



CES GREEN GUIDE

Sustainability at your fingertips

Consumer
Technology
Association™



INTRODUCTION

The Consumer Technology Association (CTA) is proud to present the seventh annual CES® Green Guide. It provides a self-guided tour highlighting a selection of the show's innovative companies and their environmentally-friendly products. The guide also highlights the tech industry's success in advancing energy efficiency, responsible recycling and sustainable materials management.

CTA is the owner and producer of CES, the largest, most influential tech event in the world. The effects of greater sustainability at CES, through its operations and the companies and solutions it spotlights, are vast and global. Within the guide is a look at CTA's commitment to grow its sustainability efforts at CES 2019 through a broad array of green initiatives - helping to reduce waste, repurpose materials and give back to the local community.

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CES GREEN STATS

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Here is what we accomplished at CES 2018:

Over **1,500 tons** of materials were recycled at the LVCC and Sands/Venetian.

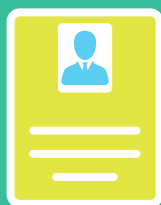


More than **1.7 million sq. ft.** of carpet were reused or recycled after the show.

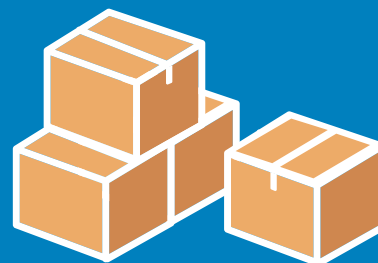
100% OF VINYL BANNERS

were diverted from the landfill, totaling over **39,000 sq. ft.**

All booth ID signs and aisle signs used at the show were recycled, diverting more than **13,000 sq. ft.** of material from the landfill.



CTA donated \$15,000 to Green Our Planet to build four additional garden classrooms throughout the Clark County School District in Nevada.



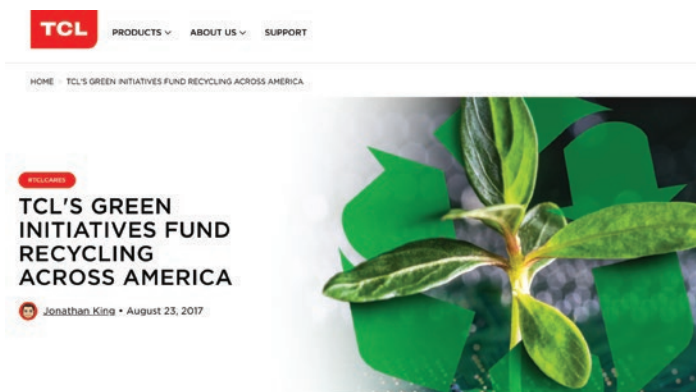
Exhibitors collectively donated more than **187,000 pounds** of materials to Goodwill, Habitat for Humanity, Opportunity Village, Teachers Exchange and HELP of Southern Nevada.

Since 2009, CTA has donated more than **\$700,000** to sustainability and educational initiatives in the Las Vegas community.



COMPANY INFORMATION

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TCL

TCL

TCL has made environmental sustainability a primary component of its TCLCares initiative, doubling its electronics recycling program every year since 2014 to help local communities. The EPA will shine its spotlight on TCL's recycling program at CES 2019, awarding its outstanding contributions during the SMM Challenge awards ceremony. The company's mission continues as TCL builds its 50-state recycling solution by 2020, signaling TCL's leadership in making sustainability an integral part of the consumer technology culture.

- LVCC, Central Hall, Booth #12929

MAXSA

MAXSA Innovations offers a wide range of energy-efficient, solar-powered lights and security cameras that installs easily, that requires no wiring, and that keeps you safe! From our super bright, 1100 lumen Solar-Powered Security Camera and Floodlight to Solar Flood and Flag Lights and to Solar Post Cap lights and Deck lights, MAXSA Solar Lights save you money on electricity and help you to do your part to keep our planet healthy!

- Sands, Booth #43155

Green Products:

- Motion-Activated Solar Security Camera and Floodlight
- Solar Flood lights and Flag Lights
- Solar-Powered Metal and Glass Post Cap & Deck Railing Lights



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COMPANY INFORMATION

Site 1001

Site 1001 is an advanced building operations platform that uses core building information, building systems and sensor data in combination with artificial intelligence to put the “smart” in “smart buildings.” Site 1001 helps owners, operators and FM pros save money, increase sustainability and improve building performance without adding to workloads.

