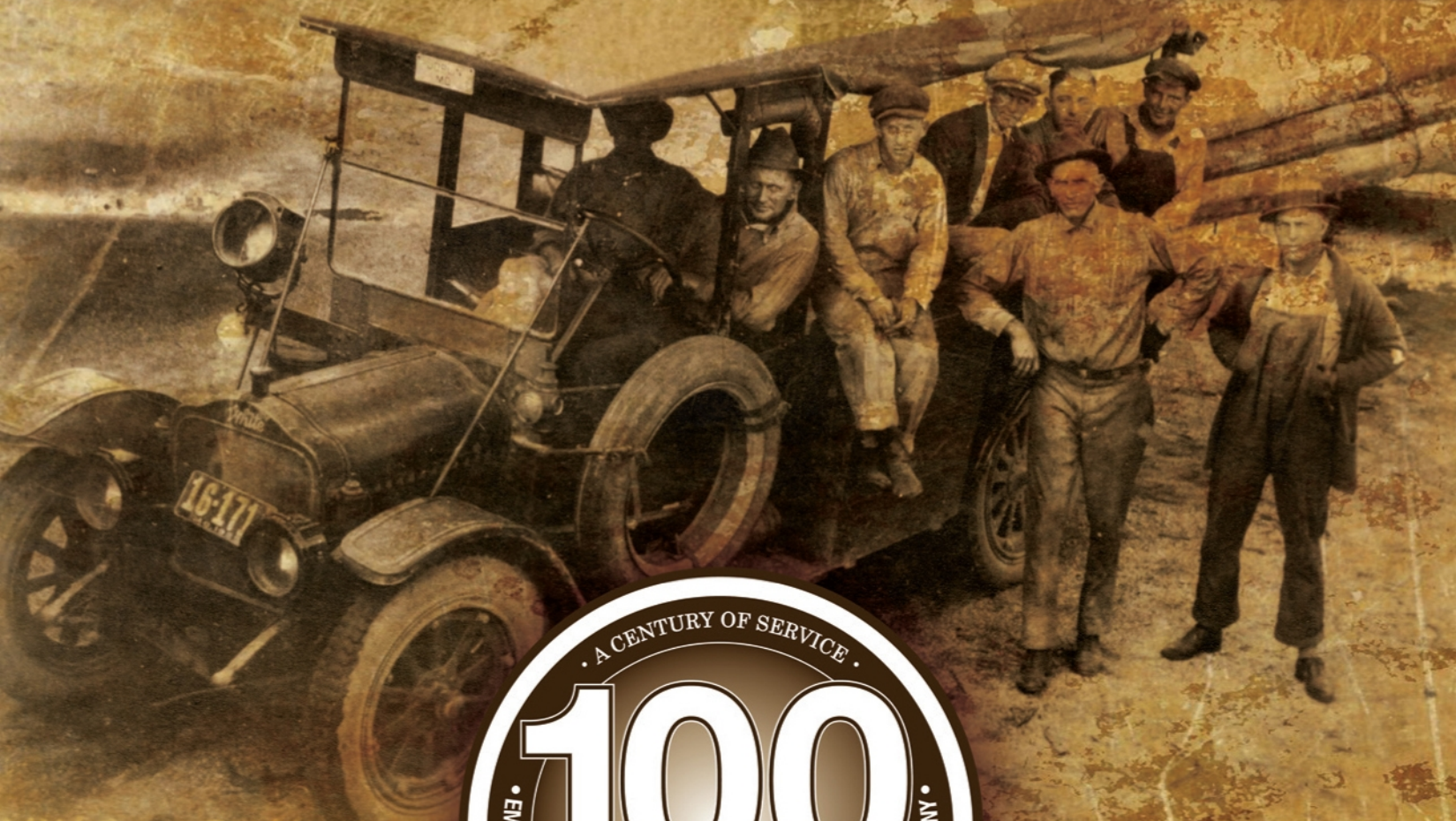


# Celebrating a Century of Service.



The Empire District Electric Company





**ABOVE:** Lee Mills' crew, Joplin, 1930s.

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## Introduction

Running water and electricity are the basic tenets of a civilized society. Without the two, the progression of mankind ceases to move forward. The practical application of electricity during the early 20th Century in the United States propelled American society forward surpassing other countries in the world.

The harnessing and generation of electrical power was extremely important in this transformation. Electricity has changed our society more than we will ever truly understand. When Empire was established in 1909, electricity was still a very novel concept. Outdoor illumination was catching on, but indoor usage was still fragmented. It would take until the end of World War I before kitchens began to fill with electrical appliances. Americans only gradually adapted to this new power source and what it offered.

Empire has been a part of this time continuum we call history. Empire



witnessed and participated in three life altering innovations: the radio, television and computer. All powered by electricity, these three inventions have permanently changed the very cultural fiber of our world.

Empire has survived two world wars and the Great Depression. In 1944 the company experienced the breakup from its parent company, the Cities Service Company, and then went on to celebrate a rebirth and independence. Through the years, they have also encountered numerous economic inflation and recessionary periods, deregulation and open market competition,

**ABOVE:** Empire booth at the entrance to Joplin's Electric Park, 1911.

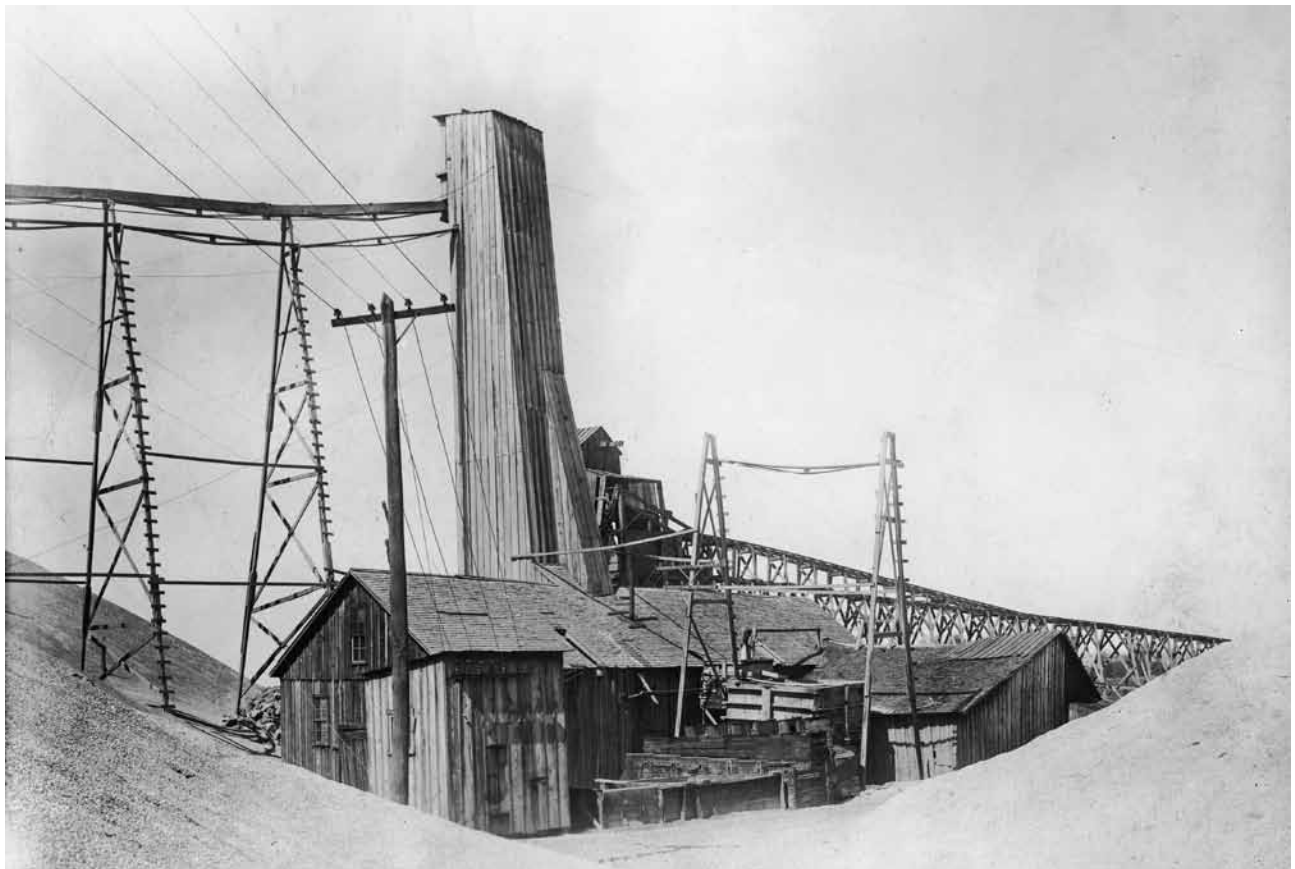
stringent regulatory regulations, a takeover that was never finalized, strong policies concerning the environment, skyrocketing production costs, rate increases, escalating federal and state taxes, and unbelievable harsh and destructive weather. Like an unrefrigerated ice cube on a hot summer day, most businesses would melt under this uncertain and volatile climate. The Empire District Electric Company prevailed — a noteworthy accomplishment which has spanned 100 years.

The one hundred year story of The Empire District Electric Company is closely interwoven with the history of the region it serves. As the area developed, so did Empire. A century ago, the region was made up of small urban centers and many rural communities. The local economy was based on mining. Today, it covers broadly populated communities with a solid base of diverse businesses and industries.

Empire's emergence into the utility business occurred when several smaller power companies merged together. Prior to the formation of Empire, many companies simply dabbled in providing electricity as a power source. In the early years, the electric utility business was ever changing with takeovers and acquisitions were normal business practices of the day. In the end, the local communities needed an affordable, reliable energy source and Empire provided that needed service.

Empire's early days were firmly attached to the ever-growing zinc and lead mines located in Cherokee County, Kansas, and the two mining counties in Jasper County and Newton County, Missouri. If Empire was to have success, its primary job was to sell electric power to the district's zinc and lead mines. A second objective was to introduce and sell electricity to the homes and businesses of the region. When Empire became incorporated, electricity was still a relatively new concept. Area residents and businessmen needed to know more about the usage as well as the accessibility of electric power. Businesses were encouraged to look into indoor and outdoor illumination. The use of

**BELOW:** Childress Brothers Rabbits Foot Mine in Joplin.



outdoor electric signs offered another marketing avenue for businesses. Also an entire array of new residential appliances were becoming available. These time-saving household machines would eventually revolutionize the domestic work at home.

Eventually, Empire provided the power for the commercial, industrial and residential customers in the four-states. Empire was built on utilizing capital that was voluntarily invested by thousands of local stockholders. In return, Empire dedicated itself to providing electrical power to that vested community.

Today, electricity is imperative in our life. Recently this region's weather has been harsh and extremely destructive. It is during these difficult times we feel the true value of electricity. Once thought of as a novelty, electric power has become a necessity. The history of Empire reflects this change and further explains its growing relationship with the region over the past 100 years.

## Acknowledgements

A special thanks goes to Amy Bass, Carol Sumners, Julie Maus, Pat Settle and Emily Stanley for their assistance in the editing and layout process.

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Wiseman was extremely valuable in the duplication and enhancement of the historic images

Many current Empire employees, as well as an army of retired folks, have been instrumental in the creation of the book. I greatly appreciated the support I received from Bill Gipson, Brad Beecher, Gregg Knapp, Mike Palmer, Harold Colgin, Kelly Walters and Ron Gatz. I had the pleasure of interviewing a number of past and present employees. I thank the following for your time and candid remarks Katie Barton, Jeff Bertelson, Sandy Blakeley, Jeff Brown, Jeneane Chartier, Angela Cloven, Gary Clark, Harold Colgin, Vernon Corkle, Dee Lynn Davey, Milie Dickerson, Rhett Elliot, Tina Gaines, Wade Gilkey, Chad Hook, Bill Howell, Dale Jasumback, Doug Kennedy, Frank Kerr, Ryan Kerschen, Louis LaGasse, Bob Lamb, Otto Martin, Jack Mayfield, Rick McCord, Sam McGarrah, Myron McKinney, Virginia McKenzie, Larry Myers, Beverly Newman, Phil Owens, Wade Palone, Randy Penn, Shane Peterson, Jess Reed, Donna Roehling, Richard Russell, Tom Schneider, Joe Simmons, Jack Smallwood, Tom Snyder, Richard Swaim, Steven Taylor, Martha Thomas, Dave Walden, Kelly Walters, Vicki Williams and John Woods.

Lastly, I thank Brad Fenison and his creative staff at Pediment Publishing for assisting me in the publication process.

— Brad Belk, 2009



**ABOVE:** Service trucks in Joplin, 1929.

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**BELOW:** Empire Storeroom, 4th and Pennsylvania, Joplin, 1910. In the doorway are Henry Roth and Bill Pinson.



# The Empire District Electric Company Is Established

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Although electricity came to the region prior to the formation of The Empire District Electric Company, the stories of its predecessors will forever be connected to the history of Empire and the region it serves. The first public utility in Joplin was the Joplin Gas and Coke Company. It was officially incorporated by the State of Missouri on November 20, 1876. The City of Joplin in 1890 ratified City Ordinance No. 284 granting the Joplin Gas and Coke Company the right to build and operate an electric light and power plant.

According to Joel T. Livingston's book, *History of Jasper County*, the first electric light viewed by county residents occurred when the traveling Cole Circus



came to Joplin in 1882. The Cole Circus “tent and grounds were illuminated with lights generated from a dynamo and apparatus carried by the show.”

The first light plant in Joplin was constructed in 1887 by William G. Sergeant and Oliver Moffet. The light plant was located at the site between Fourth and Fifth Streets and Joplin and Wall Avenues. Sergeant traveled to

**ABOVE:** Empire line crew, circa 1910. Ed Wilson, Baron Alexander, Sid Cody (on wagon seat), Bill Chad, and A. B. Long.



Chicago to purchase twelve 2,000 candle power arc lamps from the Thompson-Houston Company. The lamps were to be used solely for street lighting. They were powered by a small engine dynamo with a locomotive type boiler.

The first street light in Joplin was placed at the corner of Fourth and Main. This one light demonstrated the power and efficiency of street lighting. Seeing the benefits of an illuminated corner, Sergeant's company was awarded a contract to light the streets in the downtown business district.

Historically, the names of Sergeant and Moffet resonated well in the Joplin community. Their fathers, John B. Sergeant and Elliot R. Moffet, helped create the City of Joplin. In 1870 they discovered a rich vein of lead near Joplin Creek. This strike brought additional miners to the area and many of them eventually settled. Three years after the Sergeant and Moffet strike, the community of Joplin was incorporated.

Sergeant and Moffet's company was named the Joplin Electric Light and Power Company. Their original power plant would later be adopted as a substation by The Empire District Electric Company. This plant was built only five years after the opening of Thomas A. Edison's famous Pearl Station in New York City, which was the first central power station in the world.

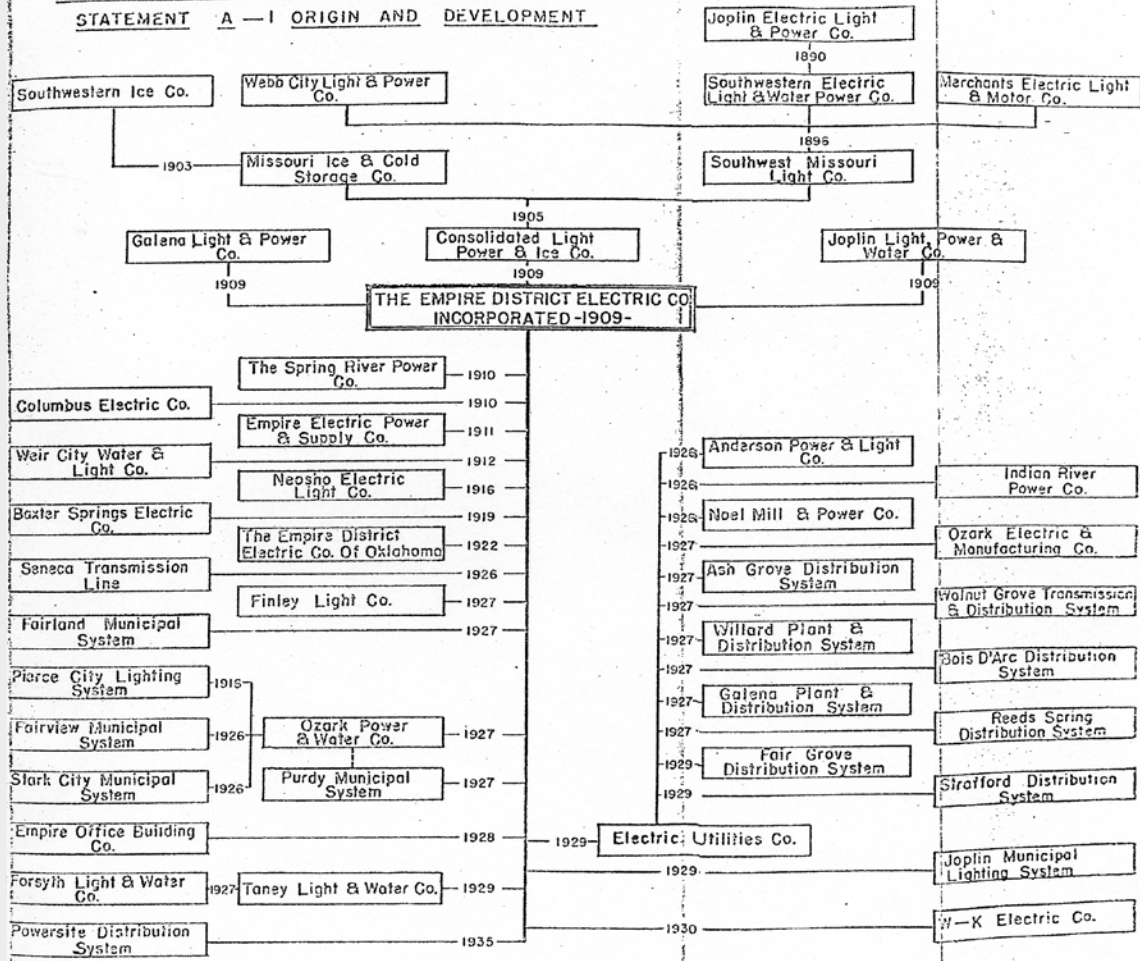
In time, Sergeant sold his interest to Moffet. Under Moffet's direction, a new hydro power plant was constructed on Shoal Creek near Grand Falls. Known as the highest natural water fall in Missouri, Grand Falls was formed millions of years ago and consists of an unusually thick outcrop of Mississippian chert.

In the beginning, a wooden dam was built. The wooden dam was replaced by a concrete one three years later by Arthur E. Stillwell. At the time, Stillwell was president of the Kansas City, Pittsburg & Gulf Railroad Company. He assisted in creating the Southwestern Electric Light and Water company, which was incorporated on May 7, 1890. This company took over the new dam. They also acquired Moffet's interest.

**BELOW:** Grand Falls



**THE EMPIRE DISTRICT ELECTRIC COMPANY**  
**STATEMENT A — I ORIGIN AND DEVELOPMENT**



To better understand the history of Empire, it is important to trace the early electrical companies that provided service in the region. This historical evolution goes beyond the turn of the century to the power companies which later merged to form The Empire District Electric Company.

The utility field was extremely volatile, with mergers and takeovers continuing as normal business practice.

## Two Electric Light Companies in Joplin

The Joplin City Directory of 1891 listed only two electric light companies, the Joplin Light and Fuel Company and the Southwest Electric Light and Water Company. The Joplin Light and Fuel Company was listed with an office at 109 East 4th Street. The company controlled capital stock equaling \$100,000. C. H. Malin was the president.

The Southwest Electric Light and Water Company office was located at 313 Main. The company was organized in April of 1890. E. L. Martin was president and A. E. Stillwell held the office of vice president.



### David D. Hoag

Around the turn of the century, a gentleman came to the district who earned the title of “Father of The Empire District Electric Company.” He was Judge David D. Hoag. Judge Hoag would give a substantial part of his life to Empire.

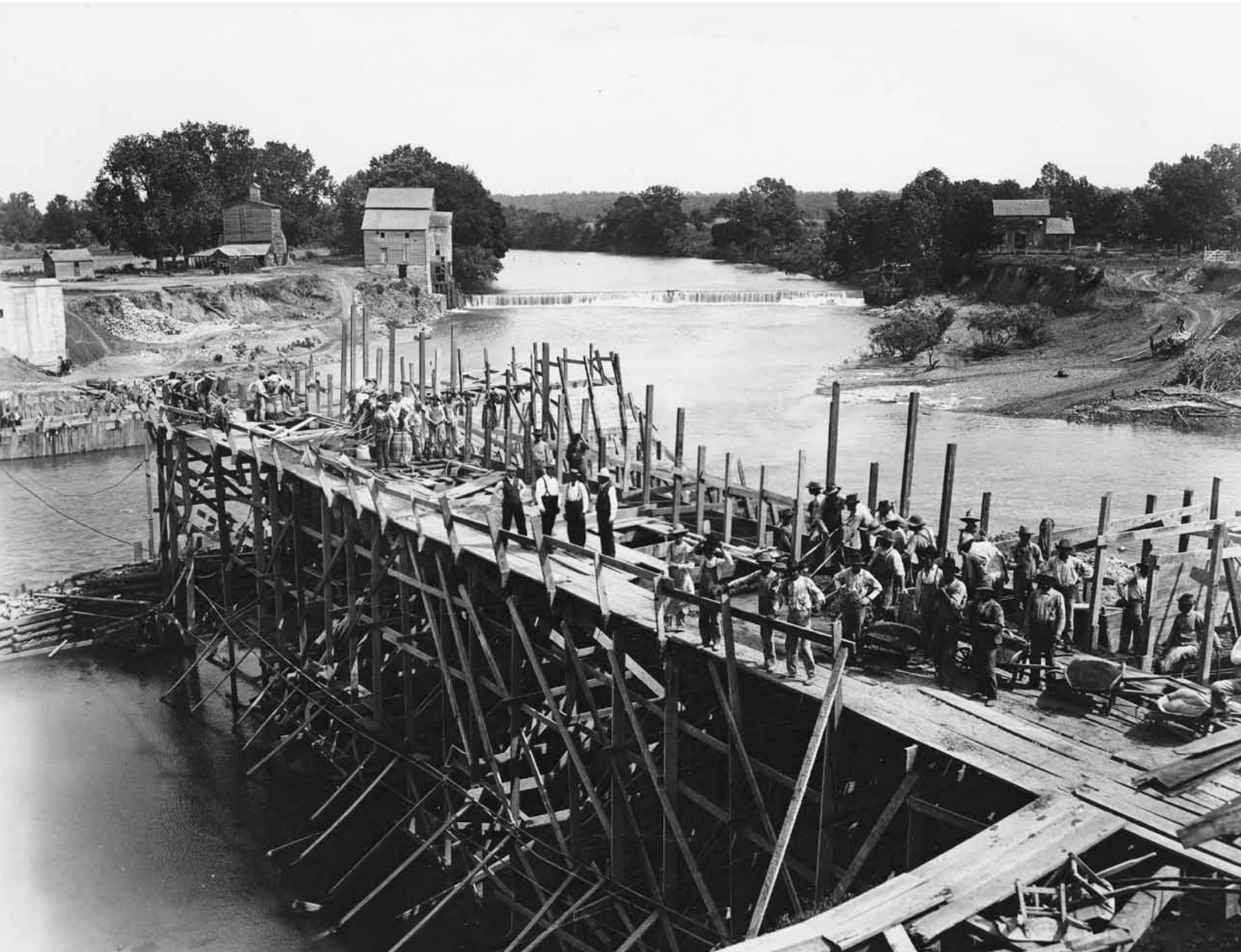
David D. Hoag was born on March 18, 1848, in Sherman, Connecticut. In 1873, he graduated from Yale College. From 1875 to 1881, he was Probate Judge of Ottawa County, Kansas. Then from 1886 to 1889, he selected and plotted a valuable addition to Kansas City, Kansas, and established and laid out the towns of Oakley, Colby, Sharon Springs and Winona in western Kansas on the line of the Union Pacific Railroad.

Hoag was introduced to the utility business following the turn of the century when he consolidated a number of electric light and power companies working in southwestern Missouri and southeastern Kansas. His work continued in this capacity culminating in 1909 with the incorporation of The Empire District Electric Company. Hoag would also be the second general manager of Empire.

Prior to the creation of Empire, Hoag held various board positions with the local utility companies. He was secretary and a board director of two power companies including the Joplin Light, Power and Water Company and Consolidated Light, Power and Ice Company of Galena, Kansas. He was also a board director and member of the executive committee of the Spring River Power Company. From 1899 to 1901, he served as a state legislator of Kansas. Hoag also became the first president of Joplin’s Oak Hill Golf Club in 1912.

**OPPOSITE TOP:** Lowell Dam under construction, January 1910.

**OPPOSITE BOTTOM:** 33,000 volt transmission line. Tower line across Spring River.

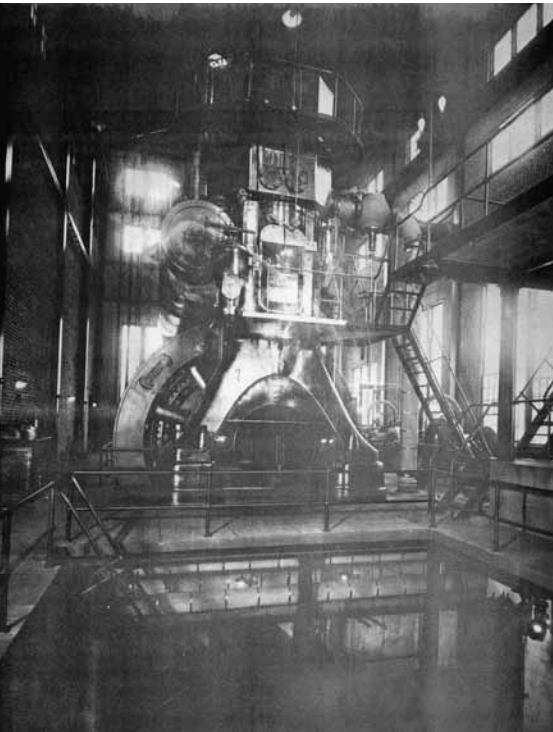


## Bond Issue Passes

In 1899, the Joplin electorate voted in favor of a \$30,000 bond issue to create a municipal electric light plant. The *Joplin Globe* reported that the proposition passed by a vote of 813 to 222. In June, the Joplin City Council approved a plan to purchase a site on the north side of Broadway, between Railroad and Division Avenues, for establishing the electric light plant.

The city purchased the land and a former power house for \$3,500 from the Southwest Missouri Electric Railway Company and converted it into the city's power plant. The cost of constructing the plant was \$30,000. James R. McDonald became the plant superintendent.





**ABOVE:** Old Kate, at Riverton Plant, 1907.

**RIGHT:** Henry L. Doherty.

**BELOW:** Riverton Plant housing Old Kate.



## Lowell Dam

After procuring the needed funds, William G. Sergeant's desire to build a dam at the juncture of Shoal Creek and Spring River at Lowell, Kansas became reality as dirt was broken on May 9, 1904. In cooperation with Sam Brown and Jamot Brown, the Spring River Power Company was incorporated and a dam was constructed.

After formation of the Spring River Power Company, a contract was made with the Arnold Electric Power Station Company of Chicago to erect a power plant. The plan included eight water wheels and two 1,500 kilowatt generators. A young engineer named George E. Hayler came to the area and was assigned the task of designing the power plant.

In 1922 Hayler composed a letter for the company's April edition of *Hi-Voltage* magazine. He stated, "Ground was broken for the first Spring River plant at Lowell, Kansas, in May 1904. The hydroelectric plant was completed and 2,300 volt current was transmitted over the high tension line to operate motors located in the Murphy-Friel Mill at Galena, Kansas, on March 4, 1905, the day that Teddy Roosevelt was made President of the United States for the second time."

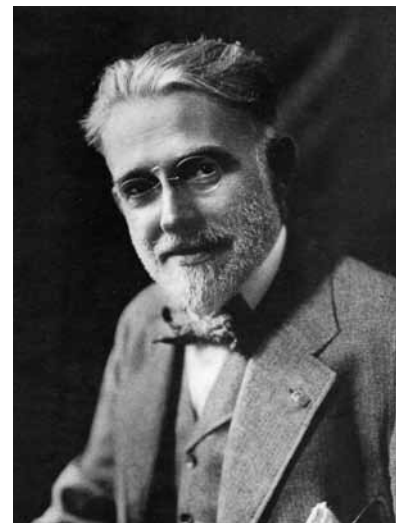
Transmission lines extended from the plant to Galena, Joplin, Webb City and Porto Rico. These were the first 33,000 volt transmission lines serving south-eastern Kansas. The system served four substations with 750 kilowatts each.

## Riverton Power Plant

Additional generation was needed as the mining fields demanded more power. Plans were made to construct a power plant at Riverton, Kansas. In 1905 a 5,000 horsepower, 25 cycle, Corliss engine generator manufactured by Westinghouse was delivered to Riverton, Kansas. One interesting feature of the generating unit was its former job was furnishing electricity for the 1904 St. Louis World's Fair. Nicknamed "Old Kate" the generator was a large vertical engine weighing over 400 tons. Old Kate was one of the last large vertical engines to be built. The generating equipment was placed into operation by 1906.

The plant at Riverton provided 2,000 kilowatts of capacity, which in time was stretched to 3,000 kilowatts. Old Kate remained steady, and under the capable hands of the maintenance engineer, Sam Gard, it frequently ran 719 out of a possible 720 hours during the calendar month.

By 1908, electric lines were extended to the mines and other industries including two street railway systems, the Joplin and Pittsburg Railway Company and the Southwest Missouri Railroad Company. There were now 42 miles of 33,000



volt transmission lines with eight substations and a total capacity of 10,000 horsepower.

At this time, the Springfield River Power Company and the Consolidated Light, Power and Ice Company were operating at full capacity. Both companies needed additional money to expand. With these particular circumstances in place, Judge David Hoag persuaded Henry L. Doherty to look into the business possibilities of the area.

## Creation of The Empire District Electric Company

Another visionary businessman, Henry Latham Doherty, realized the value of the region and the potential customers gained from the usage of the natural gas and electricity in Kansas and Missouri. The Henry L. Doherty & Company was created in 1905 to act as a fiscal agent for numerous utility companies. Five years later, the Cities Service Company began acting as a holding company for both utility and non-utility Doherty interests. Established on September 2, 1910, the Cities Service Company was a New York based holding company deriving income from dividends generated by stock held in subsidiary corporations. Cities Service was established to acquire public utility companies, such as natural gas, electric and transportation firms, but later their interests shifted to the burgeoning petroleum industry.

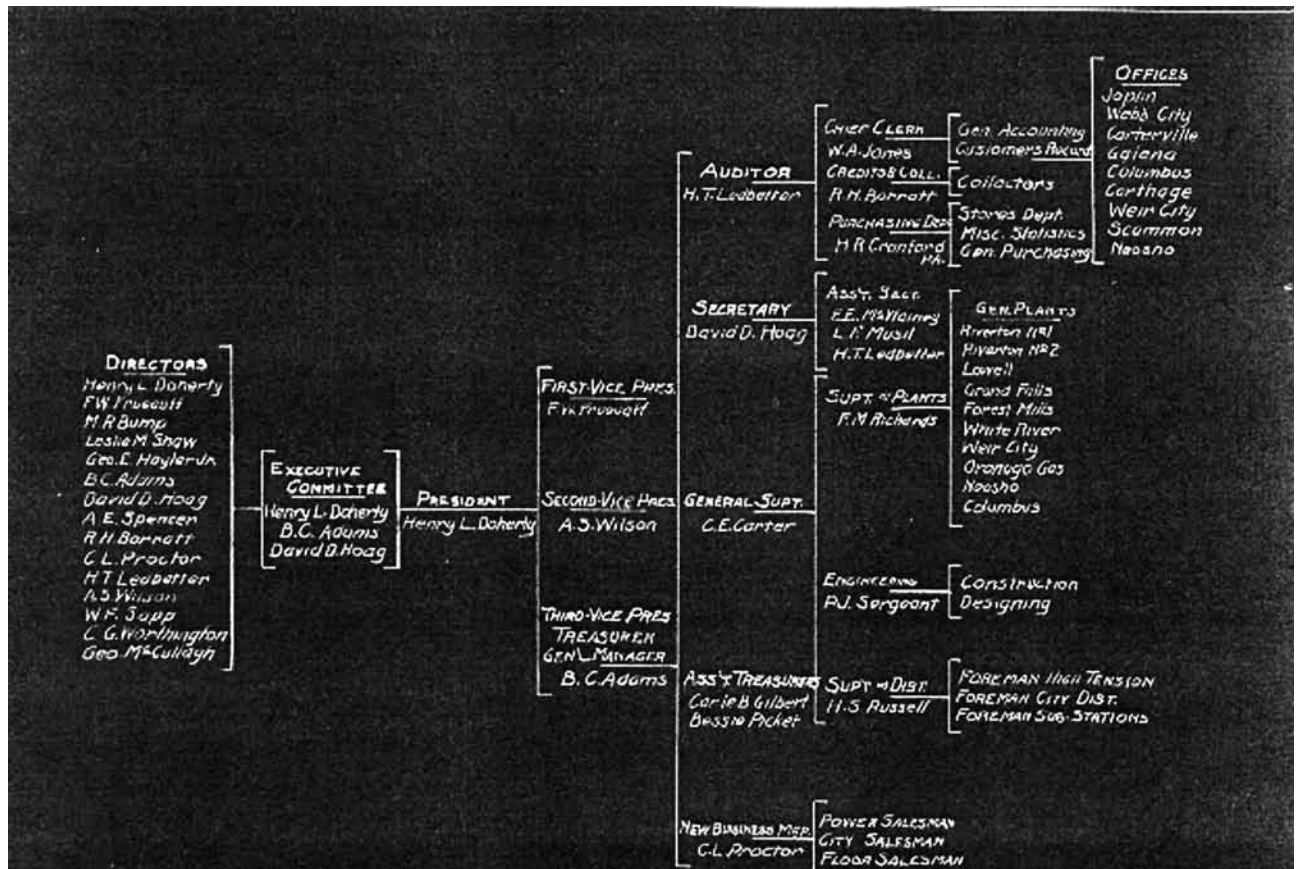
Doherty acknowledged Hoag's recommendation and sent a few engineers into the district to make a thorough examination of the situation. After evaluating the information, Doherty and his associates made a decision to acquire several of the local utility companies and form a single power company. The report also speculated that the district's zinc and lead mining would continue to prosper.

In 1909, Henry L. Doherty & Company began purchasing power companies in southwest Missouri and southeast Kansas. The company acquired



ABOVE: Milan R. Bump, 1925.

BELOW: The Empire District Electric corporate structure, 1909.



the controlling stock and respective plants of Consolidated Light, Power and Ice Company which operated in Carterville, Webb City and Joplin. They also secured the property of the Galena Light & Power Company and Joplin Light, Power and Water Company. By merging these companies together a new corporation was formed. It was named The Empire District Electric Company. The selected name referred to the financial support received from the New York financiers who purchased the three local utility companies.

The original Charter of The Empire District Electric Company was filed with the Charter Board of the State of Kansas on October 16, 1909. Three days later Charles E. Denton, Secretary of State of Kansas officially transcribed the Charter making the company a licensed corporation.

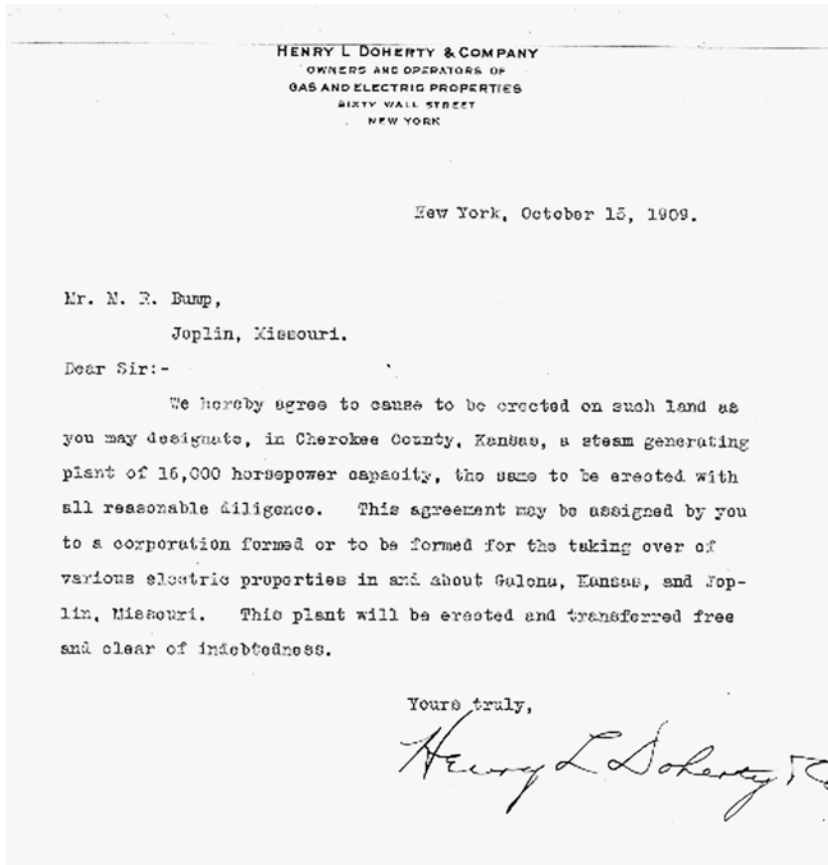
Continuing the merging process, Doherty and his associates purchased the majority of the stock of the Spring River Power Company, which owned the Lowell Dam and the Riverton steam plant and the Columbus Electric Company.

