

12-1-2014

## A Model for Meeting and Event Venues to Implement Green Practices

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<http://dx.doi.org/10.34917/8349566>

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A MODEL FOR MEETING AND EVENT VENUES TO IMPLEMENT GREEN PRACTICES

By

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A professional paper submitted in partial fulfillment  
of the requirements for the

Master of Science in Hotel Administration  
William F. Harrah College of Hotel Administration

The Graduate College  
University of Nevada, Las Vegas  
December 2014  
Chair: Dr. Daniel McLean

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## **Part I**

### **Introduction**

The meetings and events sector has often been overlooked as a sector within the hospitality industry. Only in recent years have both academic and business fields begun to research the level of impact it has on the hospitality industry. A study by the Convention Industry Council (2012), revealed that in 2012 1.83 million meetings took place in the United States, with over 225 million attendees, accounting for almost \$280 billion dollars in direct spending within the US economy. The impact that meetings and events have on the hospitality industry and the amount of reported spending suggests it is important for hotel and conference properties to remain current with the trends and practices of the meetings and events industry.

One practice that seemingly started as a trend is “green” meetings and events. Green meetings and events are defined as a “meeting, or event, that incorporate environmental considerations that minimize the negative impact it has on the environment” (Convention Industry Council, 2004). Today, green meetings and events are becoming a common practice by planners and executives.

Green meetings and events became more prevalent after the recession of 2008. Prior to the recession organizations and individuals focused more on luxury and extravagance, however once the recession began it resulted in people cutting costs (Goldblatt, 2012). This caused people to become more aware of the climate change and energy crisis, thus making them become more ethically and environmentally conscious (Goldblatt, 2012). Therefore, in order to preserve business in the long term, it is important that the industry look at ways to improve its environmental and sustainability credentials (Rittichainuwat & Mair, 2012).

The demand for green meetings and events is projected to continue to increase in the coming years, and it is imperative that convention and hotel properties begin to transition to green practices. In order to successfully do this, properties need to gain a thorough understanding of industry accepted and recommended practices, and how they will affect the bottom line.

**Purpose Statement:**

The purpose of this professional paper is to investigate how hotel and conference properties may be incentivized to adopt green practices, and to provide a guide for how to properly adapt green practices within their facility.

**Statement of Objective:**

In 2007 green meetings were ranked as the third most anticipated trend by *Event Solutions* magazine's survey of 1,350 event professionals, however by 2011 it was an emerging trend (Goldblatt, 2012). Today, meeting and event planners are increasingly including clauses in their contracts with venues pertaining to green practices, and are willing to look elsewhere if a venue does not agree to partake in the green initiatives. For venues the failure to "go green" can mean a substantial loss of revenue. Nonetheless, many businesses are hesitant to engage in green (sustainable) practices, because they are not properly educated on the financial advantages, long term cost reductions, and improved efficiencies of going green (Mair & Jago, 2010). To resolve these misconceptions a blueprint, or guide, is needed for companies that will explain the advantages, disadvantages, and impact on the bottom line that green meeting practices can have on the organization and secondly, steps they can implement to move toward green practices.

Therefore this professional paper will answer the following questions:

1. What green practices and policies should be the minimum expectations of the meeting and events segment?

2. How may venues implement green practices and improve their business model?

### **Justification**

Venue selection is one of the most important aspects of meeting and event planning. Attendees normally do not decide the venue, but rather association executives or meeting planners do, therefore it is important for venues to understand what influences their decisions (Draper, Dawson, & Casey, 2011). In recent years planners have started to include green requirements for their meeting, or event, in the Request For Proposal (RFP) provided to the venue. This means that venues need to adapt their business practices to meet the expectations of planners and association executives.

Individuals are becoming increasingly concerned with environmental issues, realizing that their own purchasing decisions influence the environment (Lee, Hsu, Han, and Kim, 2010). Due to committed individuals within the industry who want to show a personal commitment to protecting the environment, green meetings and events have become more prevalent (Mair & Jago, 2010). This has led to a push in sustainable practices in venues, because these individuals will walk away from venues that chose not to partner, or offer, green practices. Therefore, it is imperative that venues start setting realistic goals to start initiating sustainable practices that they can track and adjust as future needs are revealed (Draper et. al., 2011). By acquiring green practices venues will be able to better place themselves with their competitors, and can begin to bring in clientele that would otherwise chose a different location, thus leading to more business.

### **Assumptions and Constraints**

This paper assumes that meeting and event venues and planners are committed to reducing their event's impact on the environment. It is also assumed that meeting and event venues' knowledge of green practices is limited to industry practices. Finally, this paper assumes

that meeting and event venues anticipate that by implementing green practices within their property it will give them a competitive advantage.

This paper is constrained to focusing on small to mid size organizations that have considered green practices, but do not have the proper expertise.

## **Part II**

### **Introduction**

Meetings and events are one of the largest components within the hospitality industry. Therefore, it is imperative that venues such as hotels and conference centers remain informed about the practices and needs of the sector. The concept of green meetings is rapidly becoming a standard of the meetings and events sector and properties need to gain a comprehensive understanding of the background of green meetings. This paper provides an in depth look at the history, influences, and foundations of green meetings; as well as the benefits and challenges of a venue going green. In addition, the principles and practices of green venues will be discussed, along with what can be learned from the companies that have already adopted green practices.

### **Definitions**

The definition of green meetings and events provided by the Convention Industry Council (2004) states that green meetings and events are any meeting or event that “incorporate environmental considerations to minimize its negative impact on the environment” (p. 14). This will broadly cover the MICE industry, which includes meetings, conventions, incentives, and exhibitions (Rittichainuwat & Mair, 2012).

Meetings and events are gatherings that bring people together in one place to motivate participants, conduct business, share ideas and learn (Convention Industry Council, 2012).

Going “green” refers to the “adoption of environmental management practices, intended as practices aimed at minimizing the detrimental impact on the environment in terms of both resource depletion and pollution” (Tzschentke, Kirk, & Lynch, 2008). For the purpose of this paper the term sustainability will be used interchangeably.

The Brundtland report, developed by the United Nations World Commission on Environment and Development, also includes that sustainable development “considers the needs of the present without compromising the ability of future generations” (World Commission of Environment Development [WCED], 1987). The umbrella of going green, or sustainability, will include the three pillars of responsibility- economic, social, and environmental (Melissen 2012; Gracan, Sander, & Rudancic-Lugaric, 2010). Some of the environmental practices will include reducing energy and waste consumption, using ecologically sustainable resources and implementing an environmental management system (Mair & Jago, 2010).

Venues will encompass any facility where meetings and events can take place. There are three categories for venues: (1) purpose based meeting facilities without lodging; (2) meeting facilities with lodging; and (3) venues with meeting facilities. Purpose based meeting facilities without lodging include venues that do not provide room and board, such as a convention center, exhibition hall, non-residential conference center or multi-purpose event hall (Convention Industry Council, 2012). Hotels, resorts, casinos, and residential conference centers are referred to as meeting facilities with lodging; these are spaces that will include lodging within the contract of the meeting. All other venues with meeting facilities will include universities, stadiums, arenas, parks, museums, theatres, restaurants, etc (Convention Industry Council, 2012).

### **Sustainability and the Meetings and Events Sector**

In 2012 there was an estimated 1.8 million meetings held in the United States; 50% were corporate or business meetings, 27% were conventions, conferences or congresses, and 12% were trade shows (Convention Industry Council, 2012). With so many meetings taking place it is surprising that there is such a lack of knowledge of the impact of meetings and events within the hospitality industry.

Meetings and events tend to have both direct and indirect influences on the environment. A direct influence is something that immediately impacts the event environment, where an indirect influence is something that does not cause immediate damage to the event environment, but rather influences the environment negatively later (Goldblatt, 2012). There are four main ways in which events contribute to polluting the environment: land, air, water, and noise. Meetings and events are great contributors to land pollution through the waste they create. The majority of the waste from meetings and events is not biodegradable, and contribute to ground contamination and increase in landfills. Waste includes; sewage, cosmetics, cleaning products, hydrocarbons, litter, and food waste (Case, 2013).

