

Earth Rides

Nashville, TN and Austin, TX | Travel & Tourism

Earth Rides is a rideshare company that utilizes a fleet of fully electric vehicles (EVs). In October 2020, Earth Rides began operations in Nashville, TN and has since expanded to Austin, TX. Earth Rides has a vision to provide services in all major metropolitan areas in the United States by 2025. The company operates like other major rideshare options and allows users to hail a ride through a smartphone. However, with Earth Rides, drivers transport you in EVs such as a Tesla, Polestar 2, or Mach-e Mustang. By utilizing EVs, Earth Rides reduces the carbon footprint and air emissions associated with travel compared to conventional vehicles. Earth Rides is also committed to equity and inclusion and strives to empower drivers and users to learn more about EVs and their benefits. Long-term, the company is committed to creating pathways for EV ownership regardless of socioeconomic status.



REDUCING EMISSIONS

Did you know that the transportation sector is the largest energy consuming sector in the US, at almost 30 percent? One strategy, among many, to reduce emissions and energy usage in the transportation sector is to support the transition to EVs. Rather than using gasoline or diesel like traditional vehicles, EVs contain a battery that is charged through electricity which is used to power the vehicle. EVs are recognized for their benefits, including lower energy costs, improving air quality, and reducing fossil fuel reliance.



Earth Rides takes an innovative approach to ridesharing by operating with a fully electric fleet. Every time you hail a car through Earth Rides, you will travel in an EV – like a Tesla or a Mach-e Mustang. According to the US Department of Energy, EVs emit less than 5,000 pounds of CO2 equivalent annually, on average. By comparison, gasoline vehicles emit an average of more than 10,000 pounds of CO2 equivalent over the same time. This means that every time you travel in an EV rather than a gasoline vehicle, you are reducing carbon emissions. Since January 1st, 2020, Earth Rides has reduced over 150 tons of CO2 equivalent by their commitment to utilize EVs.

PROMOTING EQUITY



Earth Rides has three major values: 1) transparency with customers and employees, 2) to provide safe transportation by utilizing the safest cars on Earth and background checking every employee, and 3) to empower everyone to be the best human they can be. The company acts upon its last value by promoting equity in its practices, both for customers and employees. One commitment of Earth Rides is to provide affordable and reliable transportation to individuals with intellectual or development disabilities (IDD). Earth Rides offers a set rate, unlike the popular dynamic pricing model utilized by other rideshare companies that may lead to expensive rides during peak usage times. Additionally, all drivers employed by Earth Rides are trained utilizing a training program created with Lipscomb University IDEAL program to better understand and promote positive communication with customers with different abilities and different needs.

Earth Rides is also committed to promoting equitable access to EVs. Currently, they offer two models for employment: they have drivers who are employees of the company and drive company-owned vehicles, and they have drivers who own an EV and work as contractors. The third stage that Earth Rides is working toward is a “lease to own” option for company drivers who would like to own an EV but either cannot afford or were not approved for leasing or financing the vehicle.

COMMUNICATION

Despite growing interest and popularity in owning EVs, these cars are still a new concept for many Americans. Earth Rides wants to utilize its platform to expose customers to EVs and their benefits to promote public education. As such, all drivers are trained on EV concepts and benefits so they may answer questions that they get from passengers about the vehicles. Earth Rides considers their drivers to be industry experts following this training. Additionally, the company partnered with Drive Electric TN and the Tennessee Valley Authority to gather data in response to questions posed by customers to enhance customer experience and be able to provide the most accurate information possible.

SUPPORTING EVS

All businesses can play a role in supporting the transition to EVs. One major action that businesses can take is to install EV infrastructure on-site for both guests and employees. Events and other attractions can consider partnering with companies that utilize EVs to promote their use. Finally, businesses with fleets can consider choosing EVs when fleet vehicles are in need of updating or upgrading.

TENNESSEE SUSTAINABLE HOSPITALITY

Montgomery Bell State Park

Burns, TN | Restaurant

The Forge Restaurant at Montgomery Bell State Park enrolled in the EPA's Food Recovery Challenge (FRC) program in 2018 in an effort to reduce their food waste. Restaurant staff received training in source reduction, diversion techniques, and composting methods to target and eliminate food waste. Through continuous measurement, data tracking, as well as frequent staff training, the restaurant is able to divert approximately 59 tons of food waste annually from landfills. The restaurant implemented several strategies to improve the overall efficiency of processes and to reduce food waste. The most successful strategies include just-in-time purchasing, improved storage and organization techniques, eliminating buffet option, modification of menus and serving portions, flexibility in menu planning, and repurposing leftovers.



FOOD WASTE REDUCTION



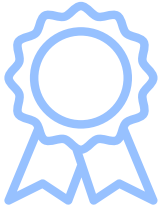
Measurement Matters: The Forge Restaurant at Montgomery Bell restaurant staff has four separate food waste logs in which they weigh each food item and record it in the appropriate log.

