the U.S. E.P.A. or local regulatory agencies in regard to its EPA Title V Air Emissions Permit. A recent case study of this management is the April 2018 audit that was conducted on behalf of MGM Resorts by an outside party to ensure that the above actions were properly conducted during the 2018 reporting year. The results of the audit included recognition of a commitment of MGM Resorts to invest \$100,000 on resources and systems improvements in furtherance of the above management actions. These resources included and emissions units labelling program, internal procurement system, and a Management of Change (MOC) system written procedures and training. These resources were applicable to all 12 affected properties of MGM Resorts in Las Vegas. The cost of management in the \$100,000 noted above plus \$120,000 (2,000 internal hours at \$60/hour).

Cost of management

220000

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Supply chain

Risk type

Transition risk

Primary climate-related risk driver

Market: Increased cost of raw materials

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

MGM Resorts International operates 30 unique hotel and resort destinations globally. It must purchase approximately 1.3 billion annual kilowatt hours of electricity at an operating cost of \$90 million each year for these facilities. In operating each of its resorts, MGM bears the climate-related risk of lower energy efficient operations, higher energy use and environmental impact, and associated higher costs of energy as a raw material, over time through aging of equipment and building systems.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1800000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The financial impact figure is 2% of the historical annual total cost of electricity of \$90 million. MGM estimates that without active energy conservation investment and efforts, its resorts will use 2% more electricity each year as a result of aging equipment and building systems. This 2% figure was derived through examination of the company's historical trend of electricity usage.

Management method

MGM Resorts actively manages the climate-related risks associated with lower energy efficient operations, higher energy use and environmental impact, and associated higher costs of energy as a raw material, over time through aging of equipment and building systems via the following actions: 1. MGM has established the goal of 30% lower energy use per square foot at its resorts by 2030 2. The Corporate Sustainability Division (CSD) manages annual capital and operating budgets dedicated to the deployment of energy efficient measures 3. MGM educates and encourages all employees to take an active role in energy and water conservation through its Green Advantage brand of Sustainability and employee engagement platform A case study of this comprehensive effort of energy conservation is in the company's broad scope to upgrade over 1.5 million light bulbs from legacy technology to highly energy efficient lamps such as light-emitting diodes (LEDs). This has been accomplished through the execution of Energy Management Plans at each resort. This effort has contributed to total cumulative savings of over 1.6 billion kilowatt hours (kWh) of electricity over the past several years. This is the amount of electricity equivalent to the annual usage of more than 149,000 average US homes. The annual cost of management of \$7.2M was calculated by taking the \$1.8M in avoided increase in annual energy costs multiplied by an average four-year payback on energy conservation investments.

Cost of management
7200000

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Type of financial impact

Please select

Company-specific description

MGM Resorts International operates 30 unique hotel and resort destinations globally. These destinations are comprised of approximately 90 million square feet of total building area. The rooftops of these buildings have been examined for their suitability for the development of rooftop solar photovoltaic (PV) systems. These onsite solar PV systems represent opportunity for MGM Resorts to increase the share of its electricity from renewable means and in turn reduce its exposure to higher GHG emissions associated with fossil-fuel based sources of electricity.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1120000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The financial impact figure is the annual avoided cost of utility-based electricity provided by the lower GHG emission rooftop solar PV systems incorporated at Mandalay Bay Convention Center in Las Vegas (8.3 MW), T-Mobile Arena in Las Vegas (100 KW), and MGM Springfield in Massachusetts (1.4 MW). The volume of kWh produced in total by these systems is approximately 14 million annual kWh with a total average avoided cost average of \$.08/kWh.

Strategy to realize opportunity

MGM Resorts has undertaken the following actions to realize the opportunity available to the company via the use of lower-emission sources of energy: 1. Completed an inventory of available on-site rooftop spaces with potential suitability for solar photovoltaic (PV) systems 2. Conducted market research including formal Requests for Proposals (RFPs) for solar PV rooftop systems 3. Executed transactions for multiple solar PV rooftop systems A recent case study of this effort is the May 2019 announcement of MGM Resorts that its newest resort, MGM Grand Springfield in Massachusetts has received the world's first LEED Platinum for new construction certification in the gaming industry. A key component of this certification is the property's planned 1.13 megawatt solar canopy on the 8th floor of the parking garage. The solar system will result in the property lowering its dependence on higher-emission based energy from the local grid. The cost to realize this overall opportunity is calculated at \$30,000. This is the value of 500 hours of internal expertise and time undertaken at \$60 per hour.

Cost to realize opportunity

30000

Comment**Identifier**

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Type of financial impact

Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks)

Company-specific description

In Las Vegas MGM Resorts operates 14 resorts. Each of these resorts have rooftop spaces with varying potential for the development of on-site renewable generation such as solar photovoltaic (PV) facilities. In Nevada, there is a state-level system for the tracking and commerce of Nevada-specific Portfolio Energy Credits (PECs) from renewable sources of generated electricity. These PECs are the state equivalent of Renewable Energy Credits (RECs). The PECs are marketed and tracked for the purpose of compliance with the Nevada Renewable Portfolio Standard (RPS). These available PECs are marketable instruments to the multiple organizations that are subject to compliance with the Nevada RPS. As such, MGM has the opportunity to realize increased revenues through the sale of PECs generated at its resorts.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

125000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The financial impact is an estimate of 25,000 annual Portfolio Energy Credits (PECs) at \$5.00 per PEC. The 25,000 annual PEC volume figure is the approximate volume generated by the PV system at the Mandalay Bay Convention Center (see further detail below). The \$5.00 average is based upon review of recent historical transactions in Nevada for Nevada-specific PECs, the state equivalent of Renewable Energy Credits (RECs). In 2018 MGM Resorts participated in a private transaction to sell 25,000 Nevada PECs to another entity at \$5.00 per PEC. This resulted in an increase in revenue to Mandalay Bay in Las Vegas of \$125,000 in 2018. This increased revenue represents expansion into a new market unavailable to MGM in previous years.

Strategy to realize opportunity

MGM Resorts has undertaken the following steps to realize the opportunity of increased revenues associated with the sale of Nevada-specific Portfolio Energy Credits (PECs): 1. Completed the installation of solar PV systems at multiple Las Vegas properties 2. Completed registration with both the Nevada NV TREC and regional WREGIS online systems of renewable energy credits inventory and tracking 3. Conducted research on local and regional Nevada PEC/REC markets including availability and pricing of these PECs/RECs 4. Negotiated transactions with outside parties for the sale of MGM generated Nevada RECs increasing revenue The primary case study is the 2016 completion of the final phase of the rooftop solar PV system at the Mandalay Bay Convention Center in Las Vegas. This system in 2018 generated approximately 25,000 annual Nevada-specific Portfolio Energy Credits (PECs), the Nevada equivalent of Renewable Energy Credits (RECs) for the purpose of compliance with the Nevada Renewable Portfolio Standard (RPS). These available PECs are marketable instruments to the multiple organizations that are subject to compliance with the Nevada RPS. As such, MGM has entered into multiple transactions to sell these PECs and realize increased revenues as a result. The cost to realize this overall opportunity is calculated at \$15,000. This is the value of 250 hours of internal expertise and time undertaken at \$60 per hour.

Cost to realize opportunity

15000

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Type of financial impact

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

Company-specific description

In Las Vegas MGM Resorts operates 14 resorts. Of these, 5 are major convention center properties; Aria, Bellagio, Mandalay Bay, MGM Grand Las Vegas, and The Mirage. At these 5 major convention resorts in particular, meetings and conventions customers have increasingly requested methods to minimize the greenhouse gas (GHG) emissions and environmental impacts of their meetings held at MGM properties. As such, MGM has the opportunity to exhibit its company leadership in this space and position itself in a better competitive position among the highly impactful meetings and conventions segment of the hospitality industry in Las Vegas.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

8880145

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The financial impact is the result of an estimated increase of 0.5% of total 2018 rooms revenue of \$1,776,029,000 in Las Vegas.

Strategy to realize opportunity

MGM Resorts has undertaken the following steps to realize the opportunity of improving its competitive position within the meetings and conventions segment: 1. Review of feedback from meetings and conventions customers in regard to Sustainability elements 2. Review of feedback from company employees via its Green Advantage platform of Sustainability 3. Developed best practices and available green meetings elements via property meeting planner guides 4. Certified multiple properties via the Green Key Meetings Program, many at the highest available five-key rating 5. Developed a proprietary product of complete transparency as to the environmental impact of a meeting or convention at an MGM property A recent case study is the 30th Annual Virtuoso Week in Las Vegas in 2018. MGM Resorts hosted this event and showcased many sustainable attributes at Bellagio as a result. Highlighted to the Virtuoso attendees, and in associated media, were attributes such as the Bellagio 5-Key rating from Green Key, the highest possible rating. Other sustainable elements included a robust recycling program and charitable food donation effort on behalf of the event. Virtuoso's business, in turn, directly contributed to our competitive position and financial results. The cost to realize this opportunity has been calculated at \$120,000 via an estimated 2,000 hours of internal expertise expended at \$60 per hour.