The meetings and events sector produces excessive amounts of waste produced, and high amount of energy consumed. For example, a 5-day conference with 8,500 attendees can produce 24 tons of waste and consume 88,461 kWh of electricity; they can use 210,800 plastic plates, 297,500 paper napkins, 255,000 plastic cups and 306,000 water bottles (Gracan et al, 2010). Due to the large amounts of products consumed during meetings and events, it makes the meetings and events sector one of the largest contributors to the waste stream within the hospitality industry.

Due to their consumption of natural resources, water use, pollution, and production of waste hospitality industries can greatly affect the environment they are part of (Melissen, 2012). With meetings and events having a negative impact on the environment it is imperative for the industry to start adopting green practices. The environment is currently a global issue and soon society will be putting even more pressure on the industry to adapt green practices (Gracan et al, 2010), which is why it is important that venues understand green meetings and events.

## **A History of Going “Green”**

Going green is an emerging movement that has gained credibility. It started due to individual’s personal life choices and ethics concerning the environment, and resulted in changes within businesses. The first step in creating the phenomenon known as “going green” began in the 1980’s with the creation of recycling and its implementation within households (Goldblatt, 2012). Once it entered the household the United Nations decided to create a “global agenda for change” that summarized environmental concerns and created strategies for individuals to partake in to help achieve sustainable development (WCED, 1987). By creating an increased awareness of the negative impacts of industrialization on the environment, and encouraging practices focusing on household going green, an impetus was created leading to a mirroring of greening from the individual level to the corporate level (Tzschentke et al., 2008).

In 2003, a task force was developed by the Convention Industry Council (CIC) to create best practices and policies of sustainability for the industry (Convention Industry Council, 2004). The task force consisted of members of the Environmental Protection Agency (EPA), the Oceans Blue Foundation, the Society of Incentive Travel Executives Green Meeting Group, and the World Travel Organization. They also included individuals from hotels, convention and visitor’s bureaus, convention centers, and meeting planning organizations. The point of the organization was to “practically improve meeting management, by promotion of environmentally responsible strategy via the cooperation in hospitality industry, corporations, government and local self government communities connected to the business meeting industry (Gracan et al.,2010).

Currently, MeetGreen is at the forefront of developing/championing sustainable practices within the United States meeting and events industry. In 2007, they partnered with the Convention Industry Council to produce the “Accepted Practices Exchange (APEX) Standard for

Green Meetings and Events, which created green standards for the United States (Goldblatt, 2012). The APEX standards focus on nine categories of sustainable practices in meetings and events, including: audiovisual, accommodation, communication, destination, exhibits, food and beverage, meeting venue, on-site office, and transportation. They discuss ways for meeting planners and contractors to reduce their negative environmental impact, and how they can help to reduce their carbon footprint.

### **The Individual Influence on Going Green**

The beginning of the green movement began through the effects of a few individuals for whom the environment was an important personal issue (Mair & Jago, 2010; Tzschentke et al., 2008). Therefore, going green became an evolution of their lifestyle choices (Tzschentke et al., 2008). Draper, Dawson, and Casey (2011) reported that both gender and age have an influence on the propensity for someone to participate in green activities. Reportedly, females are more likely to rate sustainability items higher than males. They also reported that as event planners age, so did the importance of sustainability as a personal and societal issue.

It appears that personal ethics and beliefs influence individuals to initially begin to participate in green meetings (Tzschentke et al., 2008). Others suggest that planners will have a higher propensity to commit to green practices when they are personally committed (Mair & Jago, 2010). Tzschentke et al (2008) concluded that the more individuals within an organization were committed to protecting the environment the more likely they were ethically commitment to take action (see Figure 1). Whereas, those who were not as ethically concerned seemed to be more financial motivated. Their study of small firm hotel owners in the United Kingdom found that those who were more ethically committed had accomplished higher levels of certification, meaning that they took further action to green their property than their financially motivated

counterparts. The results suggest that higher levels of concern at the individual level can potentially result in greater levels of sustainable action within the property.

Figure 1 illustrates how the level of environmental concern (high vs. low) relates to the motivational orientation (cost vs. ethics). Based on the model, those who express a high level of concern for the environment are going to be more motivated at the ethical level. While those who are more motivated by cost are going to have lower levels of concern for the environment.

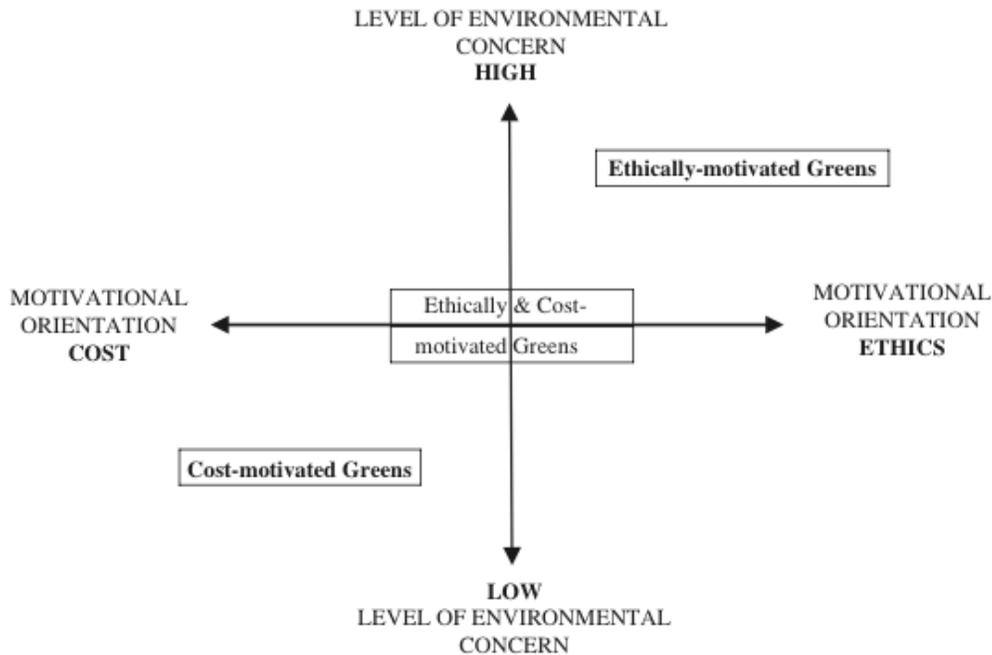


Figure 1. Levels of concern and motivated orientation

Tzschentke, N. A., Kirk, D., & Lynch, P. A. (2008). Going green: Decisional factors in small hospitality operations. *International Journal of Hospitality Management*, 27(1), 126-133.

### Meeting Planner and Attendee Trends

The size of the meeting and events industry creates a high level of competition between venues. This competition frequently leads to venues spending considerable amounts on marketing their property; therefore it is imperative for venues to understand what influences meeting planners' decisions for site selection (Draper et al., 2011). Due to the large nature of

most meetings and events there are several subcategories that planners focus on when selecting their meeting or event site. These include accessibility, local support, extra-conference opportunities, accommodation facilities, meeting facilities, information, site environment, and other criteria such as risks and profitability (Rittichanuwat & Mair, 2012). Within these categories there are many sustainable issues to consider, which is causing planners to begin putting green provisions in contracts with sites they select. Some will even go as far as holding 10% of the payment until the venue agrees to all provisions (Coffey, 2008). If the site decides that it will not, or cannot, accommodate the planners green request the planner may walk away from the facility, which could be detrimental to the venue. Due to the lack of green strategies in place at many venues, planners are having difficulty including even the most basic green practices within their contracts, or Request for Proposal (RFP). Some are resorting to administering surveys to venues about their green practices before even selecting a final venue (Murphy, 2010). Due to the amount of hazards meetings and events impose on the environment meeting planners are beginning to look for practices such as recycling, water conservation, energy conservation, and waste conservation at both the venue they select and within their event. This can affect all parts of a venue from an operational view.

Meeting planners are responsible for site selection, however it is also important to understand the psychology behind the attendees and how they perceive green events, since without attendees there would be no point in having meetings or events. According to Rittichainuwat and Mair (2012) the majority of attendees do not have any problems with green meetings, nor do they find them to be more expensive, look cheaper or to have a less exclusive atmosphere than other meetings.

