

AEG'S 2017

# SUSTAINABILITY REPORT







THE AEG 1EARTH MISSION IS TO REDUCE OUR COMPANY'S ENVIRONMENTAL IMPACT  
AND DRIVE BUSINESS VALUE THROUGH SUSTAINABILITY

## ABOUT AEG

Headquartered in Los Angeles, California, AEG is the world's leading sports and live entertainment company. With offices on five continents, AEG operates in the following business segments:

**AEG Facilities**, which owns, manages or consults with more than 120 preeminent arenas, stadiums, theaters, clubs and convention centers around the world including The O<sub>2</sub> Arena, the Sprint Center and the Mercedes-Benz Arena Shanghai;

**AEG Presents**, which is dedicated to all aspects of live contemporary music performances, including producing and promoting global and regional concert tours, music and special events and world-renowned festivals;

**AEG Real Estate**, which develops world-class venues, as well as major sports and entertainment districts like L.A. LIVE and Mercedes Platz in Berlin;

**AEG Sports**, which is the world's largest operator of sports franchises and high-profile sporting events; and

**AEG Global Partnerships**, which oversees worldwide sales and servicing of sponsorships including naming rights, premium seating and other strategic partnerships.

Through its worldwide network of venues, portfolio of powerful sports and music brands, AXS.com ticketing platform, AXS cable television channel and its integrated entertainment districts, AEG entertains more than 100 million guests annually.

More information about AEG can be found at [www.aegworldwide.com](http://www.aegworldwide.com).

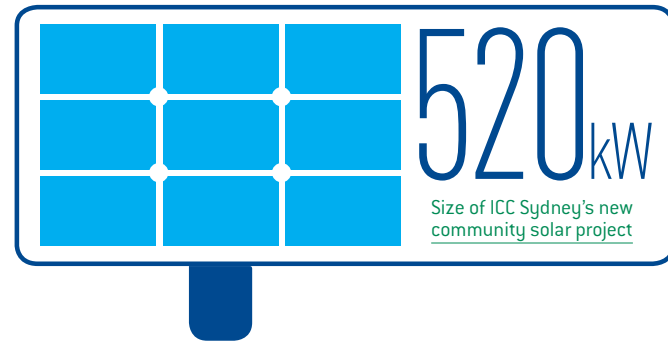
Cover Photo: LA Galaxy score a goal during home game at StubHub Center in Carson, CA

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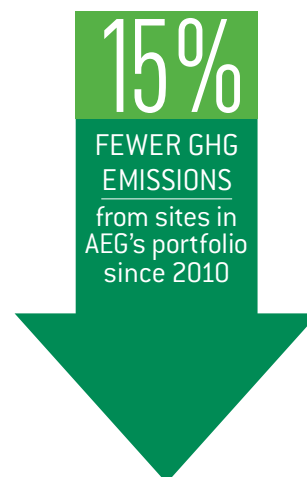
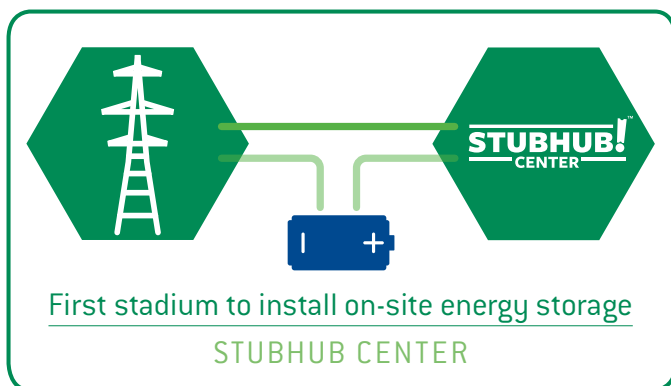




# REPORT HIGHLIGHTS



FIRST TO ACHIEVE 90% WASTE DIVERSION  
FOR USGBC'S GREENBUILD INTERNATIONAL CONFERENCE & EXPO  
LOS ANGELES CONVENTION CENTER





## LETTER FROM THE CEO



We are proud to bring you AEG's sixth environmental sustainability report. We have come a long way since we first introduced our report in 2010 and we continue to experience rapid growth within our facilities and music divisions. At the same time, we are committed to challenging ourselves to improve our overall sustainability performance and are focusing our efforts on activities that deliver meaningful impact against our goals.

In 2016, we opened two new facilities—T-Mobile Arena in Las Vegas, Nevada and ICC Sydney in Sydney, Australia—both of which exemplify our commitment to green building practices and advanced technologies. Last year, T-Mobile Arena became the first sports and entertainment arena in Las Vegas to achieve LEED Gold certification, while ICC Sydney became home to the first community-funded solar energy project of its kind.

With the growth of our business, last year we adopted new 2020 Environmental Goals and streamlined our activities to focus on AEG's three most material issues—water conservation, waste diversion, and greenhouse gas emissions (GHG)—by setting ambitious goals for each.

While we continue to make solid progress against our water and waste goals, we still have work to do toward reducing our company-wide GHG emissions. Our new water goal is focused on conserving water where it is most scarce, particularly in Southern California which historically has suffered from severe drought. We challenged our facilities to do more to address water conservation and their adoption of water-friendly initiatives allowed us to conserve 46 million liters of water.

With regards to waste, I'm happy to report that in 2016 we moved closer toward our goal to divert 70% of waste from landfills by 2020. But, due to the growth within our business divisions, we did not reduce our company-wide GHG emissions. That said, for operations that have been in AEG's portfolio since 2010, we were able to reduce GHG emissions by 15%. This is encouraging because it shows a growing trend toward overall carbon efficiency in our



WE REMAIN STEADFAST IN OUR BELIEF THAT REDUCING OUR CARBON FOOTPRINT IS  
THE BEST THING WE CAN DO FOR OUR BUSINESS AND THE COMMUNITIES WE SERVE.

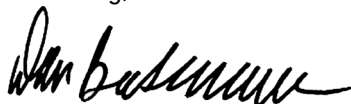


operations. While there is still work to be done to improve our company-wide GHG results, we remain steadfast in our belief that reducing our carbon footprint is the best thing we can do for our business and the communities we serve.

We realized when we set our new 2020 goals that they were bold and that it would be challenging to meet them. But our aim is to be a positive force for change and by being transparent about our progress, we can set a precedent for our industry and draw attention to the most critical challenges in the realm of sustainability.

Annually, AEG hosts more than 100 million guests around the world and everyday our 28,000 global employees work hard to give the world a reason to cheer. While we have accomplished a great deal toward our 2020 Environmental Goals, we strive to do better and will keep driving sustainability, accountability, and innovation throughout our company. Thank you for your continued interest and support and I look forward to sharing our progress with you.

Sincerely,



Dan Beckerman  
President & CEO



AEG CEO, Dan Beckerman with Los Angeles Mayor, Mayor Garcetti and LA 2024 chairman, Casey Wasserman



## LETTER FROM VICE PRESIDENT, ENERGY AND ENVIRONMENT



Thank you for taking the time to review our sixth and latest sustainability report. This report was particularly exciting to work on as it's only the second time we are measuring our progress towards our new 2020 Environmental Goals.

I'm excited to share my thoughts on our progress to date, but first would like to thank my Energy and Environment teammates, and all of our colleagues throughout the AEG organization who have helped contribute to our AEG 1EARTH program. We simply wouldn't have much to share in this report if it weren't for the efforts of our dedicated employees, providing key data, integrating sustainability into their work, and sharing their successes and challenges with us.

This year's report cover shows a field-level view of the StubHub Center, home of the LA Galaxy, which in 2016 became the first MLS soccer-only stadium to install LED sports lights. You'll read more about that project on page 24 and 25, one of many new initiatives launched by the Galaxy and StubHub Center in 2016. These initiatives kicked off with the public announcement on March 19, 2016, of the Galaxy's new sustainability program, *Protect the Pitch*,™ showcasing the Galaxy's commitment to help create a more sustainable sport and more sustainable world through the combined efforts of the team, its fans, its home stadium, and its local community.

We believe in the power of sport to drive advances in sustainable practices and support sustainable industries. The very future of our sports pastimes, as well as live music and entertainment, depends on a healthy planet. As the National Hockey League's *NHL Green* website explains, hockey traces its roots to frozen lakes and ponds—how can hockey grow and thrive as a sport if there are no more frozen lakes and ponds? Given that all sports face similar challenges, what better platform is there than sports to push sustainability forward?



THE VERY FUTURE OF OUR SPORTS PASTIMES, AS WELL AS LIVE MUSIC AND ENTERTAINMENT,  
DEPENDS ON A HEALTHY PLANET.