Cost to realize opportunity

120000

Comment

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted for some suppliers, facilities, or product lines	<p>Climate-related risks and opportunities such as growing demand among resort customers for elements of Sustainability and environmental responsibility on property have impacted multiple products and services of MGM Resorts International. For example, in Las Vegas and other markets a significant segment of visitors travel to the properties of MGM Resorts for meetings and conventions. In recent years MGM has noted a substantial increase in requests, particularly from these visitors, for operational elements to mitigate the environmental impact of their meeting or convention at a MGM property. As such, MGM recognizes the risk of erosion of this business segment should the company fail to respond to these requests, and a corresponding opportunity to demonstrate MGM leadership in Sustainability and increase market share in this segment. As a result, MGM Resorts has developed detailed reports to help quantify the environmental impact of events at MGM properties. Further, all convention properties of MGM Resorts are able to offer customers a wide array of options to promote Sustainability in specific elements of their meeting or convention. A comparison can be made of the reduced environmental impact available at a MGM property vs. other options. A recent relevant case study occurred in June 2019 with the Subaru Zero Waste Event at Mandalay Bay in Las Vegas. This convention was undertaken with the goal of achieving zero waste to landfill. It was achieved through careful analysis of all incoming products to ensure appropriate recycling or reuse options. The impact of this opportunity is projected to be medium (between \$1.0M and \$10.0M annually) as calculated at 0.5% of \$1,776,029,000 2018 room revenue in Las Vegas or \$8,880,145.</p>
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	<p>There are both climate-related risks and opportunities embedded in the supply chain of MGM Resorts International that have affected business operations. At MGM Resorts we recognize that the products we buy drive much of our environmental impact. We have significant and concentrated buying power, and have used that power over the years to advance environmentally preferable product purchasing in many categories, including but not limited to: Construction materials, lighting, heating/air conditioning/ventilation equipment, cleaning products, food and beverage products, paper products, vehicles, etc. Many of the environmentally preferable purchasing choices we make result in lower carbon emissions in our supply chain. The impact and opportunity to MGM Resorts in the company supply chain is significant. Total Scope 3 emissions from the company supply chain were 2.7M metric tonnes of greenhouse gases in 2018, on total spend of \$2.9B. Other risks are present in scenarios where certain categories of purchases experience supply disruptions due to climate-related issues. These may include agricultural products. As a result, MGM Procurement teams work to diversify the array of products sourced as well as develop alternatives wherever possible. Opportunities include growing the segment of responsibly-sourced food and beverage products for a growing segment of discerning customers. A one half of one percent impact in total food and beverage revenue in Las Vegas is equal to \$7,011,890 of net revenue, making this a medium-level impact (between \$1.0M and \$10.0M annually). Over the next 1-2 years MGM intends to expand this product offering and contribute to growing revenues at least in the vicinity of this magnitude.</p>
Adaptation and mitigation activities	Impacted	<p>There are substantial climate-related risks to the operations of MGM Resorts in the failure to properly adapt to changing market conditions where warranted. Correspondingly, there are opportunities to demonstrate climate-related leadership by taking prudent risks and being willing to adapt and change operating practices in areas where material improvements may be made in climate-related impacts. For instance, all properties of MGM Resorts use substantial amounts of energy in their operation. Globally, MGM procures approximately 1.3 billion kilowatt hours (kWh) of electricity each year at total spend of about \$90 million. This is the source of the 569,386 metric tonnes of Scope 2 emissions for 2018. Substantial volatility in the price of grid-based electricity presents both financial (in terms of rising costs) and climate-related (in terms of higher fossil-fuel based sources of electricity) risks. As such, MGM has undertaken substantial activities to adapt to this external risk and gain further control over the source of its electricity. In October 2016 MGM Resorts completed an exit from the fully-bundled sales system of NV Energy, the local electricity utility in southern Nevada (where the majority of total company electricity is purchased). Since this time, the Las Vegas properties of MGM Resorts have sourced electricity on the wholesale power market. NV Energy continues to provide transmission, distribution, and electrical grid ancillary services to MGM Resorts. This transaction resulted in the 2018 announcement of a partnership for renewable energy with Chicago-based Invenergy to develop a 100 MW solar photovoltaic (PV) array north of Las Vegas that will be exclusively dedicated to the properties of MGM Resorts on the Las Vegas Strip. This action, when completed by the end of 2020, will result in significant mitigation of the environmental impact of energy sourced at MGM Resorts. The magnitude of this impact is high (greater than \$10.0M) in that it is projected at 20% of the \$90M total annual spend for electricity, or \$18.0M annually. This 20% is the approximate price volatility present in grid-based prices of electricity.</p>

	Impact	Description
Investment in R&D	Impacted	Ongoing investment in Research and Development (R&D) at MGM Resorts presents the opportunity to demonstrate climate-related leadership in terms of best environmental practices in the operation of large-scale multi-use resorts. Through R&D, MGM is able to achieve greater operational efficiencies and reduce its dependence on the world's limited natural resources. This in turn, reduces operating costs and enables features of resort operation that educate both guests and employees as to means that they may help promote Sustainability themselves. We believe that incorporating the tenets of environmental sustainability in our business decisions advances a platform for innovation and operational resource efficiency. CityCenter in Las Vegas (Aria, Vdara, Veer, Crystals, and Waldorf Astoria) is one of the world's largest private sustainable developments. With six LEED Gold certifications from the U.S. Green Building Council (the "Council"), CityCenter serves as the standard for combining luxury and environmental responsibility within the large-scale hospitality industry. Also, MGM National Harbor, The Park, and T-Mobile Arena have all been awarded LEED Gold certification by the Council. Further, MGM Springfield in Massachusetts in May 2019 announced it has become the first gaming resort to be awarded a LEED Platinum certification from the Council for new construction. At MGM China, we incorporate the same commitment to environmental preservation. Our efforts to improve energy efficiency, indoor air quality, and environmental stewardship have resulted in MGM China being included in the Hang Seng Corporate Sustainability Benchmark Index on the Hong Kong Stock Exchange. MGM Cotai, our new integrated resort, has achieved the China Green Building (Macau) Design label from the China Green Building and Energy Saving (Macau) Association. The magnitude of this impact to MGM Resorts is high (greater than \$10.0M) as total company investment in these developments has exceeded \$8.0B. Further, over the past eleven years MGM has invested more than \$50M cumulatively in a capital budget dedicated exclusively to energy and water conservation. Payback of these investments has averaged between 2-4 years. This trend will continue over the next 1-3 years and beyond.
Operations	Impacted	There are multiple climate-related risks and opportunities associated with operations at MGM Resorts. For instance, feedback from both guests and employees of the company continue to show greater interest in Sustainability and climate change and growing demand for sustainable business practices at resorts and destinations consumers choose to visit. There is a risk to MGM Resorts of eroding market share due to failure to respond to such feedback, as well as a corresponding opportunity to grow market share through demonstrated leadership. As such, MGM has embedded Sustainability and environmental responsibility as a core company value. This core value informs all business operations. MGM Resorts continues to gain recognition for its comprehensive environmental responsibility initiatives in energy and water conservation, recycling and waste management, sustainable supply chain, and green building. Certain of our casino resorts in Nevada and our casino resort in Michigan were the first in each state to earn certification from Green Key, the largest international program evaluating environmental sustainability in hotel operations. We received certifications in all our domestic resorts and Aria and Vdara at CityCenter. Aria, Vdara, Bellagio, Delano and Mandalay Bay, Mirage and MGM Grand Detroit have all received "Five Green Key", the highest possible rating. Many major travel service providers recognize the Green Key designation and identify our resorts for their continued commitment to sustainable hotel operations. Over the past eleven years MGM Resorts has invested more than \$50 million on specific energy conservation and sustainability projects. The Corporate Sustainability Division (CSD) of MGM Resorts oversees a dedicated annual budget exclusively for the promotion of conservation and sustainability projects. The magnitude of this opportunity is high (greater than \$10.0M) as MGM has cumulatively saved over 1.6 billion kilowatt hours (kWh) of electricity since 2007. At an average rate of \$.08/kWh, this cumulative savings is worth \$129M since 2007.
Other, please specify	Impacted	MGM Resorts has been on an environmental leadership journey since 2006 when we started building our seventeen-million square foot integrated resort at CityCenter in Las Vegas. From new construction to existing buildings and ongoing operations MGM Resorts integrates environmentally responsible practices that help the planet's limited resources.

C2.6

(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.

