



**Annual Report**

**2018**

**The Renewable Energy Alliance (RREAL)**



**THE POWER TO MAKE A DIFFERENCE**

# A note from Tessa Haagenson | RREAL BOARD MEMEBER

I first heard of RREAL when I visited the Hunt Utilities Group eco-campus in Pine River, on a field trip in the early 2000s. I was a student in the Environmental Studies program at Bemidji State, and HUG's energy-efficient straw-bale facility, complete with composting toilet, happened to double as RREAL's office.

My introduction to RREAL came at a time when I was giving a lot of thought to the natural resources that powered my daily life. My coursework at BSU highlighted the social and environmental implications of electric power production and consumption, and I had devoted much of the past year working with fellow students to persuade the campus community to invest in wind energy via the local utility. While my textbooks highlighted nuanced global challenges surrounding energy, RREAL was this very tangible, local example of a solution.

My experiences at BSU led me down a path of continued learning about the science, politics and economics of energy, and eventually, to a career in the electric power industry. More recently, as I searched for avenues to combine various interests and passions, I found my way back to the organization I had learned of nearly 15 years ago. Now, as a new member of the RREAL Board, I have a window into the operations of this incredible organization that evolved from a small group of volunteers into an efficient, high-impact team with an international reach. RREAL's mission to make solar energy accessible to people and communities of all income levels resonated with me when I was a student. In the context of the changing energy industry landscape in the US and across the world—driven by technological developments, concern over global warming and increasing automation, to name a few things—the work to ensure that individuals of all income levels can access renewable energy and an affordable, reliable power supply feels even more important!

In 2018, RREAL made great strides in this direction, completing the US Department of Energy's Solar in Your Community Challenge by implementing seven locally-owned and operated community solar installations, in Minnesota and Vermont. These projects help reduce the burden of energy costs for low-income populations,

including families facing tough choices between paying the utility bill and meeting other basic needs. RREAL accomplished this using their innovative Community Solar for Community Action model, which leverages existing federal programs to address energy poverty in ways that are both environmentally and fiscally sustainable.

Even as RREAL expands its programs at home, it continues to work with partners across the globe. This past year saw the kickoff of a fundraising campaign for a second Skip the Grid project in Africa—poised to help a regional medical facility serving 1,000s transition away from unreliable and expensive diesel generators.

From Backus, MN, to Liberia, the breadth of what RREAL has accomplished in the past two decades is inspiring—and it is a direct result of Jay's vision and leadership, a talented and committed staff, amazing volunteers and generous partners and donors. I am grateful for the opportunity to have a small part in furthering the goals of this organization as a member of the Board and I am so excited for what's yet to come!

