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NEWSLETTER

energy matters

AUGUST 2011



I-Renew is a proud member of Iowa Shares. Through research, education, advocacy and direct service, Iowa Shares' members address problems at their root causes and implement innovative programs for long-lasting social, cultural and environmental changes in Iowa's communities and the world.

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Iowa Renewable Energy Association Annual Member Meeting 9.11.2011

See you at IRETC!

The I-Renew Board of Directors and Staff cordially invite you to attend the **2011 Potluck/Annual Meeting** from **11:00 - 5:00 pm Sunday, Sept. 11th, 2011** at the Iowa Renewable Energy Training Center (IRETC) at 120 E Boyson Rd, Hiawatha, IA.

We felt hosting the meeting at our training center was both natural and optimum as so many of our members have not had a chance to visit our new educational facility at PrairieWoods since substantial completion. Though there is still some work to complete on site, we currently hold regular Open Houses and

part of our scheduled educational workshops series at IRETC.

At 11:30 am I-Renew's Managing Director Steve Fugate will give a walking tour of the technologies in operation at IRETC and share future plans for augmenting the site in partnership with PrairieWoods.

At noon we will have a potluck lunch featuring grilled local, organic meats and veggies. Please bring a side dish, beverage or a desert to share.

The meeting will begin at 1:00 pm and go until 3:00 pm, leaving time at the end for relaxed gathering and creative discussions about the future of I-Renew and renewable energy in Iowa!

We look forward to seeing you soon! Watch our website for details: www.irenew.org.

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Iowa Renewable Energy Symposium and Expo

2012

The wheels are already in motion planning for our 20th Anniversary year of Iowa Renewable Energy Symposium and Expo. With Kirkwood Community College as our major sponsor and partner in bringing this event to you, we are just as excited as they are to deliver a provocative, engaging, educational, and fun event for all! Please keep checking our website for updates as they become available.

www.irenew.org



From the Director's Chair:

Greetings members! It has been one heck of a hot and busy summer here in the I-Renew office. While we continue to try to hold our scheduled workshops and open houses at the Iowa Renewable Energy Training Center, we are aggressively seeking to re-engage our membership. Our "Renew Your Future" film series is a good example and you can help with this effort by contacting our office about bringing the documentary of interest to your community! On Wednesdays when we aren't presenting our film series, we have been demonstrating our recently completed Mobile Electronic Device Charger (MEDC) at the Iowa City farmer's market. The MEDC allows folks to charge their cell phones for free with the power of the sun.

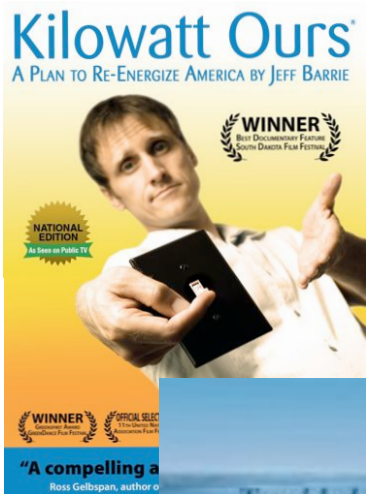
Since our Expo in April, our summer schedule has been full of activity. With the addition of summer intern Amelia Rudberg, our staff swelled to four, which helped us with our booth at the MREA Energy Fair in Custer, WI. I-Renew and Yoderville were the proud supplier of B100 to power the MREA diesel fleet. About 50 gallons of high quality Iowa made Biodiesel sweetened the exhaust smell coming from the loaders. We roasted in the sun some days and got drowned on the last day, but the learning and networking opportunities made it all worthwhile. Closer to home, we have displayed at the Eco-Education tent at a series of events put on by the City of Iowa City: The Arts Festival and Jazz Festival. The final event in the series will be Sand in the City, August 5th : stop by our booth and say Hi!

