RURAL ELECTRIC COOPERATIVE GUIDE BOOK

Created by Renew Missouri



INTRODUCTION

Renew Missouri is a 501(c)(3) founded in 2006 and focused with a mission of advocating and championing for renewable energy and energy efficiency throughout the state.

We pursue our mission by working with utilities, state and local governments, clean energy industries, and local communities to create policy changes that will lead to accelerated adoptions of clean energy technologies.

We advocate before the Public Service Commission on cases involving companies like Liberty-Empire, Ameren, and Evergy. Renew Missouri not only works with large utilities, but also engages with rural electric cooperatives (RECs) and their member-owners. Out work in rural Missouri involves advocating for broadband expansion, coal plant retirement, expanded energy efficiency offerings, and more access to renewables.



TABLE OF CONTENTS

PART 1:

Why Electric Cooperatives are Critical	n 2-3
Energy 101	p. 2-5
PART II:	
The History of Co-ops	n 7
How Cooperatives Work	μ. /
Cooperative Principals and Models	———— р. 8-9 р. 8 10
What is Means to be a REC Member-Owner	
Missouri REC By-Laws	ρ. Π n. 12
Understanding Co-Op 990s	p. 12
Potentially Available Programs	ρ. 13 n. 14
How Co-Op Members Can Make a Difference	μ. 14
Inflation Reduction Act for Co-Ops	——— p. 15
	——— D. 16







The rural electric cooperative system is vast, and it is integral to the U.S. energy system: 897 electric cooperatives sell ~\$40 billion of electricity to ~40 million people in 47 states



DEPENDENCE ON FOSSIL FUELS



Electric cooperatives own 16,000 MW of coal plant capacity with no retirement date. (The cooperatives currently also rely on additional coal power that is purchased.)

		Full Plant		
State	Plant Name	Nameplate Capacity (MW)	Owner (S&P)	
AZ	Apache Station	408	Arizona Electric Power Cooperative, Inc.	
MO	Thomas Hill	1135	Associated Electric Cooperative Inc.	
MO	New Madrid	1200	Associated Electric Cooperative Inc., 100%	
ND	Antelope Valley	870	Basin Electric Power Cooperative	
ND	Leland Olds	656	Basin Electric Power Cooperative	
WY	Laramie River Station	1710	Basin Electric Power Cooperative, 42.27%, Tri-State Genera	
WY	Dry Fork Station	390	Basin Electric Power Cooperative, 92.9%, Wyoming Munici	
KY	D B Wilson	566	Big Rivers Electric Corporation	
WI	JP Madgett	387	Dairyland Power Co-op	
UT	Bonanza	500	Deseret Generation And Transmission Cooperative, 96.25%	
KY	Cooper	344	East Kentucky Power Cooperative, Inc.	
KY	H L Spurlock	1608	East Kentucky Power Cooperative, Inc.	
ND	Coal Creek	1210	Great River Energy	
ND	Milton R Young	734	734 Minnkota Power Cooperative, Inc., 100%	
ТХ	San Miguel	410	410 San Miguel Electric Cooperative, Inc.	
FL	Seminole	1430	Seminole Electric Cooperative Inc.	
IL	Marion	272	Southern Illinois Power Cooperative	
KS	Holcomb	349	Sunflower Electric Power Corporation, Inc., 100%	
CO	Craig	1427	Tri-State Generation & Transmission Association, Inc., 1009	
OK	Hugo	446	446 Western Farmers Electric Cooperative	
IN			Hoosier Energy Rural Electric	
		Capacity	Nox lbs/year	
	total	16,05	52 151006000	
	US Fleet	155,00	00 911870000	



ENERGY 101

Regulated, or Vertically Integrated, Utility Market: (e.g. MO)

- Monopoly utilities cover the entire value chain, with oversight from a public regulator (e.g. Public Service Commission).
- Utility granted geographic territory and exclusive right to sell power to consumers, while submitting to statutory and regulatory oversight.
- » Customers cannot choose their utility provider

Deregulated, or Restructured, Utility Market: (e.g. CA, IL)

- Allows market participants other than utilities to own/operate generation plants, transmission lines, etc.
- » Producers sell into wholesale energy markets, and retail electricity suppliers purchase and sell to consumers.
- » Transmission companies own and maintain the grid.