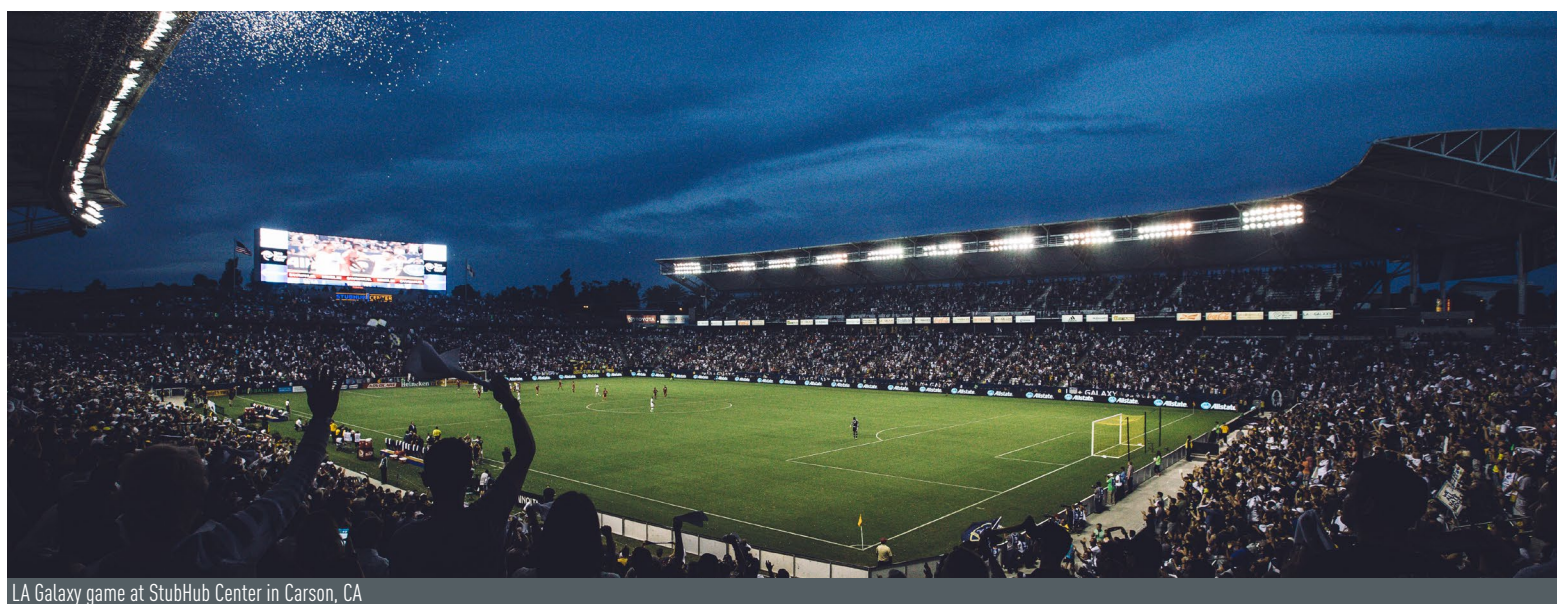
It's in this context that I mention another exciting development since our last report: The final push for Los Angeles' bid to host the 2024 Summer Olympic Games. AEG and our Energy and Environment team have been enthusiastically involved in supporting the bid. AEG owns or operates several of the proposed host venues, including STAPLES Center, Microsoft Theater, StubHub Center, and the Los Angeles Convention Center. We also worked with the LA 2024 committee to promote the concept of the LA games as a means to advance the cause of sustainability through sport—to use the games to show the world how sustainable practices, cutting edge technology, and committed individuals can make substantial improvements on the Games' environmental, economic, and social impacts.

We are proud to have had a role in that process and remain committed to sustainability and the benefits it provides to our business, our employees, our fans, and our communities.

Thanks you for your interest—I hope you enjoy our report.



John Marler  
Vice President, Energy and Environment



LA Galaxy game at StubHub Center in Carson, CA

## OUR PATH TO 2020

While AEG has reported on its environmental impacts since 2010, 2017 marks a special year as it is the first year we are reporting progress towards our new 2020 Environmental Goals since re-launching them last year. Our environmental performance data, AEG Ecometrics, is the core of our AEG 1EARTH program and crucial to our ability to be transparent about our environmental impacts.

Using AEG Ecometrics, we collect and monitor over 70 different monthly data points for each individual asset in our portfolio. Keeping our data accurate and up-to-date is a full-time job that grows in complexity each year as we accumulate more data and add more and more businesses to our portfolio. What we gain in work load, however, we also gain in operating insight. Having data for multiple venues of the same type allows us to compare similar buildings to identify performance anomalies. Also, having seven plus years of operating data helps us track effectiveness of past sustainability projects and support proposed projects. As you will read in this section, the data shows that while we've made measurable improvements in imbedding sustainable practices into our businesses, we still have work to do to meet all of our 2020 Environmental Goals from now through 2020. We are up to the challenge. Our successes continue to inspire us and validate our commitment to setting the standard for sustainable practices in our industry.



OUR SUCCESSSES CONTINUE TO INSPIRE US AND VALIDATE OUR COMMITMENT TO SETTING THE STANDARD FOR SUSTAINABLE PRACTICES IN OUR INDUSTRY.





## GREENHOUSE GAS EMISSIONS

### GOAL: REDUCE GHG EMISSIONS ACROSS ALL OPERATIONS BY 3.2% PER YEAR FROM 2010 TO 2020

Last year, we adopted a new science-based target for greenhouse gas (GHG) emissions to align our 2020 goal with the level of decarbonization required to keep the global temperature increase below 2 degrees Celsius, as described in the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

In 2016, AEG emitted 181,006 metric tons of GHGs, 21% above our goal for the year and 4% above 2016 Base Year emissions. The organic growth of our company and acquisition of new operations continue to increase AEG's emissions each year. New acquisitions and businesses that did not exist in 2010 now account for nearly half of our annual emissions. By comparison, in 2010 new operations only accounted for 10%.

Looking at the past seven years of emissions data, we are encouraged that our annual emissions from 2011 to 2016 have remained close to base year emissions, keeping within 4% of the base year in each of those years. This pattern suggests to us that the link between economic growth and carbon emissions has weakened over time.

Moreover, when we look at operations that have been in the AEG portfolio since 2010, we have reduced emissions by 15% relative to our 2016 Base Year. These reductions are due to operational improvements, investments in energy-efficient technologies, and decreasing levels of carbon intensity in electric power supplies. This last trend gives us hope that our emissions will continue to fall for all sites and operations, and at an increasing rate.

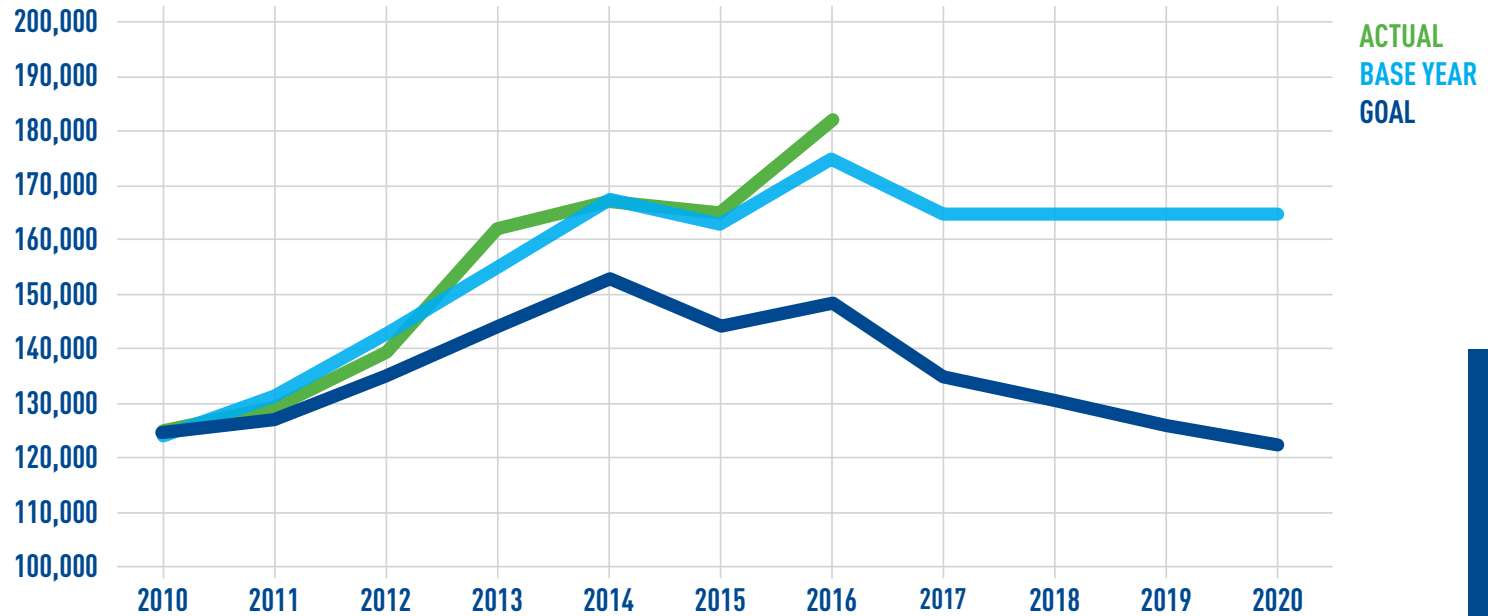
For example, last year we reported that AEG emitted 175,279 metric tons of GHGs in 2015, however, after we applied the EPA's most recent eGRID<sup>1</sup> emission factors to our data this year, our 2015 emissions dropped to 168,042 metric tons. This 4% reduction is due to increased deployment of renewable energy on the grid, which helps all electric power customers reduce their Scope 2 emissions.

