

2014 International CES Green Guide

January 2014



Introduction

Welcome to the 2014 International CES®! The Consumer Electronics Association (CEA)®, owner and producer of the International CES, continues to expand our recycling, repurposing and greening efforts. CES includes an incredible array of green initiatives as part of our efforts to reduce waste from the event and also give back to the local Las Vegas community

CEA is proud to present the second annual CES Green Guide. This Guide provides a cross section of green companies to visit in each hall, highlighting corporate recycling initiatives as well as the environmentally friendly products they offer. This guide also provides background on how CEA and our members work year-round to promote energy efficiency and electronics recycling.

When you get home, be sure to check out **GreenerGadgets.org**, an online, year-round resource for consumers that highlights the industry trend toward “greener gadgets” – smaller, smarter, more energy efficient devices that can do more while using fewer resources. Tech-savvy shoppers now have more eco-friendly options than ever before. This online resource has valuable information about how consumers can buy green, live green, and recycle responsibly.

For more details on the greening of CES, please go to **CESweb.org/green**.

Enjoy the show!

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CES: Being Green and Sustainable

The International CES is the world's gathering place for all who thrive on the business of consumer technologies. It is where innovation goes to market.

CES provides our industry an opportunity to convene at one time, in one place, at an eco-friendly blockbuster event that reduces the need for multiple trips to various destinations. CES attendees connect with one another, get business done and collectively avoid 1.97 million miles in business trips that they otherwise would have to take. CES attendees travel from more than 150 different countries, making our event truly global.

At the 2014 International CES, we are:

- Using recyclable carpet for all exhibit floor aisles, TechZones, registration areas and turnkey booth packages.
- Producing all show signs on recyclable products and repurposing magnetic banner material post-show.
- Mandating paperless exhibitor press kits via online, USB or DVD.
- Printing materials on recycled paper, using soy-based ink and meeting the standards of the Sustainable Forest Initiative and Forest Stewardship Council.

During the 2013 International CES, CEA collected a record amount of materials and increased our overall reuse/recycle rate five points to 81 percent. Over 108,000 square feet of show graphics were recycled and repurposed, including:

- 38,000 square feet of magnetic banners – over 19,000 pounds;
- 21,600 square feet of magnetic banners; and
- Over 48,000 square feet of other show graphics – up 200 percent from the previous year.

CEA produced over 243,000 badge holders made from the vinyl banners collected after the 2012 show to repurpose for a third life. CEA also recycled 37,800 pounds of show publications



Giving Back Green

This year at the 2014 CES, CEA is continuing its tradition of awarding several local Las Vegas organizations with funds for green projects. This year, CEA is awarding \$10,000 to University of Nevada, Las Vegas's (UNLV) DesertSol solar house and \$25,000 to the Springs Preserve toward the DesertSol project.

UNLV's DesertSol solar house took second place, first among U.S. organizations, in the U.S. Department of Energy's (DOE) Solar Decathlon this past October. DesertSol will be transported to the Springs Preserve where it will act as a living classroom for the next year, reporting data back to UNLV students and faculty. It will then be retrofitted into a living exhibit at the Preserve and continue to educate the general public about sustainable living in the Southern Nevada region. This donation is to congratulate the UNLV DesertSol team on their success and help support the project.

The Springs Preserve is a 180-acre property located on the historic site of the original Las Vegas Springs. Open since 2007, the Springs Preserve is a world-class facility that promotes community, conservation, preservation and sustainability in the Southern Nevada region and the world's largest campus of platinum-rated U.S. Green Building Council LEED buildings. This donation will support the UNLV DesertSol Solar House which moves to the Springs Preserve this year. The goal is to inspire visitors to implement green living practices and technologies into their own homes and for the house to remain a site for continued research and development of renewable energy for UNLV faculty, students and industry professionals.

