BACKWOODS SOLAR SPRING 2007 NEWSLETTER

Greetings from each of us at Backwoods Solar! The quieter days of winter have passed and the bustle of spring in north Idaho is underway.

The creek surges with snow melt and it's difficult to keep the hydro turbine's intake clean. But it's a temporary issue and the luxury of year round power produced by these waters is worth it.

The garlic from last fall's planting is 10" tall; our asparagus is peeking through its mulch; and we expect to find morel mushrooms this weekend as the sunnier days warm the soils that harbor their spore.

If you have visited our website for the first time in order to download this newsletter, you would not have realized that our website has a new look. For more frequent visitors, we believe the web's new look would immediately present itself. It was redesigned by our friend and web master, Bruce Wiley, who recently moved from California to southern Idaho.

With this redesign, we have tried to ease navigation and reduce the key strokes needed to access critical categories. On each page, you will find drop down menus for our Online Catalog, Home Power Basics, and Reference Material. Additionally, there are convenient links for Requesting a Catalog; reviewing Backwoods Bargains; retrieving Archived Newsletters; and more.

We haven't finished yet and currently we're in the process of separating the green left hand column from the right side's content so that the green column stays in place as you scroll down through the right side's material. A website is a perpetual work in progress with weekly updates, additions, and deletions. We welcome any comments, criticisms, and feedback that you may have. We want our site to work for you and encourage you to let us know what it needs.

Our SPRING 2007 Catalog is now available.

Our 185 page 2007 catalog/planning guide was recently printed and mailed to thousands of our customers nationwide and in Canada. If you have not received it, we would happily mail you one.

It has dozens of new system photos; several new products; revised pricing; and the wealth of information you need to develop your off-grid system.

We would like to thank Jay Beedle for the photos he provided for the catalog's front and back covers. Jay lives on a remote island in SE Alaska with his wife, Eileen, children, Jayleen and Jason, and their dog, Merlin. From their homestead, they offer off-grid living tours, as well as whale watching expeditions, salmon fishing, and much more. Please visit their website, www.harvandmarvs.com for more details.

The photo on the first page of this newsletter is our catalog's cover and this eagle is reproduced on the back cover. As Jay and I emailed back and forth one day regarding the cover photo, this eagle swooped by Jay's home and he snapped this shot. We couldn't resist including this eagle that won't takes its eyes off of you.

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10% Off CRYSTAL COLD Gas Refrigerators and Freezer

Backwoods Solar has offered the Crystal Cold line of gas refrigerators for almost a decade and without a doubt, these are the only units of their size that succeed in cooling as they should. Each model's cooling unit has been specifically engineered to meet the demands of its size and they adequately cool even in the desert Southwest. The only time they struggle is in 100 degree F temps and high humidity situations.

Available in textured white or bisque, the CC15 and CC18 have two adjustable glass shelves in the fridge and one in the freezer. The doors are reversible and each model has a clear double crisper and cover. Heavy duty casters allow for easy moving. A front push button igniter activates the burner and a thermostat controls the temperature. A built-in interior light requires 4 D batteries that are not included.

Recommended clearances: 2" sides and back; 8" top (for CC15 and CC18)
1 year parts and labor warranty; an additional 3 year warranty available from the factory for $65.00

>>>>>>>>>>>>>>>CRYSTAL COLD SALE ENDS JUNE 30th, 2007<<<<<<<<<<<<<<<

15 Cubic Foot Gas Refrigerator-Freezer
Dimensions: 63.5" high x 28.5" wide x 34.5" deep.
Freezer: 4.2 cu ft; refrigerator: 10.0 cu ft. Shipping weight: 298 pounds
On average, uses 0.29 gallons propane per 24 hours.

R-CRYSTAL COLD 15: propane: $2210.00 On Sale: $1989.00 + freight
R-CRYSTAL COLD 15: natural gas: $2260.00 On Sale: $2034.00 + freight

18 Cubic Foot Gas Refrigerator-Freezer
Dimensions: 65" high x 28.5" wide x 34.5" deep.
Freezer: 4.2 cu ft; refrigerator: 13.0 cu ft. Shipping weight: 324 pounds.
On average, uses 0.35 gallons propane per 24 hours.

R-CRYSTAL COLD 18: propane: $2340.00 On Sale: $2106.00 + freight
R-CRYSTAL COLD 18: natural gas: $2400.00 On Sale: $2160.00 + freight

NEW in 2007: The 10 cuft BLIZZARD CHEST FREEZER

Also engineered to meet the heat of the desert Southwest, this propane chest freezer is one of the largest made in the USA. Sits on casters for easy moving; Top mounted controls; Stainless steel burner; Push button Igniter with Flame indicator.

1 year parts and labor warranty; an additional 3 year warranty available from the factory for $65.00

10 cuft Chest Freezer: Only available in white
45" high x 43.5" wide x 33" deep; Weight: 220 lbs
On average, uses 0.31 gallons propane per 24 hours.

R-CRYSTAL COLD 10: propane: $2080.00 On Sale: $1872.00 + freight
R-CRYSTAL COLD 10: natural gas: $2130.00 On Sale: $1917.00 + freight

Due to size, 30 day return privilege does not apply to these items.