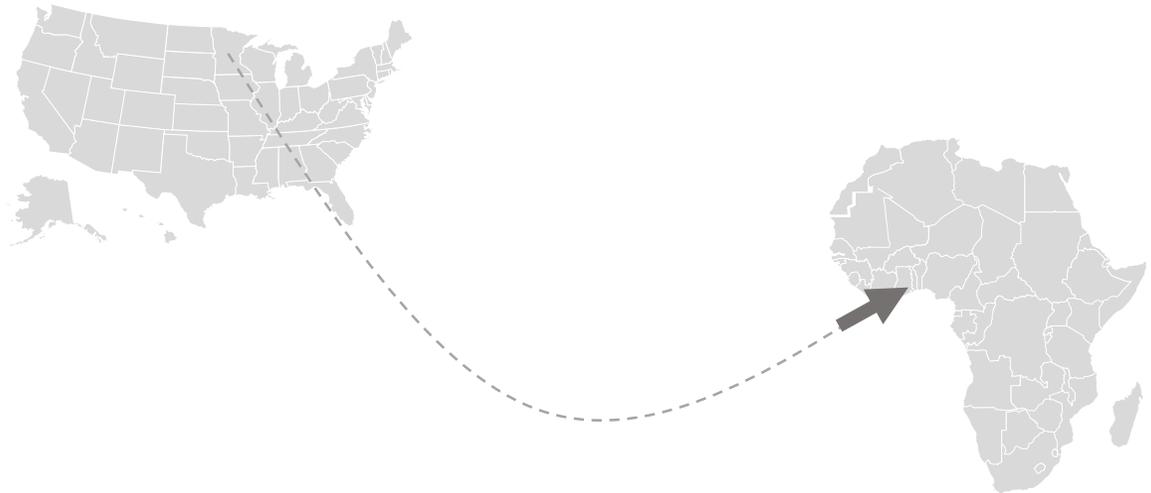


*Tessa Haagenson joined the RREAL Board in June 2018. She is currently employed as the Power Resources Manager at Burbank Water and Power in Burbank, California. The views expressed are her own and do not represent the views of her employer.*



# MISSION

RREAL's mission is to make solar energy accessible to everyone. We use the power of the sun to empower low-income communities across the globe with a clean, reliable source of energy.

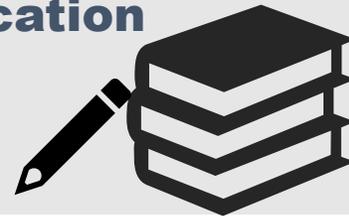


# RREAL's IMPACT in 2018

over

# 2252

students, teacher,  
and community  
members received  
solar energy  
education

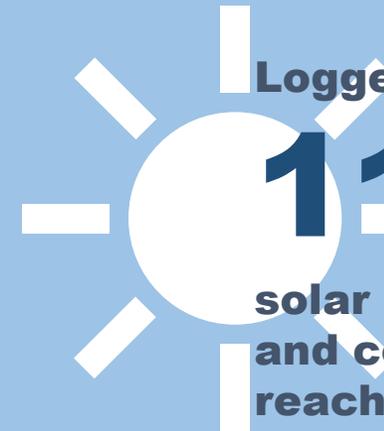


Logged over

# 110

 hours of

solar energy education  
and community out  
reach



Removed approximately **2,051,567**  
pounds of CO<sub>2</sub> from the air equal to the amount of  
carbon sequestered by **1,095 acres** of  
U.S. forests in 1 year



Commissioned about

# 1 MW

of solar energy benefiting  
low-income communities

# 2018 OVERVIEW



# 2018 New Faces!



**Rachel Juritsch,  
AmeriCorps VISTA**



**Peter Gebauer,  
AmeriCorps VISTA**



**Simon Eddy, Solar  
Project Management  
Intern**



**Shelbey Kummers,  
Accounting Intern**



**Milek Kivi, Solar  
Electrician**



**Jake Edwards,  
Installation Technician**



**Mike LaFleur, PV  
Business Development**



**Kevin Peters, Solar  
Electrician**

# 2018 Projects



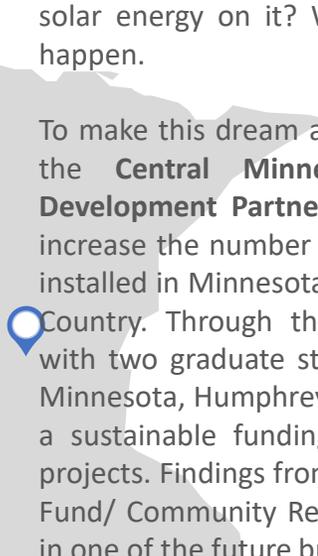
## Foley, Minnesota

### Solar for Humanity



In partnership with **Central Minnesota Habitat for Humanity**, we installed a rooftop solar array, which will save this veteran family approximately \$600 annually!

Habitat for Humanity (HFH) has taken the initiative to provide low-income families with quality, affordable housing. However, the challenges of homeownership do not stop there; families still deal with high energy burdens. Solar for Humanity is an initiative that provides Habitat homeowners with solar energy to lower the cost of their energy bills. Imagine if everyone Habitat for Humanity home had solar energy on it? We are working to make that happen.