Having another year of detailed emissions data for our operations gives us more insight on how to manage our carbon footprint and make progress towards our goal. While we continue to emphasize improved operational practices and energy efficiency, we are seeing that these efforts are counteracted by a general increase in the number and frequency of events. In light of this trend, we are renewing our focus on our energy supplies: by reducing consumption of vehicle and remote power generation fuels, we can reduce our Scope 1 emissions; through direct and indirect purchasing of renewable energy, we can accelerate our reduction of Scope 2 emissions.

<sup>1</sup> The US Environmental Protection Agency (EPA) publishes eGRID (Emissions & Generation Resource Integrated Database) emissions factors for the US electric power industry. Updated factors (in eGRID2014) were published in early 2017, and included generation years 2013 and 2014. For last year's report, the emissions factors were updated only through 2012.



## 2020 GOAL PROGRESS – GHG EMISSIONS (metric tons of CO<sub>2</sub>e)



OUR PATH TO 2020

## ANNUAL GHG EMISSIONS (metric tons of CO<sub>2</sub>e)

| YEAR         | 2010           | 2011           | 2012           | 2013           | 2014           | 2015           | 2016           |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Scope 1      | 21,448         | 20,803         | 23,250         | 28,231         | 28,248         | 29,211         | 36,098         |
| Scope 2      | 103,850        | 108,209        | 115,874        | 132,568        | 140,289        | 138,831        | 144,908        |
| <b>TOTAL</b> | <b>125,298</b> | <b>129,011</b> | <b>139,124</b> | <b>160,799</b> | <b>168,537</b> | <b>168,042</b> | <b>181,006</b> |

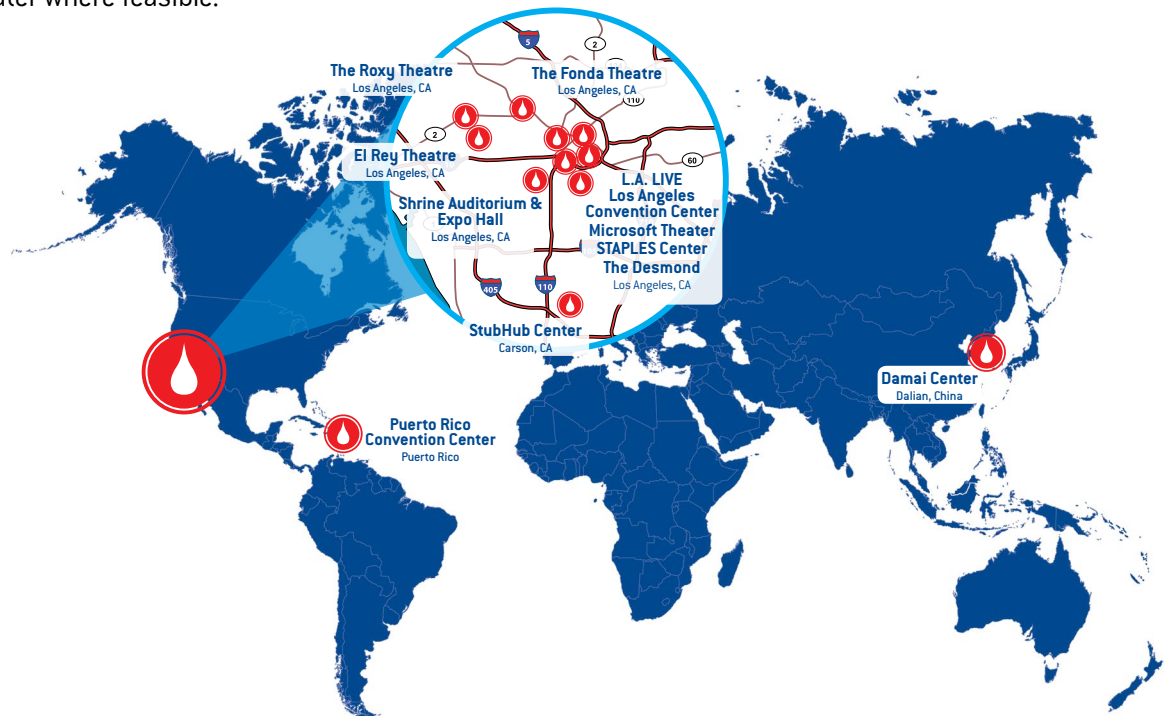
## WATER

### GOAL: REDUCE POTABLE WATER USE AT WATER-STRESSED SITES BY 2.3% ANNUALLY FROM 2010 TO 2020

When we announced our new water goal last year, we committed to cut our potable water use by 2.3% annually at AEG sites located in water-stressed regions. We define “water-stressed sites” to include any sites in locations identified as having high or extremely high “overall water risk” by the World Resources Institute’s Aqueduct™ tool.

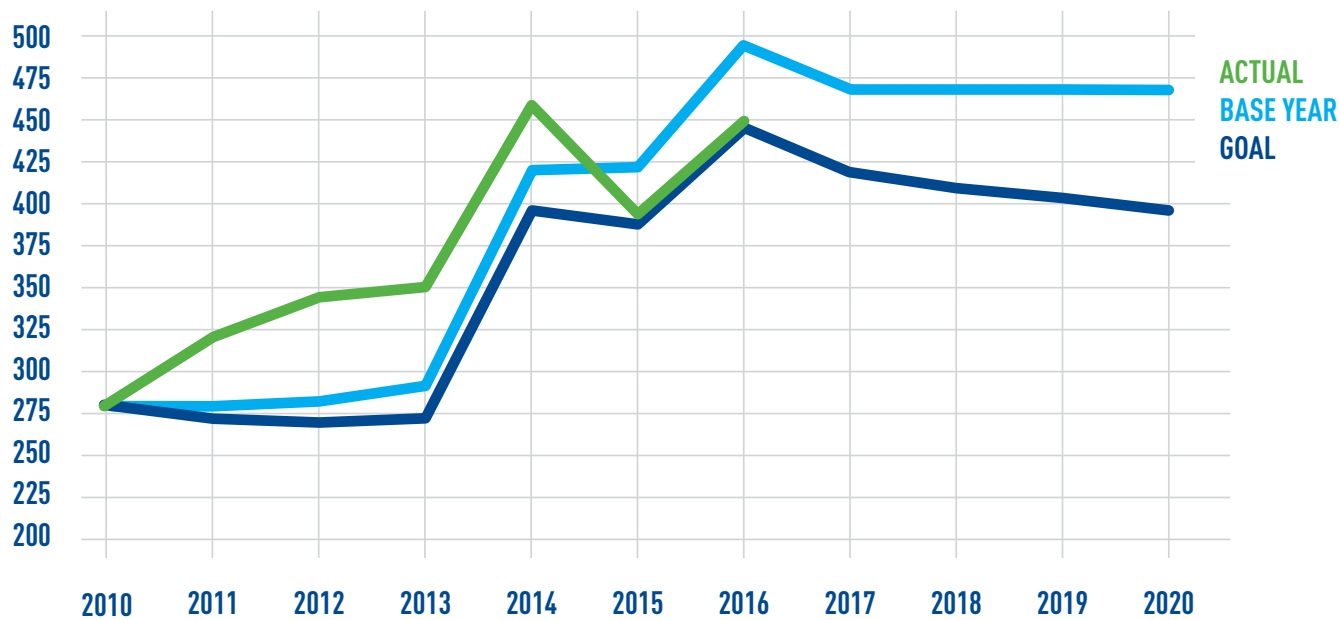
We are pleased to report that in 2016 we nearly met our water goal for the year, with potable water use just 1% higher than our goal. As a group, these sites have collectively saved over 46 million liters of water compared to the 2016 Base Year.

We have completed a number of water efficiency projects at our water-stressed sites in the last few years and these projects have resulted in conservation of potable water. At the same time, however, the majority of our water-stressed sites have also shown significant increases in the number of events hosted. Similar to the trends in our GHG emissions, the progress we make in efficiency is counteracted to a certain degree by organic business growth. Our challenge is to look for additional efficiencies and innovative ways to reduce our dependence on potable water. To push the envelope, we are continuing to look at cooling towers and irrigation systems to determine whether any additional savings can be realized. We are also hoping to make more use of recycled water, greywater, and collected rainwater where feasible.





2020 GOAL PROGRESS – POTABLE WATER USE AT WATER-STRESSED SITES (million liters)



ANNUAL WATER USE (million liters)

|                | 2010         | 2011         | 2012         | 2013         | 2014         | 2015         | 2016         |
|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Potable Water  | 969          | 1,100        | 1,304        | 1,510        | 1,771        | 1,695        | 1,852        |
| Recycled Water | 147          | 137          | 165          | 149          | 197          | 221          | 184          |
| <b>TOTAL</b>   | <b>1,116</b> | <b>1,237</b> | <b>1,469</b> | <b>1,659</b> | <b>1,968</b> | <b>1,917</b> | <b>2,035</b> |

## WASTE

### GOAL: DIVERT 70% OF WASTE FROM LANDFILL BY 2020

AEG's company-wide diversion rate increased from 55% in 2015 to 58% in 2016. We are pleased to see that our overall diversion rate continues to head in an upward trend, but are still working diligently to achieve 70% diversion from landfill by 2020.

