

Living Energy Farm

March 2018 Newsletter

LEF in the News!

Two different local news programs have done shows on LEF in the last week. The first is a PBS program called Virginia Homegrown. That show can be seen, for the next few weeks (?) at (the LEF part starts at the 29 minute mark in the program): <http://ideastations.org/watch/virginia-home-grown>

A local news program, NBC 29 in Charlottesville, also did a short story on LEF recently, at: <http://www.nbc29.com/category/175568/video-landing-page?&clipId=14245976&autostart=true> or <http://www.nbc29.com/clip/14245976/living-energy-farm-owners-employ-eco-friendly-techniques>

Upcoming Workshops

Please RSVP livingenergyfarm@gmail.com if you plan to attend.

Weekend Immersive: Energy Self Sufficiency and Building Your Own DC Microgrid

Our third immersive is scheduled for **May 18 - 21** and will be focused on energy self sufficiency and building DC micrgrids like we have at LEF. LEF's integrated village economy uses high-voltage DC daylight drive motors. Our lighting system uses very durable nickel-iron batteries. We will teach you the basics of electricity, and show you how to wire solar electric panels, both high voltage and low voltage systems. We will show you how to put together battery banks, and explain the difference between different kinds of batteries. We will explain how nickel-iron batteries work, and how to make them last for decades. We will show you some of the basics of electrical wiring for both high voltage and low voltage electrical systems. You will work on these projects with your own hands, so you will know how to do it yourself. We will have a weekend of homegrown, tasty food, and an engaging social environment. Our immersives have been enjoyable and rewarding. With each immersive, we feel like we get a little better at what we do. We look forward to seeing you there!

Location: 1022 Bibb Store Rd, Louisa VA 23093. Contact Brie at 443-417-7328, briennagerard@gmail.com

The fee for the weekend is \$150, work trade options are available.

For a more detailed schedule of events, visit <http://livingenergyfarm.org/workshops/2018/May18.pdf>

Our second propagation workshop is planned for May 5, and will focus on field grafting. The most amazing growth rates from grafted trees can be obtained by grafting plants that are already in the ground. This is done by either planting your own rootstock, or finding wild compatible trees in suitable locations, and converting them to food producing trees. This method allows you to build an orchard at little or no cost. We will **start at 10 AM** and discuss orchard planning and variety selection. After a potluck lunch, we will go out into the field and start grafting! Given that we will be grafting trees rooted in the ground, participants will *not* be taking grafted trees home. **Location is at LEF, 1022 Bibb Store Rd, Louisa VA, 23093. Cost is \$25.**

LEF Continuing Webinar Series

In cooperation with the The Institute of Ecolonomics, LEF is doing an ongoing webinar series for the next 8 weeks. An outline for our webinars can be found at livingenergyfarm.org/workshops/outline5.pdf

The ecolonomics website is at <http://nourishtheplanet.com/> and (where the webinars are) and at <https://www.eatcommunity.com/>

Our first in this series webinar is scheduled for 1 PM EST Friday April 6, and each webinar after that is scheduled for each Friday at the same time.

LEF is Going Overseas

There are hundreds (thousands?) of projects around the world to expand solar and renewable energy

systems in non-industrial countries. As far as we can tell, all of these projects are based on the western model of providing bulk power from a centralized power supply, and all rely on non-durable batteries (lead or lithium). The LEF approach is very different. We use a multi-linear system that is cheap, durable, reliable, and can be installed piece by piece. We have tried to convince other organizations to use our model, but have not had much luck with that. Now we have found what seems like a good opportunity to take the LEF model directly to people who can benefit from it in Nicaragua. We mentioned in the last newsletter that Eddie was headed down there to talk to some folks about our project. He found a school that needs our help. The letter to LEF from the school reads:

our nonprofit organisation provides supplementary learning programs for the children of our communities. One of our biggest problems is the lack of electricity supply and drinking water; which seriously hinders our class programs such as Computer Science, English Classes, Environmental Science, Agriculture and every day health and hygiene needs for our children as well as office operations. If your organisation has the ability to help us to fix this problem and help us provide our school with better quality electrical power, it will mean a huge improvement in our mission...