To make this dream a reality, RREAL partnered with the **Central Minnesota Regional Sustainable Development Partnership** to identify how we can increase the number of Solar for Humanity projects installed in Minnesota, a leader in solar builds in the Country. Through this partnership RREAL worked with two graduate students from the University of Minnesota, Humphrey School of Public Policy to find a sustainable funding mechanism for future HFH projects. Findings from this project (Green Revolving Fund/ Community Reinvestment Act) will be tested in one of the future builds.

# Solar for Schools



## 2018 Projects



### Pine River, Minnesota

If you were a school superintendent, would you spend your limited budget on electricity? Or, would you spend it on teachers and textbooks? In partnership with the **Region 5 Development Commission**, we completed an 808kW solar array at Pine River-Backus School, which will produce about 80% of the school's electricity load and save the school significantly.



RREAL will be taking the benefits from the solar array one step further by integrating the site-based solar energy systems into the curriculum. This portion of the project will provide educational opportunities for students to understand how renewable energy supports communities, how their school's solar arrays work, learn valuable knowledge about energy conservation, and understand the transforming electricity grid.

The first project of its kind in Central Minnesota, our Solar Schools curriculum development project will bring age-appropriate Science, Technology, Engineering, Art, and Mathematics (STEAM) integrated clean energy curricular opportunities to all grades.

**Today's Youth Are Making Tomorrow's Energy Choices!**

# 2018 Projects



## Westminster, Vermont

We completed another Community Solar for Community Action Project. RREAL partnered with the **Southeast Vermont Community Action (SEVCA)** on a project to build, own, and manage an innovative community solar installation that will use virtual net metering credits to deliver solar energy assistance directly to Windham and Windsor County households with high energy burdens. This project, **Community Solar for Community Action**, demonstrates a new, nationally replicable model of energy assistance, empowering low-income households to meet their energy needs while supporting the development of renewable energy. a nationally scalable 100% low-income energy assistance model.