On July 5, Steve and BOD member RJ Jordan were on the Bob Bruce Radio Experience talking about renewable energy. You can listen to the recording on our website. In collaboration with Yoderville Biodiesel collective, we conducted a biodiesel workshop with attendees coming from Iowa, Illinois and Wisconsin. It was well attended and the participants seemed happy with the results. Recently I did a Biodiesel interview for an NBC affiliate in Columbus Missouri; check the website for the link. I also used my fabulous B100 powered Pick-em Up truck to haul the good folks from Physicians for Social Responsibility and Veterans for Peace in the North Liberty and Coralville 4th of July parades.

On the third Tuesday of each month, we are hosting Open Houses at the IRETC at Prairiewoods at 120 Boyson Rd in Hiawatha , IA 5:00 PM to 7:00 PM. Here you can see many renewable energy systems in operation. Please stop by and say "hello" as we really need to know if this sort of opportunity appeals to our members. I hope to see all of you at the annual member meeting this year. If we have not met yet, please find me and share your vision of our future.

Steve Fugate

I-Renew Executive Director

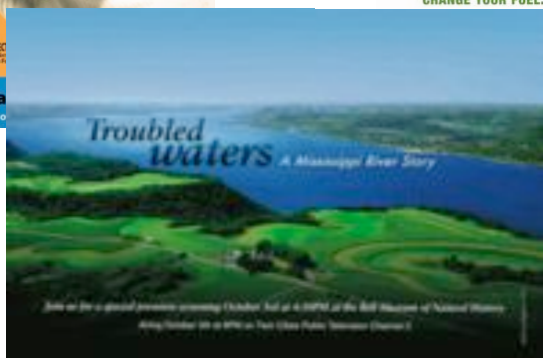


THE WORLD IS ADDICTED TO OIL.
IT'S TIME FOR AN INTERVENTION.



FUEL

CHANGE YOUR FUEL...CHANGE THE WORLD



Film Library and Renew Your Future Education Series

On July 6, we kicked off our Renew Your Future Education Series, a series of outstanding documentary films on the basics of living, clean air, clean water, good food, efficient shelter, and of course, energy. The first film in our series was Kilowatt Ours, a film about the current state of energy generation in the US, including the effects of mountain top removal coal mining, and what we can do to reduce our energy use and generate clean energy.

We followed up with FUEL, an award winning documentary about the oil industry and how it affects our lives, biodiesel as an alternative to petroleum fuel, and other things we can do to produce clean energy, improving our security, our health, our lives, and the lives of others impacted by extraction of energy from foreign sources. The film was very well received and followed by a lively discussion.

Our upcoming film is one that hits close to home: Troubled Waters: A Mississippi River Story. This controversial film about

the impact on the Mississippi from industrial agriculture was originally blocked by the very university that commissioned it because of university ties to the agribusiness industry. There will be 2 showings:

- [Wednesday August 17](#) at 6:00 PM at the Coralville Public Library, meeting room A, 1401 5th Street, Coralville, IA
- [Wednesday August 24](#) at 6:00 PM at the Iowa City Public Library, meeting room A, 123 S Linn St, Iowa City, IA

All films are free and open to anyone. They are accompanied by free, locally grown organic popcorn from Oak Hill Acres Organic Farm. Come out and enjoy a great film, popcorn and discussion with fellow renewable energy enthusiasts.

Please help us continue this program. We are in the process of building our film library. Donations to help cover the cost of public performance licenses, which can be very expensive, are greatly appreciated.

If you would like to bring the series to your hometown, and could host or organize a screening, please contact us. We look forward to hearing from you.

website updates

Thanks to I-Renew Technology and Outreach Specialist Joe Diaz, our website showcases some fabulous updates! Check out the following and be sure to tell us what you think!

