



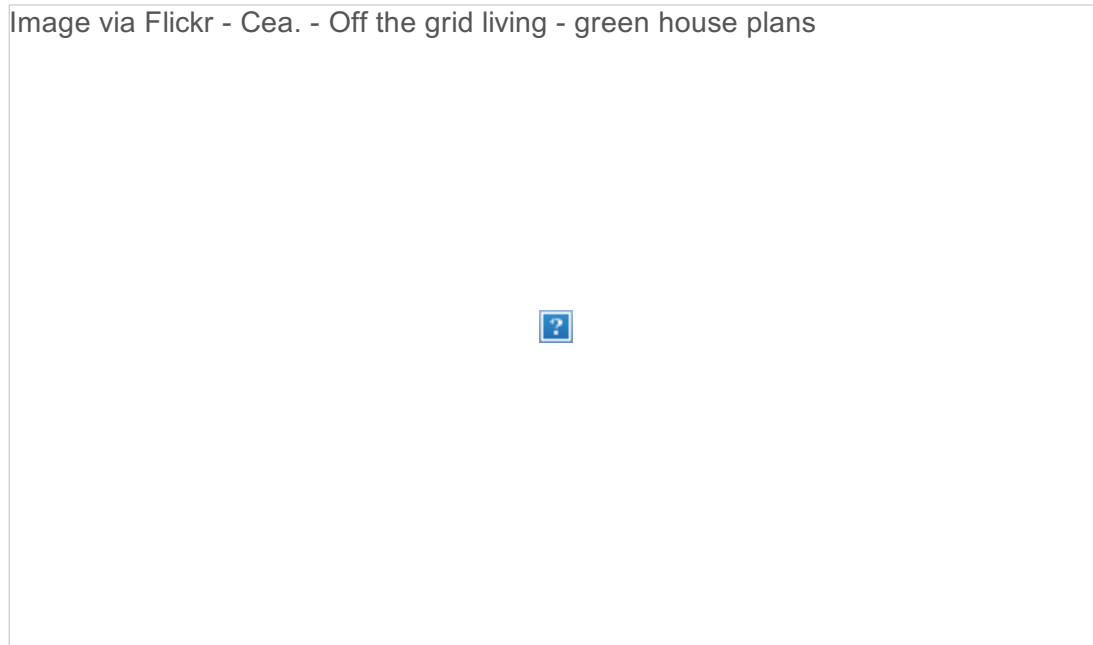
The Blog



What's Involved in Developing an Offgrid Green House Plan?

Posted on 15. Oct, 2012 by [Maryruth Belsey Priebe](#) in [Articles](#)

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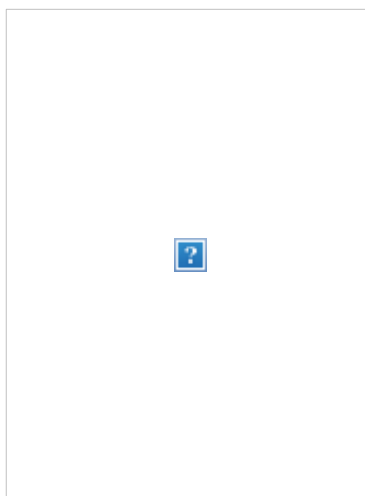
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The earth is warming faster than scientists had calculated, and wildly fluctuating energy prices have many people on edge about the future of utility costs. Going offgrid at home can be a great way not only to reduce your energy bills, but also to shrink your carbon footprint. Consider these statistics on greenhouse gas emissions generated by the average home and what it costs us:

- **Fossil fuel combustion accounts for 94.4% of CO2 emissions in US[i]:** The average American produces 18 metric tons of CO2 emissions per year.[ii] That's about the same as emissions produced by three cars on the road for a year.
- **Each household spends \$2,000 on energy:** Households in America accounted for 22% of CO2 emissions from fossil fuel combustion in 2010;[iii] 71% was through electricity consumption for lighting, heating, cooling, and operating appliances; 29% was from consumption of natural gas and petroleum for heating and cooking.[iv] The average amount spent on energy by household in America is \$2024, which varies by state based largely on heating costs.[v]
- **Vehicle fuel costs over \$2,000/year:** Americans spend an annual average of \$8,293 per family for transportation.[vi] Of that \$2,655 is for gas and motor oil.[vii] The average vehicle emits 5.1 metric tons of carbon dioxide per year.[viii]

Converting to an offgrid existence can be incredibly effective for reducing your annual home energy bills, but also your annual vehicle fuel bills if you're able to use an electric vehicle powered with renewable energy. Either way, going offgrid can also be tremendously beneficial for shrinking your carbon footprint. So what's involved in considering an offgrid [green house plan](#)?



1. **Have a home energy audit:** Have a professional home energy auditor evaluate your home to determine your current energy consumption and establish a baseline. You'll use this information to determine how much renewable energy you'll need for an offgrid existence. Use these sites to get information on home energy audits [in the US](#) and [in](#)

Canada.

2. **Reduce use and make retrofit/efficiency upgrades:** Generally speaking, it's best to reduce your energy consumption in order to limit the quantity of energy you require at home and for transportation. This will not only reduce the amount of energy you need to generate, it will also save you money in the size of renewable energy system you require. The easiest way to determine this is to pay attention to the recommendations of your home energy auditor or to have a professional evaluate your green home plans to determine energy consumption and how you can be more energy efficient.
3. **Install a renewable energy system:** Installing your own system is the cornerstone of going offgrid as it will allow you to generate some or all of the energy you need for daily household energy requirements as well as your vehicle if possible. You'll size your system based on your initial calculated energy requirements less any improvements you make. There are several renewable types of energy to consider whether you are starting out slowly or planning to get off the grid completely. You will need to do your research to find out which option, or combination of options, is the right fit for your location and needs. Find out more: [solar](#), [wind](#), [micro hydro](#), [geothermal](#).
4. **Access rebates:** Check for [energy-saving tax credits, savings, and rebates](#) by State to find out what resources there are to help you in your quest to go offgrid.

If you're interested in learning more about offgrid living, check out [Off-Grid](#) and [Home Power](#).

Images via Flickr: [Cea](#). and [Richard Masoner / Cyclelicious](#)

[i] *U.S. Greenhouse Gas Inventory Report*. (2012). Retrieved from US Environmental Protection Agency:
<http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html>

[ii] *CO2 emissions (metric tons per capita): United States*. (2011). Retrieved from The World Bank: <http://data.worldbank.org/country/united-states>

[iii] (U.S. Greenhouse Gas Inventory Report, 2012)

[iv] (U.S. Greenhouse Gas Inventory Report, 2012)

[v] *Residential Energy Consumption Survey data show decreased energy consumption per household.* (2012). Retrieved from US Energy Information Administration: <http://www.eia.gov/todayinenergy/detail.cfm?id=6570>

[vi] *Consumer Expenditures – 2011.* (2012). Retrieved from US Bureau of Labor Statistics: <http://www.bls.gov/news.release/cesan.nr0.htm>

[vii] (Consumer Expenditures – 2011, 2012)

[viii] *Greenhouse Gas Emissions from a Typical Passenger Vehicle.* (2011). Retrieved from US Environmental Protection Agency: <http://www.epa.gov/otaq/climate/documents/420f11041.pdf>



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