



Sho-Me Power
Electric Cooperative

A Touchstone Energy® Cooperative 



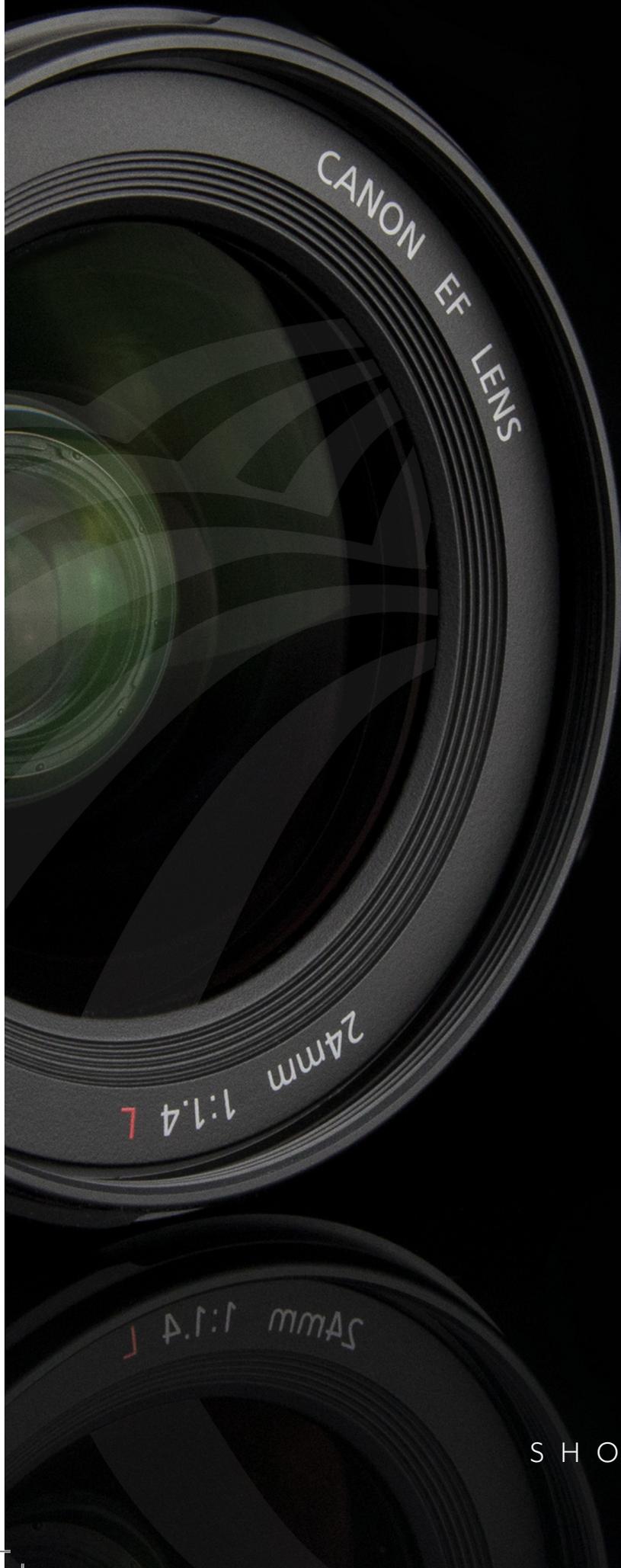
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A N N U A L

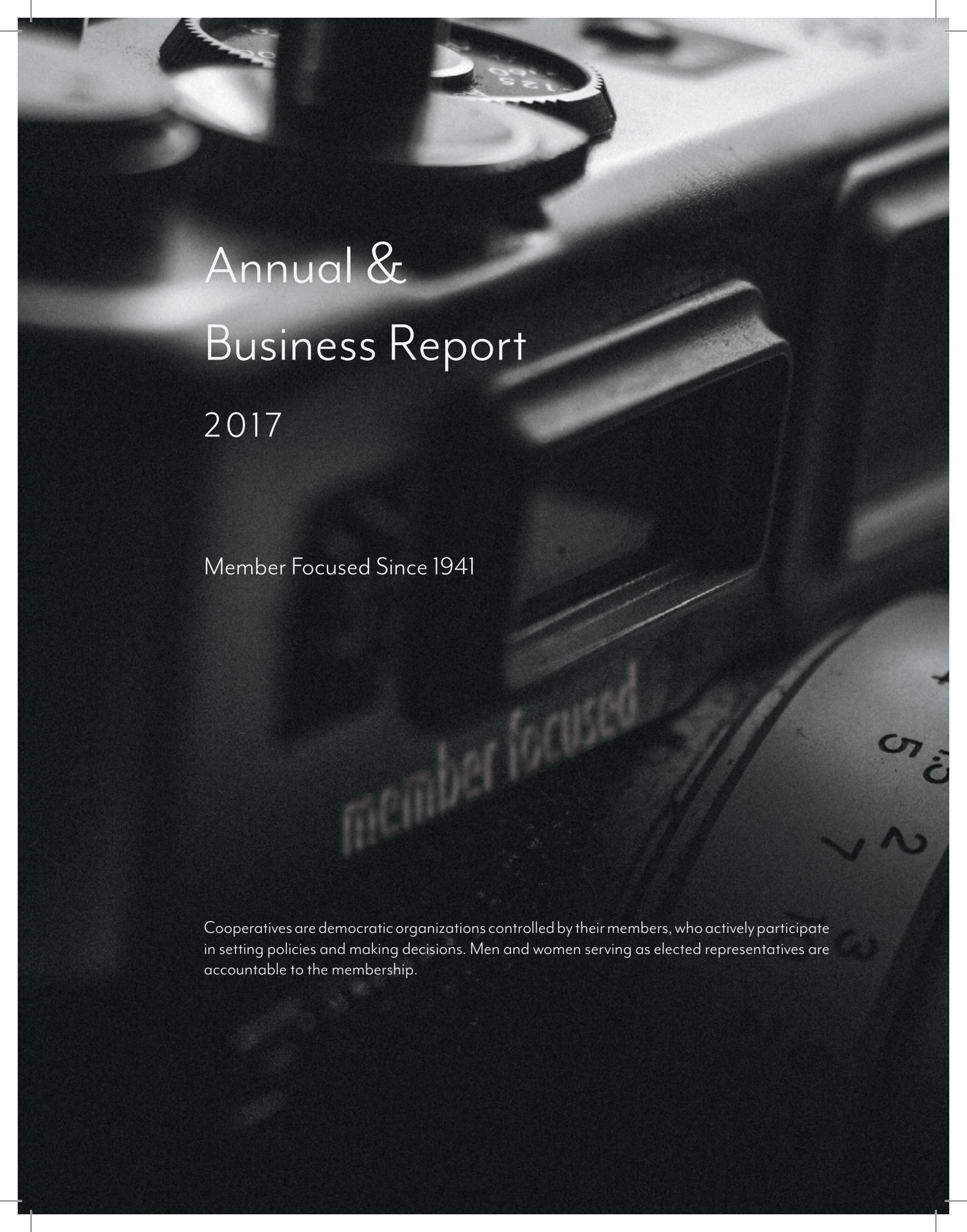
REPORT

M E M B E R

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S H O - M E P O W E R E L E C T R I C
C O O P E R A T I V E