At the 2013 CES, CEA donated \$50,000 to two local Las Vegas organizations: Green Chips and the Las Vegas Convention and Visitors Authority (LVCVA). The LVCVA, which promotes Las Vegas as the world's most desirable destination for leisure and business travel, used its \$50,000 donation from CEA to install several electric vehicle charging stations at the Las Vegas Convention Center. Located in the Gold parking lot, these are the first electric vehicle charging stations at the convention center and will be used as a prototype for future stations as the demand increases. The level 2 universal chargers have an amperage of 40A and voltage of 208/240VAC. The covered charging stations are provided as a complimentary service to visitors.

Green Chips, a unique public/private partnership that advances environmental sustainability initiatives in Southern Nevada, used its \$50,000 donation from CEA to support a proposed solar installation project at the iconic "Welcome to Fabulous Las Vegas" sign on Las Vegas Boulevard. The neon and incandescent lights of the "Welcome to Fabulous Las Vegas" sign will be energized for the first time by newly installed solar trees the week of the 2014 CES. In the last two years, with the assistance of CEA donations, Green Chips also installed solar panels at the Las Vegas Recuse Mission and a local Salvation Army.



What's Green at CES?

Looking for green products? There are several locations featuring companies with innovative new products that push the envelope in green design and environmental sustainability.

Sometimes big innovations come from little companies. If you're looking for the next big thing in a little package, be sure to check out Eureka Park and Eureka Park: NEXT at The Venetian.

For new companies looking to gain footing in the consumer technology industry, Eureka Park provides startups a unique exhibiting opportunity to launch a new product, service or idea. In partnership with UP Global, the National Science Foundation (NSF), GE and AT&T, Eureka Park is the premier CES destination where retailers, venture capitalists, manufacturers and other key attendee groups will find budding entrepreneurs, fledgling startups and home grown innovation. Eureka Park is located at The Venetian on Level 1 in Casanova, Marco Polo and Galileo ballrooms.

Building off the success of Eureka Park, Eureka Park: NEXT hosts the progressing stage of startups at CES. Retailers, venture capitalists, manufacturers and more will discover established startup companies looking to expand. Check it out in The Venetian Ballroom on Level 2. You'll experience the next wave of tech innovation ready to change the world.

The GoElectricDrive TechZone, located in the LVCC, North Hall, is another place to find the newest innovations in green technology. In partnership with the Electric Drive Transportation Association, this TechZone is a dynamic showcase of electric drive technologies, products and services. Electric vehicles and their associated charge stations – for homes, condominiums, public facilities – and a range of electric mobility products and services can be found in this thriving area of the show floor.

Monday evening, January 6, at the Cosmopolitan Chelsea Theater, Audi's Chairman of the Board of Management Rupert Stadler will be giving a Tech Titans Keynote. At the keynote, Stadler will discuss future innovation in the automotive industry and its direct impact on the consumer technology market.



