

Environmentally-Friendly Solar Based Technology Manufacturing



Stephen Katsaros - CEO

About Nokero International LTD

Nokero (short for "No Kerosene") designs, manufactures and collectively distributes safe, affordable, and environmentally-friendly solar based technologies. Our solar lights and solar battery chargers are high-quality and low-cost, eliminating the need for harmful and polluting fuels around the world.

Interview conducted by: Lynn Fosse, Senior Editor, CEOCFO Magazine

CEOCFO: Mr. Katsaros, what is the concept at Nokero?

Mr. Katsaros: Nokero is a solar light manufacturer that delivers its products to the 1.3 billion people in the world who live without electricity.

CEOCFO: How does it work?

Mr. Katsaros: Our main product is a solar light bulb that is the size and general shape of a traditional light bulb. What is different about it is it requires no AC electricity. They have a solar panel, a battery, and LEDs that allow it to be charged during the day with energy stored in the battery, and then at night, the battery powers the LEDs.

CEOCFO: Why not use that everywhere?

Mr. Katsaros: There is one out of every five humans that live where they have no electricity. There is very limited grid and no power generation. These individuals will never have access to what you and I know as "the grid". Here in the United States in the 1940's with the New Deal and F.D.R, the real electrification projects, we have such amazing access to electricity that it is hard for us to imagine how much of the world lives without electricity. To answer your question, I would say, if you have access to the grid, just flipping a light switch on and running a grid based lighting system is much more convenient than running solar light which requires you to bring it outside the charge during the day and bring it inside and run at night.

CEOCFO: What challenges were there to put the product together?

Mr. Katsaros: The biggest challenge we have had is selling into countries where there is very low income. Our typical customer has about two dollars per day of income and there are no distribution channels. There are no stores; there are no traditional routes like we would know for selling the product. From a supply side, designing and manufacturing the product has been easy for us. While my background is as an engineer and we know how to build stuff, it is just hard to figure out how to sell it into these markets.

CEOCFO: How are you reaching potential customers?

Mr. Katsaros: Today, half of our products are sold to the aid channel and half are sold to the paid channel. By aid, we mean nongovernmental organizations and governments that look after the very poorest of the poor and they basically hand these units out. The other half are sold to customers that then mark them up and resell them.

CEOCFO: Is there any competition?

Mr. Katsaros: Absolutely there is competition. At the highest level, kerosene is our competition. Our name is derived from "no kerosene" because thirty eight billion liters of kerosene is burned every year in makeshift lamps, which equates to thirty or forty billion dollars a year. That is at the highest level the competition. More specific solar light is a sector that is growing very fast. This is emerging as an opportunity. When we first got in, I would say there were just a few dozen product suppliers in this category and now there are literally hundreds if not thousands of people creating various versions of solar lights that do not have the features and benefits and patented technology that we have, but nonetheless, they are competitors.

CEOCFO: *How are you able to stand out? How do you get the average buyer to notice and understand what you have is a superior product?*

Mr. Katsaros: I think that our whole sector has a big job of educating people about the dangers of kerosene and why solar lights are an appropriate light source. The benefits that Nokero has are centered around our iconic design which looks like a light bulb, and we have patents that are either pending or issued where 60% of the population lives and we have enforced these patents in places like China. Our iconic design is memorable, it is identifiable, people know what it is right from the first glance, and that is something that none of our competitors have. They have various shapes and designs that do not really touch back to what the use is, which is lighting.

CEOCFO: *Do people really need to be educated that kerosene is dangerous?*

Mr. Katsaros: Yes, actually they do. It is hard to believe, but even here in the United States, kerosene used to be used to clean out wounds and it was used to cure all kinds of ailments and people thought this was real gift, a quote on quote at that time, "modern medicine." At that time, we were burning whale oil. You just turn back the clock in these countries where we work and it is exactly what we experienced here in the United States 150 years ago.

CEOCFO: *With such a large potential customer base, how do you decide where to focus your efforts? What goes into the decision process?*

Mr. Katsaros: That is a great question and it is the key pivot that all startups go through. At some point, they stop doing everything for everyone at any time and then they focused on what was working. We have some great success stories about repeat clients and we are actively trying to narrow down our focus and interest to the things that are working most. In one case, this is a government that is making large purchases, and in another case, it is a reseller network that is literally working door to door, selling products through a trusted network much like how Avon and Tupperware and other direct sales networks have worked.

