

# No Power... No Problem

## Alternative Cooking Ideas

### So, when might YOU be caught without power?

Each year from 2002-2008 over 5,000,000 people in the U.S. lost power for 3 or more days.

With so many modern day conveniences we have become more and more dependant on electricity for everything. Yet with all our technology, we are not immune from power outages that affect large geographical areas for long periods of time. In recent years we have experienced in the U.S large power outages in the middle of the winter and even in summer months affecting millions of homes. Most of these only last a few hours or days but in severe cases this can last months.

"Strive to have a year's supply of food and clothing. The counsel to have a year's supply of basic food, clothing, and **commodities** was given fifty years ago and has been repeated many times since. Every father and mother are the family's storekeepers. **They should store whatever their own family would like to have in the case of an emergency.**"

James E. Faust, "The Responsibility for Welfare Rests

We have been counseled by the Brethren to not only have a **year supply** of food, but water, clothing and where possible **fuel**. How many of you have fuel to cook with, light your homes or keep warm during any emergency?

### Usual Ways to Cook Without Electricity:

**Stove** if gas is working can be used by lighting manually.

**Wood** can be stored for fireplaces/fire pits (not efficient) \*Exception: wood stove (efficient)

**Gas grills** not very efficient for cooking. Although **propane** does store indefinitely, not safe to store in large quantities. Can also be used for baking.

**Camp Stove** (small propane canister 2 ½ hours – ½ per day / 182 for 1 year)

\***Generators:** Expensive, can't store very much gas for safety reasons. Would help for emergency that last few days, but not for weeks or longer.

### What Other choices do we have?

There are actually many different options for cooking without electricity. These options are not only for the most part inexpensive, but are easy to use and as an added bonus, environmentally friendly. **Some of these include: Stove-in-a Can, Icebox Cookers, Solar Cooking, Rocket Stove, Dutch Oven, Applebox oven, Volcano Stove, Butane Burners.**

### SHORT-TERM

#### Stove-in-Can



Small, compact, easy to make, inexpensive (\$3.25), 3 hours of cooking (add 1 c. alcohol).

It is made from a new quart size paint can with lid, a roll of toilet paper and denatured alcohol (found in paint department) or 70% rubbing alcohol. In addition a 12 oz chicken chunk type can with holes/vents (sets on top of can to allow air) or a #10 can with vents set over the stove. Just light and use as stove. Smoother flame with lid. Stores 5+ years. Will warm food can bring to a boil. **DO NOT USE INDOORS.**

## Applebox Oven

Emergency Food in a Nutshell photos of oven on [yourfamilyark.org](http://yourfamilyark.org)



This new improved version of the Applebox oven is made from a foil-lined apple box and is an inexpensive way to bake in an emergency. It uses about half the charcoal that a Dutch oven uses and gives the same results as baking in at regular oven. It bakes bread (two loaves at a time), rolls, muffins, casseroles, cookies and cakes, anything you would bake in an oven. For 350° use 10 coals (evenly distributed)=charcoal burn time 35 minutes. If longer baking time required add ½ the original coals every 30 minutes. Baking once a day for 1 hour, at 350° will use @15 charcoals. For one year = 20 (16-pound bags).

**HINT:** Use Kingsford coals (longer more even burn time) =17 coals per pound.

Keep dry, stores indefinitely.

**Other Things:** wire rack, small baking sheet, 4-pop cans, rocks/sand, newspaper, matches and charcoal chimney, piece of foil, pot holders, charcoal tongs, candy thermometer to stick in front.

## Butane Burner

A small portable gas stove. You must have canisters of fuel that are used for these specific stoves. They can be purchased for about \$20-\$25. Fuel is about \$30 for 12 canisters. They are great for short term use or in 72 hour kits. Storing large amounts of fuel for these burners make them less practical for long term use. Each canister will provide approximately 2-4 hours of cooking time.

## LONG-TERM

### Ice Box Cooker

(also: Haybox / Fireless / Wonder Box/ Victory Oven/Thermal Cooker)



Fireless cookers have been in use for hundreds of years. They are essentially like using a crock pot with no electricity. Secret in is the insulation. You just bring your meal to a boil in a pot, cover with tight-fitting lid, turn down heat and simmer on medium for 3 minutes (exception beans 10-15 min) then quickly put in cooker, cover with topper and leave for 4 times the usual cooking time.