Where to Find Companies Emphasizing Green

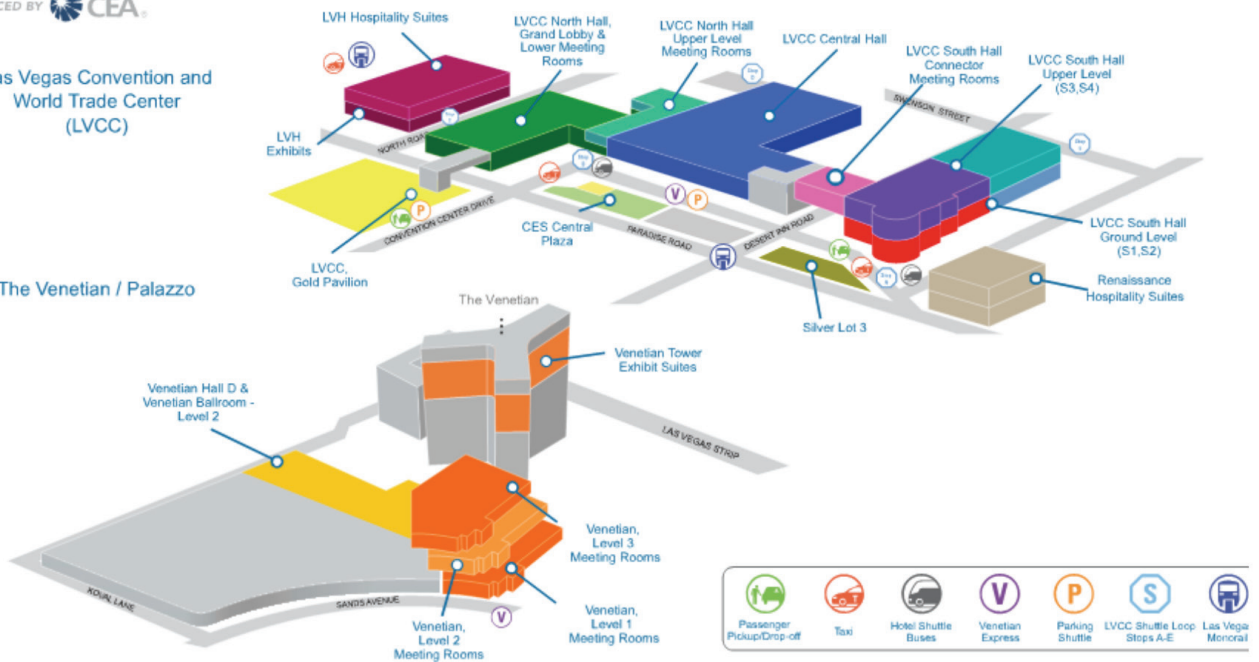


THE GLOBAL STAGE FOR INNOVATION

PRODUCED BY CEA

Las Vegas Convention and
World Trade Center
(LVCC)

The Venetian / Palazzo



LVCC Central Hall

Panasonic:

Panasonic Corporation recently topped the 2013 Dow Jones Sustainability Index for consumer durables. Panasonic Corporation of North America demonstrated this same commitment to sustainability in the construction of its new U.S. headquarters along an urban riverfront setting in Newark, New Jersey. The building has been designed to meet LEED Platinum certification standards for its interior and LEED Gold certification for its core and shell.

At 2014 CES, Panasonic takes its innovative consumer technologies and reimagines them into comprehensive solutions for leading automakers, airlines, retailers, education, government and Smart TV technologies in addition to showcasing a wide range of other electronics ranging from beauty and personal care to imaging, audio and more.

Location: LVCC, Central Hall – Booth #9806



Central Hall, continued

LG Electronics:

Environmental sustainability is a core business principle at LG Electronics, which will showcase a variety of greener products at the 2014 International CES. Headlined by three coveted CES Innovations Eco-Design Awards, for LG OLED TV, washing machine and range technologies, new consumer electronics and home appliance products for 2014 are designed with the environment in mind. LG's CES "Eco-Zone" will highlight electronics recycling and energy efficiency, among other key sustainability initiatives. LG is a proud ENERGY STAR Partner of the Year.

Location: LVCC, Central Hall – Booth #8204

Samsung:

Samsung, a global leader and award-winning innovator in consumer electronics, semiconductors and telecommunications, is committed to developing environmentally friendly products, promoting responsible electronics recycling and building green manufacturing sites.

For its efforts in furthering energy-efficiency in products and consumer education, Samsung has been recognized as ENERGY STAR Partner of the Year for the last three years, culminating in the Sustained Excellence award in 2013.

For more information about Samsung's sustainability efforts, please visit: Samsung.com/us/guide-page/green/. Samsung is highlighting its leadership in creating innovative, eco-conscious technology at the 2014 International CES.

Location: LVCC, Central Hall – Booth #12004

Sony:

Road to Zero is Sony's global environmental plan. This year, Sony is displaying a ground water recharging process employed during the fabrication of image sensors at one of its manufacturing facilities.

In the process, water provided on farming fields slowly seeps into the ground and replenishes the underground aquifers that provide pure water to refine the image sensors. Working together with the local community, Sony replenishes the same amount of water used during fabrication.