Regards
Daphne Espinoza, Director of Programs Nicaragua.
Barrio Planta Project



Barrio Planta runs two schools. This is their school about 20 miles outside San Juan Del Sur. This school does not have reliable electricity or water.



Students at the rural Barrio Planta School.

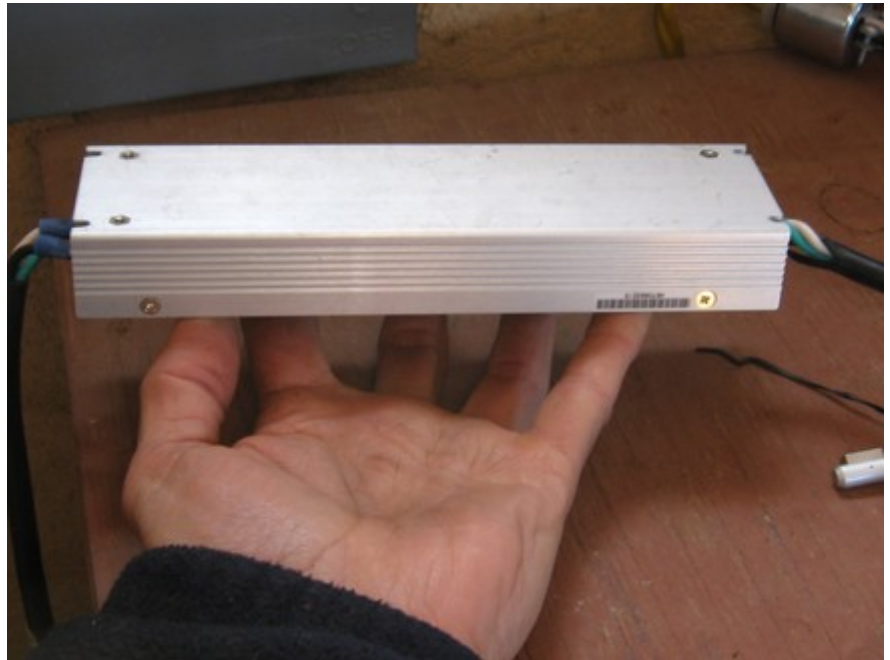
Our timetable isn't for sure yet. Summer is the rainy season down there, and we do not have all the logistics in place yet. It may be fall until we get it set up. We hope to provide the Barrio Planta school with lights and water, with the durable technologies that LEF uses. Please support that effort if you can.

Our Second Immersive Weekend Was a Big Success!

Our second weekend off-grid immersive weekend happened in March and was focused on food self-sufficiency. It went very well. We had a full house, and excellent home-grown food in spite of winter. We talked in detail about our food production systems at LEF, and practiced grafting fruit trees. We made some excellent connections with people and resources that could help us with our mission in the future.

How to Make a Daylight Drive Refrigerator Work in Cloudy Weather

In our last newsletter, we mentioned that we had gotten a refrigerator that is made to run daylight drive. The fridge runs during the day, is well insulated, and stays cold at night. (Sundanzer DDR165) We got it in January, and from then into February the weather was (and remains) very cloudy. We could not keep the temperatures stable. Then we discovered something called a "switching power supply" that takes high voltage DC and drops it down to a stable 24 volts. The fridge is made to handle 10 - 45 volts, so it made to handle some clouds and variation in power supply. But our strongest energy supply is our high voltage PV rack (180 V). The switching power supply has worked great. The fridge will even run if it's raining! We have had some conversations with Sundanzer. They are supportive of our work. If you happen to already have a grid-tie PV system, you can probably use a power supply like the one we have. Now we are enjoying a bit more flexibility with cooking as it is easier to save leftovers. And we are very much looking forward to cold lemonade in the heat of summer! This fridge is plenty cold. It will work just fine as a chest freezer if you wanted it to.