Relevance	Description

	Relevance	Description
Revenues	Impacted for some suppliers, facilities, or product lines	Climate-related risks and opportunities impact the revenues financial planning process at MGM Resorts. For instance, in recent years feedback from resort guests regarding inquiries as to MGM's policy on Sustainability, along with requests for specific options available to guests to minimize the environmental impacts of their stay at a MGM Resorts property, have substantially increased. In anticipation of this growing demand, in 2008 MGM Resorts established Sustainability as a core company value. As a key component of this, the MGM Corporate Sustainability Division (CSD) was established, dedicated exclusively to the tracking, management, and mitigation of the impacts on the natural environment of company operations. The track record of leadership in Sustainability that has followed since 2008 at MGM Resorts has resulted in guests choosing a MGM property in part due to sustainable, climate-related factors. The market segment in which this is most apparent is in the meetings and convention segment. MGM Resorts has responded through the development of a proprietary product of complete transparency as to the quantified environmental impact of a meeting or convention at a MGM property. Further, all convention properties of MGM Resorts are able to offer customers a wide array of options to promote Sustainability in specific elements of their meeting or convention. Some of these options result in incremental revenue to the property through specific products or services. Also, a comparison can be made of the reduced environmental impact available at a MGM property vs. other options. The impact of this revenues planning process element is projected to be medium (between \$1.0M and \$10.0M annually) as calculated at 0.5% of \$1,776,029,000 2018 room revenue in Las Vegas or \$8,880,145.
Operating costs	Impacted	Climate-related risks and opportunities factor into the annual operating costs financial planning process at MGM Resorts. The primary means in which this takes place is through annual budgeting for energy costs. Energy markets have been historically volatile in terms of prices. Future climate-related inflationary impacts on these prices such as potential carbon costs present a risk to MGM in the form of higher energy costs and required energy budgets. As such, MGM Resorts actively pursues aggressive energy conservation measures and incorporates projected savings from these measures into the annual operating costs financial planning process. Continual investment in energy and water conservation projects has reduced operating costs on an ongoing basis. Over the past eleven years MGM Resorts has invested more than \$50 million cumulatively on specific energy conservation and sustainability projects. The Corporate Sustainability Division (CSD) of MGM Resorts oversees a dedicated annual budget exclusively for the promotion of conservation and sustainability projects. The payback period for these investments has generally been between 1-4 years, significantly reducing ongoing costs of energy. The magnitude of this annual impact is medium (between \$1.0M and \$10.0M) at a projected annual savings of \$2.7M. This figure is calculated by projecting 3% savings on a historical annual spend of \$90M total for electricity.
Capital expenditures / capital allocation	Impacted	Climate-related risks and opportunities factor into the annual capital expenditures/capital allocation financial planning process at MGM Resorts. The primary means in which this takes place is a dedicated capital budget exclusively for the deployment of energy and water conservation measures. The Corporate Sustainability Division (CSD) at MGM Resorts is responsible for managing and implementing this specific capital budget for energy and water conservation initiatives throughout the company. The impact of climate-related opportunities on the capital expenditures/capital allocation financial planning process has been medium on an annual basis (between \$1.0M and \$10.0M). Over the past eleven years MGM Resorts has invested more than \$50 million on specific energy conservation and sustainability projects (an annual average of \$4.0M-\$5.0M). The results of these investments are reflected in annual energy cost savings of \$2.7M. This figure is calculated by projecting 3% savings on a historical annual spend of \$90M total for electricity.

	Relevance	Description
Acquisitions and divestments	Impacted	<p>Climate-related risks and opportunities have impacted MGM Resorts' acquisitions and divestments. Construction and acquisition budgets now account for development projects with elements of Sustainability and environmental responsibility reflective of these being core company values at MGM Resorts. We believe that incorporating the tenets of environmental sustainability in our business decisions advances a platform for innovation and operational efficiency. CityCenter in Las Vegas (Aria, Vdara, Veer, Crystals, and Waldorf Astoria) is one of the world's largest private sustainable developments. With six LEED Gold certifications from the U.S. Green Building Council (the "Council"), CityCenter serves as the standard for combining luxury and environmental responsibility within the large-scale hospitality industry. Also, MGM National Harbor, The Park, and T-Mobile Arena have all been awarded LEED Gold certification by the Council. Further, MGM Springfield in Massachusetts in May 2019 announced it has become the first gaming resort to be awarded a LEED Platinum certification from the Council for new construction. At MGM China, we incorporate the same commitment to environmental preservation. Our efforts to improve energy efficiency, indoor air quality, and environmental stewardship have resulted in MGM China being included in the Hang Seng Corporate Sustainability Benchmark Index on the Hong Kong Stock Exchange. MGM Cotai, our new integrated resort, has achieved the China Green Building (Macau) Design label from the China Green Building and Energy Saving (Macau) Association. The magnitude of incorporating climate-related elements into acquisitions and divestments impact atto MGM Resorts is high (greater than \$10.0M) significant as total company investment in these developments has exceeded \$8.0B.</p>
Access to capital	Impacted for some suppliers, facilities, or product lines	<p>Climate-related risks and opportunities have impacted access to capital and the associated planning process at MGM Resorts. A primary example of this is in the company's efforts to diversify its sources of electricity and to incorporate a higher share of renewable resources into its total sources of electricity. In October 2016 MGM Resorts completed an exit from the fully-bundled sales system of NV Energy, the local electricity utility in southern Nevada (where the majority of total company electricity is purchased). Since this time, the Las Vegas properties of MGM Resorts have sourced electricity on the wholesale power market. NV Energy continues to provide transmission, distribution, and electrical grid ancillary services to MGM Resorts. This transaction resulted in the 2018 announcement of a partnership for renewable energy with Chicago-based Invenergy to develop a 100 MW solar photovoltaic (PV) array north of Las Vegas that will be exclusively dedicated to the properties of MGM Resorts on the Las Vegas Strip. This action, when completed by the end of 2020, will result in significant mitigation of the environmental impact of energy sourced at MGM Resorts. Invenergy is responsible for all capital investment on the project, with MGM Resorts being the exclusive purchaser of all energy generated. The magnitude of this impact on the access to capital planning process at MGM Resorts is high (greater than \$10.0M) in that MGM has avoided the need to raise capital itself for the planned 100 MW solar array. At an average projected capital cost of \$1,500,000 per megawatt on a utility-scale solar PV project, the avoided capital expenditure of MGM is projected at \$150M.</p>
Assets	Impacted	<p>Climate-related risks and opportunities have affected the assets financial planning process at MGM Resorts. A key example of this is through the annual energy management and associated capital expenditures planning processes. Energy costs are a material expense to MGM Resorts with annual expenditures for electricity totalling approximately \$90.0M. As part of the company's establishment of Sustainability as a core company value, MGM dedicates exclusive capital resources each year to energy and water conservation efforts. These efforts are managed by the Corporate Sustainability Division (CSD). Examples of new assets acquired as a result of the assets planning process include energy efficient mechanical equipment such as efficient property chillers and boilers, associated energy efficiency equipment such as variable frequency drives (VFDs) and high-efficient lighting fixtures such as light emitting diodes (LEDs). The magnitude of the climate-related assets financial planning process at MGM is medium (between \$1.0M and \$10.0M) with annual capital/assets budgets exclusively dedicated to energy conservation historically averaging between \$4.0M and \$5.0M per year.</p>

	Relevance	Description
Liabilities	Impacted	Climate-related risks and opportunities have affected the liabilities financial planning process at MGM Resorts. The primary example of this is associated with the October 2016 transaction of the Las Vegas properties of MGM Resorts International to exit the fully-bundled sales system of NV Energy, the local electric utility. MGM completed this transaction in order to access the wholesale market for electricity and increase its share of electricity sourced from renewable resources such as solar photovoltaic (PV) systems. This, in turn, has improved the company's environmental profile and reduced its exposure to the risk of climate-related impacts resulting in higher market prices for fossil-fuel based electricity in the future. This October 2016 transaction was adjudicated by the Public Utilities Commission of Nevada (PUCN). MGM Resorts was granted authorization by the PUCN to exit the fully-bundled sales system of the local utility on the satisfaction of several conditions. One of these conditions was the commitment of MGM Resorts to participate in the existing renewable energy portfolio of NV Energy for a period of six years following the transaction. As such, MGM Resorts in 2016 booked a total liability of \$71.0M related to the "non-bypassable charges" associated with the utility's portfolio over this period. Thus, the magnitude of the impact of the climate-related liabilities financial planning process at MGM has been high (greater than \$10.0M). This transaction affects the liabilities financial planning process each year through required annual re-assessments of this liability originally recorded at \$71.0M. Changes in market prices for electricity, both fossil-fuel based and renewable, present potential risks in increasing the value of this liability. As a result, it is formally re-evaluated a minimum of once per year. The magnitude of the overall impact is high (greater than \$10.0M).
Other	Impacted	We seek to conduct our business in an ethical and responsible way, through sustainable business practices, which we regard as essential to maximizing shareholder value, while enhancing community quality and environmental stewardship. Our corporate social responsibility efforts are overseen by the Corporate Social Responsibility Committee of our Board of Directors.