- Food waste log that maintains records of each individual food item disposed of, how much it weighs, and for what reason it was disposed
- Food log for source reduction or diverted food
- Food log for all food that will be donated to a local charity
- Food log for all compostable food scraps and plate scrapings from post-consumer leftovers



Cost Savings: The restaurant tracked food waste diversion and monetary savings from the restaurant's food waste reduction initiatives. These totals were calculated by comparing solid waste tonnage picked up from the restaurant dumpster to tonnage diverted in 2018. In addition to realizing a major decrease in the tonnage disposed of, they actually required fewer pickups altogether. Before participating in the Food Recovery Challenge, the restaurant produced 118 tons of waste annually, and now produces 55-60 tons annually. They were able to divert approximately 59 tons of food waste in 2018 by source reduction, donation, and composting efforts. This results in a monetary savings of approximately \$2,500 annually.

NATIONAL RECOGNITION



The Restaurant at Montgomery Bell State Park received national recognition through the EPA's Food Recovery Challenge. The restaurant was awarded the 2018 Source Reduction Winner in the narrative category for their efforts in food waste source reduction techniques. Most successful methods include: just-in-time purchasing, improved storage and organization techniques, eliminating buffet, modification of menus and serving portions, flexibility in menu planning to accommodate use of excess food from previous meals, and repurposing leftovers.

COMMUNICATION & EDUCATION



Montgomery Bell State Park has served as a mentor to others in Tennessee on food waste reduction and education. The park hosted a mentoring/training seminar with guest speakers from the Tennessee Department of Environment and Conservation. One speaker was an Endorser to the Food Recovery Challenge (FRC), and the other was an expert in composting science and operations. The training introduced attendees to the FRC program, and used specific examples and onsite learning to better clarify the importance behind reducing food waste, the food recovery hierarchy, source reduction, donation, and composting methods. Other TN State Parks, restaurants, and businesses were invited to attend this training.

TRANSFERABILITY

Through providing a mentoring/training seminar and guided tour of their facilities, signage, and processes, The Forge at Montgomery Bell was able to aid six other TN State Parks in Food Waste Reduction initiatives. The names of these State Park Restaurants reached through programming include: Homestead Harvest at Cumberland Mountain, The Governor's Table at Henry Horton, The Captain's Galley At Pickwick Landing, The Western Spur at Natchez Trace, The Riverboat at Paris Landing, and Gaul's Gallery at Fall Creek Falls.

PARTNERSHIPS

This initiative is successful due to partnerships between several local and state entities. The TN State Parks Go Green With Us Program provided the critical support system needed to compost the food waste on site through the program's sustainable operations initiative. Local charity Hearts and Hands of Dickson, TN served as the donation partner which helped to divert edible food from landfills. TDEC's Office of Policy and Sustainable Practices served as the FRC's Endorser and provided periodic trainings.

To learn more about food waste reduction, please visit: www.getfoodsmarttn.com

TENNESSEE SUSTAINABLE HOSPITALITY

Oakleaf Cottage

Chattanooga, TN (area) | Travel & Tourism

Oakleaf Cottage is an event space and wedding venue located in Trenton, Georgia in the greater Chattanooga area. Oakleaf Cottage sits on 32 acres and is ideal for smaller events of around 100 guests. Situated on Lookout Mountain in Georgia, Oakleaf Cottage recognizes their close connection to nature and the outdoors and strives to implement sustainable practices as a part of their events and weddings. In fact, Oakleaf Cottage is actively working with the GreenLight program administered by green | spaces in Chattanooga and is certified as a green venue. Some of their sustainability initiatives include energy conservation by using LED lightbulbs, water conservation by collecting rainwater and installing low-flow fixtures, and they have partnered with New Terra Compost to have all food waste rendered into useable compost.



WASTE REDUCTION

Oakleaf Cottage has an ambitious goal for their weddings – to only produce **one** bag of trash after every event. With such an ambitious goal, it was important for staff at Oakleaf Cottage to understand their waste stream generated by events, research how to best eliminate waste from that stream, and implement practices that prioritize reuse or recycling of products. Now, events use real plates and glassware instead of plasticware for serving food, food waste is collected and composted off-site, there is abundant recycling of glass, aluminum, cardboard, mixed paper, and plastic (1 and 2), and staff request that food caterers utilize reusable dishes rather than disposable to limit waste generated from catered food. For weddings, Oakleaf Cottage requires biodegradable materials, rather than non-biodegradable materials such as confetti, are used for send-offs. These materials include biodegradable confetti, seeds, leaves, or real flower petals.