This little gray box is called a switching power supply. If you have a grid-tie electrical system, this would allow you to use your DC electricity to run a daylight drive fridge. Grid tie means you are still using lots of coal, nuclear, and frack gas. Daylight drive means you are NOT!

LEF Gets a Daylight Drive Washing Machine

We have experimented for a while with different ways of washing clothes without a conventional washing machine. We attached an exercise bike to a front-load washer a few years ago. That worked okay. People ask, "how long do you have to peddle?" We would tell them, you can peddle more and soak less, or soak more and peddle less. It would be pretty easy to put a daylight drive high voltage DC motor on an ordinary washer. But those things are just are not well made. The thought of putting that much work into something that would just keep falling apart was not inspiring. We looked around and asked



Our daylight drive washer.

ourselves what might work better. We happen to have a cement mixer that we picked up on craigslist. A very high quality one no less. So we cleaned it up, epoxied up the inside, and put a motor on it. It's working well. Now we wash our clothes with sunshine power!

The Best Corn Tortillas Ever!

A number of Central American cultures had corn gods -- that's how important corn was to them. For us, corn is a great crop. Easy to grow and productive. We grow traditional, open-pollinated varieties. This year we grew a great multi-colored variety called Kentucky Rainbow. By grinding raw, dry corn in our daylight drive grain mill, we have been making great corn bread and grits for the last several years. Native Americans "nixtamalized" corn, which means treating it with an alkaline substance. They used wood ash. That's how you make corn flour sticky on its own, so it can be made into tortillas and corn chips. Aside from making the corn easier to cook with,



Rosa and Nika supervising the corn grinding.

nixtamalization significantly increases the nutritional content of corn. We tried nixtamalizing with wood ash, and it didn't work, possibly because we burn mostly cedar left (not hardwood) from the logging on our land 8 years ago. (We have yet to cut down a live tree for firewood.) We tried baking soda, but that did not taste good. Then a friend of ours told us to use pickling lime. Deb tried it, and it's working great! We do a quick boil and overnight soak in lime water, then rinse the kernels. Then we dry the kernels in our solar dryer, and run them through our mill to make self-stable masa harina. (Others prefer to grind the mixtamalized corn while it's wet, but our mill works better with dry grains, and it's easier to do large batches.) Mix the masa harina with some water and a bit of salt, and we are making the best corn tortillas ever!

Articles and videos about LEF:

International Permaculture has done 2 articles on LEF. One is in issue #93, Autumn 2017, and the second is in issue #94, Winter 2017. See <https://www.permaculture.co.uk/>

Article about LEF at the Atlantic Online Magazine

<https://www.theatlantic.com/politics/archive/2017/01/anarchism-intentional-communities-trump/513086/>

Article about LEF in The Central Virginian

<http://www.livingenergyfarm.org/cvarticle.pdf>

LEF on CNN

<http://www.cnn.com/interactive/2015/09/us/communes-american-story/>

Cville weekly in Charlottesville VA

<http://www.c-ville.com/off-grid-model-environmentalism-made-easy/#.VcHobF054yo>

First video on youtube

<https://www.youtube.com/watch?v=ppTBO8d6jhY>

Second video on youtube

https://www.youtube.com/watch?v=wdSX_TIYkD4

Video on vimeo

<https://vimeo.com/128744981>

Slideshow produced by Alexis a while ago

https://www.youtube.com/watch?v=4x_C3iScoAw

Living Energy Farm is a project to build a demonstration farm, community, and education center in Louisa County that uses no fossil fuels. For more information see our website www.livingenergyfarm.org, or contact us at livingenergyfarm@gmail.com or Living Energy Farm, 1022 Bibb Store Rd, Louisa VA, 23093. Donations to the Living Energy Farm Education Fund are tax deductible.