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?

Yes, qualitative and quantitative

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

MGM Resorts International is dedicated to helping protect our planet. As such, climate-related issues, including both risks and opportunities, are continuously under evaluation and incorporated into our overall business objectives and specific strategy deployed to meet these objectives.

A key climate-related risk MGM Resorts is subject to is the potential for higher electricity costs in the future as a direct result of high carbon-intensive generation sources being affected by inflationary pressures, including potential carbon taxes and other climate-related factors. MGM has carefully considered this risk, and in turn, set the business objective to increase the proportion of low or zero carbon-intensive generation sources in its overall portfolio of electricity procurement. The most substantial business decision made in this regard, in direct support of this business objective, was in 2018 MGM set the target of receiving a minimum of 50% of its electricity from renewable resources by 2030. Further, MGM in 2018 also set the target to reduce its overall carbon emissions per square foot by 50% by 2030 using 2007 as a baseline. As such, the business strategy at MGM Resorts incorporated these energy and emissions reduction targets. The business strategy has incorporated management of direct greenhouse gas emissions as a key aspect of climate change.

A key tactic deployed to meet the business objective of reducing this climate-related risk of potential higher future electricity costs is the 2018 announcement between MGM Resorts International and Invenergy, North America's largest independent renewable energy company, to develop a utility-scale 100-megawatt (MW) solar photo-voltaic (PV) plant 25 miles north of Las Vegas for the exclusive use of the Las Vegas properties of MGM Resorts. This array is set to come online beginning in late 2020. It will result in a significant portion of our company's electricity demand coming directly from a designated renewable energy facility and play the key role in meeting the above-mentioned 50% renewable electricity target by 2030.

More broadly, our strategic plan for sustainability and environmental responsibility is designed to reduce our consumption of the planet's resources and to lessen our negative impacts. Through our comprehensive sustainability platform, the Green Advantage, we are able to integrate environmentally responsible practices which effectively lower the carbon footprint of our operations, including our resorts, restaurants, retail spaces, meetings and conventions. Over the past eleven years, we have reduced our GHG emissions intensity by over 33%. The cumulative effect of this is equivalent to taking more than 270,000 cars off the road for a year, according to the EPA. With our properties hosting millions of visitors every year, we recognize our responsibility to positively influence our guests.

Our comprehensive business strategy incorporates environmental responsibility and overall Corporate Social Responsibility (CSR) as core company values. As such, MGM Resorts ensures that these elements are relevant to every aspect of our business in each of the communities in which we operate. Our specific tactics related to environmental sustainability as articulated in our environmental policy are concentrated on the following areas of focus:

1. Climate
2. Energy
3. Water
4. Materials

5. Engagement

Select highlights of achievements over the past few years include:

- More than 1.6 billion kilowatt hours (kWh) of electricity cumulatively saved over the past eleven years, the equivalent to the annual usage of more than 149,000 average U.S. homes
- More than 6.6 billion gallons of water cumulatively saved over the past ten years, the equivalent volume as contained in 10,000 Olympic-sized swimming pools
- Installation of America's largest contiguous rooftop solar array on a convention center at 8.3 MW at Mandalay Bay Convention Center in Las Vegas
- Over 100 advanced energy meters installed to monitor and manage energy on a real-time basis
- Over 1.5 million light bulbs upgraded to LED high efficiency technology
- Over 45 million square feet of Green Globes for Existing Buildings certifications
- Over 20 million square feet of new construction certified to LEED Gold standards
- The first LEED Platinum certification for new construction on a gaming property at MGM Springfield in Massachusetts
- Comprehensive waste management and recycling program
- Eco-preferable products such as GreenSeal certified cleaning supplies incorporated into operations
- Green Advantage educational and outreach platform

C3.1d

(C3.1d) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios	Details

Climate-related scenarios	Details
2DS	<p>In 2018 MGM engaged with World Resources Institute (WRI) on the development of climate-related scenario analysis for MGM Resorts. WRI provided expertise as to identification of the specific climate-related scenario examined. The following are highlights of this exercise:</p> <ul style="list-style-type: none"> - The Absolute Contraction scenario was selected due to its wide acceptance as a robust form of analysis incorporating methods that are consistent with the level of decarbonization required to keep global temperature increase below 2°C compared to pre-industrial temperatures. - Inputs to the analysis included the 2018 inventory of Scope 1 and Scope 2 emissions of MGM Resorts International and annual quantified reductions in these emissions consistent with levels necessary to be aligned with the 2°C scenario according to the IPCC's Fifth Assessment Report - Other inputs includes a comprehensive inventory of Scope 3 emissions of MGM Resorts including those associated with all relevant sectors - A fifteen-year time horizon (2033 target date with a 2018 baseline) was selected to incorporate potential future developments of MGM as well as complement existing intensity targets for energy and carbon emissions reductions at the company (2030 targets with a 2007 baseline). - All areas of company operations under MGM operational control, and thus contributors to MGM Scopes 1-3 emissions, were considered. - The results of the Absolute Contraction scenario analysis included a quantified set of required annual reduction figures in MGM total Scope 1 and Scope 2 emissions (815,188 total metric tonnes in 2018) for the period of 2018-2033 (annual compound annual reduction rate of 1.67% or 18.4% total from 2018 to 2033) - The results also included guidance on setting engagement targets for MGM suppliers (covering \$2.9B in total 2018 spend) - The scenario analysis has informed MGM's strategy on two primary drivers. The first is a growing share of zero or low carbon intense sources of energy. The second is continual energy conservation efforts reducing the overall demand for energy and associated Scope 1 and Scope 2 emissions. - The MGM Procurement team was also engaged on a Scope 3 supplier engagement target. - The single most significant action to date consistent with this strategy is the 2018 announcement of a partnership between MGM Resorts and Invenergy, North America's largest independent renewable energy developer, on a 100 megawatt solar photovoltaic (PV) array in Clark County, Nevada for the exclusive use of the Las Vegas properties of MGM Resorts. When completed by late 2020, this array will significantly lower the carbon emissions of MGM Resorts operations. - Also, in May 2019 MGM Springfield in Massachusetts announced that it is the first property in the gaming industry to be awarded a LEED Platinum certification by the U.S. Green Building Council. A significant enabler of the LEED Platinum rating is the property's new solar array, which will supply renewable electricity to the facility. In partnership with GE Solar, a subsidiary of General Electric that is based in Massachusetts, MGM Springfield will install a 1.13 MW solar canopy on the 8th floor, on top of the MGM Springfield garage. This array is expected to generate more than 1,600 megawatt hours of electricity, helping reduce the property's annual carbon footprint by approximately 410 metric tons of CO2e (carbon dioxide equivalent). - Further, discussions are ongoing on means to source zero or low carbon intensive sources of energy in new development projects.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Scope

Scope 1+2 (location-based)

% emissions in Scope

100

Targeted % reduction from base year

18.4

Base year

2018

Start year

2018

Base year emissions covered by target (metric tons CO2e)

815676

Target year

2033

Is this a science-based target?

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

% of target achieved

0

Target status

New

Please explain

In 2018 MGM Resorts International engaged with World Resources Institute (WRI) to help MGM set a Science-based absolute target. The base year for this goal is 2018 with a target year of 2033. This goal represents a mid-term length goal of 15 years into the future and complements existing intensity-based energy and carbon emissions reductions targets of MGM (each with a target year of 2030 utilizing a baseline of 2007).

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).**Target reference number**

Int 1

Scope

Scope 1+2 (location-based)

% emissions in Scope

100

Targeted % reduction from base year

45

Metric

Metric tons CO2e per square foot*

Base year

2007

Start year

2017

Normalized base year emissions covered by target (metric tons CO2e)

829267

Target year

2025

Is this a science-based target?

No, but we are reporting another target that is science-based

% of target achieved

75.1

Target status

Underway

Please explain

In 2018 MGM Resorts recognized ten years of formal progress in company leadership in sustainability and environmental responsibility. The Corporate Sustainability Division (CSD) was established in 2007, providing a ten-year track record of achievement. As such, the target established during the reporting year 2017 is to continue our reduction in Scope 1 and Scope 2 emissions per square foot, normalized for divested/acquired operations, to a total of 45% by the year 2025, with 2007 as the baseline year. As of year-end 2018, the actual reduction in Scope 1 and Scope 2 emissions per square foot, normalized for divested/acquired operations, since 2007 is 33.8%, making the target well on track.