1. New user-friendly Homepage and Mobile Site
2. Updated Benefits of Membership and Member Survey
3. I-Renew Calendar and Renewable Energy Events Page
4. Renewable Energy Factsheets
5. I-Renew Store

follow us on



events	august	september	october
<p>The adjacent events are I-Renew sponsored workshops and are designed to provide knowledge and hands-on expertise in renewable energy technologies. I-Renew's open houses are open to the general public every third Tuesday of each month for those interested in walking through the training center and learning about I-Renew. For more information please visit www.irenew.org</p>	<p>11 RE101 Solar and Wind Technologies Kirkwood Community College, Cedar Rapids, IA</p>	<p>10 RE101 Solar and Wind Technologies Kirkwood Community College, Cedar Rapids, IA</p>	<p>1 PV 101 Basic Photovoltaics Prairiewoods Franciscan Spirituality Center, Hiawatha, IA</p>
	<p>16 Open House, 5-7 PM Iowa Renewable Energy Training Center, Hiawatha, IA</p>	<p>20 Open House, 5-7 PM Iowa Renewable Energy Training Center, Hiawatha, IA</p>	<p>6 Solar Hot Water System Install Prairiewoods Franciscan Spirituality Center, Hiawatha, IA</p>
	<p>20 IRENEW Board of Directors August 2012 Strategy/ Planning Meeting</p>	<p>29, 30 Small Wind 101 SW101 Solar Domestic Hot Water Prairiewoods, Hiawatha, IA</p>	<p>8 Solar Hot Water System Commissioning and Performance Prairiewoods Franciscan Spirituality Center, Hiawatha, IA</p>

Community Solar Garden Project

I-Renew Director of Operations, Gina Wolfe Interviews Warren McKenna, Manager of the Farmers Electric Cooperative

Hello, I am Gina Wolfe, an [AmeriCorps Energy Corps](#) member with the Iowa Renewable Energy Association.

Iowa is known for its agriculture, but we're here today to talk to Warren McKenna, Manager of the Farmer's Electric Cooperative to talk about a different kind of garden: their Community Solar Garden project.

The [Farmer's Electric Cooperative](#) in Frytown, Iowa is small organization as electric utilities go, serving just over 500 members. Despite its small size, it has a long tradition of firsts, including being the first rural electric cooperative in the nation. The new Community Solar Garden Project is another first, being the first community solar garden project in the state of Iowa. *Please check I-Renew's You Tube channel to watch a video of this interview!*

IR: Warren, solar gardens are a pretty new phenomenon, community solar projects are underway in other states: California, Colorado, Washington, Florida and several others, but this is Iowa's first. Could you tell us exactly what a solar garden is?

WM: From our perspective our solar garden is a place to place solar arrays in a common area for our member customers that want to purchase, that maybe can't have a solar array on their house or in their yard due to constraints. That's it. It's an open space next to our shop where we're going to put solar panels, for now.

[Continued on next page....](#)

IR: Great. What kind of constraints might prevent some of your members from actually installing their own systems?

WM: The size of the property, trees, shading, no south-facing roof. Maybe they can't afford to put 10 modules up or 20 modules and they just want to buy one module at a time.

IR: OK. So, how can such a small organization as the Farmer's Electrical Co-op afford to finance a project like this?

WM: It's not that huge a project to begin with. We are... some of the costs are allocations from our energy efficiency initiatives and our customers, of course, are buying into the project, so it's not a huge deal.

IR: OK. So who is eligible to own a share in the community solar garden project?

WM: Currently, only our customers are eligible to own solar modules.

IR: What would be the advantage to a co-op member to buy into the project rather than purchasing a solar energy system for their own home or farm?

WM: The advantages are low cost to entry, and the fact that we site it here locally. They have property constraints, again; insurance: we're insuring the modules. Maintenance, we're doing the maintenance and the install, so they have none of that. They just purchase a module and we take care of the rest.

IR: So it makes it much easier for anyone to actually get into a solar system.

WM: Correct.

IR: Great. What has been your members' response to the project?

WM: Actually better than expected. We initially were gonna introduce the program at 20 modules, and I was very skeptical that we'd do even 10; and ended up we had about... by the end of the month we'll probably have 60 modules sold, which is about over 10% of our membership, so (they) responded.

IR: Wow, that's great!