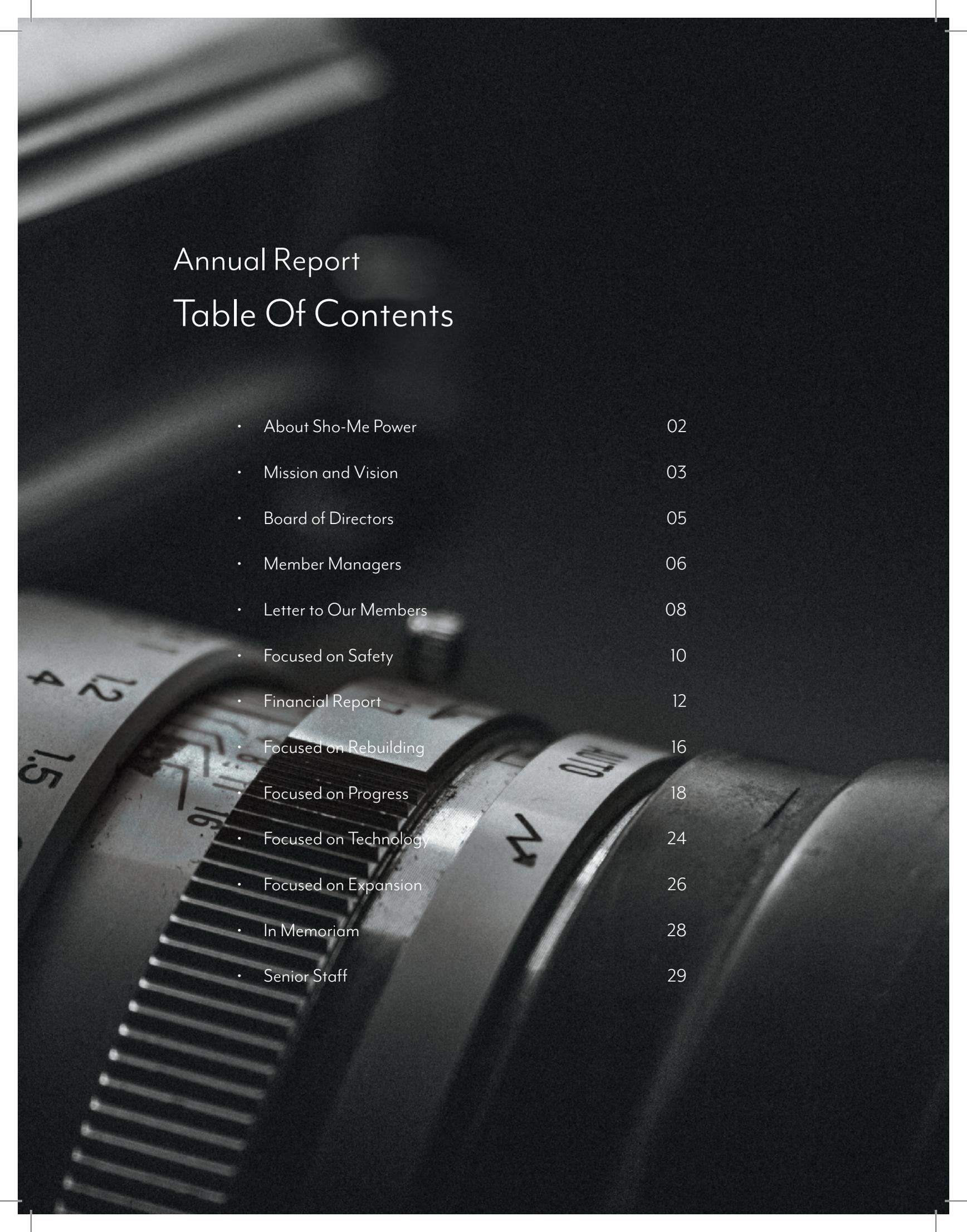


Annual & Business Report

2017

Member Focused Since 1941

Cooperatives are democratic organizations controlled by their members, who actively participate in setting policies and making decisions. Men and women serving as elected representatives are accountable to the membership.



Annual Report

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WHO WE ARE

About Sho-Me

Structure

The Missouri Cooperative Structure consists of four levels: Generation, Transmission, Distribution and the ultimate consumer, or member. The Generation Cooperative creates the power, the Transmission Cooperative delivers the power to a distribution substation, and the Distribution Cooperative then provides the power to the member-owner for final use.

The rural residents of Missouri came together in the 1930's to form local distribution cooperatives. Transmission cooperatives like Sho-Me Power were formed by their distribution cooperative owners in the 1940's to connect to various power sources. In the 1960's the transmission cooperatives banded together to create a generation cooperative, Associated Electric Cooperative, Inc.

Organization

The predecessors of Sho-Me Power Electric Cooperative were Sho-Me Power Cooperative, formed in 1941 as an agriculture cooperative, followed by Sho-Me Power Corporation, incorporated in 1947 as a public utility. This corporate entity, fully regulated by the Missouri Public Service Commission (MoPSC) provided wholesale electric service to its nine member distribution cooperatives and retail electric service to many communities until 1984, when the remaining facilities serving retail consumers were sold to four rural electric cooperatives. In 1992 the Missouri Secretary of State allowed Sho-Me Power to be converted pursuant to the provisions of the Rural Electric Cooperative Act, Chapter 394, specifically §394.070 of the Revised Statutes of Missouri, 1989, as amended, and since February 27, 1992 the name has been Sho-Me Power Electric Cooperative. In September, 1993 the MoPSC released Sho-Me Power from its rate regulation, leaving it free to be regulated by its nine REC member-owners.



Transmission

Sho-Me Power provides service to 157 member delivery points served by 159 distribution and transmission substations through 1,033 miles of 69 kV, 10 miles of 138 kV, and 419 miles of 161 kV electrical transmission line. Additionally, Sho-Me operates and maintains 139 miles of 161 kV transmission line owned by Central Electric Cooperative, headquartered in Jefferson City, Missouri and approximately 227 miles of 345 kV line and three 345/161 kV substations with a combined capacity of 1,440,000 kVA owned by AECL, headquartered in Springfield, Missouri.

Sho-Me Technologies

Sho-Me Technologies is a subsidiary of Sho-Me Power Electric Cooperative in Marshfield, Missouri. Sho-Me Technologies operates an advanced optical network spanning electric transmission lines in Missouri. What began as an upgrade to the extensive internal communications network has now grown to encompass over 8,000 miles of fiber optic connectivity. With over 140 Points of Presence, Sho-Me Technologies boasts the highest coverage of optical bandwidth in the area.

Sho-Me Power is an equal opportunity provider and employer.

OUR MISSION

Sho-Me Power and its employees are dedicated to providing safe, reliable, low cost power and communication services to the members we serve which improves the quality of life for their members.