% change anticipated in absolute Scope 1+2 emissions

-11.3

% change anticipated in absolute Scope 3 emissions

0

Target reference number

Int 2

Scope

Scope 1+2 (location-based)

% emissions in Scope

100

Targeted % reduction from base year

50

Metric

Metric tons CO2e per square foot*

Base year

2007

Start year

2017

Normalized base year emissions covered by target (metric tons CO2e)

829267

Target year

2030

Is this a science-based target?

No, but we are reporting another target that is science-based

% of target achieved

67.6

Target status

Underway

Please explain

In 2018 MGM Resorts recognized ten years of formal progress in company leadership in sustainability and environmental responsibility. The Corporate Sustainability Division (CSD) was established in 2007, providing a ten-year track record of achievement. As such, the target established during the reporting year 2017 is to continue our reduction in Scope 1 and Scope 2 emissions per square foot, normalized for divested/acquired operations, to a total of 50% by the year 2030, with 2007 as the baseline year. As of 2019, the actual reduction in Scope 1 and Scope 2 emissions per square foot, normalized for divested/acquired operations, since 2007 is 33.8%, making the target well on track.

% change anticipated in absolute Scope 1+2 emissions

-12.9

% change anticipated in absolute Scope 3 emissions

0

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.**Target**

Energy usage

KPI – Metric numerator

Total kilowatt hours (combined electricity and natural gas globally)

KPI – Metric denominator (intensity targets only)

Total square footage

Base year

2007

Start year

2017

Target year

2030

KPI in baseline year

30.9

KPI in target year

21.6

% achieved in reporting year

25.8

Target Status

Underway

Please explain

In 2018 MGM Resorts recognized ten years of formal progress in company leadership in sustainability and environmental responsibility. The Corporate Sustainability Division (CSD) was established in 2007, providing a ten-year track record of achievement. As such, the target established during the reporting year 2017 is to continue our reduction energy (kilowatt hours of electricity and natural gas globally) per square foot, normalized for divested/acquired operations, to a total of 30% by the year 2030, with 2007 as the baseline year.

Part of emissions target

Yes

Is this target part of an overarching initiative?

Science-based targets initiative

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	24	11246
To be implemented*	7	5061
Implementation commenced*	2	13375
Implemented*	10	6396
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative type

Energy efficiency: Building services

Description of initiative

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

5360

Scope

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

1243171

Investment required (unit currency – as specified in C0.4)

4062176

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

Upgrade of 30,067 existing linear fluorescent lighting fixtures in property back-of-house (BOH) hallways and mechanical rooms with state-of-the-art LED fixtures with full dimming and timing controls. The life of the improved LED fixtures is a minimum of 100,000 hours. The results are a reduction of energy use of more than 60% plus the materials savings of numerous change-outs of the prior fixtures over the 10+ years of operation.

Initiative type

Fugitive emissions reductions

Description of initiative

Refrigerant leakage reduction

Estimated annual CO2e savings (metric tonnes CO2e)

1036

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

37536

Investment required (unit currency – as specified in C0.4)

150143

Payback period

4 - 10 years

Estimated lifetime of the initiative

6-10 years

Comment

Multiple large property chiller refrigerant monitor system replacements were completed in 2018.

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	The Corporate Sustainability Division (CSD) at MGM Resorts oversees and implements a dedicated annual energy conservation capital budget for projects throughout the company.
Financial optimization calculations	The optimization of the dedicated energy reduction capital budget considers both financial and emission reduction benefits within the prioritization of projects.
Compliance with regulatory requirements/standards	Compliance within MGM Resorts EPA Title V permit is also a contributing factor to the deployment of capital within the scope of these projects.
Employee engagement	The MGM Corporate Sustainability Division (CSD) works extensively on non-capital required efforts that result in emissions reductions activities. The most significant example is the 2018 partnership between MGM and Invenergy, North America's largest independent renewable energy company, to develop a 100 megawatt solar photovoltaic (PV) array in Clark County, Nevada for the exclusive use of the Las Vegas properties of MGM Resorts. The array will be online by late 2020. It is being capitalized by Invenergy, with no capital outlay by MGM. MGM is the exclusive off-taker of all energy produced through a power purchase agreement (PPA) with Invenergy.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Company-wide

Description of product/Group of products

We help convention customers estimate the carbon emissions associated with their events at our properties. We also estimate the relative emissions reduction associated with hosting a convention at an MGM facility vs. other similar venues.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Intensity comparisons to similar venues)

% revenue from low carbon product(s) in the reporting year

0

Comment

Specific revenue share is not determined at this time.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1 2007

Base year end

December 31 2007

Base year emissions (metric tons CO₂e)

169979

Comment

Total Scope 1 emissions in calendar 2007; includes all property operations in effect during this year, including select operations that have since been divested.

Scope 2 (location-based)

Base year start

January 1 2007

Base year end

December 31 2007

Base year emissions (metric tons CO₂e)

687083

Comment

Total Scope 2 emissions in calendar 2007; includes all property operations in effect during this year, including select operations that have since been divested.

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

246147

Start date

January 1 2018

End date

December 31 2018

Comment

Total Scope 1 emissions for all MGM global operations under company operational control.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

Total gross Scope 2 emissions (location-based) include all MGM global operations under MGM Resorts operational control and Scope 2 emissions associated with market or grid purchased electricity. Total gross Scope 2 emissions (market-based) include all MGM purchases of electricity generated on site from the solar photovoltaic (PV) system (behind the meter) at Mandalay Bay in Las Vegas.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

569529

Scope 2, market-based (if applicable)

0

Start date

January 1 2018

End date

December 31 2018

Comment

Total gross global Scope 2 emissions (location-based) figure includes all emissions associated with market or grid purchased electricity for all global MGM operations under MGM control. Total gross Scope emissions (market-based) figure include zero emissions associated with energy purchased from the on-site solar photovoltaic (PV) system at Mandalay Bay in Las Vegas.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.**Purchased goods and services****Evaluation status**

Relevant, calculated

Metric tonnes CO₂e

2230365

Emissions calculation methodology

Scope 3 emissions from purchased goods and services were estimated using aggregated spend data provided by MGM's procurement department. Spend data was broken down into relevant industry sector categories and input into the Scope 3 Evaluator tool from Quantis. Spend data includes purchased goods and services from both operations and construction projects.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

Scope 3 emissions from purchased goods and services were estimated using aggregated spend data provided by MGM's procurement department.

Capital goods**Evaluation status**

Relevant, calculated

Metric tonnes CO₂e

171152

Emissions calculation methodology

Scope 3 emissions from purchased goods and services were estimated using aggregated spend data provided by MGM's procurement department. Spend data was broken down into relevant industry sector categories and input into the Scope 3 Evaluator tool from Quantis. Spend data includes purchased goods and services from both operations and construction projects.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

Capital goods include assets such as machinery.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

244967

Emissions calculation methodology

Relevant fuels included in the fuel-and-energy-related activities scope 3 analysis include natural gas, diesel, gasoline, jet fuel, compressed natural gas, propane, and electricity generated in both the United States and China. All fuel volumes were converted to kilowatt hours and emissions were calculated using a template provided from the World Resources Institute (WRI).

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

All data obtained from utility meters or other supplier and company reports.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

17058

Emissions calculation methodology

Scope 3 emissions from purchased goods and services, including upstream transportation and distribution, were estimated using aggregated spend data provided by MGM's procurement department. Spend data was broken down into relevant industry sector categories and input into the Scope 3 Evaluator tool from Quantis.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

Emissions from third-party transportation and logistics.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

23347

Emissions calculation methodology

These emissions were calculated by applying the emission factor for mixed municipal solid waste to landfill as provided by the EPA Waste Reduction Model (version 14), Management Practices Chapters (relevant

Exhibits). The EPA Waste Reduction Model (version 14), Management Practices Chapters (relevant Exhibits) also provides for calculation of Scope 3 credits attributable to recycled volumes. MGM determined that total credits of (125,831) metric tonnes CO₂e were associated with is total volume of recycled materials. This credit total, netted against the gross total for mixed municipal solid waste to landfill of 23,347 results in a net overall credit of (106,008) metric tonnes CO₂e associated with all waste generated in operations, including both volumes sent to landfill as well as volumes recycled.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Explanation

Waste volumes were generated from multiple waste management providers and partners. These emissions were calculated by applying the emission factor for mixed municipal solid waste to landfill as provided by the EPA Waste Reduction Model (version 14), Management Practices Chapters (relevant Exhibits).

