

MGM Resorts International 2014 Star of Energy Efficiency Awards

Category: “Galaxy” Star of Energy Efficiency

The “Green Advantage” Way

MGM Resorts is committed to be a global leader in sustainability and stewardship of the environment. With board and executive oversight, our company operates more intelligently and efficiently by extending sustainable business practices to existing resorts and new projects, following a strategic sustainability plan. The primary component of our sustainability platform, known as the Green Advantage, is energy and natural resource conservation. The electricity consumption of MGM Resorts properties each year is equivalent to a small city, or the annual usage of approximately 120,000 average U.S. homes. This concentration of usage enables us to identify, test, deploy, and measure energy savings concepts and technologies on a wide scale. Efforts are made via cooperation between property operations and “Green Teams” along with the company’s Corporate Sustainability Division.

A Comprehensive Approach

In developing energy conservation enhancements MGM Resorts selects potential projects that demonstrate the company’s leadership and commitment in its ability to be deployed on a large scale, both inside and outside of MGM Resorts, enables the practical taking of operational risk to achieve results beyond expectations, and allows us to act as first movers on appropriate technologies and practices that will distinguish us in our industry.

Following such criteria and strategic implementation, energy saving enhancements made to date includes innovations in facility energy management systems, mechanical upgrades, lighting enhancements, and operational improvements. Savings results include:

- Since 2007, MGM Resorts has saved a cumulative total of over 420M kWh, enough to power 37,000 average U.S. homes for a year.
- On a carbon equivalent basis, MGM Resorts has reduced annual emissions by 100,000 metric tons since 2007.

Project Highlights and Energy Savings

The following are examples of energy conservation enhancements successfully completed or scheduled for implementation at MGM Resorts:

1. **Building management systems** – In 2014, MGM Resorts upgraded the Building Management System (BMS) at Monte Carlo. This project improved control of property heating, ventilation, and air conditioning (HVAC) components. Benefits include more energy efficient building performance, reduced operations and maintenance expense, improved air quality, and more effective integration of the planned expansion of the property – **projected final savings over 4.3M kWh.**
2. **Solar energy installation** – In 2013, Mandalay Bay committed to install the second largest rooftop solar array in the United States, largest convention center solar array in the world, covering over 20 acres of rooftop with more than 20,000 solar panels. Installation will be 6MW, generating 9.5M kWh annually – **providing nearly 20% of total power demand.**
3. **Employee driven energy savings** – In 2013, MGM Resorts launched MY Green Advantage, a social media platform aimed at educating employees on green practices related to work and home. By harnessing the collaborative strength of our 62,000 employees we are able to promote positive environmental impact and behavior changes specific to energy consumption – **over 4M kWh in savings through sustainable actions.**
4. **Lighting retrofits** – In 2013, MGM Grand Detroit completed a light-emitting diode (LED) lamp retrofit of its 61 acre parking garage. Cited as one of the nation’s largest LED parking garage jobs ever, the project consists of 3,117 LED lamps – **80% reduction in annual energy use.** Further company-wide surface parking lighting retrofits have resulted in additional savings – **2.7M annual kWh savings.**
5. **Retro – commissioning** – In 2013, MGM Resorts has engaged an external energy analytics team to develop and execute retro-commissioning (RCx) processes focused specifically on enhancing the performance of integrated central plant systems providing heating/cooling to six different properties in Las Vegas, NV – **annual savings for CityCenter alone are projected over 2.3M kWh.**

Leaders in Sustainability

At MGM Resorts we believe that as leaders in sustainability it is our responsibility to design, demonstrate, and share energy conservation practices. We do so via our operations as well as our influence in local, national, and international forums (such as the U.S. D.O.E. Better Building Alliance), including facility and central plant tours and educational forums.