ENERGY 101

Wind

Wind power is generated by turbines. Wind turbines work and look similar fans, but run backwards. The wind spins the blades, which in turn spin the shaft of the turbine. The spinning shaft connects to a generator inside, which makes power. As the kinetic energy from the wind is transformed into mechanical power, electricity is generated. Usually, wind turbines can be found on wind farms, which are plots of land with many turbines on them. This is done for cost efficiency and bulk power.

Solar

Solar power is generated by solar photovoltaic panel systems, commonly called solar panels or PV panels. The solar panels use semiconductor cells to receive photons from sunlight. A photon is a unit of electromagnetic radiation given off by light. When a photon hits the cells within the solar panel, the electrons in the cell are stimulated.

The active electrons then create an electric current, which is collected by wires around the cell. Solar panels can be scaled to the area you want them in, from big solar arrays to panels that can fit on top of your roof. They are quiet and low maintenance. Solar technology is constantly

Hydroelectric Power

Hydroelectric power is generated when kinetic energy from moving water is turned into power. In most cases, hydropower comes from plants and turbines. It is common for facilities to use dams to generate their power.



improving, so more energy can come from smaller panels than before. Weather does affect the panel efficiency, but power is still generated even on cloudy and rainy days. Solar energy can also be stored in home batteries, which protect against power outages and save money during peak electricity rate periods.



Hydroelectric plants that use dams are known as impoundment facilities. The dam keeps water from a river in a reservoir. In order to generate power, the water is released out from the reservoir through a turbine.

The turbine will spin from the water flow, and a generator turns that energy into electricity. The amount of water to be released from the reservoir will change based on energy needs.



Geothermal Power

Geothermal power is generated by heat. Natural underground water reservoirs are warmed by the earth's crust, and when the water gets warm enough, it turns into steam. Wells that are drilled into the ground collect this steam that arises naturally from the earth. Geothermal plants will put a turbine in the steam so that it's flow will power the generator.

Geothermal plants have minimal impact on the environment and few byproducts. The plants will always be able to generate power regardless of the weather. As long as the earth is still spinning, electricity can be made.



Transmission

How do these different types of energy get to your home? It's a long journey. First, the electric plants send power to transformers, which act as amplifiers to the energy. The voltage is increased and allows the energy to travel long distances through power lines.

Transmission towers are all over the country, and you can see them alongside highways. They are big metal towers with wires at the top. From the transformers, energy travels through the wires to substations, where the voltage is lowered again so smaller power lines can handle it.

The smaller power lines connect to neighborhoods and lower the voltage one more time so it can safely be transferred to your house. The energy finally ends up connecting through the breaker panel in your house and connects to all appliances through wires in the wall.





HISTORY OF ELECTRIC COOPERATIVES

PRESENT Electric cooperatives serve XXX Missourians.





(AMEC), originally called The Missouri State Rural Electrification Association, forms.

1930 Nine out of ten Americans

are still without power. Local enconomies are unable to diversy beyond agricultre.

1942 Electric

cooperatives come together to form the National Rural Electric Cooperative Association (NRECA) for a seat at the table in Washington D.C.

1935

FDR signs

Executuve Order No. 7037 establishing the Rural Electrification Administration (REA) - known today as the Rural Utilitie Servicesproviding funding for rural areas.

1880

Many of America's large cities are electrified.





p. 7

HOW COOPERATIVES WORK



Generation by Fuel Type (2020)



- » Co-ops are non-forprofit utilities governed by a member-elected board
- » Co-ops are regulated by Board of memberowners, as well as the Federal Energy Regulatory Commission (FERC)
- » They are NOT regulated by the PSC.
- There are 43 co-ops around Missouri that are responsible only for the distribution of power.
- 85% of the generation from plants owned by electric cooperatives is fossil fueled.
- » Electric coops have not invested in renewable energy historically.
 In fact, federal policy made them ineligible for the clean energy tax credits since 1992.



THE SEVEN COOPERATIVE PRINCIPALS

Cooperatives around the world operate according to the same set of core principles and values. These principles are a key reason that America's electric cooperatives operate differently from other electric utilities, putting the needs of their members first.

1. Open and Voluntary Membership

Membership in a cooperative is open to all persons who can reasonably use its services and stand willing to accept the responsibilities of membership, regardless of race, religion, gender, or economic circumstances.

2. Democratic Member Control

Cooperatives are democratic organization controlled by their members, who actively participate in setting policies and making decisions. Representatives (directors/trustees) are elected from among the membership and are accountable to the membership. Members have equal voting rights.