There were fifteen initial stockholders of the company. On October 22, 1909, the Board of Directors held their first meeting and formally elected the officers of The Empire District Electric Company. The first cabinet of officers were president, Henry L. Doherty of New York City; first vice president, Frank W. Frueauff of New York City; second vice president, Arthur E. Spencer, Sr. of Joplin; treasurer and general manager, Milan R. Bump of Joplin; and secretary, David D. Hoag of

Joplin. Additional members of the board included Mark Fristoe, J. A. Orcutt and James E. Harsh.

Milan R. Bump was sent to Joplin in 1909 to help organize The Empire District Electric Company. He became the company's first general manager. Born at Rock Falls, Wisconsin, in 1881, he later graduated from the University of Wisconsin. In 1911, he left Joplin and was called to national headquarters of the Cities Service Company in New York City. Bump became chief engineer of the Cities Service Company, a position he would hold until his death. In addition, Bump was elected president of the National Electric Light Association.

From the very beginning, the corporate headquarters of The Empire District Electric Company was located in Joplin, Missouri. On October 31, 1909, *Joplin News Herald* made the first public announcement of the formation of The Empire District Electric Company. The story stated that the headquarters of the



## Electric Park

A symbol of the new electric age was the construction of Electric Park. During the time of the incorporation of Empire District Electric Company, three local businessmen constructed an amusement park on ten-acres of land just west of Joplin near the mining community of Chitwood in 1909.

Working with a budget of \$150,000, they hired John H.

Stem, a New York architect, to design the park which featured rides, sideshows, animals, musical entertainment, concession and souvenir stands. All the structures were draped in strands of electric lights. A prominent feature of the park was a tall illuminated tower.

This “Tower of Lights,” dressed with over 10,000 radiating light bulbs, was one of the park’s most visual night attractions. The light bulbs of the day had “carbon” filaments and their life span was brief. So it became a regular job for someone to climb the tower and change the burnt out bulbs.

Electricity also played a role in transporting patrons to the park. The majority of the Electric Park visitors arrived via the electrically powered street car. Unfortunately, Electric Park was short lived, closing in 1913. The park would later be known as Schifferdecker Park.



new corporation would be located at 414 Joplin Avenue. The site had been previously occupied by the Consolidated Light, Power and Ice Company of Joplin.

By 1910, The Empire District Electric Company had 109 miles of transmission lines, a total of 8,000 kilowatts in generating capacity and 2,364 customers. The service territory overlapped two states in a relatively small area consisting of Joplin, Webb City and Cartersville on the east, Asbury on the north, and Galena, Riverton, Lowell and Columbus on the west.

## Expansion Continues

The newly formed Empire District Electric Company began expanding immediately because additional capacity was needed to serve the rapidly growing business, residential and mining communities of the area. A gas engine plant was built near Webb City with two 500 kilowatt generating units installed. Transmission lines were extended north to Crestline and east to serve the Carthage limestone quarries.

In less than nine months after the ground breaking ceremony in July of 1910, the first of two 12,500 kilowatt turbine units was placed on line at the Riverton Plant. Diligent workers completed the job in nine months by working literally night and day throughout the severe winter of 1909-10.

**ABOVE:** Electric Park, circa 1912.





**ABOVE:** Outside Riverton Plant, July 1916.

**OPPOSITE TOP:** Powersite Dam construction..

**OPPOSITE BOTTOM:** Students at Powersite Camp School.

## Powersite Dam

In 1909, a group of St. Louis businessmen organized the Ozark Power and Water Company to build a hydro plant on White River near Forsyth, Missouri. Unable to carry out its program, the Ozark Power and Water Company was taken over by the newly formed Cities Service Company.

In 1911, the United States Congress granted approval for the construction of the Powersite Dam across the White River at Ozark Beach. When completed this manmade structure created Lake Taneycomo, which at the time was considered one of the largest impoundments of water in the United States for the production of electric power.

The construction of the dam on White River began to take shape by 1912. Although harnessing White River was a daunting task, the White River Construction Company completed the 50 foot high dam on September 1, 1913. Prior to the dam's construction, a total of 70,000 cubic yards of earth and 20,000 cubic yards of rock were excavated. The dam was constructed of reinforced concrete. Construction was accomplished by the use of two 60-horse powered gasoline boats and fourteen-ton barges.

To build the dam, a considerable workforce was needed. During the dam's construction phase, the workers' camp numbered over 1,000 laborers. Interestingly, at the time, the camp population was greater than any community in Taney County. The camp employed a teacher who schooled about 40 pupils. For nearly two years, the payroll of the camp for just the day laborers approximated \$1,500 a day. Sanitary conditions were good and the camp's water supply was carefully guarded at all times.

Designed by the Ambursen Hydraulic Construction Company, the dam measured 50 feet high and 1,300 feet long. The spillway length was 600 feet.

One of the features of the construction project was the creation of a



twenty-four mile lake. This reservoir was named Lake Taneycomo. In March 1913, the Branson Commercial Club came up with the name of the lake by using a combination of TANEY-COUNTY-MO. The United States Government stocked the lake with bass and crappie and the river's bank became a site for summer cabins and resort hotels.

The transmission system from the dam extended 150 miles on 66,000 volt lines. A series of substations transported the electricity along the line. They were located at Ozark, Springfield, Monett, Aurora, Diamond and Joplin. The principal service markets included the Springfield and the Joplin-Picher District.

The spillway of the dam had



### Fact:

In 1910, Empire was granted the franchise rights of the mining community of Oronogo, Missouri. Oronogo was a typical lead and zinc mining town in the region. Officially incorporated with the state of Missouri in 1876, the adopted name of Oronogo could be phonetically spoken as "Ore or no go" meaning if they found ore they would stay, if not they would go.

a reinforced concrete deck which was supported at a 45-degree angle while buttressed with 18 foot centers resting on a core of solid limestone. On the upstream side of the deck, a cut-off wall measuring eight feet by four feet extended along the entire length of the dam. The downstream side was open and the water was allowed to fall free after passing the crest.

The power house equipment was located on three floors. The lower floor consisted of generators, governors, and excitors. The middle floor housed the transformers, switchboards and meter equipment. The third floor contained high voltage switches and the light ring arresters.

The gates were 17-foot high and nine-foot wide, which allowed two for each wheel opening.

A total of five generators were placed into operation. The plant provided a capacity of 18,500 horsepower.

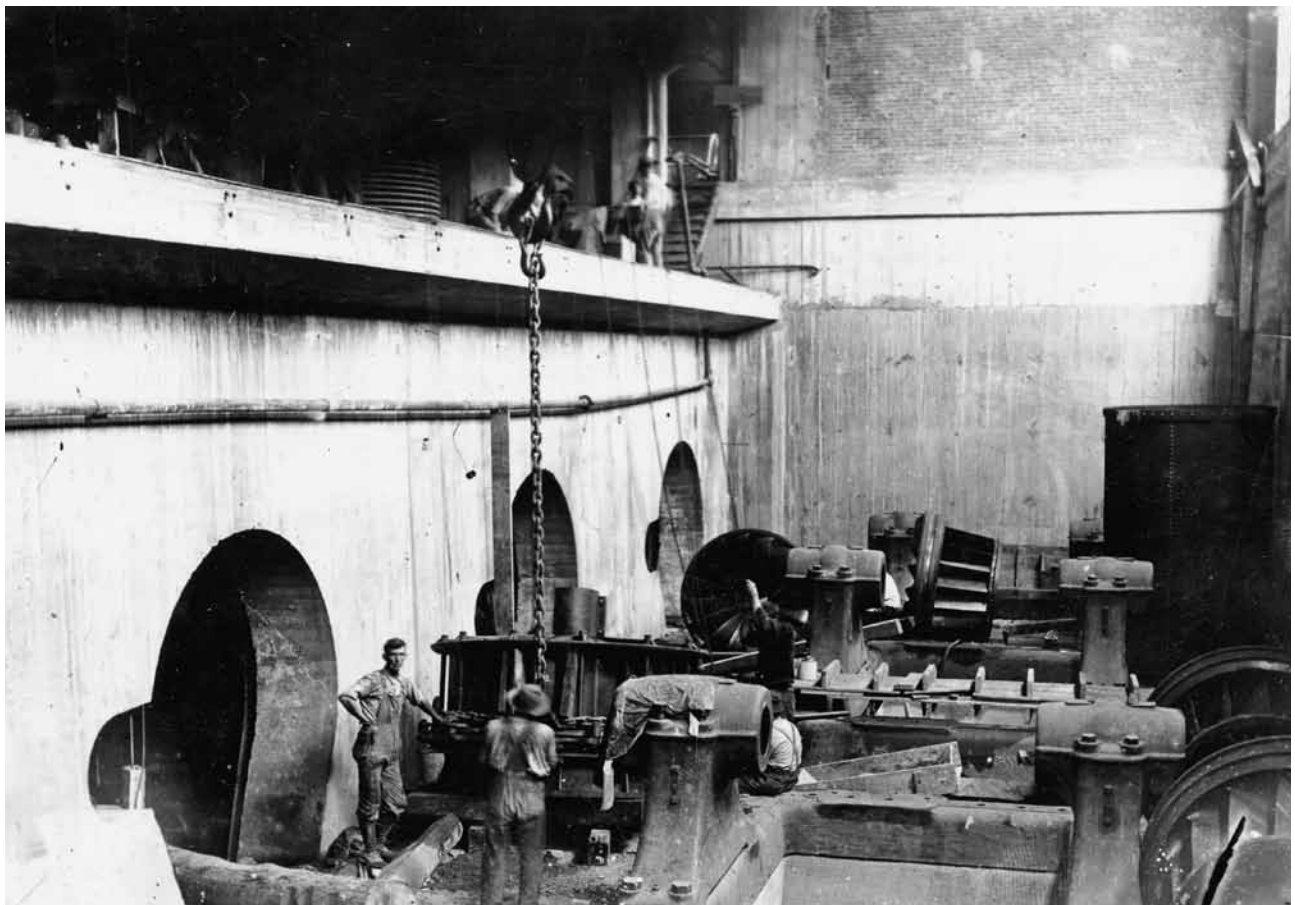
Sam E. Gard, who had previously run the Riverton plant, was transferred, becoming the first plant superintendent. He worked in that capacity from 1913 until his death in August 1931.

### Riverton Plant

A 2,000 kilowatt low pressure turbine was installed at the Riverton Plant in 1913. The unit operated by using the exhaust steam from the Old Kate engine. This configuration resulted in one of the first combination engine turbo installations in the Midwest.

In 1918 a 10,000 kilowatt second-hand Allis-Chalmers unit was installed at the Riverton Plant and was followed immediately by the installation of a 12,500 kilowatt unit and a new boiler plant to supply steam. The Riverton Plant became the largest steam plant in the state of Kansas. To fuel the plant, each year over 115,000 tons of coal valued at \$300,000 was consumed.

**BELOW:** Installation of the original turbine generators at the Powersite Dam.



Early Electric Appliance Advertisements



**Keep Your Home Clean  
And Dainty at ALL Times**

The Electric Vacuum Cleaner has made house-cleaning a task easy to do and soon finished. The wise housewife finds it the best solution of keeping her home dainty and free from dirt at all times. Those who have investigated carefully prefer an Electric Vacuum Cleaner because it is the one vacuum cleaner that gives perfect satisfaction.

**The Electric Vacuum Cleaner**

You have only to see the Electric Vacuum Cleaner in action to see its evident superiority. It draws all the dirt from the deepest recesses of rugs, carpets, upholstery without the slightest injury to even the most delicate fabric. The Electric Vacuum Cleaner is the most efficient and economical of all vacuum cleaners. It uses very little electricity in its operation and is as inexpensive as any other vacuum cleaner.



When It's 100 in the Shade  
**A Westinghouse  
Fan**

brings the cooling breezes of the seashore right into your home, enabling you to enjoy weather that would otherwise be unbearable.

**Don't Let the Heat**

interfere with your work or pleasure. Attend to your daily duties or recreation in comfort. Have a WESTINGHOUSE Fan cool your kitchen in the morning, your living room during the afternoon and let its refreshing currents of cooling air waft you to slumber at night.

Why drag through the balance of the summer without one?

ORDER A...



To really enjoy the morning meal you should prepare it electrically right on the table.

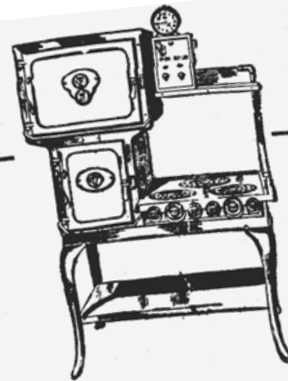
**Toast**—crisp and brown from the Electric Toaster; coffee, piping hot and delicious—as only the Electric Percolator can make it; bacon, eggs, chops—or what you will—are all cooked as you want them on the Electric Grill.

**You Should Own An  
Electric Breakfast Set**

Make the first meal the most tempting meal. Jaded appetites are sharpened at the first taste of an electrically cooked repast.

Try it—complete your breakfast set now. Get the fullest enjoyment from your Electrical Service.

**The Empire District Electric Co.**



**How Many People**

in Joplin will go hungry this winter because their usual method of cooking has failed when most needed? Remember your experience of last season? Almost every family was affected to a greater or less extent.

**Electric Ranges**

are always ready at full efficiency, regardless of wind and weather conditions. A turn of the switch gives full heat at once, without smoke, without odor, without danger. Food cooked on or in an Electric actually tastes better and goes farther, because heat control is so accurate and because it is constructed on scientifically accurate principles.

Call at our show rooms and inspect the different types of range, small, medium and large.

**Empire District Electric Co.**

418 Joplin Street

This range was the hot stuff



**ABOVE:** Endeavor Mining and Investment Company.

## Empire's Transportation Department

The automotive age reached Empire as the company purchased its first motorized vehicle in 1913. The first Empire truck was purchased in 1918, a White Speed Wagon. Three years later, the first Model T Ford truck was placed into operation. A long series of vehicles followed these early acquisitions, including such vintage models of the period — Premier, Chalmers, Velie, Haynes and Overland.

Empire's Transportation Department grew to 38 gasoline-powered motor vehicles in 1921. Valued at \$46,000, these service

vehicles consisted of 25 Fords, 5 Dodges, 5 White trucks and a Lincoln, Studebaker and Haynes. The motorized fleet covered over 331,178 miles in 1923 at a total operating and maintenance cost of six cents per mile. Empire management made a concerted effort to reduce costs in this area. In 1921 the operating costs were running at 17 cents a mile.

## George Hayler Takes General Manager's Position

In 1914, George Hayler became Judge David Hoag's successor as the local general manager of Empire.

## Picher Mine Field Opens

The transmission lines of the company were extended in 1914 as the company entered into a new phase in its history. World War had begun on the continent of Europe. To fight the war, great demands were placed on the mining district for lead and zinc. Prices for zinc escalated and area mining carried on at a feverish pace.

The mining business exploded as a rich vein of zinc was discovered in Picher, Oklahoma. As Oklahoma was added to the two states of Kansas and Missouri, the mining region became known as the Tri-State Mining District. Starting out fortuitously in August 1914, an Eagle Picher prospector's drill rig, mired in mud in Ottawa County, Oklahoma, struck one of the richest bodies of lead and zinc ever discovered in the Tri-State District. According to G. K. Renner's book, *Joplin From Mining Town to Urban Center*, while Europe was embroiled in war, zinc reached a peak price of nearly \$100 per ton in 1915 and lead prices jumped to \$130 per ton as late as 1917.

In 1916 transmission lines were completed to serve the Eagle-Picher Company in Ottawa County. At this time, it was necessary to work through the United States War Department to get releases on generating equipment.

## Joplin Signs Contract with Empire

From 1913 through 1917, Empire made numerous proposals to provide electricity to the City of Joplin as well as lease the city operations and the plant. All of Empire's proposals were rejected by city officials. Coinciding with these proposals in 1917, the City of Joplin endorsed a bond issue which earmarked \$60,000 worth of improvements to upgrade the city plant. The bond proposition was rejected by the electorate. The situation escalated as the Joplin plant costs continued to increase. The Fuel Administration ruled that the operation of the city plant was an extreme waste of fuel and recommended that the plant cease operations for the duration of the war. City officials heeded their advice and closed the plant.

Finally, on September 21, 1918, Joplin city officials agreed to sign a contract with Empire. The agreement was approved by the Public Service Commission on September 25, 1918. The contract stated that Empire would sell electrical current to the City of Joplin from the city's plant switchboard at Empire's standard block rate. The average cost of the city's rate decreased to around 2.25 cents per kilowatt hour. At the end of the year, the City of Joplin's Public Utility Commission reported that the city saved \$25,000 per year by entering into the agreement with Empire.



**LEFT:** Looking north at Fifth and Main, Joplin, Missouri.

## CHAPTER TWO

# 1920s

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As the decade began, Carroll L. Proctor took over as vice president and general manager of Empire. Proctor replaced Benjamin C. Adams. Adams was the company's fourth general manager from 1917 to 1919.

### The Doherty Clubs

An important part of Empire's culture was the formation of gender clubs within the organization. It was a given that the employees were paid to work for the company, but in the 1920s social organizations sprang up within the Cities Service corporate structure providing a means to socialize after work.

**BELOW:** Fraternity meeting, March 22, 1922.





**ABOVE:** Doherty men's fraternity party, 1928.

In the early 1920s a Doherty's Men's Fraternity chapter (Chapter No. 30) was established in Joplin for the male employees of Empire District Electric Company. The objectives of the association were as follows:

1. The study and promotion of the principles upon which our Country is founded.
2. The perpetuation of the business policy and philosophy of Henry L. Doherty, in an effort to make Doherty operated property and public service excel that of all contemporaries.
3. Mutual betterment of the members along social, educational and financial lines and the promotion of loyalty and kindness throughout the Doherty organization.

To become a club member, one needed to be an employee of The Empire District Electric Company, its subsidiaries or Ozark Power and Water Company and be over 21 years of age. The meetings were held on the second Tuesday of each month except during the summer months of June, July and August.

Although women were excluded from the Men's Fraternity, a women's employee group known as the Doherty Girls' Club was established in 1923. The Doherty Girls' Club mission was stated in the *Hi-Voltage* magazine, "We girls of the business world are engaged in work service and together we advance our industry, our community and its people, our state and our Nation." In addition, every April the Doherty Girls would take over the publication duties of the *Hi-Voltage* magazine.

Members of the Doherty Girls' Club orchestrated the first annual Electrical Exposition during the fall of 1926. Mothers, wives, sisters and daughters from the families of Empire employees were invited to attend. At the exposition, the ladies presented a practical demonstration covering every electrical appliance found in the home. The demonstration was creatively presented in a play format and titled "Electrical Servants." The play was written by Empire employees Cleo Woodworth and Nelia Whitford.

**BELOW:** Doherty Girls with Christmas Baskets, 1928.





## Empire's Appliance Showroom

Everyday, electricity was becoming more practical to use. The advantages of electricity became most apparent at home. Electrically powered household appliances were invading the residence, particularly in the kitchen. These new time-saving gadgets were handy work horses. They took a little to get used to, but once they were incorporated into the daily routines of life, there was no turning back. First came the iron, next the fan, followed by toasters, electric ranges and refrigerators.



Empire created a New Business Department to sell this new technology. By 1921, the New Business Department consisted of nine salesmen with average monthly sales of nearly \$7,000. Five years later, 46 salesmen were working in the department with peak monthly sales reaching \$40,000.



The 1924 holiday season was very profitable as \$22,057 worth of merchandise was sold. A breakdown of the electrical appliances included: 101 electric irons, 67 toasters, 41 heating pads, 57 Hoover vacuum sweepers, 80 curling and marcel irons, 98 Christmas light sets, 34 commercial fixtures, 9 toy trains, 2 electric signs, 21 table stoves, 15 waffle irons, 13 electric room heaters, 77 portable lamps, 15 bridge lamps, 23 floor lamps, 106 bed lamps, 16 boudoir lamps, 12 washing machines, 5 radio sets, 20 gas ranges, 113 gas heaters and 2 gas water heater systems.

## Addition at Powersite Dam

Work began on re-enforcing the foundation of the spillway during the fall of 1921 at the Powersite Dam. A total of thirteen thousand cubic yards of re-inforced concrete were used in the construction. The work crews applied an average of 500 cubic yards of concrete per day. Most of the reinforcing was done underwater. The cement used in the construction project was shipped to Branson by train. From Branson the cement was loaded to a fleet of barges and shipped seventeen miles down the river to the dam. Actual work of pouring the concrete began in December. In addition, 200 tons of steel were used in the construction project.



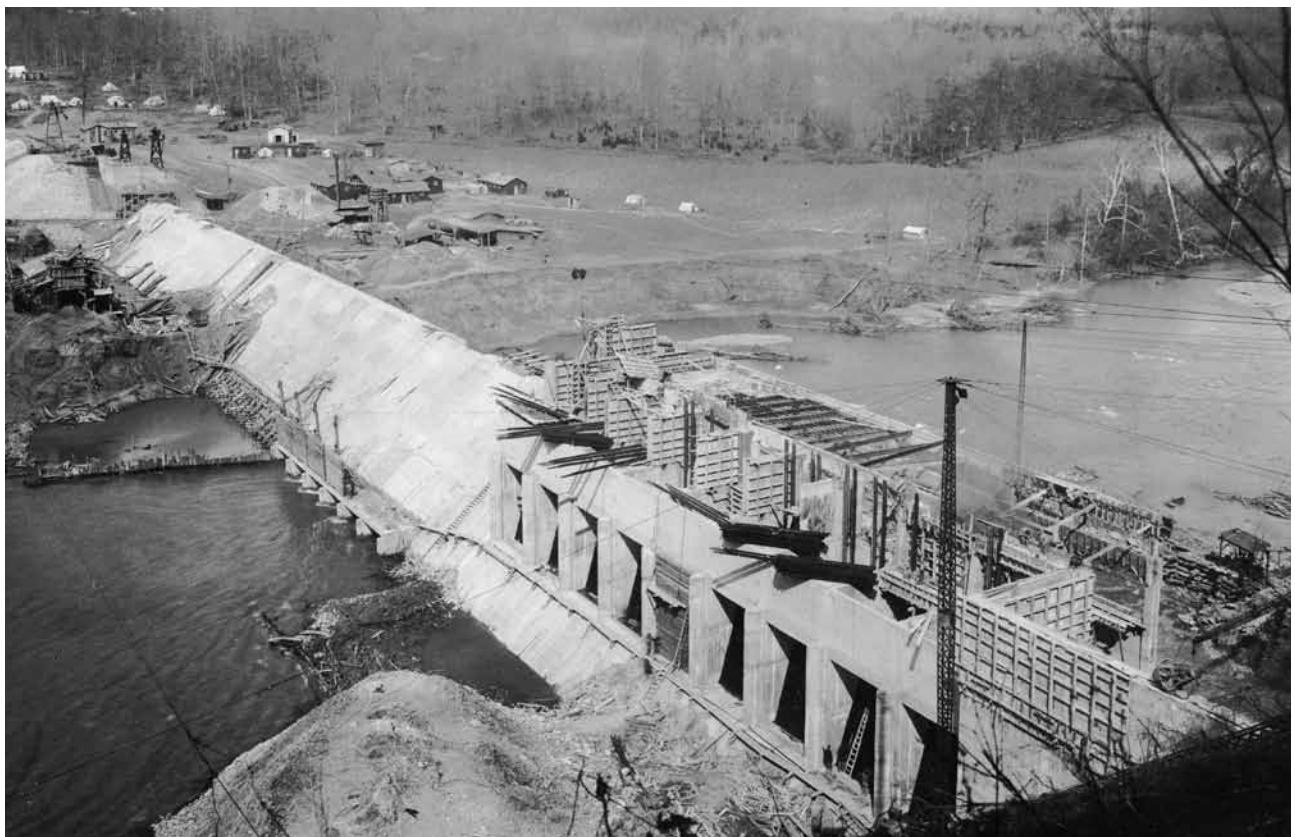
**ABOVE & BELOW:** Powersite Dam under construction.

**OPPOSITE TOP:** Sales floor in the district office, 1920s.

**OPPOSITE BOTTOM:** Appliance service trucks and employees in the 1920s.

## Demand for Electricity

During the 1920s, demand for electricity in the state of Missouri continued to escalate. According to statistics compiled by the United States Geological Bureau, Missouri ranked first in percentage of increase of electrical energy production since 1920. Missouri's production for 1923 showed a rapid increase of 54% over the 1920 output. The increase in production reflected the continued growth of manufacturing businesses in the state. In 1923 The Empire District Electric Company produced 181,420,500 kilowatt hours which represented 17% of Missouri's total output.





**ABOVE:** Line Crew in Joplin, June 28, 1923.

**BELOW:** Interior of McDonalds Separation Mill, Tri-State Mining District.

## Empire Safety Program

In 1921, Empire District Electric Company patrolman Ed Thompson saved the life of fourteen-year-old Roy Blizzard by performing the Shafer Prone Pressure Resuscitation Method on him. Blizzard had received an electrical shock after coming in contact with a grounded forge. Discovering Blizzard in an unconscious state, Thompson revived him in less than

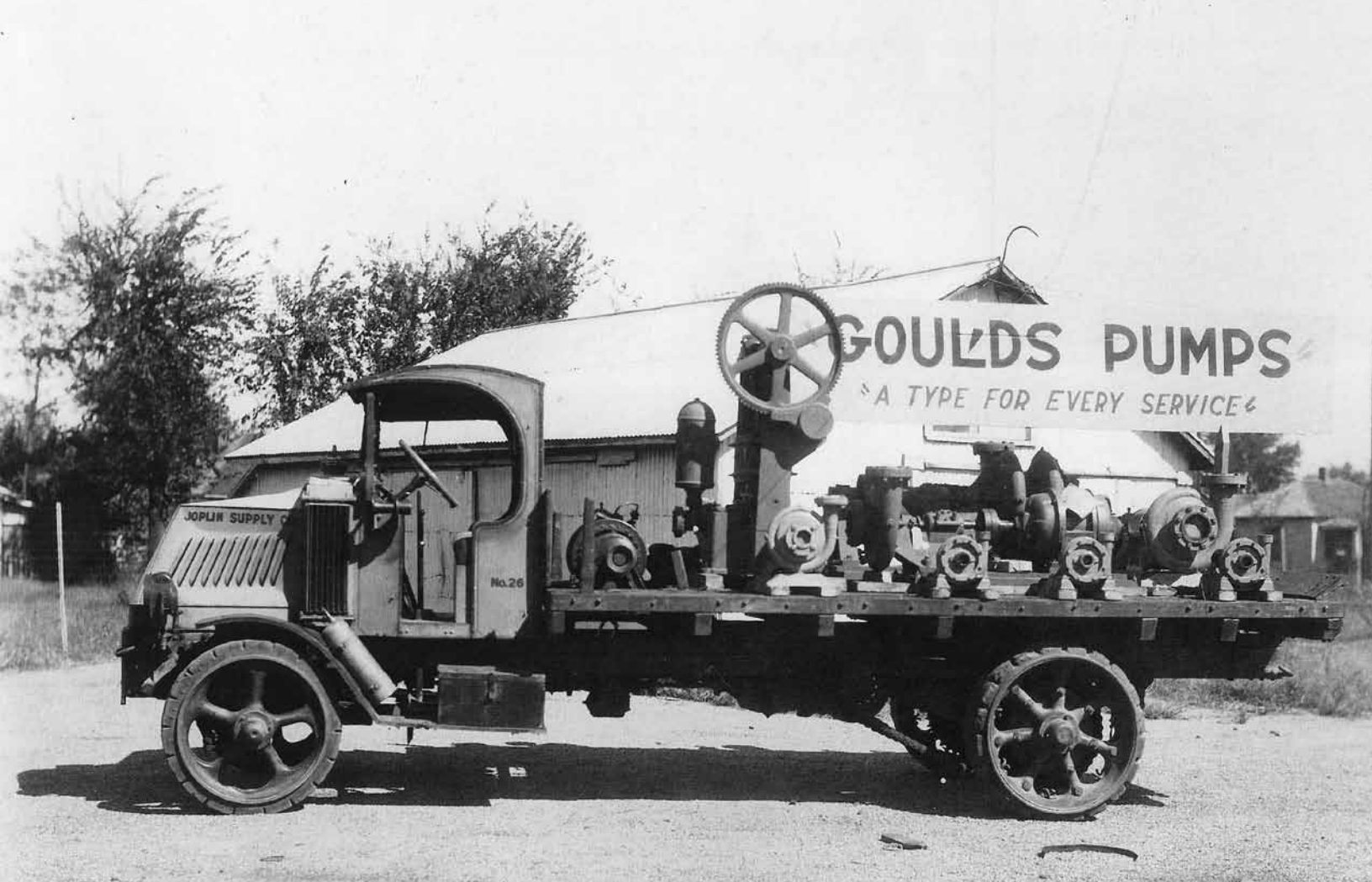
three minutes. The Shafer Prone Pressure Resuscitation Method for electric shock had been adopted by the Royal Life Saving Society of the British Empire. Ironically, Roy Blizzard later worked for Empire in the communications department as a telephone operator.

## Electricity in the Mines

The Eagle-Picher Lead Company at the Netta mine in Picher, Oklahoma, began operating an underground miniature electric railway ore-hauling system. The electrically powered system was a dramatic change in the production process. The implementation of the new transportation system reduced the cost of ore hauling because more cars of ore could be moved at one time.

The electric railway system consisted of three main lines of track leading to an underground hopper at the Netta mill shaft. The electric locomotive was a 15 Tom Jeffries equipped with two ten-horsepower direct current motors. It could push 30, one-ton steel cars at a time. Also during this period, the installation of a 20-passenger cage was installed to take the miners underground. The cage was enclosed in metal, allowing the miners to move safely up and down the shaft. Also the mine dirt from the underground hopper was brought to the surface by a 112 horsepower electric hoist.





**ABOVE:** Goulds water pumps on a Joplin Supply Company truck.

## Water Pumps

One important use of electricity for municipalities was the practical application of pumping water using electrical pumps. Modern pumping equipment with an electric drive enabled area communities to solve their water supply problem without increasing their rates or resorting to a prohibitive outlay of costly equipment. The majority of the urban areas used a Pomona pump for the first lift, pumping into a reservoir, and then using centrifugal pumps for lifting the water into standpipes and mains.

Electric pumps were also used for extracting water from the underground mines. The spring rains were extremely troublesome for the local miners. By the 1920s, the electrical pump proved to be immensely helpful in removing the standing water.

## Empire Territory in 1922

By 1922, Empire had installed nearly 700 miles of pole lines with 50 substations supplying electric service to 30 communities and 11,000 customers. The 60,000 kilowatts generated represented every conceivable use to which electricity could be sent. Every voltage from 110 to 66,000, 25 and 60 cycle, alternating current, direct current as well as series circuits were available.

### FACT:

On Tuesday, January 10, 1922, the entire Empire system peaked at 27,600 kilowatts. The new high mark surpassed the previous peak period recorded in 1921.

## Frank Frueauff Passes

Frank W. Frueauff, vice president of the Cities Service Company and first vice president of Empire, died suddenly at his home in New York City on July 31, 1922. He began his career as a meter reader.

In 1905, Doherty and Frueauff formed the partnership known as Henry L. Doherty & Company. Doherty contributed to the mechanical and engineering side, while Frueauff excelled in public relations and promotions. They set up corporate headquarters in New York City. Prior to his death, Frueauff served on numerous corporate boards throughout the United States.

## Selling Empire Stock

Empire employees were encouraged to purchase and sell Empire stock. A customer ownership campaign for selling Empire District Electric Company preferred stock was launched in October 1922. The New York City based Cities Service corporate management team wanted 100% employee participation as stockholders. Empire's service territory was divided into districts

**BELOW:** Empire baseball team at Miner's Park, 1923.



with quotas for each district based on the number of Empire customers served. Every employee was eligible for a place on the district team. Employee sales commissions were offered and 75 cents was earned with each new name, plus an additional 25 cents for each share sold from the winning district team. Gold watches were awarded to employees selling the most shares.

## Generation Plants

In 1923, Empire operated six generating stations, two hydroelectric, one steam and three gas engine driven. The combined generating capacity of the six stations was more than 63,000 horsepower.

The main generating plants were situated near flowing water. Spring River supplied the Riverton plant with an abundant supply of water for boiler and



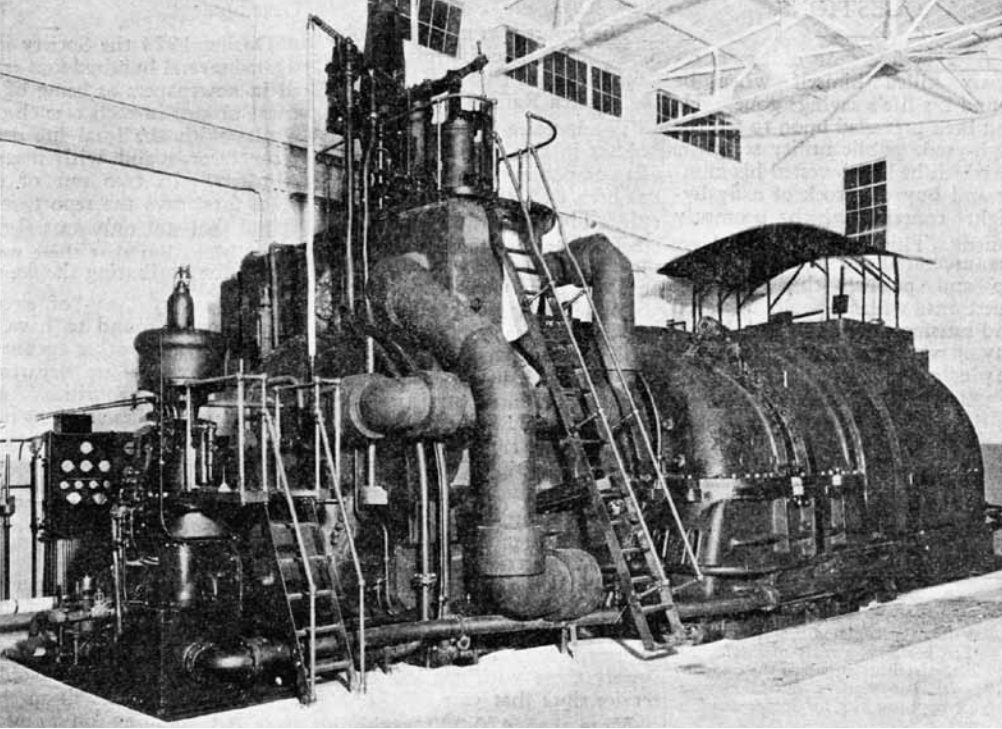
condenser purposes. The Riverton power plant was the largest in the state of Kansas. The hydroelectric plants were located at Lowell, Kansas, and at Grand Falls, Missouri. The plant at Lowell was located at the junction of Spring River and Shoal Creek. The generating equipment consisted of two 1,500 kilowatt generators. The station at Grand Falls was situated on Shoal Creek with a capacity of 800 kilowatts.

The gas engine plants were located at Columbus, Kansas; Neosho and Webb City, Missouri. The Columbus and Neosho plants generated 100 kilowatts. The Webb City station had two 500 kilowatt units.

Empire also sold and purchased power. Even as early as the 1920s, Empire sold and purchased electric power from The Ozark Power and Water Company.

**TOP:** Interior of West Seventh Street Substation, Joplin, 1920s

**ABOVE:** 7th Street Substation, Joplin.



## Weather Bureau Station Established

During the spring of 1923, the United States Department of Agriculture Weather Bureau established Empire District Electric Company as the region's official Weather Bureau station. The station was fully equipped with a recording thermometer, barometer, rain gauge and humidity hygrometer. Having the knowledge of the weather was valuable information for operating the hydroelectric plants. Paul J. Sergeant was in charge of Empire's Weather Bureau.

**ABOVE:** Largest turbine in Kansas at Riverton Plant.

**BELOW:** Empire's first auto.

## Largest Turbine in Kansas

A major investment for the company occurred in 1925 when the largest turbine in Kansas was installed at the Riverton Plant. A new 27,000 horsepower Westinghouse steam driven turbo-generator was purchased. The enhancement project took 18 months to install. An 80 foot addition was added to the main building to accommodate the new equipment. The turbine weighed nearly one million pounds, was 52 feet long, 21 feet wide and 11 feet high. It operated at 190 pounds of steam pressure, 6,900 volts, 25 cycle, 3 phase and was rated at 25,000 kilowatts. A Wheeler double-suction centrifugal pump was designed to deliver 40,000 gallons of water per minute. The condenser was equipped with 5,760 tubes which placed end to end would cover a distance of almost 22 miles. The total equipment cost was over \$800,000.



## 1925 Review

The year of 1925 proved to be one of the company's most successful years. The New Business Department, under the supervision of George Barnett, closed with a record of \$300,240 in new appliance sales. This amount was 37% over the previous year. Empire gained 1,957 new customers and employee payroll amounted to \$644,540. In addition, a total of \$612,736 was reinvested in new equipment, line and pole extensions.

