

## **Living Energy Farm**

January - February 2017 Newsletter

### **Workshops -- Please Post and Forward**

#### **Fruit Tree Propagation and Grafting**

Want to learn how to propagate any fruiting plant? This is one of our most popular workshops, an all-day intensive that will teach you how to propagate any plant. We will talk about growing from seed, rooting cuttings, and layering. We will discuss, demonstrate, and practice several grafting techniques. (This year we are charging less for the workshop. Rootstock will be available for \$3 - \$5 each, not provided as part of the registration fee.) Cost is \$30. Pre-registration required, email [tradelocally \[at\] yahoo \[dotcom\]](mailto:tradelocally@yahoo.com) Sat, March 25, 9 AM to 4 PM, 217 Fredericksburg Ave, Louisa VA, 23093.

#### **Organic Garden Planning**

Want to learn more about organic gardening? In addition to growing seeds for income, LEF is working towards food self-sufficiency by growing almost all of our own vegetables, grains, legumes, and other staples. Come see how we do it. This workshop will cover soil fertility, choosing which crops and varieties to grow, when and how to plant them, pest management, and planning your garden to save your own seeds. The workshop will be led by Debbie Piesen. She manages both the seed growing and the food production at LEF. Cost \$25 but no one turned away for lack of funds. No registration required. Sat, April 1, 1 PM to 4 PM, at LEF, 1022 Bibb Store Road, Louisa VA, 23093.

#### **Off-Grid Immersive Experience, First Dates**

Want to know what it's like to live without fossil fuel for a few days? LEF is ready to do our first Off-Grid Immersive. Participants will come and live with us for 3 days. We will do an extensive tour and a couple of workshops while you are here. Come see what it's really like! We will have indoor, if not luxurious, sleeping space. You will be asked to participate in domestic duties (cooking and cleaning). You will be asked to help in the garden to the extent that you are able. In the future, we will have Off Grid Immersives for people with limited mobility, but not this one. Cost is \$50 but no one turned away for lack of funds. The number of participants will be limited to 6, so you **MUST REGISTER** in advance. If you show up without registering, you will be turned away. Contact Deanna, [leibseay at gmail](mailto:leibseay@gmail.com). (You can also call at 540-205-9815 for information, not registration, but email is strongly preferred.) Fri, Sat, Sun, April 7 - 9, all day, starting 10 AM Friday, April 7.

#### **Solar Electricity 101**

Do you know difference between volts, amps, watts, and kumquats? Want to learn how to wire up your own solar electric panels? LEF's own Eddie Crowley will lead a workshop on electricity, with a focus on producing and using solar electricity. Eddie will talk about how off-grid houses are normally wired, as well as how we produce and use electricity in our own unique way at LEF. Cost \$25 but no one turned away for lack of funds. No pre-registration necessary. Sat, April 15, 1 PM to 4 PM, at LEF, 1022 Bibb Store Road, Louisa VA, 23093.

#### **New Shop!**

We had a lot of interns in February, so they built a shop for us. Fantastic! We have been cramming our various experiments and mechanical projects into tiny little spaces. The shop will give us a some space to work and store parts. We have been collecting and building various 180 volt DC shop tools. Now we can set them up. Much thanks to Gilgamesh and Chris who have worked to make this project happen.

## Got a Front Load Washing Machine to Retire?

We want one to hook one up to run on a direct-drive DC motor. Drop us a line.