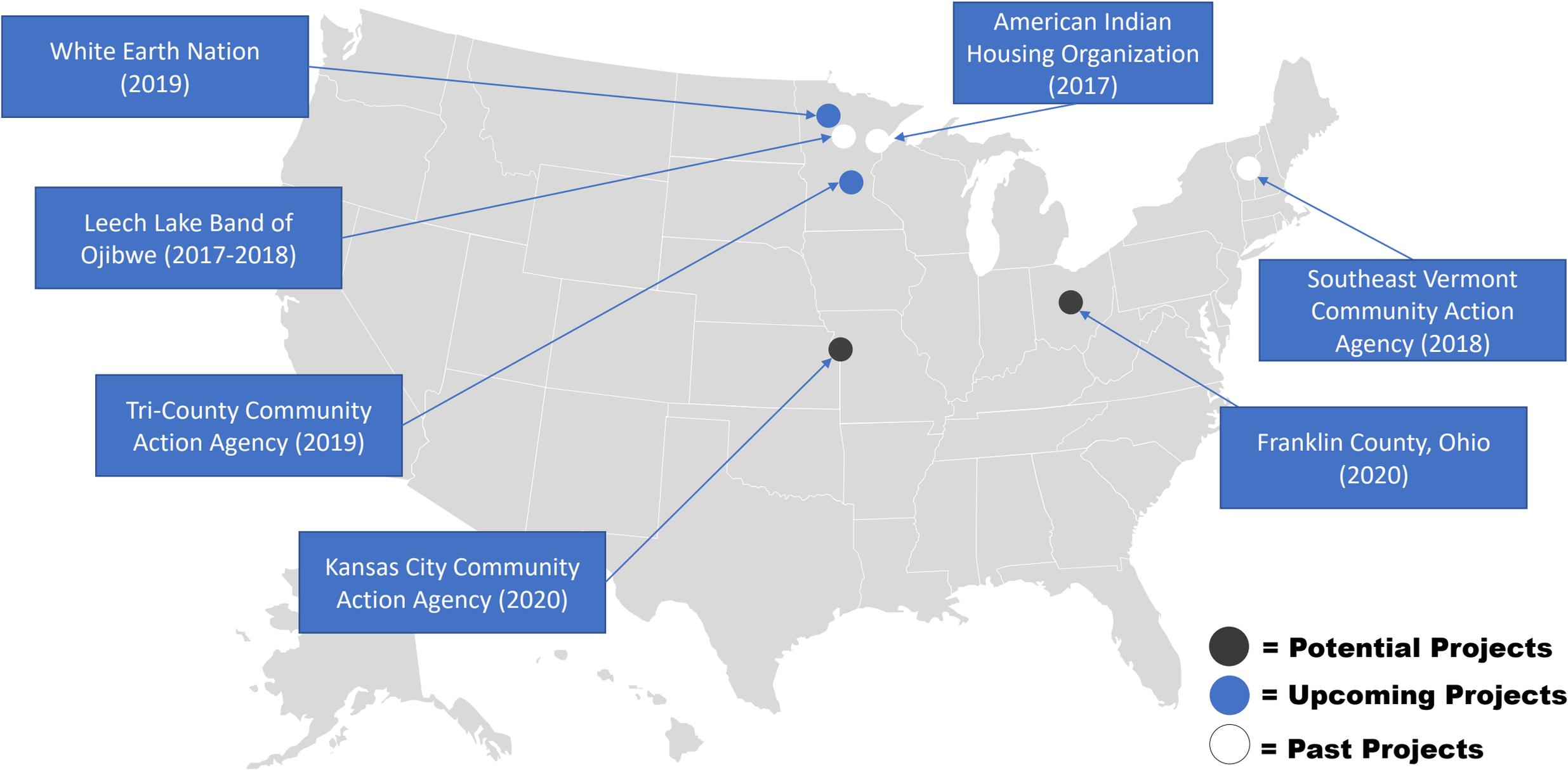
Vermont has a significant need for energy assistance among low-income households (1 in 5), making this a great additional proving-ground for this model. It will produce 119,500 kWh of electricity annually and will be used to reduce the energy burdens of approximately 50 low-income Vermonters.



# Nation Scaling of Community Solar for Community Action (CS4CA)



# Community Solar for Community Action: A Nationally Scalable Model



# 2018 Projects



## Siavonga, Zambia

RREAL's Special Project Manager, BJ Allen, was proud to have been selected as the Reciprocal Exchange Awardee to work with Mandela Washington Fellow, Muzalema Mwanza, of Siavonga, Zambia.

RREAL and the Safe Motherhood Alliance agreed to deliver portable solar generators to rural health care facilities lacking any electricity. The medical staff typically provide health care at night with nothing more than a cell phone, creating innumerable challenges. RREAL delivered rugged, portable, self-contained solar energy systems with lighting and built in inverters for general electrical loads.

Meet Samuel Matapa: Samuel serves as a nurse and nurse midwife in Manchavmya, a rural health care facility in Zambia. Samuel often must travel to remote homes when a mother is unable to come to the health care facility for the delivery. During this time he must depend on his cell phone for all light while traveling. Although his clinic has a modest solar energy system for some lighting and other electrical needs, the unit will be invaluable for augmenting their capacity and traveling to even more remote homes.

Here, Samuel is holding one of the portable solar generators. He no longer needs to solely rely on his phone for his travels and when delivering babies from remote locations. The smile on his face gives you a glimpse of the amount of appreciation he showed towards BJ and the Safe Motherhood Alliance for delivering these solar suitcases.