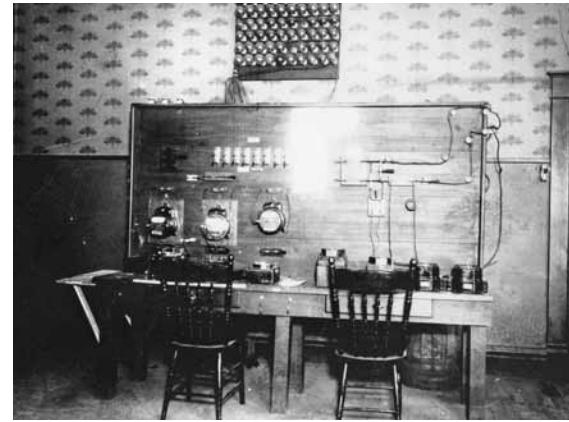
According to a news report from the *Columbus Advocate* newspaper, public utilities were the largest tax contributors to the county treasurer's office. During the last six months of 1925, total tax payments by public utilities amounted to \$131,875.36. Empire led the way by paying the largest single amount with \$41,928.21.

## New Traffic Signals in Joplin

The City of Joplin paid Empire \$7,000 to install new traffic signals on Main Street at the intersections from Third Street to Seventh Street. They were the first blinking red, yellow and green lights installed in the city.

## Corporate Building Site Selected

General manager James Harsh announced that an architect had been commissioned to design a four-story new corporate building at the corner of Sixth and Joplin Streets. The site had been previously occupied by the Ozark Playgrounds Association. The Ozark Playgrounds Association promoted



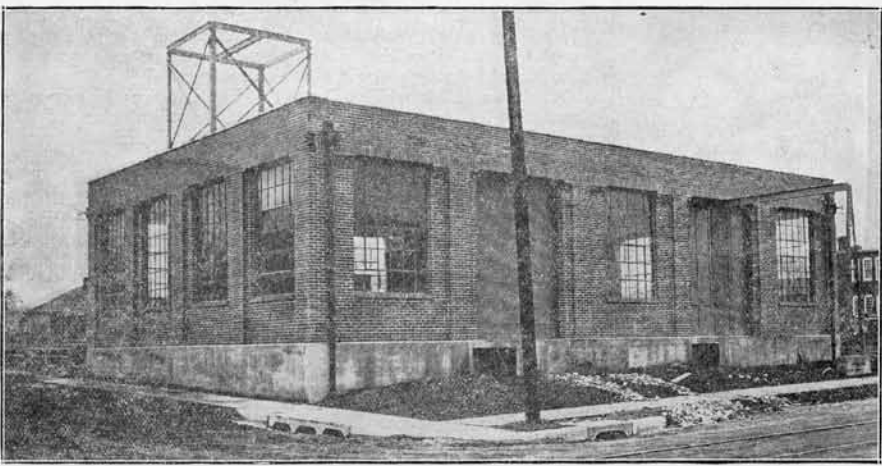
**ABOVE:** Early Meter Shop, 1920s.

**BELOW:** Ozark Playgrounds Association headquarters at Sixth Street and Joplin Avenue.





## Sturdy Brick Building Will House Transformers; Is Second Unit in Proposed Warehouse Group



*New warehouse recently completed at the northeast corner of Fourth and Division Streets is the second unit of what eventually will be a central warehouse group. The building is a one-story brick structure of unusually substantial design. The floor is of reinforced concrete, eight inches thick and capable of withstanding a load of 800 pounds per square foot. Sashes are of steel and doors are of the steel curtain design. The dimensions are 50 by 70 feet. The exterior of the building is lighted at the four corners. The roof is flat, of a tar and gravel composition, and is supported by steel beams. A dock for unloading from a railroad spur is on the north or rear side. Two unloading docks for trucks are on the front side. The new unit, built at a cost of approximately \$20,000, will be used largely for the storage of transformers. Carload shipments will be accommodated. The stock now in the warehouse at Fourth and Railroad streets and part of the stock in the East Fifteenth street store-room, will be transferred to the new building. A monorail crane will provide for handling the transformers and a steel tower will provide for removing the heavy transformer core out of the shell for repairs. The Company owns the entire square block on which the building stands. Ground nearby is utilized for pole storage. Plans were drawn by P. J. Sergeant and the W. R. McCormick Construction Company had the contract.*

tourism for southwestern Missouri and northwestern Arkansas. Founded in 1919, the association began when 60 area towns, representing seven Missouri counties and six Arkansas counties, were formed into an association. The Ozark Playgrounds tourist center resembled a log cabin structure.

### New Storehouse Constructed

A new \$25,000 storehouse was built in 1926. Located at Fourth Street and Division Avenue, the two-story, concrete and brick structure doubled the storage capacity. In addition, a Frisco line switch track was brought into the storage yard for easy unloading and loading of electrical supplies. This site would continue to play an important role as a central warehouse for the company.

### 1927 Territory

By 1927, the Empire customer territory consisted of the communities of Joplin, Webb City, Cartersville, Carthage, Neosho, Seneca, Carl Junction, Asbury, Waco, Duenweg, and Oranogo in Missouri; Galena, Riverton, Baxter Springs, Treece, Columbus, Crestline, Weir City, Scammon, Mineral,

and Corona in Kansas; and Picher, Commerce, Cardin, Hockerville, North Miami and Quapaw in Oklahoma. Furthermore, Empire sold electrical current wholesale to Kansas Gas & Electric Company, Ozark Power & Water Company, Electric Utilities Company, Northeastern Oklahoma Railroad, Southwest Missouri Railroad and Joplin & Pittsburg Railway.

### Electric Trolleys

Empire played an important role in the local interurban railway systems. Prior to the trolley system, three railroad lines that included the Missouri Pacific and Santa Fe, Frisco and Kansas City Southern, connected the cities and major towns of the area with passenger service several times a day. However, the daily price of fares was mostly prohibitive for the working class miners of



the Tri-State District, and yet there was a tremendous need to link these mining communities together with a public transportation network. By 1920 the three trolley lines of the Southwest Missouri Railroad, Northeast Oklahoma Railroad and the Joplin & Pittsburg Railway were well established providing affordable, reliable transportation between the three states of Kansas, Missouri and Oklahoma.

The Southwest Missouri line was one of the busiest electric interurban systems around. Alfred H. Rogers established the line in 1893. It survived more than four and one-half decades of changing transportation trends. During the early twenties, the Southwest Missouri Railroad maintained half-hour stops on all its interurban and suburban routes. More frequent service was offered on inner-city lines.

The interurbans brought the district's mining communities closer together. Joplin prospered most as all the rail lines led to Joplin, and it became the commercial center of the district. During the early years, the mining industry and the electric trolley companies were Empire's two largest clients.

## New Substation in Operation

By 1927, Empire's new substation was completed in Joplin at 26th Street and Pearl Avenue. The new substation was part of a \$250,000 building expansion project which also included a new frequency changer at Grand Falls.

The new substation transformer converted the electrical current to 2,300 volts for lighting and power. Construction on the substation began in the fall. The high-voltage station was a new departure in outdoor stations by offering disconnecting switches on all entries and by-pass switches for all line-breakers. The by-pass switches made it possible to cut out all oil circuit breakers, allowing inspections and repairs to occur without interrupting customer service.

Another new feature was in the construction of the conduit for low-voltage circuits. The circuits were laid inside the conduit trench and supported outside by a steel structure, thus making them easily accessible for changes, repairs or additional conduits.

OPPOSITE: District office, late 1920s.

# The Empire Builder

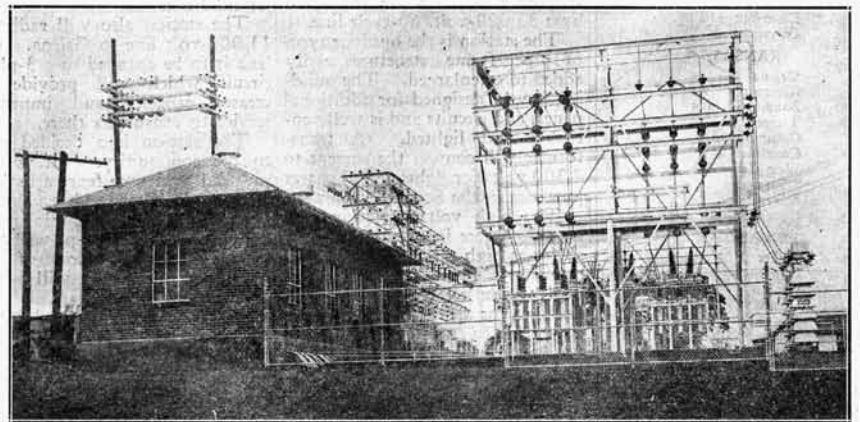
THE EMPIRE DISTRICT ELECTRIC COMPANY

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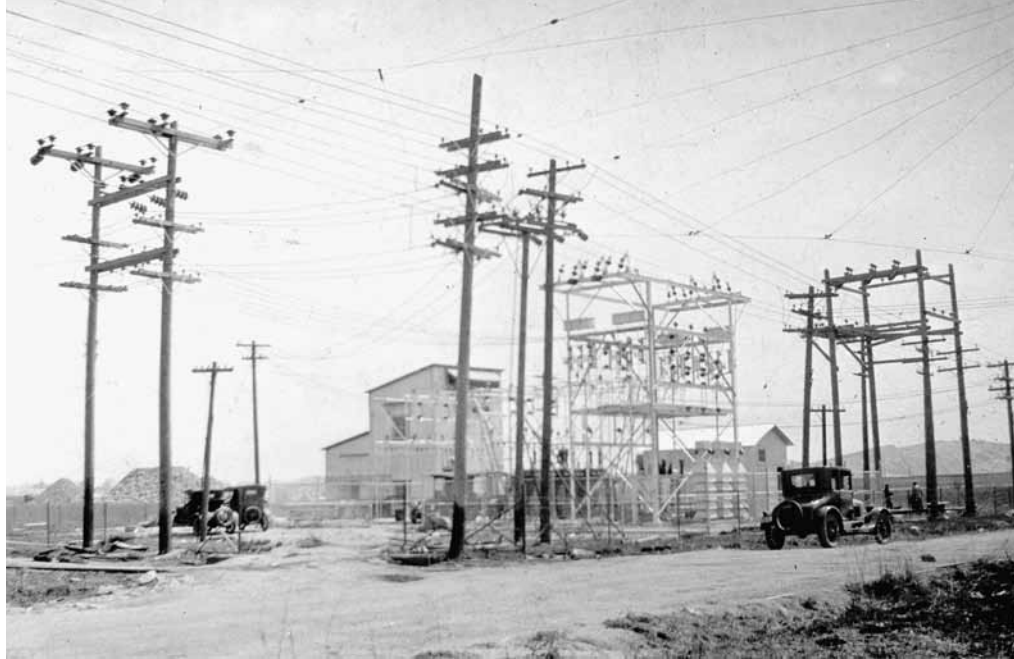
## New South Joplin Substation



New outdoor substation of modern design recently completed by Empire District crews at Twenty-sixth and Pearl Streets, Joplin. Work was begun on the structure the latter part of September and rushed to completion in record time despite weather handicaps. Twelve large substations of the above type and designed by company engineers, were built by Company crews during 1926. This unit is a part of the \$250,000 building project which includes also a frequency changer at Grand Falls. The two units are connected by a 33,000 volt, 60-cycle high tension line. Completion of the projects will further improve service in Joplin and immediate territory and also in Galena. The station site offers excellent opportunity for beautification and work along this line will be undertaken at an early date.

## Cost of Electricity

The *Empire Builder* published some national figures on the cost of electricity in the July 1926 issue. Statistics stated that the average consumption for electric homes in the United States was 365 kilowatt hours. The average cost was \$27.89 per year, which broke down to around \$2.32 per month.



## Employee Payroll Reaches \$750,000

By 1926, employee payroll had reached \$750,000. During the year, Empire added 2,182 new customers which brought the total to 19,858. In order to run the generating plants, 120,000 tons of coal was needed. Empire sold more than 177,000,000 kilowatt hours of electricity, which was an increase of 21% over 1925, and the company paid more than \$190,000 in dividends to customer shareholders of the district.

**ABOVE:** Substation in 1926

## Profile of Henry L. Doherty, President of Cities Service Company

Henry Latham Doherty was born on May 15, 1870, in Columbus, Ohio. At the age of twelve he began his career in the utility business as an office boy for the Columbus Gas Company. By the age of twenty, he had worked his way up the ladder to become manager of the Columbus Gas Company.

At the age of 35, he created his own company – Henry L. Doherty & Company. The year was 1905 and his company was engaged in the reorganization, management and financing of public utility concerns. Doherty's interests became so great that he created a separate holding company to handle its interests - the Cities Service Company.

Judge David Hoag described Doherty as a supreme negotiator; "The negotiations leading up to and the final consummation of the sale (of Empire) were characteristic of the man. He made an exhaustive study of the conditions of the district from an engineering, geological and business standpoint and reached his conclusions as to its possibilities for future growth and development."





## Electric Signs

Exterior electrical signs were coming of age by the late 1920s. Charley Wells, the Commercial Lighting Engineer for Empire, helped spread the message. Wells was a graduate of the General Electric Company's nationally known lighting school at Nela Park in Cleveland, Ohio. During his tenure, Wells was responsible for placing new electrically lit signs in Joplin for the Hippodrome, Electric and Orpheum theaters, the Joplin Globe, R&S Chevrolet, Bradley's Department Store, Joplin Furniture Company, Rex Billiard Parlor, and the First Presbyterian Church. Wells also planned the illumination system for both the interior and exterior of Empire's new corporate office building at 6th Street and Joplin Avenue.

## Empire Buys Ozark Power and Water Company

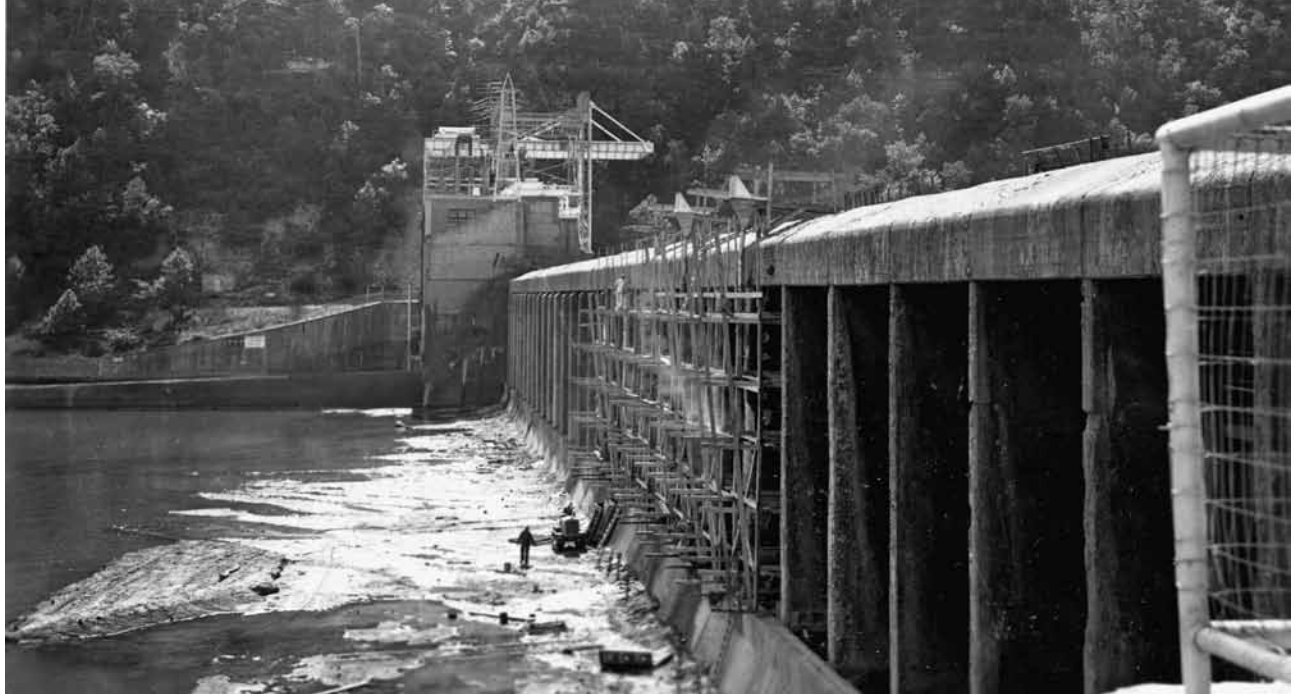
Empire purchased Ozark Power and Water Company in 1927. According to the terms of the sale, Empire purchased Ozark Power and Water Company for \$1,129,568 in cash, while assuming all unsecured indebtedness amounting to \$2,670,000 in bonds and an exchange at par value of \$500,000 in preferred stock. The entire package totaled \$4,836,146.08.

The Ozark Power and Water Company territory encompassed six counties (Greene, Lawrence, Newton, Taney, Christian and Stone) and included the hydroelectric plant at Ozark Beach on White River. The hydroelectric plant, with a generating capacity of 18,500 horsepower, increased the total Empire generating capacity to 125,000 horsepower. From the acquisition, Empire's territory expanded and the company added the Ozark Beach dam and the Powersite generating plant to the system.



**TOP:** Electric sign in the 1920s

**ABOVE:** Charley Wells, 1929.

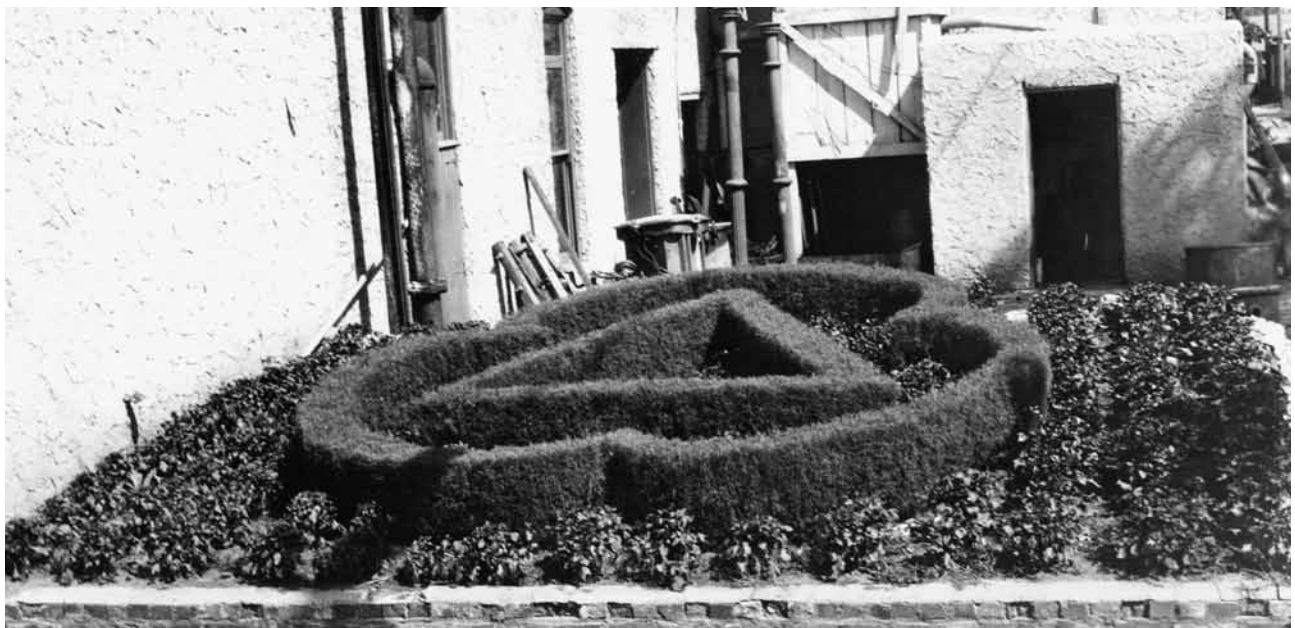


**ABOVE:** Ozark Beach Dam.

## Empire and KG&E Interconnect

**BELOW:** Cities Service emblem.

The Empire District Electric Company and the Kansas Gas & Electric Company (KG & E) followed the national trends when plans were made to interconnect the two companies' transmission lines. The desired result of linking the two systems would be that Empire would receive temporarily increased capacity needed for its plant at Riverton, and that both companies could provide assistance in case of a severe emergency. Upon completion of this project, a chain of interconnected electric transmission lines extending from a point north of Wichita, Kansas to south of Springfield, Missouri would be linked. A new frequency changer and turbine room would be added to the Riverton plant to convert the KG & E 60-cycle and Empire 25-cycle systems.





## New Corporate Headquarters Opens

**ABOVE:** Corporate office, 1929.

The finishing touches were made at the new Joplin corporate home in August 1927. During the tremendous growth period of the early 1920s, it became evident that a new corporate office building was needed. Empire officials selected the Joplin architectural firm of Smith & VanPelt. They were a successful firm which had previously designed two notable structures in Joplin the Y. M. C. A. facility and Joplin Supply building. The Blazer-Vollmer Construction Company of Wichita, Kansas became the general contractor for the construction project.

The new four-story building sat prominently on the southwest corner of Sixth Street and Joplin Avenue. The dimensions of the reinforced concrete building were 50 feet by 115 feet. The cost of the building was \$200,000. Ironically, that was the same amount of gross sales in 1909 when Henry L. Doherty purchased and created The Empire District Electric Company.

Architect Burrill VanPelt chose to adopt a Byzantine-Romanesque architectural style characterized by a theme of incorporating interlaced relief arches. The exterior walls were made of a light buff-colored, matte-faced brick manufactured in Oskaloosa, Missouri. Locally quarried Carthage white limestone trimmed the facade and was bedded in stainless Portland cement mortar.

The cut stone entablature over the main entrance was embellished with characteristic corbelled Byzantine arches. An ornamental keystone, dis-



**ABOVE:** 1920s substation.

playing the Doherty emblem in the form of a Heraldic shield, was placed over the entrance. A four-wing, revolving door made of American walnut provided the entry way to the first floor lobby.

There were 153 windows, each one with a steel frame and sash. Seven large showroom windows were incorporated in the design of the first floor. The display windows occupied the entire Joplin Avenue side and included three windows on the Sixth Street side.

The first floor contained a display space of 2,500 square feet. One facet of the first floor was a large, all-electric appliance display showroom. The appliance showroom could display 90 of the newest electrical gadgets and appliances of the day.

The third floor housed the executive offices. One special feature of the floor plan involved a conference room accented in American Colonial style with a Garfield matched suite. The fourth floor contained four offices and an assembly hall that could accommodate 400 people.

The roof showcased a large electrical sign which stated "Use Empire Light and Power."

The building had two elevators - one provided passenger service and the other freight. At the time, the passenger elevator was the most modern in Joplin. First, it operated by an alternating current system and second, it was equipped with a micro-leveler, a device which ensured the elevator would stop level on every floor. Keeping the future in mind, space was provided for a third elevator. A modern, dual temperature-controlled, steam heating system ran throughout the building.

Many local companies provided building materials and accessories for the new structure. Most of the rugs were furnished by Joplin Furniture Company and the Newman Mercantile Company's furniture division. Joplin Printing Company provided many of the executive offices with contemporary furnishings of the day. A standard department head's layout consisted of a 66-inch flat top desk, a 72-inch table, an arm chair, three guest chairs, a costumer and waste paper basket. General manager James Harsh's office was one of the first office suites custom designed by the Clemensten Company of Chicago. Belton Electric and Monarch Cement Company assisted in the building program also.

The color scheme for the first floor consisted of light grey walls, cream ceilings and a darker grey below the chair rail. In the beginning, sixty employees worked at the main office.

Grand opening ceremonies occurred on November 12, 1927. Thousands of Joplin and district residents attended the event.



## Tri-State Mining District

From 1925 to 1927, general electric output increased 40%. Electrical power provided by Empire became the dominant energy source used in the zinc fields of the Tri-State Mining District. By the mid-twenties, Empire was supplying 75 % of all forms of power in the nearby zinc mines. Electricity was used underground to power the lights, machinery and equipment and to provide necessary power to propel the ore buckets up and down the shaft. Above ground electrical power was used to drive the ore concentrating mills.

## 10th and Wall Substation Finished

Completion of the new substation at 10th and Wall was a welcome relief since it allowed Empire to abandon the downtown substation at the rear of the office building located at 414 Joplin. The 10th and Wall substation served lines north of 15th Street, with the south Joplin substation serving the southern portion of Joplin. In addition, the new substation provided step-down service for lines to Galena and Webb City.

**ABOVE:** Elizabeth Mining Company.  
"Avondale Mine"



## Mule Power

Mules played an important role in the development of the state of Missouri. For many years, the local zinc and lead mines utilized mules underground to transport ore buckets to and from the shaft. Nell and Kate, two Missouri mules, retired after 16 years of serving the Ozark Beach dam power plant. They both were instrumental in building the Ozark Beach dam. The mules were extremely helpful in carefully plodding the paths near the lake region which was rough, hilly terrain. Highways were virtually unknown when they came to work in 1912, and only trails and paths were accessible routes. In the beginning, the best access to the dam was by boat. After the dam was completed, the mule's daily tasks involved pulling lawn mowers and hauling supplies and equipment from the boat landing area to the plant.



**OPPOSITE TOP:** George B. Barnett.

**OPPOSITE MIDDLE:** First all electric home, 1928.

**OPPOSITE BOTTOM:** First car lot to get electric lights, 1928.

### Fact:

Empire began selling electrically heated blankets for double and single beds for the first time in August of 1927. The blankets offered two to three heat speeds.

## Electric Firsts

George B. Barnett, new business manager for Empire, built the first all-electric home in the area. The yellow stucco, eight-room home was located atop a picturesque hill west of Neosho, Missouri. The interior utilized all the electric conveniences of the day which included an electric refrigerator, an electric range, and an electric clothes washer accompanied by an ironer, a Hoover vacuum cleaner, and an electric dishwasher. Every small electric appliance right down to an electric egg boiler adorned the kitchen. Also, water was pumped from a nearby well by an automatic electric pump and heated by an automatic electric water heater.

R & S Motor Sales Company at 921 Main Street became the first completely lit auto lot in the Tri-State District. The lot was designed



by Empire's illumination engineer Charley Wells. The 140 foot by 120 foot lot was uniquely positioned below the sidewalk and street level which provided a sunken garden effect. Included in the layout was an artistic office building with decorative flower beds. The lighting package consisted of six 1,000 watt flood lights and five 150 watt reflectors.



## City of Joplin Special Election

For many years, most of the cities and towns wanted complete control of electricity. The municipalities wanted to manufacture the power as well as sell the service. By the mid 1920s, municipalities began to sell out. The National Electric Light Association proclaimed that a total of 269 cities in the United States relinquished control of their electrical power plants during the year of 1925 alone. The plants either closed down or were sold to private utility companies. The private utility companies proved to be more capable, efficient and innovative suppliers of electricity than the city-owned municipal plants.

Empire's relationship with the City of Joplin would change forever after a special election was held during the fall of 1929. On October 22, 1929, the citizens were asked to vote on a proposition permitting Empire to buy the City of Joplin's street and municipal lighting equipment and to allow Empire to supply the electricity to power the street lights for a period of ten years. *The Joplin Globe* reported the proposition carried 2,605 to 299 in favor of Empire.

At the time, the city provided electrical street lights and service to 331 customers.

The end result was a winning situation for all parties involved. The City of Joplin was relieved of their electrical responsibilities and the additional costs incurred for providing the utility service. The street lighting system of

**OPPOSITE:** Baseball team at Miner's Park, 1920.

**BELOW:** Appliance trucks at 6th Street and Joplin Avenue, 1929.



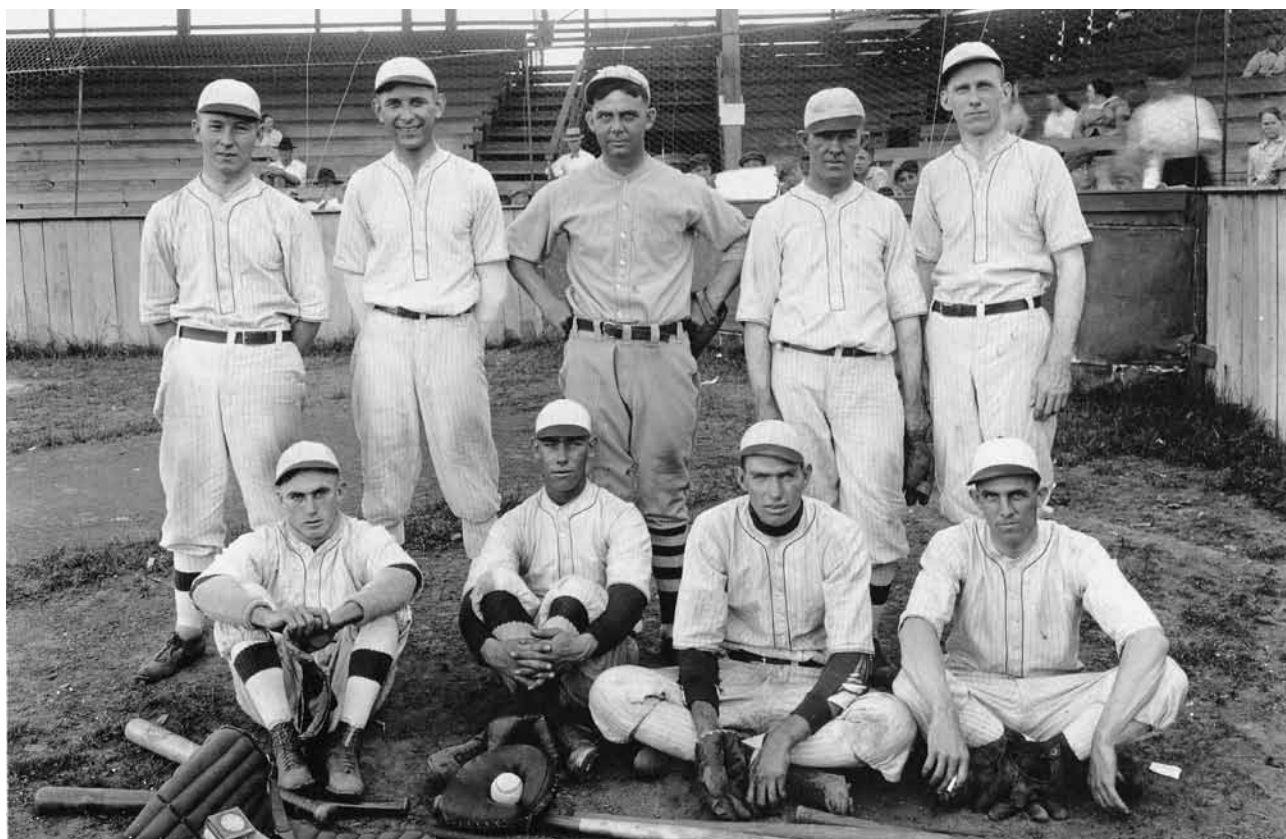


## Carroll L. Proctor

Carroll L. Proctor was born in Charlotte County, Virginia on February 1, 1880. He graduated from Virginia Polytechnic Institute with an electrical engineering degree in 1902.

In April of 1915, he was transferred to the power department of The Empire District Electric Company. His first job with Empire was the manager of the power and new business department. For the next three years, he worked on securing additional plant equipment to meet the needs of the expanding zinc fields of the district, because the demand for zinc had sky rocketed during World War I. As a result of his successful handling of this situation, he was relocated and promoted to the general manager of the Danbury and Bethel Gas & Electric Company. After a year and a half, Proctor was transferred back to Empire. Over the years, Proctor would hold many positions with Empire, such as treasurer, vice president, general manager and president. He became president of the Joplin Rotary Club and the Missouri Public Utilities Association. His hobbies included playing golf, tinkering with electric radios, and smoking Daniel Webster Cigars and corn cob pipes.

He was known for several phrases: "I believe in the manager making the employees realize that they are working with him, not for him." "Customer ownership will eventually solve most of the present troubles of the utilities." "Loyalty of employees is one of the most valuable assets of a company. Cultivate it." "The only way to develop a man is to put responsibility on him. Don't worry too much about the mistakes he may make."



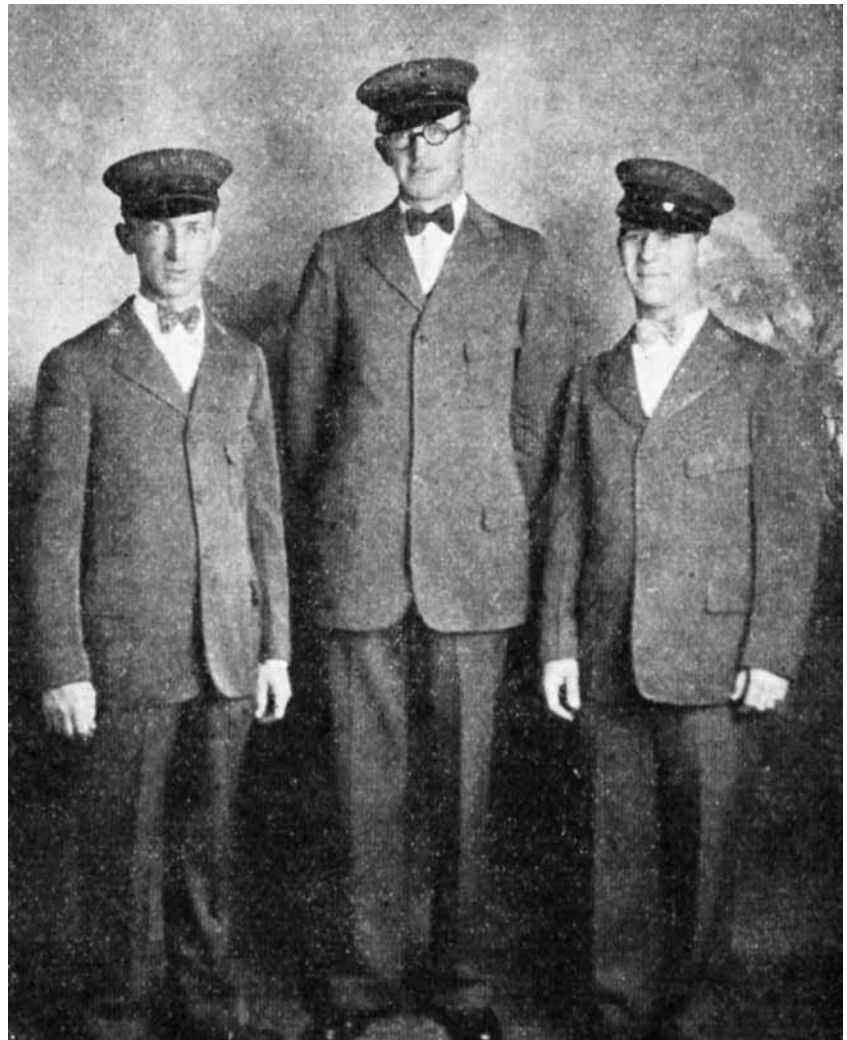
Joplin, which was handled at a loss by the city, would now be handled by Empire at a profit. This also brought the end of duplication of services, because there was no longer a need for replication of operations and investment costs. In addition, the city employees that were initially hired by the city would now be employed by Empire at their present salaries.

## Stock Market Crashes

On Thursday, October 24, 1929, shortly after the New York Stock Exchange opened, stock market prices began to plummet. The volume of downward trading sank to record lows. During the morning, panic selling escalated as more, larger blocks of stock were thrown on the market floor. Activity on the Exchange was relatively stable for the next day of trade. However, on the following day, prices tumbled to unexpected lows as frightened investors ordered their brokers to sell stock at whatever price. At the end of the day, a record of over 16 million shares had been sold. As a result, the stock market crash of 1929 caused a panic of unprecedented proportions, causing millions of shares to change hands, and billions of dollars in value were never recovered.

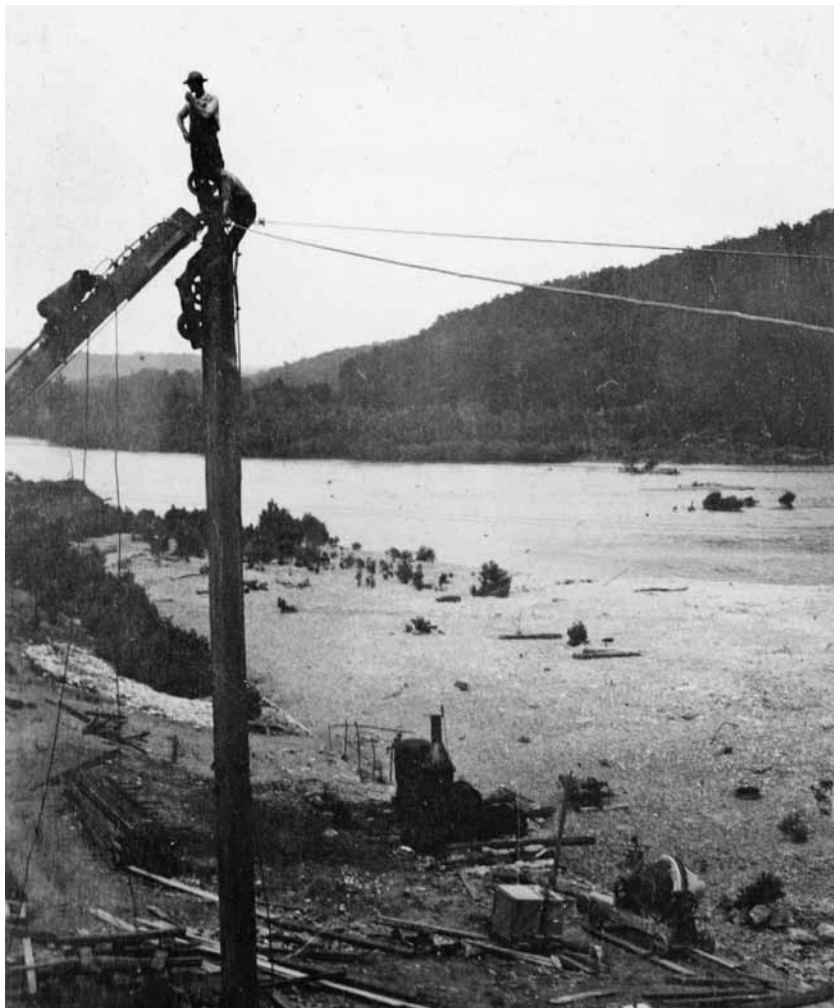
The Great Depression would continue through the 1930s. In this economic climate, Empire's business plan was very "conservative" and "cautious". Dollars were tight and large expansion projects were not considered. Empire concentrated on a practical maintenance program and settled on a limited focus involving expansion in generation.