Location: LVCC, Central Hall – Booth #14200



LVCC South Hall

MAXSA Innovations LLC:

MAXSA Innovations develops and manufactures eco-friendly, solar-powered LED lighting solutions. By capturing solar energy and utilizing state-of-the-art, high efficiency LEDs, MAXSA's Super Bright solar security lights are constantly reinventing the standard of excellence for the solar security lighting industry. MAXSA is dedicated to creating unique products designed to save electricity, ensure your safety, keep you comfortable, and enhance your overall enjoyment of life. Products are designed for dependability, ease of installation and ease of use.

Green Products Include:

- MAXSA Bright Motion-Activated Solar Security Light (Model 44640)
- MAXSA Bright Dual-Head Solar Spotlight (Models 44418 & 44416)

Location: LVCC, South Hall, Booth # 26133

Las Vegas Hotel

SC2G, LLC. :

Screen Cleaner 2GO is committed to providing conceptual, 100 percent organic, screen cleaning solutions for life in the 21st century. Screen Cleaner 2GO's product line ranges from wipes to personal digital screen cleaning kits. Screen Cleaner 2GO is the most progressive name in screen cleaning technology.

Green Products:

- 1) "Screen Cleaner 2GO" Organic Digital Cleaning Kit
- 2) "Screen Cleaner 2GO" Organic Screen Cleaning Wipes

Location: LVH, Booth #49037

Venetian

Aervoe Industries:

Aervoe's line of SIERRA WAVE® SOLAR COLLECTION & ENERGY STORAGE DEVICES includes small to large sustainable power products designed to charge/operate electronics for personal use, job-site applications, and larger emergency preparedness projects. Each product is thoughtfully designed to meet specific needs. Please visit to learn more.

Location: Venetian Ballroom, Booth #70226



CEA 2013 Sustainability Report

The CEA 2013 Sustainability Report illustrates the consumer electronics industry's progress in advancing green initiatives. From electronics recycling and energy efficiency to updated testing procedures and voluntary stakeholder agreements, the report shows that the industry is embracing the challenge to become more eco-friendly.

The report, an update to CEA's second sustainability report released in 2010, tracks the industry's green efforts throughout a consumer electronics product's entire lifecycle. The CEA 2013 Sustainability Report contains over two dozen case studies from various CE companies such as Best Buy, Sharp and FulTech Solutions illustrating challenges and accomplishments in their environmental efforts. The report also documents and illustrates green practices across the industry.

Highlights include:

- Greener designs: the use of more sustainable materials in the production of electronics.
- Greener packaging: smaller, lighter and more efficient product package designs using recycled materials require fewer resources to produce.
- More energy efficient products: CE companies are leveraging breakthrough technology to reduce power requirements in devices big and small.

Of course, a report on environmental sustainability should not itself be a source of unnecessary use of resources. The report is housed as an interactive online tool to avoid consumption of printing and paper resources. The application is easy to navigate on small and large screens, contains several videos, and includes a report builder option to enable readers to pull together and download the pages of most interest.

The full report is available at CEA.org/sustainability.



2013 Sustainability Report





CEA & Energy Efficiency

The consumer electronics industry is leading the way on energy efficiency. Our industry's environmental footprint continues to shrink due to consumer-friendly innovations. A survey by CEA in 2011 found 60 percent of consumers are concerned about their electric bills, and energy consumption ranked as the third most important trait after features and price. CE products account for a fairly small amount of the average home's total electricity consumption.

We all need to play a part in understanding our use of energy. Consumer electronics manufacturers support greater energy efficiency through innovation, competition and market-oriented programs such as ENERGY STAR, a successful program launched more than 20 years ago. As the national symbol for energy efficiency, ENERGY STAR makes it easy for consumers and businesses to purchase products that save them money and protect the environment. Americans purchased about 300 million ENERGY STAR certified products in 2012 across more than 65 product categories for a cumulative total of more than 4.5 billion products since 1993. ENERGY STAR certified AV products are up to 60 percent more energy efficient than conventional models and certified TVs are over 25 percent more efficient. If every TV, DVD, and home theatre system purchased in the U.S. this year were ENERGY STAR certified, we'd save more than \$160 million and prevent more than 2.2 billion pounds of greenhouse gas emissions per year



To support energy efficiency policies and programs, there must be standard methods of measuring energy use. CEA has made significant contributions to the development of consensus standard test procedures for measuring power consumption in consumer electronics.