- Westgate, Booth #1101

Green Product: Skylight



Best Buy

Best Buy is committed to managing our impact on the environment and are proud of our efforts to lower our carbon footprint, reducing it by 60 percent by 2020. We operate the most comprehensive e-waste recycling service in the U.S. and have collected more than 1.7 billion pounds of e-waste for recycling since 2009. We are also committed to providing an assortment of sustainable technology, including ENERGY STAR® certified products, and have helped customers realize more than \$700 million in utility savings since 2009.

COMPANY INFORMATION

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Dell

At Dell, we are committed to working with sustainable materials, including sourcing recycled content like plastics and gold from our own electronics takeback programs. Earlier this year, we launched the Latitude 5285 2-in-1, with recycled gold incorporated into the motherboard – an industry first. We have also accomplished our 2020 goal of recovering two billion pounds of used electronics and will surpass our goal of repurposing 100 million pounds of recycled materials in Dell products by Earth Day. Dell's leadership in product stewardship and sustainable materials management will be highlighted at CES 2019 with award recognition from the Environmental Protection Agency. Come visit the #DellExperience at Sugarcane in the Venetian to learn more.

- Venetian, LV2, Sugarcane

Noxtak

NOXTAK introduces the Stroom Master. This system reduces your power consumption and suppresses all EMI/RFI and DPA. Equipped with our patented SPIRO® technology, Stroom Master will not only filter EMF pollution in the wiring but also EMF present in the environment. It's a compact, reliable, plug and play solution which impacts positively by extending the lifetime of common devices, and turning them into energy efficient ones. Let NOXTAK help you build a tech friendlier lifestyle!!

- Westgate, Booth #1107

Green Product: Stroom Master



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Motion S

Motion-S offers intelligent data solutions to support customers shape the future of mobility and giving them a head start in telematics – being safer, greener and more efficient. Our product GreenFleet enables fleet operators to meet the benchmark for average CO² emissions. GreenFleet allows to retrieve extended data insights from the vehicle and the driver, a customizable fleet management dashboard allowing smart analytics and incorporates a motivating experience for the driver by coaching and gamification elements.

- Sands, Hall 6, Booth #51663



AMD

AMD set an ambitious goal in 2014 to deliver 25 times more energy efficiency by 2020 in our processors for mobile products, far outpacing the historical rate predicted by Moore's Law. In 2018, the AMD Ryzen™ Processor with Radeon™ Vega Graphics continues to put the company ahead of pace for our 25x20 goal (www.amd.com/25x20). By relentlessly improving the "performance per watt" of our processors, we help customers reduce power consumption and improve compute performance.

- Venetian, Titan, Booth #2303-2305





Green Builder Media

Green Builder Media is the nation's leading media company focused on green building and sustainable living. With a vibrant suite of media, content marketing, demonstration projects, market intelligence, and live events, GBM reaches millions of progressive consumers and building professionals.

At CES, Green Builder Media, will be showcasing The Align Project, a demonstration project designed to challenge entrenched ideas about how we live in the U.S. and offer suggestions for how we can align our lifestyles with our changing socio-economic and environmental realities. The cornerstone of The Align Project is a small-footprint, net-zero, solar-powered, connected home, featuring cutting-edge smart home and clean mobility solutions, all under one roof!

- LVCC, Central Plaza, Booth CP-6

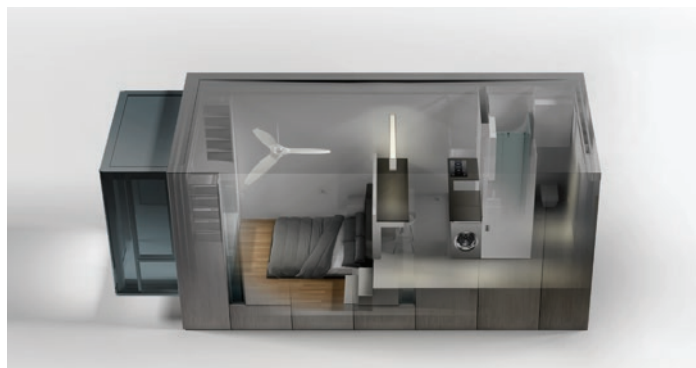
B-Hyve

B-hyve is an ecosystem of smart watering technology launched in 2016 to make yard care and water conservation easier and more affordable for homeowners everywhere. Systems can connect with Wi-Fi to gather local weather data so there is no watering in the rain. Our smart watering timers have saved users over 30 billion gallons of water since their inception. That's up to a 50% water reduction for some customers, making water conservation easy.