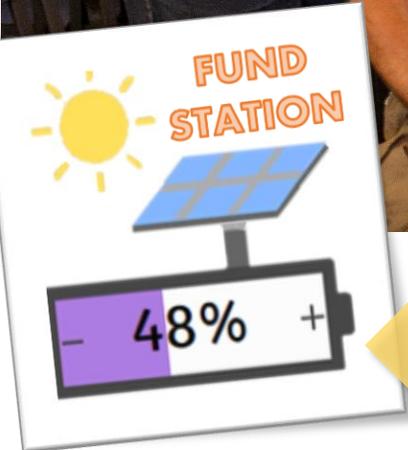
# Skip the Grid



# Current for Curran: A Personal Story



**Pictured: Sam with the Women of the ELCA who started the Skip the Grid initiative**



**Help us fully fund this project in 2019**

My connection with the hospital began in January 4<sup>th</sup>, 1964 when my mother gave birth to me. My mother earned a nursing certificate from Curran hospital and worked as a midwife in Monrovia, while my father graduated from BWI in Kakata, lower Margibi County and worked with Liberian Broadcasting Systems. My early childhood and education started in Zorzor Lofa County where Curran Hospital is located.

Current for Curran means giving life to those who are lifeless. The hospital is a beacon hope of light for the people in Lofa County. The war has changed the landscape and one place that provided life and care for the people is no longer effective and efficient. During my teens my parents would take us back to Zorzor every year for vacation. I remembered the cornerstone- Curran which provided life and health for the people of Lofa and Guinea. This was one of the best Hospital in Liberia at the time and served so many people in and out of Liberia. Providing one of the basic necessity-which is current will mean a lot for the community and the people of Liberia and particularly my family.

Current for Curran will provide a lift for the doctors who are working tirelessly under horrific conditions just to provide cares. It will also lift the spirits of the staffs, doctors, patients and the community. It will also create job opportunities for the citizens of Lofa County/Liberia.

People should care about this project because it is a life saving project. Humanity and serving mankind are ways of making this world a beautiful place to live. We are one flesh and blood, and if one of us fail, we all fail and if all of us choose to lend a helping hand, we all succeed in making this world a beautiful place. My future hope is that we all can come together and join Skip the Grid to provide opportunities for struggling communities/nations and its people. We can do this just by donating/giving our change and changing the lives of people around the world.

My hope is to see Curran as I saw it many years ago-Well lit, smiles, hopes and full of life. The beacon hope of medical health and life that served people from all walks of life.

**- Sam Subah**

# FISCAL YEAR 2018 FINANCIAL SUMMARY

## Statement of Financial Position

	December 2018
Cash	\$ 475,128.25
Accounts Receivable	\$ 240,856.82
Notes Receivable	\$ -
Inventory (Net)	\$ 485,006.89
Other Current Assets	\$ 36,381.08
<b>Total Current Assets</b>	<b>\$ 1,237,373.04</b>
<b>Total Fixed Assets</b>	<b>\$ 215,225.83</b>
<b>Total Assets</b>	<b>\$ 1,452,598.87</b>
Accounts Payable	\$ 220,476.35
Deferred Revenue	\$ 111,340.63
Other Current Liabilities	\$ 316,654.64
<b>Total Current Liabilities</b>	<b>\$ 648,471.62</b>
Loans	\$ 88,065.67
<b>Total Liabilities</b>	<b>\$ 736,537.29</b>
<b>Total Net Assets</b>	<b>\$ 716,061.58</b>
<b>Total Liabilities and Net Assets</b>	<b>\$ 1,452,598.87</b>