3. Members' Economic Participation

Members contribute equitably to, and democratically control, the capital of their cooperative. At least part of that capital remains the common property of the cooperative. Members allocate surpluses for any or all of the following purposes: developing the cooperative; setting up reserves; benefiting members in proportion to their transactions with the cooperative; and supporting other activities approved by the membership.

4. Autonomy and Independence

Cooperatives are autonomous, self-help organizations controlled by their members. If they enter into agreements with other organizations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control as well as their unique identity.

5. Education, Training, and Information

Education and training for members, elected representatives (directors/trustees), CEOs, and employees help them effectively contribute to the development of their cooperatives. Communications about the nature and benefits of cooperatives, particularly with the general public and opinion leaders, helps boost cooperative understanding.

6. Cooperation Among Cooperatives

By working together through local, national, regional, and international structures, cooperatives improve services, bolster local economies, and deal more effectively with social and community needs.

7. Concern for Community

Cooperatives work for the sustainable development of their communities through policies supported by the membership.



THE COOPERATIVE MODEL

The following diagram lays out the different roles of everyone involved in a cooperative. If everyone follows their proper roles, the cooperative should run smoothly! It is just as important for members to do their part as it is for board members and staff, so check this list and see how your voice can be heard.





WHAT DOES IT MEAN TO BE A MEMBER-OWNER OF AN ELECTRIC COOPERATIVE

There are more than 800 rural electric cooperatives across the United States serving more than 40 million Americans. Your coop's bylaws define the rules and rights of membership for your co-op. Each member has one vote in the annual elections that select members of the board of directors for the co-op. Generally, the success of the co-op depends on members like you being wellinformed and active in the business of the co-op.

Opportunities to learn and participate in the coop business include:

- **Board of Directors meetings,** which often happen monthly. Best practice for cooperatives is to allow members to attend and/or obtain a copy of the meeting minutes.
- Electing members to the Board: Generally, voting for annual Board elections may occur in-person at the annual membership meeting, online or through the mail. Refer to your bylaws to learn more about Board elections by proxy or through mail.
- **Annual membership meeting:** All co-ops should have an annual member meeting,

with the date and location being announced in advance to all members. The bylaws may outline the time of year and other details about this meeting. Board members may be elected and bylaws may be amended during the annual meeting. Many coops host fairs and giveaways to increase attendance and member engagement at their meetings.

- **Capital credits**: Co-ops are non-profit companies, so in principle they should return any profits each year to the member-owners. These returns are known as dividends, capital credits or patronage credits. The Tennessee Valley Authority currently prohibits electric coops from returning dividends to members in Tennessee and other states in the TVA region.
- Other ways to engage: Some co-ops make an extra effort to get their members engaged through with "Member Advisory Committees," town hall meetings and community listening sessions, open office hours with the CEO, social media and options for contacting co-op leadership directly.



MISSOURI REC BY-LAWS

Board Elections

Board Directors are elected at the annual meeting of members. Information for the day and place of your meeting should be located in your bylaws and in Rural Missourian magazine, available online at - https://ruralmissouri.org/

Nominations

It's important to know how board candidates are nominated and what it takes to get on the board.

Special Meetings

In many co-ops, special meetings can be called to vote on bylaw changes and make changes in the board members.

Voting

Who can vote at Annual or Special Meetings?

Quorums

In electric cooperatives, there must be a quorum, or certain number of members present, for an election to occur. See your bylaws for what constitutes a quorum in your cooperative.

Mail-In vs. Proxy Voting

Is there an alternative to in-person voting?

Bylaw Amendments

Bylaws may be changed or repealed by members at member meetings as long as the notice for the meeting contains a copy of the proposed amendment.

RIGHTS

- Amend bylaws at annual or special meeting
- Nominate board candidates by nominating committee or petitions
- Run for board
- Vote on board candidates annually
- Access district maps
- Call special meetings by petition
- Raise concerns with staff/board members - Request to speak at a board meeting at your local REC office
- Attend board meetings (if allowed)
- View 990s & financial statements

RESPONSIBILITIES

- Vote at annual & special meetings
- Know your bylaws, rules & regulations - available in co-op offices
- Know your board representative and district call local office for info if not available online
- Pay your electric bill or work with your co-op to develop a payment plan
- Pay membership fees one-time \$5 payment
- Report power outages
- Stay up to date



ELECTRIC CO-OP'S 990: THE BASICS

What is a 990?

The 990 form is how your electric co-op reports financial operations. All federally tax-exempt nonprofits are required to file their 990s annually. Once published, 990s are open to public inspection.