OUR VISION

Sho-Me Power will provide to our members the most reliable, competitively priced power supply and highest level of service of any G&T.



“Dedication to our members isn’t here today and gone tomorrow. Our focus is forever.”

JOEL JONES
MARSHFIELD SUBSTATION FOREMAN



OUR LEADERSHIP

Member control of Sho-Me is assured by a board of nine Directors and Managers from the Member Electric Cooperatives we serve.

BOARD OF DIRECTORS



Chris Hamon - President
White River Valley
Electric Cooperative, Inc.



James White - Vice-President
Intercounty Electric
Cooperative Association



Carmen Hartwell - Secretary
Gascosage Electric
Cooperative



James Cottrell
Crawford Electric
Cooperative, Inc.



Dan Singletary
Howell-Oregon Electric
Cooperative, Inc.



Melvin Hoffman
Laclede Electric
Cooperative



John Campbell
Se-Ma-No
Electric Cooperative



Jack Bybee
Southwest Electric
Cooperative



John Greer
Webster Electric
Cooperative

MEMBER MANAGERS



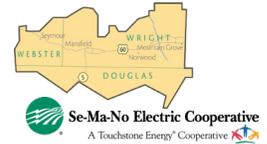
Tony Mallory CEO/General Manager
 Crawford Electric Cooperative, Inc.
 Connected Meters - 19,790
 Miles of Line Energized - 3,346
 Members Per Mile - 5.91



Carmen Hartwell General Manager
 Gascoage Electric Cooperative
 Connected Meters - 9,853
 Miles of Line Energized - 1,569
 Members Per Mile - 6.27



Marc Roecker CEO/General Manager
 Laclede Electric Cooperative
 Connected Meters - 36,900
 Miles of Line Energized - 4,787
 Members Per Mile - 7.71



Dan Sisco General Manager
 Se-Ma-No Electric Cooperative
 Connected Meters - 5,983
 Miles of Line Energized - 1,125
 Members Per Mile - 5.31



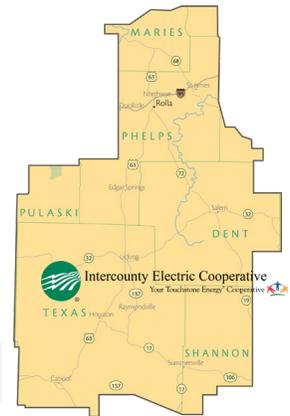
Tom Houston General Manager
 Webster Electric Cooperative
 Connected Meters - 20,245
 Miles of Line Energized - 2,140
 Members Per Mile - 8.59



Chris Hamon CEO
 White River Valley Electric Cooperative, Inc.
 Connected Meters - 43,610
 Miles of Line Energized - 5,203
 Members Per Mile - 8.3



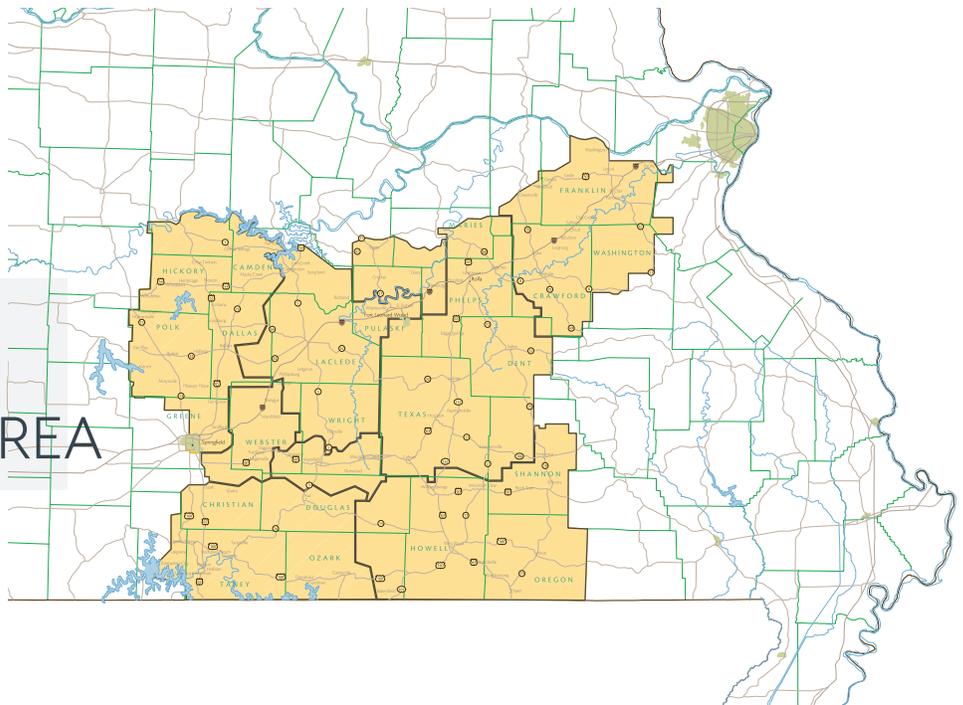
Dan Singletary CEO/General Manager
 Howell-Oregon Electric Cooperative, Inc.
 Connected Meters - 24,257
 Miles of Line Energized - 4,885
 Members Per Mile - 4.96



Aaron Bradshaw CEO
 Intercounty Electric Cooperative Association
 Connected Meters - 30,248
 Miles of Line Energized - 5,588
 Members Per Mile - 5.41



James Ashworth CEO/General Manager
 Southwest Electric Cooperative
 Connected Meters - 40,876
 Miles of Line Energized - 5,475
 Members Per Mile - 7.47



OUR SERVICE AREA

LETTER TO OUR MEMBERS

Success is defined as an activity that has produced a favorable or desired outcome. 2017 was a success for Sho-Me Power and our subsidiaries because Sho-Me demonstrated in many ways that we remain true to our history and are committed to being “Member Focused”.

For all of Sho-Me Power’s corporate life, electricity has been the core service product we have focused on providing for the benefit of our members. Fiber-optic based telecommunications, delivered through subsidiary Sho-Me Technologies, has been a critical addition to our service product line, benefitting Sho-Me Power and our members for twenty years and providing a valuable tool in economic development for the commercial sectors of our cooperative owners’ membership base. 2017 has proven to be a pivotal year in perpetuating Sho-Me’s commitment to being Member-Focused as another subsidiary, Neighborhood Wireless, was established to help provide economical wireless Broadband (or high-speed Internet) primarily to underserved residential consumers.

2017 also marked the start of a new relationship with Fort Leonard Wood as a Class B member of Sho-Me Power. The move was authorized by our members at our Annual Meeting held in 2016, and final documents were executed during 2017 to allow Fort Leonard Wood to enjoy the benefits of membership in the company that has been their power supplier for decades.

This past year has had more than its share of challenges for Sho-Me Power and our members. Extraordinarily mild temperatures during both winter and summer seasons contributed to less than expected energy sales, and while flooding conditions throughout our service area resulted in a substantial threat to our system reliability, the widespread flooding from Dixon to West Plains only interrupted our service performance for short periods of time.

