

## What Your Solar Co-op Has Done in 2018

This is NOT an end of the year “send money” email. We are a volunteer non-profit who charges 15% on hardware sales. This 15% provides working capital and all of this money goes to reducing barriers to renewable energy in our part of Kansas.

FHREEC had many accomplishments in 2018 though it was not a great year for the Kansans in Westar’s territory. But we are not discouraged. Soon rooftop solar will be everywhere in Kansas. It just makes so much sense!

### 1. Hardware installations FHREEC has done:

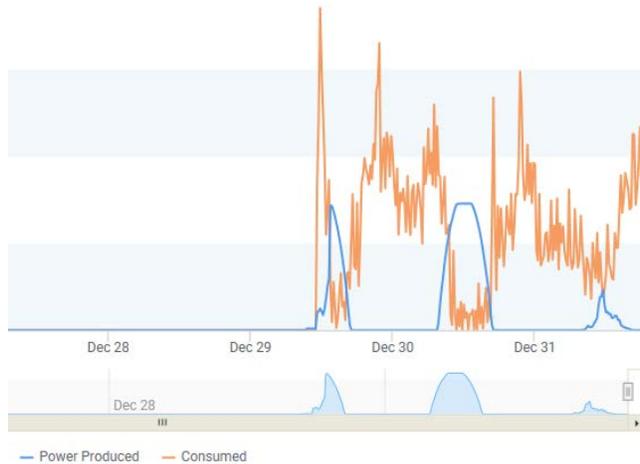
2018 # of panels installed: 80

Number of panels installed prior to 2018: 600

Statistics from Enphase indicate that our members have cumulatively generated 256,400 kWh’s of homemade power....saving our members a total of \$32,000 this year. All of these panels (probably averaging 250 watts/panel) will be generating electricity for a very, very, long time. YAY!

See the pictures below of recent Sunraisers! See our biggest system yet! Doug Toll (Bluestem REC Member) welded the frame with ideas from Kent Manual. Robert Rosenberg and Bill Dorsett helped stack the panels.

- ### 2. We’ve upgraded from our old 215watt M-series of Enphase inverters to the new 295watt IQ series.
- Below is a graph of our first Enphase IQ system which monitors both PV generation against energy consumed by the house (on a particularly cloudy couple of days.) The orange line is the consumption (load) in the house. The blue line is the production by the panels. The Envoy has the ability to match production with consumption, i.e. it can shut off the panels when the load is off in the house. This will enable DG customers to “hide” their production from Westar!



### 3. Training classes in 2018:

2 UFM classes  
Presented to seven classes of 5<sup>th</sup> graders  
Presented at the Discovery Center  
Flint Hills Audubon  
Jayhawk Audubon  
Discover Salina Naturally  
Mother Earth News Fair  
KSU Electrical Engineering lecture  
2 private meetings with Westar big shots

1 private meeting with Kansas State University big shot

#### **4. Booths at public gatherings:**

Bluestem Annual meeting

WEALTH Day attended and had a booth

Mother Earth News Fair attended and had a booth

Manhattan Dialog on Sustainability at KSU attended, where Carol Barta moderated a breakout session and FHREEC had a booth

#### **5. Other environmental action:**

1. FHREEC attended a Kansas Leadership training 3-day event where FHREEC learned how to present and solve environmental issues. This training was hosted by the Climate and Energy Project through an EPA grant and succeeded in getting some of the Kansas environmental activists together in one place.
2. FHREEC worked hard (but failed) to secure a grant for solar panels for the Nature Conservancy.
3. But we did arrange and write the grant for Doug & Maureen Toll to receive 25% of their system's cost through USDA's REAP Grant program. Of the remaining cost 30% can be written off as a federal income tax credit.....and what's left can be written off in accelerated depreciation as a business expense. Agribusinesses should definitely look at this. Call us for more information asap.