- Sands, Tech West, Booth #40340

Green Products:

B-hyve Smart Wi-Fi Sprinkler Timer
B-hyve Smart Hose Faucet Timer



COMPANY INFORMATION

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LG Electronics USA

Environmental sustainability is a core business principle at LG Electronics, which is unveiling a number of greener products at CES® 2019 – headlined by ENERGY STAR certified refrigerators, washing machines, clothes dryers, monitors, laptops and more. As part of LG’s efforts to create a better life with its customers, the company strives to make products with greener features and to reduce their environmental impact throughout their lifecycle. For its design for recyclability and reduction of hazardous materials, the new LG OLED 4K Ultra HD TV (Model 55E9) was recognized by the Consumer Technology Association with the 2019 CES Innovation Award in the highly-competitive Sustainability and Eco-Design category. LG’s leadership in product stewardship also is underscored at CES 2019 with the EPA’s Gold Tier Award in the “Sustainable Materials Management” Electronics Challenge.

- LVCC, Central Hall, Booth #11100

Honda

Honda is committed to developing technologies that address society's environmental and energy concerns. We've announced a voluntary target of 50 percent CO2 emissions reduction by 2050.

At CES, Honda will debut its Wireless Vehicle-to-Grid (V2G) concept, a bi-directional energy management system that has the potential to reduce CO2 and create new customer value by eliminating the gap between supply and demand of electricity for charging EVs.

LVCC, North Hall, Booth #7900



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Samsung

Samsung's CES® 2019 Innovation Awards honorees span a range of consumer electronic categories, including Sustainability and Eco-Design. As part of its commitment to environmental responsibility, Samsung plans to source 100% renewable energy by 2020 in the US. Samsung Electronics America, Inc., and Samsung Austin Semiconductor, LLC, reached this commitment in 2018 and rose to No. 7 on the U.S. Environmental Protection Agency's National Top 100 List in the Green Power Partnership.

On January 5th, Samsung will co-host an e-waste collection event at the Salvation Army in Northern Las Vegas.

- LVCC, Central Hall, Booth #15006

Analog Devices

From autonomous transport to the digital connected factory to new user experiences in consumer and healthcare. Analog Devices fuses cutting-edge technology and deep market expertise to help you solve the toughest challenges and achieve your most ambitious goals. We're the right ally when you need advanced components and systems, a new perspective, and engineers who can help you intelligently bridge the physical and digital. Our intelligent sensing solutions deliver accuracy, robustness, data integrity, reliability, and power efficiency. Visit us at CES to see what's possible.

- LVCC, South Hall 3, Booth #30322

Green Products:

LTC7821 - Hybrid Step-Down Synchronous Controller

LT8614 - 42V, 4A Synchronous Step-Down Silent Switcher with 2.5µA Quiescent Current

SAMSUNG

Sony Electronics, Inc.

Sony's latest generation of aibo keeps the environment in mind. aibo arrives snugly wrapped, and protected from damage, in a felt package produced from 50% recycled PET plastic bottles. aibo's package is unique in its use of 50% recycled material and innovative structure, providing both a shock-absorbing storage cushion and strong outer cover. Sony continues to work toward reducing consumption and increasing the reuse and recycling of materials across its products and business activities.

- LVCC, Central Hall, Booth #17300

Green Product: aibo packaging

SONY

Green Events Open to Attendees:

Design and Source:

JAN
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Critical Materials Sustainability and Lithium-ion Batteries

Thursday, January 10 1:00-2:00PM

Location: LVCC South Plaza 62000

Join representatives from government, academia, and industry for a discussion on sourcing materials used in lithium-ion batteries. Presenters will discuss the challenges in sourcing and recovering these critical materials vital to the technology industry.

Resilience:

JAN
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Crisis Prevention—Water Shortages

Tuesday, January 8 11:30-12:30PM

Location: Westgate Level 1 Ballroom F

Parts of the world are facing the unimaginable – catastrophic water shortages that could have dire effects on their populations. We'll explore how technology is being harnessed to assist in these situations that can provide global lessons.

JAN
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Technology to Feed the World

Tuesday, January 8 1:00-2:00PM

Location: Westgate Level 1 Ballroom F

Agriculture in the 21st century faces the challenge of producing more food to feed a growing population, with a smaller rural labor force. In the face of climate change and labor shortages, visionaries are innovating the ways that food can be grown and harvested.

JAN
10

Tech for Good: Driving Impact at Scale

Tuesday, January 8 3:30-4:30PM

Location: Westgate Level 1 Ballroom F

Technology has the power to create more resilient communities by tackling the largest global problems including poverty, health, education, and sustainability. Join us as we explore how corporations and community leaders are designing innovations with intention, creativity and scale.

Smart Cities:

JAN
10

Fueling Big Cities

Thursday, January 10 9:00-10:00AM

Location: Westgate Level 1 Ballroom F

Energy supply and consumption have a tremendous impact on building sustainable, clean and environmentally responsible cities. Learn from a panel of energy experts and smart city leaders on innovative ways to conserve and distribute energy in increasingly connected urban corridors.