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

5401

Emissions calculation methodology

Business travel data in total miles traveled was obtained from MGM Resorts business travel partners. This was segmented into total business air miles traveled short-haul (less than 300 miles), medium-haul (between 300 miles and 2,500 miles) and long-haul (more than 2,500 miles). The appropriate emission factor for each segment was obtained via the EPA Emission Factors for Greenhouse Gas Inventories, March 2018; Table 8.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Explanation

Business travel data in total miles traveled was obtained from MGM Resorts business travel partners. This was segmented into total business air miles traveled shorty-haul (less than 300 miles), medium-haul (between 300 miles and 2,500 miles) and long-haul (more than 2,500 miles). The appropriate emission factor for each segment was obtained via the EPA Emission Factors for Greenhouse Gas Inventories, March 2018; Table 8.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

20400

Emissions calculation methodology

This data was estimated using the Scope 3 Evaluator tool from Quantis, based on companies in the hotel and hospitality industry with over 10,000 employees.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Explanation

This data was estimated using the Scope 3 Evaluator tool from Quantis, based on companies in the hotel and hospitality industry with over 10,000 employees.

Upstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO2e

83

Emissions calculation methodology

Scope 3 emissions from purchased goods and services, including upstream leased assets, were estimated using aggregated spend data provided by MGM's procurement department. Spend data was broken down into relevant industry sector categories and input into the Scope 3 Evaluator tool from Quantis. Spend data includes purchased goods and services from both operations and construction projects.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

Emissions from leased assets.

Downstream transportation and distribution**Evaluation status**

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

As a hospitality organization in a service industry, MGM Resorts has no material downstream transportation and distribution activities.

Processing of sold products**Evaluation status**

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

As a hospitality organization in a service industry, MGM Resorts has no material processing of sold products activities.

Use of sold products**Evaluation status**

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

As a hospitality organization in a service industry, MGM Resorts has no material processing of sold products activities.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

As a hospitality organization in a service industry, MGM Resorts has no material end of life treatment of sold products activities.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

As a hospitality organization in a service industry, MGM Resorts has no material downstream leased assets activities.

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

As a hospitality organization in a service industry, MGM Resorts has no material franchises activities.

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

As a hospitality organization in a service industry, MGM Resorts has no material investment activities relevant.

Other (upstream)**Evaluation status**

Not evaluated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation**Other (downstream)****Evaluation status**

Not evaluated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are

appropriate to your business operations.

Intensity figure

0.0000693

Metric numerator (Gross global combined Scope 1 and 2 emissions)

815676

Metric denominator

unit total revenue

Metric denominator: Unit total

11763096000

Scope 2 figure used

Location-based

% change from previous year

13.73

Direction of change

Decreased

Reason for change

Higher global revenue in reporting year vs. prior year was combined with a lower emissions factor affecting operations in the Las Vegas, Nevada area. The change in the reported eGrid emissions factor for the electricity purchased on the open market fell from 982.94 lb/MWh to 899.70 lb/MWh, as reported by the U.S. Environmental Protection Agency (EPA). Additionally, overall energy usage decreased due to multiple energy conservation measures implemented during the reporting year of 2018. One of these energy conservation activities was the installation of 8,311 high-efficiency LED lighting fixtures complete with full controls in place of traditional linear fluorescent fixtures in property back-of-house hallways and mechanical rooms.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	245893.08	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	115.86	IPCC Fourth Assessment Report (AR4 - 100 year)

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
N2O	138.1	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	0	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	240626
China, Macao Special Administrative Region	5521
Japan	0
Middle East	0

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
MGM Nevada operations	189114
MGM China	5521
MGM regional operations - MS and MI	19730
MGM regional operations - East	31782

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United States of America	509490	0	1234413	12316
China, Macao Special Administrative Region	60040	0	71646	0
Japan	0		0	0
Middle East	0		0	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
MGM Nevada operations	393554	0
MGM China	60040	0
MGM regional operations - MS and MI	65475	0
MGM regional operations - East	50460	0

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	41646	Decreased	4.81	For its Las Vegas properties that had access to the wholesale market for electricity, in the reporting year 2018 a greater share of renewable electricity was incorporated into the overall portfolio of electricity procured. The result was a decrease of 41,646 metric tons CO2e due to this increase in renewable electricity. In 2017, our gross global emissions (Scope 1 and 2) were 865,970 metric tons CO2e. Therefore, we reduced our gross global emissions 4.81% in 2018 as a result. Formula: (41,646 / 865,970) X 100 = 4.81%.
Other emissions reduction activities	6396	Decreased	0.74	MGM Resorts International reduced Scope 1 and 2 combined emissions by 6,396 metric tons due to implemented emissions reduction activities in the reporting year 2018. In 2017, our gross global emissions (Scope 1 and 2) were 865,270 metric tons CO2e. Therefore, we reduced our gross global emissions .74% in 2018 as a result. Formula: (6,396 / 865,970) X 100 = .74%.
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other	2252	Decreased	0.26	This is the result of a change in the location-based Scope 2 emission factors for the MGM properties outside of Las Vegas. A greater share of purchased electricity for MGM properties outside of the Las Vegas came from regions with lower emissions factors per the eGrid tables as published by the U.S. Environmental Protection Agency (EPA). The total effect of this was a decrease of 2,252 metric tons CO2e. In 2017, our gross global emissions (Scope 1 and 2) were 865,270 metric tons CO2e. Therefore, we reduced our gross global emissions .32% in 2018 as a result. Formula: (2,252 / 865,970) X 100 = .26%.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	1104248	1104248
Consumption of purchased or acquired electricity	<Not Applicable>	235600	1014585	1250185
Consumption of purchased or acquired heat	<Not Applicable>	0	103644	103644

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	3766	21635	25401
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	30474	<Not Applicable>	30474
Total energy consumption	<Not Applicable>	269840	2244112	2513952

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

979811

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

735957

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

243854

Comment

The volume of natural gas fuel consumed for self-cogeneration or self-trigeneration is the volume utilized by the combined heat and power plant at ARIA in Las Vegas for self-cogeneration.

Fuels (excluding feedstocks)

Propane Liquid

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

17475

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

17475

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

The majority of MWh fuel of propane consumed for self-generation of heat is at MGM Macau (a total of 15,324 MWh of the total 17,475 MWh in the company.)

Fuels (excluding feedstocks)

Petrol

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

11392

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

All MWh of Petrol consumption is for moving vehicles.

Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

13619

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

All MWh of Diesel consumption is for moving vehicles.

Fuels (excluding feedstocks)

Aviation Gasoline

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

81951

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

All MWh of Aviation Gasoline consumption is for aircraft.

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Aviation Gasoline

Emission factor

0.03165

Unit

metric tons CO₂e per liter

Emission factor source

WRI - Calculation Tool for Direct Emissions from Stationary Combustion. Version 4.1 (2018, 2017, 2016, 2015 and 2014), Version 4.0 (2013/2012/2011/2010)

Comment

Emission factor shown above is metric tons CO₂e per liter, converted from metric tons CO₂e per gallon of .00836 as reported by the source tool above

Diesel

Emission factor

0.03846

Unit

metric tons CO₂e per liter

Emission factor source

WRI - Calculation Tool for Direct Emissions from Stationary Combustion. Version 4.1 (2018, 2017, 2016, 2015 and 2014), Version 4.0 (2013/2012/2011/2010)

Comment

Emission factor shown above is metric tons CO₂e per liter, converted from metric tons CO₂e per gallon of .01016 as reported by the source tool above

Natural Gas

Emission factor

0.05311

Unit

metric tons CO₂e per million Btu

Emission factor source

For 2018, 2017: EPA Emission Factors for Greenhouse Gas Inventories, March 2018; WRI - Calculation Tool for Direct Emissions from Stationary Combustion. Version 4.1 (2016, 2015 and 2014), Version 4.0 (2013/2012/2011/2010)

Comment

Consistent with prior years.

Petrol

Emission factor

0.03267

Unit

metric tons CO₂ per liter

Emission factor source

WRI - Calculation Tool for Direct Emissions from Stationary Combustion. Version 4.1 (2018, 2017, 2016, 2015 and 2014), Version 4.0 (2013/2012/2011/2010)

Comment

Emission factor shown above is metric tons CO2e per liter, converted from metric tons CO2e per gallon of .00863 as reported by the source tool above

Propane Liquid

Emission factor

0.06171

Unit

metric tons CO2e per million Btu

Emission factor source

For 2018, 2017: EPA Emission Factors for Greenhouse Gas Inventories, March 2018; WRI - Calculation Tool for Direct Emissions from Stationary Combustion. Version 4.1 (2016, 2015 and 2014), Version 4.0 (2013/2012/2011/2010)

Comment

Consistent with prior year.

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	74688	74688	12316	12316
Heat	42192	42192	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2f

(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.

Basis for applying a low-carbon emission factor

Off-grid energy consumption from an on-site installation or through a direct line to an off-site generator owned by another company

Low-carbon technology type

Solar PV

Region of consumption of low-carbon electricity, heat, steam or cooling

North America

MWh consumed associated with low-carbon electricity, heat, steam or cooling

12316

Emission factor (in units of metric tons CO2e per MWh)

0

Comment

The above is the volume of electricity procured from a behind-the-meter 8.3 megawatt solar photovoltaic (PV) system atop the Mandalay Bay Convention Center in Las Vegas.