#### **6. Political Action:**

1. FHREEC had representation at a few political rallies and was successful in getting a gubernatorial candidate to include rooftop solar as a campaign issue.
2. In January 2018, the Climate and Energy Project, along with other environmental agencies, got the attention of the Kansas Senate Utility Commission who proposed a law rolling back the buy-back rate of electricity generated by solar panels to a previous favorable level. More importantly, the law would limit the utility company through a law that they would never be allowed to charge extra fees on those of us who generate renewable energy. The law also provided the utility company with the assurance that solar wouldn't grow uncontrollably by keeping a 1% cap on distributed generation. FHREEC board members attended (and briefly testified) at these hearings and learned that there is a lot of misinformation about solar. By the way, the law died in committee.
3. Westar petitioned the KCC for a rate hike to any residential customer who generated ANY (even the smallest amount) of electricity. The new rate plan for rooftop solar was met with stiff opposition from FHREEC, solar installers, and environmental groups. There were two public hearings (Wichita and Topeka) which FHREEC board members attended and testified. We got to say our peace in front of the KCC but we were ignored! There are now demand fees added to all distributed generation (DG) residential customers. However, our opposition may have caused Westar to go a bit easier on the DG customers! Demand fees are calculated on a 1 hour (instead of 15 minutes) period, and only between the hours of 2-7 PM (instead of anytime) on a non-holiday workday. Also, the volumetric rate was lowered a little. This rate policy has caused FHREEC to shift their focus to rural electric customers who are not subject to KCC policies. Also commercial and large residential customers are unaffected so FHREEC is targeting this market.
4. We contributed financially to the Climate & Energy Project to continue lobbying in Topeka; to the Kansas Chapter of the Sierra Club to file suit against the Westar Energy Demand Tariff on rooftop solar customers; to the Kansas Natural Resources Council; and to UFM, Community Learning Place for renewable energy education in Manhattan.

#### **7. Mass media communications:**

Eco radio Kansas City interview at [kkfi.org](http://kkfi.org)  
Many letters to the editor printed in several newspapers throughout Kansas

#### 8. Other work:

1. FHREEC had two “bulk buys” this past year. A “bulk buy” is where Bill Dorsett orders pallets of panels that are largely pre-sold. We only held 3 “Sunraisers” this year but trained 3 other people to install their own.
2. FHREEC has continued to deal with problems that sometimes crop up. For example, if an array is near lightning, there is often capricious damage. FHREEC wants to be sure that all panels are working efficiently so we worked with the homeowners and the hardware manufacturers to replace failed equipment. So far, all the failed hardware has been replaced under warranty. There haven’t been that many failures compared to all the panels FHREEC has installed in the past 7 years. It amounts to about a 3% failure rate.
3. FHREEC members work constantly communicating with anyone who can help us move toward the goal of lessening the world’s consumption of fossil fuels. We also continually research technological advancements that can solve these modern day problems.
4. FHREEC had representation explaining the virtues of rooftop solar at Bluestem Rural Electric board meeting.

#### What we plan for 2019

One of our expectations is to affiliate with the American Solar Energy Society...

Allowing us to join with the Clean Energy Federal Credit Union and offer our members low interest financing of efficiency and solar projects:

“First, it makes it easier for everyone to afford to use clean energy by providing loans with amazing terms. Since the new credit union will be a 21<sup>st</sup> century, online-only financial institution, all the overhead savings that result from not having brick-and-mortar branches are passed through to members in the form of better loan terms. Second, Clean Energy Credit Union makes it easier for everyone to invest in the clean energy movement by offering impact investment opportunities that have the following characteristics:

- They’re federally insured;
- They’re available to non-accredited investors;
- There’s a low minimum investment threshold – as low as \$5;
- They don’t require sophisticated investment expertise or a specialized understanding of the clean energy marketplace.”

***You will certainly hear more about this as we progress!***

#### What can you do?

We don’t need your money since funding comes from the 15% mark up on the hardware installed at a Sunraiser. **Instead, FHREEC needs your involvement!** If you know legislators, potential rooftop solar customers, and interested groups who would like more information, please hook us up.

Thanks Everyone for all your support.

**Let’s get rooftop solar to flourish in Kansas!**

Co-Chairs: Robert Rosenberg, Carol Barta and Bill Dorsett  
Flint Hills Renewable Energy & Efficiency Cooperative, Inc.

*Our biggest array yet. 48 panels!*



*Lunch at Ellen's. This is definitely more than about work...it's about community building.*



**SunRaiser for Ellen Hargrave, Bluestem Rural Electric Customer**