As we reported last year, measurement of waste and recycling volumes continues to be a challenge. Waste and recycling services vary depending on location, and given that AEG's operations span globally, our access to detailed reporting is inconsistent. We are seeking ways to obtain more accurate data on our different waste and recycling streams. For example, in the past year we have developed a set of contractual requirements that we can now use to communicate our expectations on metrics reporting and tracking to our service providers.

We are also monitoring the amount of food waste we generate annually, and focusing on environmentally preferable means for pre- and post-consumer food waste disposal. While kitchen composting is certainly included in our current waste operations, we are also researching more opportunities to donate left-over prepared meals from our various events. Not only is there economic value in diverting food waste from landfills, but there is a social benefit to donating left-over meals to local communities in need.

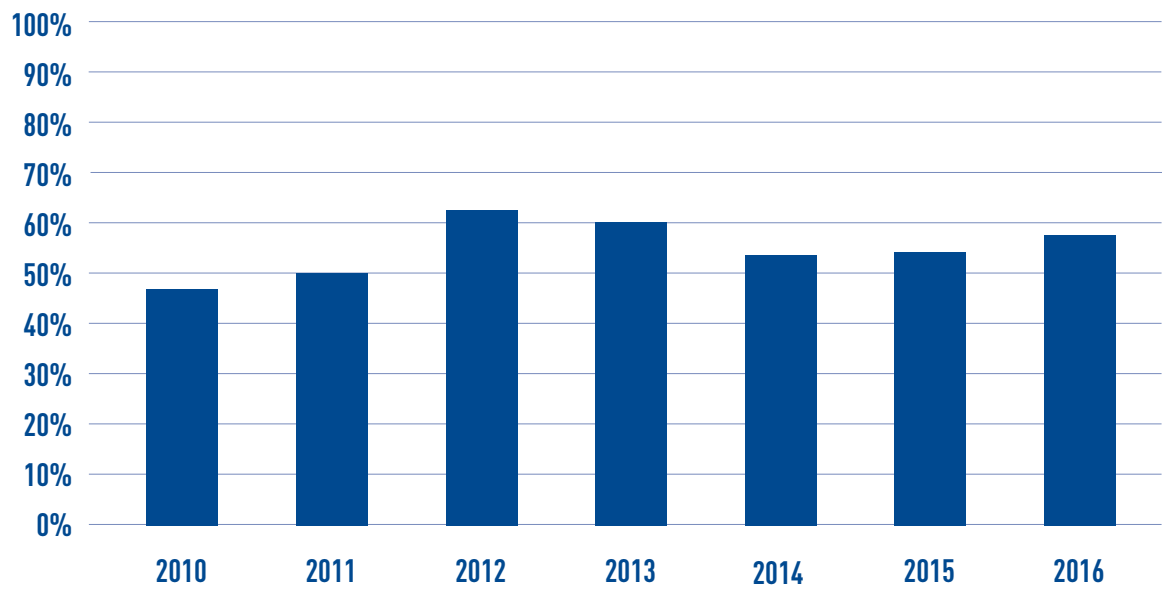
In our experience, waste and recycling optimization is probably the greatest challenge in the field of sustainability. We are confident there is a business case to be made for diverting material from landfills, and we will continue to monitor the market for technological advancements that will help us reach 70% (or higher) diversion by 2020.



photo credit: Global Inheritance

Coachella Valley Music and Arts Festival in Indio, CA

2020 GOAL PROGRESS – WASTE DIVERSION RATE (%)



OUR PATH TO 2020

ANNUAL WASTE GENERATION (metric tons)

| YEAR              | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   |
|-------------------|--------|--------|--------|--------|--------|--------|--------|
| Waste to Landfill | 8,228  | 7,965  | 8,109  | 8,239  | 11,708 | 12,636 | 12,534 |
| Waste to Energy   | 1,548  | 1,543  | 3,697  | 6,820  | 6,876  | 7,504  | 8,721  |
| Recycled Waste    | 5,884  | 6,443  | 9,307  | 5,643  | 7,073  | 7,831  | 8,579  |
| TOTAL WASTE       | 15,660 | 15,951 | 21,113 | 20,701 | 25,657 | 27,971 | 29,834 |





Landon Donovan and LA Galaxy staff plant trees in Edward Vincent Park in Inglewood, CA during Earth Day 18



# COMMUNITY ENGAGEMENT

Our events bring millions of people together every year and with such a large global footprint, we have the unique opportunity to shine a light on the most critical environmental issues. We continue to expand our messaging through social media campaigns and by partnering with local organizations to host public events for our guests and community members. Similar to previous years, in 2016, AEG's worldwide operations participated in major environmental holidays such as Earth Hour and Earth Day, and our U.S.-based sites took part in America Recycles Day. While participating in these holidays raises consumer attention for sustainability, we look to deliver value creation and social impact through practices 365 days a year.

## AEG VENUES CELEBRATING 2016 ENVIRONMENTAL HOLIDAYS

**54**  
EARTH HOUR

**100%**  
EARTH MONTH

**29**  
AMERICA RECYCLES DAY



The Fonda Theatre in Hollywood, CA celebrates Earth Hour





Electric Forest in Rothbury, Michigan

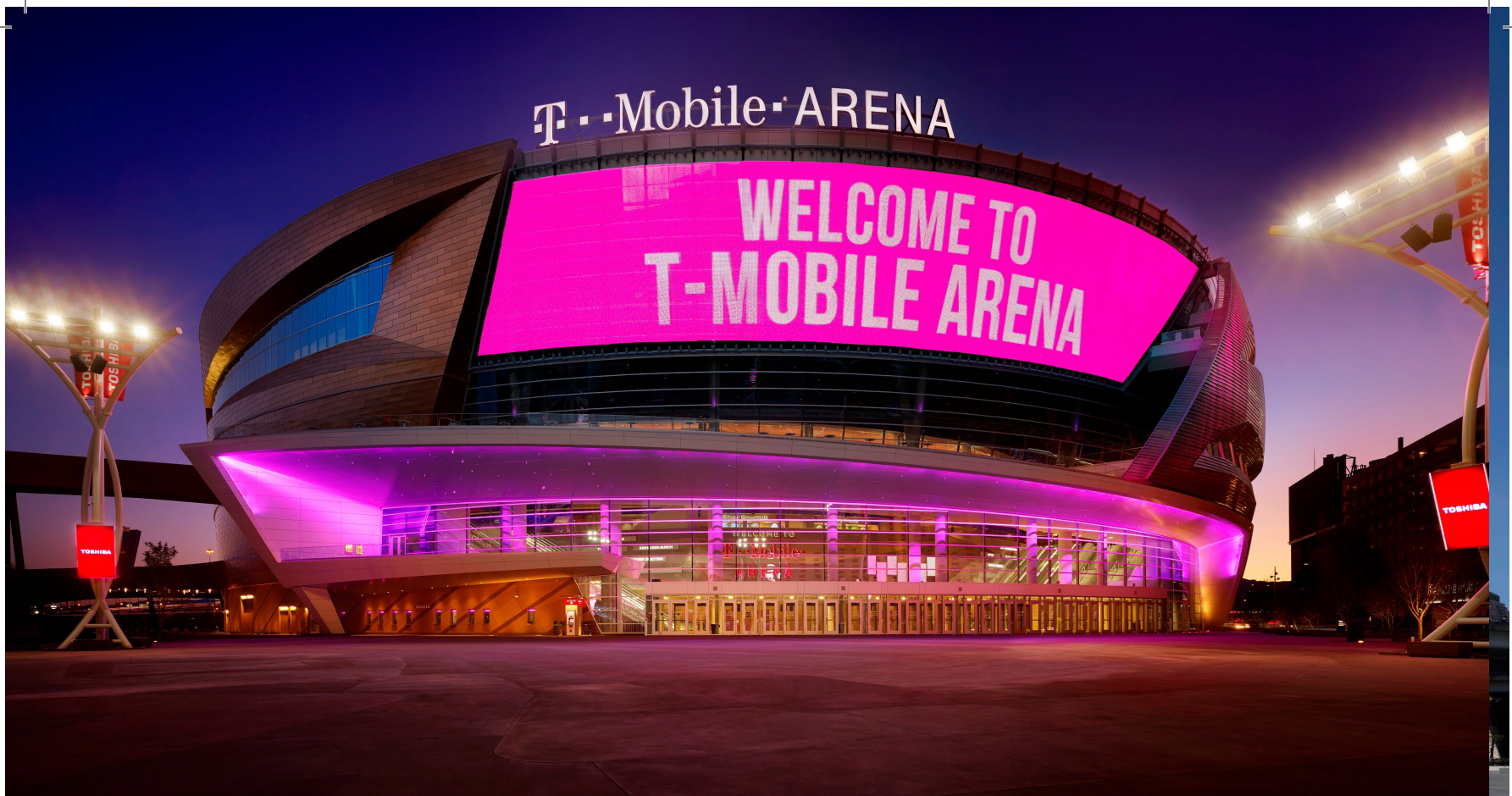


## CASE STUDIES

Every year, we are amazed by the level of commitment and creativity we see from our employees across the global AEG portfolio. The success of the AEG 1EARTH program would not be possible without the support and efforts of our individual sites, which include venues, festivals, teams, offices, and other businesses spanning five continents. The following case studies highlight several of the projects and employees that showcase the AEG 1EARTH mission to reduce our company's environmental impact and drive business value through sustainability. We thank all our employees for their ongoing dedication to a more sustainable AEG.



