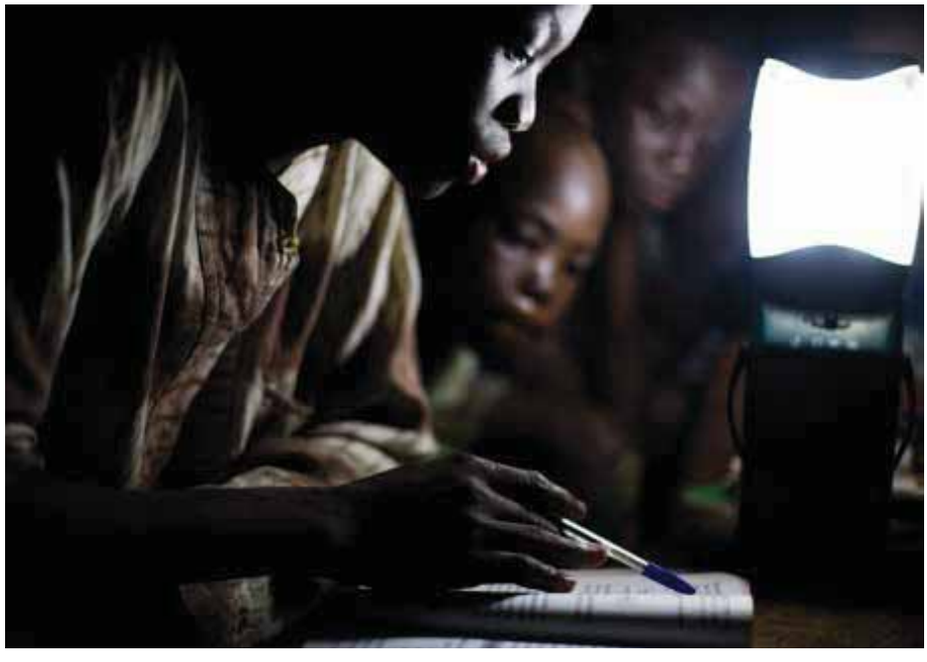
Power to the Kids

Energy-generating playgrounds harness the energy produced by children's play and convert it for wider community benefit

By Danielle Taylor

On many playgrounds, the energy produced by children spinning the merry-go-rounds or powering the teeter-totters just translates into friction that wears down the equipment over time. But some innovative companies are developing ways to capture this kinetic energy and put it toward useful purposes for the surrounding community. The engineers who pioneered this technology hope it spreads so playgrounds can be legitimate sources of power in more communities around the globe.

Since 2008, a Utah-based nonprofit called Empower Playgrounds Inc. (EPI) has established 40 electricity-generating merry-go-rounds throughout the West African country of Ghana, with 10 more planned for 2013. In the off-grid Ghanaian communities where EPI has built playgrounds, most children have to work after school on family farms or complete other chores until after dark each day when they can no longer see well enough to complete their schoolwork. EPI playgrounds, produced in partnership with Playworld Systems, are built primarily to supply renewable battery-stored power to lanterns, which the children can bring home at night to help them further their education. A love of play along with a strong will to learn keeps the lights burning night after night. In addition, each installation, which costs about $10,000, comes with a science kit that helps teach the students about the physics involved, providing multiple lessons from a system they can experience for themselves.