**RIGHT:** Meter Readers, 1929.





**ABOVE:** Float, 1929



**LEFT:** Linemen at Ozark Beach Dam

## CHAPTER THREE

# 1930s

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Empire adopted a very cautious and deliberate business plan for the 1930s. Expansion projects were well-managed with a minimum of capital required. The gross operating revenue for the first three years of the decade averaged a little over \$2.75 million. The lowest recorded year for operation costs occurred in 1933 with \$1,101,515.14 allocated for expenses.

### Federal Securities Act

After Black Thursday and the failure of the stock market, United States President Franklin D. Roosevelt pressed for substantial legislation to regulate American businesses. The United States Congress passed the Federal Securities Act in the spring of 1933. One year later Congress approved the Securities Commission Act, which created the very forceful Securities and Exchange Commission. The Securities and Exchange Commission was empowered by the Wheeler Rayburn Act of 1935 to supervise the financing and corporate structure of the public utility companies. In addition, the Public Utilities Holding Company Act was enacted. This act limited the size of electric and gas holding companies and regulated them to be localized and efficient or face dissolution. By the mid-1940s these legislative acts would eventually prove to be the wedge which separated Empire from the Cities Service Company.

**OPPOSITE:** Empire's rural transmission line

**BELOW:** Employees and vehicles.







## Experimenting with Light

In 1935, under Charles F. Wells' direction, a new program titled "Better Light-Better Sight" was created. With this program, Empire became one of the first in the country to institute a program devoted to sight. The program's premise was to improve vision by providing the correct light source for every visual task at home and in business as well as educational settings.

During the late 1930s, Wells participated in a three year experiment in classroom lighting at Joplin's Lafayette grade school. The purpose of the experiment was to determine the influence of controlled lighting and how it affected school learning. An all-star cast was assembled with Dr. W. J. Saupe directing the study. Professor of education at the University of Missouri, Dr. Saupe was assisted by Wells; local optometrist Dr. Charles W. Howard, elementary school supervisor Belva LaRue, school nurse Virginia Patterson, and Joplin High School vocational director Robert W. Baker.

An esteemed group of scientists from General Electric Company's Nela Park laboratories also participated in the experiment. Dr. Mathew Luckiesh, director of the lighting research, was accompanied by Dr. Frank K. Moss and Alston Rogers. During his illustrious career, Dr. Luckiesh, known as the

"Father of the Science of Seeing," created eleven U.S. patents, hundreds of scholarly treatises to scientific journals and published 28 bound volumes. At the time of World War I, he studied camouflage and later invented artificial sunlight, visibility meters and germicidal lamps.

The Joplin experiment arrived with several conclusions; foremost was that controlled lighting in the school does affect school progress made by children.

## Empire Serves 36,000 Customers

Business began picking up again as an additional 1,400 customers were gained in 1936. This increase brought the total to approximately 36,000 customers. During the Great Depression, distribution costs remained the same as they were in 1930. Several substations were refurbished at this time. A number of stations in the Picher mine fields were converted from alternating current to direct current.

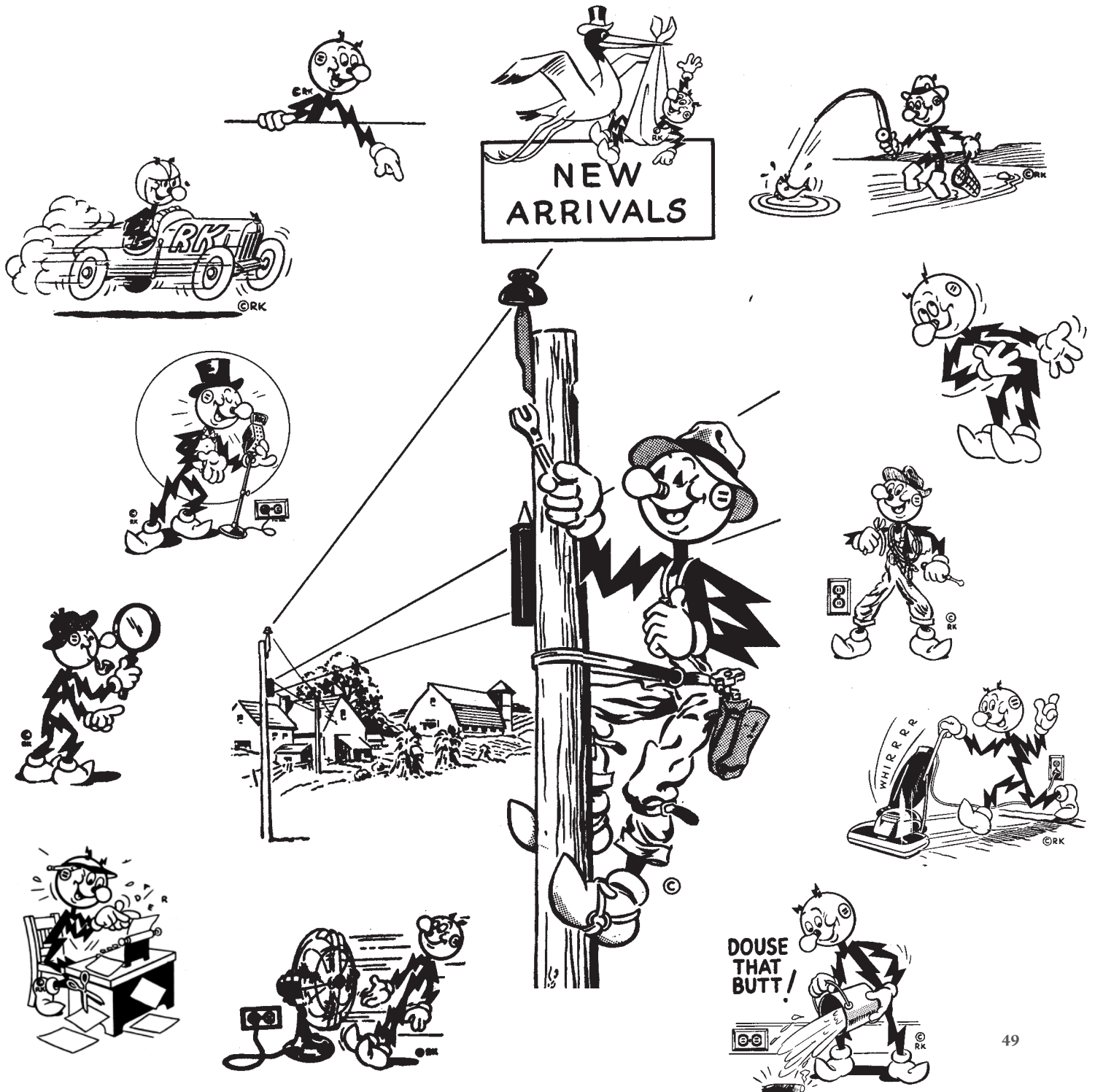
Gross operating revenues peaked at \$3,579,224.37 in 1937, while expenses remained steady at \$1,794,118.33. However, maintenance costs increased to nearly \$200,000 for the first time.

**BELOW:** Team members of Joplin's Lafayette Grade School lighting experiment.



## Reddy Kilowatt

Area residents became acquainted with a new face as Reddy Kilowatt was introduced to the local community in 1938. "Reddy" was quickly adopted as the official mascot for Empire. He was a perfect trademark emblem of the electric industry with his body made of lightning bolts, a light bulb nose, and receptacle socket ears. His hands and feet were covered with safety rubber shoes and gloves.





**ABOVE:** Empire Employees in Joplin, August 18, 1936.

**BELOW:** July 27, 1935 at Ozark Beach, Powersite Dam.

**OPPOSITE:** October 31, 1933 at Riverton Plant.

## Employee Health Plan Offered

During the winter of 1938, Empire employees were offered an opportunity to enroll in a group hospital insurance program. The Group Hospital Service was a not-for-profit organization sponsored by Freeman Hospital, St. John's Hospital, McCune-Brooks Hospital and the Jasper County Medical Society.

All Empire employees who were in reasonably good health and under the age of 65 years could enroll in the program.

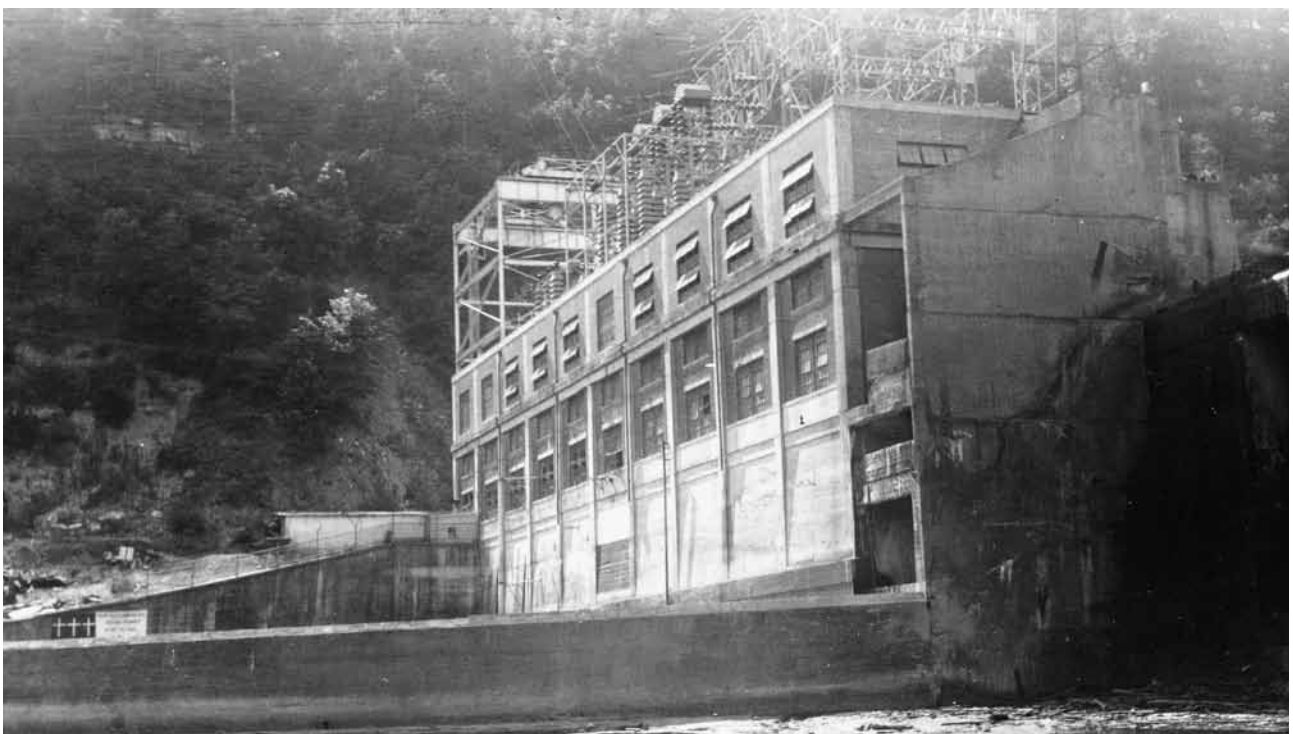
A breakdown of the hospital insurance program costs included:

Per month

Individual employee	75 cents
First dependent	50 cents
All additional dependents	25 cents

The entire family plan was \$1.50 per month, with an initial enrollment fee of \$1.

The program covered only hospital service. Visits to the family physician and their doctors' bills were not included in the medical plan. The Group Hospital Service program had been used in the state of Missouri for several years.





## George E. Hayler

Former general manager of Empire George E. Hayler died on March 17, 1938. Hayler was born in Ann Arbor, Michigan. He received an engineering degree from the University of Michigan in 1894. After serving as superintendent of the electric and heating plant in Van Wert, Ohio, he became manager of the Gas, Electric Light and Power Company of Van Wert in 1899. He was later associated with the Auburn Automobile Company and the Arnold Electric Power Station Company of Chicago.

Hayler came to the Joplin district as an engineer for the Arnold Company in 1904. He constructed the Lowell Dam and the first steam plant at Riverton for the Spring River Power Company. Following the construction, he became superintendent of the Spring River Power Company and

remained at that position when the company became part of The Empire District Electric Company in 1909. In 1914, he became the general manager of Empire. Two years later, he was transferred to the New York offices of the Cities Service Company.

Hayler was one of the first electrical engineers in the district and became a pioneer in the development of electrical power for the Tri-State zinc mining fields. He was one of the first to install electric motors in the mining district. This revolutionary form of power displaced the conventional steam power of the day. As an ardent supporter of electrical power, he became the foremost advocate in developing and applying electricity in the Tri-State District.

While in Joplin, he was a member of the Benevolent and Protective Order of Joplin Elks Lodge No. 501, and was an original member of the Oak Hill Golf Club. He also held memberships with the American Institute of Electrical Engineers and the American Institute of Mining and Metallurgical Engineers.

Hayler was a veteran of the Spanish American War.

He died at Roosevelt Hospital in New York City. His death resulted from injuries received from an automobile accident.



**ABOVE:** Grand Falls Power Plant, 1939.

**RIGHT:** Home show at Memorial Hall in Joplin, 1930s.

## Dial Desk Phones Installed

Innovation came to company communications when dial desk phones were installed. This new dial service was incorporated throughout the Joplin office, the Joplin storeroom, the transformer house at Joplin and the Seventh Street substation. Christened on August 7, 1939, the telephone network combined the Southwestern Bell Telephone System and the private lines of the Empire system. Previously two telephones were needed. With the new system employee desks became less cluttered because only a single phone was now occupying their workspace.

## Decade Closes on a High Note

Gross appliance sales hit a record mark in 1939 with almost \$400,000 in sales. More refrigerators were sold than ever, with 1,521 purchased. The decade ended with an optimistic outlook as gross revenues during the last three years rose to nearly \$3.5 million annually. By 1939, operating expenses topped the \$2 million plateau for the first time.

Closing out the decade, Empire was serving 40,000 residential, rural, commercial and industrial customers. A total of 135 communities constituted the company's service territory. At the time, Empire owned over 3,000 miles



of transmission lines and 100 maintenance cars and trucks. The workforce consisted of 500 employees. The area offered a wide range of manufacturing companies offering a variety of products all powered by electricity. In 1939, local manufacturing plants utilizing electric power were producing cigars, printing products, garments, furnaces, mattresses, distilled liquor, candy, bakery products (bread, cookies and crackers), brooms, creamery products, carbonated beverages, first-rate gravel, explosives and mining equipment. Although local mining output had decreased, it still was a significant factor.

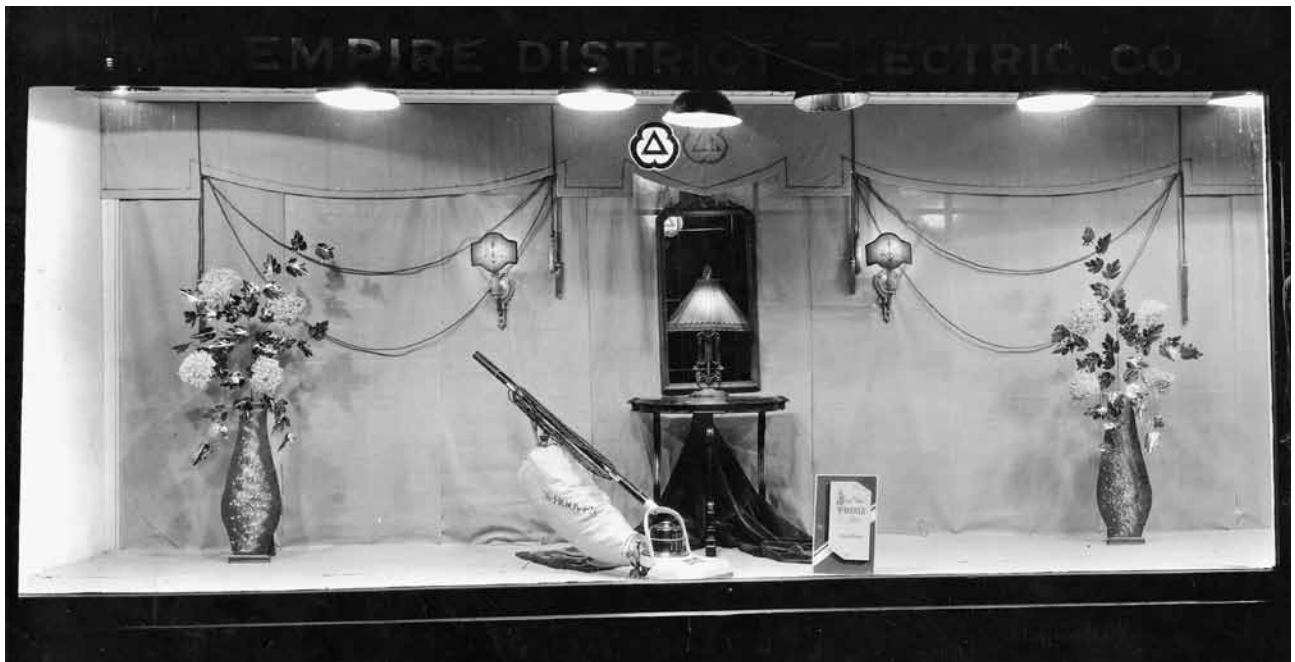
The Great Depression took its toll on the United States as well as Empire. The next decade would present a whole new set of challenges.



**ABOVE:** Ed Wilson, Trig Warden, Ramey Mills, Elzy Henshaw, unknown, Mr. Cash. Joplin Storeroom, 1930s.



**LEFT:** Type of pole rack built for storage yards in 1938.



**BELOW:** Display window, 1930s

## CHAPTER FOUR

# 1940s

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The year 1940 started on a sad note with the passing of Arthur E. Spencer. Spencer died on January 6, 1940. Spencer was a pioneer member of the Empire family and had been part of Empire's legal council since its inception. Prior to being employed by Empire, he was the attorney for the Spring River Power Company when it was established in 1904. Spring River Power Company was later consolidated into The Empire District Electric Company. Spencer came to Joplin with his family at the age of five in 1873, just shortly after the official incorporation of the City of Joplin. He attended Joplin public schools and then completed law school at Washington University in St. Louis. He practiced law for 51 years, engaging in the practice of civil and corporate law. Spencer was also a charter member of the Benevolent and Protective Order of the Joplin Elks Lodge No. 501.

### Safety Records Reached

A safety record was achieved in 1940. The Western Division Line Department completed the safest period of line work in the history of the company. The Western Division was composed of forty linemen representing seven line crews. These men spent one third of their life at an average height of 30 feet in the air while dealing with high voltage conductors and equipment. They were also expected to do this type of work under the most adverse conditions. They proudly completed over 100,000 man-hours without one serious injury and over 220,000 man-hours without a single "lost time" accident.

**BELOW:** Western Division, June 20, 1940. One year of work without a "lost time" accident.



## World War II

Life drastically changed when the Japanese attacked Pearl Harbor on December 7, 1941. Japanese carrier-based aircraft ambushed the American naval port devastating eighteen American ships while killing or wounding 3,681 persons. Members of the United States Senate, House of Representatives and President Franklin D. Roosevelt quickly signed a joint resolution to go to war. The War Years would have significant reverberations on Empire and how business was conducted.

It was understood that there would be significant sacrifices made by everyone. The men and women of Empire supported the war effort in a multitude of ways. However, the greatest gift came from the brave men and women who left their jobs to fight in the war. By October of 1942, 31 former Empire employees were enlisted in the armed forces. Twelve additional company men were drafted into service during the month of February of 1943.

Lena Dunwoody made Empire history by becoming the first female employee to join the WAVES, Women Accepted for Volunteer Emergency Service. Dunwoody would be a part of this selected, highly respected group of enlisted women. Before her stint with the military, she worked in Empire's addressograph department.

A recognition "Honor Roll" board displaying the names of former Empire employees serving in the war was added to the first floor lobby in June of 1942. The board was designed with a large eagle resting on top.



**ABOVE:** Joplin Legionnaires registering for WWII.

**BELOW:** Three employees in front of Empire vehicles, 1940s.





## War Bonds Drive

Empire employees enthusiastically supported financing the war by purchasing War Bonds. According to a published report dated March 1942, of the total 540 Empire employees working for the company, 511 of them had “signed up” to make regular monthly or bi-monthly purchases of United States Defense Bonds. This represented a total of 94% of all employees participating. By April of 1945, a total of \$330,050 in War Savings Bonds had been purchased by Empire employees.

## World War II Repercussions

Because of the United States government’s war requirements and stipulations on automobiles, Empire purchased motorcycles as another form of transportation for meter readers and load checkers. The new mode of transportation was to be used specifically for employees who traveled from town to town in the Empire system. By May 1942, Empire had acquired five motorcycles.

In January 1942, as a precautionary wartime measure, Empire began to discontinue the sale of electrical appliances. This action was to cooperate with the United States government in its efforts to minimize the usage of vital war materials and equipment by civilians. Previously, Empire had been selling and promoting the sale of electrical appliances for over three decades.

During the early months of 1942, the Service Department was overwhelmed by customers needing electrical appliance repairs. Hundreds of appliances were brought in for maintenance. The most popular appliance was the electric hand iron. Area residents were bringing in older appliances that had been stowed away in the attic, garage or cupboard after years of inactivity. They were also bringing



**ABOVE:** Appliance sales floor in the 1930s.

**OPPOSITE TOP:** Army Jeeps outside the Frisco Building in Joplin.

**OPPOSITE BOTTOM:** Christmas lights at the corporate office in 1941.

in modern day, newer appliances to be reconditioned since they were no longer being sold.

With appliance merchandising discontinued, the first floor of the corporate office was reorganized into a larger, more accommodating Customer Service Department. George B. Barnett was in charge of the new conversion.

The war even changed customer service. Since August 5, 1942, Empire customers were mostly responsible for handling their own service orders on new connections and disconnections of service. In the residential districts, electrical service was not turned off when a customer moved, but was left on for the convenience of the new tenant.

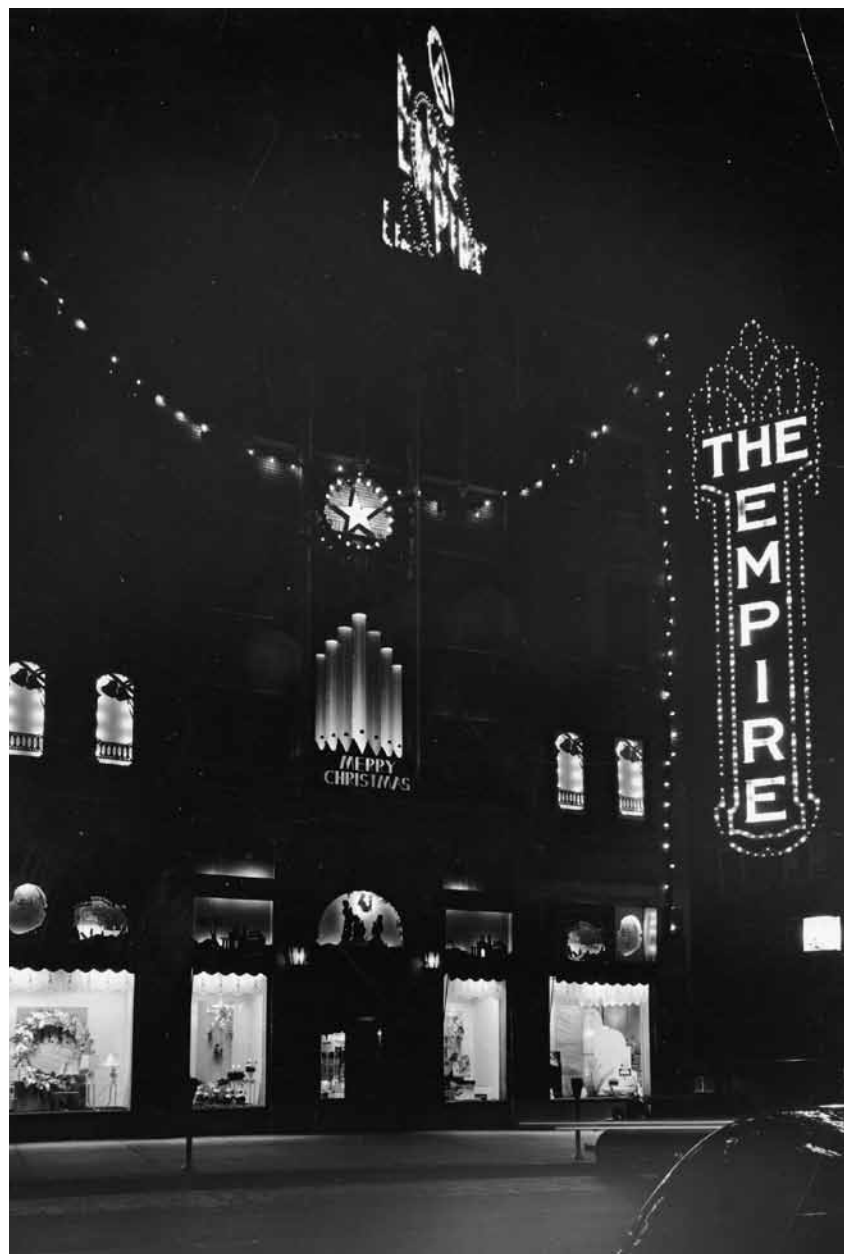


To further cut down on employee driving mileage, Empire instituted a postal card meter reading plan. The plan was borrowed from other utility companies which were forced into the same predicament. The procedure called for each customer to mark their electrical usage on a postal reply card. The card, furnished by the company, was then sent back to Empire's corporate office to determine the cost of the month's service.

World War II policies also influenced the way electrical lines were extended. Empire's ability to extend electrical lines was strictly governed under the provisions of Preference Rating Order P-46, issued by the Division of Industry Operations of the War Production Board.

### **Christmas Packages Sent**

By December 1943, women of Empire were busy sending packages to former Empire employees and others that were enlisted in



the armed forces. Individual packages were sent containing cigarettes, candy, chewing gum, mints, a *Reader's Digest*, peanuts and two decks of playing cards. The packages from home were a great hit with the soldiers and boosted their morale. In January many of them replied back thanking the caring givers. In the December *Hi-Voltage*, Horace Nealy responded in his letter stating, "You didn't leave much out except a blonde - or brunette - or redhead - - -."

Captain Howard Clements wrote, "The patriotic spirit of your organization is highly commendable, with that type of backing we can't lose, it is just a matter of time. Again I want to thank the Empire family for the very fine Christmas box, and I send best regards to all employees of yours."

In 1944, Empire management selected a new Christmas gift for all the former Empire employees wearing military uniforms. Each soldier was given a leather billfold, embossed in gold with their initials. Along with the billfold was a card notifying them of their new subscription to the *Reader's Digest* plus a Christmas card from Reddy Kilowatt.

**BELOW:** Corporate offices at 6th Street and Joplin Avenue.



*Sixth and Joplin Streets . . . .* **JOPLIN, MISSOURI**

## Empire Becomes Independent

With World War II still at a fever pitch, another historic moment for Empire occurred in 1944. By the 1940s, the United States Federal Court system ordered the Cities Service Company to divest itself of either its public utility companies or its holdings of oil and gas companies pursuant to the Public Utilities Holding Company Act of 1935. With the oil and gas businesses being so lucrative, the Cities Service management team agreed to separate from the ownership of more than 200 public utility companies they operated.

To conform with the terms of the 1935 Act, the Cities Service Company proposed to dispose of their interest in four local utility companies - - Ozark Utilities Company, Benton County Utilities Corporation, Lawrence County Water Light and Cold Storage Company and The Empire District Electric Company. They further proposed that all the utility companies reorganize, merge and become known hereafter as The Empire District Electric Company. The consolidation involved a complete

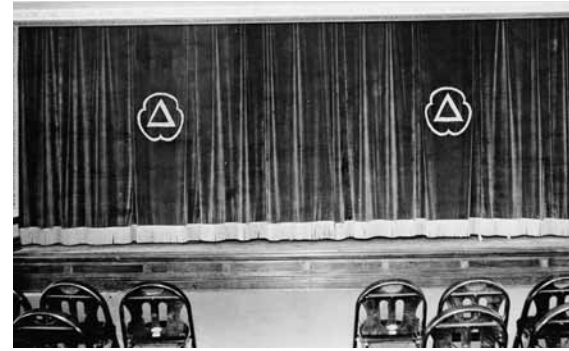
financial re-organization of Empire, and its securities were offered for sale to the public for the first time.

For the merger to be complete, a series of hearings were held with the Public Service Commission of Missouri, the State Corporation Commission of Kansas, the Department of Public Utilities of Arkansas and the Securities Exchange Commission of Philadelphia. After careful consideration, all state commissions advanced the proposal. The Federal Power Commission made the final decision and voted in favor of the merger.

Another historic day for the company occurred on October 17, 1946, when The Empire District Electric Company's common stock was offered for the first time on the New York Stock Exchange. Empire president James Harsh purchased the first 100 shares. He was honored as a special guest of the Exchange. He met Emil Schram, president of the New York Stock Exchange, and was on the trading floor when the Exchange opened for business. Harsh also witnessed the ticker tape carrying the announcement of the Empire listing on the Exchange. Interestingly, October 17, 1946 was just one day after the anniversary date of the establishment of Empire.

### Employee Group Life Insurance Plan

In 1941, an Employee Group Life Insurance Plan was announced at the company's annual Christmas party. Empire's president and general manager James Harsh presented an overview of the plan. The Group Life Insurance Plan permitted Empire employees to obtain life insurance regardless of their age, occupation or physical condition. All full-time employees who completed one year of service received \$500 of insurance at the expense of the company.



**ABOVE:** Cities Service Company emblem on the curtains of stage in the corporate office.

**BELOW:** Line department safety honor roll, #5 crew, Joplin, April 1, 1940. 35,119 man-hours without a "lost time" accident.



## Flood Waters Ravage Area

The Tri-State District was inundated with an unprecedented rainfall during the month of May 1943. Approximately 27 inches of rain fell over a one-week period, causing major flooding problems to local industries, including Empire's Riverton plant.

At the Riverton plant, flood waters forced the plant to close as two feet of water entered the ground floor level on May 19, 1943. The boilers were flooded and equipment located below the ground level was ruined. By the following day, the water began to recede, which allowed new pumps to be assembled and pumping out stations to be placed throughout the plant. Local mining companies and other industrial firms rallied to assist Empire as they voluntarily loaned 16 pumps.



The flood waters created other service issues. A pole washed out near Shoal Creek causing a short on the 66-kV line south of Joplin that served Neosho, Seneca and Camp Crowder. A cut-over was immediately established with the Southwestern Gas and Electric Company.

From this connection, Camp Crowder was served with an emergency service line. Camp Crowder located south of Neosho was named after Major General Enoch H. Crowder. By late 1941, over 13,000

people were employed constructing Camp Crowder for the United States Army Signal Corps. The men and women of the Army Signal Corps were responsible for all military communication. At one time, over 45,000 enlisted men, 1,500 officers and 1,000 enlisted women served at Camp Crowder. The first group of soldiers arrived there on February 17, 1942. The Signal Corps camp was deactivated in March 1946.

Empire's loss from the water damage was estimated at \$250,000. Besides the immediate company property damage, other losses occurred. There was the further loss of revenue from the mining fields and other industrial operators whose supply of electrical power was curtailed, cost of electrical power purchased from other power plants and the expense required to overhaul the equipment and make permanent repairs to the company's production and distribution system.

On the east end of the company's service territory, the Ozark Beach area received 17 inches of rain as high water reached the White River vicinity where the hydroelectric plant was located. Flooding reached the 1927 record level, causing extensive damage to many of the communities near the area. A large railroad bridge across White River at Branson was completely demolished. Even with record levels of water, the hydroplant continued to generate electricity for the region.



**ABOVE:** A small portion of the military complex at Camp Crowder. Over 600 buildings were initially constructed on 8,900 acres.

**OPPOSITE:** Flooded KG&E Transfer Station in Riverton, 1947.

## Christmas Decorations

For the ninth consecutive year, Empire's Howard Martin directed the decorating program for Joplin's Main Street during the Christmas holiday season. Crews of workmen under Martin's supervision installed holiday decorations in cooperation with the Joplin Chamber of Commerce. As in past years, the decorations were designed and created by Martin with the assistance of Ernest Sams, the display manager of Christman's Department Store.

Each white way lamp post from 1st to 10th on Main Street was topped by a three-foot spruce tree with a two-foot victory bell hanging from an extension arm on the street side of the post. The post and arm were wrapped with green spruce roping. On the four white way posts at each intersection, two decorated eight-foot panels were placed on either side with an appropriate label urging citizens to purchase war bonds and stamps. There were no electrical light bulbs installed on the streets to keep with the government's regulations for the conservation of electricity. A year later and with the war

over, colored lights were used for the first time on Main Street during the 1945 holiday season.

**BELOW:** James Harsh and Don Henshaw display the company's new emblem.



## New Corporate Logo Adopted In 1945

With the new company structure in place, a contest was created to design a new corporate emblem. Employees presented 231 entries. The judging occurred in December, and Don Henshaw's design was chosen. Henshaw, a member of Empire's Joplin Distribution Department, was invited to president James Harsh's office and presented a \$100 War Bond for his effort. This logo became the company's new trademark and eventually replaced the former company emblem.

## Peace Time Operations

World War II finally concluded in September of 1945. With world peace in place, Empire employees who served during the war came home and immediately rolled up their sleeves because there was much work to be done.

Empire vice president Donald C. McKee reported in the January 1946 *Hi-Voltage* of his overview of the war years and addressed the immediate future for the company stating, "Our sales during the war years were higher than normal, due to the necessity of producing lead and zinc in maximum quantities, and also to the addition of other war loads. The ultimate removal of the zinc subsidy and the resulting decline in zinc production is naturally a serious factor which confronts us, since power from zinc mining constitutes a

high percentage of our sales. We, therefore, must exert every effort to offset this loss in revenue by developing other markets.”

McKee went on to state, “Our Operating Department will have a tremendous volume of work to do, not only to catch up on deferred maintenance which we were unable to take care of during the war because of material shortage and other factors, but also they will have to rebuild, revamp and enlarge our facilities in order to handle the increased work load in our communities, and to continue improving our service.”

## Construction Project at Ozark Beach

A major renovation program began for the Ozark Beach power plant. More than 6,000 cubic yards of concrete were poured at the plant between July 1 and December 31, 1945. The construction required 40 railroad cars of cement which were shipped one and two car loads at a time. Following that step, the cement was hauled directly to the mixing plant, thereby eliminating the cost of additional handling and storage. The project required considerable overtime, with additional work scheduled on Saturdays and Sundays to complete the construction phase.

Approximately 40,000 cubic yards of rock were removed from the bed of the river just below the dam and powerhouse. Further changes were in order due to the recent floods. Therefore, it was decided to open the channel of the river so that the future flood waters could be carried away faster, resulting in less damage to the plant and dam. Most of the concrete used was placed in the bottom of the river. During flooding conditions when great volumes of water traveled over the dam, considerable damage was done to the area immediately below the dam. An additional five feet was added to the east retaining wall which extended a total of 200 feet.



**ABOVE:** Donald C. McKee, named president and general manager in 1948.

**BELOW:** System-wide service department meeting at Wilder's Restaurant in Joplin, 1948.





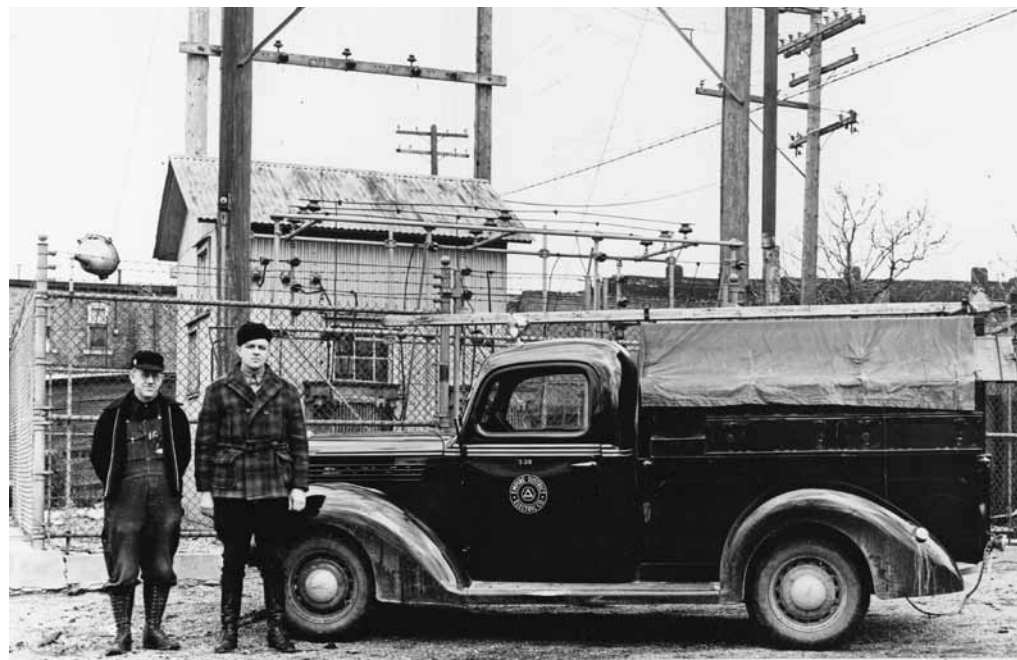


**ABOVE:** Empire Girls' party, 1948.

**RIGHT:** Early 1940s meter truck.

## Southwest Power Pool

The Empire District Electric Company was associated with a vast system of interconnected power companies throughout the Southwest. By accessing connecting lines with the Kansas Gas & Electric Company of Wichita, the service grid covered parts of the states of Nebraska, Kansas, Oklahoma, Texas, Missouri, Arkansas and Louisiana. Known as the Southwest Power Pool, these companies of the region were interconnected with each other during WWII to ensure reliable power service to essential defense plants and housing areas. In case of a generating plant failure, other plants in the system took up the power load without an interruption in electric current. These companies continued their interconnected association following the conclusion of war as means of further ensuring good, uninterrupted service.