LA Kings Ice Crew give prizes to fans riding the metro during Earth Month in Los Angeles, CA

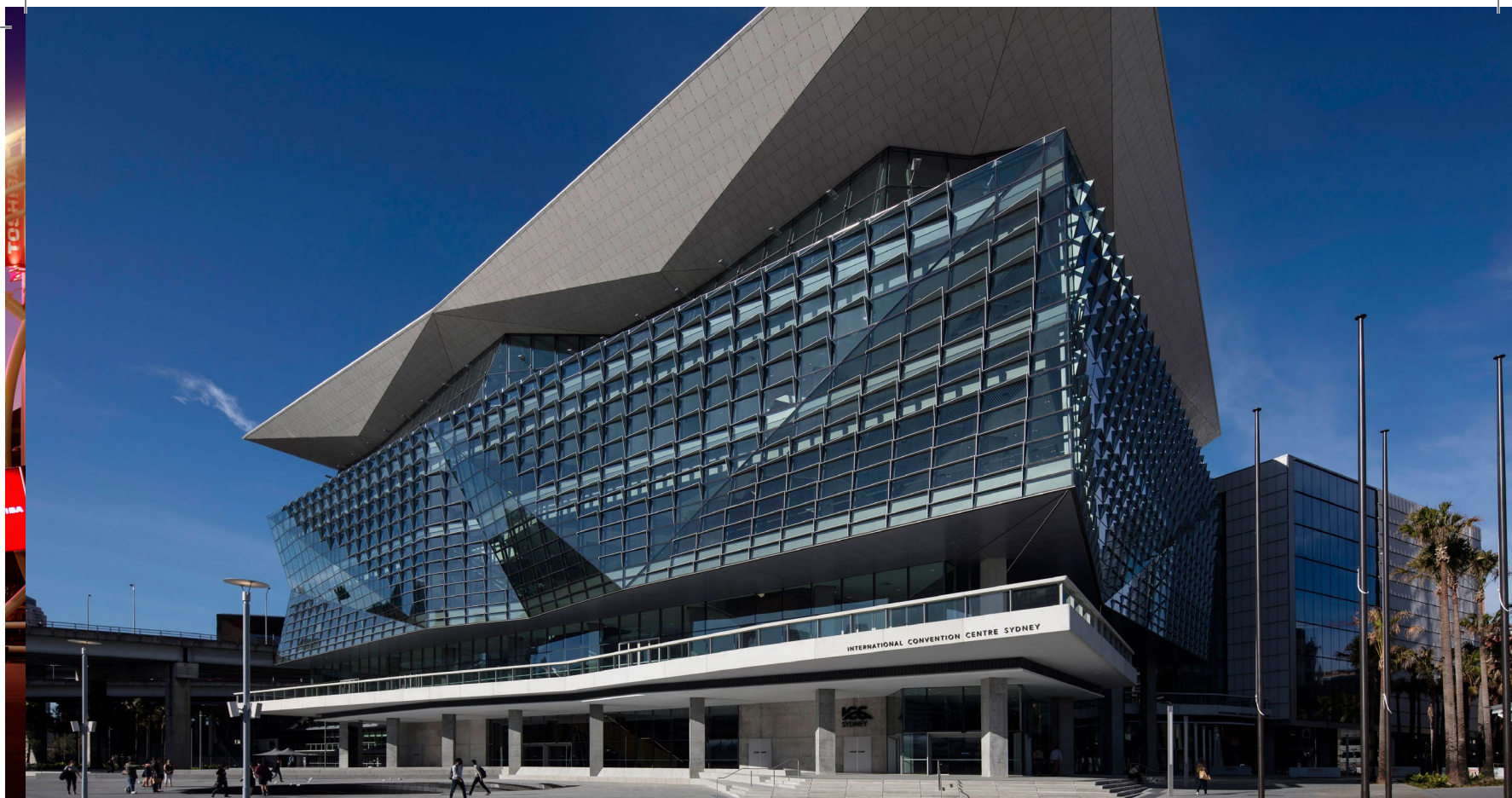


## T-MOBILE ARENA

LAS VEGAS • NEVADA

As of 2016, Las Vegas's T-Mobile Arena, a joint venture between AEG and MGM Resorts International, became the first sports and entertainment arena in Las Vegas to achieve Leadership in Energy and Environmental Design (LEED) Gold certification. AEG and MGM Resorts partnered together to implement a comprehensive environmental sustainability program to take into account all major aspects of the building's construction and operations. To minimize energy consumption, high-efficiency LED lighting and a heating, ventilating and air condition system (HVAC) were installed throughout the arena. Additionally, an on-site well provides all of T-Mobile Arena's irrigation water, reducing the demand on the city's local water supply. To further maximize water efficiency, low-flow fixtures were installed throughout the facility, reducing estimated water consumption to 40% below what is required by code. To help maximize waste diversion at the arena, the operations team placed single-stream waste bins throughout the concourse with signage stating, "We recycle for you." At the end of each event, the operations staff sorts and separates recyclables at the back-of-house loading dock. "Our experience shows that green building practices and sustainable operations are not only the right thing to do, but also make business sense. The T-Mobile Arena will be an industry leader in delivering top-quality entertainment while minimizing the venue's impact on the local and global environment," said Dan Beckerman, President & CEO of AEG.





# ICC SYDNEY

SYDNEY • AUSTRALIA

ICC Sydney, located in Darling Harbour, Sydney, Australia, opened its doors for the first time in December 2016. The new facility is the centerpiece of the NSW Government's A\$3.4 billion revitalization project of Darling Harbour, which also included the development of parkland, a five-star hotel, and a new urban centre. Sustainable design served as a core component in ICC Sydney's building design. The building was assessed for its sustainability performance across different impact categories - governance, livability, economic prosperity, and the environment. ICC Sydney will house the nation's first central business district community-funded solar energy project, allowing community members to buy shares in a social venture that will own the building's solar array. The solar array is projected to produce approximately 5% of the energy required to power the venue, which is equivalent to powering more than 100 homes per year. "The smart design of ICC Sydney delivers a range of environmentally and socially sustainable solutions and we intend to amplify these strategies through our management of the venue," said ICC Sydney Chief Executive Officer, Geoff Donaghy. "International convention centres of our scale have the ability to make meaningful social connections on a variety of fronts. These include, but are not limited to, enhancing the intellectual capital of the host community, food redistribution projects, in-house training schemes, and connecting school and community groups with leaders of industry, innovation, and professional development."





## STUBHUB CENTER & LA GALAXY



In March 2016, the LA Galaxy and StubHub Center partnered to launch the LA Galaxy's official sustainability program, *Protect the Pitch*.™ Through the *Protect the Pitch*™ sustainability program, the LA Galaxy will focus on reducing their overall environmental impact through stadium operations, community projects, employee engagement, and fan engagement.

In part of this new program, the StubHub Center completed two new energy efficiency projects in July 2016, becoming the first soccer-only stadium in Major League Soccer to install high-efficiency LED sports lights and the first sports stadium in the U.S. to use battery storage technology. The new upgraded LED lights are projected to use 60% less energy than the previously used lights. The LED lights also turn on instantaneously, without the 15–20-minute warm-up period required by metal halide or other HID lamps. “The benefits of using LED lights at our facility are twofold: dramatically enhancing event presentation for both fans and broadcast while operating in a more energy-efficient manner. We are excited to continue to implement innovative and sustainable energy ideas at StubHub Center,” said StubHub Center General Manager, Katie Pandolfo.



## CARSON • CALIFORNIA

Additionally, the newly installed 1-megawatt bank of Tesla batteries will help StubHub Center manage energy usage more responsibly, while cutting down on utility costs. With the help of the Tesla batteries, the stadium can purchase electricity during nighttime hours when energy is cheapest, store the electrons and then use them to meet power demands during peak hours during game days.

As part of *Protect the Pitch*,™ the LA Galaxy and StubHub Center will continue to implement various efforts designed to engage the community, save water, conserve energy, and reduce waste while involving and encouraging the Galaxy fan base to support these efforts. Other new sustainable programs implemented at StubHub Center include a bee farm that houses four bee hives producing more than 800 pounds of honey each year, a chicken coop, and the LA Galaxy Greenhouse that will offer space to grow various produce. All of these materials will be used in food preparations for staff to provide healthy and sustainable meal options.