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.

Scope

Scope 1

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

MGM CY 2018 GHG Verification Statement FINAL_20191024.pdf

Page/ section reference

See attached letter from Trinity Consultants, Page 1, Paragraphs 1-3

Relevant standard

Corporate GHG verification guidelines from ERT

Proportion of reported emissions verified (%)

70

Scope

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

MGM CY 2018 GHG Verification Statement FINAL_20191024.pdf

Page/ section reference

See attached letter from Trinity Consultants, Page 1, Paragraphs 1-3

Relevant standard

Corporate GHG verification guidelines from ERT

Proportion of reported emissions verified (%)

70

Scope

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

MGM CY 2018 GHG Verification Statement FINAL_20191024.pdf

Page/ section reference

See attached letter from Trinity Consultants, Page 1, Paragraphs 1-3

Relevant standard

Corporate GHG verification guidelines from ERT

Proportion of reported emissions verified (%)

70

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope

Scope 3- all relevant categories

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Underway but not complete for reporting year – previous statement of process attached

Attach the statement

[MGM 2017 GHG Emission Calculation Review v1.0.pdf](#)

Page/section reference

See attached letter from Trinity Consultants, Page 1, Paragraphs 1-3

Relevant standard

ISO14064-3

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C6. Emissions data	Financial or other base year data points used to set a science-based target	Third-party consultant review.	In 2018 MGM engaged with World Resources Institute (WRI) in the development of a Science-based Target (SBT). This work included a complete review of MGM 2018 emissions and relevant financial and other benchmarking data in preparation of and Absolute Contraction Science-based target consistent with the level of decarbonization required to keep global temperature increase below 2°C compared to pre-industrial temperatures.
C8. Energy	Renewable energy products	Power Purchase Agreement (PPA).	MGM entered into a power purchase agreement (PPA) with NRG (now Clearway) for the exclusive use of the energy generated by a 8.3 megawatt solar photovoltaic (PV) system atop the Mandalay Bay Convention Center in Las Vegas. Metering information is done third-party and verified by Clearway.

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C1. Governance	Emissions reduction activities	Environment & Social (E&S) rating by ISS Corporate Solutions	In 2018 MGM began participation in the Environment & Social (E&S) rating by ISS Corporate Solutions. This service is a comprehensive rating platform including Risks and Opportunities, Carbon and Climate, Natural Resources, and Waste and Toxicity disclosures.
C4. Targets and performance	Financial or other base year data points used to set a science-based target	Third-party consultant review.	In 2018 MGM engaged with World Resources Institute (WRI) in the development of a Science-based Target (SBT). This work included a complete review of MGM 2018 emissions and relevant financial and other benchmarking data in preparation of and Absolute Contraction Science-based target consistent with the level of decarbonization required to keep global temperature increase below 2°C compared to pre-industrial temperatures.

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase

Credit origination

Project type

Solar

Project identification

MGM Resorts does not participate in a formal carbon emissions scheme; however, we do create and trade State of Nevada Portfolio Energy Credits (PECs). We do so in partnership with NRG Energy (now Clearway as of 2019) and in the following way: [1] In 2018 we operated a 6.4 MW solar photovoltaic (PV) facility on the Mandalay Bay Convention Center Roof (Phase I of the project). [2] In 2017 that array generated 9,350 MWh of renewable energy which is the equivalent of 3,816 mtCO₂e. [3] Instead of retiring these credits ourselves and claiming the renewable energy generation / carbon avoidance, we traded the PECs with a counterparty under Nevada State regulations.

Verified to which standard

Other, please specify (State of NV Renewable Portfolio Standard)

Number of credits (metric tonnes CO₂e)

3816

Number of credits (metric tonnes CO₂e): Risk adjusted volume

3816

Credits cancelled

Yes

Purpose, e.g. compliance

Compliance

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Drive low-carbon investment

Identify and seize low-carbon opportunities

GHG Scope

Scope 2

Application

MGM actively analyzes the source of its energy with the objective to increase the share of energy generated from renewable resources in the future. As such, financial analytics utilize a price of carbon in the form of market price characteristics for fossil-fuel energy as well as renewable energy.

Actual price(s) used (Currency /metric ton)

10

Variance of price(s) used

Uniform pricing is used.

Type of internal carbon price

Shadow price

Impact & implication

In October 2016 MGM Resorts completed an exit from the fully-bundled sales system of NV Energy, the local electric utility in Las Vegas. This transaction enables MGM to control its portfolio of electricity serving its Las Vegas properties (more than 80% of the hotel rooms of MGM are in Las Vegas) and access the wholesale market for electricity. As such, in 2018 MGM announced a partnership with Invenergy, North America's largest independent renewable energy company, to develop a 100 megawatt solar photovoltaic (PV) system in Clark County, Nevada for the exclusive use of the Las Vegas properties of MGM. When completed by late 2020, this system will materially increase the percentage of renewable energy in the overall energy portfolio of MGM Resorts. In the future, MGM intends to examine other renewable energy options. In doing so, MGM has established an internal price of carbon via financial analyses designed to interpret market pricing characteristics of both fossil-fuel generated energy, as well as renewable energy.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

- Yes, our suppliers
- Yes, our customers
- Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

100

% total procurement spend (direct and indirect)

% Scope 3 emissions as reported in C6.5

7.5

Rationale for the coverage of your engagement

Fuel and emissions related activities associated with suppliers of electricity to MGM Resorts account for 203,341 metric tons of CO₂e of Scope 3 emissions, or 7.5% of all Scope 3 emissions of 2,712,669 metric tons at MGM Resorts for the reporting year 2018. Further, these purchases account for 100% of the 569,386 metric tons of CO₂e Scope 2 emissions for MGM Resorts for 2018. As such, MGM takes a proactive role in engaging with electricity suppliers to understand the sources of these emissions and work to mitigate them as they represent a substantial share of all CO₂e emissions and climate-related impacts of MGM Resorts operations.

Impact of engagement, including measures of success

In October 2016 MGM Resorts completed an exit from the fully-bundled sales system of NV Energy, the local electricity utility in southern Nevada (where the majority of total company electricity is purchased). This transaction enabled the Las Vegas properties of MGM Resorts to gain access to the wholesale market of electricity. Through active engagement with Tenaska Power Services, MGM's alternate provider of electricity in Las Vegas, MGM has taken steps to source a greater percentage of its electricity from lower carbon-intensive resources, and in turn reduce the associated Scope 3 and Scope 2 emissions from this procurement category. By gaining access to the wider wholesale market of electricity MGM Resorts, through engagement with Tenaska Power Services, was able in 2018 to source its required electricity in part from regions with lower associated emissions factors than those of the Las Vegas region directly. The result of this action was a lower overall Scope 2 emissions factor of 899.70 lbs/MWh as compared to a baseline of 1,049.00 lbs/MWh for the Las Vegas region (a reduction of 14.2%). The measure of success of this supplier engagement was a reduction of 63,041 metric tons of CO₂e for 2018. Further, this October 2016 transaction resulted in the 2018 announcement of a partnership for renewable energy with Chicago-based Invenergy to develop a 100 MW solar photovoltaic (PV) array north of Las Vegas that will be exclusively dedicated to the properties of MGM Resorts on the Las Vegas Strip. This action, when completed by the end of 2020, will result in significant mitigation of the environmental impact of energy sourced at MGM Resorts.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number

30

% Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement

MGM Resorts has established Sustainability and environmental responsibility as a core company value. This value is part of the overall company platform of Corporate Social Responsibility (CSR) that also includes Diversity & Inclusion and Philanthropy. As a core company value, it is critical at MGM Resorts that all operations function with the principal of Sustainability in mind. Our specific tactics related to Sustainability, environmental responsibility, and climate-related issues are concentrated on the following areas of focus: 1. Energy and Water Conservation 2. Green Building 3. Recycling and Waste Management 4. Supply Chain 5. Outreach and Education Focus area number 5, Outreach and Education is a core tactical area. Through education of our guests on the environmental performance of MGM Resorts we are able to advance the company's reputation in this area, solidify loyalty among guests that value Sustainability in choosing their resort destinations, and attract and retain talented employees that feel the same way. The 30% of customers engaged is the estimated percentage of resort guests that actively experience a touchpoint of sustainability during the preparation for and duration of their visit. These touchpoints include, but are not limited to, inquiring as to a sustainability rating of an MGM Resorts property such as those earned through Green Key, participation in a sustainable program such as a property towel and linen reuse effort, or observation of MGM sustainable practices such as "We Recycle" signs on property refuse containers. These customers, as evidenced through these touchpoints, are primary targets of the company's climate-related engagement strategy with customers at MGM Resorts. As such, MGM Resorts seeks to actively engage with this group of customers as a primary audience for education on the MGM Green Advantage platform. Engagement is done through active messaging on the MGM website, through

information in resort guest rooms, actively solicitation of customer feedback, and customer interactions with MGM employees.