Personally, attendees have decisions to make about their meeting experience and how it affects the environment. Attendees have to consider travel length and how they will get there, events that are further away will require them to drive or fly which can cause more air pollution. This is also something that could potentially affecting meeting planners as well because they may decide to pick a closer venue that require less travel, thus producing less pollution. Attendees also have to figure out lodging, and whether they would like to stay within the same facility as the event. Other things attendees, such as sponsors, have to consider is their contribution to waste. A study done in 2012 by Rittichainuwat and Mair found that attendees are more likely to agree to staying in the hotel that the event is hosted in, as well as open to being served locally grown food opposed to imported-cutting down on waste and pollution.

### **Corporate Social Responsibility**

With the rise in self awareness for both individuals and corporations a new trend has started to emerge that greatly affects whether a company will choose to go green or not. Corporate Social Responsibility (CSR) has been a driving point for many companies, because it forces them to be aware of the impact they are making on the world around them. CSR is defined as “business practices that integrate social, economic and environmental concern into decision-making and meet or exceed legal and ethical standards” (Henderson & McIlwraith, 2013). This concept became especially important after the 2008 economic collapse in the United States.

The concept of CSR is still relatively new, and because of that it is something that is still not at the forefront of the meetings and events segment. Currently, the United States is behind Europe and Canada when it comes to CSR within the meetings and events segment (Goldblatt, 2012). It also appears that younger professionals are more likely to be aware and value CSR than

older professionals within the industry. CSR tends to be more popular in larger corporations, and because of this it often makes it harder for smaller organizations to develop strong policies.

Though CSR is still relatively new, and not as prevalent, in the meetings and events industry it is important for venues and organizations to be aware of it. Especially since it is starting to encompass or reference green practices. There are two ways that CSR can influence the meetings and events industry. First, there are some meetings or event companies that will have some form of CSR policy in place and demand more environmentally friendly practices; secondly there are large corporations that will have their own specific CSR policies and demand that their suppliers and venues meet the requirements of their companies' CSR policies (Mair & Jago, 2010). This means that it is imperative for venues to understand CSR and how it can be applied to meetings and events.

There are three primary segments that Corporate Social Responsibility cover within the business market. The University of Michigan created the Three Spheres of Sustainability in 2002. It was based on the theory of triple bottom line first produced by Elkington(1997). The three spheres, depicted in Figure 2, are made up of economic, environmental, and social resources. In order for an organization to be successful in their sustainable transition all three aspects must be considered (Henderson et al., 2013).

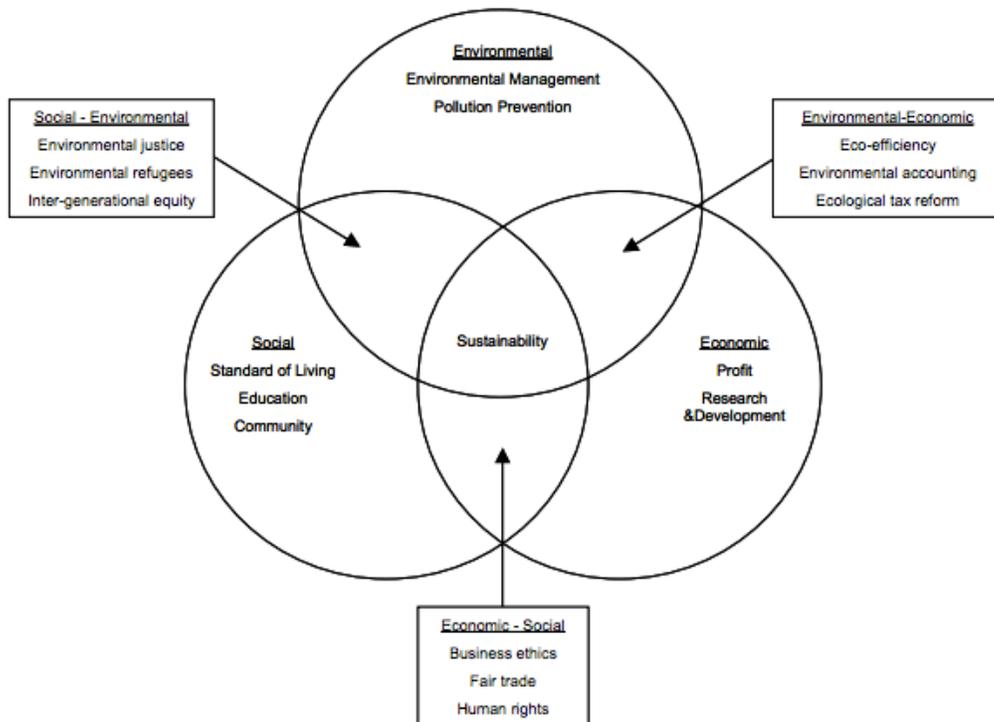


Figure 2. The three spheres of sustainability.

Rodriguez, S. I. (2002). *Sustainability assessment and reporting for the University of Michigan's Ann Arbor Campus* (Doctoral dissertation, The University of Michigan). Retrieved from [http://css.snre.umich.edu/css\\_doc/CSS02-04.pdf](http://css.snre.umich.edu/css_doc/CSS02-04.pdf)

The environmental sphere covers how a business can help with environmental management, as well as pollution prevention. This is an important part to sustainability because environmental degradation, climate change, and resource shortages are beginning to threaten global lifestyles (Case, 2013). Due to the large amount of natural resources that are used not only to build hospitality business, but also the amount of waste and pollution they create, the hospitality industry can greatly affect the environmental systems they are a part of (Melissen, 2012). In order to positively contribute to the environmental bottom line an event can use recycled materials, reuse items, recycle those that cannot be reused, and reduce the overall

environmental impact that each event has (Convention Industry Council, 2004). Waste reduction is especially important, because it is something that the facility needs to do at an individual level, and not just for the meetings they hold (Gracan et al., 2010).

Economic resources include profit, research and development. No longer is being sustainable just about protecting the environment, it also is now seen as a business imperative by many companies (Murphy, 2010). Making a company more sustainable can result in obtaining new clientele, which will result in stronger cash flow for the company, as well as higher return on investment, return on assets, and return on sales (Gracan et al., 2010). The profits companies acquire from implementing green practices can then contribute to the local economy, and tax generation (Melissen, 2012).

The social sphere is comprised of standard of living, education, community, and equal opportunity. This sphere focuses on the employees and community surrounding the company. Due to the fact that the hospitality industry usually employ large amounts of local citizens, and interact with local suppliers, it is impossible for them to separate themselves from the socio-environmental system that they are located in (Melissen, 2008). Companies can show their social responsibility to the employees by practicing fair labor practices, diversity, and considering health and wellness programs (Henderson et al., 2013). In order to contribute to the local economy companies can implement volunteer and donation programs, as well as, by practicing policies of equality and fair trade (Goldblatt, 2012). Due to the large scale meetings and events often take on, both positive and negative impacts can happen to the local community. If they are not careful they can contribute to unfair labor practices and human trafficking, therefore companies need to be proactive and begin implementing programs that can positively influence their community so that they can cut back on the negative (Henderson et al., 2013).

Other areas within the three spheres of sustainability that companies need to consider are the social-environmental, environmental-economic, and economic-social. Social-environmental practices include environmental justice, natural resource stewardship, and local and global impact. Energy efficiency and subsidies and incentives for use of natural resources are some of the environmental-economic resources that also need to be considered. Economic-social issues include business ethics, fair trade, and worker's rights. In order for a company to be successful in transitioning to green practices they need to implement practices that fulfill the needs of all three aspects (Henderson et al., 2013).

## **Sustainable Practices**

### **Energy Modifications**

One misconception about becoming sustainable is that it is hard for buildings that are already built to properly implement sustainable practices without large renovations. There are many smaller scale changes that organizations can make to their buildings that can help make them more sustainable, while also helping them conserve money.

Energy consumption is one of the biggest factors hurting the environment, as can be seen by the fact that 30% of the energy a commercial building consumes goes to waste (Energy Star, n.d. a). There are several ways that companies can work to cut down on their consumption used. Performing an audit of the building to see where energy can be cut is vital (Convention Industry Council, 2004).