Sho-Me Power’s Board of Directors made decisions to help perpetuate the theme of being Member-Focused, as illustrated by the acquisition of a new mobile substation and authorization for construction of new facilities to house these fantastic tools as we locate them closer to the members that need them to help minimize substation outages.

We would be remiss in speaking of our 2017 successes if we didn’t give praise and thanksgiving for the “Culture of Safety” at Sho-Me Power that allowed all that are employed by Sho-Me to return home safely to their families for another year.

As we turn another page in the history book of Sho-Me Power, please give special attention to the remembrance of two very special individuals (Jim Carpenter and John Hart) who passed away since our last Annual Meeting, whose stories are highlighted within this Annual Report.

Thank you for the leadership provided by the Board of Directors and management of Sho-Me Power and its subsidiaries, the dedication and commitment of the employees who demonstrate daily how Member-Focused they are in all that they do, and the member-consumers who provide the resources that allow us to continue providing world-class service products with extraordinary reliability at the lowest possible cost.



Chris Hamon
President



John T. Richards
CEO & General Manager

Sho-Me demonstrated in many ways that we remain true to our history and are committed to being “Member Focused”.



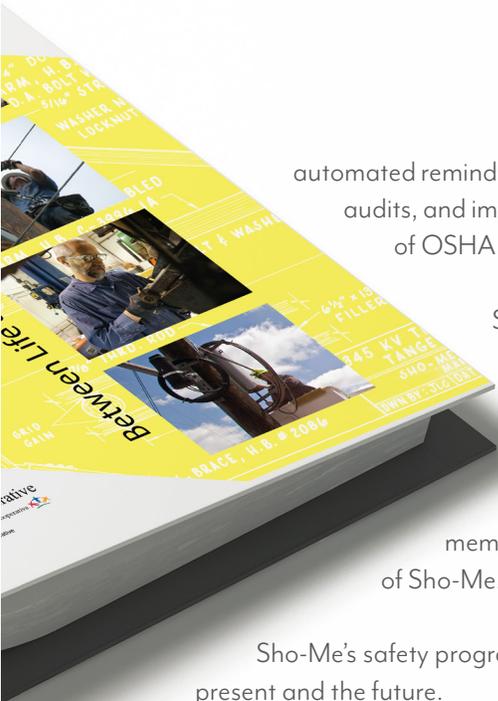
OUR FIRST PRIORITY

Focused On Safety

Safety continues to be a top focus, and accomplishments during the year included the first major overhaul and complete revision of the safety manual in more than 20 years. As safety and technology continue to evolve, the decision to overhaul the safety manual was made to reflect these changes. Not only is the new safety manual aesthetically appealing with colorful diagrams, tables, and illustrations, but it is also designed to accommodate future changes with segregated chapters that identify specific safety topics applicable to Sho-Me operations. Even with all the changes one thing stayed the same; the slogan provided by retired Sho-Me employee Ed Varney many years ago, “Between Life and Death is Safety”.

One of the goals of Sho-Me’s compliance program has been to provide employees with the tools to make the right decisions with minimal day-to-day oversight, and to this end a software solution was implemented called ‘EHS Insight’. With it comes the ability to manage compliance related tasks with





automated reminder functions, track corrective and preventative action items from assessments and audits, and improve training resources. The commitment to safety has paid off, with an analysis of OSHA recordable cases showing a continued downward trend over the past 10 years.

Several years ago, Sho-Me formed a safety committee which is comprised of both union and nonunion members who meet quarterly to discuss the latest trends and issues affecting Sho-Me. The complexity of this make-up allows for greater perspective in the process of developing policies and procedures that enable Sho-Me to operate in a safe and compliant manner. In 2017, the committee decided to establish a task force derived from its members to address findings and make the committee more visible to the employees of Sho-Me.

Sho-Me's safety program continues to explore opportunities to enhance our safety culture for both the present and the future.



“Being safe is what we do. It’s how we go home at night.”

JOHN KADERLY
MARSHFIELD JOURNEYMAN LINEMAN

FINANCIAL OBLIGATION

Focused On Stability

Despite historically low electric sales for 2017, Sho-Me Power ended the year strongly with consolidated net margins of \$15,855,305. The higher than budgeted net margins were due to a combination of events that occurred during the year as highlighted below.

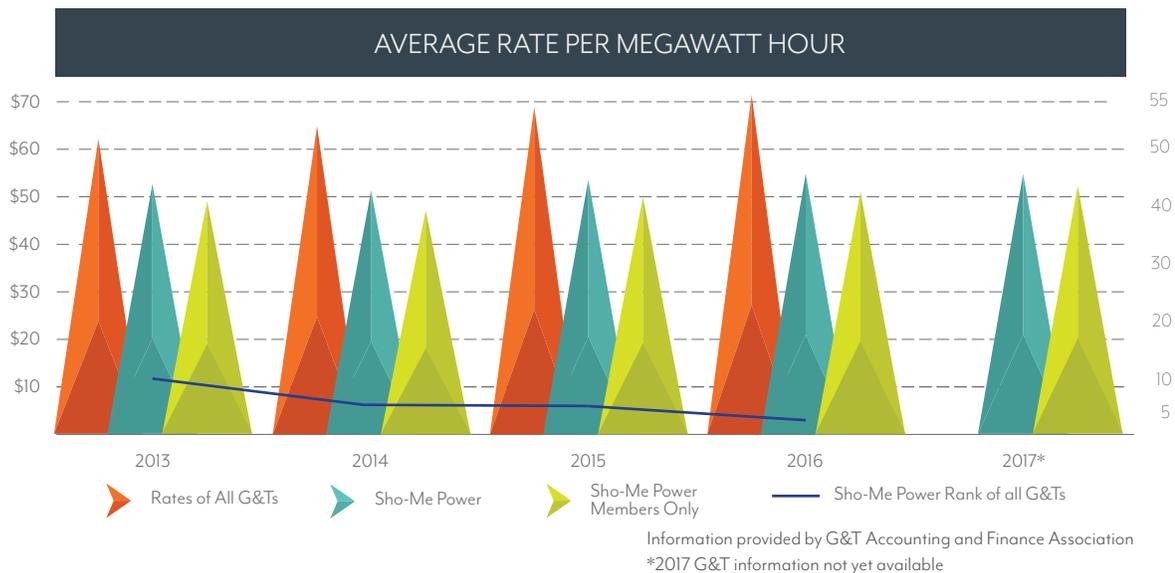
Deferred taxes significantly impacted the consolidated 2017 net margins. The lower income tax rates approved by the United States Congress in the later part of 2017 reduced Sho-Me Power's deferred tax liability, thus resulting in an income tax benefit. Net of current year income taxes, a \$5,566,777 income tax benefit was reflected on the 2017 Consolidated Statement of Comprehensive Income. Transmission Operations & Maintenance expense increased significantly during 2017 with a renewed emphasis on maintenance of Sho-Me Power's transmission assets. Sho-Me Technologies' 2017 revenue was stable compared to 2016 while expenses were slightly up.