## Expansion Continues

During 1945, the company was able to build 149.6 miles of pole lines. The lines brought electrical power to new customers which enabled them to connect 1,229 farms and 2,267 domestic and commercial users.

Another watershed moment occurred for the company in April of 1947. A statement in Empire's annual report noted the company's rural customers had doubled in number since 1937. In addition, the average use of electricity on each farm during that period had increased by 60 percent. During the last 12 months, rural lines serving the farming areas totaled more than 300 miles.

## Riverton Receives Award

The Riverton steam plant was recognized in the May 1946 edition of *Industry and Power*. In a special advertisement, the efficient lubricating system used on the steam turbines was described in great detail. The lubrication system was designed by Empire employees at the Riverton plant. Applying the new lubrication system to the filtration system resulted in decreased oil consumption as well as improved operation of the turbines. With the filtration system in place, the turbines could run 34 service hours on one gallon of lube oil.

**BELOW:** Empire employees in Joplin, November 1947.

## 1946 Breakdown of Dollars

Out of every dollar collected from the customers in 1946, the largest portion, 21 cents, went to employees as wages or salaries, 18 cents went to buy fuel and power, 17.5 cents paid for taxes, 10 cents for other operating supplies and expenses, 10 cents for property retirements, 6.5 cents for interest, and 9.5 cents for dividends. This left a balance of 7.5 cents for emergencies and future needs.



**RIGHT:** In 1946, during the months of October and November, Empire ran this advertisement in *Newsweek* and *Business Week* Magazines.



**in the "Empire" district of the Southwest where "cities in the country" provide more profitable and wholesome living for both business and people**

"Empire" communities though smaller in size are *big* in industrial advantages.

Overnight from great markets — all three industrial fuels, coal, natural gas, oil — railroads, motor freight and major airlines.

Rich in raw materials and semi-finished products—diversified resources from the farm, mine, and forest. Good living and recreational opportunities in the "Playgrounds of the Ozarks."

A stable, permanent people—American born, resourceful, intelligent, easy to train with a high degree of mechanical skill.

Here you will find a friendly atmosphere — friendly to you — friendly to your business. Join the growing group of "Empire" industries which have found greater opportunity here.

Write us for a copy of "Looking Through Clear Glasses" — which describes industrial opportunities in the "Empire" district of the Southwest.

Industrial Development Department

**THE  DISTRICT**  
**ELECTRIC COMPANY**  
 JOPLIN, MISSOURI

"SERVING IN THE 'EMPIRE' DISTRICT OF THE SOUTHWEST FOR OVER THIRTY-SEVEN YEARS"

in New York, explains that, following the revolution, the reign of the modern artists was brief. Lenin, in his manifesto of 1921, condemned the "puerilities of the leftist" artists, and such foremost painters as Wassily Kandinsky, Marc Chagall, and Chaim Soutine departed to make their reputations in the nations of the West.

For a time the "attempts at the restoration of academic painting proved very weak," says Mrs. Rubissow, and easel painting was almost extinct. But obedient Russian artists soon were turning out the pictorial potboilers Stalin calls "social realism." Poor imitations of the sentimental storytelling paintings of the nineteenth century, they depict mothers fleeing across the snow with their children or gazing at the ruins of their homes, and warriors fighting valiantly in the northern mist or among the tanks at Stalingrad.

Mrs. Rubissow explains the method the Soviet state uses to hog-tie the artist: "He is accountable—his 'line' is checked and 'straightened out' (by means of a reprimand and a sermon) if it does not happen to coincide with the ideology and system of work of the state."

As a Soviet student, Leonid Malloff, said at a Russian art exhibit in New York last February, it is not "art for art's sake" but "art for the people's sake."

**Renaissance Relics**

Several of the Italian Renaissance's most significant works of art lay strike-bound in New York Harbor last week. Shattered by bombs during the war but painstakingly restored, they and before and after photographs already installed will form a Metropolitan Museum of Art exhibit, "War's Toll of Italian Art." Among them:

☛ A soldier's head which is one of the three sizable surviving portions of one of the first great works of Italian Renaissance painting, Mantegna's fresco cycle in the Church of the Eremitani in Padua. The church was struck by a stray bomb which had been intended for a near-by railroad yard.

☛ The central part of the fresco, "The Marriage of the Virgin," by Lorenzo da Viterbo, called "one of the most difficult jigsaw puzzles ever solved." With the aid of a photograph the size of the original fresco, thrown on a canvas, it took a year and a half to piece together the 20,000 fragments gathered from the floor of the Church of Santa Maria della Verità at Viterbo.

Already at the Metropolitan last week, thanks to John C. Huseby, a former GI, were two panels from the famous bronze doors of the Cathedral of Benevento. Huseby picked up the panels, valued at \$10,000, from the rubble and sent them home in a grapefruit box. Later, through a Kansas City museum official, he returned them to the Italian Government, which, in turn, lent them to the Metropolitan Museum.

## Riverton Plant Expands

Another huge addition to the Riverton plant occurred with the installation of a 30,000 kilowatt steam turbine plant at a cost of nearly \$4,000,000. The new turbine increased the capacity of the plant to 100,000 kilowatts, an increase of almost 50 percent, making it one of the largest power plants in the Midwest. Completed in 1950, the new turbine plant would be installed just north of the present steam plant. Steam would be provided by a single boiler with a capacity of 300,000 pounds of steam per hour, or 850 pounds per square inch of pressure. The boiler could be run on either coal, natural gas or oil, singly or in combination. This flexibility would permit use of the most economic fuel available.

President James Harsh stated in the July 1947 *Hi-Voltage*, "This plant is being built in line with the company's policy of anticipating and providing for the future development of the district, of meeting the increased demands for electric service, and of effecting maximum economy through utilization of the most modern equipment. This additional investment to the \$5,000,000 construction program now under way is further evidence of our faith in the continued agricultural and industrial development of the Empire District of the Southwest."

## 1947 Service Territory

In 1947, the Empire service territory consisted of 18 counties in Missouri, two in Oklahoma, one in Arkansas and another in Kansas. The territory was divided into 10 districts located at Baxter Springs, Columbus, Picher, Webb City, Neosho, Aurora, Bolivar, Pierce City, Greenfield and Gravette. A district manager was located in each of these communities. They were responsible for all operations in their office and territory and worked in conjunction with the distribution engineer or line foreman who was in charge of the service area. The district manager's office was also responsible for the following:

1. Reading of meters
2. Collecting of monthly statements
3. Satisfying customer complaints
4. Contacting the city councils in the representative towns
5. Operating the district office
6. Working with S. A. Lipscomb in negotiating for the renewal of franchise agreements
7. Working with the industries of the area.

## Don McKee Takes Charge

In 1948, Don McKee was named president and general manger of Empire. He was elected at the Board of Directors meeting on April 13, 1948, to fill the vacancy created by James E. Harsh. Harsh continued his relationship with the company as he became Chairman of the Board. Newly elected president McKee joined Empire in 1920, serving in various engineering and executive capacities. In 1935, he was elected to the board of directors and later held positions of vice president and assistant general manager. McKee was a graduate of Iowa State College.

Regionally, McKee served as president of the Missouri Valley Electric Association, president of the Petroleum Electric Power Association, vice president of the Missouri Utilities Association, and director of the Oklahoma Utilities Association. Locally, he served as president of the Joplin Rotary Club and was a two-term president for the Joplin Chamber of Commerce.



**ABOVE:** James Harsh

## **Matt Hawkins Reminisces**

Matt Hawkins retired from Empire on July 1, 1941. He shared some of his early recollections of his experiences with the “electricity business” in the 1890s:

“I started my employment with the electric business in 1894 when I went to work for the Aurora Light Company. At that time the Aurora Light Company had in the way of equipment two Sears Arc generators. One of these generators was used for the street lighting load and one for the commercial lighting load. These two generators were operated by 65 horsepower Buckeye high-speed engine. Steam was obtained from an 85 horsepower boiler.

In those days the Aurora Light Company had two employees, including myself. As a general rule, I worked days and Bill Reams worked nights. That made Bill the plant manager and operator, the job included the running of the machines and the firing of the boilers. You see we did not run the plant in the daytime. Our only service was lighting service, and that meant only service at night.

As the day man I was the bookkeeping department, billing department, purchasing department and the trouble and service department. I was also the line crew and the cashier.

When I started with the light company in Aurora, we had about 25 commercial customers, that is to say we had Sears Arc lamps in about 25 Aurora stores and business houses. These lamps were 65 candlepower, which represented a little better than a present 40 watt lamp in the light produced, and were installed on a flat rate basis of \$3.50 per month per lamp. The average store in those days had four of these lamps and so paid \$14 per month for the night use of 4 - 40 watt lamps.

In addition to our commercial customers we had 15 streetlights, 14 of the street lights were on the top of 35 foot poles, the other was on the top of City Hall. The light on the top of the City Hall was a double arc and was 250 feet above the ground. Each of these streetlights had to be trimmed every two days and that meant that I had to climb the poles, or in the case of the light on the top of the City Hall to go way up there.

The Aurora Light Company was owned by Mr. E. L. Foster of Deming, New Mexico. I never saw Mr. Foster during all of the time that he owned the plant. I made out the bills, collected the money, paid what the company owed, put the balance in the bank and sent a statement of receipts and disbursements to Mr. Foster.

There was little change in the operation of the company until 1910, when we installed 125 horsepower Brownell high-speed engine operating a new dynamo to furnish incandescent lighting service to our commercial customers and to go into the domestic lighting business.”

## **Empire’s Rural Electrification Department**

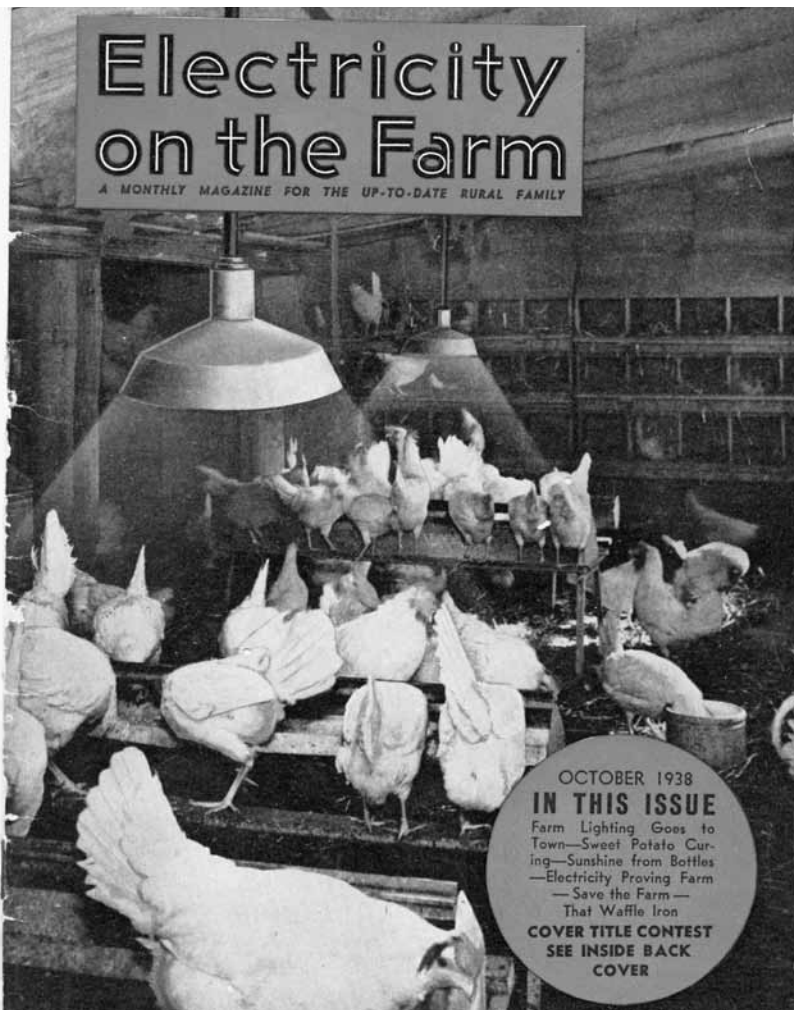
According to the 1940 census, there were approximately 40,000 farms in the Empire area. As of October 1, 1944, about 10,000 farms had electric service. Four years later the number had grown to 23,500. In 1948, Empire served 7,400 of those farms. The remaining farms were powered by the Rural Electric Association (REA) Cooperatives.

Empire’s Rural Electrification Department was established in October 1944, with a three-fold purpose:

1. To expedite the extension of electric service to rural and urban customers located in or near the towns the company served, and to those located along or near Empire lines.
2. To work out a plan of cooperation with the REA Cooperatives in order that duplication of facilities might be avoided,



**ABOVE:** At 2:30 p.m., April 22, 1948, James E. Harsh, Chairman of the Board, pushed the cutting edge of a gold-plated shovel into the earth at Riverton symbolizing the start of construction of the \$4,600,000 Riverton power plant. Riverton ground-breaking photo taken in 1948 includes three Empire presidents: Harsh with the shovel, McKee at far left and Drewelow fifth from the left.



**LEFT:** *Electricity on the Farm*, October 1938.

## Meter Readers and Linemen Responsibilities



The Empire workforce was composed of 627 employees in 1948. A series of stories were composed on different job positions at Empire in the company's *Hi-Voltage*. One story covered Tom Nelson, an Empire meter reader who checked approximately 150 meters a day. Nelson was one of 25 meter readers who checked 55,541 electric meters and 2,142 water meters on Empire's system every 30 days. The workforce was made

up of 14 full-time readers with 11 part-time employees. Meter readers in Joplin were required to read 250 to 300 meters per day. Meter readers working outside of Joplin were asked to read 150 meters per day.

An overview of Empire's linemen was reported in the July issue of *Hi-Voltage*. The job duties of the 135 linemen were to repair, maintain and service nearly 1,000 miles of transmission lines and 2,500 miles of distribution lines in Empire's 22-county area. The line crews worked out of three divisional headquarters, each under the direction of a division supervisor. The western division had headquarters at Baxter Springs,



Kansas, the central division had their office in Joplin, and the eastern division home office was located in Aurora. The line-men's transportation department consisted of 47 trucks equipped with radios.



### Fact:

Empire received special recognition by *Financial World* magazine. The company won their "Highest Merit Award" in recognition of Empire's outstanding 1947 report to its stockholders. This was the second year in a row Empire had won the award. Over 2,000 entries were submitted by other national companies.

## 1948 Rates

The use of electricity in the residential urban segment was also increasing. During the twelve month period ending on June 30, 1948, the kilowatt hour sales per residential customer, not including rural service, reached the 1,000 mark for the first time in the history of the company. Over the past ten years, from 1938 to 1948, the average residential bill had increased only 22% from \$31.11 to \$37.90. However, the average rate per kilowatt hour for residential customers had declined from 5.9 cents per kilowatt hour to 3.8 cents per kilowatt hour.

and that Empire might secure complete area coverage and take electric service to every potential customer in the company's service area. 3. To aid in the promotion of the use of farm electric equipment and the development of completely "Electrified Farms."

Since the establishment of the RE Department, Empire had approved the construction of 4,854 separate extensions which would serve 7,331 customers (4,609 rural, 2,722 urban). These extensions would require construction of 828 miles of distribution lines costing approximately two million dollars.

**ABOVE:** A lineman at work, 1948.

**OPPOSITE TOP & BOTTOM:** Day in the life of a meter reader, 1948.



## Zinc Mining Declines

During World War II, zinc and lead mining in the Tri-State District was greatly stimulated by the United States government subsidy program. With this favorable climate, ore production increased, placing the total volume of

**BELOW:** Diplomat Mining Company.



ore above the normal level. These subsidies expired at the end of June 1947 and were not renewed. A report ending on June 30, 1948, stated revenue for the mines had declined during the last twelve months, but the total revenue for the period decreased only \$207,935 or 3.3 percent. Much of the secret of Empire's success after the war was understanding the need to compensate for the loss of revenue in the mining fields of the Tri-State District. A concerted effort by aggressively attracting new businesses and industries to the area became a focal point. With the new philosophy in place, total customers served by the company increased 6%.

## Franchise Agreements

Empire supplied power to communities in Oklahoma, Kansas, Arkansas and Missouri. A separate franchise agreement with each community had to be periodically voted on by the electorate. From 1945 to 1948, forty-five communities voted overwhelmingly to retain Empire's service. The voting totals were 5,243 votes in favor to renew versus 182 votes against renewing the franchise agreement. Many of the communities voted unanimously in favor of the proposal.

## 1949 Ice Storm

A paralyzing ice storm tore through the area for four days in January 1949. The storm started on Monday, January 10, when a freezing rain moved over most of Empire's service area, blanketing poles, wires and trees. As the ice continued to pile up on the wires, insulators and cross arms, the power lines began to snap along a 135-mile path through the very heart of the company's service area. It was the worst sleet storm in 35 years.

The main concentration of the storm began at a point southwest of Bluejacket, Oklahoma. This was where the storm began to wrap its icy fingers around more than 75 percent of the company's 3,500 miles of electric power lines. The storm cut a 40-mile wide path, extending northeastward to a point near Cross Timbers, Missouri, some 135 miles away. 40,000 of Empire's 57,000 customers were affected by the storm. In the end, over 2,000 miles of lines were damaged. Though similar storms of equal intensity had struck the four-state corner of Oklahoma, Kansas, Arkansas and Missouri before, none had ever affected such a large area.

The short-wave radio communication system and airplane surveillance played an important role in speeding up the repairs to the

**BELOW:** Cover of *Hi-Voltage* magazine, February 1949. The "Ice Issue"



damaged electric system. Hard-working, fast-moving line crews went into action as the first of a long series of complaint calls began to clog the company's switchboards. In the beginning, the crews worked around the clock in 24 hour shifts as an additional 100 linemen from outside the service area responded.

The hardest hit areas were around Joplin, Webb City, Jasper and Golden City. The communities of Greenfield and Bolivar also received substantial damage. Some towns were blacked out and stayed that way for several days as crews battled to get the power resumed. By the end of the second week, most of the damage had been repaired. However, it was well over a month before the devastated system was in full operation.

**BELOW:** Associate Editor John McGehee and Editor Cleo Woodworth discuss the "new-look" of *Hi-Voltage* magazine in 1949.

**BOTTOM:** Helen Malin, circa 1949.



## New Street Lights

1949 was full of white way (street lighting) inaugurations and celebrations. Over 4,000 people filled Branson to celebrate the new white way at the April 23 dedication. The evening ceremonies consisted of an assortment of entertainment and street dancing. The program began at 6:00 p.m. with a concert by the Branson High School band, followed by a parade of over 30 entries.

Galena followed suit at their annual birthday celebration, climaxed also by illuminating their downtown. The event was sponsored by the Lion's Club. The anniversary celebration was highlighted by a parade down Main Street. Prizes were awarded to the winning floats.

Galena Mayor Frank James stepped to the platform, pulled the switch and bathed Galena's downtown area in a modern city of lights.

In Pierce City, more than 2,000 people attended a special dedication ceremony as a newly constructed white way system was presented to their community.

## Helen Malin Retires

Helen Malin, head of Empire's Home Service Department, retired in 1949. She went to work for Empire as a salesperson in 1931 and then became the home service director. Her job was to familiarize customers on how to operate electric ranges, water heaters, home freezers, and other appliances. Proper instruction was imperative to maximize the efficiency of these electrical appliances. She also conducted demonstrations and cooking schools throughout the district.

## Marketing by Radio

In the 1940s, radio had become an accepted part of the American culture. Better yet, the home fixture was powered by electricity. Radio provided thousands of listeners. A captive, loyal radio audience offered fantastic public relations and marketing opportunities. Empire participated in this popular phenomenon.

On Monday, February 26, 1940, Reddy Kilowatt began broadcasting an early morning program on Joplin's WMBH radio at 7:15 a.m. each day. Immediately following the regular newscast, each week-day from Monday to Friday, a "pepper-upper" program was offered. For several years Reddy served as a spokesman for the company's Advertising Department. His job was to convey the merits of electricity, the low cost of rates, as well as the good service Empire provided.

Empire began sponsoring a new radio program in 1946 known as the "Empire Electric Clock." The 15-minute, early morning (7:15 a.m. to 7:30 a.m.) musical program played on radio station KSWM. KSWM represented the new Columbia Broadcasting System radio station in Joplin. The announcer, Noel Ball, described the morning show as "a program of gay tunes and correct time announcements, designed to help you start the day in a happier frame of mind, and on time."

Empire continued to offer programs and commercials on the local radio stations in the late forties. In 1949, five programs were offered to area listeners. News announcer Claude Evans with KSWM 1230 radio continued the six-day-a-week radio program, "The Empire Electric Clock." Evans opened the 15-minute program with the statement "speaking for Reddy Kilowatt and more than 600 employees of The Empire District Electric Company, your friends and neighbors throughout the great Empire District of the South-

west are wishing you a good morning, and another happy day of modern electrical living."

Leonard Brown, chief announcer of radio station WMBH, introduced Cedric Foster, a mutual news commentator, at 12:30 p.m. each weekday. After seven and a half minutes into Foster's program, Brown would tell the listeners about the advantages of "Modern Electrical Living." In addition, Empire sponsored three other programs on KFSB.



**LEFT:** Claude Evans, radio personality, 1948.

# The Empire Builder

THE EMPIRE DISTRICT ELECTRIC COMPANY

VOL. 4

AUGUST, 1927

NO. 1

## 2 High Honors Bestowed upon W. Alton Jones

The Former Empire District Treasurer Is Elected First Vice President of Cities Service Company and Fourth Vice President of N. E. L. A.

William Alton Jones, former Treasurer of The Empire District Electric Company, has been elected 1st vice president of Cities Service Company.

Acquisition of this new honor further emphasizes the meteoric rise of the former member of the Empire District family. Mr. Jones was transferred to the New York office of Henry L. Doherty & Company in 1921 and in the last six years has become one of the outstanding figures in the electric utility world.

For the last two years he has been chairman of the executive committee of Henry L. Doherty & Company and is closely associated with Mr. Doherty.

Jones was elected 4th vice president of the National Electric Light Association at the convention last month in Atlantic City. He is perhaps the youngest man ever chosen to this high office in the association which is representative of the utility and electric power industry in the United States. He had served as treasurer of the N. E. L. A. and on various committees and last year was chairman of the public relations section, an outstanding committee assignment.

The former Empire official is an officer or director in some fifty corporations, among them the Cities Service Power & Light Company, Empire Gas & Fuel Company, Ohio Public Service Company, Crew Levick Company, Gas Service Company and Toledo Edison Company. He is a member



W. Alton Jones

of the Lotus Club, Lawyers Club, Seaview Golf Club, Engineers Country Club and Doherty Men's Clubs in Washington and New York.

The new Cities Service official was graduated from the Webb City High school in 1909 and attended Vanderbilt University. He began his service with the Empire District as a clerk in the Webb City office in 1912. He visited his father and sister at Webb City May 19 and 20 and while in the district inspected properties of The Empire District. He was enroute to New York after having addressed the Mid-west Section of the N. E. L. A. convention at Topeka.

### FAIRLAND, OK. ADDED TO EMPIRE SYSTEM

Citizens of Fairland, Ok. voted June 7 to sell the municipal lighting system to The Empire District Electric Company. The vote was 154 to 29. Fairland is about fourteen miles southeast of Miami.

## Last Rites Are Held for F. M. Richards

Riverton Plant Superintendent Whose Death Occurred June 28, Was one of the Most Beloved Members of the Organization

Fred Mortimer Richards, Superintendent of the Riverton, Kas. plant of The Empire District Electric Company since 1916, a director of the company and one of the most widely known members of the organization, died June 28 at Freeman hospital, following an illness of six months. He was 56 years old.

Mr. Richards had been in Freeman hospital ten days. He returned about two months ago from the Mayo clinic at Rochester, Minn., where he underwent an operation.

In his eleven years with the Empire District, Mr. Richards established a record for faithful and loyal service and gained the high esteem of all employees with whom he served. He always had the interest of his men at heart, was big-hearted and sympathetic and in turn received their loyal cooperation and by his rugged qualities won their profound respect.

He was born at Wyocena, Wis., December 12, 1870. He attended common school at Kilbourne City, Wis., but left at an early age and learned the machinist trade. He later fulfilled a boyhood ambition to be a locomotive engineer.

His railroad experience was short, for he visioned the future of the electric light and power industry. He received his fundamental training at the Postage plant and was advanced to the position of Chief Engineer. While there he perfected his knowledge of electrical engineering by means

(Continued on Page 2)

## W. Alton Jones

On January 4, 1940 W. Alton Jones was elected president of Cities Service Company succeeding the passing of Henry L. Doherty, president and founder of the organization. Jones had a tie with the local community. He came with his family to Webb City at the age of 14. Jones was a paper boy and delivery wagon driver during his school years at Webb City. He attended Vanderbilt University for a year. Upon returning to Webb City the following summer, he accepted a position as a substitute cashier at the Carterville office of the Webb City Carterville Gas Company.

This was his first job as a member of the Cities Service Company. Two years later he was transferred to Joplin to work at Empire. In time he advanced to chief clerk, assistant auditor, auditor, treasurer, assistant secretary and act-

ing secretary. As an auditor he earned \$85 a month. Jones advanced to assistant secretary of Empire during WWI when the cost of coal jumped from 85 cents to \$6 a ton. Jones appeared before officials of three states in 52 rate hearing cases seeking rate increases. He won an increase in every case. Jones revamped Empire's accounting system by introducing uniform terminology and invented a simplified method of budgeting. His accounting methods were adopted by all Cities Service subsidiaries in the southwest region.

He was later transferred to the New York office of Cities Service Company where he entered the first vice president's office of Frank Frueauff. Upon the death of Frueauff, he was retained as a member of the executive staff. In 1925, at the age of 34, he was made permanent chairman of the executive company. Two years later at the age of 36, he became first vice president of the Cities Service Company.

OPPOSITE: James E. Harsh at a ceremony holding Cities Service emblem, 1940s.

## James E. Harsh

In 1943, James E Harsh, president and general manager of Empire, celebrated his 40 years with the Cities Service Company. He began his distinguished career as a meter reader with the Denver Gas and Electric Company on December 15, 1903. During his forty years, Harsh worked in various capacities with utility companies located in Colorado, Nebraska, Kansas, Missouri and West Virginia. He was born in Hubbell, Nebraska, and attended Oklahoma A & M college at Stillwater. While visiting a friend in Denver, he took a meter reading job with the Denver Gas and Electric Company. He continued to move up the corporate ladder from meter reading, to meter repair shop, to selling gas and electric appliances in the New Business Department. When Empire was formed in 1909, he came to Joplin to organize the New Business Department and served as its first commercial sales manager. In October of 1912, Harsh was sent to Sedalia to organize a New Business Department for the City Light and Traction Company another Cities Service Company. He then went to Salina, Kansas, serving as vice president and general manager of the Salina Light, Power and Gas Company, taking charge in December of 1914. Following that job, he became the vice president and general manager of the Lincoln Gas and Electric Company in July 1917. In January of 1923, he relocated to West Virginia to run the Virginia Power Company at Charleston. In May of 1925, he returned to Joplin and became the manager of Empire and general manager of the Ozark, Lawrence County and the Benton County utility companies. His civic commitments in Joplin included being a member of the Joplin Chamber of Commerce and the Joplin Community Chest. Harsh was one of the organizers who helped establish the Joplin Stockyards.





**ABOVE:** Riverton employees, August 9, 1949.

**BELOW:** Members of the 25-Year Club at Wilder's Restaurant on March 4, 1949.

## The Decade Closes

Closing out the decade, 1949 represented 40 years of providing electric power to area customers. Since the five-year separation from Cities Service Company, Empire carried out the largest construction program in its history by increasing its investment in property by nearly 55%. Growth continued as 1,308 customers were added, bringing the total number of customers to 58,487. As of December 31, 1949, Empire had 604 full-time employees. After four decades, Empire's commercial and industrial customer clientele was becoming more diversified, as the once potent lead and zinc mining industry continued to decline representing only 13% of the total revenue.



# 1950s

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## Riverton Plant Expansion

On March 9, 1950, Don McKee accompanied by a party of officers and directors took part in a small, impromptu ceremony to celebrate the activation of the new 30,000 kilowatt steam driven generating unit at the Riverton power plant. Actual operation of the turbine began a few days prior to the ceremony. The turbine was built by Westinghouse at a cost of nearly \$750,000. Black and Veatch, a firm of consulting engineers from Kansas City, were employed to assist Earl Drewelow and his staff in designing the plant and determining the type of equipment needed.

**BELOW:** 1950 open house at Riverton Power Plant.





**Fact:**

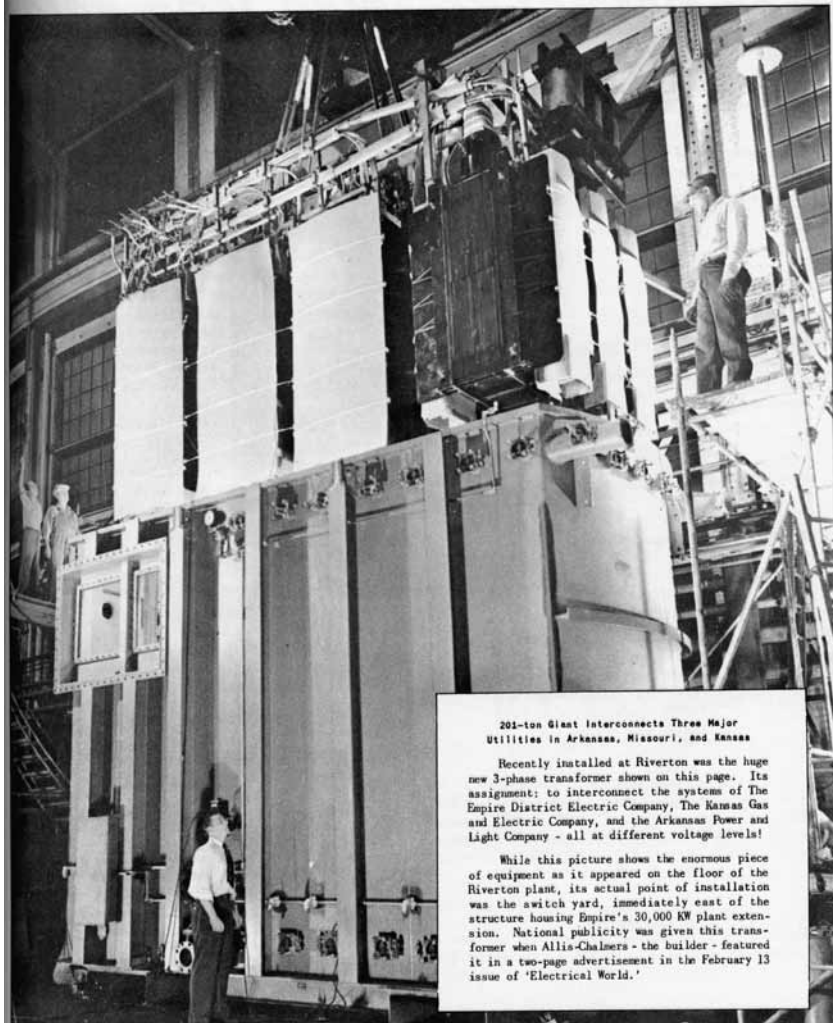
Empire began using IBM equipment following the war in 1946. By 1950 the company owned eight different machines with each one performing a separate function.

The Long Construction Company of Kansas City was the general contractor for the project. The construction project commenced during the afternoon of April 22, 1948, when the ceremonial shovels pierced the earth. Above-ground construction work began in June of 1949. The Riverton Hotel, located on the plant premises, became fully occupied with workers, and the dining room began feeding scores of hungry construction workers. Temporary offices and storage sheds were built. A section of railroad track was moved. Finally, in June of 1949 the steel erection crews began their work in earnest. They constructed nine stories of gaunt steel framework in a little over 30 days. Work continued as the outside switchboard was constructed north of the plant and the new 154 kV transmission line to Ozark Beach was completed. The generator arrived during the month of August 1949. Five railroad cars were required to transport this equipment west from the Philadelphia manufacturing plant of the Westinghouse Corporation to the site at Riverton. The boiler and control rooms and installation of the turbine and the generator was completed in March of 1950.

On July 22 and 23, more than 5,000 four-state residents, representing approximately 75 towns and villages, toured the new plant at Riverton. On both days, guests were given one-hour tours of the facility. During the week prior to the grand opening, various mayors, chamber of commerce presidents, and civic club presidents from 43 surrounding communities previewed the plant. The open house and preview parties were a resounding success and were appreciated by all those attending.

**RIGHT:** Riverton transformer.

**RIVERTON PLANT GETS WORLD'S LARGEST 3-PHASE TRANSFORMER**



**201-ton Giant Interconnects Three Major Utilities in Arkansas, Missouri, and Kansas**

Recently installed at Riverton was the huge new 3-phase transformer shown on this page. Its assignment: to interconnect the systems of The Empire District Electric Company, The Kansas Gas and Electric Company, and the Arkansas Power and Light Company - all at different voltage levels!

While this picture shows the enormous piece of equipment as it appeared on the floor of the Riverton plant, its actual point of installation was the switch yard, immediately east of the structure housing Empire's 30,000 KW plant extension. National publicity was given this transformer when Allis-Chalmers - the builder - featured it in a two-page advertisement in the February 13 issue of 'Electrical World.'

# EMPIRE FAMILY CHRISTMAS PARTY

## New Color Adopted

By 1950, 62 percent of Empire's pre-war passenger cars had been replaced. Twenty-six new cars were purchased. All the new automobiles were finished in a standard gray paint, which was previously adopted as Empire's official color. The shade of gray was the same color used by the Dodge Motor Company on their 1949 gray-painted passenger cars. The familiar Reddy Kilowatt holding the Empire emblem was added to all the doors of the new vehicles.

## Lawton, Kansas Gets Converted

Employees from the service department converted the community of Lawton, Kansas, from 25 to 60 cycle power in less than a day. All 25-cycle appliances were disconnected by the service men. By 11:00 a.m. electrical service had been restored, by 3:30 p.m. most of the conversion work was finished, and by 5:00 p.m. the last of the washing machines were converted in Joplin. Following the rewiring of the washing machines, company servicemen took them back to the customers' homes in Lawton. The entire Empire service department participated in the job.

## New Post Hole Digger

Empire's line department received a new gift in November 1950, a new post hole digger. The new digger was capable of drilling a hole in five to six minutes. Formerly, the arduous job of digging a hole would take two to three hours, or possibly an entire day when there was water present. The machine was built by Foushee and Heckender. The new equipment was portable and could be secured to the back of any truck equipped with a derrick.



**ABOVE:** 1950 closed on a good note with the long-standing custom of the Empire annual Christmas party. Once again, company employees and their families received a Christmas turkey. Six hundred and fifty-eight birds, weighing a total of 9,345 pounds, were distributed on Friday morning, December 22.

**BELOW:** Jack Horner in the appliance repair department, 1951.



## Dr. A. M. Gregg

Long-time company physician Dr. A. M. (Mitch) Gregg passed away in January 1951. Dr. Gregg, a member of Empire's 25-Year Club, had been the official Empire physician for over 40 years. Dr. Gregg was known as an old fashioned "family doctor" for hundreds of families in the Joplin region. He was one of the last surviving members of the "horse and buggy" doctor era. Dr. Gregg began his career at a time when he kept two horses at his stables to make house calls and other emergencies. In the early days at St. John's Hospital, his bay pony was hitched to his buggy which could be seen tied to the hitching post on the west side of the hospital.

He interned at City Hospital in St. Louis. After a stint as a surgeon at a Santa Fe Hospital, Dr. Gregg returned to Joplin in 1906 and opened an office with Dr. R. Myles James. They established their practice in the Keystone building.

On February 10, 1913, he married Ryland Grigg. Grigg was a granddaughter of the late Captain E. O. Bartlett, one of Joplin's more notable pioneer builders. Dr. Gregg enlisted into the United States Army during World War I. He returned to Joplin following the conclusion of the war and opened an office in the Frisco Building. He was a past president of the Jasper County Medical Society and a member of the medical staffs of both St. John's Hospital and Freeman Hospital.

In addition to his work as a surgeon and general practitioner, Dr. Gregg served as a physician for the Santa Fe and Kansas City Southern railroads. He was also a former doctor for the City of Joplin. However, he would forever be remembered for his 40 years of service as Empire's company physician. The Empire District Electric Company awarded him with a pin for 35 years of service in 1946.