Lighting is an area where energy consumption can be decreased. There are multiple ways for companies to conserve. For instance, switching lamps to compact fluorescent lamps (CFLs), especially in areas that require light 24/7 (Convention Industry Council, 2004). CFLs use 75% energy than a tungsten lamp, and will last ten times as long (Goldblatt, 2012). Another solution

is to use light emitting diodes (LEDs). LEDs use very little power compared to their tungsten counterparts, and also create less heat when on (Goldblatt, 2012). Installing sensors, or timers, for lighting within the venue can also help to reduce energy waste (Convention Industry Council, 2004).

Another way to conserve energy is to consider installing alternative energy sources. These include solar, wind or hydropower (Goldblatt, 2012). Energy Star (n.d.b) reports that upgrading to a renewable energy source can decrease the energy load of a building by up to 35%, which will help to increase the proportion of clean power used at the property with the least cost. One alternative source is to use solar water heating, this method can be paired with equipment already in place. Installing a solar water heating system can decrease the amount of gas consumption by 30% (Nelson, 2007). Solar panels are another consideration for those looking to save on energy costs. Solar panels use photovoltaic cells that convert sunlight into energy (Goldblatt, 2012). Currently, there are solar cells with a 31.1% conversion rate; however, this rate is on the rise with the implementation of new technologies (Westenhaus, 2013). Another alternative is wind energy- through the use of turbines wind can be transformed into usable energy (Henderson et al., 2013). However, this method is not as popular in the hospitality industry due to the intermittent nature of it, and the noise created (Henderson et al., 2013).

By utilizing these energy saving modifications, venues can start to build their way towards certification. Energy Star was created by the Environmental Protection Agency (EPA) in 1991, and started as a certification for more environmentally friendly lights, however in 2002 they partnered with the US Department of Energy (Draper et al., 2011). Now they provide certification to companies that earn an Energy Star score of 75, or higher, meaning they generate less greenhouse gasses than other buildings (Energy Star, n.d.a). Another form of green

certification a venue can receive is Leadership in Energy and Environmental Design (LEED). LEED certification requires improving indoor air quality, maintaining recycling programs, and reducing the carbon footprint of the building (Murphy, 2010).

### **Waste and Pollution Management**

Due to the disposable nature of events, they often produce large amounts of waste and pollution, which is why creating a company wide waste management plan can help to give venues an advantage. There are many small measures that can be taken that will have a huge impact on decreasing waste.

First, venues need to create a comprehensive recycling program that includes bottles, cans, cardboard, paper, food, wood, pallets, batteries, cooper wire, and reusable goods (Murphy, 2010). If the local government will not work with a venue to collect the recyclables there are private companies that can be contracted (Convention Industry Council, 2004). Receptacles should be placed in visible areas through out the venue, and be labeled properly so that guests may utilize them properly (Goldblatt, 2012).

Another important step in waste management is for the venue to reduce the amount of items that are non-recyclable, or standard waste, such as Styrofoam, plastic wrap, plastic cutlery, aerosol cans, plastic bags, cigarette butts, etc (Goldblatt, 2012). The use of these materials can be dangerous to the environment due to the fact that they often end up in landfills, or incinerators, which can cause extra pollution (Case, 2013). Therefore, switching to using non- disposable materials, or materials created from recycled materials that can be disposed of in an environmental fashion is vital.

Composting is another viable option for venues looking to improve their carbon footprint. Composting takes organic material, such as food waste, and decomposes it into fertilizer

(Goldblatt, 2012). For example, a three-day event with 2200 attendees that utilizes composting could keep 6.5 tons of waste from the landfill (Spatrisano & Wilson, 2007). If obtaining machinery on property, whether inside or outside, is not feasible then another option that is available is to donate all the biodegradable waste to a local farm (Goldblatt, 2012).

In the hospitality industry, reusing products is another viable and easy method of waste management that can be implemented. For venues with guest rooms an option is to institute a linen reuse program. This can be done by coordinating with housekeeping to offer guests the option to not have their linens replaced every day, and having information available in the room on the program for the guests (Convention Industry Council, 2004). If there are goods that cannot be reused on property another option is to donate them to local organizations. Materials such as office supplies, signage, food, and decorations can be donated to organizations such as Habit for Humanity or the Boys and Girls Club (Goldblatt, 2012). Not only will this help reduce waste, but also it will help the venue contribute to the community; fulfilling the social need within sustainability.

### **Food and Beverage Practices**

For venues that provide food and beverage on site, there are multiple steps that can be taken to help make the venue more sustainable and to lower the carbon footprint. From the choice of food used, to the display, there are many ways to implement sustainable practices within the food and beverage department.

When picking ingredients it is important to focus on where they come from. It is best to pick ingredients that are locally grown when possible, in season, organic, free-range, and fair trade (Convention Industry Council, 2004). Fair trade means that not only are the ingredients produced on farms, or harvests, which pay and treat their workers fair, but also treat the animals

humanely (Goldblatt, 2012). Local food includes food that is grown within a 100-mile radius of your venue (Zavada, Spatrisano & McKinley, 2011). Also, seafood should be purchased according to the “Best Alternative” program implemented by local sustainable fishery programs within the area (Zavada et al., 2011). Whenever possible seasonal food should be used. The use of seasonal foods within the menu will result in fresher dishes, and it will show a connection to local agriculture sources (Goldblatt, 2012).

When it comes to setup there are also many important policies that can be put in place to help lower the carbon footprint of the venue. Linens, dishes, and cutlery should be reusable whenever possible, and when disposable items are non-negotiable make sure they are biodegradable (Convention Industry Council, 2004). #6 plastic and polystyrene should be avoided as much as possible (Zavada et al., 2011). Items, such as napkins, should be linen whenever possible, and when drink napkins are needed try to substitute them out with coasters. Decorations should be items that can be reused or that are edible or living (Zavada et al., 2011). When it comes to condiments or other table items, they should be purchased and served in bulk to eliminate the need for additional packaging (Goldblatt, 2012).

There are also many other steps that can be taken to help increase sustainability within the food and beverage department. One way to help eliminate food waste is to partner with local food banks or shelters so that any leftover or used food may be donated (Convention Industry Council, 2004). Also, water glasses should not be prefilled whenever possible. During a three-day banquet, with 2200 guests, this equates to 520 gallons of water being saved (Convention Industry Council, 2004). It also is important to reduce the use of bottled water on property, by using tap water or installing filtration systems on property (Goldblatt, 2012).

## **Meeting and Event Practices**

In addition to the practices that venues can implement at the macro level, there are many practices that they can do to partner with the meeting or event to help improve their carbon footprint. With the amount of waste generated through meetings and events, it is important for a venue to help their clients reduce any unnecessary waste.

The most important thing a venue needs to do is to have clear and detailed green practices in place that they clearly communicate to all employees, vendors, and clients (Convention Industry Council, 2004). Including green practices in contracts, or RFPs, will help to set them apart from surrounding venues. Venues should provide post event reports that include savings or reduction of all waste, energy and other areas during the meeting or event compared to historic costs (Gracan et al., 2010).

During the meeting or event, venues should encourage their clients to embrace energy efficient practices. One way to get the client to help save energy is to encourage them to keep all lights, electronics, and air conditioning off when they are not using rooms (Zavada et al., 2011). Another way to reduce unwanted waste is to encourage them to use recyclable paper, or paper from previous functions (Rittichainuwat et al., 2012). The use of media, such as projections, or other electronic technology should be encouraged to help cut back on the amount of paper waste (Green Meeting Industry Council, 2011). If the venue is in a location with mass transit systems in place, they should encourage the clients and attendees to utilize them in order to cut back on emissions (Zavada et al., 2011). It also is important to provide information on local attractions, such as restaurants or recreational activities that are within walking distance as to encourage less use of vehicles (Zavada et al., 2011).

## **Negative Impacts of Converting to Green Practices**

Converting to green practices is often associated with a negative connotation. Many feel that going green will be a financial burden to them, or that it will be too time consuming, which often makes them hesitant to begin the transition (Mair et al., 2010). However, this is often a result of organizations being confused by the requirements and could be fixed by offering them education about converting and the financial benefits it would produce (Mair et al., 2010).