"We are moving more towards a business solution to poverty reduction. In watching Nokero and its simple products, people can see this trend in action. We are a for-profit social enterprise." - Stephen Katsaros

CEOCFO: *Would you tell us about your mobile phone charger product?*

Mr. Katsaros: As we move in this industry, what we are most passionate about is eliminating the use of kerosene for light. This has led us to other market opportunities. For example, seven hundred million people have mobile phones but do not have electricity. They get their phones charged 50 cents or a dollar twice a week in a village that might have electricity where they have gone to a trading town or something. Therefore, we have mobile phone charging products as well.

CEOCFO: *How is business these days?*

Mr. Katsaros: Things are fantastic! We have this amazing team here in Denver. We've got some clarity around our brand and what we are doing and we are going to be rolling all of this out over the next three to six months. Our impact is going to be at least double what it has been in the past four years, over in the next six months. It is great timing.

CEOCFO: *Would you tell us a little about the manufacturing process?*

Mr. Katsaros: I have been to China 43 times over my career, I have manufactured many products there and we have partners that are based there, so we work with two different contract manufacturers that we are very close to. We ramp up as needed, producing as many as ten thousand lights per day, which is what we have done in the past and things are pretty smooth there. With the quality control systems that we have in place and the logistics on the back end, it is all working.

CEOCFO: *What surprised you through this whole process?*

Mr. Katsaros: What surprised me was how you might have the most elegant, appropriate and affordable solution, and that does not equate into sales right away. There is a whole bunch of extra business support that you have to give to people in patience and that surprised me. Other things that have surprised me are just how doing good in the world has really become a very useful marketing tool. I think that our products are meant to just help people and that has resonated with all types of individuals who retell our story and publications that want to cover what we are doing because they just think it is a noble effort. That has surprised me, just how much coverage we have had.

CEOCFO: *What might be different a year from now at Nokero?*

Mr. Katsaros: We will have an appropriate amount of staff to focus on our individual departments and tasks. Right now we are still in that startup mentality where everyone knows how to do everything and we are trying to break that habit and be a little more organized about workflow. One year from now, that will be the case.

CEOCFO: *How are you handling that challenge of letting go?*

Mr. Katsaros: There are a couple things. We are going to create a different facility where the engineering occurs, so the sales and marketing is separate from the engineering. I will be part of that engineering group. There is a little bit of a physical separation as well as bringing in some key staff to operationalize the business.

CEOCFO: *Put it all together for our readers. Why pay attention to Nokero today?*

Mr. Katsaros: The enterprise approach to poverty reduction that Nokero is leading is the model to improve the world. Aid projects and programs have their time and their place, but we are moving more towards a business solution to poverty reduction. In watching Nokero and its simple products, people can see this trend in action. We are a for-profit social enterprise, scaling this thing with the profits that we have earned, rather than constantly asking for donor funding to grow our business. I think that is why readers would like to follow Nokero.

BIO: From his earliest days, Stephen Katsaros' life has been filled with innovation. A mechanical engineer with a penchant for competitive ski racing, Steve began his colorful career with the invention of several commercial products for the ski industry. His first brush with "impact inventing" came in 2002 with RevoPower, a motorized wheel for bicycles. In early 2010, he came up with another bright idea – a simple, portable solar light bulb with the potential to revolutionize life for the 1.4 billion people in the world who live without access to electricity. Five months after his first sketch, Steve launched Nokero, a for-profit company with a mission to provide affordable solar technology solutions for poor, off-grid communities around the world. Stephen has a BS in Mechanical Engineering (BSME) from Purdue University, is a patent agent registered with the US Patent and Trademark Office, and was a non-degree seeking student at the Bard Center of Entrepreneurship at the University of Colorado from 1998-1999. He received the B.F. Goodrich Collegiate Inventors Award in 1995 and was recently awarded the 2012 Outstanding Mechanical Engineer Award from Purdue University.



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