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Introducing Three NEW SOLAR-DIRECT Attic Fans

Heat and moisture are your attics worst enemy (by SunRise Solar)

During hot summer months–
The temperature in your attic can exceed 160°. Small, passive roof vents are often woefully inadequate at dissipating this heat. The attic acts like a giant radiator, passing excess heat back into your living spaces and driving temperatures and cooling costs through the roof.

During cold winter months–
The heat trapped in your attic can melt the snow that accumulates on your roof. As the water trickles down, it refreezes at the cooler eaves, leading to destructive and costly ice damming.

And all year long–
Trapped moisture wreaks its own brand of havoc. Everyday activities such as showering and cooking produce water vapor that migrates into the attic. This moisture promotes the growth of mold and mildew and, if it saturates your insulation, can lead to fungal decay and destruction of your roof frame and decking. By using the SunRise Solar-Powered Attic Fan, your attic will be cool, fresh, and dry.

These 'whisper-quiet" solar-powered attic fans utilizes an 11, 15, or 20 watt PV modules to move 850, 1050, or 1250 cfm in full sun. The cover and base are paintable, molded, UV-stabilized, ABS plastic. The 5 bladed, 12" aluminum fan is pitched for maximum air flow and a stainless steel screen keeps critters out.

Each fan has a factory equipped thermal on-off switch. When attic temps exceed 80 degrees F, the fan turns on. When temps drop below 65 degrees F, it shuts off. If temps do not fall below 65 degrees overnight, the fan will start with the morning sun. The thermostat is simple to bypass in the field if desired.

The 850 cools as much as 1200 sqft. The 1050 cools as much as 1600 sqft. And the 1250 cools up to 2000 sqft. The flat base of each model measures 24.5" x 24.5" and the overall fan height is 7". Each fan arrives fully assembled and typically installs in less than an hour.
5 year warranty on motor and 10 years on PV module and other parts.

A-ATTIC FAN 850: $465.00 plus $30.00 shipping
A-ATTIC FAN 1050: $536.00 plus $35.00 shipping
A-ATTIC FAN 1250: $603.00 plus $35.00 shipping

NEW!! Outback FLEXWARE 500 Pre-Assembled Power Systems

Outback System on FLEXWARE 500 MP: 52"W x 21.5"H x 12.5"D

The OUTBACK FLEXWARE 500 POWER SYSTEM, shown above, is pre-assembled and ready to use. Backwoods Solar has created the most complete custom version of the Flexware 500 in the industry. It includes many options that we have designed and believe essential in every system. These features are typically not included in the base model that Outback offers and include installed external generator start and battery vent fan relays, AC and DC lightning arrestors, a 15 amp onboard AC outlet, and a convenient Trimetric meter terminal strip.

You will find these power systems well sized for most solar electric homes and a good value when compared to separate components plus their installation labor. Each system includes one or two inverters, a 60 amp charge control, plus AC and DC power centers. It simply connects to your battery bank, solar array, back-up generator and home circuits.

Listed below are the major components of the Flexware 500 system.

MX60 SOLAR CHARGE CONTROL handles 60 amps maximum output to the battery at 12, 24, or 48 volts with maximum power point tracking technology. The MX60 can convert any higher voltage solar arrays (up to 150 volt open circuit with as many as six 12 volt modules in series) to charge any 12, 24, or 48 volt battery bank. This capability allows longer distances from your solar array to the battery room using smaller wire sizes.

OUTBACK INVERTERS will offer from 2,000 to 3,600 watts of true sine wave AC power output. Two inverters can be selected for 4,000 to 7,200 watts of AC output. If starting with a single inverter, you may add a second inverter with recommended X240 transformer later. These inverters are available either fan-cooled for higher power or totally sealed to eliminate dirt and salt air corrosion. Battery charging, inverter/generator automatic transfer switching, and two wire generator start capability are included.

The MATE and HUB adapter are also included. The Mate programs and meters the charge control and all inverters.

The TRIMETRIC battery meter (not pictured) is also included. Both the Mate and TriMetric can be installed remotely from the power system for easy access.

The Flexware 500 DC breaker box accepts PV, battery, and DC load inputs. The Flexware 500 AC breaker box accepts generator input and delivers inverter output through several circuit breakers and an on-board AC outlet. Our included Battery Cables are 10 feet in length and sized according to your inverter/s. An X240 Transformer is included on two inverter systems to give full power on both 120 and 240 volt applications. (The X240 is recommended with the purchase of a second inverter if you upgrade from a single inverter power system at a later date.)

Ordering is a **TWO** step process:

FIRST: Select a base system for one or two inverters and add to your cart

SYSTEM	NUMBER OF INVERTERS (inverters **not** included in these base system prices)	BASE PRICE without inverter/s
FLEXWARE 500 SINGLE	For a 1 inverter system 2000-3600 watts	$3182.00
FLEXWARE 500 DUAL includes X240 transformer	For a 2 inverter system 4000-7200 watts	$4052.00

SECOND: Now select your choice of one or two inverters, VFX or FX models, listed below.

