5 DIY Ways To Power Your Home During Floods

As weather patterns continue to shift, there is no escaping the fact that massive floods are becoming more common. Especially now, in the spring, when snow begins to melt and they are likely to happen even more than in any other time of the year.

While flooding may be a common event in some parts of the world, other areas are now becoming aware of several problems related to generating electricity during and after a flood occurs.

Living in a relatively dry place, or one that is not known for floods, won’t keep you away of trouble. Just take a look at the weather reports in 2015 alone for Texas, Kansas, and other areas that have no major history of the kinds of flooding they have had to deal with.

If you know how to generate electricity in a flood you are not stuck trying to use devices and methods that will fail, nor electrocute you because the devices cannot be safely used in this type of situation.

What to Beware Of

After the floods, some problems will impact how you generate electricity and the kind of materials you can use for this purpose: remember that it is not safe to mix electricity and water. No matter whether you are facing downed power lines or simply trying to make electricity using magnets and coils, failure to manage electricity safely around any kind of water can cause severe injuries, or even death.

Here’s what to expect while trying to generate electricity

during and after a flood:

- Vehicle alternators and wires may not be salvageable because of damage caused by flood waters. Motors that have been exposed to excess moisture can spark, catch fire, and cause all kinds of other problems, but it might be difficult to determine if an abandoned car was actually flooded out or not. Aside from checking in the wheel wells and under the hood, take a look in the trunk of the car. If you see mud, wet carpets, or upholstery with signs of water damage, do not try to salvage wires or motors that might otherwise be useful for generating electricity.
- If you do not bug out before a flood, you will either be stuck in the upper floors of your home or waiting for rescue up on the roof. While you may have some room for generating electricity in a home setting, your options will be extremely limited while you are sitting on a roof. At ground level, you will still have problems with limited space because of the water around you. Even though this water will recede with time, there is a critical window of days and weeks where you will need very simple systems that require as little space as possible.
- Soggy ground makes it very difficult to support frames for windmills and solar panels that are housed on the ground. Not only will support structures collapse, but solar panels, connecting wires, and other parts can be ruined as flood waters pass through. You may also find it very hard to build and operate earth batteries because of the excessive moisture and difficulty with digging into mud in order to place metal parts.
- You probably won’t be able to move across large enough distances to operate piezoelectric shoes and backpacks that generate electricity as you walk or run. No matter where you live during a flood, the air is bound to be very humid, and can make it difficult, if not deadly to

carry out strenuous activities. Before you try to generate power using a bicycle or something else that utilizes body power, make sure that you know how to stay properly hydrated and how to control your body temperature.

What to Make Use Of

When it comes to “green power”, hydroelectric dams and other water based electric generating systems are often viewed as some of the most efficient and powerful in the world. In fact, if you have even some moving water, you also have one of the most important natural elements for generating electricity. Even though flood waters may lose their power in just a few days, knowing how to harness this water can be of immense benefit.

But this is only one of the advantages you have to be aware of, others are still to come below:

- Looters, rioters, and others that might be inclined to steal your electricity generating systems may have a harder time. Consider that when streets are flooded, or you are sitting up on a roof, it will be very hard for these people to get to you. Not only will you have a high vantage point to work from, people that are stuck in the flood zone will probably be more interested in getting out or being rescued. That being said, as the water recedes, you can expect crime oriented problems to develop.
- It may be slightly easier to access local news and other communication systems. If you happen to have a traditional broadcasting station in your local area, the transmitter and backup systems are likely to be located on high ground. As such, they may well be broadcasting right along with ham radio operators and others that have equipment that is still working. Just keep an

appropriate receiver in a water proof bag and make sure that it goes with you to the roof or any other place that you need to go in order to stay out of the flood waters. This information can help you find out the extent of the damage to power generating systems as well as help you gauge what you need to do in the meantime. Individuals with smart phones should also be able to access mobile internet signals that can be used to download schematics for power generating systems or gain access to advice if problems occur. While this is no substitute for actually building systems, at least you may be able to get some help when it is needed most.

Small Scale Systems

Overall, you will find that small, low power generating systems will be safer and easier to build, use, and maintain during and after a flood.

As with many other systems, you are sure to be surprised by the number of ideas you can get by studying the works of the ancient Greeks and Chinese. They have some of the most fascinating gear and lever systems in the world that readily integrate moving water and can also accommodate both magnets and coils for generating electricity.

Gravity Driven Motor Assemblies

If you have ever been stuck without an air conditioner, then you may already know that it is possible to build a fan that essentially runs on gravity. During a flood, it is very likely that you will be up in the attic or sitting on a roof, and these locations are perfect for using a gravity fan to generate power.

As with many other small scale systems, as long as you add magnets to the fan blade and coils of wire to generate current in, they you should be able to make this system work. More,

the items required are very easy to store in your attic: a box fan, several feet of rope, a weight, some magnets, and coils of wire.

You can also practice with this system before a flood occurs so that you can fine tune the system and also find out how much electricity you can generate with it. To get started, you can study this video to see who best to start with making the gravity fan, and then do some additional research on magnets and coils:

Video first seen on Attila Blade.