Impact of engagement, including measures of success

Customers of MGM Resorts are educated on the company's track record of leadership in Sustainability and environmental responsibility primarily through the company's Green Advantage platform. Through the Green Advantage, we are able to integrate environmentally responsible practices which effectively lower the carbon footprint of our operations. A key element of customer engagement is to facilitate feedback from customers as to suggestions to improve sustainable elements of a visit to a MGM Resorts property. This feedback is incorporated into the Green Advantage where applicable. The primary measure of success of this engagement is improvement in the reputation of MGM Resorts as a leader in Sustainability and environmental responsibility in the marketplace. A key example of this occurred in 2018 when MGM was recognized and rated as such via the Environment and Social (E&S) rating system by ISS Corporate Solutions. The Environment portion of the E&S rating system takes into account factors such as a formal public Environmental Policy and is recognized by investors and consumers. MGM improved its Environment rating from an initial level of "2" to the highest possible level of "1" (on a scale of 1-10, with 1 being the highest possible rating) in part through its climate-related engagement strategy with customers. A future goal is to make similar improvement in the current rating of "3" on the Social side of the E&S rating system. A secondary measure of success is via guest feedback on sustainable elements. In recent years MGM has received an increase in such feedback, both in the form of positive recognition and suggested improvements, many of which have been incorporated into operations. In addition, we believe that the tenets of environmental sustainability advance a platform for innovation. CityCenter is one of the world's largest private sustainable developments. With six LEED® Gold certifications from the U.S. Green Building Council, CityCenter serves as the standard for combining luxury and environmental responsibility within the large-scale hospitality industry. Also, MGM National Harbor, The Park, and T-Mobile Arena have all been awarded LEED® Gold certification by the Council. Most recently, MGM Springfield in Massachusetts announced that it has become the first gaming resort to earn a LEED Platinum certification for new construction.

C12.1c

(C12.1c) Give details of your climate-related engagement strategy with other partners in the value chain.

At MGM Resorts we look to partner with external organizations in the advancement of Sustainability and environmental responsibility where appropriate. We believe that a greener business is a better business and that advancements at other organizations, or made in coordination with them, help reduce demand on the world's limited resources.

As such, the MGM Resorts climate-related engagement strategy with other partners involves the following specific steps:

1. Introduction to external organizations via personal contacts or active solicitation
2. Review of the mission and goals of each potential outside organization partner
3. Evaluation of compatibility of mission and goals of outside organization to those of MGM Resorts
4. Definition of scope of active engagement

5. Execution of engagement

We consider other partners in the value chain to be external organizations that are neither direct customers nor direct suppliers to MGM Resorts. We look to engage with such organizations where we can leverage external expertise in maximizing the promotion of Sustainability and other elements of Corporate Social Responsibility (CSR) within MGM Resorts operations, or where MGM Resorts operations may serve as an appropriate test market for new concepts.

In 2018 MGM Resorts considered multiple potential engagements with other partners in the value chain. Some of these potential engagements were in the area of Sustainability and environmental responsibility and were handled by the Corporate Sustainability Division (CSD) in Las Vegas on behalf of all company operations. Other potential engagements were in the areas of philanthropy and diversity. These were handled by the MGM Philanthropy and Diversity teams, also in Las Vegas on behalf of all company operations.

An example of the former instance is the MGM Resorts partnership with WaterStart, announced on World Water Day. WaterStart operates in a region of proven first adopters, sitting at the nexus of technology, research and economic development. WaterStart provides channels for innovation for various stakeholders and water resource managers; including: technology companies, management agencies and policy makers and provides services ranging from commercialization funding to business development. As it continues to bring together strategic resources and expertise, its core mission will create quality job growth and help diversify the economy of the region. For more information, visit www.waterstart.com.

In coordination with MGM Resorts, WaterStart will create and maintain an innovations priority list for water-related technologies, as well as identify and evaluate the applicability of technologies for use in MGM operations. Additionally, WaterStart will leverage its local and international network to conduct research and utilize MGM operations as a test-bed for companies working to improve water resource management and sustainability.

An example of the latter instance was the sponsorship by the MGM Resorts Foundation, as part of the MGM Philanthropy team, of the 2018 Women's Leadership Conference held in August 2018 with more than 1,500 attendees.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

- Direct engagement with policy makers
- Trade associations
- Funding research organizations
- Other

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Energy efficiency	Support	Energy Efficiency Policy – MGM Resorts International actively supports legislation at State and Federal levels to encourage utility and end-user energy efficiency measures as well as the use of combined heat and power; managing utility tariffs; and developing lighting policy standards through the U.S. Department of Energy (DOE).	MGM Resorts has provided input on several energy efficiency and sustainability bills in Nevada. These have included programs to promote energy conservation at both the residential and commercial levels of local utility systems.
Other, please specify (Water conservation)	Support	Water Conservation and Awareness - including funding access to clean water for impoverished communities; developing educational programs locally about the importance of water conservation and working with regional municipalities to develop sound water policy.	MGM provides funding to several water conservation, awareness and outreach efforts, including WaterStart, Springs Preserve, and ONE Drop.
Clean energy generation	Support	Renewable Energy Policy – including interactions with the Nevada State Legislature and the Governors Panel on climate change, the Harry Reid Blue Ribbon Energy Panel, the Southern Nevada Solar Energy Lab Development Committee, and frequent interactions with our state representatives for input on energy related issues.	MGM Resorts has provided input on several renewable energy related bills in Nevada. Most notably, in April 2018, MGM supported SB 358, a measure to raise renewable energy generation standards to 50% by 2030.
Other, please specify (Climate change awareness)	Support	Climate Change and Environmental Sustainability Awareness - including participation with the World Travel and Tourism Council and International Tourism Partnership to standardize measurement and communications of Greenhouse Gas Emissions to guests across the hospitality industry; as well as providing input and guidance for the WTTC in developing sustainability policy and direction.	MGM has supported the adoption of the HCMI standards across the industry.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Impact NV (www.impact-nv.org), (formally GreenChips), Nevada's Sustainability Alliance. Impact NV is Southern Nevada's leading sustainability voice creating innovative partnerships among businesses,

government, and non-profits through education, community projects, and collaboration.

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

ImpactNV is a 501(c)(3) non-profit catalyst organization, founded in 2008, that is dedicated to building community through collaborative partnerships for a more sustainable future. Sustainability is, in many facets, a transformational word. It is transformative first in that the understanding of what it means to be "sustainable" has changed over several decades. Originally defined as the productive harmony between humans and nature that was necessary to guarantee the flourishing of mankind, sustainability has since taken on far more meaning. The economy, health, nature, built environment, energy, community, social equity, and transportation now make up the components that ensure the endurance of prosperity. Impact NV's position is that Sustainability is best achieved through cooperation among business, government, and non-profits through education, community projects, and collaboration.

How have you influenced, or are you attempting to influence their position?

MGM Resorts is a founding member of Impact NV, with Company executives servicing on both the Board of Directors as well as the working group of the non-profit organization. The mission of Impact NV is consistent with the objective of MGM Resorts to be a positive influence in the each of the communities in which we do business. MGM uses this position to promote energy efficiency, renewable energy infrastructure, and community awareness for organizations who help meet these ends within the community.

Trade association

Sustainable Purchasing Leadership Council (SPLC).

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

SPLC works to advance sustainable purchasing policies and practices, including those that drive long term supply chain emissions reductions.

How have you influenced, or are you attempting to influence their position?

MGM's Vice President of Corporate Sustainability was the Founding Chair of SPLC and has influenced the organization's focus on prioritizing sustainable purchasing activities in produce categories of highest embedded environmental impacts.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

Yes

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

MGM Resorts continues to engage activities to develop and support sustainable practices in the regulatory arenas on the local, state, and national levels. These efforts include active guidance and participation in Impact NV, formerly Green Chips (www.impact-nv.org), a public/private non-profit partnership dedicating to promotion sustainability in Southern Nevada, the Clark County Department of Air Quality (DAQEM), Nevada State Legislature, the U.S. Department of Energy's Better Buildings Alliance Efficiency Forum, Commercial Real Estate Energy Alliance (CREEA), Green Meeting Industry Council (GMIC), Sustainable Purchasing Leadership Council, and others.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Our environmental policy establishes priorities for the company and serves as the foundation for ensuring that all engagement is consistent through the review and consultation process. If any engagement is determined inconsistent, this would be identified by the CSR Committee of the Board and other key stakeholders, and then all engagement activities would cease or be addressed as appropriate.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports

Status

Complete

Attach the document

[MGM-2018-Annual-Report.pdf](#)

Page/Section reference

Pages 5-6, 18

Content elements

Governance

Strategy

Risks & opportunities

Comment

C14. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	President	President