That's it! No stirring or burning. Food can be left up to 8 hours and still be hot and delicious. It is perfect for foods like: soups, stews, rice, and even bread! Because of losing less steam during cooking you can add up to 25% less liquid to the recipe. Also great for making yogurt or letting bread rise! (Just put a pot of warm water next to it.) **For safety food must stay above 140°, if it drops below that; remove, reheat, replace.** It is VERY important to test your cooker before using. Any container may be used: cardboard/wooden box, ice chest or even just pot wrapped in towels surrounded by Mylar blanket. There must be 3+ inches (1-2 in ice chest) of insulation surrounding pot. Insulation materials may include: hay, shredded newspaper, towels, blankets, pillows, Styrofoam popcorn.

*Resources:*

*Emergency Food in a Nutshell*, by Leslie Probert and Lisa Harkness

*Aprovecho's Guide to Hayboxes and Fireless Cooking*, by Peter Scott

*Fireless Cooking*, by Heidi Kirschner, Madrona Publishers. 1981

## Rocket Stoves



For video of step-by-step directions or to purchase : <http://rocketstoves.org/>

Also: you tube: "How to Build a Rocket Stove Part 1" and Part 2"

<http://www.aprovecho.org/>

<http://www.stovetec.net/>

Made from a 5 gallon metal can, stove pipe and a soup can or even bricks: this stove will cook a full meal with just a handful of twigs. It makes very high heat (regulate heat by amount of fuel). Great for bringing food to a quick boil. Can is filled with insulating material (ashes). It burns so hot there is very little smoke. It is amazing! Outside cooking only. Will make pots black.

## Volcano Stove

The Volcano II Collapsible Stove works great with many different methods of cooking and three different fuels. Use this collapsible stove for your cookouts, camping, or emergency cooking.

- Tri-fuel Stove: The Volcano II Collapsible Stove uses Charcoal, Wood, or Propane. Changes easily between each of the fuel sources.
- Versatile Cooking Options: Grill right on the stove, or use a skillet, griddle, pot, or wok. Also great for 10-12" Dutch ovens!
- Patented Heat Chamber: Cook a meal with as few as 12 briquettes. 15-20 lb bags of charcoal can be enough for 1 hot meal a day for a year (we recommend storing the charcoal in sealed plastic buckets to protect from moisture).
- Double Wall Construction: The Volcano II Collapsible Stove minimizes heat transfer. Much safer for small children.
- Collapsible: Collapses to only 5.5" tall for easy storage. Comes with a storage bag.

A great stove that uses different fuels. It is collapsible and easy to transport. A great stove, but is on the more expensive end at around \$140 for the whole package (which includes propane attachment).

## Dutch Oven

(Info by Sandy White & Kisi Watkins)



Dutch ovens are big, heavy cast-iron pots with lid. They are incredibly versatile and can be used to cook: breads, main dishes, and desserts. You can cook with them over an open fire, in a buried fire pit, in your oven, over your stove burners, over coals or using briquettes. They work as frying pans, pots and ovens. They come in many sizes: Important: Tight fitting lid with rim and legs (can be stacked 5 high), LODGE really good. Can cook pretty much anything. No need to wash (scrap, cook, oil). Food tastes fantastic. Dutch Ovens Last Forever. Before using the first time you will need to season your oven

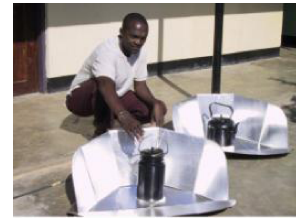
**Other Things:** lid lifter/pliers, leather gloves, 18# charcoal tongs, charcoal chimney, lid holder, wooden spoons, newspaper, charcoal.

**Free Cookbooks:** [macscouter.com/cooking/dutchoven.html](http://macscouter.com/cooking/dutchoven.html) or [scoutingthenet.com/cooking](http://scoutingthenet.com/cooking)

## Solar Cooking

([www.solarcooking.org](http://www.solarcooking.org) and [solarcooking.org/plans/windshield-cooker.htm](http://solarcooking.org/plans/windshield-cooker.htm))

<http://www.theideadoor.com/FoodStorage.html> (free cookbook)



Drawback: No way to regulate heat (time of day), can't cook on cloudy days

Recipes: Pretty much anything you can cook in a crock pot or oven you can cook in a solar cooker.