Financial barriers are even more relevant to functioning properties that already exist. Many older properties were not built with the environment in mind; therefore converting them to sustainable buildings may be too much of a challenge (Draper et al., 2011). Many assume that costly remodels need to be done to convert their property to a more sustainable one due to the regulations set by the organizations such as LEED, however there are many things at the micro level that they can still do to adopt some sort of green practice. By adopting practices such as recycling, or repurposing items venues can still make an impact even if they aren't able to obtain green certification such as Green Globe Certification (Draper et al., 2011).

Other issues that concern property owners are liability and taxes. Some people are concerned that they may have to pay more taxes if recycling programs are in place, and are hesitant to do so (Draper et al., 2011). Planners are also finding it difficult to find properties that are willing to participate in food donation programs because many properties are afraid of potential liability issues (Coffey, 2008). Many properties are unaware of a law that protects them if they chose to donate food. The Bill Emerson Good Samaritan Act, signed in 1996, protects those who donate food or grocery products to non-profits against civil and criminal liability if the donation that is created in good faith cause harm to the recipient (Feeding America, n.d).

Therefore, donating left over food and groceries to non-profit organizations in need not only helps them reduce waste, but also allows them to contribute to the good of their community.

### **Positive Impacts of Converting to Green Practices**

Many organizations are hesitant to start converting to sustainable practices due to the fact that they are not educated enough about the impact going green can have on the organization. Many believe that limited time or the assumed costs are reason enough to not move forward with implementing green practices (Mair et al., 2010). However, if done correctly, sustainable practices can enhance employee and customer satisfaction, save money, enhance customer demand, and improve financial gains (Melissen, 2012 & Gracan et al., 2010).

When organizations decide to adapt green practices they help to increase both employee and customer satisfaction. Organizations that have adopted green practices find an increase in employee retention (Gracan et al., 2010). Employees in these organization stay with the organization because they are motivated by the fact that they are helping the environment, and making a better world for their families and future generations (Gracan et al., 2010). Not only does converting help to create a positive image within the company, but it does publicly as well. Image is an important part of any organization, and adopting green practices helps to enhance the image of the company to suppliers and the public (Mair et al, 2010).

Converting to green practices will pay off financially as well. Organizations that implement green practices will see a “higher return on investment (ROI), higher return on assets (ROA), higher return on sales (ROS) and stronger organizer’s cash flow” (Gracan et al., 2010). If an organization decides to go green, often times there are government grants or tax incentives that are available to them (Goldblatt, 2012). An example of this is the San Diego Convention Center. When the air conditioning and heating systems were retrofitted they were able to receive

a grant for five hundred thousand dollars to be used towards the five million dollar project (Murphy, 2010). For properties looking for funding to help pay for energy renewal installations there is a website available, The Database of State Initiatives for Renewable and Efficiency ([www.dsireusa.org](http://www.dsireusa.org)).

### **The Las Vegas Sands- A Model for Success**

The Las Vegas Sands Corporation is currently at the forefront of green initiatives within the hospitality program. The corporation developed a green initiative known as Sands ECO360° the program focuses on four pillars of sustainability- green buildings, environmentally responsible operations, stakeholder engagement, and sustainable meetings. Focusing on the four pillars that create the most growth and opportunity within the organization allows for Sands to move forward with their vision of being the leader in sustainable development within the industry (Las Vegas Sands Corporation, 2014). Due to their efforts at their properties in Las Vegas the organization has been voted the most eco-friendly company by the *Las Vegas Review Journal* and was the first meeting venue to ever achieve APEX/ASTM Level Two Certification in the world (Las Vegas Sands Corporation, 2014). By focusing on the changing needs of the company, stakeholders and the community, and continually changing their strategies based on those needs, they are able to stay at the forefront of the green movement.

#### **Green Buildings**

The Las Vegas Sands Corporation properties include The Venetian, The Palazzo, and Sands Expo within Las Vegas. Other Properties include Sands Bethlehem, Sands Macao, The Venetian Macao, Four Seasons Macao, Sands Cotai Central, and Marina Bay Sands (Sands, 2014a). Together, the Las Vegas properties, including the convention center, are the largest LEED certified building in the world (Murphy, 2010). This is due to the intensive amount of

time that has been dedicated to their properties to convert them to be more sustainable. The Palazzo in Las Vegas currently has one of the largest rooftop solar-thermal systems in the United States, the 16,200 square foot area, consisting of 364 panels, uses the sun to heat the pools and spas and provide hot water to the property (Sands, 2014b). For their Las Vegas properties Sands partnered with General Electrics Lighting to produce a customized candelabra light bulb for their facilities that uses 80% less wattage than the lamps used before (Las Vegas Sands Corporation, 2014). They also installed a water nanofiltration system at the property that will collect nuisance water and recycle it for irrigation and landscaping, which will result in a savings of roughly 20 million gallons per year (Murphy, 2010). In 2013, Sands Bethlehem save \$90,000 in energy saving by installing LED lighting throughout the property. In Macao they installed faucet aerators that resulted in 30 million gallons of water saved (Las Vegas Sands Corporation, 2014).

In 2013, they developed a set of standards, known as the Global Sustainable Development Standards, which provide requirements for any developments of new resorts, or renovations to older properties (Las Vegas Sands Corporation, 2014). The standards are based off of the principles in place by LEED, and include energy and water efficiency, environmental quality of the indoors, sustainable materials and waste recycling (Las Vegas Sands Corporation, 2014). This includes adopting new technologies within the properties. Currently, they are in the process of implementing Siemens proprietary control systems and equipment upgrades so that they can further reduce they energy use. At their Marina Bay property they are even going as far as installing automated control systems that link to their sales booking software. This will allow for the rooms air conditioning to be controlled based off the booking schedule, and control the lighting based off the occupancy of the room (Las Vegas Sands Corporation, 2014). While some of these modifications are costly, they still see them as good business. The Las Vegas properties

will receive a four-dollar return on every dollar spent on green modifications, which is pretty significant (Murphy, 2010).

### **Environmentally Responsible Operations**

As discussed earlier, it is important that green practices are not only instituted at a building level, but also an operations level. At Sands they not only have made strides at the macro level, but at the micro level as well. Currently, the Sands properties in Las Vegas have one of the best recycling programs within the city. The properties as a whole achieved 57% average recycling rate, while the Sands Expo had a 92% rate (Las Vegas Sands Corporation, 2014). They are able to do this because of many programs in place. Food waste is donated to a local pig farm in Las Vegas so that it may be turned into pig feed, or composted, which has allowed for them to recycle about 75% of food waste (Murphy, 2010). They also have staff that personally sifts through all waste and sort recyclables out, which helped them increase waste reduction from 10% to 55% in just four months (Murphy, 2010). In this department they have implemented a profit sharing program, so that workers will be incentivized to increase the diversion rate, it is currently one of the only programs on the strip. In Macao, they have a digesting machine that takes food waste and turns it in to grey water, so that it is safe to put down the drains (Las Vegas Sands Corporation, 2014). At the Marina Bay property they have created programs to help involve staff members in their initiatives. They run training sessions to educate their staff about proper recycling and waste separation. Then, once a month they have a recycling booth where staff can bring in recyclables and win prizes (Las Vegas Sands Corporation, 2014). By including staff, and creating intensive recycling programs Sands is able to help reduce their carbon footprint.

## **Engagement**

Through team member education, external communication, and community outreach they strive to increase the understanding of sustainability (Sands, 2014b). They encourage their employees to take part in the campaign “I Will if You Will,” created by Earth Hour (Las Vegas Sands Corporation, 2014). Through the campaign, they submit pledges of action that will help contribute to the environment. They also created Ec-o-pinion program at the Maria Bay property that allows the staff to submit ideas on how to go green. The same property also participated in World Hunger Day, by collecting canned foods (Las Vegas Sands Corporation, 2014). In Las Vegas they created a sustainability award program that awards staff for their sustainable ideas that get implemented at the property (Sands, 2014b).