WM: The initial 250 dollar offer we limited to one module per customer. After that they can buy into it at a higher price, of course.

IR: OK. And, what prompted you to take on a project like this?

WM: It originated as a project that we submitted an application to the Iowa Power Fund, and it sat there and sat there and sat there, and, uh, we discovered we weren't gonna get funding. So we discussed it with the board of directors here and they decided to just do a small trial and, uh, to see if there was any customer interest and we had a lot of customer interest, so then they actually tripled the number of modules that we offered. So...

IR: OK, so, you mentioned not getting the funding from the Iowa Power Fund. What other challenges have you faced getting this project off the ground?

WM: Just trying to find a price, to set a price where, um, low enough to where... but high enough to give us some kind of payback and also benefit the customer. I think that's the biggest challenge, because the hardware's there. And, some challenge, we tried to do most of it with American made products or American assembled product, so that's been a little bit of a challenge to keep the price low enough.

[Continued on next page....](#)

IR: Great. And what are some of the highlights of the project for you?

WM: the customer involvement and the customer feedback. They've stopped in, called, you know they just, um, they want a panel, a module, I should say, pretty bad, and it's amazed me, I guess.

IR: And, what would you say to people who claim that there's no interest in renewable energy among the public?

WM: There's a lot of interest. I yeah... I just...I think it needs to get out there, it needs to be affordable. There's a lot of interest in it.

IR: Great. So, what advice would you give to others in Iowa who are interested in starting a similar project?

WM: Go for it. I think they'd be surprised at the interest in renewable energy, in particular, solar. Call me; I guess, yeah, we'll help you out. We can help. **IR:** Great. Now, Warren, [Colorado has a law in place](#) governing the establishment of community solar gardens. What do you think about getting a similar law passed in Iowa?

WM: That's a good question. Right now I don't think it's that favorable for Iowa, because of budget problems and, I don't know the particulars of the other legislation around the country, but it just doesn't seem to be a favorable environment in Iowa right now.

IR: Why do you think that is?

WM: I might be the current administration, it might be budget problems, I don't know.

IR: OK. A little bit about you. You're on the board of the Iowa Small Wind energy Trade Association, could you tell us about that?

WM: The Iowa Small Wind and Solar Trade Association (interviewer's note: the official organization name is the [Iowa Solar/Small Wind Energy Trade Association](#) aka ISETA, my apologies for the misstatement.) is a group of contractors and mostly business, anybody involved with renewable energy products, manufacturing throughout Iowa, mainly. Some of the manufacturers are outside of Iowa, of course, that want to play a part in building a market here in Iowa.

IR: Great; and, how could the Iowa legislature support that? What policies could be enacted to support

renewable energy and especially distributed generation?

WM: We desperately need a policy that affects all utilities, investor owns, municipals, and cooperatives. I'd go so far as to say we need initially a mandated net metering law so that contactors can come in and sell these projects and expect a return. I think it would build jobs, a lot of jobs.

IR: Great, so how could the average Iowan get involved with renewable energy?

WM: The average Iowan? Good question. By... put it on your home if you have south-facing roof or a south-facing piece of property. First off, I guess, find out where you can save energy before you put it in. Monitor your energy use. Check your daily usage. Know what a kilowatt hour is. Look at energy efficiency; look at your appliances; and then look at renewable energy.

IR: OK, and last question: what do you want people to know about you?

WM: That's a good question. That I use renewable energy in my home, and I use about 300 kilowatt hours and I generate about 300 kilowatt hours a month. So I typically have a credit on my bill most of the time due to solar. That's why we believe in the technology, because it works.

IR: That's fantastic. Well that's about all I have for you today, Warren McKenna, thank you very much for talking with us today. This is Gina Wolfe from Iowa Renewable Energy Association signing off.

WM: Thanks!



I-Renew

Salvages

Storm-Damaged Wind Turbine in Vinton, IA

Vinton, IA – July 27, 2001. On July 11, 2011, an exceedingly strong storm complex barreled through east central Iowa with sustained straight line winds up to 130 mph leaving devastation in its wake. The town of Vinton, IA was one of the towns hardest hit. Homes, public buildings, cars and trees sustained heavy damage.