All Solar Cooking works on the same 3 principles. Represented by C.A.R.

1) Collect the light: Use reflectors with an approximately 20" x 20" opening

Reflective surface materials include: aluminum, mylar, aluminum or chromium paint

2) Absorb the light: Paint the pot matte black or another dark color. Pots can be elevated by a wire base or posts, allowing the bottom of pots to collect sunlight

3) Retain the heat: Oven bags work best.

### Types of Solar Ovens

Box Cookers- Most popular to build and use. Lid of a box reflects light onto food under glass. It can cook and bake large quantities of food. Up to \$300.

Parabolic Cooker- Highly focused light and high temperatures. Cooks nearly as fast as a conventional oven. Costly and complicated to make and use. Potentially hazardous.

Panel Cooker: Usually made from cardboard and foil. Very inexpensive.

Solar Funnel Cooker- Cheap and easy. A funnel concentrates sunlight onto a dark pot in a plastic bag. Anyone can make one. \$5 Plans can be found at: <http://solarcooking.org/plans/funnel.htm>

## Solar Facts

Problem: Half the people in the world must burn wood or dried dung to cook their food. Nearly 1.2 billion people, 1/5th of world population does not have access to clean drinking water. Over 1 million children die

yearly because of un-boiled water. Wood cut for cooking purposes contributes to the 16 million acres of forest destroyed annually.

Impact: Expect solar ovens to replace 60% of cooking fuel in most places.

### **Guidelines for Solar Cooking**

**HINT:** Get the food on early and don't worry about overcooking!

Most recipes take 25% less liquid when cooked in a solar oven.

Use lightweight, dull, dark pans w/tight fitting lids. Glass too can be used. No shiny stuff.

Best on cloudless days when sun is above 45° in sky. (between 10-2 pm).

Allow plenty of time. Foods hold well in solar ovens without scorching.

Most recipes calling for a higher temperature will do fine with longer cook times.

Rotate cooker every hour. Check food about every 60 minutes until you get the feel of it.

If windy, weight down box/bucket or bury in ground.

Use sun glasses and pot holders.

Can be used on cloudless nights to cool food 20° lower than outside temperature.

### **Cooking Times....Approximate**

**Cooking times will be faster in box ovens vs funnel ovens**

Vegetables: 1.5 hours: No need to add water if fresh. Cut into thin slices or small cubes for uniform and quicker cooking.

Grains: 1.5-2 hrs: Mix 2 parts water to every 1 part grain. Amount may vary according to taste. Let soak for a few hours for faster cooking. To ensure uniform cooking shake every 50 minutes.

Pasta and Dry Soup (65-85 minutes): First heat water to near boiling (50-70 min) Then add pasta or soup mix. Stir and shake and cook 15 additional minutes.

Beans: 4-6 hours: Soak beans overnight, drain, rinse. Place in pot with water.

Meats: 1-4 hours: No need to add water. Longer cooking makes the meat more tender.

Chicken(cut-up) 1.5 hrs, beef (cut-up)1.5 hr. fish:1-1.5 hours.

Baking: Bread(1-1.5 hrs), Biscuits (15-30 min), cookies(15-30 minutes)

### **Baking Bread**

To bake bread: Make dough put in bread pans; put in solar oven and cover so they can rise; remove cover, let oven preheat, bake (mine usually takes about 2 hours).

**Pasturizing Water:** Place in sun, 3-4 hours, until reaches 159° for 10 min. Use WAPI.

#### **Solar Cooking Resources:**

theideadoor.com "Everything Under the Sun" by Wendy DeWitt—downloadable pdf recipe book

Youtube.com "solar cooking"

Solarcooking.org

\*Info taken mostly from handout by Debbie Kent, "No Power...No Problem", June 2009

The complete handout and many other great resources can be found on her website at

[www.peaceofpreparedness.com](http://www.peaceofpreparedness.com)