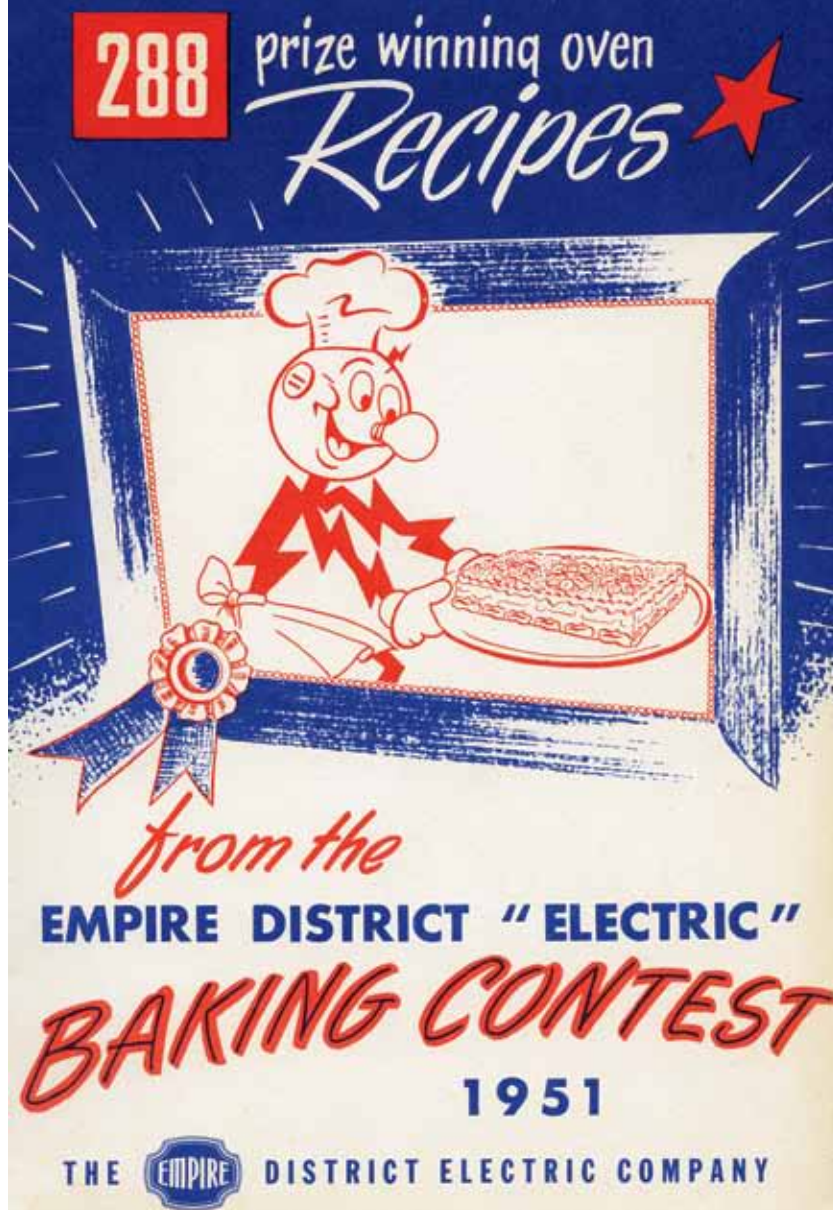
## Cooking Contests

By the 1950s, electric stoves were gaining popularity in the households of the region. Although they were being accepted, marketing plans called for greater awareness. Baking contests helped introduce the value of cooking with electric stoves and ovens.

Empire sponsored a regional Electric Baking Contest in 1951. Lacy W. (Tillie) Horton was the winner of the Grand Final Empire District Electric Baking Contest. Part of the grand prize was a trip to New York which consisted of a three day, whirlwind tour. She was the special guest of Pillsbury Mills, Inc. When Horton returned to her hometown of Bolivar on December 15, 1951, the City of Bolivar had a special "Tillie Horton Day" celebration. While in New York, she attended the Arthur Godfrey radio show and met Art Linkletter, Kate Smith and Cedric Adams.

One year later, Empire began sponsoring home economics demonstration contests for area high school students. Launched in 1952, the contest was under the direction of Edna Fyrne Moore and her assistant, Lillise Haile.





**ABOVE:** Tillie Horton, winner of the Bake-Off in 1951.

**BELOW:** J.T. Jones congratulates a 1951 contest winner.



Moore was head of Empire's home service department. The annual contest was open to every school in the company's territory. The purpose of the contest was to aid in recruiting capable young women for careers in home economics, to use the demonstration as a teaching tool and to promote the cooking of meals by utilizing electricity.

The contest gained national attention by receiving the Laura McCall award during the annual meeting of the Edison Electric Institute in Chicago on March 30, 1954. Named after the widow of the founder of *McCall's* magazine, the award was made annually by *McCall's* magazine to the company, who in the judges' opinion, had rendered the most outstanding service in the field of education to its customers. The 1954 contest winner was Margaret Berry, a senior from Mt. Vernon High School.

In 1955, Doris Storck of Purdy High School won first place and received a four-year scholarship to the University of Missouri. Second place went to Ferne McDonald of Golden City High School. McDonald won a one-year scholarship to the University of Missouri. The contest rules were that each contestant, using an electric range and oven, prepare a balanced meal for three people in 30 minutes. Their spending allowance was set at a maximum of \$3.

They were also responsible for shopping and purchasing the ingredients.

Due to the national recognition, the General Electric Company adopted Empire's contest as part of its nationwide sales promotion for the year 1955. Other electric power companies jumped on board and began conducting similar contests patterned after Empire's prize-winning event.



**ABOVE:** Employee bonds often extended beyond the workplace, as demonstrated by the 1950 men's bowling team. From left: unknown, Harold Carney, Louis Axtell, Garland Largen and Frank Reeder.

## Hot Sticks Incorporated

By 1951, linemen began to incorporate the use of "hot sticks" when repairing transmission lines. Hot sticks were wooden poles six feet to twelve feet in length with two inch diameters. They allowed the linemen to extend their arms over their heads and work on hot wires without exposing themselves to direct electric contact.

## Taxes Paid

On December 20, 1951, representatives of Empire visited the office of Joe Barnes, Cherokee County treasurer, and presented the county a check for \$294,709.75 to cover the company's annual real estate, personal property and merchants' taxes. Once again, Empire was the single largest taxpayer in Cherokee County, Kansas. Of the total amount, \$95,251.50 was allocated to the schools of Cherokee County. Empire's 1951 payment represented an increase of \$55,384.92 over the \$239,324.83 the company paid to the county in 1950.

## Riverton Plant Expansion

The expansion plans continued at the Riverton plant as evacuation work for a foundation suitable to hold the weight of a new plant generator began. The large piers were dug in at an average of 55 feet from ground level to solid rock. By January 1952, twenty-two of these piers had been secured in place with more to follow. Those completed required 1,208 yards of concrete and 30 tons of reinforced steel. A crew of 33 men were engaged in the foundation work.

Near the end of 1952, the erection of a structural steel building to house the new turbo-generator was completed. Steel workers began building a coal bunker and placing steel in the auxiliary section of the plant. Brick work continued on the switchgear bay at the east end. The switchgear bay housed the auxiliary switchgear, station battery, generator buss, and other electric auxiliaries. A second traveling screen and two additional circulating water pumps were installed, as the new unit required 38,000 gallons of circulating water per minute for condensing purposes. A new 90-ton hopper was constructed. The railroad yard system was rebuilt to allow for the storage of larger quantities of coal located closer to the plant. A new coal preparation plant with two 30-inch conveyor belts transported coal from track hopper to crusher plant. The storage area held 100,000 tons of coal with a handling capacity of 250 tons per hour. A bulldozer moved the coal, and a 40-ton diesel locomotive was ordered to switch railroad cars to and from the loading point.

A discharging flume was created in late 1952 and early 1953 at the Riverton plant. A canal was dug from the end of the existing discharge flume 1,700 feet across to a projection of land which intersected with the lake at a point some 3,000 feet below the water intakes of the plant. The flume was in preparation for the new 40,000 kilowatt addition at Riverton. The plant needed to deal with the enormous amounts of warm water recycled back into the river.

When the new 40,000 kilowatt unit became operational and the entire plant was operating under full load, the cooling water requirements were

# more POWER to "The EMPIRE DISTRICT"



The recently completed Riverton plant addition (pictured at right) means "More Power To The Empire District." It represents Empire's boundless faith in the four-state district of Missouri, Arkansas, Oklahoma, and Kansas . . . faith in its continued growth . . . in the enterprise and ability of its citizens. It represents Empire's partnership with you, the future "Empire District" business and professional men, wage earners, and home makers . . . a combination that guarantees "More Power To The Empire District." Congratulations to the class of 1951.

**THE EMPIRE DISTRICT ELECTRIC COMPANY**

**ABOVE:** Ad for Riverton Power Plant in 1951.



**ABOVE:** Caterpillar Diesel D8 tractor equipped with No. 88 Bulldozer and No. 80 Scraper, November 4, 1953, at Riverton.

approximately 174,000 gallons per minute or 10,440,000 gallons per hour. This water was pumped out of the river through condensers where it cooled the exhaust steam from the turbines. After passing through the condensers, the water was returned to the river at a point downstream from where it was first pumped out.

## More Riverton

A new coal handling system was added to plant operations at Riverton replacing the old locomotive cranes and cars, which for many years served to transfer coal to and from storage. With the new additions at the plant, a more efficient method of handling coal was needed. The old system was too slow and too costly. Consumption of coal during extreme conditions could run close to 900 tons or about twelve to fifteen rail cars per day during an eight-hour shift.

New dragline scrapers were adopted. A new diesel crane was purchased. The plant continued to use cars and the bulldozer scoop method with a system of belt conveyers for carrying coal from the track hopper either to the storage area or directly to the bunkers.

In changing to the new method of coal handling, it was necessary to rebuild the railroad track system in the plant yards. This was accomplished by laying new tracks in a semi, or flat sided, circle with a passing track for storage of empty cars.

Coal was brought in by the Frisco Railroad company in steel hopper cars with bottom dumps. From there, the cars were picked up by the plant switch engine, which was a 40-ton diesel locomotive. They were then taken to a 90-ton capacity track underground hopper where they were unloaded by opening bottom doors and letting the coal run out.

## Alternate Current In, Direct Current Out

Since the early days of Joplin, Empire provided direct current service to the downtown areas for certain industrial uses and especially for elevator service.

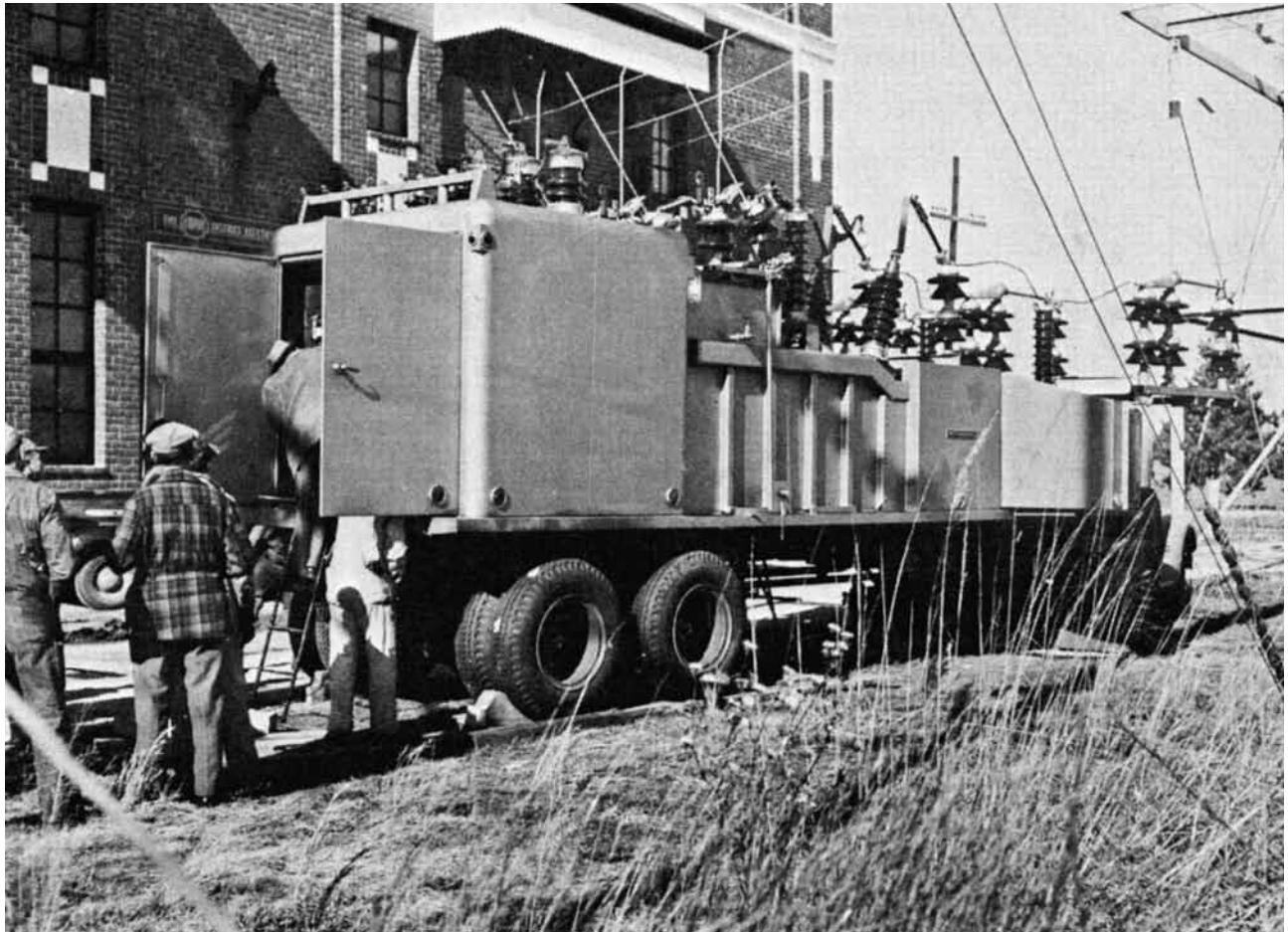
Although direct current electrical service had largely been replaced by alternating current (due to its flexibility and efficiency in transmitting electricity over long distances), direct current was still the preferred type of power supply when it came to elevators because of the ease with which the speed could be controlled.

In 1952, there were 22 elevator motors in the city of Joplin still utilizing direct current power from Empire. Empire supplied the direct current service from the rear garage building at 520 Wall. The facility housed a direct current generator driven by a 290-horsepower motor with a capacity of 200 kilowatts. The converter system had been operating since 1911 and delivered power over the old, direct current distribution system. Later, the use of new selenium rectifiers would eliminate the need for the direct current generator and in time, the direct current power supply in Joplin would be phased out entirely.

## Portable Substation Purchased

Empire received new equipment in 1952 which improved job productivity and safety in the field. In an effort to provide emergency service for communities or industrial customers in the event of service interruption due to a substation failure, Empire purchased a \$50,000 portable substation. This complete mobile substation, pulled by a GMC tractor, was mounted on a specially constructed trailer. The substation consisted chiefly of a 3,000 kV transformer. The total weight of the substation and trailer was 25 tons.

**BELOW:** Portable substation in 1952.





This new innovation was the first substation of its kind in the area. It had the ability to provide service at any voltage from 2,300 to 69,000 volts. The various voltages could be obtained by means of tap changers mounted on the transformer, and the equipment was suitable for use on either 25 or 60 cycle portable delivery systems. Built by Westinghouse, the portable substation could be used for substation maintenance and refurbishing as well.

The new substation was put into action for the first time during the months of June and July for the changing of a conductor on the 12,000 volt line going north and west from the Carthage substation No. 108.

## New Trucks Purchased

Two new service trucks were purchased from the Holan Body Company of Cleveland. They were manufactured with specially designed bodies on 2.5 ton White chassis. The trucks offered special compartments for hot sticks and other hand tools, along with an FM telephone communication system, a crew compartment and a winch and derrick. The truck allowed five to seven men in the work crews. At the time, the company owned more than 20 large line trucks.

## Harsh First Empire Employee to Receive 50-Year Pin

James E. Harsh became the first employee of the Empire family to reach the half-century mark. He received his 50-year pin in January 1954. The awarding of service pins began in 1937, before any pension or employee plans were established. When Empire was formed in 1909, Harsh came to Joplin to organize the sales department serving as the first commercial sales manager. He left in 1912, but returned to Joplin in 1925 as vice president and general manager of Empire and its subsidiary companies. Harsh was elected president in 1940. He held that position until 1948 when he became chairman of the board. It was during his presidency in 1944 when Empire separated from the Cities Service Company and became an independent company

## Riverton Addition Goes on Line

The \$7 million generating plant at Riverton went into operation during the summer of 1954. Rather than build a new power plant, Empire management chose to add to the existing plant because of the availability of the water supply for condensing purposes and to utilize certain facilities which were available at the site. The addition of the 44,000 kilowatt unit increased the plant's capacity to 150,000 kilowatts and made it one of the largest steam generating plants in the Midwest. Special tours of the plant were given to over 1,500 municipal officials and area civic leaders from around the region.

**BELOW:** James E. Harsh in front of a Way Back When display in the 1940s.





## New Street Lights For Joplin

On August 7, 1954, a crowd of more than 5,000 people were present for the inauguration of Joplin's new street lighting system. The ceremony culminated more than two years of planning and three months of construction work needed to install the system. During that Saturday night event, Harry A. Richardson, president of the Joplin Kiwanis Club, and Joplin Mayor Freeman R. Johnson flipped the power switches that illuminated the new system. Also at the ceremony, Empire District Electric president Don McKee gave an overview of Joplin's first electrically powered street lighting program. A total of 615 lamps and steel poles were constructed to make the new whiteway lighting system. The whiteway lighting system, which was part of an overall Community Betterment Program, was at the time offered to every community that received retail electric service from Empire at the company's uniform street lighting rate.

To support the growing electrical system in Joplin, construction plans for the new \$225,000 substation at the corner of 26th and Pearl began during the fall of 1954. The substation would accommodate a 5,500 kilowatt step-down transformer at a weight of 70,000 pounds. The electricity entering at 69,000 volts would be stepped down to distribution voltage. The substation would contain more than 100,000 pounds of structural steel.

## Empire Joins Safety Council

Empire became a member of the National Safety Council (NSC) on July 1, 1954. The NSC was known as the leader of the national safety movement with its familiar emblem, the green cross. Founded in 1913, the council was a not-for-profit association. Its purpose was to serve as a clearing house to gather and distribute information about the causes of accidents and ways of preventing them. The green cross became a familiar symbol to all Empire employees.

**ABOVE:** New White Way System in downtown Joplin, looking north from 6th & Main, 1955.



**ABOVE:** Unknown, Bill Mann, J. T. Jones, and Paul McInnes.

## J. T. Jones

On December 15, 1955, J. T. Jones was promoted to the position of assistant general manager of The Empire District Electric Company. Jones immediately assumed his new duties of assisting Earl J. Drewelow, vice president and general manager of the company. Jones would continue to direct the merchandise sales and service department as well as the activities of the company's district offices. Jones graduated from Rose Polytechnic Institute with a Bachelor of Science in electrical engineering. He began his employment with Empire

in January 1935 as a load checker. Jones later transferred to the power sales department where he remained until 1941. He served in the United States Army during World War II. Jones returned to Empire in 1946 as an engineer in the commercial department. By 1948 he was head of merchandise sales and service. Jones served as president of The Empire District Electric Company from 1964 to 1974. In addition, he served on the Joplin YMCA board of directors and was elected in 1954 to the Joplin City Council.

## Nuclear Fall Out

By the mid-fifties, nuclear power was an issue of great debate. In 1956, Empire management began to address the use of nuclear power. President Don McKee in the *Hi-Voltage* stated, "In order to keep abreast of the development in atomic energy, to train personnel, and to support the industry's effort to advance the technique of nuclear power production, the company is considering allying itself with other companies to design and construct some form of atomic reactor power plant, in the belief that this program would be in the long-range interests of the stockholders and the public."

Nuclear power was only one aspect of the equation. The concern of nuclear warfare was another, as local school drills prepared students for possible nuclear bomb attacks. In 1958, Empire employees played in this "duck and cover" era by participating in the first Federal Defense alert scheduled on May 6 and May 7. The readiness alert exercise was part of a nationwide effort to prepare in the case of a foreign attack or a national disaster. Empire, along with the other southwestern power companies, had been working over the last two years on emergency plans.

Empire's defense team sprang into action after being advised of purported May 6 "nuclear bombings" occurring at Tulsa, Oklahoma, Oklahoma City, Oklahoma and Springfield, Missouri. The prime role for Empire employees was to keep the supply of electrical power available where it was needed, principally for use in hospitals and other emergency centers, sanitation services, water supplies, and communication systems.

With notification of the “disaster,” Empire’s defense team determined the size and type of the bombs purportedly dropped and contacted the weather bureau for weather information to chart the path of radiation on the basis of the prevailing winds and other conditions. Later in the day, a second meeting was held to map a plan of action to cope with the imaginary situation.

The plotted path of the radiation ran diagonally across Empire’s service area in a band approximately 60 miles wide and included the company’s Riverton Power Plant and load dispatching centers.

Empire engineers determined that the shielding effect of the building at the Riverton plant would permit personnel to continue operations there. If knocked out or evacuated, electrical service would continue through interconnections with the Southwest Power Pool. The interconnected power pool grid extended from Omaha, Nebraska, to the Gulf of Mexico and from the Mississippi River to the Rocky Mountains.

### **New Boiler at Riverton**

A new \$1 million boiler was purchased for the Riverton Power Plant. The boiler, designed and built by the Long Construction Company of Kansas City, was the latest design in boiler plant equipment, featuring new and automatic control methods of firing fuels. The indoor installation of the boiler required no building other than the enclosure around the lower section to house the auxiliary equipment. The actual construction of the new boiler began 12 months prior when the excavation for footings and foundations were laid.

### **Fact:**

By the mid 1950s, Empire management began to advocate the use of seat belts. The new passenger cars the company purchased were factory equipped with seat belts. At the time, the older company cars would be equipped with seat belts if the driver agreed to make full use of the new safety equipment.



**LEFT:** Northwest elevation at Riverton, showing the progress of the boiler construction, August 24, 1953.

## Don McKee

Don McKee was elected to the board of directors of the Edison Electric Institute in 1956. Edison Electric Institute was founded in 1933. The Institute was made up of 200 electric companies in the United States and Canada. Empire became a member in 1945 and was the smallest independent electric company in the organization. McKee, a native of Iowa, had worked 37 years in the utility business. He graduated from Iowa State College in 1919 with a Bachelor of Science degree in electrical engineering. McKee transferred to Empire in 1920 as a member of the engineering department in Joplin. Later he was foreman of the meter department and then became head of the power sales department in 1922. He held that position until 1935 when he became vice president and assistant general manager of the company in 1944. McKee was elected president in 1948 and served in that capacity until 1959. He was a two-term president of Joplin Chamber of Commerce and president of the Joplin Rotary Club.



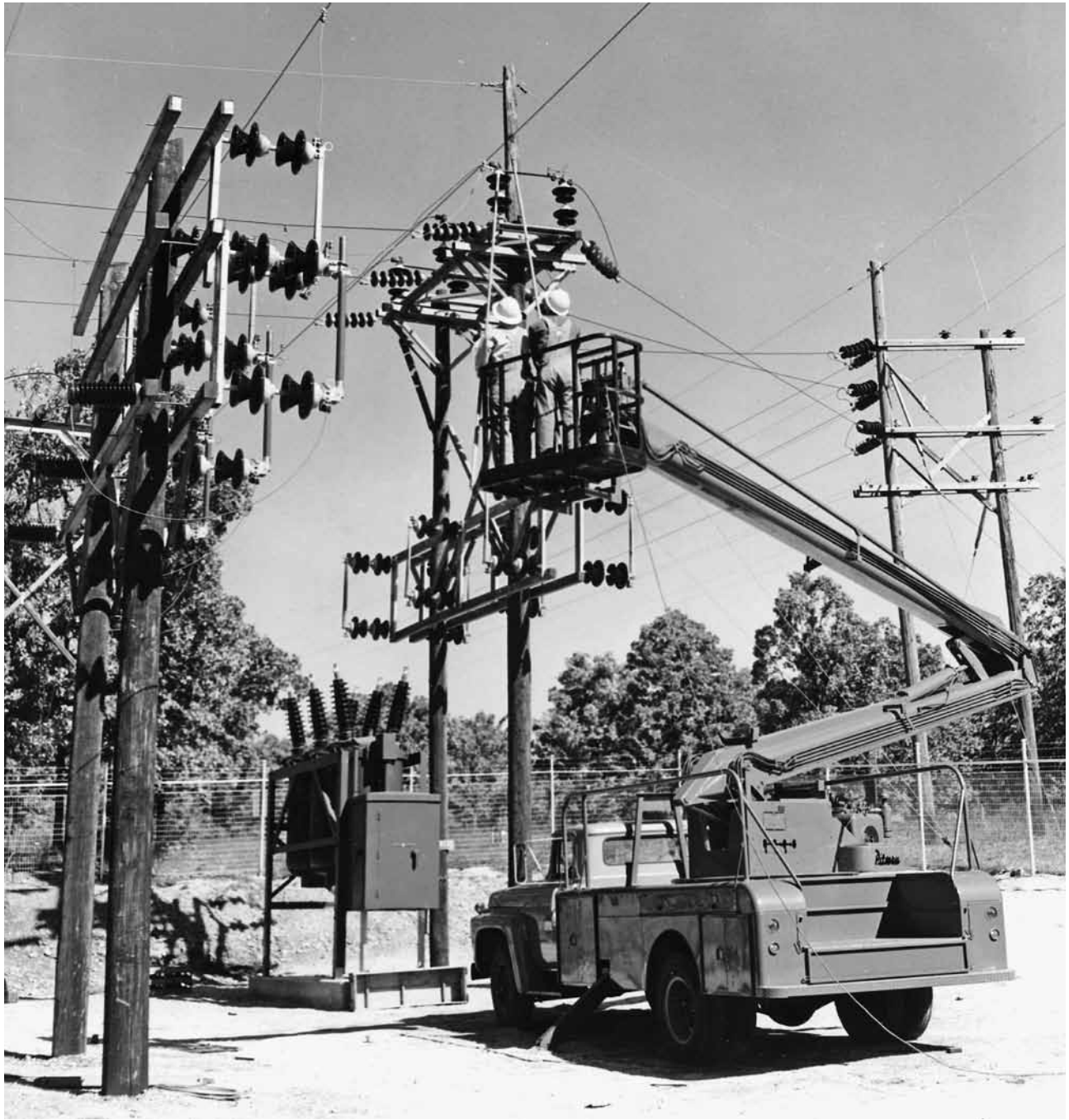
The boiler's new home was encased in an 80-foot high steel structure. The entire structure was reinforced to withstand the constant vibration brought about by the pressure of the roaring inferno inside the furnace. More than 50 carloads of materials went into the construction project. The boiler produced steam at a higher pressure and in greater quantities, resulting in increased output of the generating units whose turbines were driven by steam supplied from the boiler.

Natural gas was the basic fuel used to fire the boiler. Sometimes during the winter months, the supply of gas was curtailed to industry in order to maintain ample gas pressure for homes, schools, hospitals and other businesses. In order to protect Empire customers and to provide continuous electric service during peak loads, Empire made plant modifications to utilize both coal and oil as alternate fuels. Natural gas was readily available at the River-ton plant since two major pipelines passed nearby. The company maintained several large tanks on its plant property storing some 100,000 barrels of fuel ready for any emergency.

## Giraffe Goes to Work

One of the more difficult jobs in the electrical industry was the lineman's job. Working at considerable heights, outside in all kinds of weather, while handling dangerous power lines was extremely challenging. Anything that could make their job easier and safer was a top priority. In 1957, Empire purchased a new Pitman "Giraffe." The giraffe was extremely effective on the job by offering a stable platform for two men to work freely and safely at any height up to 50 feet.

Secured to a wheel base, the shear mobility made it ideal for fast, economical line and substation construction and maintenance work, particularly for the maintenance of street lighting systems. It also offered a better and more economical method of repairing damage to overhead lines occurring between poles. Before the giraffe, it was necessary to set a temporary pole adjacent to the overhead line near the point of damage so linemen could make the re-



pairs. This process required a great deal of time and extra expense resulting in considerable delay in restoring service when an interruption occurred. The giraffe was a hydraulically operated unit available for use in all 129 towns in the 10,000 square mile territory served by Empire.

Interestingly, the designer of the giraffe was a former local man, Raymond Pitman. Pitman was head of Pitman Manufacturing Company and the son of former Empire employee, Wally Pitman of Webb City. The senior Pitman worked for Empire when the company was a member of the Cities Service Company.

**ABOVE:** Giraffe truck in operation, circa 1957.

## Charles F. Wells

Charles F. Wells retired on September 1, 1955. Wells established the Empire lighting department in 1928. He became the first person west of the Mississippi to hold the title of lighting advisor for an electric company.

In 1935, he coordinated the program titled “Better Light, Better Sight” which gained national attention. Wells became associated with Empire in 1924 as a sales representative, with Joplin’s Main Street as his sales territory.

He would later design Joplin’s new whiteway system as well as systems for 40 other communities. Wells was the region’s expert on types of equipment, lamp intensities, and other factors connected with lighting systems. For two decades, he was in charge of Christmas lighting for Joplin’s Main Street. Wells was also very civic minded. He was a former member of the Joplin City Park Board, a school board member for 12 years, a 35-year member with the Kiwanis Club, member of the Joplin Elks Lodge and a member of the Scottish Rite bodies, Joplin Valley, holding the highest degree as a Thirty-third degree Scottish Rite Mason.

The giraffe’s first test was assisting on a \$600,000 construction project in Neosho, Missouri. One major part of the construction project covered 12.25 miles of 161,000-volt transmission lines leading to Neosho. All the aerial work was completed with the new giraffe.

## Rate Hearings

In 1957, Empire explained the need for rate increases. Empire president Don McKee pointed out that the costs of labor, materials and fuel were still rising, and taxes were becoming an ever-increasing burden. He stated in the *Hi-Voltage* that it was imperative that the rate increase be granted at this time.

“We actually earned in 1952, 6.35%, in 1953, 5.98%, in 1954, 5.6% , in 1955, 5.76% and in 1956, 5.76%.” To illustrate the increase in price levels, he further stated “wages are now 37% above the

average hourly wage paid in 1951, boiler gas 20% higher, coal 16% higher and fuel oil 11% higher. Property taxes which are paid in support of our municipal, county and state governments and to provide schools, highways, fire and police protection and other services increased from a total of \$661,284 in 1951 to \$892,364 for 1956, an increase of 35%.” McKee further reiterated that, “Empire will have to spend \$30 million for construction in the next six years to meet the projected demand of its customers.”

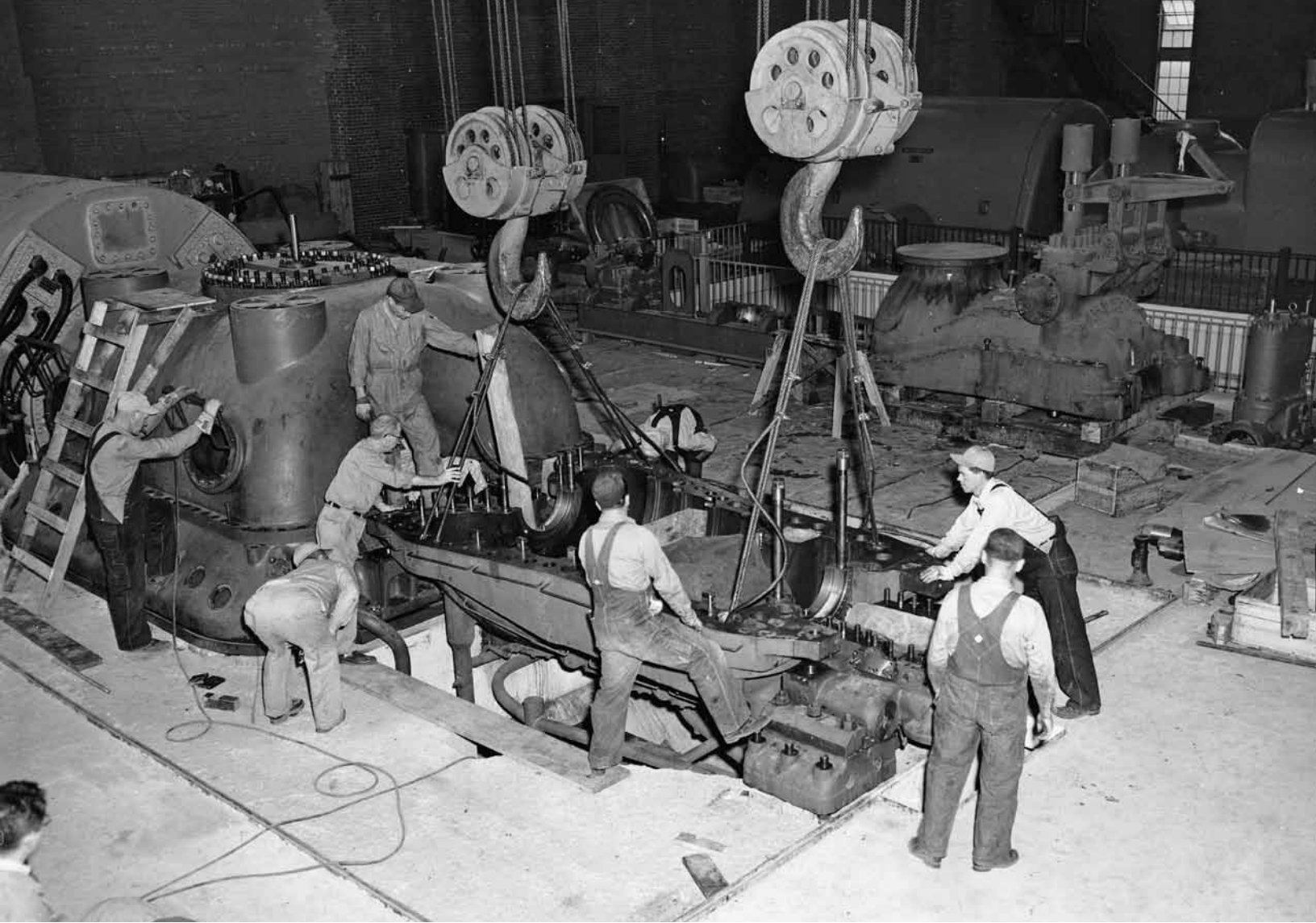
## Empire Receives Safety Award

Empire was the recipient of a safety award in recognition of its reduction in the frequency of accidents. The Edison Electric Institute presented the award to Empire president Don McKee. During a three year period, Empire’s record was 17.8 disabling injuries per million man hours worked. In 1956, the year the award was established, Empire employees reduced their accident frequency to only 6.8 accidents per million man hours. This total was lower than the national average of 7.1 accidents for the electric utility industry. In 1956, Empire employees worked six full months, or 690,000 man hours, without a disabling injury. This was the longest consecutive period in the company’s history without a disabling injury.

This annual award, presented by the Edison Electric Institute, was offered only to member companies which achieved a reduction in accident frequency of 25% or more compared with the average of the preceding three years.

**BELOW:** Flooding of Ozark Beach, June 2, 1957.





**ABOVE:** Installing lower half of low-pressure casing, February 17, 1954, at Riverton.

**BELOW:** Earl J. Drewelow, 1951.

## New Whiteway For Joplin South Main

Earl J. Drewelow, vice president and general manager, represented Empire District Electric Company at the formal opening of Joplin's new whiteway on August 30, 1957. Mayor Freeman R. Johnson turned the switch on the 60 new street lamps located on south Main Street. The new lamps hung from 15-foot brackets mounted on 30-foot steel poles. They covered a twelve block area from 32nd to 44th street. The street lights were the 20,000-lumen, mercury-vapor type which produced about one and a half footcandles of light on the street below. They were the first of this type of whiteway lamp to be used in Joplin.

## Rate Increase Approved

The three utility commissions of Missouri, Kansas and Oklahoma approved of Empire's rate increase. The Missouri Public Service Commission issued an order on January 24, to become effective on February 11, 1958, approving of The Empire District Electric Company's application for a rate increase. The new rates would apply to the company's residential, rural, commercial, and certain industrial customers.







**ABOVE:** Cleaning the Empire sign in 1951 at the corporate office.

Empire's rates were strictly governed regardless of fluctuations in the market place. The electric price schedules were filed with and approved by the Public Service Commissions of Missouri, Kansas, Oklahoma and Arkansas. The schedules had to be clearly worded and profits were regulated. Electrical rates could not discriminate against anyone. Each customer was charged in proportion to the supplied cost of electricity. Customers were classified to the type of service they utilized. The classification rates were residential, commercial, rural, street lighting, municipal, wholesale and industrial power.