Sho-Me Power's focus on its member cooperatives was clearly reflected in the 2017 electric sales rates. The cost to member cooperatives for

2017 was \$52.14 per mWh compared to \$52.96 per mWh paid to Sho-Me's power supplier, Associated Electric Cooperative, Inc. The low rates were possible through the use of \$1.8 million of deferred revenue from previous periods and over \$7.2 million in net income from Sho-Me Technologies.

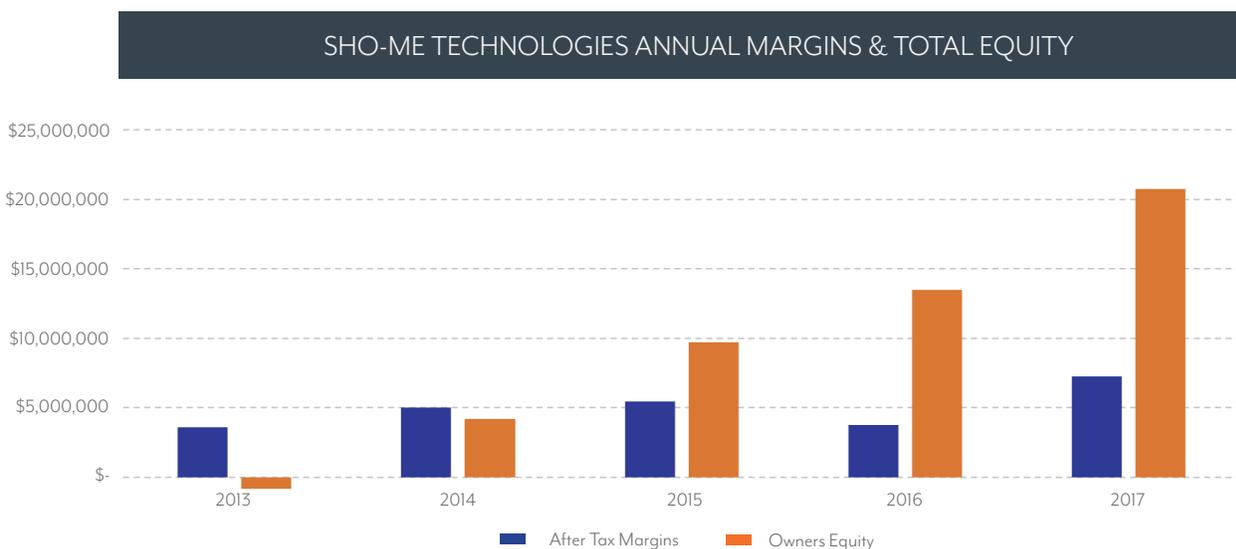
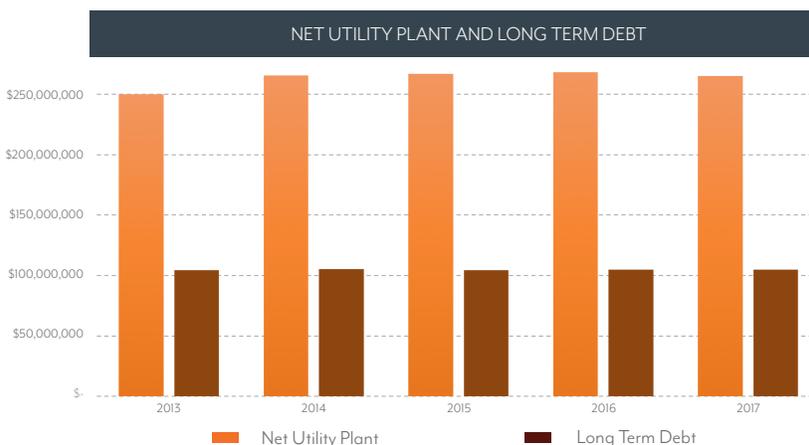
At the end of 2017, total assets on a consolidated basis were \$465 million and the consolidated equity ratio was solid at 43.54%. Approximately \$15 million of plant additions were capitalized on Sho-Me Power's and Sho-Me Technologies' books combined during the year.

Because of the Purchased Power Prepayment Program started many years ago, our member cooperatives may deposit funds with Sho-Me Power that earn interest until used by the member to pay for electricity purchased from Sho-Me. This program was developed to allow the members to earn more interest than what they may be able to earn elsewhere and for Sho-Me Power to have additional funds available to meet operating cash needs.



Sho-Me Power submitted a loan application to Rural Utilities Service during 2017 and is awaiting approval. In the interim, Sho-Me Power will continue to utilize member cooperative prepayments as described above, excess cash from Sho-Me Technologies, and lines of credit with National Rural Utilities Cooperative Finance Corporation and CoBank—each line not to exceed \$15 million.

Overall, 2017 was another financially successful year for Sho-Me Power and Sho-Me Technologies as they continue to focus on providing safe, reliable, low cost power and communication services to the members they serve. As a result, Sho-Me Power is pleased to report that at year-end 2017 the financial performance requirements were met according to its indenture.



Five Year Financial Comparison

Dollars in Thousands

CONSOLIDATED SUMMARY OF OPERATIONS	2013	2014	2015	2016	2017
Operating Revenue:					
Electric Revenue	\$ 175,592	\$ 176,238	\$ 175,877	\$ 181,634	\$ 176,868
Telecom Revenue	29,050	30,821	33,511	33,896	33,627
Total Operating Revenue	204,642	207,059	209,388	215,530	210,495
Operating Expenses:					
Purchased Power, Net of Pooling Credits	143,870	141,697	144,106	148,444	143,751
Other Operating Expenses	58,779	59,395	63,081	63,734	66,011
Total Operating Expenses	202,649	201,092	207,187	212,178	209,762
Operating Margins	1,993	5,967	2,201	3,352	733
Non-Operating Margins	3,026	1,754	2,569	2,663	2,025
Margins Before G&T Capital Credits	5,019	7,721	4,770	6,015	2,758
G&T Capital Credits	7,559	7,078	6,229	7,455	7,531
Margins Before Income Taxes	12,578	14,799	10,999	13,470	10,289
Income Tax Expense	5,803	6,271	6,431	6,884	(5,567)
Net Margins	\$ 6,775	\$ 8,528	\$ 4,568	\$ 6,586	\$ 15,856

CONSOLIDATED BALANCE SHEET SUMMARY	2013	2014	2015	2016	2017
Assets					
Net Utility Plant	\$ 250,049	\$ 265,717	\$ 267,049	\$ 268,489	\$ 265,167
Investments	133,508	148,896	147,904	153,484	156,258
Other Assets	53,841	50,952	47,071	43,888	43,931
Total Assets	\$ 437,398	\$ 465,565	\$ 462,024	\$ 465,861	\$ 465,356
Liabilities and Equity					
Members' Equity	\$ 180,723	\$ 186,056	\$ 187,535	\$ 190,520	\$ 202,616
Long Term Debt	104,588	105,323	104,393	104,893	104,905
Other Liabilities	152,087	174,186	170,096	170,448	157,835
Total Liabilities and Equity	\$ 437,398	\$ 465,565	\$ 462,024	\$ 465,861	\$ 465,356