# FISCAL YEAR 2018 FINANCIAL SUMMARY

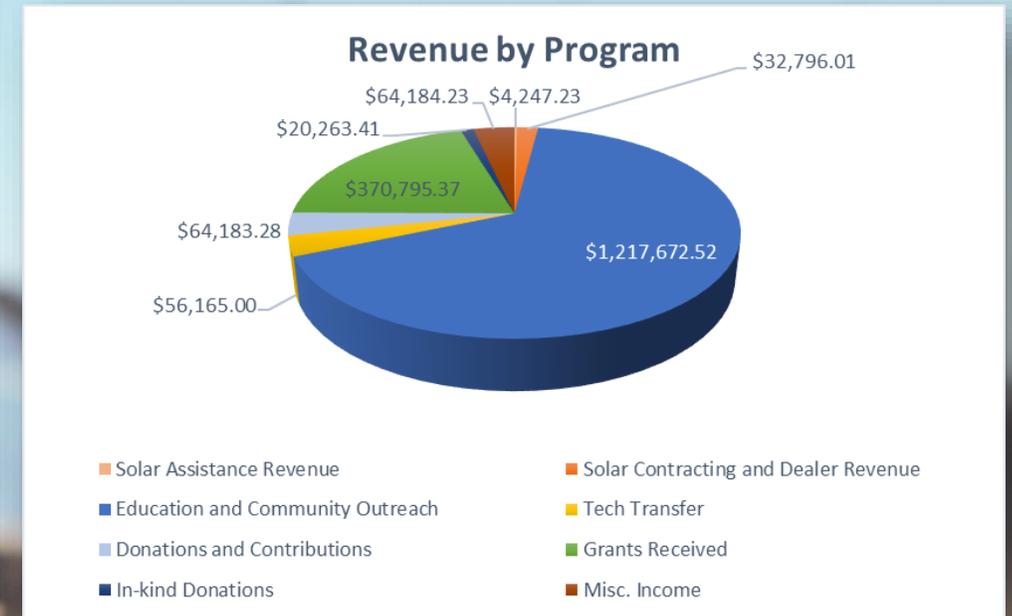
## RREAL Statement of Activities

For the Twelve Months Ending December 31, 2018

	Unrestricted Assets	Temporarily Restricted	Total
Solar Assistance Revenue	\$ 4,247.23		\$ 4,247.23
Solar Contracting and Dealer Revenue	\$ 32,796.01		\$ 32,796.01
Education and Community Outreach	\$ 1,217,672.52		\$ 1,217,672.52
Tech Transfer	\$ 56,165.00		\$ 56,165.00
Donations and Contributions	\$ 64,183.28		\$ 64,183.28
Grants Received	\$ 370,795.37		\$ 370,795.37
In-kind Donations	\$ 20,263.41		\$ 20,263.41
Misc. Income	\$ 64,184.23		\$ 64,184.23
Assets released from restriction	\$ (110,037.03)	\$ 110,037.03	\$ -
<b>Total Revenue</b>	<b>\$ 1,720,270.02</b>		<b>\$ 1,830,307.05</b>
Program Expenses	\$ 1,375,917.17		\$ 1,375,917.17
Administration/General	\$ 301,445.49		\$ 301,445.49
	\$ 1,677,362.66		\$ 1,677,362.66
Change in Net Assets	\$ 42,907.36	\$ 110,037.03	\$ 152,944.39
Net Assets - Beginning of Year	\$ 563,117.19		
Net Assets - End of Year	\$ 606,024.55	\$ 110,037.03	\$ 716,061.58

Unaudited and subject to revision

Does not containing the subsidiary Real Solar



# “WATTS” to COME

## Peek into 2019

### Solar for Humanity

In partnership with Habitat for Humanity we plan to install at least 4 solar arrays into Habitat home builds. Even after a family receives adequate housing from an organization like Habitat for Humanity, the costs of homeownership continue. Solar presents an opportunity to serve families and cut the costs of monthly energy bills, increasingly the likelihood of home ownership.

### Skip the Grid- Current for Curran

2019 is the year we will help Curran Hospital move from having electricity for only half the day to all day every day. This solar plus storage micro-grid will further demonstrate the importance of solar energy in rural electrification in sub-Saharan Africa.

### Technology Transfer

RREAL will be licensing the rights to manufacture its patented Solar Powered Furnace to a nonprofit in the White Earth Nation. Starting in 2019, the Solar Powered Furnace will once again be manufactured increasing the inclusive clean workforce opportunities and economic opportunities for a community with little access to the benefits of the booming solar energy industry.