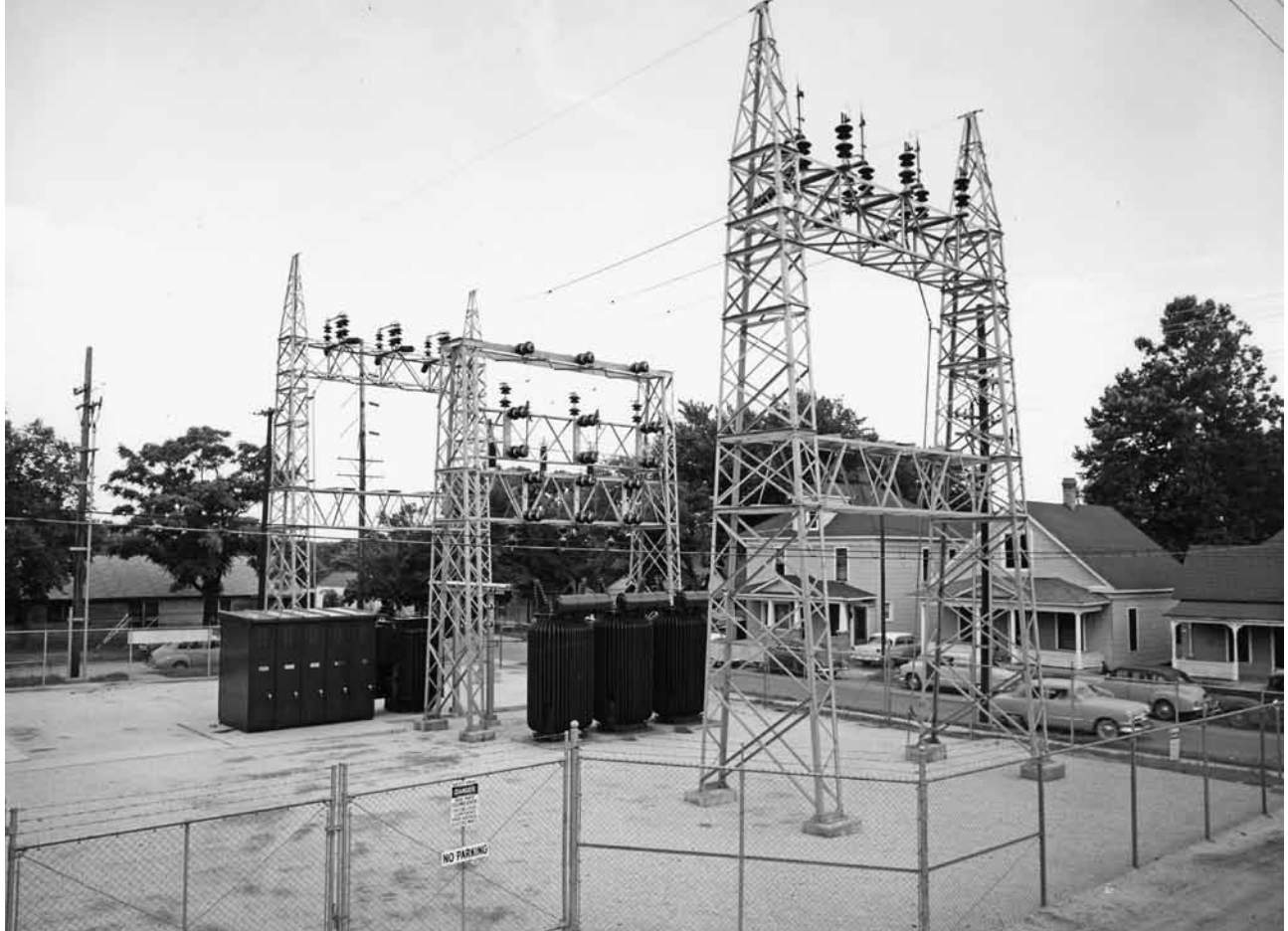
This was the second time Empire had asked for a rate increase in its history. The first rate increase granted to the company occurred on July 1, 1953, and amounted to about 14%. Empire voluntarily granted three consecutive rate reductions in 1935, 1940 and 1943.

The new rates would vary slightly between schedules, but for the average home, farm, store and office the increase would amount to about 9%. The higher rates were approved only after the commission found from its studies that the present rates "will not permit Empire to render good service and at the same time remain financially healthy."

### **Southwest Atomic Energy Associates**

Empire continued to become involved in pursuing atomic power as an energy source. This involvement resulted from the passing of the Atomic Energy Act of 1954. The Atomic Energy Act of 1954 stated that "the development, use and control of atomic energy shall be directed so as to - - - strengthen free competition in private enterprise."

In 1957, Empire became one of fifteen companies to form the Southwest Atomic Energy Associates to finance and sponsor a program of research and development of nuclear power. This group appropriated approximately \$5 million for the next four years toward the development of an advanced epithermal thorium reactor, a method of producing heat energy by fission to



generate electricity at a cost comparable to or competitive with fuels obtainable in this area.

Empire president, Don McKee, cautiously stated in the *Hi-Voltage*, "The cost of constructing atomic power plants is today more than ten times that of building conventional power plants, and operational costs and the cost of atomic fuel processing is very high. There also are many other costly problems involved such as disposition of radio-active waste material."

## Medallion Home Program

Empire joined a national program to promote total electric homes. The program was called the Medallion Home Program. The program was part of the electrical industry's long range promotion to "Live Better Electrically." The Medallion Home campaign was supported by 180 manufacturers and more than 300 electric companies across the country. One key element of the new promotion was a three-inch metal medallion which was permanently placed on homes that met or exceeded lighting, wiring and appliance standards.

## IBM Machines

A new tabulating machine was installed in 1958 in the company's IBM Department. The machine, known as IBM number 402 tabulating machine, was one of the largest from International Business Machine Company. It read up to 6,000 punch cards per hour, accumulating all necessary totals and printed payroll checks, dividend checks, customer bills, employee earnings records and various accounting reports.

**ABOVE:** 1950s Substation.

**BELOW:** Lillise Haile, Shirley Freeman and Millie James, circa 1950.





**ABOVE:** Aurora District employees pose in front of an Empire Electric truck in the late 1950s.

**BELOW:** 50th Anniversary Open House program, 1959

## Earl J. Drewelow Becomes President

Earl J. Drewelow took over the reigns from Don McKee in 1959 to become the president of The Empire District Electric Company. Born in Dubuque, Iowa, Drewelow graduated from Iowa State College in 1923 with a Bachelor of Science degree in Chemical Engineering. Four years later, he came to work at Empire as the power plant efficiency engineer for the Riverton Plant.

Drewelow was elected to the Board of Directors at Empire in 1955, elected president in 1959 and became the Chairman of the Board in 1962. During his forty-one years with the company, he was actively involved in the Joplin Chamber of Commerce and the Joplin United Way.

## 50 Year Review

The year 1959 was also a time to reflect on Empire's past 50 years. On October 16, 1959, the company celebrated its 50th anniversary. Five decades before, the founders of Cities Service Company, who had entered the public utility field, merged several small-scale regional electric utility companies operating in Joplin, Missouri, and Galena, Kansas, and established The Empire District Electric Company.

In the beginning, this new company's service area covered only 100 square miles. The major industry was lead and zinc mining. The increased demand for lead and zinc and the application of electric power to zinc mining operations resulted in the early prosperity of the company. Lead and zinc



1909 OCTOBER 16 1959

50<sup>th</sup> Anniversary

OPEN HOUSE





mines dominated the economy of the region and were the principal source of revenue for Empire.

From 1910 to 1930, Empire's service territory expanded into nearly 125 communities in Missouri, Oklahoma, Kansas, and Arkansas. The sale of power to the mines still provided the company its principal source of revenue. However, fluctuations in the market prevailed during the Great Depression, and World War II presented a whole new set of challenges.

1944 was a pivotal year as three other associated companies merged into Empire, and its securities previously owned by the Cities Service Company were sold to the public. For the first time, Empire became an independent operating company with its stock widely held throughout the country.

By 1959, the mining industry was no longer the principle support system of the economy in the area. The local business and industrial community became more diversified and the additional growth reflected a more balanced economy. Spurred by the unsatisfactory prospects from the declining zinc mining revenues, Empire's management charted an aggressive course for the growth and diversification of its business, too. The 50th anniversary marked the end of a transition period in the history of Empire and demonstrated the diversity and strength of the area's economic position as well as the company known as The Empire District Electric Company.

**ABOVE:** District Managers, 1956. Seated: K.K. Parrott, Bolivar; S.A. Lipscomb, Joplin; J.T. Jones, Joplin; Garland Largen, Baxter Springs; and Ray McConnell, Pierce City. Standing: E.M. Hutchinson, Greenfield; Paul Jester, Webb City; Fred Rouse, Neosho; C.E. Hill, Aurora; and Harold Field, Picher.

## 1960s

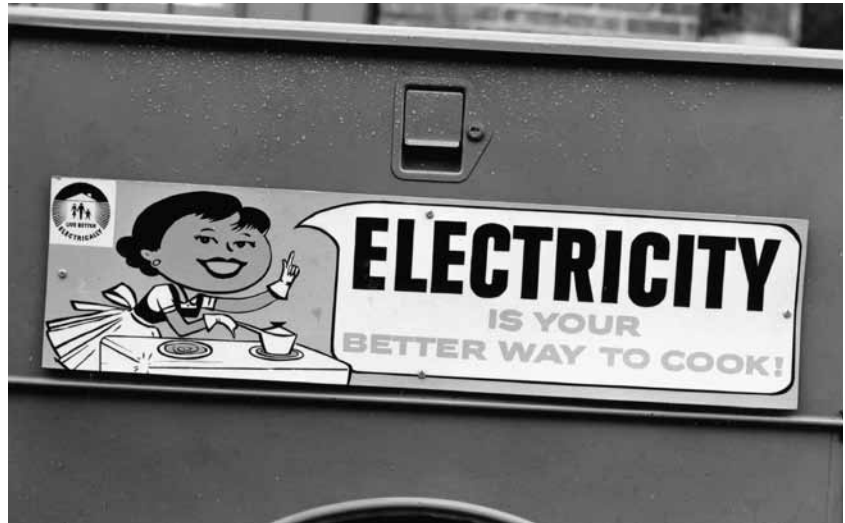
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### Laura McCall Awards

In 1960, the first all-electric Home Economics Workshop for Home Economics teachers was presented in Branson, Missouri. In a special two-day program, five major manufacturers, the State Department of Education of Missouri, and the University of Missouri cooperated with Empire in presenting the latest product information covering modern electrical appliances and equipment. This program won a 1960 Laura McCall Award. This national award affiliated with McCall's magazine was for "outstanding contributions made to the McCall's magazine advancement of better living through the use of modern electric home appliances and electric service."

In 1962, Empire's Home Service Department received another Laura McCall award for conducting the home economics demonstration electric cooking contests for local high school students. The award was given each year for excellence of home service work. This was the ninth consecutive year the Home Service Department conducted the contest.

**RIGHT:** Empire trucks displayed signs to encourage electric cooking.



### Safety Awards

Empire received several safety awards during the year as well. On February 2, 1961, for the second time since 1957, Empire employees achieved one million man hours of work without a disabling injury. For that safety milestone, the company received a safety merit award from the Edison Electric Institute and another award from the National Safety Council for continued excellence in accident prevention. One other safety record was accomplished when the lowest severity index for accidents was reached.



## Purchasing Power Increases

By the early 1960s, the “pooling” of energy had become very costly. For many years, Empire had been interconnected to neighboring electric utility companies to meet the growing demands for power. In 1961, the largest increase in expenses came from the company purchasing electric power. In just one year, this expense had jumped 209.1 %.

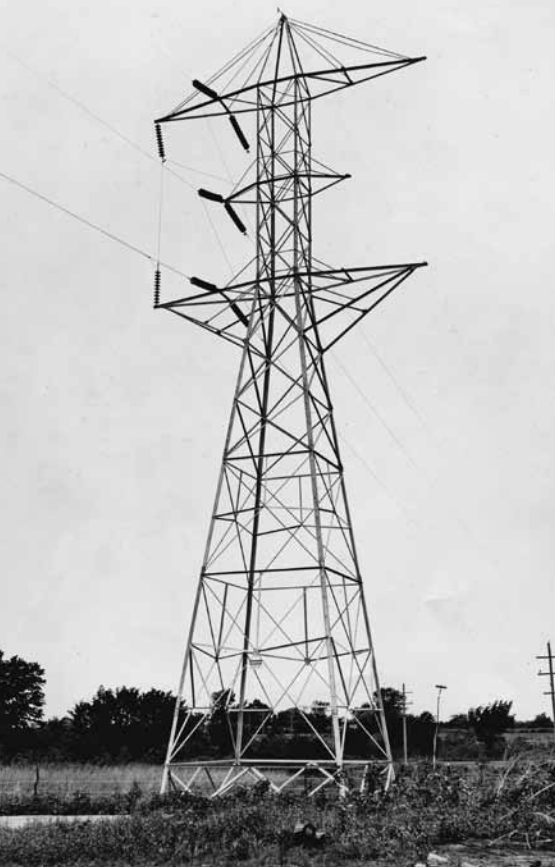
## Federal Court Rulings

Early in 1961, several manufacturers of electrical equipment pleaded guilty or nolo contendere in Federal Court to charges of conspiring to fix prices, which violated the Federal Antitrust laws. Studies from the 150-company price investigation group indicated that Empire may have suffered damages as a result of certain acts of these manufacturers by being forced to pay higher prices for equipment used in constructing power plants, substations, transmission lines and other facilities. In order to protect the interests of its customers and investors, Empire, along with four other electric utilities operating in Kansas, jointly filed several suits in Federal Court against twenty manufacturers of electrical equipment. The alleged suits covered a series of overcharges on equipment purchased between 1948 and late 1960 as a result of these conspiracies. The courts were asked to determine the amount of the overcharges.

**ABOVE:** R.C. Allen and J.T. Jones acknowledge 1,000,000 man-hours worked without a disabling injury.

**BELOW:** Safety Supervisor car in the 1960s.





**ABOVE:** 132,000 Volt tower transmission line (operated at 66 kV), Riverton, Kansas.

**BELOW:** Dale Murphy by his service truck in the early 1950s.

Two years later, offers of compromise settlements were received from a number of the defendants. The legal suits were settled with all defendants except one. The total amount of these compromise settlements, approved by the court and by the State Commission, was slightly more than \$80,000. This amount, less expenses in connection with the suits, were applied to reduce the costs of property used in rendering electric service to customers.

### **Southwest Power Pool Signs Contract with Tennessee Valley Authority**

Empire continued to be an active member of the Southwest Power Pool. With the trend toward inter-area connections through the construction of extra high voltage transmission lines, Empire and ten other investor-owned electric utility company members of the Southwest Power Pool reached an agreement with the Tennessee Valley Authority (TVA) for the exchange of substantial blocks of power on a seasonal basis. During summer peak, the companies would obtain power from TVA to help meet the increased loads. The energy would be transported over 345,000-volt and 500,000-volt transmission lines to be built under the proposal. The companies would supply an equal amount of power to TVA in the winter since TVA's peak loads were reached during that season of the year. Thus, the same electric generating capacity would be available to serve both needs. Rate schedules under these agreements were accepted for filing by the Federal Power Commission. When completed, the setup between the TVA and the members of the Southwest Power Pool would strengthen all the electrical systems involved while reducing the requirement for capital expenditures for new generating units.



## Citizens of Crane Vote

Franchise renewals were obtained in six cities and towns during the course of 1962. However, the franchise renewal expired on June 30, 1962, for the City of Crane, Missouri. The community of approximately 500 residents held an election allowing voters to approve through a bond issue the means to install their own electrical distribution system within the corporate limits. The bond issue was carried by a margin of less than a dozen votes. This vote was significant since it became the first time in twenty-two years that a municipality of voters approved a bond issue to construct their own municipally-operated distribution system.

In 1964, the town of Crane, Missouri, began providing electrical power to its residents. All of Empire's electric system in the town was removed a year before. Crane was now powered through government power REA lines.

## Street Light Franchises

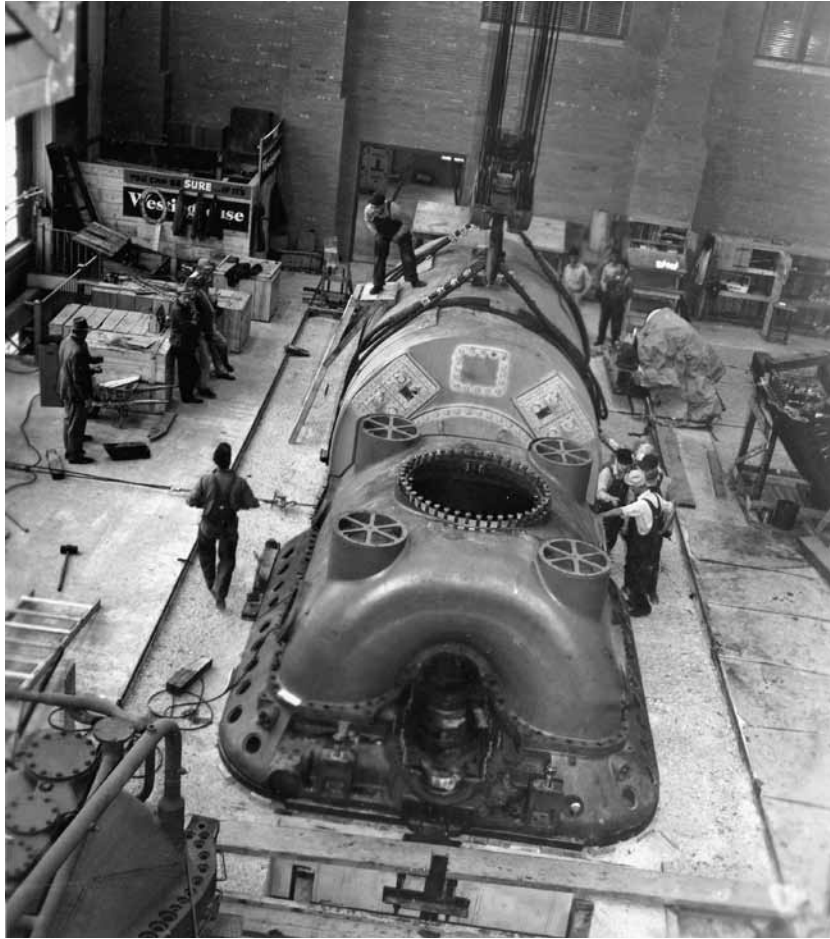
During 1963, Empire began modernizing the street lighting systems of the towns which were served by the company. The program removed existing incandescent street lights and replaced them with a modern mercury vapor lighting system. The program was instituted in each community by changing its franchise agreement with the company to a twenty-year basis. In the past, the usual practice was to obtain a ten-year franchise from most of the communities that Empire served. During the last six months of 1963, twenty-seven towns entered into the new arrangements for the modern street lighting system and granted the twenty-year franchise to Empire. By the end of 1963, Empire was operating under franchises of twenty-years or more in 69 of the 110 communities served under franchise agreements.

During 1965, the company made further progress in securing long-term franchises in the municipalities it served. By the mid-sixties, only four municipalities were not operating under at least a 20-year franchise.

**BELOW:** Empire office decked out for the holidays in the 1960s.







**ABOVE:** Riverton's new turbine.

## Riverton Plant Receives New Unit

Total construction expenditures for the year of 1964 amounted to \$4,375,000. Construction of the 12,500-kilowatt combined cycle natural gas or diesel fuel powered turbine generator for the Riverton Plant was placed in operation in March. Total cost of the conversion was \$1,340,000. The new unit operated in a combined cycle with an existing steam turbine generator. It contributed substantially to the efficiency of the company's generating equipment and was used to supply base load power. The total increase in capability amounted to an additional 19,000 kilowatts.

## Federal Power Commission

Empire's Ozark Beach hydroelectric generating plant, originally constructed in 1913, operated under a direct permit by the United States Congress, prior to the

Federal Power Commission (FPC). The original permit issued by Congress was for a period of fifty years, which would have expired in 1962. Prior to its expiration, Empire applied to the FPC for a license for this hydro project to continue under the provisions of the Federal Power Act.

Empire was served notice from the FPC that the Ozark Beach project was subject to relicensing or to "recapture" by the Federal Government under the provisions of the Federal Power Act. Steps were taken to seek extension of the period for the present license in order to make the studies required under the terms of the license, or to obtain relicensing of the project. The FPC issued a license for a ten-year extension concluding in September of 1968.

Also in accordance with the terms of the Federal Power Act, the FPC was required to make a determination of the value of any benefits to any non-federal hydroelectric projects lying downstream from a federal hydro project. The staff of the FPC made a study as to the value of benefits received and to be received by Empire's Ozark Beach hydro project. A copy of the staff's proposed report on this matter to the FPC was furnished to Empire. In the report, they recommended charges for benefits to the Ozark Beach plant generation of \$123,000 for periods prior to 1964, and annual charges of \$68,000. Empire representatives worked to resolve the difference between the FPC staff's findings and the company's position as to these benefits.

## J. T. Jones Becomes President

Following the Annual Meeting of Stockholders on April 16, 1964, all of the members of the Board of Directors were reelected. Earl J. Drewelow was re-elected chairman of the board until his retirement on June 30, 1964. Drewelow retired after 41 years of service with the company and its former affiliates. Drewelow continued on as a member of the board. J.T. Jones, formerly executive vice president, who had 30 years experience with the company, was elected president at this meeting.



## J. T. Jones

J. T. Jones was born and reared in Neodesha, Kansas. He graduated with honors from Rose Polytechnic Institute in 1932, with a Bachelor of Science in Electrical Engineering. Jones became associated with Empire in 1935 working in the sales department. He entered the United States Army in 1941, and served with the Corps of Engineers, attaining the rank of Lieutenant Colonel. He returned to Empire in 1946.

Jones was widely known throughout Missouri as well as nationally in the electrical utility industry. During his career, he held the positions as president of the Missouri Valley Electric Association, chairman of the executive committee of the MOKAN Power Pool and member of the board of directors of the National Association of Electric Companies.

He served two terms as a member of the Joplin City Council. In addition, Jones served as president of the Joplin United Fund, Joplin Junior Chamber of Commerce, the Joplin YMCA and, in 1973, was presented the Outstanding Citizen Award by the Joplin Chamber of Commerce.



**TOP:** Ed Dwyer, Bob Puffinbarger, J.T. Jones and R.C. Allen in boardroom, 1960s.

**LEFT:** Electricity brought ease and convenience to many homes in the four-state area. The home of Mr. and Mrs. Ernie DeGraffenreid, Bolivar, Missouri, was just one that enjoyed the comforts.

**Fact:**

Total kilowatt hour sales to customers rose 8.9% during the year, which made 1966 one of the better years in the history of the company in terms of increases in total sales.

## Asbury Plant Proposed

In order to provide for the future power requirements of the region, the Board of Directors authorized the construction of a 200,000-kilowatt steam-generating plant to be in operation during the early part of 1970. The new plant would be known as the Asbury Plant. Initially, a majority of the capacity from the new plant would be sold to other members of the MOKAN Pool over existing interconnecting lines during the first three years of operation. The total estimated cost of the Asbury Plant, with necessary transmission facilities to carry its output, was approximately \$26 million.

The plant's location would be approximately eighteen miles north of Joplin, just inside Missouri along the Missouri-Kansas State line and near the northern edge of Empire's service area. The chosen 20-acre site would also be in close proximity to the load center of the company's system. The plant would be a "mine-mouth" coal-fired plant situated conveniently adjacent to a large coal deposit of sufficient size to take care of the fuel needs of the new generating plant. Having the fuel source on site provided for a tremendous savings in transportation costs. The Pittsburg & Midway Coal Mining Company (P&M), a subsidiary of Gulf Oil Corporation, would provide the coal fuel to the new plant. In addition, a twenty-year contract for supply of the coal for the plant was executed.

Both Empire and the Pittsburg & Midway Coal Mining Company had strong community roots dating back to the turn of the century. P&M began coal mining in southeastern Kansas in 1885. The company name was derived from the two Kansas towns of Pittsburg and Midway.

At the time of their agreement, P&M was one of the top ten coal producing companies in the United States. It also had received national acclaim as a leader in the reclamation process of mine land.

Some interesting observations concerning the future Asbury Plant were made in the September 16, 1967, *Kansas City Times*. The story stated that the plant would utilize approximately 750,000 tons of coal per year, which was enough to heat all the homes in Pittsburg, Kansas and Joplin, Missouri. It was also estimated that the plant would circulate nearly 172 million gallons of water, which would be enough to meet the daily water consumption requirements of the greater St. Louis area. Finally, 305 miles of wire would be utilized inside the plant which would be enough wire to connect the cities of St. Louis and Joplin.

Empire's commitments, aggregating approximately \$11 million, were made for the turbine generator, the boiler, and some auxiliary equipment. Nearly \$70,000 was spent in 1966 to acquire the building site for the new Asbury Plant.

## Gulf Oil Corporation

In the industrial field, the most important development during 1966 was a contract negotiated with the Gulf Oil Corporation to supply its Jayhawk chemical plant with energy. Sales under the contract were expected to increase the industrial kilowatt-hour sales by approximately 15%. The new contract would provide interruptible energy to the Jayhawk plant. Prior to the new agreement, Empire furnished the plant with stand-by service only. The



projected sales to this plant were estimated to be around 100 million kilowatt-hours annually. However, because of the option to interrupt service during periods of high demand, the rate per kilowatt-hour would be low compared with other industrial loads served by Empire.

**ABOVE:** P&M Bucyrus-Erie shovel.

## Donald C. McKee Retires

In 1966, Donald C. McKee's forty-seven-year career came to a close with Empire. He declined his renomination to serve as a member of the Board of Directors because he believed younger men should guide the affairs of the company. McKee had been a director from 1934 to 1966, was president from 1948 to 1959, and served as Chairman of the Board from 1955 to 1962. Richard C. Allen, a twenty-year Empire employee and vice president of operations, was elected to fill the vacancy on the board.



## Groundbreaking Ceremony at Asbury Site

Groundbreaking ceremonies for the new \$26 million Asbury Plant were held on September 15, 1967. Business co-hosts for the 2:00 p.m. ceremony were The Empire District Electric Company and Pittsburg & Midway Coal Mining Company. Empire president, J. T. Jones, and Pittsburg & Midway president, Arnold E. Lamm, presided over the day's festivities.

An impressive list of political dignitaries also attended the ceremony. On this historic occasion, Governor Warren E. Hearnes of Missouri, Governor Robert Docking of Kansas, and members of the United States Congress Durward G. Hall, Joe Skubitz and John Paul Hammerschmidt, were present. Opening remarks were made by Governor Hearnes and Governor Docking. United States Representative Hall from the Seventh District was the principle speaker and gave the formal address.

An estimated crowd of 700 people witnessed the groundbreaking ceremony. Prior to the event, a selected group of guests attended a luncheon at Mickey Mantle's Holiday Inn. Joplin Mayor Clarence C. Haynes welcomed the guests to his city at the banquet. Following the luncheon, three buses escorted the parties to the groundbreaking site.

When the 200,000 kilowatt plant was completed, it placed the company in a position of selling excess capacity to, rather than purchasing capacity from, other companies with which it is interconnected through pool operations. The Kansas Power and Light Company of Topeka, Kansas, signed a purchase agreement for 75,000 kilowatts of capacity in 1970. Empire also received letters of intent from Kansas Gas and Electric Company of Wichita, Kansas, to purchase up to 40,000 kilowatts of capacity in 1971 and up to 50,000 kilowatts in 1972. By the year 1973, it was expected that Empire's own load would have absorbed most of the excess capacity.

The Asbury Plant was located on a navigable stream. The cooling water for the plant would be supplied through the use of a cooling tower, with makeup water supplied from four deep wells. Two of the wells were completed in 1967.

In 1966, \$800,000 was allocated for engineering costs and site preparation for the new plant. The plant would be located immediately adjacent to an existing 161 kV transmission line. The output of the new generating plant

**OPPOSITE TOP:** Ground breaking at Asbury, 1967.

**OPPOSITE BOTTOM LEFT:** Early construction at Asbury Plant

**OPPOSITE BOTTOM RIGHT:** Missouri Governor Warren Hearnes, Joplin Mayor C. C. Haynes, Midway President Arnold Lamm, and Kansas Governor Robert Docking, 1967.

**BELOW:** Mike Gardner and Jim Beems with 1968 United Fund Award.





## OFFICIAL CHECK LIST MEDALLION HOME PROGRAM



would be connected to this transmission line. In addition a new 20-mile 161 kV line would be constructed from the plant to a large existing substation near Empire's load center in the vicinity of Joplin.

### Medallion Homes

At the conclusion of 1968, a total of 3,100 Medallion Homes were served by the company, which represented 5% of the total residential customers. Of the company's residential customers, 2.6% lived in total electric homes. Over 5% of the total commercial businesses served by the company were total electric.

### F.A.G. Bearing Comes to Joplin

By far, one of the largest new industries in the territory was the construction of F.A.G. Bearing Corporation in Joplin, Missouri. Originally incorporated in Germany in 1919, F.A.G. management decided to build a major bearing production facility in the United States. Out of four hundred different cities in the United States that were considered, a site in Newton County adjacent to I-44 was selected. In 1968, citizens of Joplin approved the issuance of a \$7 million industrial bond to finance the production facility. Joplin voters overwhelmingly supported the issue by a margin of 19 to 1.

Another new major industrial load to be added was the 180,000 square-foot production plant known as the La-Z-Boy Chair Company in Neosho, Missouri. The chair manufacturing company began operations in 1969 and employed 500 people.



## Empire Celebrates 60th Anniversary

The 60th anniversary of the company was recognized in 1969 with a couple of milestone records. One momentous record involved total gross revenues which exceeded \$25 million for the first time in company history. The other milestone achievement occurred when Empire embarked on the largest construction program in history as \$20,966,000 was spent for construction expenditures. A total of \$16 million was allocated for the construction of the new Asbury Plant.

The twelve-company power pool that Empire had been associated with for many years helped the company postpone building new generating plants. In the late 1960s, Empire entered into another five-pool exchange agreement with power companies in Missouri and Kansas. Time, however, was running out as the demand for power was outstripping the supply and the cost of purchasing power during peak periods had increased substantially. Empire would address this issue in the 1970s with the addition of the Asbury Plant, starting a building program for another company-owned generating plant and being financially involved in the jointly owned Iatan generating plant northwest of Kansas City, Missouri.

Empire president J. T. Jones referred to the growing needs of the region and to the construction of the Asbury Plant. His statements were recorded in the September 21, 1967, edition of the *Bolivar Polk County Times*, "The electric load growth in our area has been outstanding in the 60s and everything points to steady growth. - - - The use of electricity is a good barometer for evaluating industrial progress and the prosperity of the area. Therefore, we believe the upward trend in the use of electricity throughout the Empire system is an indication of continuing growth and development and justifies this \$26,000,000 expenditure for the construction of this modern, efficient power generating plant."



**ABOVE:** These two trucks reflect two different eras. In the 1960s Empire changed company vehicle colors from grey to school bus yellow.

**OPPOSITE BOTTOM:** The appliance service crew pauses with their trucks at the West 7th Street shop.

**BELOW LEFT:** Camaraderie and good times were shared after hours by the women's bowling team. Front row: Cheryl Henning, Imogene Mishler. Back row: Virginia Garren, Helen Hays and Jewel Witzansky.

**BELOW RIGHT:** Gary Hilton installs baseboard heating unit in the 1960s.





## CHAPTER SEVEN

# 1970s

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After much anticipation, the Asbury Plant went on line June 1, 1970. Coal fuel for the plant came from the Barton County Mine, known as the “Empire Mine.” The coal was trucked directly to the conveyor belts of the power plant, thus minimizing transportation costs and helping make Empire’s fuel costs at the plant one of the lowest in the United States. Saving costs on transportation became even more important with the Arab Oil Embargo of 1973 and the subsequent escalation of fuel costs that followed. A dramatic decline in oil consumption occurred as crude oil prices skyrocketed from \$3 to \$32 per barrel during the years of 1973 and 1974.

The jump in oil prices had significant effects on generating plants powered by oil. The Riverton Plant’s average unit price for gas fuel increased by nearly 31% becoming effective on December 23, 1970. The fluctuation in fuel costs caused Empire to put into effect a fuel adjustment cost on bills to industrial and commercial customers to offset some of the increased cost.

**BELOW:** Asbury Plant



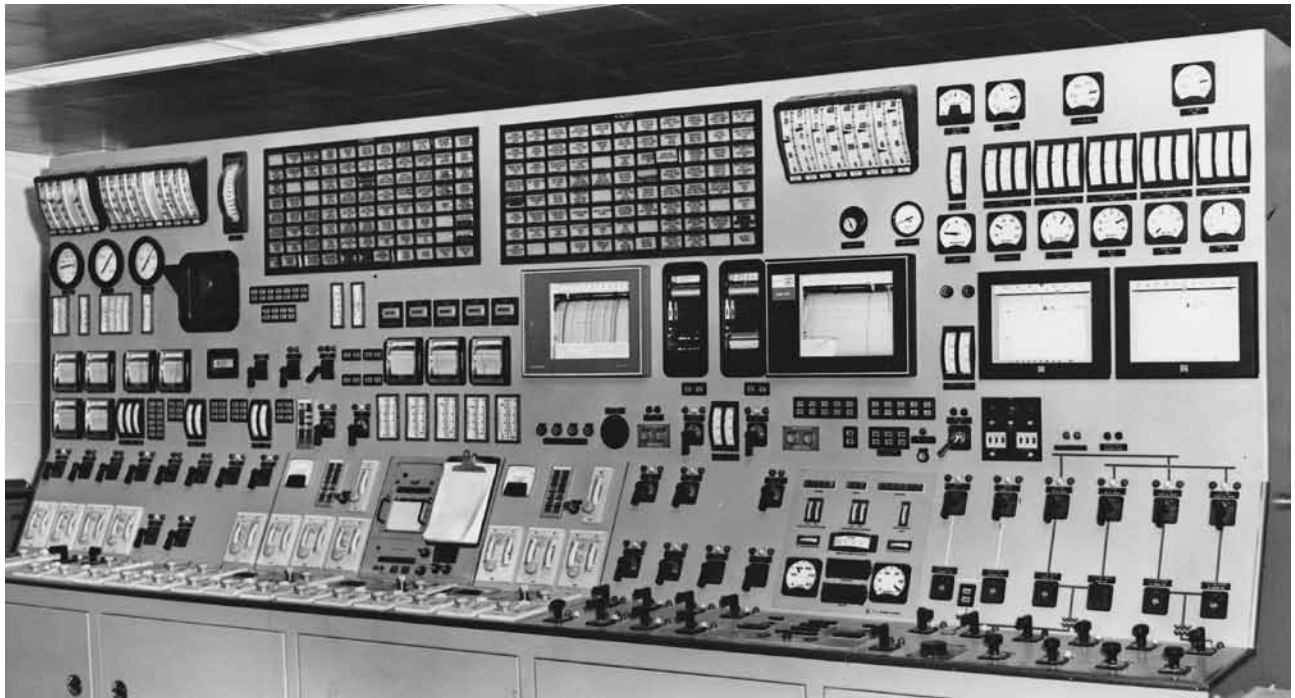
## Gross Revenue Exceeds \$30 Million

Total gross revenue continued to climb. For 1970, the total gross revenue exceeded \$30 million for the first time in the company's history with a registered gain of \$6,254,000 over the previous year. Of the \$6,254,000 increase, \$4,599,000 came from off-system sales at wholesale rates to other utility companies. The off-system revenues resulted from large wholesale transactions which included the sale of 90,000 kilowatts from the new Asbury Plant to other utility companies.

## Electrostatic Precipitators Installed

Empire spent \$400,000 to install an electrostatic precipitator at the new Asbury Plant in order to remove more than 98% of all particulate matter, which otherwise would have been emitted into the atmosphere in the form of smoke from the plant's stack. Empire also agreed to absorb additional costs by arranging with the Pittsburg & Midway Coal Mining Company, which supplied coal to the Asbury Plant, to reclaim the land after the coal was mined.

**BELOW:** Asbury Plant control panel



## Federal Power Commission Decision

On August 24, 1970, Empire received a 25-year license from the Federal Power Commission for the continued operation of the Ozark Beach hydro plant. The license was finally received after nearly six years of effort by the company to obtain approval. This license was the first one in the United States

to be considered by the Federal Power Commission under the new rules relating to recapture by the federal government. The license was made effective retroactive to September 1, 1968, and would terminate on August 31, 1993.

## 1971 Progress Report

The Federal Power Commission determined that for the years beginning in 1962, Empire should pay the federal government for benefits resulting from regulation of stream flow by federal hydro projects upstream from the Ozark Beach hydro generating station. In 1965, a payment of \$123,110 was made to the US Government to cover the two years of 1962, and 1963. This matter became the subject of extended discussion between Empire, the staff

of the Federal Power Commission, and the Southwestern Power Administration. The issue was finally resolved in 1971 and a payment of \$181,113 was made to the United States government covering benefits assessed for all the years from 1964 through 1970. Annual payments were made thereafter based on the established formula. For 1971, the amount was \$39,000.

In 1971, a total of 2,850 new customers were added, amounting to a 3.6% increase over the previous year. This was the largest increase in Empire's history, and further indicated the potential for additional increased growth within the company's territory.

## Explorer Pipeline Company and Northpark Mall

One year later, commercial revenues increased by 12.6% or \$825,000, resulting from a 14.4% gain in kilowatt-hour sales. The large increase was attributed to two new construction projects, a new pipeline and the completion of the newly constructed Northpark Mall.

At the beginning of 1972, Empire began to provide service to a newly constructed 24-inch petroleum pipeline which crossed over a part of the company's territory. The pipeline was owned by the Explorer Pipeline Company. Dur-

**BELOW:** Asbury employees promote the safety mission in 1971.

**BOTTOM:** Don Burr's retirement party. Back to camera is John Cook. From left, Gayle Harvey, Gene Delano, Gary Hunter and Don Burr.



ing the summer, the largest new electric load added to the company's system occurred with the addition of Joplin's Northpark Mall. The 600,000 square-foot Northpark Mall contained sixty stores, restaurants, theaters, banks and service centers. At the time, the Northpark Mall required more electric load and usage than most of the smaller communities in the Empire service area. Both of these new installations resulted in additional revenues amounting to more than one-half million dollars annually.

## Severe Ice Storm Hits Territory

The ravaging effect of a severe ice storm which struck the Empire territory on December 11, 1972, resulted in interruption of service to thousands of customers from one hour to three days. Continuous day and night work by Empire crews, as well as from fifty additional crews from neighboring utilities and contractors, were required to restore service in the face of constantly falling tree limbs which pulled down lines and further interrupted customer service. Empire's cost associated with the ice storm was estimated at \$350,000.