Set-Top Box Energy Conservation Agreement

In 2012, fifteen industry-leading multichannel video providers and device manufacturers that deliver service to more than 90 million American households launched an unprecedented Set-Top Box Energy Conservation Agreement.

In 2013, the American Council for an Energy-Efficient Economy (ACEEE), the Appliance Standards Awareness Project (ASAP), CEA, the National Cable & Telecommunications Association (NCTA), the Natural Resources Defense Council (NRDC), and U.S. Department of Energy (DOE) announced new Tier 2 commitments to significantly broaden the 2012 voluntary agreement. These new standards will improve set-top box efficiency up to 45 percent by 2017, and are expected to save more than \$1 billion on consumer energy bills annually. The agreement was designed to be an effective substitute for all federal and state legislative and regulatory mandates for set-top boxes, relying instead on cross-industry cooperation and continued innovation.



CEA & Ecyling

Our industry is making strong contributions to support the responsible recycling of CE products.

The eCycling Leadership Initiative seeks to improve consumer awareness of the more than 8,500 collection sites currently sponsored by industry; increase the amount of electronics recycled responsibly; increase the number of collection opportunities available; and provide transparent metrics on ecyling efforts. Initiative participants have pledged to collect one billion pounds of electronics annually by 2016. One billion pounds of electronics would fill about 89 million cubic feet, equivalent to an entire 71,000-seat NFL stadium. In 2012, our industry recycled more than 585 million pounds of electronics, putting us well on our way to meet our Billion Pound Challenge goal. In 2013, CEA honored Best Buy, Dell, HP, and Samsung with the inaugural eCycling Leadership Award for their ecyling efforts in 2012.

In addition, CEA, along with the Institute of Scrap Recycling Industries Inc. (ISRI) and InnoCentive, announced a second CRT Challenge to identify financially-viable, environmentally-conscious proposals for using recycled cathode ray tube (CRT) glass. Dr. Thomas Engelhardt won the 2013 CRT Challenge with his solution to use the leaded CRT glass in the vitrification of nuclear waste. Vitrification is a mature technology that has been used for more than 40 years. It involves the melting of waste material with glass-forming additives so that the final glassy product immobilizes the waste material, trapping the lead and the other elements in the glass.

CEA also produced an eCycling radio PSA that ran on stations across the country reaching an estimated audience of more than 78 million listeners in 2013. The spot was heard in every state and spread the word about GreenerGadgets.org.

More information can be found at **CE.org/ecycle**.



eCycling

LEADERSHIP INITIATIVE

GreenerGadgets.org

GreenerGadgets.org is CEA's online resource for consumers to live green, buy green and recycle responsibly. The site highlights the greater industry trend toward smaller, smarter, energy-efficient devices that are more versatile than ever.

Tech savvy shoppers have so many options when it comes to eco-friendly choices. **GreenerGadgets.org** exists to help consumers buy green electronics, use them efficiently and recycle those products when they reach the end of their useful life.

In addition to tips about greener living, the website features interactive tools such as the Consumer Electronics Energy Calculator which estimates the amount of energy the electronics in your home use based on the products you own and the amount of time they are in use each day.

The calculator determines the energy cost per month and per year, and compares your energy use to that of the average U.S. household. A CEA survey found that 60 percent of consumers are concerned about their electric bills and energy consumption. While consumer electronics typically account for just 12 to 15 percent of a home's energy use, every little bit of unused energy saves money and reduces energy demand. Studies have found that the more consumers understand their energy use, the less energy they're likely to consume.

The site also features a Recycling Locator tool. When it comes to end-of-life electronics many people are concerned with what happens after they drop off their products. The recycling locator database includes industry programs that use strict standards and third-party certified recyclers, so consumers can rest assured that their devices will be safely recycled.

As more companies and consumers embrace green technology, **GreenerGadgets.org** will continue to be an important resource for anyone who wants more information on how to live green, buy green and recycle responsibly.