Oakleaf Cottage is looking to constantly improve their practices to continue reducing waste generated from their events. For example, they plan to include fabric napkins in most wedding packages in 2022. For those weddings that cannot use fabric napkins, Oakleaf Cottage will use paper napkins with the intention to compost those napkins after they are used.

WATER & ENERGY CONSERVATION

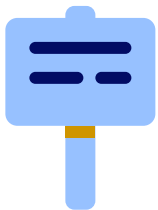


Recognizing that waste is not the only environmental burden associated with events, Oakleaf Cottage also implements practices that reduce their water and energy usage to promote environmental sustainability. To conserve water, Oakleaf Cottage has installed low flow water features (showerheads, toilets, and sinks) across their property. Also on the property, staff have installed drip irrigation systems to water landscaped features, which uses an estimated 30% to 65% less water than traditional irrigation systems. Of course, Oakleaf Cottage also prioritizes native plants which reduces the amount of water required for landscaping efforts. Finally, water is collected in a rain barrel to irrigate some plants on the property. Oakleaf Cottage has plans to expand the rainwater collection system directly into their drip irrigation lines.



The business has taken many steps to reduce their energy usage onsite. These steps include updating light bulbs – all but one! – to LED and only using lights during showings or active events, monitoring thermostats to note abuse of HVAC and adjust accordingly if needed, and setting the HVAC to 79 in the summer and 55 in the winter if spaces are unoccupied to reduce usage of the HVAC unit. Oakleaf Cottage also has installed occupancy sensors to automatically turn lights on and off strategically on their property to limit accidental unneeded lights on. Appliances at the property were also selected to conserve energy, including a tankless water heater, an energy efficient refrigerator, and dishwashers that conserve energy and water.

COMMUNICATION & EDUCATION



Along with their other initiatives, Oakleaf Cottage provides a welcome packet and planning guide to couples to support their ability to plan a greener wedding. Included in this packet is a page of Chattanooga Green-Light certified vendor and other advice for planning a wedding with a reduced environmental impact. By providing this information to couples, Oakleaf Cottage is lowering barriers to those who are interested in a green wedding. Oakleaf Cottage is also supporting their community by referring customers to other local businesses that have taken steps to be responsible environmental stewards.

Ruby Falls

Chattanooga, TN | Travel/Tourism

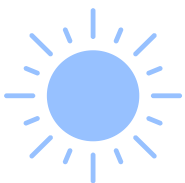
Ruby Falls receives over 500,000 visitors annually, coming to catch a glimpse of the tallest underground waterfall open to the public in the U.S. Now, reimagined venues at Ruby Falls represent a new chapter for the historic destination. An environmentally sustainable transformation, completed in 2018, involved repurposing the National Register of Historic Places 1929 Cavern Castle. The two-story, 13,000-sf building expansion and 4,000-sf outdoor venue addition was designed and constructed with health, wellbeing, energy efficiency, water conservation, and community access in mind. Highlights of the project include a new entrance and Ticket Atrium with expanded guest services, the Blue Heron Overlook, the Back Porch featuring seasonal open-air dining, Village Gift Shop, administrative offices, and the Ruby Falls Village Plaza. The project is LEED certified.



ENERGY CONSERVATION



Energy Efficiency: The building was modeled to be *more than 24% efficient in energy compared to a conventional building*. The energy-efficient envelope, low-E windows, LED lighting and controls, efficient HVAC system, and building automation system all contribute to this performance. To verify the energy-efficient design met Ruby Falls' project requirements and was effectively implemented, a third-party commissioning authority was engaged. The commissioning authority reviewed the design and coordinated systems installation and testing with the contractors, verified training of the building operators, and ensured that systems were functioning as designed.



Natural Light: Daylighting was integrated into the design approach with the controlled admission of natural light, direct sunlight, and diffused light. Daylighting was balanced with thermal issues such as winter heat loss and summertime heat gains. Daylighting helps create a visually stimulating and productive environment for building occupants while reducing building energy costs. It provides a direct link to the dynamic and continuously evolving patterns of natural outdoor illumination, strengthening the connection to nature.

WATER CONSERVATION



Low-Flow Fixtures: Water conserving plumbing fixtures were installed in all new bathrooms and break rooms. These fixture selections improved indoor water consumption by 38,287 gallons per year; *a 39% water use savings compared to a similar conventional building.*



Rainwater Collection & Use: Ingeniously placed under the Village Plaza is a modern rainwater collection and filtration system featuring two 8,000-gallon water tanks. Utilized for landscape irrigation, the system reduces water runoff, decreases contaminants that may otherwise enter the watershed and reduces stress on public water sources.

COMMUNICATION & EDUCATION



Digital Signs: In 2018, more than 500,000 guests visited Ruby Falls and learned how the attraction is protecting natural resources in the cave, above ground, and in the community. Information highlighting the sustainable features of the new venues are featured on digital sign boards around the property and on the Ruby Falls [website](#).