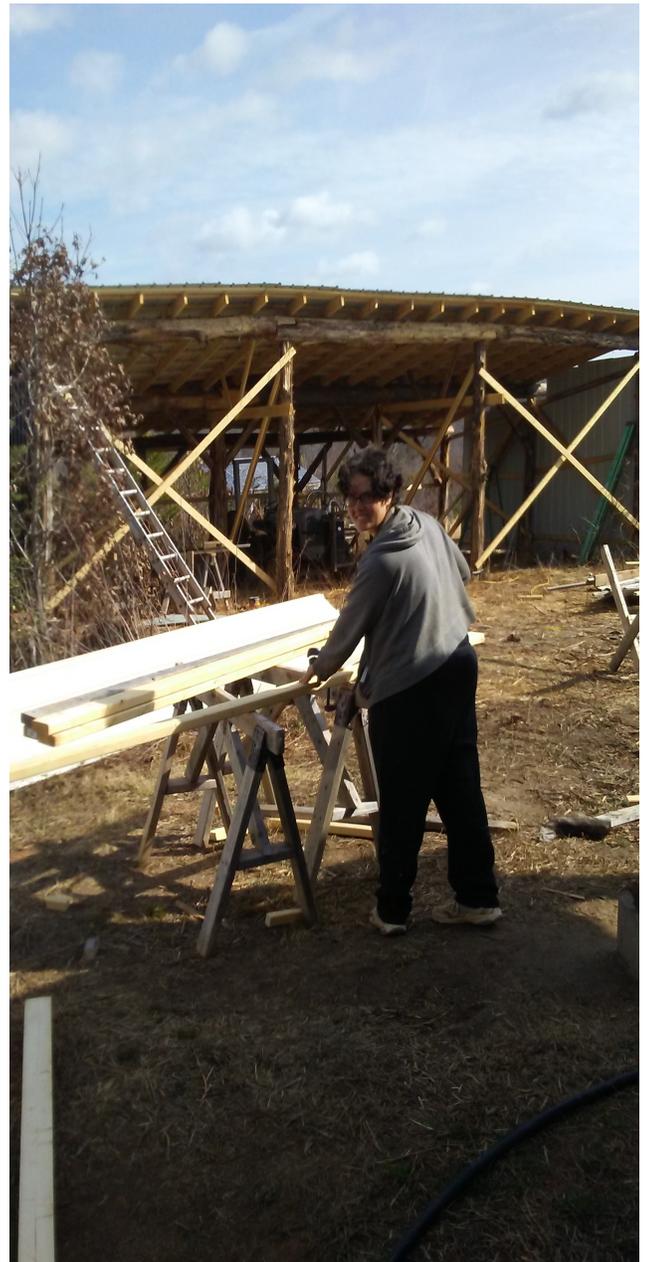
*Eddie starts work on the tropical solar boiler, the cold-weather hardware in the background.*

## Solar Boiler

Eddie our technical intern has shifted from working on woodgas to working on the solar boiler to make steam for cooking. No steam yet. Keep your fingers crossed.

## Zero Fossil Fuel on Prime Time?

We at LEF have had some interesting experiences with local and global media in 2016 and 2017. In 2016, we spoke with representatives from BBC, Discovery Channel, and Netflix about their desires to do shows



*Deb building a duck house, new shop in the background!*

about off-grid living. BBC said they wanted to do a show about a group of people living off-grid. I told them about LEF, as well as several other projects around the U.S. with similar goals. (Possibility Alliance in Missouri, a Neo-Christian group in Iowa called Brotherhood of Christ, a small group in Harrisonburg VA called the Downstream Project.) I suggested that by looking at groups who had been working on this idea for years, they would get a great picture of what life can really be like without fossil fuel. They said that they were not interested in my idea. They intended to drop 50 people with no experience living off grid in the Australian Outback and film what happened for the first year. That sounded pretty grim. We declined to participate.

Discovery sent a couple producers out. They looked over our project. Then they informed me that they had found a couple living in a bedraggled cabin on the Eastern Shore. The couple was struggling to manage livestock, build their buildings, and deal with all the necessities of homesteading. They then offered me a few thousand dollars to hire a crew, buy building materials, and go build them a barn or a composting toilet so their show could look like rustic home make-over heroes (I guess...). Seeing my blank look the producer responded “there's not much money in television.” They were not particularly interested in LEF either.

Producers from Netflix interviewed us, and then dropped the idea without much explanation. Fox News has also done its part to contribute to the image of living without fossil fuel as a Grim Specter, though in that case it had nothing to do with LEF. If you haven't seen *Gaslands I & II*, they are excellent, low-budget documentaries about fracking. The original *Gaslands* caused enough trouble for the fracking industry that they counter-attacked. Fox News ran a “story” about “debunking” *Gaslands* in which the commentator listed the “falsehoods” in the documentary with a backdrop of film from an African famine playing behind the commentator, who then concluded with a comment about what life would be like without fossil fuel. (It's on youtube.)