Where can I find my cooperative's 990s?

There are several websites that offer free access to 990s, including propublica.org, foundationcenter. org, and guidestar.org.

What to look for:

REVENUE (Part I): This section details money received by the co-op, where it came from, and how it was spent.

Three main sources of income:

- 1. Revenue from programs services (line 9) money made from service charges;
- 2. Investment income (line 10);
- 3. Other revenue (line 11) revenue that does not fit into lines 9 or 10. Details may or may not be disclosed.
- 4. Total revenue is recorded on line 12.

EXPENSES (Part I): This section records salaries, other compensation, and employee benefits on line 15.

Compensation (Part VII, section A): Here you'll find the amounts paid to officers, directors, key employees, and the highest compensated employees.

Independent contractors (Part VII, section B):

This section details the five top-paid contractors receiving over \$100,000 of compensation. Total expenses is recorded on line 18.

The cooperative's savings, or how much member money is left over at the end of each year, on line 19.

Ozark Electric Cooperatives 990 - 2020

FIN: 44-0380405		
TOTAL REVENUE	\$61,623,676	
Total Functional Expenses Net Income	\$61,623,676 \$0	
Notable sources of revenue Contributions Program services Investment income Bond proceeds Royalties Rental property income Net fundraising Sales of assets Net inventory sales Other revenue	\$0 \$58,484,009 \$99,476 \$0 \$360,604 \$0 \$0 \$0 \$74 \$2,679,513	
Notable expenses Executive compensation Professional fundraising fees Other salaries and wages	\$802,015 \$0 \$0	
Other Total Assets Total Liabilities Net Assets	\$195,899,442 \$105,632,676 \$90,266,766	
Club or Co-op Income Income from members Income from other sources	\$56,725,058 \$4,907,440	
Key Employees and Officers Patrick Oehlschlager (General Manager)	Compensation \$213,155	
Kenneth Raming (Manager Engineering)	\$166,316	
Earl Wilson (Manager Operations)	\$149,747	

PROGRAMS POTENTIALLY AVAILABLE TO CO-OPS

Broadband (High-speed Internet)

Co-ops can also now compete in a federal auction for additional grant funding through the Federal Communications Commission's Connect America Fund, as well as apply for broadband loans and grants through the US Department of Agriculture's ReConnect Program. These resources have been made available to help electric co-ops bring internet to underserved areas by supplementing the cost of broadband projects with grants and tax credits.

To receive internet service, members pay a monthly bill to the co-op. Internet access can enhance education, advance agriculture, develop businesses and improve health care access. With these programs, broadband is made available to both renters and homeowners.

Pay As You Save (PAYS(TM)) for Energy Efficiency

Pay As You Save(TM) is a registered "on-bill" financing model that gives members access to energy efficiency upgrades like insulation, duct sealing and new high efficiency HVAC units without taking on loans or requiring good credit. Your electric co-op can borrow money from the USDA's Rural Utilities Service to install upgrades to your home, and over time you pay back that cost by paying a small charge, or "tariff" on your bill.

Because your home is more efficient, your bill goes down, even with the new charge! The added benefits of this program include a more comfortable and healthy home and reduced pollution from energy production.

Co-op Community Solar

Community solar programs allow members to support and benefit from solar energy without paying upfront installation costs or fees. To do this, your co-op can install a solar array and members can lease or purchase solar panels.

Depending on how the programs are structured, community solar can save members money on their electric bills, allow renters and homeowners access to solar energy, and reduce the environmental impact of energy use.

ELECTRICITY BILL BREAK DOWN

- 1. Account Number To help identify your account.
- 2. Service Address Location and meter tied to your account.
- Meter Reading Dates These are the days of service usage for which your bill is calculated. The current bill due is based on the previous month's usage.
- Usage comparison This table compares the current bill with the previous month's bill, and the same billing period last year. Key information includes days of service and average kilowatts used per day.
- 5. Additional Information TO BE PAID BY DRAFT – your account will be automatically drafted on the due date. Other messages

that may appear on this line are: FINAL BILL – Account is inactive; CR BALANCE DO NOT PAY – Credit balance exists and no payment is required as of the billing date, LEVELIZED – Account is on average balance program.

- 6. Late Payment Charge X
- 7. Disconnect Date X
- 8. Please notify X if your address or telephone number has changed.
- Due Date A payment made after this date will negatively affect your credit



CO-OP MEMBERS CAN MAKE A DIFFERENCE

Across the country, members of electric co-ops are demonstrating how getting involved can lead to lasting change.

