

Solar Recovery In Haiti: Building Tough Solar Cities

[Alex Aylett](#), 21 Jan 10

Last week's quake cut electricity to most of Haiti's capital. Without power, residents and aid workers are struggling to maintain basic communication, lighting and water purification systems.

CBC News had reports of officials queuing to recharge their mobile phones. What power there is comes from gas powered generators, but [diesel is running low](#).

In the aftermath of the quake, Reuters reported that at night the only lights visible over the city came from [solar powered traffic signals](#). Now there is a push to roll out more solar. But beyond the emergency, renewables are key to making cities more resilient to natural disasters.



Solar in the Recovery

Solar setups are quick to install, mobile, and relatively inexpensive compared to the price of rebuilding a damaged electricity grid. They can also be incredibly robust. [Alan Doyle](#), a science editor at MSNBC, recently wrote that a single solar water purification system, recovered from the rubble by the Red Cross, is now purifying 30,000 gallons (over 110,000 liters) of water a day.

[Sol Inc](#), a US-based solar street lighting company, has sent a first shipment of lights for roadways, food distribution, and triage sites. This may sound mundane, until you imagine trying to perform street-side surgery or find family members in the dark. The LED lights can also withstand hurricane force winds – no small thing in a country that has also recently been hit by tropical cyclones. Sol Inc has promised [to match donations](#) for people wanting to contribute to the program.

Communications are another crucial need being met by solar. China's ZTE corporation has donated [1,500 solar cellphones](#) and 300 digital trunking base stations. The same technology was used in China when an earthquake hit the Sichuan Province in May of 2008. [A similar project](#) is being set up by a group from Holland.

Renewable energy in Haiti is not a new. Walt Ratterman, CEO of non-profit SunEnergy Power International was working on the electrification of Haitian hospitals at the time of the quake. He is [currently still missing](#).

Sun Ovens, another non-profit, has been working in Haiti for 11 years. Their solar ovens can bake, roast, boil and steam meals. They also give families an alternative to charcoal which is

both costly and the root cause of much of Haiti's deforestation. They currently have one commercial-sized oven already up and running in Port-au-Prince capable of cooking 1,200 meals a day. A larger shipment will be sent out at the end of the month and they too are [accepting donations](#).

Building Tough Solar Cities

But the role of renewables can go far beyond this initial recovery period. People are talking a lot about the possibility that this might be an opportunity to rebuild Haiti on a more solid and equitable footing. [Some](#) are more optimistic than [others](#). But if there is one small area where this might be true, it is energy infrastructure. Those solar traffic signals, still cycling through their colors over the streets of Port-au-Prince, are proof of the advantages of doing things differently.

As the rebuilding begins, expanding the role of renewables in Haiti could make it more resistant to the impacts of future natural disasters than many of its African neighbors. It would also be an affordable way to increase access in a country where -- even before the quake -- only 25 percent of the population had regular access to electricity. All cities are vulnerable to the disruption of a centralized energy grid. Think New Orleans, or the 1998 Ice Storm in Quebec that left Canadian families without power for weeks in sub-freezing temperatures.

"Real" Electricity

In some circles there is the perception that solar energy is somehow a second rate power supply. I've heard people refer to grid delivered power as "real" electricity. As we look to a future where extreme weather events are increasingly likely, I'd say in many cases it is actually the other way around. As new electricity systems begin to go up in Haiti, they will help to support the difficult work of recovery and rebuilding.

As well as helping in any way possible, now is a good time for us to start thinking about the ways that renewable energy could make our cities more resilient to similar disasters.

Image credit: [National Geographic](#)

This piece originally appeared on Alex Aylett's blog, [OpenAlex](#)