You can also use a bicycle wheel to run a generator which in turn powers a light bulb using a gravity to turn the wheels.

Video first seen on RimstarOrg.

Gear Driven Motor Assemblies

Did you know that the Greeks were able to create “robots” that could automatically open doors, and even operate on pre-set stages in order to act out a complete play? Research on Hero of Alexandria and also ancient Greek robot technologies, and you’ll understand now how much can be done with gears and the power of gravity and motion.

As you look at the different devices (including ones that could mix wine and water), think about how you can adapt them to generate power. You will still need to add coils and magnets to the assembly, and then figure out how large the device will need to be in order to meet your power needs.

Because of the kinds of damage and instability caused by floods, you are better off building a few lightweight systems and hooking them up instead of building just one larger system. At the very least, if one or two units are knocked out, you may still be able to move the rest to higher ground

and have some electricity to work with.

Container Based Earth Batteries

Ice trays, planters, and just about anything else filled with dirt can be used to generate small amounts of electricity, you just need two types of metal and some water to make these earth batteries work. You can also add table salt and other electrolytes to the water in order to increase the output of each battery.

If you choose to use electrolytes, you will also have to replace it often, as the solution will break down as electrons are released.

Small Waterwheels

During a flood, you might expect that heavy rainfalls will occur. Contrary to popular belief, this is a perfect time to start generating your own power using a small scale waterwheel.

If you have a rain barrel set up in order to increase the amount of potable water on hand, you can use it as a mounting point for the waterwheel. To make this work, try the following:

- Start off with a 50-gallon drum or something else that will capture a fairly large amount of water.
- Make a small waterwheel and make sure that each end of the central shaft extends beyond the barrel. Make sure that the central shaft turns freely.
- Make a plastic tent with the point aimed downward above the waterwheel. The lowest point should hit the paddles on one side of the wheel so that it spins easily.
- Cut a hole in the plastic tent where the water will come out. The plastic will collect the raindrops, and, as they move to the bottom, create a strong enough stream

of water to drive the waterwheel.
- From there, you can either attach magnets and gears to the shafts, or any other motorized system that will enable the magnets to induce currents in coils of wire. Alternatively, you can also power car alternators or other types of generators that have not been damaged by a flood. Just make sure that you also protect motors and other parts of the generator from both the rain and flood waters that will follow.

There are also some ways that you can use waterwheels to generate power after the floods, if you will be looking for areas where the water is deep enough and flowing fast enough to turn the water wheel. Anything from flooded streets to parking lots with moving can be used for this purpose.

Just remember not to get swept up in the floods when you are trying to set up the water wheels. It is also very important to keep an eye on the flood waters and rescue operations so that you know when to pull the wheels out of the water so as to avoid losing them or causing more problems.

Large Scale Systems

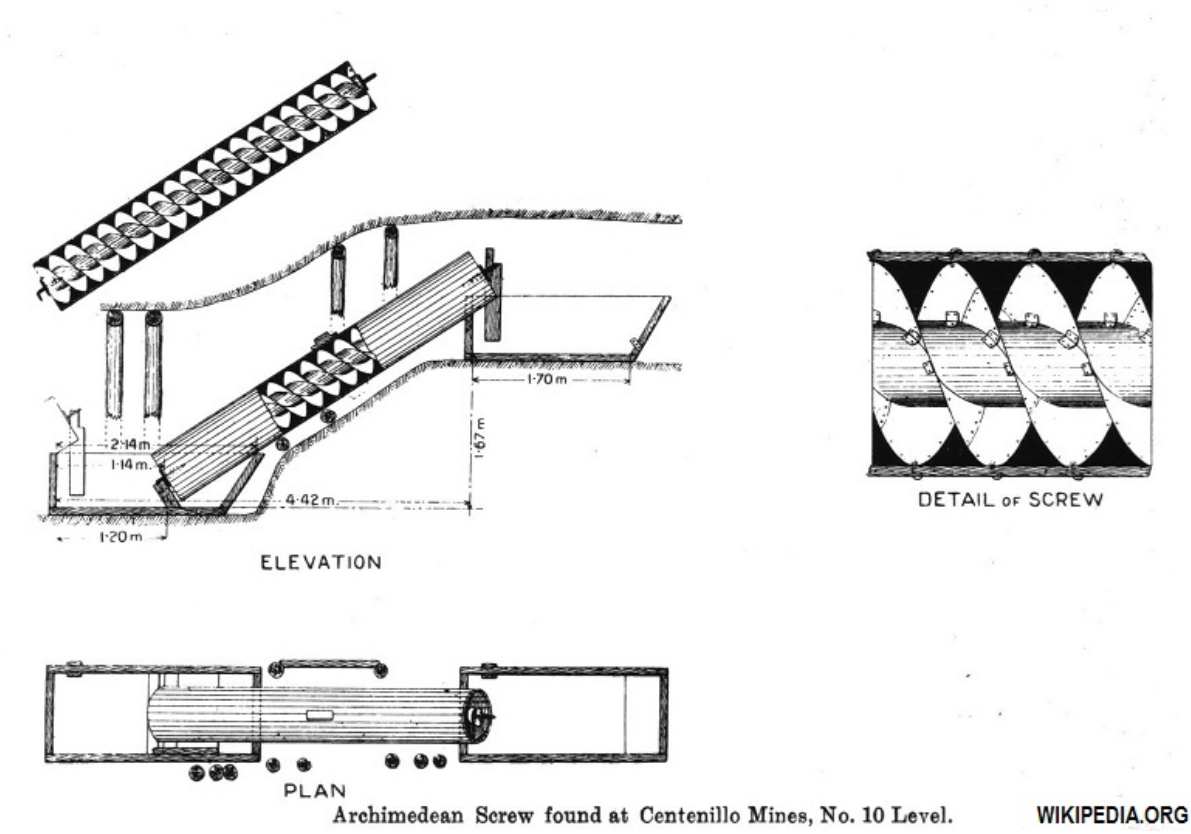
When the power first goes out during a flood, there may be a period of time where you may sit and wait, hoping that the problem is minor, and that emergency crews will restore power sooner rather than later.