Sands continually partners with educational facilities, non-governmental organizations, local governments and the community to improve their sustainability efforts (Sands, 2014b). Yearly they partner with Cornell’s Sustainable roundtable, IMEX America, Meeting Professionals International (MPI), Sustainable Meetings Industry Council and other conferences so that they may educate their executives, and contribute to the education of others within the industry (Las Vegas Sands Corporation, 2014). Locally, they partner with the University of Nevada, Las Vegas so that students may learn about sustainable development and construction. At the community level they participate in programs that are specific to the betterment of the community surrounding that individual property (Sands, 2014b). For example, in Las Vegas they partnered with local organizations to establish “Plant It for the Planet” in 2013 (Las Vegas Sands Corporation, 2014). The program created an urban garden at a local middle school that allowed for the students and faculty to plant 20 types of vegetables and herbs. Through the program they were able to learn about nutrition, sustainability, and personal growth (Las Vegas Sands

Corporation, 2014). By participating, or creating programs that engage not only the staff, but the community as well, they are able to spread knowledge about the environment and how everyone can work together to improve it.

### **Sustainable Meetings**

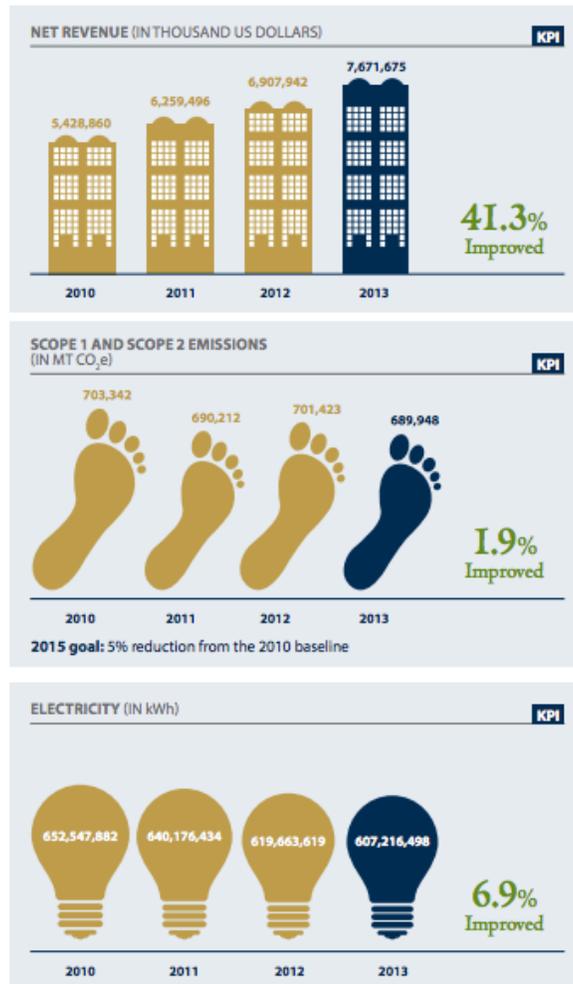
In 2011, Sands launched the Sands ECO360° meetings program in Las Vegas. The program is now implemented at all Sands properties and focuses on high-performance facilities, standard responsible meeting practices, and sustainable meeting options (Las Vegas Sands Corporation, 2014). The program offers a concierge service that helps guide clients on how to create a successful green meeting. Following the meeting they create a statement that includes all metrics of energy and water consumption, recycling rate, carbon emissions, as well as any sustainable highlights from the event that is given to the client and visitors. This program has led in both the Las Vegas and Singapore properties receiving the Convention Industry Council's APEX certification (Las Vegas Sands Corporation, 2014).

The main reason that they instituted the program was due to their clients. By continuing to partner with them they are able to begin new initiatives and continually refine the program (Las Vegas Sands Corporation, 2014). In 2011 the Las Vegas properties were able to donate eight tons of materials to local non-profits by working with their clients (Sands, 2014b). In 2013, the Venetian Macao hosted the International Indian Film Academy Awards (IIFA). IIFA is very committed to green practices, and creating awareness. By Sands working with them to reduce their waste consumption, and providing measures of their impact factor, the organization decided to return to the property for future events (Las Vegas Sands Corporation, 2014). By keeping the lines of communication open with their clients, and going above and beyond to offer post event recaps, and other amenities, they have been able to retain and gain some very big clients.

## **Results**

The constantly improving standards that Sands has implemented to help make both their existing and new properties more sustainable, or “green,” are continuously paying off. As seen in Figure 3, in 2013 they saw a 41.3% increase in net revenue at existing properties, and a 3.2% increase in their newly opened properties (Las Vegas Sands Corporation, 2013). Their carbon footprint has improved due to the 1.9% decrease in emissions at existing properties, and the 8% improvement at newly opened ones. It must be noted that the carbon reduction efforts were influenced by changes in emission factors in Macao, such as the import of coal fire generated electricity (Las Vegas Sands Corporation, 2013). They also improved electricity consumption. Existing properties saw a 6.9% improvement, a difference of 12,447,121 kWh, and new properties saw a 5.1% improvement.

### Performance in existing operations



### Performance in newly opened properties

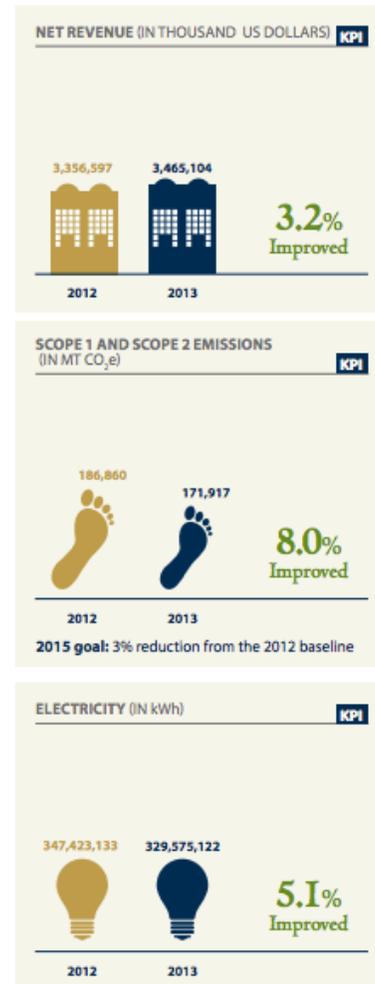


Figure 3: 2013 Las Vegas Sands Corporation Performance Summary

Las Vegas Sands Corporation. (2014). *Behind the scenes: 2013 Sands ECO360° report*.

Retrieved from [http://www.sands.com/files/54747-LVSC-2013-REPORT-AW9\(Linked\).pdf](http://www.sands.com/files/54747-LVSC-2013-REPORT-AW9(Linked).pdf)

## Conclusion

Green meetings and events are no longer just a trend, instead they are transforming into a standard within the industry. Which is why it is so imperative for venues and properties to be properly educated about what sustainability means, and how it can affect their bottom line. As seen with Sands, green practices can have a significant effect on the revenue of a venue, not just in savings but in business generated as well. Planners and companies are becoming more

interested in green practices, due to the fact that meetings and events are often such a huge producer of waste. With planners and companies becoming more invested in the environment, and concerned about reducing waste, a venue that is not able to work to accommodate them in their needs could risk losing business. Based off the above literature, it is clear that a plan for venues is needed that can set them up with the proper steps necessary to reduce their carbon footprint, and improve business.

## **Part III**

### **Introduction**

The main misconception is that for organizations to convert to a green facility they must invest a large sum of money into very massive projects that are often too costly for privately owned companies. Unlike corporately owned organizations, such as Las Vegas Sands Corporation, which was discussed previously, privately owned companies do not necessarily have the same financial backing or resources to create such an intensive sustainable plan. However, if well done, a privately owned organization, regardless of size, is capable of creating a sustainable program that will decrease their negative impact on the environment, and improve their bottom line. In this section a plan is proposed on how a privately owned organization can begin the transition to sustainable practices, and what needs to be done to implement them. The steps for transitioning to a sustainable property include researching, evaluating, planning, implementation at the micro level, implementation at the macro level, and re-evaluating.

#### **Phase One: Research**

Before an organization makes a decision to start making a sustainable transition the organization must first research industry accepted practices, certification programs, and financial resources available to them. Many organizations are unaware of the resources that are currently available to them.