## EMPLOYEE PROFILE

# ANNICA SKANDERBECK

FACILITY MANAGER  
STOCKHOLM LIVE



### **How do you integrate sustainability in your current role as Facility Manager for Stockholm Live?**

At Stockholm Live we try to incorporate sustainability throughout our operations. Sustainability isn't a one-person job, so we try to get everyone involved, including our production crew. Throughout the years, sustainability has become inherent in our culture and daily decision making. This holds true to even the smallest of decisions, like deciding what kind of fruit basket we purchase. We always look for the most environmentally conscious option.

### **What project from the past year are you particularly proud of?**

One of our big projects is to minimize the amount of waste we send to landfill. Some of our waste initiatives include capturing left-over food scraps from our kitchens to convert to biogas, increasing our glass, plastic, and cardboard recycling numbers, and converting the waste we produce to energy.

### **What's the greatest barrier to reducing the venue's environmental impact?**

While the majority of our employees, partners, and visitors are involved with our sustainability goals and initiatives, it will be a fun challenge to get all onboard. It's a challenge that we continue to address through increased patron and partner engagement.

### **What role does technology play when trying to reduce your facility's footprint? Are there new products on the market that you recommend to other facility managers?**

Smart technology plays a significant role in our operations. We're always checking to see what new products are on the market. Our facility is actually equipped with smart waste compactors, which save us a lot of time and money. The user-friendly technology in our waste compactors sends us text messages, giving us updates on when the compactor is ready to be emptied. The embedded technology actually allows the compactors to automatically order their own haul. We can now assure that half-full compactors aren't hauled away.

### **Any new projects you're looking into right now?**

Our focus right now is to introduce our food scraps program to other parts of the Stockholm Live property, like Ericsson Globe. We're also working closely with our real estate owners on energy efficiency projects.





## MERCEDES-BENZ ARENA, BERLIN

BERLIN • GERMANY

In April 2016, as part of its Earth Month activities, Mercedes-Benz Arena in Berlin announced its new bee cultivation project. The arena partnered with a local non-profit, City Bees e.V., to help raise awareness to the dwindling bee population in Germany. “We understand the critical impacts pollution can have on our environment and are worried about the worldwide decline of bee colonies. With the great variety of trees and plants around our venue and the proximity of the river, we found we can offer ideal conditions for bee cultivation on our roof,” explains Astrid Grimlitz, Director of Human Resources. Two bee colonies were stationed on the arena’s roof and were cared for regularly by an expert beekeeper. The harvested honey produced by the arena bees was wrapped up and given to AEG staff members and arena partners. While the colonies thrived during the summer and fall, unfortunately, both colonies did not survive the winter due to pests. It turned out that about 70% of all bee colonies in the area died due to the Varroa mite. The arena’s challenge to sustain its original bee colonies demonstrates the real threats to the global bee population, but this isn’t deterring the team from trying again. “We are more than determined to replace both colonies as soon as new colonies are available,” said Senior Director of Operations, Gerhard Köchel.





## LOS ANGELES CONVENTION CENTER

LOS ANGELES • CALIFORNIA

In October 2016, the Los Angeles Convention Center (LACC) broke the record for the amount of waste diverted from landfill during the U.S. Green Building Council's (USGBC) Greenbuild International Conference and Expo, the world's largest conference and expo dedicated to green building. The three-day conference attracted over 18,000 attendees, including top industry leaders in the sustainability world, who attend the conference to share best practices and innovative ideas. Prior to the event, conference organizers met with LACC to set forth aggressive sustainability goals, including a waste diversion target of 85%. Through a rigorous six-month planning process, LACC successfully surpassed the diversion goal and achieved an overall 90% waste diversion rate. Part of the team's strategy included converting 200 waste bins to compost bins, posting signage on paper towel dispensers in all restroom stalls, and working with the janitorial and housekeeping vendor to increase recyclable food serviceware options. "As the first large convention center in the U.S. to receive LEED EB Gold recertification in 2015, the LACC is incredibly proud of what our teams were able to accomplish for the 2016 Greenbuild Convention. Diverting 90.3% from the waste stream is a new record—we are honored to be a part of the Greenbuild International history," said Brad Gessner, Senior Vice President and General Manager of Los Angeles Convention Center.

## EMPLOYEE SPOTLIGHT

# JEREMY STEIN

FOUNDER, MADISON HOUSE PRESENTS  
PRODUCER, ELECTRIC FOREST



photo credit: Bennett Sell-Kline

### **Madison House Presents produces festivals with a large focus on eco-consciousness, for example Vertex and Electric Forest, was that always part of your vision?**

Sustainability has always been a big part of the Madison House ethos whether it is related to festivals, venues, or touring practices. Simply put, we are not climate change deniers, and believe these practices are critical to the future of our planet.

### **What's the best strategy when it comes to communicating sustainability to festival goers?**

There is a lot going on during a festival, so communication about the importance of sustainability, and the specific initiatives we are asking people to participate in, needs to be streamlined and direct. In addition to on site, much of our sustainability story can be shared before and after the festival. Strong communication helps grow allegiance for living more sustainably during the festival and hopefully year around. Maintaining engagement in this conversation 365 days a year allows for sustainability ideas to become embedded in the culture, and it becomes easier to educate and inform first timers.

### **What are some challenges of launching a festival sustainability program like Electricology?**

Beyond developing effective messaging, it takes a lot of logistics and personnel to maintain engagement within a large-scale festival community. Innovative initiatives like Electricology help integrate sustainability into the festival experience itself. We aim to have sustainability viewed as a core part of everything else going on at the festival. The most critical challenges come on the operational side. This is especially true for a festival, such as Electric Forest, that is produced in a remote rural setting. The local municipal structures around sustainability are not as developed as in many urban environments. Thus, we work hard to implement a reliable system to ensure all plans and partnerships have built-in, trackable sustainability parameters, so that the program works and so that it can be improved upon year after year.

### **How big of a role do you think environmental sustainability will play in the festival industry in the next decade?**

The good news is that venues and festival producers are becoming more aware of the cost and negative effects of waste, as well as the opportunities for efficiency and altogether better practices. In the not too distant past sustainability efforts represented a large increase in expenses. The gap has narrowed considerably, and the incentives to improve sustainability practices are real. We are also seeing more artists and partners embrace their own platforms to inspire action. Festival environments have been an excellent incubator for new sustainability practices, but are ultimately reliable on changes in society at large. We hope the examples that are set through festivals such as Electric Forest allow others to consider what they can do at home, in government, and in business.





## TARGET CENTER

MINNEAPOLIS • MINNESOTA

Target Center, home to the Minnesota Timberwolves and Minnesota Lynx, recently went through a major lighting renovation prior to the 2017 NBA season. The Target Center replaced its legacy sport lighting with new LED units, reducing lighting demand by 85%, which will lead to sustained energy savings. The units also run cooler and exceed league and broadcast requirements for lighting quality. “This project has been on our wish list for some time,” says Tom Reller, Senior Director of Operations at the Target Center. “We always knew about the benefits of LED lights, and reducing our peak demand and energy consumption was very important.” In addition to the LED sports lights, the building also replaced a number of fluorescent lights with LED products, further reducing energy consumption, lowering maintenance costs, and enhancing light quality in back-of-house areas.





## CAIRNS CONVENTION CENTRE

CAIRNS • AUSTRALIA

The Cairns Convention Centre reopened in August 2016 after a A\$13 million refurbishment to celebrate 20 successful years of operation. One element of the project included a reroofing. Rather than waste the steel sheets from the roof, the material was repurposed by Aboriginal Steel Art, a local indigenous business, to make manta ray sculptures using the curve of the roof's corrugations. Manta rays can be found along the Australian East Coast, and are listed as one of the "Great 8" must-see creatures of the Great Barrier Reef. While steel is the world's most recycled material, every year large amount of scrap metal is illegally dumped, which leads to the leaching of toxic substances in the environment. Cairns Convention Centre's creative approach to repurpose its roof serves as an example of how materials can be reused to have a second life. The manta ray sculptures made from the Centre's 20-year-old roof were created as a "thank you" for partners and clients who have been an integral part of the Cairns Convention Centre's 20 successful years. "Thank you very much for the gift commemorating your 20<sup>th</sup> anniversary. It's great that you incorporate recycled material with the skills of the local community. You've received a significant amount of publicity featuring your awards and high-profile events that you've hosted. You've become an integral part of the regional economy and many people have been the beneficiaries," stated Bryan Holiday, Managing Director of ICMS Australia, one of Cairns Convention Centre's partners.



# KRYSTLE VON PUSCHENDORF

DIRECTOR OF SUSTAINABILITY AND COMMUNITY AFFAIRS  
ORACLE ARENA AND OAKLAND-ALAMEDA COUNTY COLISEUM



## **What are your top priorities when it comes to sustainability?**

Our top priorities include energy efficiency, water conservation, waste reduction, green purchasing, and most importantly, fan engagement and education. We are fortunate enough to have three historically monumental teams: our beloved Oakland Athletics, Oakland Raiders, and Golden State Warriors. Each team has its own unique fan base, fans who love their teams and the Bay Area. One common thing amongst all our fans is they want to make a difference, even if it's the smallest of gestures; e.g., "get caught recycling" during a game or donating their old cell phones to a good cause.