Vinton homeowners Dan and Kim Isbelle were lucky in that their home and cars were not damaged by the storm. Their renewable energy system, a hybrid system consisting of both solar and wind power with battery backup even protected them from the loss of electrical power suffered by so many of their neighbors. However, they did not come through completely unscathed.

The storm destroyed their wind turbine tower, bending it nearly in half and leaving the turbine broken and dangling. Two of the turbine blades were snapped off completely. One of them was never found. The nacelle and tail were damaged as well. The solar array was not damaged and continued to supply them with electric power, despite the

tracker being pushed out of proper alignment.

With a storm pushing 50 mph winds having followed the devastating one a week later and more storms in the forecast, Dan and Kim feared the dangling turbine and bent tower would come crashing down on their cars or home. They called I-Renew and offered to give us the turbine and tower if we would take it down.

Steve Fugate, managing director of I-Renew arranged for a crane from Coonrod Wrecker and Crane in Cedar Rapids to take down the tower and the I-Renew staff made the journey to Vinton. On inspecting the tower, we could see that the triangular tower was built in sections. The section second from the top had been bent by the wind into a spidery inverted “U”.

To prepare for the arrival of the crane that would lift the tower off its concrete base, Joe Diaz, one of our AmeriCorps Energy Corps volunteer, geared up and climbed the tower to clip the cables tethering the turbine to the tower and the electrical system.

After the crane arrived, Joe went back up the tower to guide the crane hook into position and connect it to the tower. It was the work of a few minutes for the crane operator to lift the tower off its base

and lay it on the ground where it could be dismantled for transport.

Kim Isbelle provided the crew with a delicious lunch of organic chicken and homemade brownies. Snacks of trail mix and cooler full or cold water were greatly appreciated on a hot day.

After that Kim and Dan both pitched in to help dismantle the tower and turbine and load the pieces onto Steve’s truck and trailer. Only the “U” shaped section of the tower seems to be beyond repair. The rest of the turbine and tower can be repaired and restored to useful condition.

It will be used as a demonstration and educational unit until it can be restored to operational condition and returned to service generating clean electric power. A video of the salvage process is posted on our website and Facebook page.

The turbine is a ten-year old Bergey BWC 1500. If you can help with materials, labor, expertise, or donations to restore the turbine and tower, please call the office at 319-338-1076 or email irenew@irenew.org. Also, if you have renewable energy equipment that is no longer in use, and would like us to take it off your hands, please let us know.



Amelia Rudberg, I-Renew Summer Intern

Also pictured are Gina Wolfe and Joe Diaz



What I learned this summer:

Working with I-RENEW this summer I learned a lot about the challenges of working in nonprofits. Everyone involved with I-RENEW is incredibly knowledgeable about current energy issues and over the summer I have heard many creative ideas. I have come to realize, however, that there are countless difficulties in executing these ideas. People have so many other things going on in their lives that the only ones who seem to take the time to engage with any nonprofit are the ones who are already passionate about the issue. The biggest obstacle is how to get the attention of those who may not yet know much about the importance of renewable energy. It is often frustrating to put so much time and effort into planning an event only to have a fraction of the audience you anticipated attend. Without much funding, there are limited options and a limited scale for education and outreach projects, but finding funding is an extensive project in and of itself. It takes an inventive, organized and passionate group of people to make a difference as a nonprofit. Based on what I have observed at I-RENEW over these ten weeks, the organization has already shown it can achieve this goal. It was interesting and enlightening to be a part of I-RENEW at a time when it is turning over a new leaf as an organization and I am excited to see what they will accomplish in the future.

Amelia Rudberg



newsletter highlights



Interview with
Warren
McKenna



Physicians
for Social

Responsibility Parade
Float powered by
Biodiesel



I-Renew

Rescues Storm
Damaged Renewable
Energy System