JAN
10

What's Next for Transportation in the Smart City?

Thursday, January 10 2:15-3:15PM

Location: Westgate Level 1 Ballroom F

Learn how city planners, infrastructure providers and information architects are working together with transportation companies to design intentional expedencies for alternative transportation methods.

JAN
10

Smart Cities, Public Safety and Disaster Preparedness/Recovery

Thursday, January 10 3:30-4:30PM

Location: Westgate Level 1 Ballroom F

Sensors embedded into Smart City IoT devices will do more than find you a parking spot. Connected gas sensors will improve health, reduce emissions, identify infrastructure leaks and security threats and even alert medical personnel to individual health emergencies.

Smart Future:

JAN
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It Takes a Village: Building Smart Communities

Wednesday, January 9 1:00-2:00PM

Location: Westgate Level 1 Ballroom F

It takes many public and private partners to deliver smart city solutions to benefit the economy, mobility, safety and security of citizens, infrastructure and more. We'll take a closer look at the network of contributors to build a smart city.

CES EUREKA PARK CLIMATE CHANGE INNOVATOR AWARDS

The second-annual Eureka Park Climate Change Innovator Awards at CES recognizes exhibitors in Eureka Park who are placing bold bets on their technology's ability to cut greenhouse gas emissions if widely implemented. These innovators were selected for their products' or technologies' potential to reduce emissions if widely adopted or implemented. All winners are located in Eureka Park Marketplace (Sands, Hall G).



Blue Whale Company

The Spy Can Compact is the first autonomous SMS driven smart valve that detects leaks and overconsumption in pipes and sends alerts in real time. The Spy Can Compact saves water and as a result energy needed for production. This could result in 1 million tons of CO2 emissions reduction per year. Exhibiting at booth #50415



Connected Garden

Archibald is a personal digital gardener with "Super Sensor" that chooses plants adapted to a precise location such as a garden, terrace or balcony and pairs with an app that gives maintenance instructions. With just a 5% market penetration rate, Archibald could sequester 22.07 million tons of CO2 per year. Exhibiting at booth #50215



GoSun Inc.

The GoSun Fusion is hybrid solar cooker that utilizes a highly efficient vacuum tube and PV system that allows one to cook day or NIGHT without any fuel other than the sun. Widespread use of the GoSun Fusion hybrid solar cooker could reduce GHG emissions by 989,000,000 tons per year. Exhibiting at booth #52950

CES EUREKA PARK CLIMATE CHANGE INNOVATOR AWARDS



Heatworks

The MODEL 3 Water Heater is the first of its kind to use graphite electrodes and advanced electronic controls to heat up water making it 99% energy efficient. This would result in energy savings, which would lessen the need for power plants and as a result reduce U.S. CO2 emissions by 24 million metric tons. Exhibiting at booth #50322



LUMI'IN

The FLEX is the first solar and connected LED street light that is adaptable to any lamp post, which provides a cleaner and cheaper-to-use alternative to classic on-grid lighting. If every traditional lamp post were replaced by FLEX, 2.4 billion tons of CO2 would be saved in 10 years. Exhibiting at booth #50215

nanoscent

NanoScent

NanoScent VOC Radar is a real-time detector that senses, monitors, alerts and traces specific VOCs (Volatile Organic Compounds) in the air. By monitoring leaks and emissions, NanoScent could prevent the emission of 9,964,500,000 metric tons of CO2 per year. Exhibiting at booth #51701



SmartEmbed

Eddo.drop is a technology dedicated to water and energy preservation in households through an IoT solution that controls shower duration. Based on water and energy savings as a result of eddo.drop, a 1% market penetration in 5 countries would result in a total of 414,526 metric tons of CO2 emissions reductions. Exhibiting at booth #50215

CES features the latest advancements in tech and innovation. As you tour the exhibit halls, you'll see just how far our industry has come in its commitment to improve sustainability and reduce its impact on the environment.

Through innovation and robust competition, today's tech devices are faster, smarter and more efficient than ever before. Each year, the industry's progress toward greater energy efficiency saves consumers millions of dollars while reducing greenhouse gas emissions. A CTA study shows that even as TV displays became larger with higher resolution and more features, their energy consumption declined 76 percent from 2003 to 2015.

Tech products are also more efficient and capable than ever before. According to a recent study, tech devices now use fewer materials today than they did 20 years ago – even though the number and type of products available to consumers have significantly grown. This triumph in material reduction is driven by three important trends: technological shifts, the convergence of multi-functional devices and increased use of lightweight materials.

Finally, be sure to check out GreenerGadgets.org, an online resource for consumers that features tips on how to live green, buy green and recycle responsibly all year long.