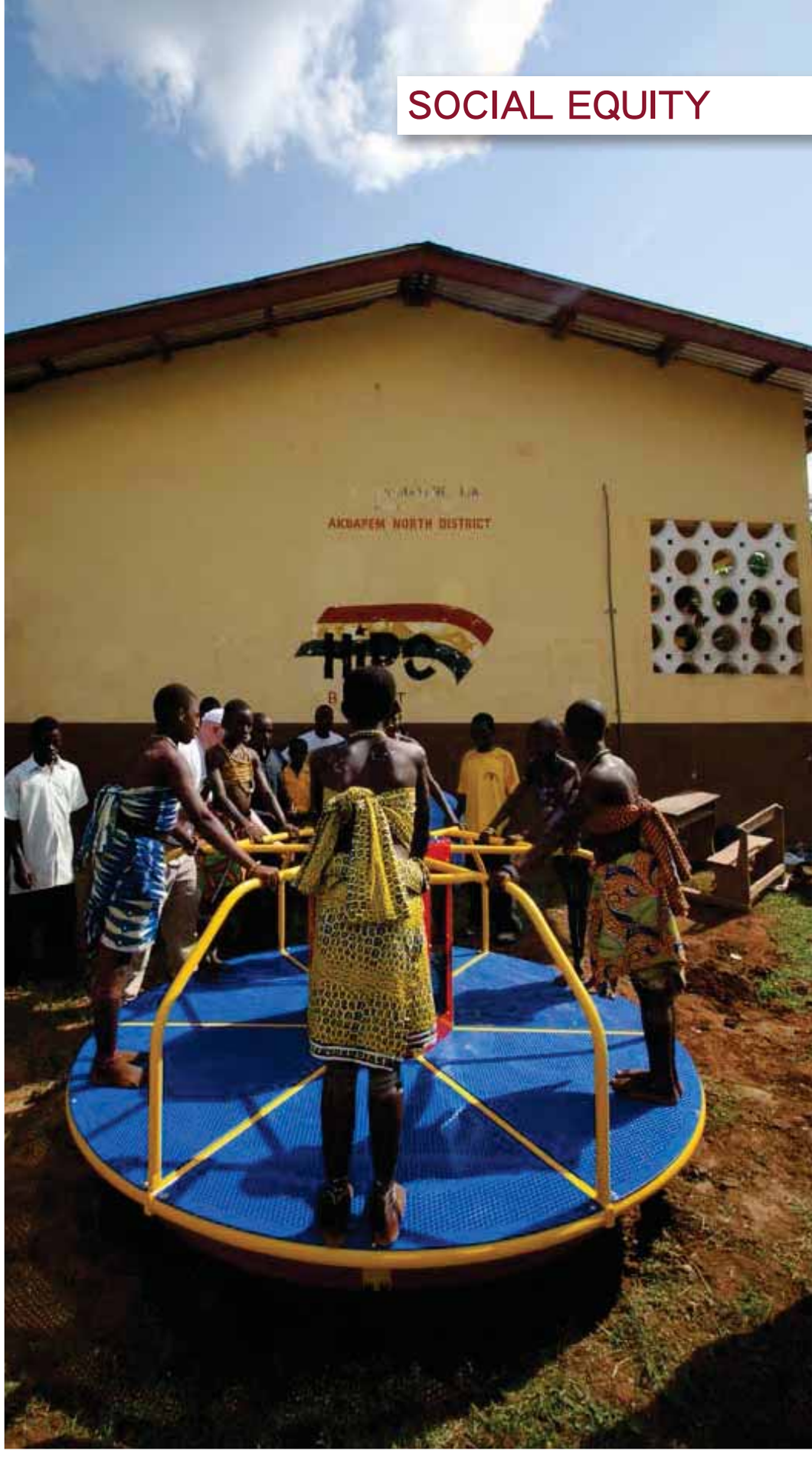


Ghanian schoolchildren study at night using a lantern powered by their play.

"We have seen high levels of use with the systems, and they become an integral part of society as the village takes ownership of the program," says EPI CEO Chris Cannon. "So far, all of our installations have been in Ghana, but we are beginning to explore partnerships with other nonprofits and organizations that would include other countries with similar needs."

"We believe play and education are both vital to the human experience, regardless of geography, age, or ability," adds Matthew Miller, CEO of Playworld Systems. "We're ecstatic to work with Empower Playgrounds to help enrich the lives of others in such a profound and innovative way."

Other charitable groups around the world have experimented with similar projects in Africa, though none to the same extent as EPI. A company called PlayPumps rolled out a merry-go-round that pumped clean well water for a few test communities in South Africa, but the organization has since closed its doors due to impractical long-term planning. Similarly, United Kingdom-based PlayMadeEnergy piloted an energy-generating seesaw, dubbed



Empower Playgrounds has established 40 electricity-generating merry-go-rounds throughout Ghana.

the Energee-Saw, and successfully installed a few prototypes throughout Uganda and Malawi. Unfortunately, due to the discontinuation of a key third-party product component, the company halted operations in 2011.