CONSOLIDATED CASH FLOWS SUMMARY	2013	2014	2015	2016	2017
Net Cash					
Provided By Operating Activities	\$ 22,745	\$ 33,762	\$ 25,154	\$ 21,424	\$ 3,513
Used In Investing Activities	(27,352)	(22,741)	(14,671)	(15,856)	(11,068)
Provided By (Used In) Financing Activities	4,780	(11,282)	(10,359)	(5,601)	7,576
Net Increase (Decrease) In Cash and Cash Equivalents	173	(261)	124	(33)	21
Cash and Cash Equivalents At Beginning of Year	410	583	322	447	414
Cash and Cash Equivalents At End of Year	\$ 583	\$ 322	\$ 446	\$ 414	\$ 435

ADDITIONAL INFORMATION	2013	2014	2015	2016	2017
Margins for Interest - MFI (Required 1.10)*	2.65	3.23	2.50	2.73	1.99
Debt Service Coverage - DSC (Required 1.00)*	2.29	2.61	2.16	2.89	1.55
Energy Sales - MWh					
Member REC Sales	2,884,047	2,973,713	2,830,845	2,836,588	2,718,070
Other	395,269	289,442	288,373	290,555	277,160
Total Energy Sales	3,279,316	3,263,155	3,119,218	3,127,143	2,995,230
Systems Peaks - MW					
Winter	813	861	822	802	847
Summer	632	666	662	676	680

* Ratios are calculated per Sho-Me Power's Indenture requirements.



WHEN DISASTER STRIKES

Focused On Rebuilding

SPRING OF 2017 BRINGS MASSIVE FLOOD DAMAGE

In April of 2017, the Gasconade River at Jerome reached a record level of 33.14 feet, breaking the previous record of 32.8 feet. This major flooding along the river caused outages on the Franks to Fletcher 345kV line, the Franks to Ft. Wood #4 161kV line, and the Dixon to Hooker 69kV line, with the majority of the damage located at two specific spots on the Franks to Fletcher line.

The first location, near Jerome, had previously flooded in December of 2015 and required extensive bank stabilization to protect a structure near the river. The flood in 2017 circumvented the previous work by washing out a large area behind the structure as well as the structure itself. Even though the previous bank stabilization held, 34,000 tons of large rock were placed in the washed out area and the structure was replaced. Additional land was later purchased by Associated Electric Cooperative to facilitate a possible relocation of the structure in the future.

The second location primarily impacted by the flood was near the Fletcher substation, where the log anchors on one structure washed out and caused the pole tops to break. The structure was replaced and re-anchored, with large rock brought in to stabilize the bank in the event of future flooding.



Linemen Shawn Buhr, Ryan Salmons, Cody Henson and Ryan King “un-ding” the bells on the downed conductor so it can be lifted out of the river.



Crews work diligently in the harsh conditions utilizing multiple pieces of heavy equipment to attack the situation head-on.



“All hands on deck” as 18 linemen from Cuba, Marshfield and Willow Springs rebuild the damaged line as quickly as possible.

“This was a very serious situation no matter how you look at it. Our crews did a great job rebuilding the line while staying safe during the process.”

Allan Taylor
Transmission Line Superintendent



The completed restoration and a job well done.

SHO-ME ASSISTS CO-OP AFTER TORNADO

On February 28th, 2017, an EF-4 tornado left a 15-mile path of destruction in Perryville, Missouri, affecting many homes and causing one fatality. 102 personnel including crews from Central Electric, Northeast Electric, and Sho-Me Power responded to the outage on the Citizens Electric Cooperative system, which impacted 103 poles along one 138kV and two 69kV lines. While Central and Northeast crews began repairing on the 69kV lines, the Sho-Me crew focused on the damaged 138kV line, replacing one steel pole and several insulators on adjacent structures, along with repairing 150 feet of conductor. After completing their assigned duties, Sho-Me and Northeast crews helped Central rebuild the heavily damaged 69kV line. All homes that could receive power were re-energized by Friday, March 3rd.

Thanks to the Sho-Me crew for reaching out a helping hand and practicing Cooperative Principle #6, Cooperation Among Cooperatives.

Journeyman Lineman Cody Henson surveys the damaged landscape while completing the restoration of the 138kV line.



HOW WE WORK

Focused On Progress

HYDRO PLANT UPGRADE

In recent years, concerns over the condition of the generators at the Tunnel Dam Hydro Generating plant led to reduced usage, and it was determined that the insulation levels on both units had deteriorated. An outside company was able to confirm these findings through additional testing, leading to a project of cleaning the windings, reconditioning the exciters, re-insulating with an epoxy treatment and retesting the generators. Meter and Relay crews also replaced the original protective relays and cabling.

THAYER TO COUCH 69 KV REBUILD

Past load studies showing that the Thayer to Couch 69kV line would overload under certain system contingencies necessitated a rebuild of an eight mile section of the line. Out of the original eight mile section, four miles were underbuilt with a Howell-Oregon Electric Cooperative distribution line. New easements allowed extending the right of way width to 100 feet, which also provided clearance for Howell-Oregon to build a new distribution line at the edge of our right of way and eliminate the previous underbuild. Maintenance on the new 69kV line will now be safer for line crew employees.



Substation Foreman Richard Newell and Substation Mechanic Chris Miller lower the rebuilt exciter onto the generator shaft of unit #2 at Tunnel Dam Hydro Generating facility.

MARSHFIELD NUMBER 5 SUBSTATION

The Marshfield #5 substation was completed in 2017 as a new delivery point for Webster Electric Cooperative to satisfy future load and voltage issues north of Marshfield. Three new feeders will be brought from the substation, with a fourth to follow in the future. One of the new lines will provide loading relief for the feeder out of the Conway substation, and one will add some diversity with an additional path into Marshfield. This new substation will reduce loading on the two Marshfield #2 substation transformers, thus foregoing future upgrades to the transformers. The 69-13.2kV substation with a 10 mVA transformer and a three bay low side has many new features implemented, including regulator tap position indication, remote SCADA control of the regulators and a high side breaker bypass switch.



Substation Mechanic Craig Massey helps guide the 10 mVA transformer at Marshfield #5 substation onto its final destination.



A view from the "hard hat cam" of Journeyman Lineman Ryan Huff as the Marshfield Line Crew performs a hot-stick procedure to change out a damaged insulator on a 345 kV line.

MATERIAL HANDLING

Warehouse operations are an integral part of Sho-Me's daily business activities, and having material readily available enables work to continue seamlessly and on schedule. The annual inventory at the end of September calculated Sho-Me Power's on-hand materials at almost \$9 million, and Sho-Me Technologies' at almost \$2.5 million. The net adjustment after inventory was \$9,267 — an impressive .059% of the combined inventory value. Achieving a variance this low is possible through the diligence of the warehouse management and personnel, internal controls, inventory management procedures and a computerized system, including barcode scanners, to accurately track inventory.



