

Editor's Notebook



Mark Newhall
Editor &
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What Energy Crisis?

I don't like paying high fuel prices any more than the next guy, but I have trouble listening to the doom and gloomers who keep saying we're going to "run out" of energy some day soon. As an editor who has worked with inventors for nearly 30 years, I am confident we will always keep finding new ways to tap into the energy that's all around us.

It seems likely to me that we still have hundreds of years of oil still left in the ground if we choose to keep using it. But we'll probably find far more powerful and efficient ways to provide power. For example, look at our nuclear-powered submarines and ships that cruise the world for years on minuscule amounts of "fuel". Will we someday find a way to miniaturize that technology to power tractors, combines and pickups?

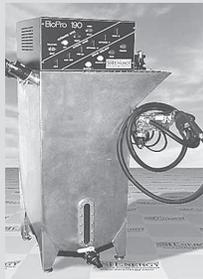
There are hundreds of new energy ideas all over the planet, big and small, just waiting to find a market. Here are just a few we've spotted lately:

Solar Breakthrough

A team of South African scientists at the University of Johannesburg has developed a new highly efficient solar panel made out of a thin metal alloy. It's said to be much more efficient than old-style silicone chips and costs less. The power generated can be fed directly into existing home electrical systems. A leading solar manufacturer, IFE Solar Systems in Germany, is reportedly set to manufacture 500,000 of the new panels by the end of the year. (www.ife-net.de)

Biodiesel Processor

SSI Energy recently introduced this self-contained biodiesel fuel processor that turns vegetable oils into clean, 100 percent biodiesel. It has an electronic control panel that works automatically. No measuring or testing. "What makes it nice is that this system does it all for you. You don't have to be a chemist," says Bill Selkirk of SSI Energy. (www.ssienergy.com)



Hungry Microbes Chew Up Cellulose

Canada-based Iogen, Inc., is making ethanol using a fungus based on what many soldiers from WW II remember as "jungle rot". The hungry, genetically-modified bugs chew up straw and other organic materials, breaking them down into sugars which can be easily converted to alcohol. Unlike conventional ethanol production, no heat is needed. (www.ioegen.ca/)

Methane From Veggies

Millions and millions of tons of organic waste from the vegetable processing industry are disposed of in landfills every year. Canadian researcher Don Hilborn is looking into turning that waste into energy by heating it slightly to give off methane gas. (don.hilborn@omafra.gov.on.ca)

Biodiesel Hydrogen

InnovaTek, Inc., and Seattle BioFuels, Inc., both headquartered in Washington State, are making hydrogen from raw soybean oil to power emission-free fuel cells. (www.tekkie.com; www.seattlebiodiesel.com)

Chicken Litter Electricity

Earth Resources, Inc., is building a chicken litter-to-electricity plant near Carnesville, Ga., that will gasify poultry litter under heat, and then burn the gas to drive generators. Nearby Atlanta will get the power. (www.greenpoweremc.com)

Steam Engine

A new 20-hp piston steam engine is now in production. It will run on anything you can burn including coal, wood, crop residue, trash, etc. (www.mikebrownsolutions.com)



Cheap Hydrogen

Researchers at General Electric say they've come up with an easy-to-manufacture machine that will produce hydrogen via electrolysis for about 1/3 the cost of current methods, making it more competitive. (www.research.ge.com)

Air-Hybrid Engine

The Scuderi Group of West Springfield, Mass., has developed an odd-looking new piston engine with an air tank on the side. They call it an "air hybrid" and they say it will double the fuel mileage of today's vehicles at a fraction of the cost of current hybrid vehicles. (www.scuderigroup.com/)

Foot-Powered Emergency Generator

Five minutes of pumping the foot over on this new machine will produce 30 min. of electrical power. The newly patented portable generator from Great Systems, Inc., Peoria, Arizona has a unique spring system that slowly unwinds, providing 1,000 watts of power on demand. (www.cyberknight.com)



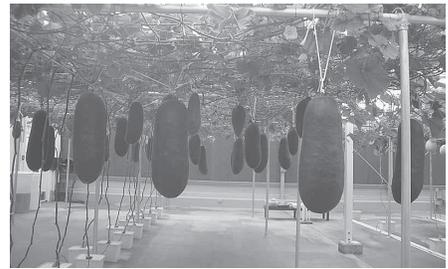
Fuel Cell Batteries

UltraCell recently demonstrated its new laptop batteries powered by methane fuel cells. They'll run a laptop computer for two working days on a single fuel cell cartridge. Cartridges are hot-swappable so no electrical recharging is needed. (www.ultracellpower.com)