VFX Series vented fan cooled Sine Wave inverters, including all covers, installed in your base system

INVERTER	WATTAGE	VOLTAGE	PRICE
I-OB VFX2812	2,800	12	$2,145.00 per inverter
I-OB VFX3524	3,500	24	$2,145.00 per inverter
I-OB VFX3648	3,600	48	$2,145.00 per inverter

FX Series sealed Sine Wave inverters, including all covers, installed in your base system

INVERTER	WATTAGE	VOLTAGE	PRICE
I-OB FX2012T	2,000	12	$1,795.00 per inverter
I-OB FX2524T	2,500	24	$1,795.00 per inverter
I-OB FX3048T	3,000	48	$1,795.00 per inverter

Shipped truck freight on a pallet. An $80.00 crating fee plus shipping will be added to your order. Call for a freight quote.

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Solar Powered PULSING FOUNTAIN Kit

Ideal for pond gardens and watering troughs. On a hot summer day, the tiny pulses of water keep the pond's surrounding grasses green and the homestead animals cool!

This extremely durable Stainless steel and brass floating fountain pump kit sends a tiny pulse of water six feet into the air every few seconds even in light overcast conditions. More sunlight; faster action!

An included 3 watt solar module charges a capacitor which delivers power to a solenoid coil which periodically moves the pump's piston. The stainless steel pump is 6" high and 3" in diameter. It fits into a 5" foam collar for floating. An 8' cord connects the pump to the PV module. Designed for Fresh water use only and it cannot run dry. One year warranty.

P-FOUNTAIN KIT: $140.00 plus $10.00 shipping

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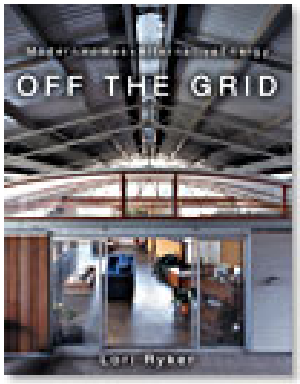
Two NEW LESS TECHNICAL Design Books

Off the Grid: Modern Homes + Alternative Energy

by Lori Ryker

ISBN: 1-58685-516-6 8.5 x 11 inches, 160 pages Hardcover



Off the Grid confronts the ecological and cultural problems associated with the way we get and use energy, and explains how it is possible to live in a beautifully designed home using much less--no matter where your home is located.

Our homes are connected by a nearly invisible grid of infrastructure that binds us together. It is a system of electrical poles, wire, substations, hydroelectric dams, telecommunication towers, and water extraction and sewage systems. From within this system we work, play, and raise families. We have also created one of the greatest environmental challenges known to modern civilization. The signs of our impact upon the world can be recognized in the reports of environmental changes occurring across the earth, and they can also be seen in the growing failures of the energy grids across the world as the current system is stressed beyond its capacity.

Technologies that can be used to live off the grid (geothermal energy use, wind turbines, photovoltaic arrays, micro hydropower, rainwater collection and reclamation, and more) are explained as author Lori Ryker shows how to choose and incorporate these sources according to geography and climate.

Off the Grid beautifully illustrates that this is not just a concept for rural living; examples of homes that are "off the grid" to varying degrees are found in New York City; Ontario, Canada; Stuttgart, Germany; Belmont, California; Pipe Creek, Texas; Clyde Park, Montana; Twin Lakes, Minnesota; Laytonville, California; Venice, California; and New South Wales, Australia.

Off the Grid shows how we can take responsibility for our future choices and conveniences now, and proves that off-the-grid living is a concept that can be easily understood and adopted by everyone, regardless of where you live or how much money you make.

Lori Ryker grew up in Texas and has lived and worked in a variety of locations, including Boston, New York City, Portland, and Basel, Switzerland. She now resides in Livingston, Montana, where she teaches in the School of Architecture at Montana State University.

E-OFF THE GRID: $25.00

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A Handmade Life
In Search of Simplicity

By William Coperthwaite
ISBN: 978-1-933393-47-9; 9" x 9"; 144 pages; Paperback

Recipient of the 2004 Nautilus Award
Category: Ecology/Environment
Honoring Distinguished Literary
Contribution to Conscious Living and Positive Social Change

William Coperthwaite is a teacher, builder, designer, and writer who for many years has explored the possibilities of true simplicity on a homestead on the north coast of Maine. In the spirit of Henry David Thoreau, Emily Dickinson, and Helen and Scott Nearing, Coperthwaite has fashioned a livelihood of integrity and completeness—buying almost nothing, providing for his own needs, and serving as a guide and companion to hundreds of apprentices drawn to his unique way of being.

A Handmade Life carries Coperthwaite's ongoing experiments with hand tools, hand-grown and gathered food, and handmade shelter, clothing, and furnishings out into the world to challenge and inspire. His writing is both philosophical and practical, exploring themes of beauty, work, education, and design while giving instruction on the hand-crafting of the necessities of life: house, tools, clothing, and furniture. Richly illustrated with luminous color photographs by Peter Forbes, the book is a moving and inspirational testament to a new/old way of life.

E-Handmade: $20.00