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‘We want to create generational wealth’: Michigan battery recycler sees promise in training programs



Ellington Ellis, co-founder and managing partner of Global Battery Solutions.

As the co-founder and managing partner of [Global Battery Solutions](#), headquartered in Holland, Michigan, Ellington Ellis handles electric vehicle batteries that are damaged or degraded in an environmentally conscious manner.

As a fourth-generation ordained minister, he is also deeply committed to making a positive impact on disinvested communities. He views the goals as complementary, drawing on his educational training in theology and a lifelong love of technology.

‘CRADLE TO CRADLE’ EV BATTERY SOLUTIONS

Global Battery Solutions, established in 2014, creates energy storage technology solutions, counting major corporations like General Motors, Volvo, and Toyota among its clients. The company is engaged in four processes in working with damaged or spent EV batteries: repair, remanufacture, repurpose, and recycling, in what Ellis calls a “cradle to cradle” approach.

Repurposing EV battery packs for less demanding power sources extends their useful life for several years. However, at some point, degradation progresses to the point where electric car battery cells or modules can no longer be repurposed. In some instances, spent EV batteries are simply dumped into landfills. According to [a 2019 UN report](#), the recycling rate for e-waste across North and South America was only 9%.

However, what often passes for EV battery recycling is little more than dumping e-waste [overseas](#) to developing countries. When actual recycling is done, it is customarily conducted in a pyro-based process, which is environmentally hazardous.

By contrast, Global Battery Solutions sends out components for recycling by a far less toxic water-based process that recovers 95% of the battery's valuable raw materials: cobalt, lithium, and nickel aluminum, which can be used in new EV vehicle batteries, Ellis said.

JOB TRAINING, INNOVATION, AND WEALTH BUILDING

Along with his work with Global Battery Solutions, Ellis is engaged with what he calls wealth building

programs, executed through job training partnerships with organizations in BIPOC communities in cities across the country, including Los Angeles, Detroit, and Muskegon, Michigan. Ellis is also collaborating in job training with community groups on Chicago's West Side and Bronzeville on the city's South Side. Training programs would likely start with relatively small cohorts of approximately 50 trainees. However, with additional funding, training could be available to many as 250 people per session, Ellis said.

"I keep using the terminology 'wealth building' because we just don't want to create jobs," Ellis said.

"We want to create generational wealth. And that will only happen through what we call input into the innovation ecosystem."

While many jobs in the tech sector require advanced training and extensive skill sets, Ellis is confident that anyone with the motivation to learn and work could be successful in the types of positions involved with his endeavors. Basic job training would only require six months and would follow a similar model as the [Global STEM Toolkit](#), an educational program designed for educators working with young people, according to Ellis.

“We will train them at the base level, so they will understand how to be innovative. And it starts with remembering. If they can learn to play basketball or golf, you can learn what we’re talking about. [The training] focuses on quantum computing and molecular engineering and artificial intelligence at the very base level, to make it so plain that even the GED student or the non-GED student will understand.

“We’re going to take that simple [process] and make it even simpler, to be able to teach mathematics, be able to teach the periodic table, be able to teach the standard model of physics, to be able to teach artificial intelligence at the very simple base level.

“After they remember it, then we teach them how to understand what it is that they learn and apply it. Once they apply, they can analyze. Once they analyze, they can evaluate. And then at the top of the pyramid, that’s where creation happens,” Ellis said.

INNOVATION AND LIVING WAGE JOBS

Individuals who complete job training programs will be eligible for jobs at Global Battery Solutions or with suppliers or vendors for the company. Workers would be qualified to fill a variety of positions — with living

wage salaries of approximately \$40,000 and up, Ellis said.

“They’ll be hired as technicians. Every engineer needs a technician. They may not have a degree. They probably couldn’t get an engineering job, but they will have the discipline to assist engineers. The other job would be technician assistant. [Some] people may not be able to reach the level of being able to work alongside an engineer, but they can do all of the assistant work.

“And in that process, they will be innovative. They’re working in advanced manufacturing where they’re learning how to work with robots and compute. They’re not the engineer developing the robots, but they’re technicians and tech assistants to the engineer,” Ellis said.

INNOVATION AND RESILIENCY

Ellis previously worked with Sybesma Electronics, also based in Holland, in its battery servicing operations. Global Battery Solutions purchased Sybesma Electronics in 2018.

During the Obama administration, companies like Johnson Controls International, which had its Power Solutions division based in Holland, received more than \$299 million in federal funds from the American Recovery and Reinvestment Act in 2009 for the production of lithium-ion batteries. As they began to face challenges in the servicing of lithium-ion batteries, Johnson Controls and others turned to Sybesma Electronics for solutions.

Ellis views his pursuit of the combined goals of extending the reach of Global Battery Solutions and expanding community-building collaborations with BIPOC communities as doing well while also doing good for both the environment and disinvested communities.

“We just want to be able to create innovators. I think that’s what we have to do in this highly advanced technology ecosystem that we’re now living in. And so, creating wealth for the BIPOC community is our passion and what we intend to do, because that is not only good for social welfare, but it’s also good for the bottom line,” Ellis said.