“Warehouse operations are an integral part of Sho-Me Power's daily business activities, helping keep crews busy and projects on time.”

Dennis Richardson
Warehouse Supervisor

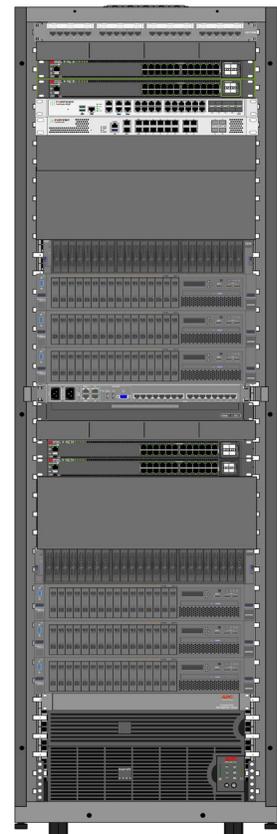
INFORMATION TECHNOLOGY

One of the important tasks undertaken by Sho-Me's IT group was an upgrade to the perimeter and internal firewall. The objective was to replace legacy firewall hardware that needed an update, provide additional security enhancements to detect threats within encrypted network traffic and isolate malicious activity plus increase performance and ease of management while laying the groundwork for potential upcoming compliance requirements. Outside consultants assisted in enabling new protections for pilot purposes and after testing, additional protections were deployed. The upgraded firewall builds a stronger barrier between Sho-Me's critical systems and the outside world and also helped prepare for additional expansion, adding Sho-Me TV and Sho-Me Net, along with a planned upgrade from 100 Mbps to 1Gbps in the future.

An upgrade was completed on the core production virtual server, which was relocated to the Network Operations Center to take advantage of better power and cooling. Storage was nearing capacity and needed to be increased, and more redundancy was needed to eliminate the single

point of failure. The infrastructure was upgraded to increase storage capacity and incorporate faster Solid State hard drives, making Sho-Me's systems faster, more secure and reliable.

The IT group also began the process of building a highly available virtual server infrastructure to accommodate the consolidation of Network Operation Center management systems. This would combine backups, replace several legacy physical servers, and improve disaster recovery functionality while eliminating the need to do manual backup and purchase expensive new hardware for new servers. When migrated, systems will be faster, more secure and more reliable.



MEMBER SERVICES

Energy and the Classroom efforts continued to be well received, with several updates made to the presentation by the educators. The high school program historically focused on aerial power hazards, but a new display showing the hazards of buried power and buried utilities enhanced the program, which included several videos utilizing real-life stories. The elementary program focuses on various topics, such as basic energy conservation, how ground-fault circuit interrupter (GFCI) outlets protect against shock, and the definition of volts and amps. The third and fourth grade energy display was updated while keeping the same message, modernizing artwork and adding extra attention-grabbing elements.



Educator Dena Weaver demonstrates electrical safety to a 4th grade class in Marshfield.

An added focus of Sho-Me Power during the year was the creation of media content for Sho-Me and its member cooperatives, providing quality content for websites, social media, and other media outlets. With an on-site media director and an in-house editing suite, Sho-Me Power is poised to stay up to date with changing technology and current multimedia trends.

New in 2017, Member Services offered additional assistance to member cooperatives in the form of Cooperative 101 training — a new employee orientation program. Twenty-five attendees from eight co-ops attended the course detailing the history of electric cooperatives, the national and state structures, and the three tier system. The class included speakers from Sho-Me Power, Associated Electric Cooperative, and Association of Missouri Electric Cooperatives, along with a tour of Sho-Me Power's dispatch and Sho-Me Technologies' Network Operations Center. Plans are in place to hold this training annually in the future.

As a team effort, the employees of Sho-Me Power continue their commitment to assist member cooperatives as needed. Over the course of the year, twenty employees assisted at nine annual meetings. A cooking team worked at the Howell-Oregon meeting, electric safety was demonstrated at Southwest, members were interviewed about broadband at Intercounty, and a booth was manned to distribute Neighborhood Wireless information at the Se-Ma-No meeting. Energy efficiency displays were set up for Crawford, Gascosage, Howell-Oregon, Laclede, Se-Ma-No, Webster, and White River. A highlight at the Crawford Electric annual meeting was the mobile substation provided by the Cuba Substation crew. This type of assistance is always appreciated by member cooperative staff.





Apprentice Substation Mechanic Joe Boyer answers questions about the new mobile substation with members during the 2017 Crawford Electric Annual Meeting.

ENVIRONMENTAL RESPONSIBILITY



Environmental Coordinator Cari Rostine performs the final land disturbance inspection at Marshfield #5 substation.

Environmental personnel continued their partnership with operational departments by performing all necessary reviews, consultations, and permitting for upcoming construction projects, including emergency coordination for extreme flood events. One of the reviews during 2017 was a complete study of Sho-Me Power's substation Spill Prevention, Control, and Countermeasure Program (also known as the SPCC rule), which is required by the EPA no less than every five years. This program ensures that petroleum products stored and used at Sho-Me facilities are managed in a responsible manner. Three external audits from the Missouri Department of Natural Resources revealed no violations or areas of concern.

SECURITY ENHANCEMENTS

Based upon the results of Associated Electric's recent NERC/SERC Critical Infrastructure Protection (CIP) audit, thirty-seven Sho-Me facilities will be affected by the physical access control requirements of CIP-003-6. Security personnel assessed all sites and developed a project plan to best posture Sho-Me to ensure compliance with the referenced standard in the future.

As a continued service for member cooperatives, security personnel increased fail-over for Crawford Electric Cooperative headquarters facilities by segregating the head-end door controllers and continued maintenance, and support for all White River Valley facilities.

Security was also enhanced at Sho-Me facilities in Cuba, Marshfield, and Seymour, along with completed deployments at eighteen substations and eight telecommunications equipment shelters.



Security Systems Specialist Jody Hancock installs security cameras at one of Sho-Me's 18 substation security deployments in 2017.

LEGISLATIVE EVENTS

Sho-Me Power and the Association of Missouri Electric Cooperatives (AMEC) coordinated together to provide the 16th annual fish fry lunch for legislators and cooperative representatives on March 29th. Over 1,500 individuals at the Capitol in Jefferson City enjoyed the fried fish lunch, which consisted of 630 pounds of fresh fish and over 300 pounds of hushpuppies prepared by Sho-Me Power employees. The Capitol fish fry is one of the highly anticipated events on governmental calendars during the year, and it continues to be a great venue to share the cooperative message with Missouri's legislators.

The annual legislative fish fry for member owners and their representatives was held on October 6th at Bennett Springs State Park. 120 members and guests were present, along with 11 Representatives and 2 Senators. Each Representative and Senator

gave a short talk in appreciation of cooperative efforts in bringing reliable and affordable power to members throughout the state, and afterwards all in attendance enjoyed fried fish and hushpuppies.



Kristy Norris and Debbie Martin serve up some of the 300 pounds of hushpuppies during the Capitol Fish Fry.