### Skip the Grid – Rakai, Uganda

In 2018, the Minnesota-based nonprofit, African Children Today tapped RREAL to install a solar microgrid at the Junior Academy in Rakai, a school for orphans of the AIDS virus. In late 2019, RREAL will empower the school and its curriculum.

SAVE THE DATES

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**MAY 9TH, 2019**

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HAPPY HOUR FOR A CAUSE  
5-7pm | Prairie Bay Bar & Grill

&

BIKES, BREWS, & BLUES  
SUNRAISER

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**JULY 27TH, 2019**

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AT RREAL'S HEADQUARTERS  
More information to come!



# THANK YOU TO OUR SUPPORTERS!

**BJ Allen**

**Rodney & Linda Allen**

**Suzanne Allen-Guerra**

**Ally Financial, Inc.**

**AmazonSmile  
Foundation**

**John Arola**

**Mary K & Paul  
Bacigalupi**

**Liam Ball**

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**David Bennett**

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**Erica Bjelland**

**Susan Bjelland**

**Ethan Bjelland**

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**Beate Ebbinghaus**

**Deborah Eck**

**Simon Eddy**

**Jason Edens**

**Alison Hay Edgerton**

**Jebbeh Edmunds**

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**Linda J Engel-Moore**

**Beth Erdmann**

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**Beth Holst**

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**Christine Jauregui**

**Amy Jensen**

**Alexander Johnson**

**Rachel Juritsch**

**Kristen Keal**

**Marilee Keating**

**Susan Kelley-Outten**

**Adolphus Kesseh**

**Oly Khowash**

**Jane Kimmelman**

**Fay Klande**

**Christy Koch**

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**Elizabeth R Kostick**

**Charles Krysel**

**Steven Kuenzel**

**Jukka Kukkonen**

**Lois Kunze**

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Linda Lowell  
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Kristin Nelson  
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Graham Wright  
Eva Yeo  
Dan Zimmer

# THANK YOU TO OUR SUPPORTERS!

## Organizations

First Impression Printing  
Hope Lutheran Church  
Hoops Brewing fundraiser, Cash Revenue  
Institute of Electrical & Electronics Engineers Inc  
Innovative Power Systems, Inc.  
Larkin Hoffman Daly & Long & Associates LLC  
LPL Financial  
Minnesota Power  
Northern Community Lutheran Church  
The Network for Good  
Thrivent Choice Dollars  
U.S. Department of Energy  
Women of ELCA-Our Redeemer Lutheran Church Fund Raising

Women of the ELCA's Lake Superior Conference  
Women of the ELCA NE MN SWO  
Werner Electric  
Zion Women of the ELCA

## Foundations

Anonymous Family Foundation  
Bush Foundation  
CarVal Investors Foundation  
Initiative Foundation  
Lawrence Foundation  
Lindgren LTD Foundation  
McKnight Foundation  
The K Foundation  
The Carolyn Foundation

# OUR TEAM



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**Paul Johnson**  
**Kay Paulus**  
**Mike Spry**

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**Ben Butcher**  
**Simon Eddy**  
**Jason Edens**  
**Jake Edwards**  
**Anthony Fair**  
**Peter Gebauer**  
**Rachel Juritsch**  
**Milek Kivi**  
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**Kevin Peters**  
**John Ruvelson**  
**Brook Shire**  
**Kyle Tschida**  
**Cris Winch**

# THANK YOU SUPPORTERS!

Your ongoing support and encouragement enables us to continue to empower more individuals and communities with solar power. RREAL's work can only continue with your support. Every dollar helps, and your donations are tax deductible. Together we have the power to make a difference!

You can donate year-round through our website or by sending your donation directly to RREAL:

Rural Renewable Energy Alliance  
P.O. Box 89, Pine River, MN 56474

[www.rreal.org](http://www.rreal.org)





## **Connect with us today!**

To learn more about upcoming events, projects, and how to support our work, connect with us on social media by clicking the logos to the right or sign up for our Newsletter!