

Merry-Go-Round Turns Kid Energy to Clean Energy

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Empower Playgrounds

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If only we could use kids to fuel our homes and cars so they'd be useful for something. Wait, that came out wrong. But for [Empower Playgrounds](#), it came out RIGHT:

A non-profit called Empower Playgrounds has developed a way to harness the energy of kids playing in order to provide electricity to poor rural villages in Africa. The organization is making merry-go-rounds that have a clean tech twist — onboard kinetic energy harvesters that store that energy in batteries for later use ...

Founder Ben Markham says that a healthy 8- to 12-year-old generates about 150 watts of energy per hour whilst vigorously playing. All that energy is stored into battery packs, which are then used to power advanced LED lanterns donated by Energizer. At schools in Ghana where Empower has provided equipment, kids split into lantern groups and study together at night where before they couldn't study past sunset. The lanterns last 50 hours on each charge

Most kids in Koni Kablu, Ghana, have to work on the family farm during daylight hours, and can study after dark only if they're lucky enough to have a kerosene lantern. As a result, none of the children from the town have reached the high school level. As Empower founder Ben Markham says, "It wasn't lack of capability. These kids were capable, they were bright, they were inquisitive. The opportunity just wasn't there." But with Empower Playgrounds, they can use the nearly inexhaustible natural resource of childhood enthusiasm to generate their own light.

See video re [Background of Empower Playgrounds](https://youtu.be/VfrKpMKo-j8) <https://youtu.be/VfrKpMKo-j8>

The playground system costs about \$10,000. If you break it down — after kids' hyperactive playing gets transformed into energy storage, and the kids have light to study by — the lantern light works out to about \$10 per year per kid. Not bad considering they used to be at the mercy of the sunset.