There have been numerous stories published about LEF. (There is a list at end of the newsletter.) These stories have been a welcome avenue to reach people. The most recent Atlantic article portrayed off-grid living as a hardship, and then closed with a comment about how solar energy is “expensive.” Several other writers have commented about how solar energy is “too expensive.” Funny thing is, they didn't ask me how much it cost to build our infrastructure at LEF.

Truth is, if you do anything alone, then you can't do much. If you live in the city and tried to pave the 50 feet of roadway in front of your house, that could be rather difficult and expensive. Societal choices determine the cost of most of the infrastructure we share. LEFers often travel by train. It is shocking how cheap cars seem compared to the train, when obviously the train is much, much more efficient. But automobile travel is largely socialized via the various federal and state Departments of Transportation. The State bears the cost. At LEF, we say over and over again that our most important technology is community. It is only by the cooperative use of resources that we have any hope of undertaking projects of any complexity and reducing our ecological footprint. It is by focusing on the individual pitted against the wilderness that one can make life without fossil fuel look miserable.

So how much does it cost to live without fossil fuel? And is there any truth to the image of the Grim Specter of misery in the absence of fossil fuel? Our buildings at LEF were informed by a strawbale insulated, solar-heated cooperative house in Charlottesville that Alexis built prior to LEF. At last measure, that house used 91% less energy on a per-capita basis than the American average. The formidable cost? About \$14,500 on a per-capita basis, including the purchase price of the land. (Incidentally, there is no solar electricity on that house, which belies the focus we have developed for grid-tie solar electricity.)

Last night it was 15 degrees F. Yesterday it was partly cloudy with a howling cold wind. Forgive me if this

is “too much information,” but last night I slept naked with a sheet and one blanket over me. I can't remember the last time we built a fire for heat. Six weeks ago? The build-out cost of our zero fossil fuel house, kitchen and attached infrastructure at LEF is about \$10,000 per capita. (Not including the purchase price of the whole farm property.) It's really quite simple. We have fewer square feet per person (by far the biggest cost difference), we don't have to pay for a heat pump, boiler, or furnace. Our solar hot water heaters and solar space heating equipment is comparable to the cost of conventional equipment we didn't install. We have fewer bathrooms (mostly by dividing the functions of a bathroom) and one kitchen. A strawbale wall cost less than a “normal” wall because strawbale is ideally suited to unskilled labor, but the strawbale wall has four times as much insulation. The final cost of a LEF model self-sufficient house is less than most people pay for housing in the industrial world. Energy self-sufficient communities are cheaper, not more expensive. So why the recurring Grim Specter of chaos in the outback? Why the recurring theme that a self-sufficient lifestyle is “too expensive”? One can only presume that it relieves the discomfort of the viewer or reader of commercial media stories to know that such outlandish alternatives really are impractical.

It is a profound irony that so many would imagine life without fossil fuel to be a sacrifice. The world we inherited involves terrible sacrifice. So many people work so hard, taking out 30 year mortgages to pay for their houses (which are, statistically speaking, *three-times larger* per capita than two generations ago) and to pay for the cars to drive to work. But our culture sets our values, so we have normalized the sacrifices that support the industrial consumerist economy. We have developed a lifestyle that is expensive, and leaves each individual or family to fend for themselves. That has become a cultural value, and like so many other cultural values, we hold to it, defending our beliefs with ideological vigor and fiction as necessary.

And now our political system is twirling ever more into madness because the corporate powers that supply our fossil fueled addictions are also buying our political system via their own private propaganda “news” programs. History is painfully clear, economic concentration leads inexorably to the concentration of political power. Protests and expressions of indignity will not reverse that process. Economically empowered, sustainable communities can. As much as I understand the visceral reaction we have to immediate circumstance, we do not have to keep losing to civic decay. We simply have to decide that a long term, realistic plan is more important than having enemies. And we have to choose our culture, from the bottom up.

We are all going to live without fossil fuel eventually. If we work on it now, we can improve our lives. If we wait for the money system and food production to destabilize, it's going to be much, much more difficult. Think that's not going to happen? The temperature oscillation we are experiencing as I write these words is going to hit our food production on the east coast, just like it did last year. We are at the beginning of a 100,000 year curve. That's how long it takes to wash the carbon out of the atmosphere. We are headed for change. We need a longer term focus. Can't afford it? We cannot afford to live an individualized, consumer lifestyle AND stack gobs of “renewable” energy on top of it. Total per-capita electricity production at LEF is less than 200 watts. We can afford that, if we can choose our own cultural values. We pay for what we really want. It's time to want a livable world for our children. It's not somebody else's responsibility. It's yours.