This tactic is about as useful as trying to use some of the more common systems touted for use in short to longer term survival situations. For example, if you think that solar panels on the roof, windmills, or others that use battery storage systems will survive a flood, you may be in for a nasty surprise. From cloudy days to muddy ground causing buildings to collapse, in the end large scale power generating systems will need to make use of flood waters instead of try to work around their presence.

Archimedes Screw

The Archimedes Screw is actually a fairly simple device that has been around for thousands of years. Basically, a form similar to a screw is mounted in a tube. As the screw turns in the tube, water is raised from a lower level to a higher one. Moving water flowing through the system can then be harnessed to generate electricity.

In fact, Windsor Castle is one of the most notable places on Earth that derives most of its power from a pair of Archimedes Screws that rely on the flow of water from the Thames River.



Archimedean Screw found at Centenillo Mines, No. 10 Level. WIKIPEDIA.ORG

To generate power using an Archimedes Screw after a flood, you will need to find a place where water is flowing freely. Flooded streets, river beds, and even backyards with drainage into the street can all be used for this purpose. Depending on the flow of the water, you'll need to make smaller screws and then harness the power generating coils together in order to obtain enough current for your needs.

As with any other power generating method, it will always be to your advantage to have something built and plans for using it before a crisis happens. Consider a situation where you have a front yard or a back yard that you can build up or change the height of.

Research on Archimedes Screw systems, then you will realize that the change in height the water must travel will have a bearing on the amount of power that can be generated. Depending on the way the land is structured, it may be possible to cut paths that will direct the flow of water, and thus make it much easier to install an Archimedes Screw before the flood actually occurs.

Electricity Alternatives

When preparing for floods, most people rush out and stock up on flashlight batteries, propane stoves, and propane bottles, but these very same people will never have enough alternative fuel on hand to survive a disaster like Hurricane Katrina.

In a flood situation, you may only have to wait a few days, or the situation can last for weeks, months, or years, while wood, and many other burnable materials may not be available because everything will be soaked.

When it comes to electricity alternatives during and after a flood, your best options will include smaller devices and saving energy as much as possible. Here’s what you can do to replace the fridge or your electricity based cooker:

- If you are fortunate enough to have sunny days soon after the rains leave, you can use solar cookers made from cardboard boxes and tin foil.
- Use table salt mixed with ice to keep foods frozen.
- Use zeer pots for refrigeration, however they may not work well if the air is humid, and thus prevents the flow of water out from the central chamber.

- If you can get enough dry materials together, rocket stoves can be used for cooking and keeping warm. Dakota fire pits and other holes dug in the ground may not work because of mud and water seepage. As the area dries out, keep track of how the water is receding on higher ground. It may just be possible to use these areas within a few days of the rain stopping.

Make sure you have plenty of plastic rain gear and waterproof clothes on hand. These materials may not be comfortable to wear, but they can keep most of the moisture away from you as well as prevent vital body heat from escaping. Just remember that your body will continue to sweat and cause a buildup of moisture.

Be sure to unzip or unbutton plastic coverings so that the moisture can escape, or it can easily result in skin infections and other problems. Never forget that bacteria, mold, and mildew thrive in wet, warm environments. While you may need to reduce air flow to your skin for the sake of keeping warm, it can also spell disaster from a health point of view.

Today, many people that pin their hopes on solar or wind power fail to realize that these systems are just as vulnerable to floods as larger scale commercial power grids. No matter whether you live in a survival based gated community, have a homestead, or live in an inner city, you can come up with at least one or two inexpensive options to generate electricity.

They can be assembled from old junk laying around your home, or items that may be very cheap or free to acquire at the local dump or some other place where items may be offered to the community for free as part of a recycling program.

You may even want to connect to the Freecycle boards for your local area to obtain free fans or other items that can be used for flood based power generating needs.

This article has been written by ***Carmela Tyrell*** *for Survivopedia.*