The first step in moving towards a sustainable property is to research what the industry standards are, and what is in demand. For meeting and event venues there are a variety of organizations that can be useful. Organizations considering modifications of a building to a more sustainable structure should contact the Leadership in Energy and Environmental Design, or LEED. LEED is the first organization to offer building and construction certification, through a

point-based system that certifies building sustainability (Draper et al., 2011). LEED rates a building on its water and energy efficiency, waste management, sustainable materials, indoor air quality transit access, and innovation (Goldblatt, 2012). Following the LEED standards, and obtaining any level of LEED certification, can help attract vendors and planners who are focused on being more environmentally friendly. However, if an organization is not quite capable of fulfilling all the LEED qualifications at the time it is still a useful resource for organizations to use as the basis of their sustainable transition.

Another useful resource for information on venue modifications is Energy Star. The EPA created energy Star in 1991, which offers certification to buildings based off their energy efficiency (Draper et al., 2011). In order to be certified a building must earn a minimum score of 75, meaning that compared to other similar buildings it performs better than 75% of them (Energy Star, n.d. a). There are many ways for organizations to obtain certification, even if funds are limited. There are licensed professionals who offer certification at either a discounted price, or if the organization qualifies, for free (Energy Star, n.d. c). There also may be some government funded incentive programs that will help to offset the cost of verification (Energy Star, n.d. c).

It also is vital for the organization to know what industry standards are at the time as well. Organizations such as the Convention Industry Council, Meet Green, the Green Meeting Industry Council, and Meeting Planners International offer a variety of resources to help organizations transform into a sustainable practice. The Convention Industry Council has created APEX, or the Accepted Practices Exchange, which has created standards specific to the meetings and events industry. Documents such as the Green Meeting Report, formed by the Convention Industry Council, discuss minimum best practices within the industry. Meet Green provides

workbooks and other resources on how to plan a sustainable transition. Utilizing these organizations, and researching them, will help to establish a good basis for the organization to begin their transition, because they can be adapted to the specific needs of the organization.

Finally, it is important to investigate what financial help is available. There are many organizations that will help assist in funding organizations that decide to go green. Both local and state government organizations may have programs to help offset the costs. There are also many private organizations that can offer grants as well. Websites such as [www.grants.gov](http://www.grants.gov) provide lists of available government sponsored funding opportunities. The Department of Energy also has a couple resources available. The Database of State Initiatives for Renewable and Efficiency ([www.dsireusa.org](http://www.dsireusa.org)), is the DOE's catalog of government funded initiatives (Goldblatt, 2012). They also operate the Building Technologies Program, which focuses on research and technology that helps in the reduction of energy use within buildings (Goldblatt, 2012). By utilizing these programs you can drastically decrease the financial investment of your organization, and improve the depth of your green efforts.

### **Phase Two: Evaluate**

Second, the organization needs to evaluate their current environmental impact. Venues impact the environment around them through their waste, energy consumption, and water consumption. In order to create an efficient sustainability plan the organization must first measure their current water and energy consumption, and need, as well as their current contribution to the waste stream.

In order to understand the impact the organization has, an environmental audit must first be done. An environmental audit is an analysis of the environmental and social impacts of the company, as well as its profits (Goldblatt, 2012). This can be performed by auditing past usage.

In order to properly gauge it, an audit must be done on many months of data. Electricity usage and water usage can be measured by evaluating past months bills that display the usage of the property (Goldblatt, 2012). Measuring waste and current recycling practices, if any are in place, will be a little more time consuming. The only efficient and accurate way to measure waste is by weighing it. If it is not possible to get a completely accurate reading, an estimate can be recorded as long as the range of uncertainty is recorded with it (Case, 2013). However, it is important to note that the only way to properly create a metric for waste created is to measure it in weight and not volume (Case, 2013). Taking the time to investigate the current usage of the organization is vital.

A financial analysis will also be vital to the program. By auditing the current costs associated with energy and water consumption, waste, and others, such as green cleaning, an organization can later see how their practices are affecting their investments and profits. Measuring the current usage will generate a baseline indication that all future measurements can be compared against to determine the success of the programs implemented.

Once the current state of the organization's impact on the environment is measured the organization can move forward in creating key performance indicators (KPIs). Key performance indicators are vital in any successful sustainable strategy. They are "pre-determined, quantifiable measurements of factors that are critical for success" (Henderson et al., 2013). KPIs can be used to measure social, financial, and environmental movements. By setting KPIs an organization can decide what areas need the most focus, and where they can start. This will also allow for the organization to set measurable goals and a timeline to begin implementation (Goldblatt, 2012). Organizations, such as APEX, have set regulations regarding KPIs within the meetings and

events industry, and can offer further information on which ones to measure (Henderson et al., 2013).

The next step the organization should perform is a SWOT analysis. A SWOT analysis measures the strengths, weaknesses, opportunities, and threats of the organization (Goldblatt, 2012). This will help to identify both internal and external factors that will influence the process of going green. By performing a SWOT analysis the organization can gauge what potential hurdles may be to the process, so that they can be addressed in the planning phase.

Finally, the organization should assess their Triple Bottom Line. This refers to the organization's commitment to people, planet and profit (Goldblatt, 2012). This will help provide purpose to why the organization is transitioning to green practices, and help motivate the staff during the process.

### **Phase Three: Create a Plan**

After the evaluation phase is done, the organization needs to create a plan on how to transition to sustainable practices. The environmental audit, financial audit, key performance indicators, SWOT analysis, and triple bottom line should provide guidelines on what changes need to be done to the organization.

A list of goals should be set for the organization. First, micro level goals should be addressed. During this time a plan should be created that includes the goals and how they will be implemented, as well as a timeline for completion and a budget. During this time any contracts for outside labor should be created and negotiated, as well as how on-site staff will contribute. After the micro-level goals are addressed, then the same steps should be applied for the macro-level goals. Once the organization has created a plan on how to further proceed with their

sustainable transition, and what needs to be done to start converting, it can begin to move forward.

#### **Phase Four: Implementation at the Micro Level**

Beginning the transition to sustainability, especially for an already functioning building, is a significant project to take on. In order to make the process easier, beginning with smaller transitions will help the organization get used to the future of the building. Practices such as waste and energy reduction are things that can be done with low cost to the organization, and little interruption to current business.

#### **The 3 R's of Waste Reduction: Recycle, Reuse, Reduce**

One of the easiest ways to decrease the carbon footprint of your company is by reducing waste. The hospitality industry is one of the biggest contributors to landfill waste, however it is something that is very easy to fix with little financial burden. By following the 3 R's your organization can cut the amount of waste produced annually, and save money.

Implementing a recycling program, which your staff and guests can follow, can decrease waste significantly. Having designated recycling areas that are clearly visible and accessible to everyone will help to motivate them to participate. Be sure to communicate with local recycling agencies so that you can follow their separation and container policies, as those are two of the biggest challenges of recycling (Goldblatt, 2012). Recycling programs tend to be the most frequently instituted sustainable practice (Draper, 2011). Due to the ease and small cost associated with it, it is one of the first practices a property should begin to initiate.

Another way to help in eliminating unnecessary waste is by reusing products when possible. This is particularly vital to events. Items such as pens, paper, and signage should be reused whenever possible. The food and beverage department should use linen napkins and table

clothes rather than paper, and china instead of disposable plates and silverware. Not only will this help reduce waste, but it will also reduce cost. If there is leftover food or groceries that cannot be used on the property develop a program that donates all leftover perishables to a local charity. This will not only help reduce waste, but will allow for your organization to contribute to the local community. The Emerson Act, as discussed in the literature review, was created to protect organizations that donate items that are perishable. Feeding America, provides information about how to donate and can connect you to local non-profit organizations (Zavada et al., 2011). For properties attached to hotels, consider partnering with Clean the World. Clean the World will collect any toiletries that cannot be reused on property, and repurpose them by donating them to local shelters and impoverished countries (Clean the World, 2013). By reusing materials on property, or donating them to organizations that can, your organization can greatly decrease the amount of waste contributed to landfills.

Both recycling and reusing will help in reducing waste. However, there are still many other ways that the organization can reduce their waste further. Cutting back on paper usage is one very easy way to help reduce waste. This can be done by reducing the number of printed materials, and communicating electronically. When communicating with clients, instead of printing contracts or other communication, submit them electronically (Zavada et al., 2011). Another way to help reduce waste is to create a composting program. Waste such as food, liquid or other biodegradable waste can be broken down so that it never sees a landfill. There are two ways to handle composted material, a machine can be bought for on site composting, so that you may reuse it on property, or all biodegradable waste can be donated to a local farm (Goldblatt, 2012).