However, other companies throughout the world have had greater success. Last year in the United Kingdom, The Great Outdoor Gym Company (TGO) built a concept outdoor fitness center at a park in the East Yorkshire city of Hull that helps demonstrate the energy it takes to power modern society. As the first TGO Green Energy gym, the Green Heart at Shaw Park features four energy-generating pieces of equipment—a hand bike, a cross trainer, a fitness bike, and a recumbent bike—that provide enough energy to power its own lighting, extending the hours the gym is available for use. Although the prototype cost $100,000 to install, subsequent systems may cost as little as $40,000. This January, TGO launched a new series of outdoor gyms, named "e gyms," based on the Shaw Park pilot.

"The philosophy behind TGO's drive to bring these products to the market stems from the energy imbalances in the world," explains Georgie Delaney, TGO's creative director. "In the west, we tend to have food in abundance and then have to work it off in a gym. Traditionally in an indoor gym, this consumes even more energy through the electricity used for the equipment to run, plus the heating, lighting, TV, etc.

"TGO realized that we have this abundance of human energy all around us, with people trying to keep fit," Delaney continues. "TGO designed the TGO Green Energy gyms and now e gyms to try and harness some of this energy, generating the energy through exercise and then using it for good in other areas."

Closer to home, U.S. nonprofit Global Inheritance has developed a traveling energy-producing playground that helps users understand just how much energy their daily lives require. With gliders, human hamster wheels, an energy-capturing dance floor, and more, the Energy Playground makes appearances at schools, festivals, and workplaces around the world, using the generated electricity to power everything from snow-cone machines to concert equipment.

Offering much more than just electricity, from fitness opportunities to educational lessons to pure play, these energy-generating playgrounds have the potential to take off and affect the lives of people around the globe. But the ones that are in place now are clearly already making a significant difference in the lives of their users. Taylor Brown, EPI's director of media, relays a conversation she had with a young student in a community in Ghana. "Once, when the merry-go-round needed a bit of maintenance, a young woman, about 12 years old, approached me with concern and asked, 'My sista, we would like to know....When will the merry-go-round be back so that we can have light again?'" ✱

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NETWORK BUZZ

NRPA's Online Community Forums Discuss Trends in Adult Sports

"What's hot and what's not in adult sports in your area, and how are you accommodating those changes?"

In Bend, we are responding to a wave of pickleball players. In the last two or three years, some 300 seniors have formed an association and have exhausted all available sites. We are now working with their association to provide space for new courts. The association will contribute to the development of new courts.

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As far as what's popular and getting bigger in our area, we have seen trends with the following:

1. Wiffleball: A great sport that anyone can play! You can find a baseball field and play three games on one field. Round-robin weekend tournaments are easy with cheap trophies! Also, who wouldn't want a giveaway wiffleball tournament shirt?
2. Kickball: This game has actually plateaued in our area. There have been a lot of kickball leagues springing up, which have turned into stepping stones to other adult leagues. Leagues such as WAAR and WAKA have kept people outside, and it's a great way to meet new people and form a little community!
3. Dodgeball: Also a game that has reached sort of a plateau. Still a very popular sport that's normally played indoors on a basketball court, or outdoors on a tennis court. Very popular and a great workout for some!
4. Inner Tube Water Polo: A sport that's in the underground phases and making its debut soon! The game is played much like water polo, but each person, instead of swimming, plays floating on a round inner tube! Sound fun? It's a blast!

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What's hot is shortened or abbreviated seasons. We at Morale, Welfare & Recreation (MWR)-Naval Station Great Lakes, Illinois, are trying to provide non-traditional leagues which don't commit the players/participants for 12 to 16 weeks but maybe only four, six, or eight weeks. Our core customer is a transient population (sailors) and for our more permanent population, they only have so much time and also need time for family and other activities in their life!

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Network Buzz appears monthly in Parks & Recreation. *Questions are posed to members of NRPA Connect, the interactive social media section of the association's website. It's a convenient and effective way for NRPA members to connect, collaborate, and communicate. For more information and to join one of the site's many groups, visit www.nrpa.org/membership/NRPA-Connect-Online-Community. Topics are always welcome: email dtaylor@nrpa.org.*