Winston Churchill Quotes

Many historians argue that Winston Churchill, prime minister of Britain during World War II, had more to do with perserving liberty and democracy during the 20th Century than any other world leader. He was also extremely quotable. Here are a few of his best:

- A fanatic is one who can't change his mind and won't change the subject.
- An appeaser is one who feeds a crocodile – hoping it will eat him last.
- He has all the virtues I dislike and none of the vices I admire.
- I like pigs. Dogs look up to us. Cats look down on us. Pigs treat us as equals.
- It has been said that democracy is the worst form of government except all the others that have been tried.
- Never, never, never believe any war will be smooth and easy, or that anyone who embarks on the strange voyage can measure the tides and hurricanes he will encounter. The statesman who yields to war fever must realize that once the signal is given, he is no longer the master of policy but the slave of unforeseeable and uncontrollable events.
- Success is the ability to go from one failure to another with no loss of enthusiasm.
- All the great things are simple, and many can be expressed in a single word: freedom, justice, honor, duty, mercy, hope.
- He is a modest little man who has a good deal to be modest about.
- Ending a sentence with a preposition is something up with which I will not put.
- Some people regard private enterprise as a predatory tiger to be shot. Others look on it as a cow they can milk. Not enough people see it as a healthy horse, pulling a sturdy wagon.
- There is nothing more exhilarating than to be shot at without result.



A Growing Idea

I was touring "The Land" exhibit at Disney World with my family earlier this year when we saw this vegetable-growing exhibit. Pumpkins, squash, and melons were all growing from overhead trellises. The trellises were 6 to 7 ft. tall, consisting of wire panels stretched across the top of bamboo poles. The plants grow across the top of the wire and, as fruit or veggies start to form, workers pull them down through the wires. Their increasing weight causes them to hang down at a convenient height where they're easy to pick, while the leaves remain up on top gathering sunlight.

Drilling With Microwaves

Eli Jerby and a research group at Tel Aviv University in Israel have developed and patented a new type of drill that uses microwaves to make holes in rock, concrete, ceramic, glass and wood. It totally eliminates noise, vibrations, dust and chips. In some materials, like ceramics, the process may even add strength to a hole by "welding" together the material as it cuts through.

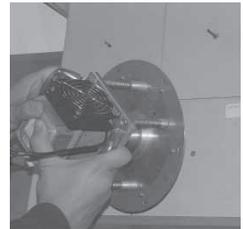
The Israeli inventors say the new drill will be used in building construction, geological engineering, and production of ceramic components for cars and planes.

According to Jerby, the drill's bit emits microwave radiation from a needle-like rod, creating a target hot spot that measures above 2,000° F. This intense heat softens the material enough for the bit to penetrate and create a hole.

Jerby says the person operating the drill is shielded from microwave radiation by a simple plate on the front of the drill. The invention doesn't work on steel because it conducts heat too well for a hot spot to form.

Jerby says the drill is not expected to cost more than a conventional drill once it goes into mass production.

Contact: FARM SHOW Followup, Professor Eli Jerby, Faculty of Engineering, Tel Aviv University, Ramat-Aviv 69978, Israel (ph +972-3-640-8048; jerby@eng.tau.ac.il; www.microwave-drill.com) *Janis Schole, Contributing Editor*



You know you're a farmer when . . .

- Your animals live in more expensive buildings than you do.
- You can remember the fertilizer rates, seeding rates and yields on your farm for the past 10 years, but you forget your wife's birthday.
- More than half of your clothing comes from chemical or seed dealers.
- Your dog rides in the truck more than your wife.
- Weddings and other family events are planned around planting and harvesting.
- Friends buy a hose with a two-acre garden, and you calculate how many bushels of corn it would grow.
- Your wife finds nuts and bolts in the bottom of her handbag instead of loose change.
- An afternoon off means getting up four hours earlier.

A young child asked a woman how old she was. She answered, "39 and holding". The child thought for a moment, then said, "And how old would you be if you let go?"

A small town doctor was famous in the area for always catching large fish. One day, while he was on one of his frequent fishing trips, he got a call that a woman at a neighboring farm was giving birth. He rushed to her aid and delivered a healthy baby boy. The farmer had nothing to weigh the baby with so the doctor used his fishing scale. The baby weighed 32 lbs., 10 oz.