Taking small steps such as these are inexpensive ways that your organization can start to dramatically decrease the amount of waste produced on property. These simple steps can greatly decrease the carbon footprint of the organization, and could even provide potential tax breaks through donation or recycling programs that are set up.

## **Energy**

When people think of energy reduction they often think of large-scale projects such as installing solar panels, or other costly projects. However, there are many small initiatives that the organization can institute to begin cutting back on energy consumption. Instituting these projects cost little to institute, but offer back high profit.

Lighting is one of the most wasteful energy components within an organization. There are a number of ways that an organization can cut back on the energy consumed. The first, and most simple, is to keep lighting off in rooms that are not being occupied. By making a conscious effort to keep rooms dark, you can easily cut back on the amount of energy used. Using sensors, or timed lighting systems can also help reduce energy use. Another solution is to switch the types of lamps that are used. Instead of using tungsten lamps, which create a lot more heat, require faster replacement, and use more energy, try compact fluorescent lamps (CFLs) or light emitting diodes (LEDs). As mentioned earlier CFLs use about 75% less energy than tungsten lamps, and last ten times as long, which means they are a more energy and cost savings alternative for architectural lighting (Goldblatt, 2012). LEDs are also another viable option, because they produce little heat, and have a life measured in thousands of hours-not hundreds (Goldblatt, 2012). LEDs should be considered for specialty lighting. With both of these options, the organization can reduce the amount of replacement lamps used, and energy consumed. The

organization should also be sure to properly recycle used lamps, as this will help cut back on toxic waste within landfills.

There are also other smaller commitments your organization can make in order to reduce excessive energy consumption. Air conditioning is another large contributor to excessive consumption, therefore when rooms or areas of the building are not in use, be sure to either shut off the system or turn it down. Make sure that thermostats are set at the lowest comfortable temperature, to reduce the energy that heating and cooling systems use. Also, keep electronic devices off when not in use. Items, such as computers, TVs, projectors, etc do not need to be on if they are not in use. It will also help to have all devices plugged into power strips, so that they can be easily turned off.

Also, it is important to make sure that all devices are energy star approved, and that larger items such as refrigerators are rated as having low kilowatt per year (Goldblatt, 2012). Enforcing policies that help to enforce these initiatives and educating your staff about them will help to make them successful, and are easy ways to reduce the carbon footprint of the organization, by including everyone.

### **Phase Five: Implementation at the Macro Level**

If the organization is looking to completely transform into a sustainable venue, it will have to initiate projects larger than just waste and energy reduction. Building modifications, are vital parts to any sustainable facility, and will help to work towards achieving certification. Many of these projects will require heavy investment, however as stated earlier there are financial options available that could reduce the organizations financial commitment. If financing is not available it is important that the organization still moves forward with initiatives they can because the return on investment will be greater, as well as future profits.

## **Building Modifications**

There are several modifications that can be done to existing buildings to make them more sustainable. Building modifications can create long-term energy, water, and financial savings. When deciding to institute these initiatives it is vital that a thorough plan and timeline is first created so that the impact on day-to-day operations is as little as possible.

For older venues, there are some more drastic projects that will need to be completed to help cut back on energy consumption. If the venue was built before 1980, replacing insulation will be one of the most imperative investments for the venue (Goldblatt, 2012). Insulation in the walls will require hiring a crew, however if your organization has an in house maintenance crew they may be able to repair insulation around air ducts, water pipes, radiators, or other smaller scale installations (Goldblatt, 2012). Another solution is to replace any windows in the venue that have single glazed glass. By investing in windows to a double or triple glazed glass with a low-emissivity coating the organization can reduce cost on heating equipment in the long run (Goldblatt, 2012). It also will be vital to update all seals around windows to reduce the amount of air that seeps through. These measures will help reduce the amount of energy needed to heat and cool the venue.

If the organization has the means, they should consider installing their own energy production sources to cut back on purchased energy. Solar panels are a great energy alternative, especially for meeting and event venues. There are even programs available that will allow the venue to utilize solar power by partnering with local organizations. The San Diego Convention Center partnered with a local solar technology company that offered to pay for the entire installation for free. This allowed the solar company to have control of the energy produced, and in return the center agreed to purchase energy at a fixed cost for twenty years, which means they

won't have to deal with electricity rate increases (Murphy, 2010). Partnering with other companies is a great way to help with the transformation of the venue. Solar power can be utilized in many ways, and due to the continuous advancements within the field it will be something that can contribute to the future of the organization.

Installing water efficient products, and investing in rainwater harvest plans are ways for the venue to help with long-term water reduction. Updating all plumbing structures to eco-friendly products such as those that are WaterSense certified, can help cut back on the excess water wasted with traditional fixtures (Murphy, 2010). A WaterSense toilet can use 20% less water than it's standard counterpart, saving 4000 gallons of water per year (Goldblatt, 2012). Another huge cause for excess water waste within meeting and events venues is their dishwasher and laundry systems, switching to Energy Star certified machines could help regulate the amount of water used. One of the biggest issues with water usage is landscape needs at venues. Replacing old spray irrigation systems with flow drip irrigation technology will drastically decrease the amount of water used (Murphy, 2010). Another way to help reduce water usage is to install rainwater harvest systems. Not only will it help reduce the companies excessive water usage, but it will reduce urban runoff which contributes to local flooding and pollution (Goldblatt, 2012). Rain harvesting includes things such as rain gardens, green roofs (rooftop gardens), storm water planters, or rain barrels (Goldblatt, 2012). The Las Vegas Sands' nanofiltration system, which uses the runoff water captured to water their landscaping, is a successful example of rain harvesting (Murphy, 2010).

All of these modifications will yield high returns on investment. For example, Sands saved 20 million gallons of water per year due to their water savings initiatives (Murphy, 2010). If venues are able to obtain grants, they will be able to create modifications, with a fraction of the

cost to them personally, but all the benefits. All of the modifications will require long term investment, and upkeep. However, if the venue properly implements them they will drastically improve their carbon footprint, and help to keep the world a greener place in the future.

### **Certification**

Once the organization has successfully transitioned to sustainable practices they should consider obtaining the certifications available in the industry. The first two, and most important are the LEED and Energy Star certifications. In order to be registered as a green building these certifications must be acquired. As mentioned earlier, there could be some potential financial backing available to help obtain these certifications. It also would be vital to look into obtaining meeting and event industry specific certifications, such as Green Seal through the Environmental Protection Agency (Draper et al., 2011). Maintaining these certifications will help to improve business by attracting green clients. These recognitions will help put the venue on the map for local sustainable properties, which will be distributed to potential clients. It also will create a great marketing foundation for the organization.

### **Phase Six: Re-evaluate**

Once an organization decides to go green, it is not enough to just implement sustainable practices; they must continually evaluate the initiatives in place and trends within the industry. The best way to continually monitor the impact the initiatives in place have is to use the key performance indicators (KPIs) and environmental audit that were first created prior to implementation. This will allow the organization to measure energy, waste and water saved as well as investment and profits. The KPIs can also help in communication, public relations, and marketing campaigns (Henderson et al., 2013). In addition, the organization should keep communication with the staff and clients open so that the organization can continue to grow. By

evaluating the consumer's reaction to the modifications they can create a marketing plan to engage new customers. Openly communicating the savings the organization has done by instituting sustainable practices should be distributed to clients so that they can see how the organization is helping them in their mission to green their event. A company is only successful in going green if it is able to continually maintain the systems in place, but also to evolve with the future of the sustainable movement.

### **Conclusion**

The lack of education and understanding of green practices has led to a bias within the industry on the actual benefit of going green. This paper sets a foundation on the history of the green movement, and how it began to impact the MICE industry. After researching the background of the green movement it is clear that for meeting and event venues to retain clients, and gain a competitive advantage it is vital that they begin the transition to a green venue. This paper outlines some of the practices that a venue should implement at both the micro and macro level. Implementation of these practices will help to increase the bottom line, by saving money in energy, water and waste consumption and attracting the generation of new clients looking for green venues.

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