BUILDING THE FUTURE

Focused On Technology

NEIGHBORHOOD WIRELESS LAUNCH

Many people in rural Missouri have very few choices for Internet at their homes and businesses. For some, the service they need isn't available. For others, the available options are slow, unreliable, or just too expensive. In response to this problem, Neighborhood Wireless, LLC was formed in 2017 in order to provide the connectivity needed to keep rural Missouri vibrant and growing.

A successful pilot project in Houston, Missouri has now been joined by the community of Eldridge, Missouri as the first areas serviced by Neighborhood Wireless. Metaltech, an employer in Eldridge, was considering moving their business to another community due to a need for faster Internet. Through an agreement with the Public Water Supply District of Laclede County, Laclede Electric Cooperative extended fiber one-half mile to the 80-foot water tank, and Sho-Me's line crew was able to assist field communication technicians and a Mimosa field engineer with installation. The system was commissioned in one day. Metaltech contracted 100 Mb/s Internet, their operation remains in Eldridge, and an additional seven residential customers have contracted 25 Mb/s and 50 Mb/s Internet.



The water tower at Eldridge was an ideal location to deploy wireless Internet radios and antennas to reach the community with reliable Internet service.



SHO-ME TECH EXPANDS SERVICES

A long-time financial services customer provided Sho-Me Technologies with a new challenge this year when they requested Internet to each of their locations, as well as firewall and router services. Research into serving this customer led to a solution for providing firewall services including antivirus, content filtering, and intrusion protection, along with a way to allow each bank site to connect to a shared 50 Mbps Internet circuit.

Having these services in the repertoire will provide additional confidence when approaching potential customers. Separate Internet connections offer our customers protection on their networks, and offering firewall services will give our customers more protection and peace of mind. This could be hugely beneficial for smaller customers in particular.

SUPPORTING FIBER TO THE HOME

In 2017, the Sho-Me Technologies network in Southeast Missouri was utilized by two distribution cooperatives to help with their Fiber-to-the-Home projects. GoSEMO (the broadband subsidiary of SEMO Electric Cooperative) and Pemiscot-Dunklin Fiber (the broadband subsidiary of Pemiscot Dunklin Electric Cooperative) were seeking high bandwidth connections for their Internet, voice, and video services. Sho-Me Technologies provided a 10 gigabit per second circuit to GoSEMO at their headquarters in Sikeston and a 10 Gig circuit to Pemiscot-Dunklin Fiber at their headquarters in Hayti.



Field Service Technician Marvin Oaks and Telecom Foreman Trevor Knifong are part of the Sho-Me Tech team who help provide high speed fiber optic services to our customers.

With the additional aid of M&A Electric, Sho-Me Technologies worked with GoSEMO and Pemiscot-Dunklin Fiber collectively and deployed a ring topology network for both circuits providing redundancy, greater reliability, and lower overall costs.

Bringing high level technology to rural electric members is always a goal for distribution coops, and working as a team with other members of the rural electric family provides a winning solution for everyone involved.

SHO-ME TECHNOLOGIES CELEBRATES 20 YEARS

Focused On Expansion

1997

The initial concept of a fiber optic subsidiary of Sho-Me Power is developed and Sho-Me Technologies is born. A 100 Mb/s Ethernet service to our first customer, Marshfield Schools, is turned up this same year.



“There is an insatiable demand for information that is growing daily.”

The first sentence of the Sho-Me Technologies business plan, 1997.

1999

Sho-Me Technologies breaks ground on the Telecommunications Campus including crew facilities, an equipment central office, and Network Operations Center. The initial facility was completed and became operational before the end of 1999.

2000

The Missouri Research and Education Network (MOREnet) becomes a customer of Sho-Me Technologies with the delivery of an OC-3 backbone.



2004



To better serve our customers, Sho-Me Technologies expands the facilities in Willow Springs, MO with the addition of an 800 square foot central office housing fiber optic communications equipment plus collocation space.

ADSS FIBER OPTIC CABLE

ADSS FIBER OPTIC CABLE

1998



Sho-Me Technologies delivers first backbone Ethernet circuit, provided for Texas County Memorial Hospital, between Houston and Licking, MO.

That same year, Sho-Me Technologies provides service to our first cellular customer with a DS-1 circuit to a cell tower in Mountain Grove, MO.

2003

The network grows beyond what the original equipment can deliver. A Dense Wave Division Multiplex (DWDM) system is deployed, capable of 20 Gb/s of data transport. The DWDM system Sho-Me Tech uses today is capable of 400 Gb/s over just one pair of fiber.



2006

Rapid expansion to cellular providers begins as technology shifts to Ethernet and dark fiber connectivity in order to keep up with data demands. Today, Sho-Me Technologies provides service to over 700 cell towers across the network.

2005

Sho-Me Technologies wins the national Service Excellence Award from Alamosa PCS, a provider of cellular service headquartered in Lubbock, TX. Alamosa PCS was purchased by Sprint Nextel for \$4.3 billion later that year.

2008

Providing fiber optic connectivity to healthcare providers within our fiber optic network has been a big part of the growth to Sho-Me Technologies. At the end of 2008, we served a total of twelve healthcare providers reaching over 50 medical facilities in rural Missouri.



2010

Dedicated Internet Access (DIA) is added to the list of services offered by Sho-Me Technologies with the first DIA service delivered at 5 Mb/s. Today, over 40 Gb/s of DIA is delivered to 155 business, commercial and industrial customers.



2015

The fiber optic network used by Sho-Me Technologies grows to over 8,000 miles serving over 1,000 Points of Presence and delivering almost a terabit of data to our customers every second.



2016

Trial deployments of wireless technology begin as a way to provide low-cost, high-speed Internet service for customers with little or no choice for broadband.



ADSS FIBER OPTIC CABLE



2009

Sho-Me Technologies is awarded a \$26.6 million Broadband Technology Opportunities Program (BTOP) grant from the National Telecommunications and Information Administration to expand our fiber optic network by 500 miles into under-served areas of Missouri.



2012

Sho-Me Technologies expands service into southeast Missouri with the construction of over 400 miles of buried fiber optic cable.



2017

Sho-Me Technologies celebrates 20 years of offering exceptional telecommunications services via fiber optics to our customers.



IN MEMORIAM



Sho-Me said good-bye to a long-time friend and Se-Ma-No General Manager this year. James "Jim" Carpenter began his career at Se-Ma-No when he was nineteen as a ground man, ultimately being promoted to the position of General Manager in 2005. He departed this life on December 9, 2017.



Long-time employee John Hart departed this life on November 4, 2017. John started his career at Sho-Me Power

in 1967 when he was hired in the Plant and Property Department, and held the position of Substation Superintendent at the time of his death.



SENIOR STAFF



John Richards
CEO and General Manager



Cindy Keeler
Executive Assistant



Chris Bolick
Chief Operating Officer



Peter Dawson
Chief Compliance Officer



Rebecca Gunn
Manager, Human Resources



Micah Johnson
Manager, IT Infrastructure



Mark Keeling
Chief Technology Officer



Tim Lewis
Manager, Member Services



Denise Stevens
Chief Financial Officer