

Carbon emission restrictions give way to exciting off-grid innovations

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Constraint tends to lead to increased creativity. In the case of the [global movement to reduce carbon emissions by up to 70% by 2050](#) this principle proves true as well. With last month's celebrated Paris agreement on climate control, there is more attention than ever on industrial innovations moving towards sustainable, carbon-reducing industry innovations. There is no doubt it is an exciting time of change, exploration and invention.

Many are focusing on the big players in global movement to reduce carbon emissions such as mass manufacturers and governments. But if we are really going to keep the global temperature from rising above the 2°C goal, we are going to need a wide spectrum of solutions to lessen our carbon footprint. This includes invention of new technologies, business models and off-grid solutions that require less carbon to operate.

For example, an entire new market, carbon credit trading, has boomed in recent years due to the efforts to reduce the overall amount of carbon released into the atmosphere. Carbon credit trading, also known as carbon offsetting, is the practice of businesses financially supporting renewable energy projects in exchange for credit to release carbon emissions. Carbon credits are sold in metric tons of carbon dioxide and acceptable projects for funding range from forest protection to cooking solutions for low income areas that reduce fuel dependency. Other common projects include [wind power farms, agriculture and capturing methane from landfill gas](#).

A company that is using carbon credits in big ways is [Chevrolet](#). Chevrolet has committed to investing up to \$40 million over the next few years into projects to reduce up to 8 million metric tons of carbon dioxide. Part of their initiative also includes purchasing and retiring carbon credits from K-12 schools and universities, their goal is to retire up to 500,000 carbon credits through their [Campus Clean Energy Campaign](#).

Alternatively, we may see a trend of forgoing the carbon credit trading market and into creating buildings and business that have a net zero carbon output. [Apple's new "spaceship" headquarters](#) may be just the start of an ultra efficient building trend.

Maybe every business isn't able to re-create their headquarters to the same degree Apple is doing. But that doesn't mean each business can't be making changes that will offset their carbon dependency.

We have been thrilled to discover several companies who are innovating their systems by offering off-grid products or services that are aimed at reducing carbon footprint. Below we have highlighted a few of these companies and their solutions for lowering carbon emissions.

[Bigbelly Solar](#): It's likely a trashcan wouldn't be one of the first things to come to mind when thinking of invention and innovation, but Bigbelly is changing that. Bigbelly manufactures municipal trashcans that are so much more than just trashcans. They run on off-grid 20W solar powered systems. One of the greatest features of Bigbelly trashcans is their trash compaction, which enables them to hold up to 5 times as much trash as a normal trashcan. This means that collection trucks need to come less frequently to save on fuel costs and emissions.

[Go Power!](#): Go Power! offers many solutions for taking applications off-grid and utilizing solar power in place of fuel in truck fleets. Using a solar panel mounted to the top of the truck along with a solar charger and inverter, Go Power! systems offer the ability to power AC and DC loads without idling for work trucks and emergency or military vehicles. The cumulative effect on large fleets significantly reduces fuel consumption and carbon emissions.

[Clinic in a Can](#): These mobile, customizable and sustainable clinics are changing how health care is conducted in rural areas. Clinic in a Can health centers are built into cargo containers and have solar panels mounted to the top to supply their energy. They can be dropped nearly anywhere, whether in rural areas or in areas of recent natural disaster. Clinic in a Can went into business in 2002 and has since provided much needed medical equipment and facilities in Haiti, Sierra Leone, Nigeria, Kenya, South Sudan and the Philippines.

Have an interesting off-grid application that reduces carbon footprint? We'd love to hear about it! Contact us at: marketing.na@phocos.com