TRANSFERABILITY

The expansion project illustrates the role a strong sustainability vision, supported by clear goals from a comprehensive approach, has in fostering economic growth and positive impact on the community.

Project outcomes have been presented to the Sustainability Professionals of Greater Chattanooga, Southern Highlands Attractions (SHA), Center for Sustainable Business and Development, University of Tennessee College of Retail, Hospitality, and Tourism Management classes.

PARTNERSHIPS

The project was dependent in large part on an exceptional level of partnership with local and state officials, local utility providers (EPB and Tennessee American Water), and the Chattanooga Land Development Office. It also created an extraordinary collaboration between the Ruby Falls facility team and the general contractor (EMJ), and with the residents of Lookout Mountain. Local vendors are supported, and their products are sold at Ruby Falls.

TENNESSEE SUSTAINABLE HOSPITALITY

The Crash Pad

Chattanooga, TN | Lodging

The Crash Pad is a hostel located in Chattanooga, Tennessee. The building is LEED Platinum Certified and was the first hostel in the world to receive this level of certification from the US Green Business Council. The Crash Pad is dedicated to sustainability – one of their core values is to “be environmentally responsible by closely monitoring and actively pursuing ways to minimize [their] impact.” Among other initiatives, The Crash Pad has a green roof, solar panels, practices water conservation strategies including installing low-flow fixtures, and educates guests about sustainability initiatives through plaques located throughout the hostel. To support their community, The Crash Pad provides local goods including coffee, bread and pastries, beer and soap to guests. One of The Crash Pad’s sustainability initiatives is a green cleaning policy which outlines hygiene and cleaning practices that reduce environmental impact and promote the health and safety of guests and staff.



GREEN CLEANING POLICY

The first step to implementing green cleaning practices is to develop a policy and set of standards that outline how green cleaning will be accomplished. The Crash Pad has a robust “Green Cleaning Policy and Program Standards,” effective as of July 2011, through their contractor that establishes guidelines and sets standards for how cleaning The Crash Pad will be accomplished in a way that minimizes environmental impact and promotes health and safety of staff and guests. The major sections of the policy include goals, responsible parties, quality assurance control processes, cleaning products, cleaning equipment, hard-floor and carpet maintenance, entryway systems, hand hygiene, handling and storage of cleaning chemicals, use of chemical concentrates and dilution systems, vulnerable building occupants, staffing and training, and occupant feedback and evaluation of new technologies. The plan is multi-faceted and addresses many aspects of green cleaning.



The green cleaning policy relies on existing standards and protocols to inform procedures and products selected for use. Some of these existing standards and protocols include the US Green Business Council’s [EQc3.3](#) (“Green Cleaning – Purchase of Sustainable Cleaning Products Criteria”) utilized in LEED certification, the [Green Seal](#) list of approved products and the Carpet and Rug Institute’s [Green Label](#).

JULY 2021

The policy specifically mentions protecting vulnerable building occupants, including “pregnant women, children, asthmatics, elderly occupants, individuals with allergies, highly sensitive individuals and cleaning staff.” Strategies to protect these individuals include to use low or no volatile organic compound (VOC) cleaning products, cleaning after hours when most occupants have left the building, and cleaning regularly to reduce the presence of potential irritants.

CLEANING PRODUCTS



An important piece of the green cleaning policy is the section that outlines which cleaning products will be purchased and used on-site for hygiene practices and cleaning. The Crash Pad’s green cleaning policy strives for 60% compliance, based on cost, with the preferred products. Generally, the products included in the policy are those that are certified as environmentally preferred based on composition of the product, manufacturing processes, and the health and safety of humans. For example, the policy states that cleaning products including general purpose, bathroom, glass and carpet cleaners should be Green Seal certified. In another category, disinfectants, metal polish, floor finishes and strippers should be certified by Green Seal or ECOLOGO or meet maximum allowable VOC levels to reduce the risks associated with these products. In other circumstances, such as for hard floor cleaning, the policy is designed to use few or no chemicals and instead promotes practices such as dry mopping, vacuuming, and spot cleaning.

COMMUNICATION & EDUCATION



Critical to the success of a green cleaning policy is to inform and educate staff about the policy, including important safety considerations. The policy states that all personnel involved in cleaning and sanitation practices will receive regular training that will cover topics including potential hazards, how to properly dispose of or recycle cleaning chemicals, and dispensing equipment and packaging of materials. To minimize risks associated with these activities, all staff are trained on all topics regardless of their specific duties. The policy requires that all staff receive at minimum 15 hours of training each year. Eligible training activities include reviewing the Green Cleaning Policy and Program Standards document, reviewing eligible cleaning products (for example, those that are Green Seal compliant), reviewing chemical hazard communications or Material Safety Data Sheets, and learning about ergonomic precautions and proper lifting techniques.