## **What sustainability-related projects are you focusing on right now? Are there any major projects you completed recently?**

We recently partnered with Volta Electric to launch electric vehicle charging stations at Oracle Arena. We're very excited about this project and the opportunity to give patrons the option to plug their electric vehicles during a game or concert.

## **How do you communicate your sustainability program to guests and sports team tenants?**

We communicate our sustainability program at home games and through different social media channels. Fans want proof that venues and teams are standing by their commitment to environmental stewardship. By keeping fans engaged in green events, we are able to maintain their trust and confidence. As for communicating our sustainability efforts to our sports teams, we approach each one with care and finesse. Each team has its own identity and needs, so our collaboration strategy is not a one size fits all approach. The main point I usually make when working with our teams is that we are all connected to the Oakland and Alameda County community, so it's important for us to work together to protect our community.

## **Any advice for others interested in getting more involved in sustainability initiatives?**

I truly believe every single person has the capability of becoming more involved in sustainability initiatives. I have seen this first hand in our offices at AEG Oakland. Our team is the best in the business and is always willing to learn something new. I will never forget the painstaking processing of getting Oracle Arena LEED certified. It was not an easy process, but our team believed the importance of the project and we all stuck together to meet the certification requirements. All in all, sustainability is within everyone. We are all connected to nature and if you remind yourself of that, sustainability initiatives will become inherent in your daily operations. Huge shout out to AEG Oakland for all the drive and love they have for the Arena and Coliseum.





## MERCEDES-BENZ ARENA, SHANGHAI

SHANGHAI • CHINA

In 2016, Mercedes-Benz Arena in Shanghai launched its new venue sustainability program, *Mercedes-Benz Arena Green* (MBA Green) to help bring awareness to the 5.2 million fans who visit the arena and entertainment center each year. The program aims to identify new opportunities to reduce the venue's overall environmental footprint, while putting an emphasis on community and fan engagement. "Mercedes-Benz Arena is committed to changing the way we run our business while taking a leadership role when it comes to reducing Shanghai's carbon footprint," stated David Hua, Deputy General Manager. The program's initiatives include conducting a deep analysis of existing operation equipment and replacing any outdated technology with more efficient approaches. Additionally, the arena is utilizing reclaimed water from the HuangPu River as an alternative source to the venue's cooling system. To further strengthen the campaign, the arena is collaborating with Shanghai's Roots & Shoots Million Tree campaign to help educate the Shanghai community on how individuals can take action in their personal lives to help create a larger positive impact for the community.





## DARWIN CONVENTION CENTRE

DARWIN • AUSTRALIA

In 2016, the Darwin Convention Centre installed a new LED lighting system, upgrading the Centre's exhibition halls, auditorium, and outdoor canopy. The new lighting system dramatically reduces the Centre's energy consumption by 77% compared to the old lighting system. The external LED light system can project 16 million different colors, adding to the experience when patrons visit the Centre or from afar. While the Centre has lit up in the past to support theme-related causes, the new system is completely wireless and will dramatically reduce the necessary hours of manpower to light up the building. "The Darwin Convention Centre is a world-class venue and we believe it is important to provide the latest technology to our clients. The new lighting system provides us with the opportunity to extend their experiences to the outside of the venue. We also have the ability to enhance the Waterfront Precinct and show support for cause-related events and activities" said Janet Hamilton, General Manager of the Darwin Convention Centre. "Patron engagement is now at the forefront of LED technology, particularly highlighting and emphasizing building features to draw attention. Using lighting to enhance creative themes and promote events are now expected at major international venues and the Darwin Convention Centre wants to ensure it is continuing to meet and exceed client expectations."



## EMPLOYEE SPOTLIGHT

# MAREE EDWARDS

RISK AND SUSTAINABILITY MANAGER  
ICC SYDNEY



### **What is your role at ICC Sydney?**

I manage the governance, risk and compliance systems at ICC Sydney, which includes safety, environment, quality, and food safety management. I also coordinate the sustainability and environmental programs as part of ICC Sydney's corporate social responsibility program.

### **How did you first get involved in sustainability?**

I am an industrial chemist so I have a history in technical and operational roles predominantly in the pharmaceutical and food manufacturing sectors. After a number of years concentrating on compliance, I received a master's degree in environmental science then moved into risk-based environmental management and sustainability management. I have seen the concept of "sustainability" evolve over the years from a regulatory approach to a more holistic one.

### **Since ICC Sydney is a new building, what role did sustainability play in the building design phase?**

Given that ICC Sydney is a newly developed state-owned facility, we took sustainability in great consideration during the design phase of the building. We are now looking at ways to improve the societal and environmental implications of our operations and how we can create positive change in our local community.

### **Are there current features or projects that will help minimize the building's environmental footprint?**

The building has inbuilt real time systems that monitor energy and water usage. We will be modelling our usage based on the different types of events we host to focus on specific initiatives that will maximize efficiency. Also, now that we have been operational for a few months, we can analyze our different waste streams to identify ways to increase recycling and waste diversion in general.

### **What are some environmental initiatives you and your team plan to undertake in the upcoming years?**

We want to develop meaningful relationships with our surrounding communities. We plan to do this by embedding some core relationships across the business that will include staff involvement in volunteering and community engagement. We're also exploring different environmental management standard certifications like ISO 14001.