### **Expanding the LEF Model**

For the most part, the mechanical side of LEF is working really well. We said from the beginning that we would not be a technology development center, that we would simply use technologies other people have developed. It hasn't worked out that way. We are having to innovate quite a bit. That takes time, but it's coming along. We will improve things, but even now, our life is very comfortable.

Now it's time to build a movement of economically empowered, sustainable communities. We stuck our toes in with drilling a well in Bindura, Kenya, but the communication has not been adequate to support further work there. The silver lining is that we went looking for others who might be able to get involved, and we found some folks. One of those folks is Katherine Heitz (Kate). She has worked for numerous non-profit organizations helping people around the world. Frustrated with the bureaucracy of the bigger organizations, Kate started her own group to drill wells in Africa called Groundswell. (Website <http://www.groundswelldevelopmentproject.org/>) Her family is based near LEF. We had numerous meetings with her before she left for Lebanon (where she is now working with an organization that removes land mines). In about a month, she will be back in Kenya. She has worked with a clinic there that is hauling their water with donkeys, and does not have reliable lighting. We believe we can use LEF's approach to help the clinic, and hopefully plant a seed of sensible off-grid living in Kenya in the process.

We have also had three meetings in the last few years with members of the Board of Directors of Ekal Vidyalaya, a very large organization in India who runs literacy programs in 60,000 Indian villages. They are hoping to provide rural economic support so the children they educate will have better opportunities. They have done work with solar energy, but unfortunately they have relied on solar contractors who use the poorly conceived American design of using lead-acid batteries, inverters, and AC equipment. Those systems fall apart in a few years. A few board members suggested that we may be able to help them apply an LEF-style design to their efforts. We're still just having the conversation, but it is promising.

The primary root of global ecological problems lies in the industrial world, in the U.S. in particular. We lead the world in financial and military power, and as well as cultural models, like our poorly conceived solar energy systems. As the modern economy goes through its inevitable convulsions, more people will end up on our doorstep at LEF. For LEF to be a viable seed that can grow as replacement for the consumer economy, we need more LEFs. Today I am going to order a couple more DC motors for our shop. That is really easy right now. As these inevitable economic convulsions arrive, that might get much harder. The more we can do now, the more viable the idea is in the long run. LEF has some connections with the Intentional Communities (IC) movement. The hardest part of transitioning to living in an LEF-style community for the average American would be giving up control over so much private space (house and automobile). For people in ICs, the most difficult transition has already been made. We will keep trying to promote our ideas there as elsewhere.

That's where you come in. We have had some generous donations to the Living Energy Global Initiative fund. But it makes no sense for us to try to build LEF-style communities for people who don't want to live in them. We need to find people who want to live this way, where ever they are. We have a great crew at LEF now. But our bubble of ecological purity, if that's what it is, doesn't help anyone until we can figure out how to transplant the model. We need your help with that now. Our biggest need now, indeed the only way we can address the larger ecological crisis, is to de-stigmatize the cooperative use of resources. The only way to accomplish that is to have more people doing it and promoting it.

We are all going to live without fossil fuel eventually. The inherent instability of the rapidly changing modern industrial system, with its financial system leveraged on thin air, might bring instability sooner. Or perhaps the inherent ecological instability of geometric growth on a finite Earth will take some decades to play out. Either way, we will all live without fossil fuel eventually. The solution to that problem is the same as the long-term solution to civic and political ossification -- sustainable, empowered communities. You could help us organize a conference about long-term solutions, entitled *You Know What You Oppose, Do You Know What You Support?* If you have skills, you could take Eddie's place as a technical intern when he leaves at the end of April. You could look around, in the U.S. or abroad, and help us find people for whom a shared economy based on renewable energy would be a welcome addition to

their lives. It's time for you to help us figure out how to plant new seeds, in the U.S. and abroad. We look forward to hearing from you.

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](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](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](http://www.livingenergyfarm.org), or contact us at [livingenergyfarm@gmail.com](mailto: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.*