Choctaw Electric Cooperative, OK

(2014) In Choctaw, member-owners evaluated their bills and realized that they were much higher than in surrounding counties, while the income level in their area was much lower. With some digging, they found that their CEO was using co-op money and equipment inappropriately.

Members formed a group to raise awareness of the issue, which led to the hiring of a new CEO and the election of several new board members. Reform candidates now make up a majority of the boards.

Pedernales Electric Cooperative, TX

(2006) Members of this co-op discovered that some of their board representatives were keeping capital credits (money that belongs to members) for themselves. The members brought those issues to light, replacing the board and pushing for changes in the bylaws that opened board meetings to members.

Reform efforts lasted from 2007 to 2010 and because of the members' work, Pedernales now offers competitive rates for home solar and incentives for homes to use 100% of their power from renewable sources.

Powell Valley Electric Cooperative, TN

In 2017 and 2018, a group of members at PVEC joined together to make positive changes at their co-op, calling themselves PVEC Member Voices. Their work to organize members and meet with coop leadership has resulted in a district map, board meeting information, and board member contact information being published on the co-op website.

The group also worked with PVEC to produce an opt-out and notification policy for herbicide spraying in right-of-ways on members' properties. PVEC Member Voices is continuing to work with Powell Valley Electric to bring better services to other members.

Tri-County Electric Cooperative, SC

At Tri-County Electric, board members were being paid three times the national average. Once co-op members discovered this, they formed a petition to hold special meeting to remove the board.

In the fall of 2018, 1,500 members gathered to vote out the board of directors and a new board was elected. Because of this event, electric co-ops across South Carolina are taking steps to be more transparent and democratic.



WHAT IS IN THE INFLATION REDUCTION ACT FOR RURAL ELECTRIC COOPERATIVES?

In short - a ton! The Inflation Reduction Act contains historic investments in rural electrification that will help secure the energy transition, save rural families money, and create 90,000 rural jobs over the next ten years. Here's a fraction of what's in the Inflation Reduction Act for Rural Electric Cooperatives:

USDA ASSISTANCE FOR RURAL Electric cooepratives

PROGRAM SUMMARY

- » \$9.7 billion for rural electric cooperatives to make new investments that will reduce energy costs for member-owners while cutting greenhouse gas emissions.
- Program will be implemented by the Rural Utility Service at the United State Department of Agriculture.
- » Awards can cover as much as 25% of the projects' costs and could be as large as \$970 million.
- » Proposals that reduce greenhouse gas emissions the most will be prioritized.

WHO IS IN CHARGE OF IMPLEMENTATION

The program will be administered by the Rural Utility Service (RUS) division of the USDA. In coming months the RUS will announce their rulemaking process which will require public input from rural communities across the country.

WHAT WILL THIS PROGRAM ACCOMPLISH?

The program will allow for *rural electric* cooperative owned and operated coal plants to be replaced through investments in renewable energy, battery storage, and improvements to generation and transmission efficiency. The program also allows for carbon capture and nuclear generation investments, but these are less desirable options for member-owners to obtain an affordable clean energy future.

ADDITIONAL FUNDING FOR ELECTRIC LOANS FOR RENEWABLE ENERGY

PROGRAM SUMMARY

- **\$1 billion** for rural electric cooperatives and other entities to make renewable energy investments.
- » Up to **50% of the loan is forgivable** based on the recipient meeting certain criteria.

WHO IS IN CHARGE OF IMPLEMENTATION

The program will be administered by the Rural Utility Service (RUS) division of the USDA. In coming months the RUS will announce their rulemaking process which will require public input from rural communities across the country. Of critical importance to the success of this program is forming strong conditions for loan forgiveness

WHAT WILL THIS PROGRAM ACCOMPLISH?

This program will provide **additional funding for renewable energy including solar, wind, geothermal, biomass, hydropower, and efficiency**. The program will incentivize certain projects by making loans forgivable.

Direct Pay for Tax Credits

As nonprofit entities *rural electric cooperatives are minimally taxed, which means that they cannot directly take tax credits* - which have been a key incentive for wind and solar development.

With the Inflation Reduction Act rural *electric cooperatives can now receive a direct payment rather than a tax credit from the federal government*. This levels the playing field between investor owned utilities and electric co-ops and opens the door for new clean energy investments.