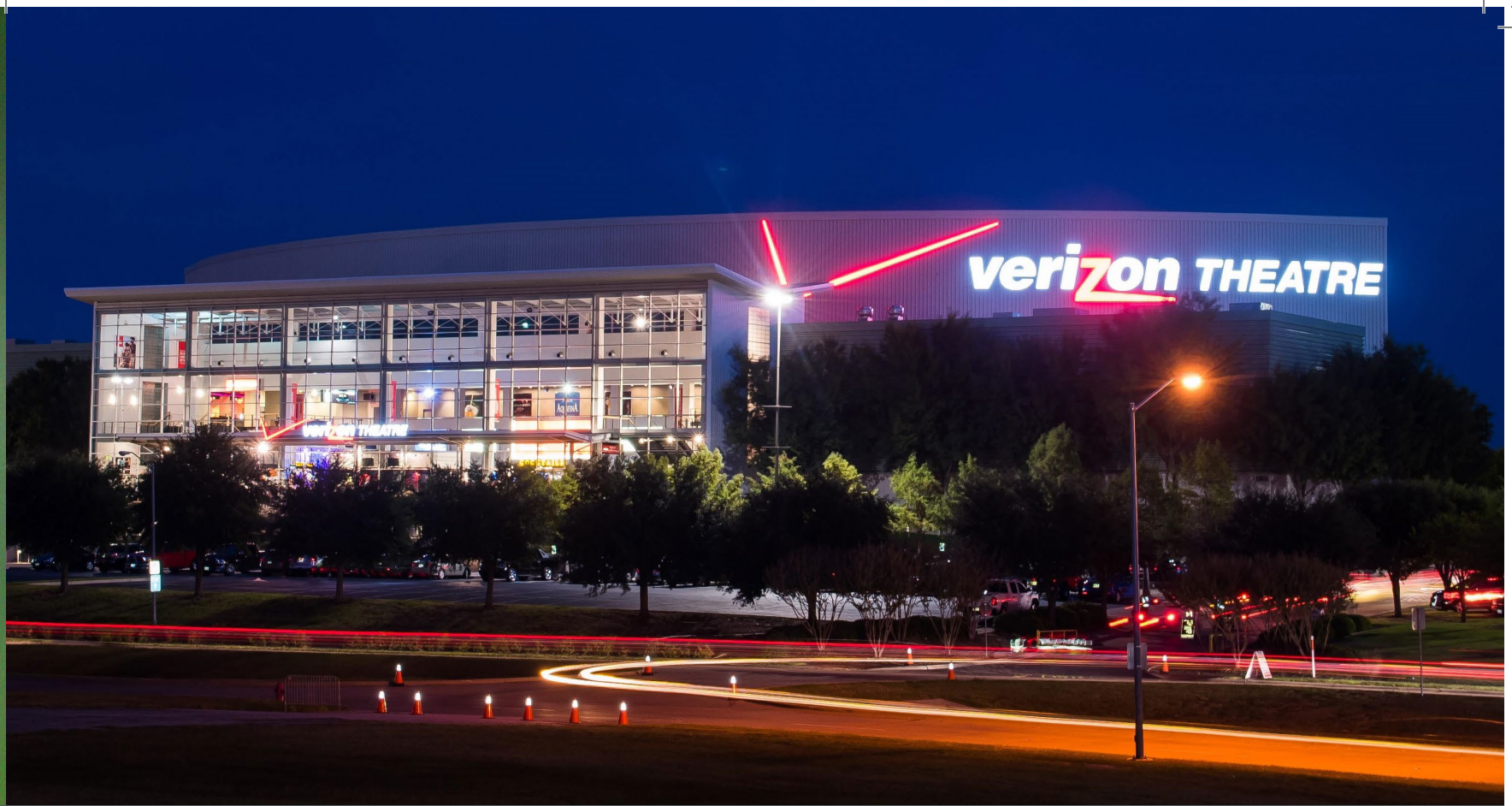


## HAWAI'I CONVENTION CENTER

HONOLULU • HAWAI'I

In 2016, the Hawai'i Convention Center announced its pledge to plant one million native koa trees on the island of Hawai'i. The Hawai'i Convention Center's commitment was made in part of a new partnership with a local non-profit, Hawaiian Legacy Reforestation Initiative (HLRI), whose mission is to develop and implement innovative forest restoration models to return the endemic forests of Hawai'i. The Center's commitment expands HLRI's initial goal of reforesting 1.3 million trees, a number that represents the island's total population. The Hawai'i Convention Center is also providing educational opportunities at its dedicated "Hawai'i Convention Center Legacy Forest" exhibit. The exhibit includes an interactive kiosk, where guests can opt to sponsor "Legacy Trees," which will be planted on the Hāmākua Coast. A replica of the feathered cloak and helmet of the Hawaiian High Chief Kekūhaupi'o is on display. Ancient garments were made using feathers of birds who have become extinct because of the loss of forests. The display brings awareness to the plight of Hawai'i's endemic forests and their inhabitants. "This landmark reforestation effort underscores the Hawai'i Convention Center's longstanding commitment to practices that enhance the conservation of Hawai'i's natural resources and the perpetuation of Hawaiian culture," said Teri Orton, General Manager of the Hawai'i Convention Center.





## VERIZON THEATRE AT GRAND PRAIRIE

GRAND PRAIRIE • TEXAS

After hosting hundreds of events since opening in 2002, the Verizon Theatre at Grand Prairie was due to replace 500 worn-out seat cushions. Aiming for an environmentally-friendly and cost-effective replacement, the operations team began searching for existing seat parts that could be refurbished to meet their needs. They found a match at the Bass Performance Hall in nearby Fort Worth, which was disposing of seats as part of a renovation project. Staff refurbished the seats and installed them in Verizon Theater, eliminating the environmental impact associated with manufacturing new seats and diverting Bass Performance Hall's seats from landfill. "For us, sustainable operations means taking good care of our venue and maximizing the lifetime of our equipment," says General Manager Larry Fontana. "Repairing and reusing reduces our footprint, but, more than that, it's just good business."

## EMPLOYEE PROFILE

# SEAN LANGER

DIRECTOR OF OPERATIONS

GILA RIVER ARENA



### **How long have you been with AEG? What motivates you to focus on environmental issues in your job?**

I joined AEG about five years ago as the Director of Operations for KFC Yum! Center. Prior to joining the AEG family, I never really gave sustainability much thought because I didn't work for an organization that stressed sustainable operations to the extent AEG does. I remember attending my first Green Sports Alliance Summit as an AEG employee, which was an awakening experience for me. I applied the lessons learned from the Summit to our operations and started a more robust recycling program at the KFC Yum! Center.

### **Gila River Arena joined the AEG Facilities portfolio mid-2016, what are some of the challenges of implementing new sustainability initiatives at an existing arena?**

I think it all comes down to educating our venue staff, tenants, vendors, and guests on our sustainability initiatives and goals, because we need everyone on board if we want our programs to be effective. Sometimes it requires a culture change, which can be challenging.

### **What do you find most interesting about working on sustainability issues?**

Personally, I think it's amazing how something so simple like starting a recycling program can have such a positive impact. We work in a very unique industry in the sense that we are able to capture the attention of thousands of people for a few hours during a hockey game or concert. It's during these events that we can educate our guests on environmental best practices. Our lessons learned during our events can also serve as case studies for other businesses and operations in our community.

### **In your experience, what are some sustainability projects that have been most successful from a ROI standpoint?**

A cardboard baler. Cardboard is valuable and if you can collect it and keep it dry, you can get a lot back for it—which is money you can put right back in your operations.

### **Any new projects you're looking into right now?**

Prior to AEG taking over management of Gila River Arena in 2016, there wasn't a lot of emphasis put on sustainability. My focus right now is to educate our staff and partners and to introduce programs that will help increase efficiency and reduce the building's overall footprint.



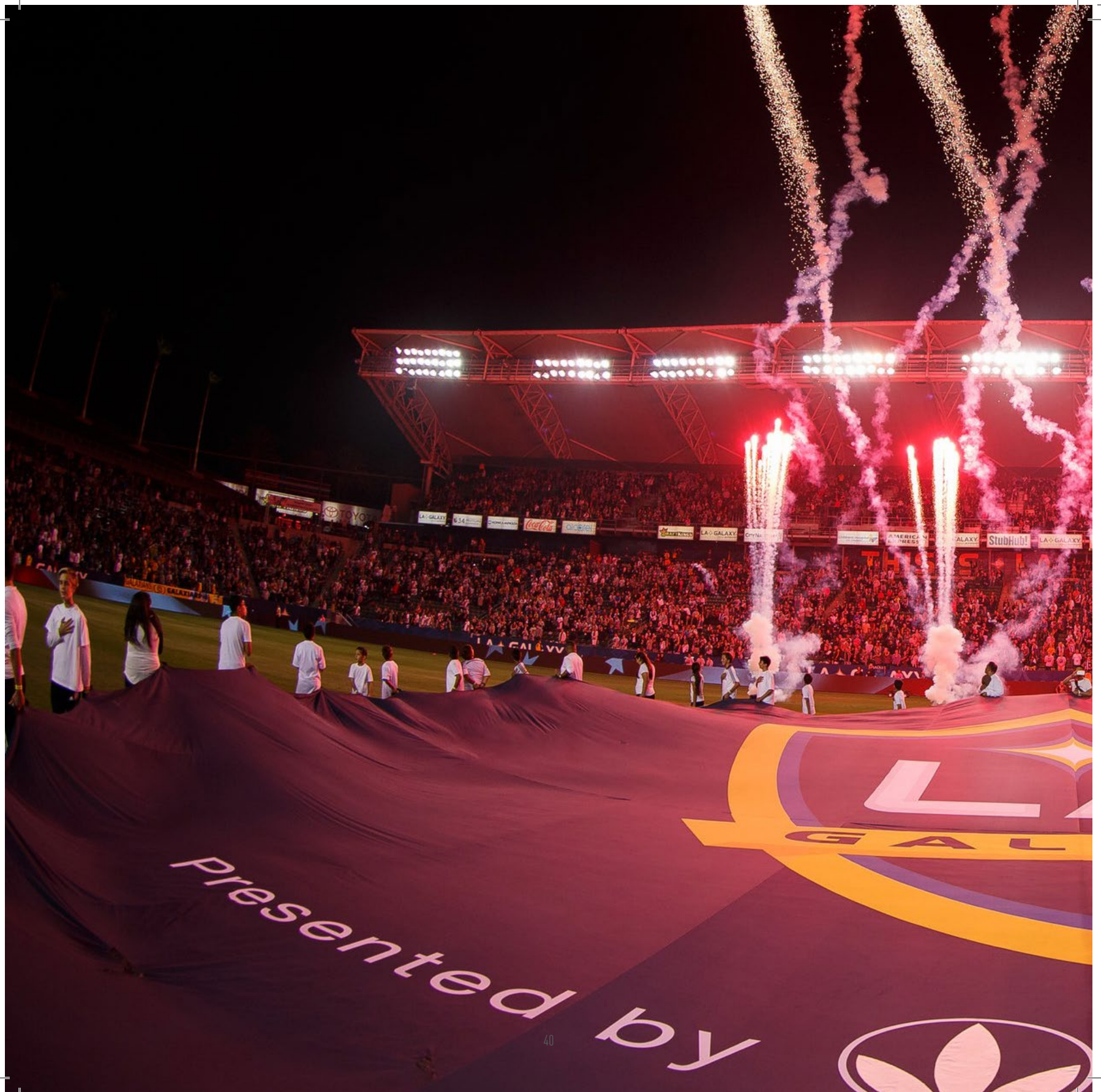


## VALLEY VIEW CASINO CENTER

SAN DIEGO • CALIFORNIA

The Valley View Casino Center in San Diego, California entered a new contract with Constellation, a subsidiary of Exelon Corporation, to purchase Renewable Energy Certificates (RECs) to match 100% of the venue's electricity use from May 2016 through May 2018. The RECs provided by Constellation are Green-e Energy Certified and sourced from wind energy facilities located throughout the U.S. Each purchased REC represents the positive environmental attributes of 1 megawatt hour (MWh) of electricity generated by a renewable power plant, and is retired on behalf of customers who want to offset their carbon emissions. "We are thrilled to participate in this program with AEG Facilities as it demonstrates our commitment to using renewable energy to power Valley View Casino Center," said Ernie Hahn, General Manager of the Valley View Casino Center. "AEG's family of venues have an amazing track record with clean energy and we are dedicated to doing our part to reduce the reliance on fossil fuels."









LA Galaxy game at StubHub Center in Carson, CA



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