## New Contract with Union

In 1973, Empire management and local union representatives negotiated a new contract. At the time, over 50% of Empire's work force belonged to a union. The new three-year contract provided for an increase in wages and benefits which were comparable to other neighboring utility companies. An increase in wages and benefits were also granted to all regular full-time hourly employees.

**BELOW:** Dee Burrow, left, and Bill Kenyon in the 1970s.





**ABOVE:** Stakeholders meeting in the 1960s.

## **New Rate Schedule Filed**

On June 1, 1973, Empire filed a new rate schedule with the Missouri Public Service Commission. This request was the first general rate increase sought by the company in sixteen years. The hearing on the request was conducted on December 4, 1973. The Commission issued an order approving the full amount requested. The rate increase would generate an estimated additional \$1,900,000 annually.

## **New Shares Offered**

On June 29, 1973, Empire declared a three-for-two split of its common stock. Following the stock split, Empire sold new shares of its common stock to the public for the first time in twenty-one years. This public sale of 210,000 new shares was completed on September 27, 1973. These new shares were equal to approximately 10 percent of the number of outstanding shares after the June stock split.

The initial public offering price of the new shares was \$16 per share. Empire realized \$15.30 per share from the sale for total gross proceeds of \$3,213,000. Expenses of the sale amounted to \$73,522. The net proceeds for the company were 15.5 % more than the book value per share at the time of the sale. During the previous year, the number of holders of the company's common stock with the company had increased nearly 20%.

## Richard C. Allen Becomes President

Richard Carl Allen, formerly executive vice president, succeeded J. T. Jones as president on September 1, 1974. Allen, a graduate of Kansas State University with a Bachelor of Science degree in electrical engineering, began his career with Empire in 1946 as a load dispatcher. He progressed through various supervisory positions and was elected vice president of operations in 1962 and executive vice president in 1969. Allen had been a member of the Board of Directors since 1966.

Allen was also involved in his community. He served as vice president of the Boy Scouts of America, Mo-Kan Area Council; chairman of St. John's Regional Medical Center; president of the Joplin Chamber of Commerce; and, in 1981 received the Outstanding Citizen Award from the Joplin Chamber of Commerce.



## Alternative Fuels Utilized at Riverton Plant

By 1975, the Riverton Plant continued to utilize alternative fuels. The plant operated by using 56.9% coal, 43% natural gas and the remaining 0.1% oil. In the past, the Riverton Plant was fueled primarily by natural gas with coal and oil as alternate fuels burned during infrequent gas supply interruptions. With natural gas availability declining and allotted under a curtailment plan, it was anticipated that by 1976 the Riverton Plant would generate about 67% of the kilowatt-hours on coal, 24% on gas and 9% on oil.

However, increasing the use of coal would necessitate emission control equipment on the coal-burning boilers to remove ash going through the chimney. Such emission control would require the installation of electrostatic precipitators costing approximately \$5 million. In addition, in order to burn coal and oil, modifications to the Riverton Plant would cost nearly \$2 million.

**ABOVE:** R. C. Allen, J. T. and Esther Jones.

**BELOW:** Early 1970s. J. T. Jones, Albert Fuchs, Vernon Corkle, Paul McInnes, Charlie Coats and Dora Gibbons at systems operations center.





**ABOVE:** Repairing the damage after a tornado hit Joplin in 1971. A devastating tornado struck the heart of Joplin, Missouri around dinner time on May 6, 1971. The twisting tornado followed a path of destruction covering 37 blocks long, killing one man and injuring 60 residents. City damages were totaled at \$7 million. Two years later on May 11 another deadly storm hit Joplin as three people were killed and 100 injured. Termed a tornadic cyclone, the hurricane-like winds damaged buildings throughout the city and uprooted more than 1,000 trees. Total damages for the area amounted to \$12,800,000 and President Nixon proclaimed Jasper and Newton Counties disaster areas.

The mid 1970s were characteristic of higher fuel costs and a decrease in purchased power. Operation and energy costs increased due to escalating fuel prices. For 1976, total operating and maintenance expenses rose 36.6%. Ninety percent of the total \$8,026,000 was caused by higher fuel and purchased power costs.

### 1977 Construction Expenditures

Construction expenditures for the utility plants were \$25,573,000 in 1977, compared to \$11,175,000 in 1976. During the year, expenditures of \$18,138,000 were made for additions to existing generating facilities and the construction of new generating facilities. \$2,931,000 was spent at the Riverton Plant for electrostatic precipitators and for completion of boiler modification required to burn coal all of the time. At the Asbury Plant, expenditures of \$1,712,000 were made for additional emission control equipment. These expenditures for environmental control facilities

were required to comply with state and federal particulate discharge regulations. During 1977, approximately \$13,495,000 was spent for the installation of a 90 megawatt combustion turbine-generator unit at the new Empire Energy Center and for related transmission facilities.

Total residential revenues increased \$5,114,000, or 23.7%. This marked residential revenues exceeding \$25 million annually for the first time.

### Honor Student Conference Continues

Over the previous eighteen years, (since 1959), Empire sponsored an Honor Student Conference at its corporate office in Joplin, Missouri. During February 1977, meetings were held to honor outstanding students selected by area schools for their academic achievement. Each year nearly 400 students, representing 66 high schools and five colleges, were invited to be guests of the company. The one-day conference included a tour of company facilities and various presentations by Empire employees on topics of current interest. At the noon luncheon, students were honored individually for their personal achievements in the areas of scholarship, leadership and citizenship.



## Energy Center Goes On Line

**ABOVE:** Empire Energy Center.

Another historic day for the company occurred on February 24, 1978, when a new 90 megawatt combustion turbine-generator unit, which cost \$15 million, was placed in commercial operation at the Empire Energy Center. The Energy Center, located approximately 25 miles east of Joplin, near Sarcoxie, was fueled by light oil supplied from a major pipeline owned and operated by the Explorer Pipeline Company in Tulsa, Oklahoma. The pipeline originated in Lake Charles, Louisiana and Port Arthur, Texas, extended through Texas, Oklahoma, Missouri and Illinois, and terminated at Hammond, Indiana. The company's 125,000-barrel fuel tank was connected to the pipeline in November 1977. Light oil was received for the first time on February 15, 1978. This light oil-burning unit had the ability to start quickly and would be normally held in reserve for operation only during periods of maximum customer loads or emergencies.

The company was planning to add another 90-megawatt combustion turbine peaking unit at the Empire Energy Center in the near future. However, an opportunity to purchase 12% of the 650-megawatt Iatan coal-fired, steam-turbine generating station postponed the addition of adding a second unit at the Empire Energy Center.





**ABOVE:** Drive-through window in the early 1970s at the corporate headquarters.

## Additional Generation Added

Empire's need to expand into additional generating plants led to the largest construction program to date in 1978 when \$44.1 million was spent for new facilities. Of the \$44.1 million, \$30.3 million was attributed to the purchase of a 12% interest in Unit No. 1 at the Iatan Generating Station which was being constructed jointly by the Kansas City Power & Light Company and the St. Joseph Light & Power Company. \$2.1 million was spent to build Unit No. 1 a 90-megawatt unit at the Empire Energy Center. This Unit was scheduled to begin commercial operation in April 1980. When completed, it was expected to provide 78 megawatts of base load generating capacity for Empire's customers. The Iatan Station would be operated by the Kansas City Power & Light Company and fueled by western coal. The plant would eventually provide 80 megawatts of capacity available to the Empire system.

## Energy Audit Offered

Energy conservation in existing homes was encouraged in 1978 with the Do-It-Yourself Energy Audit. The audit was an extension of the Energy Conserving Home program. A special audit form was prepared to make it easy for any customer to check electrical appliances and equipment for proper use, condition, and efficiency; insulation for thermal effectiveness; and windows, doors, and exterior joints where air can enter for tightness of fit, condition of caulking, and condition of storm-sash and doors. By using a scoring system for these factors, Empire customers could see how their individual

energy conservation compared and where they could best improve their energy-conserving efforts.

## Construction Continues in Four-State Region

Construction in the Empire territory continued as a \$1.6 million addition to the College Union at Missouri Southern State College was finished during the year. Georgia Pacific Corporation completed their \$2 million distribution center. Located in the western part of Joplin, the manufacturing plant covered ten acres and supplied wholesale building materials to retail dealers and lumber yards in the four-state region.

A new 38,000 square-foot Dan Stanley Ford dealership, located on a nine-acre site on South Range Line in Joplin, was constructed. The dealership utilized electric heating and cooling in the showrooms and office areas while electric heating was installed for the service, parts and shop areas.

Also, a total-electric corporate headquarters of Leggett & Platt, Inc. was completed. Located west of Carthage, the fast growing company with more than sixty plants throughout the nation produced sales of nearly \$200 million. Leggett & Platt had a long established relationship with the region. In 1883, Joseph P. Leggett developed and patented the first spiral steel coil bedspring. He formed a business partnership with a blacksmith, Cornelius B. Platt. They opened a bedspring manufacturing company in Carthage, Missouri. In 1976, Leggett and Platt exceeded \$100 million in sales. Three years later the company was listed on the New York Stock Exchange.

## Decade Closes

At the close of the decade, Empire was reaping the benefits from continued regional growth. To meet the demand, two new plants were providing additional power and another one was near completion. By the 1980s, Empire had established itself as an efficient Midwestern utility providing good service with dedicated personnel. Empire's product was reasonably priced, offering electric rates among the lowest in the nation (15% nationally) and the lowest in the four states. The company and employees were good corporate citizens too, as they were involved in the community improving the quality of life in the region. Over the past seventy years, Empire had progressed quite well from a relatively small company to a medium-size corporation.



**ABOVE:** Bucky Wright, Shirley Edwards and Carl Longenecker in the 1970s.

**BELOW:** Employees displaying a safety banner.



## 1980s

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### Natural Gas Fuel Supply

The company applied for and received from the Economic Regulatory Administration of the Department of Energy a public interest exemption to burn natural gas at the Empire Energy Center. The natural gas fuel supply would provide for a dual-fuel capability (gas and light oil) for the Energy Center turbines. Having the option of dual-fuel capabilities would enable the company to use a more cost-efficient fuel.

### Iatan On Line

During 1980, Iatan Generating Unit No. 1, constructed jointly by the Kansas City Power & Light, St. Joseph Light & Power and Empire, was declared operational at a capacity of 670 megawatts. The company's 12% share

**BELOW:** Iatan Plant, 1983.



amounted to 80 megawatts of new coal-fired capacity. This additional generation brought the company's total generating capacity to 539 megawatts.

## Energy Center Gets Second Turbine

A second combustion turbine went on line at the Energy Center in 1981. With the additional generation of 90 megawatts, the company's total reached 629 megawatts of generating capacity.

## Operating Revenues Exceed \$100 Million

Operating revenues exceeded \$100 million in 1982 for the first time. The revenues of \$105,378,000 represented an increase of 14.7% over the preceding year. Residential revenues increased 16.1% and commercial revenues rose 15.7% while industrial revenues increased 9.9%.

Fuel costs remained high and continued to represent 53% of the budgeted operating costs in 1982. The company's power plants generated 82% of the electricity for its service territory. The remaining 18% was purchased from neighboring utilities.

## Robert L. Lamb Becomes President

Following the Annual Meeting of Stockholders in April, 1982, Richard C. Allen was re-elected president until his retirement on May 31, 1982. Allen retired after 36 years of service with the company. Robert L. Lamb, formerly executive vice president, with 27 years of experience with the company, was elected president effective June 1, 1982.

## Management Efficiency

In July 1983, the Missouri Public Service Commission granted the company a rate increase of \$1.65 million. As part of its order, the Commission authorized an upward adjustment in the return on equity of 4/10ths of 1% for management efficiency. This was the first case in which the Missouri Commission rewarded a utility for management efficiency.

Highlights from the portion of the order dealing with the management efficiency adjustment included:

"Empire has managed to achieve rates among the lowest in Missouri despite the fact that it operates in an essentially suburban and rural service area of lower-than-average customer density.

Empire, by diligent management, has increased its customers served per employee by over 4% during the last seven years.

The company maintained excellent customer relations, which is evidenced by Empire's leadership in customer-oriented programs, such as Project Help, and Empire's low level of service complaints.

The company has maintained a relatively low embedded cost of long-term debt and embedded cost of preferred stock in light of the fact that Empire nearly doubled its capitalization during the years 1977 to 1981.

Empire took advantage of changing market conditions to negotiate a new coal contract to reduce its already reasonable coal prices."



**ABOVE:** Robert L. Lamb.

## Good Corporate Citizens

Empire and its employees continued to be good corporate citizens by giving back financially and in kind gifts. In some areas, Empire became one of the leaders in the region by creating and offering special support programs for the elderly and financially disadvantaged.

In 1982, Empire initiated Project Help, a customer aid program designed to assist the disabled and the elderly in the service territory. Under Project Help, Empire customers were given the opportunity to add one dollar to their monthly payment for electric service. Donations were forwarded to the local Red Cross Chapter who administered the program in the 20-county area served by Empire. Project Help assisted the elderly and disabled to pay for all or part of their energy needs, to make emergency repairs and to perform minor weatherization work on homes. Project Help was well received with 228 families taking advantage of the program during the first year. Empire was among the first to initiate a program of this nature. From the success of the program, a number of other utilities began to sponsor similar programs.

One year later, the White House Office of Private Sector Initiatives commended Empire for initiating Project Help. Since the program began, over \$50,000 had been provided by voluntary contributions from the company's customers, employees and shareholders. The program had helped more than 800 people with energy or energy-related bills. By 1989, Empire customers and company employees had raised over \$328,645, benefiting more than 3,788 people since the program was established.

Following the success of the Project Help program, Empire announced a new customer program called E\*A\*S\*E\* or Empire's Action to Support the Elderly. This new program encouraged voluntary registration of elderly and disabled customers, making them eligible for special considerations. Because some of the billing cycles did not coincide with the receipt of Social Security and pension checks, which were needed by the elderly to pay their bills, the new program offered customers age 62 and over, or disabled people, to be



exempt from deposit requirements and late payment penalties.

Warm Wishes gift certificates were made available for sale at all Empire outlets in 1984 as a new customer service program. These certificates were redeemed as credit on electric bills or as payment of an electric service deposit. Nearly 500 certificates were sold during the Christmas season alone. In most cases, they were purchased to assist a specific person with electric service cost or as a gift to a relative or friend.

On the afternoon of Christmas Eve in 1987, Empire opened its doors and invited senior citizens to use the company telephones to make long-distance calls to family and friends. About 100 local citizens took advantage of the offer. They made about 250 calls. The project was the idea of Joplin office employees who absorbed the cost of the calls.

Another new Empire sponsored program began in 1989. Empire's Gatekeeper Program was designed to assist the frail, elderly and homebound senior citizens of the region. The program recognized the problem areas concerning these senior citizens. Empire became the first investor-owned company in Missouri to initiate such a program. Empire employees initiated and assisted other companies, municipalities and cooperatives in the four-state area to establish their own Gatekeeper outreach programs.

The Over 60 Olympics was another Empire sponsored program which provided an opportunity to support seniors who are active and healthy. Empire was the major sponsor of the 1989 event and helped attract 350 competitors from 36 communities. More than 60 Empire employees organized, promoted and worked at the friendly competition.

Another group that continued to give back to the community was Empire's retired employees. In 1989, these men and women officially organized as the Empire Retirees and Spouses Association. Almost two-thirds of the eligible members immediately became active participants in the association.



Gift certificates . . . for holiday giving . . . from Empire District. What better way to touch the heart of someone dear than with a gift of warmth.

Send a bundle of warm wishes to someone you know with an Empire gift certificate. You choose the dollar amount; Empire will provide the certificate, along with an attractive envelope suitable for presenting or mailing.

Empire "Warm Wishes" gift certificates are redeemable for credit on Empire electric accounts. . . a gift welcomed and appreciated by anyone.

Isn't there someone you'd like to send a bundle of warm wishes to this holiday season? Shopping for this gift is as easy as stopping by your Empire office.

**Warm wishes!**

**OPPOSITE:** Empire employee volunteers coordinated events for Over 60 Olympics. At the free-throw competition are staff members, Larry Baker, far left, John Woods, center, and Debbie Brill, far right.

## Proposition B Defeated

A challenge to the Missouri electric utility industry was met in November 1984, when Missouri voters overwhelmingly rejected a ballot issue titled Proposition B. The proposition would have prohibited inclusion of any portion of a nuclear plant in Missouri until the federal government had identified and approved for the disposal of high-level nuclear waste. Proposition B, which ran more than 2,000 words, would have also imposed arbitrary lids on rate increases and precluded the Missouri Public Service Commission from considering changes in the economy and energy use trends, as well as improved energy technology and rate setting.

## Interconnection with Southwest Electric Power Company

In 1984, the final construction phase of the 161 kV line from Empire's Neosho South Substation to Southwest Electric Power Company's Flint Creek Generating Station was concluded. This construction program was completed with an expenditure of \$3,519,000 and included \$4,900,000 for extensions and services to new residential and commercial customers. This new network connected at fourteen points with eight different utility companies in the region. These interconnections provided Empire with the opportunities to buy power from and sell power to other utilities when it was economically advantageous.

**BELOW:** System Operations in the 1980s. Included in the photo, standing, Keith Kropf and Vernon Corkle, seated, Dora Dean Gibbons, John Shetley, John Stephenson, and Bobby Hallam.



## Add-On Heat Pump

One of the principal marketing efforts in 1984 was the promotion of an add-on heat pump program. By adding a state-of-the-art heat pump to an existing furnace and replacing a less-efficient central air conditioner, the summer peak for the customer was reduced. Since the equipment was also used for heating during much of the winter, the annual kilowatt-hour sales increased.

The promotion of zone electric heating was another successful business development program. Zone heating involved setting back central thermostats in the home and heating rooms or zones to comfort level only as they were being used. This allowed the customer to significantly reduce their winter heating costs.

The acceptance of total electric homes and businesses continued as more than 75% of all new residential and commercial buildings constructed in Empire's service territory were total electric.

## Empire Receives Forbes Award

In 1985, *Forbes* magazine rated Empire as one of the top 200 best small companies in America. Of those 200 selected, only three electric companies made the list which was chosen from over 4,000 companies with sales between \$1 million and \$300 million. *Forbes'* other criteria required the company to have a reasonable return on equity, relatively low debt and show consistency in earnings growth. Following the *Forbes* publication, president Bob Lamb remarked, "This type of recognition is a tribute to all our employees."

Coinciding with the *Forbes'* evaluation, Empire customers were experiencing some of the lowest energy retail rates of any electric companies in the United States. At the time, 90% of all the electric companies in the country had higher residential, commercial and industrial rates. The average rate that Empire customers were paying for electrical service was 40% lower than the national average rate.



Company Directory										
Where they rank				Ticker	Company	City, State	Telephone	Market value (million)		
sales	profits	market value	5-year average ROE							
19	34	30	56	DYTC	Dynatech	Burlington, MA	(617) 272-3304	\$269.4		
143	117	127	29	EZEM	E-Z-EM	Westbury, NY	(516) 333-8231	68.4		
189	131	140	72	EAVN	Easton Vance	Boston, MA	(617) 482-8260	57.7		
176	160	161	140	ECC	Educational Computer	Orlando, FL	(305) 959-7410	40.4		
164	144	122	155	ELMG	Electromagnetic Sciences	Norcross, GA	(404) 448-5770	72.2		
66	38	100	187	EDL	Empire District Electric	Joplin, MO	(417) 623-4700	107.0		
81	155	144	191	ENGR	Engraph	Atlanta, GA	(404) 329-0332	55.1		
142	74	108	79	FDGC	Federated Guaranty	Montgomery, AL	(205) 288-3900	90.5		
156	156	116	73	FFMC	Fleet Financial Management	Atlanta, GA	(404) 325-9715	79.7		
75	13	15	62	FSI	HighSafety Intl	Flushing, NY	(718) 565-4100	408.3		
183	166	98	94	FLOW	Flow Systems	Kent, WA	(206) 938-3569	108.3		
20	35	55	169	FKM	John Fleck Manufacturing	Everett, WA	(206) 847-6100	104.0		
166	127	73	171	FRX	Forest Laboratories	New York, NY	(212) 421-7850	145.3		
42	8	56	133	FORB	Forum Group	Indianapolis, IN	(317) 846-0700	188.4		
134	61	37	1	FRRI	Franklin Resources	San Mateo, CA	(415) 570-8000	232.4		
171	138	129	185	FBI	Frequency Electronics	Mitchell Field, NY	(516) 794-4500	86.0		
103	89	72	20	AJGC	Arthur J Gallagher & Co	Rolling Meadows, IL	(312) 640-8500	146.9		
125	152	149	43	GFHY	General Physics	Columbia, MD	(301) 964-6000	46.9		
17	133	159	141	GDX	Genesee Drug Stores	Melville, NY	(516) 420-1900	41.3		
31	19	25	153	GRB	Geber Scientific	South Windsor, CT	(203) 644-1551	303.4		
74	139	119	71	GRPH	Graphic Industries	Atlanta, GA	(404) 874-3327	78.0		
5	8	11	113	GLK	Great Lakes Chemical	Lafayette, IN	(317) 463-2511	541.9		
49	45	68	199	GL	Great Lakes International	Oak Brook, IL	(312) 920-3000	149.7		
23	65	95	96	GREY	Grey Advertising	New York, NY	(212) 546-2000	109.7		
16	15	14	57	JH	John H Harland	Decatur, GA	(404) 981-9460	312.8		
149	141	176	36	HATH	Hatheway	Denver, CO	(303) 758-8301	27.5		
60	26	17	27	HBOC	HBO & Co	Atlanta, GA	(404) 893-6000	481.1		
39	57	61	174	HMY	Hellig-Meyers	Richmond, VA	(804) 359-9171	178.8		
9	37	36	168	HTN	Houghton Millin	Boston, MA	(617) 725-5000	241.7		
76	85	80	114	HUN	Hunt Manufacturing	Philadelphia, PA	(215) 732-7700	134.0		
190	197	169	93	INEI	Instriflex East	Lanover, MD	(301) 386-4100	30.2		
148	130	130	69	ISCX	Integrated Software Systems	San Diego, CA	(619) 453-0170	64.4		
137	142	138	149	INTR	Interneer	Lynnwood, WA	(206) 348-2600	61.3		
53	96	99	168	ITCP	International Technology	Torrance, CA	(310) 379-9933	182.4		
129	195	171	5	ITRN	Intertrans	Irving, TX	(214) 258-4888	38.4		
105	122	120	182	ION	Ionics	Watertown, MA	(617) 926-2500	77.3		
57	42	92	58	IRPG	Jelleries Group	Los Angeles, CA	(310) 624-3333	119.5		
70	118	109	49	IFI	IFP Industries	Ann Arbor, MI	(313) 663-6749	86.7		
153	111	111	14	IUNO	Iuno Lighting	Des Plaines, IL	(312) 827-9080	85.9		
118	79	24	195	KLAC	KLA Instruments	Santa Clara, CA	(408) 988-6100	307.8		
37	62	65	50	KNL	Konoll International CI A	New York, NY	(212) 826-2400	163.1		
4	40	52	80	KRUE	WA Krueger	Scottsdale, AZ	(602) 948-5650	196.1		
55	35	32	128	LWSI	Loiflaw Industries	Hinsdale, IL	(312) 897-8181	253.7		
97	24	117	197	LLIC	Lamar Life	Jackson, MS	(601) 949-3100	79.3		

Source: William O'Neil & Co., Forbes





**BELOW:** Corporate building on April 5, 1986, the interior of the building was gutted down to the support skeleton. The south wall was removed to make room for the new addition.



## Corporate Office Receives Major Makeover

During 1985, Empire officials agreed to keep the home office in downtown Joplin. However, staying at that location would require a major renovation as well as an expansion plan to the existing building. Additional space was sorely needed. The original building was built to accommodate 60 employees. By the mid-80s, the corporate office was housing 125 employees. Before the renovation, personnel were housed in three locations throughout the Joplin area. This was the first major expansion of the corporate headquarters since 1927.

Black and Veatch Engineer-Architects of Kansas City created the design for the 70,000 square foot corporate headquarters. The new \$7 million building showcased an atrium which was open from the lobby to the roof, a 100-seat auditorium, and a bi-level parking garage.

## Strong Economy in the Four-States

The economy in the Joplin area continued to grow. It was the strongest retail sales area in the region. Total employment increased by 11.2% in 1985. In addition, the Joplin area was fast becoming known as the Motor Freight Capital of America as it currently had 36 major trucking firms operating in the area with five corporate headquarters.

There were more than 200 manufacturers in the service region of Empire. They ranged from mining to food production to furniture. The largest employers (employing over 500 people) were Eagle Picher (diversified indus-

trial products), Leggett & Platt (furniture components), La-Z-Boy (furniture), Tyson Foods (poultry processing), Country Pride Foods (poultry processing), Schreiber Food (dairy and cheese processing) and Cardinal Scale (industrial and commercial weights). Other large manufacturers included Safeway Stores' Biscuit Plant, Vickers (gears) and Pillsbury (frozen pizza).

Joplin was also the home of three large medical complexes: the largest being St. John's Regional Medical Center with 367 beds, Freeman Hospital second with 175 beds and Oak Hill Hospital with 105 beds.

By 1986, building construction in Joplin had sky rocketed to new heights. The community's building construction and improvement costs jumped 77% over 1985's \$22.2 million. In addition, more single-family houses were built than in any year since 1965.

## Local Expansion

Joplin's commercial business growth was even stronger. Northpark Mall spent \$3.5 million as it expanded to handle an additional 50 shops which included the \$2.4 million Famous Barr department store. The \$2.4 million Venture store was constructed. Wal-Mart built a replacement store for \$1.4 million. The John Q. Hammons Trade Center opened adjacent to the Holiday Inn and Freeman Hospital completed a \$12.5 million expansion. A two-story, 47,000 square-foot wing was added on the east side of the hospital. The addition increased the hospital capacity to a 175-bed facility.

The educational community was also growing at a rapid pace. Columbus, Kansas built a new high school in 1985.

Missouri Southern State College added a new wing to house the School of Business Administration. A 43,000 square-foot addition to Norval M. Matthews Hall was completed in 1986 at a cost of \$2,731,236. A major addition to Gene Taylor Hall was finished. The 11,000 square-foot addition offered computer labs, instruction media and child care facilities. A three-story addition to the L. R. Reynolds Science and Mathematics Hall was underway. In addition, Residence Apartments F and G (new apartment-style dormitories) were being built to house nearly a hundred students.

**BELOW:** Water crew Ed Lyon, Doyle Keller, George Thuleson and John Ozckus, August 5, 1985.

**BOTTOM:** Mid-1980s line crew working high voltage lines along Range Line.



## The Environment

One of the greatest challenges facing American utility companies in the 1980s was addressing new regulations and laws relating to the environment. Emissions from power plants specifically dealing with sulfur dioxide became front page news. New legislation enacted by the states, as well as federal laws, forced the utility companies to address these issues. Perhaps the toughest obstacle for utilities of the day was dealing with these complex regulatory and legal issues, because they spilled over into the public opinion arena. In some cases, these issues resulted in an atmosphere of public mistrust regarding utilities.

By the mid 80s, the controversy surrounding acid rain was being hotly debated. Acid rain was receiving national attention by the media as a number of states and Canada claimed that lakes and other natural resources had been severely damaged by acidity levels caused by sulfur dioxide in the atmosphere. This sulfur dioxide was suspected as being the result of burning fossil fuels, primarily coal. The 1980 Acid Precipitation Act recognized these uncertainties and called for an intensive 10-year study of all aspects of acid rain - - causes, effects, control technology and energy policy implications.



In 1987, Empire became concerned that the high sulfur content in locally mined coal would not meet new or future Federal Clean Air performance standards. To address the environment and air emissions, Empire entered a new era of energy production in 1988 with a successful start-up of the Western fuel conversion project. Instead of using locally mined coal, Empire converted to using Western mined coal to fuel their generating plants. Because the Western coal's sulfur content was lower than the locally mined coal by a factor of 10 to 1, the switch to Western coal was a positive move to achieve existing and new stringent environmental, emission and performance standards.

The Western coal had two other significant benefits. First, it was less corrosive than local coal, which would decrease plant maintenance requirements and downtime. Secondly, the Western coal was more economical. It could be purchased and transported to plant sites for less than the cost of locally produced coal.

Two significant accomplishments were achieved in 1989, the signing of a long-term contract for Western coal from Wyoming's Powder River Basin and another contract with Burlington Northern Railroad to transport the coal. The new coal agreement would provide fuel for the Asbury and Riverton plants through 2004.



During 1989 approximately \$13 million was dedicated to new rail facilities, burner modifications and coal-handling equipment necessary at Asbury and Riverton for the fuel conversion. Included were funds to purchase 125 railcars to transport the coal from Wyoming.

The company anticipated Asbury's conversion to Western coal would be achieved in June 1990. Completion at Riverton, which would burn a 50:50 blend of Western coal, was slated for late 1990. At the time, Asbury burned an average of nearly 2,000 tons of coal a day, and Riverton burned about 400 tons daily.

Several Missouri legislative issues were resolved during 1988. Bills calling for unnecessary forecasting and the funding for public counsel by ratepayers were defeated. The "Air Free Bill" passed. This bill improved the process for obtaining air permits necessary for power plant operation. Legislation exempting utility landfills from Missouri's waste handling laws was enacted. The amendment allowed Empire to close its ash ponds without incurring extraordinary expenses such as leachate collection systems and post-closure monitoring services.

During 1989 President George Bush announced his proposed revisions to the Clean Air Act of 1977. Aimed at further reducing pollution, his bill called for cutting the nation's sulfur dioxide emissions in half -- from 20 million to 10 million tons per year -- by the year 2000.



**ABOVE:** Louie the Lightning Bug visits Jefferson Elementary School in Joplin.

## Empire Receives Gold Award

Empire and its employees continued to support local communities by providing dollars and volunteer hours. For many years, Empire received the Gold Award as the top participant in the local United Way effort.

Empire began sponsoring Community Leaders Luncheons in the smaller communities of the service area. The district manager and corporate officers met with business leaders in informal sessions to keep them updated on company plans and activities.

For the previous 25 years, Empire sponsored an Honor Student Conference. Each year, nearly 400 students representing 68 high schools attended the conference which offered discussions on topics of current interest. The outstanding students were selected by area schools for their academic achievements.

Another successful community program was the Louie the Lightning Bug Safety Program. This program, especially for children from kindergarten through the sixth grade, offered a variety of activities and safety awareness games.

## 290 Acres Sold

In 1985, Empire sold 290 acres of undeveloped, non-utility land near Lake Taneycomo in Taney County, Missouri. This land was used to build an ex-

clusive planned community. Pointe Royale was designed to preserve the natural beauty of the Ozarks and included green belts, commercial sites, condominiums, patio homes, and an 18-hole championship golf course. A resort hotel complex with convention services and fine dining was also planned for the near future.

## Employee Stock Purchase Plan

Empire's economic strength came from a base of local support with a large percentage of the company's shareholders living in the service area, of which many were employees. Empire employees owned almost 10% of the stock, and about 46% of them purchased stock in 1986 under the Employee Stock Purchase Plan.

## Associated Electric Cooperative

Additional electrical capacity was needed with the continued commercial, residential and industrial growth in the Empire territory. During the 1980s, it was more feasible for Empire to purchase additional electricity rather than expand plant capacity. What also helped were other favorable conditions including a buyer's market climate with six neighboring utilities competing to supply a portion of area capacity needs over the next several years. In March 1987, Empire entered into a six-year agreement with Associated Electric Cooperative to purchase 35 megawatts beginning June 1, 1987. The purchase amounts would be adjusted annually ranging up to a maximum of 150 megawatts by 1990. In March 1988, the contract was extended until the year 2000 with purchase amounts ranging from 100 to 200 megawatts. The agreement allowed the company to add capacity without the burden of heavy expenditures associated with plant construction.



**ABOVE:** Union contract signing. Standing: Bill Howell, John Weitzel and Don Vice. Seated: Bob Lamb, Roger Puffett, and Hal VanDaGriff

**BELOW:** The newly renovated Neosho, Missouri office.





## Smart Home

Nearly 65% of new construction in the district was total electric. To further introduce the convenient use of residential electricity, Empire designed a new Smart Home south of Joplin. The Smart Home was a push-button total electric house built by Empire.

By 1988 more than 12,000 people had toured the Smart Home since its completion in October a year earlier. A display model had been used at several area home shows. Home construction featured styrofoam insulation over the foundation, six-inch stud walls, plywood sheathing and cedar wood siding, shaker shingle roof and double glazed windows with low emissivity glass coated to reflect heat rays out in summer and back inside during winter. The sun space on the south side allowed the most advantageous use of solar gain, and the tile floor served as storage for solar gain. Water heating included a heat pump water heater, at-the-source water heaters and conventional storage water heating.

A central control computer system allowed for room-to-room energy management and security -- all programmable through a call-in system. The system was connected by modern outside services such as financial institutions and provided word processing and financial record-keeping. There were only about five such systems licensed in the nation. State-of-the-art appliances and equipment were installed, including an induction cook-top stove, an oven that switched from conventional to convection for faster baking, under-the-counter small appliances, a refrigerator with variable temperatures, central vacuum system, programmable whirlpool bath, built-in stereo system, program-controlled water sprinkler system and heated walk and driveways for easy snow removal.

**BELOW:** Bolivar Crew: Mark Randles, David Sikes, Dean McMillin and Keith Reser, August 5, 1985.





## Ice Storm on Christmas Day

On Christmas Day 1987, a paralyzing ice storm crossed Empire's service district. Crews from nine other companies came to help. A total of 325 people from outside the service area temporarily moved in to help the Missouri cities of Aurora, Neosho and Bolivar. Before the storm had ended, nearly 50% of the company's customers had lost power. The area hardest hit was the community of Pierce City. Power was not restored for their community until December 30. The last storm of this caliber occurred in 1972. As a result of the 1987 storm, Empire incurred expenses of \$1.7 million.

Jim Hamilton, editor of the *Dallas County Courier*, stated, "Buffalo residents owe a tremendous debt to the handful of men who kept the lights burning. The Empire crews are to be commended for doing an exceptional job during the Christmas ice storm. As long as we remember the storm, let's remember the folks who work continuously to keep our homes bright and warm, even when it seemed the odds of doing so were insurmountable."

**ABOVE:** Randy Fletcher working on the lines after an ice storm, December 1985.





## Richard C. Allen Retires

Richard C. Allen, who retired as company president in 1982, resigned from the Board of Directors on January 31, 1989. Allen served The Empire District Electric Company with distinction for over 43 years and was a respected member of the Board for 23 years. During his tenure as president, the company's capitalization more than doubled, the Empire Energy Center and the Iatan Generating Station were completed, and the company's financial integrity was strengthened.

## 345,000 Volt Transmission Line Connected

In December 1988, a 345,000 volt transmission line was completed. It extended from Oklahoma to north of Springfield, Missouri. The joint project with five neighboring utilities represented a \$4 million investment for Empire. The transmission line provided a new interconnection opportunity and increased the system's capabilities.

## All Time Winter Peak

On December 22, 1988, temperatures plunging to 15 degrees below zero with a wind chill index of minus 50 degrees had customers throughout the service area struggling to keep warm. The cold wave raised Empire system peak

**ABOVE:** Richard C. Allen.

**BELOW:** A fifteen-year contract was signed for the purchase of low sulfur Wyoming coal on February 17, 1989. Coal delivery would begin in 1990. Present for the signing were: (seated) Terry O'Connor, Peabody Holding Company; Jess Reed EDE; Bob Lamb EDE; Henry Kost EDE; and Joseph F. Lake, Jr., Rochelle Coal Company. (standing) Richard J. Whyte, Peabody; John Weitzel EDE; James C. Campbell, Jr., Peabody; and Thomas S. Helton, Peabody.



## Robert L. Lamb

Robert L. Lamb began working for Empire in 1955 in the Engineering Department. He held several positions in that department before being elected vice president - Customer Services in 1974. He was elected executive vice president in 1978 and later that year was elected a director of the company. He was elected president of Empire in 1982.

Lamb was born in Goodland, Kansas. He graduated in 1955 from the University of Kansas with a Bachelor of Science degree in Electrical Engineering. He has been recognized for outstanding scholastic achievement by his election to the Honorary Engineering Fraternities of Tau Beta Pi and Sigma Tau and Honorary Electrical Fraternity of Eta Kappa Nu. He also was honored with the Professional Degree of Management Engineer from the University of Missouri at the Rolla, Missouri, campus.

He completed a three-year tour of duty with the United States Air Force in research and development. At the time of his discharge he held the rank of Captain.

An active community leader, Lamb served in various capacities of many local, state and national organizations. Locally these include the Joplin Area Chamber of Commerce, Joplin United Way, City of Joplin Personnel Board, Joplin Rotary Club, Junior Achievement of Jasper County, Joplin Industrial Corporation, Joplin Southern Corporation, Joplin Industrial Development Authority, and Joplin Business and Industrial Development Corporation. He also served on the Boards of the Missouri Chamber of Commerce, St. John's Regional Medical Center, Missouri Southern Foundation, Mercy Regional Health Foundation and the Board of Regents of Missouri Southern State College. He was recognized as Joplin's Outstanding Citizen in 1987 and named Outstanding Community Economic Leader of 1991 for the State of Missouri.



load to a new all-time high of 638 megawatts and marked the first time since the widespread use of air conditioning that a winter peak exceeded the summer one.

The company also established a new 24-hour energy production record on December 22. The record net system input of 13,599 megawatt-hours was a 19.7% increase over the previous winter production high. The new records were attributed to commercial and residential electric heating, as well as heavy use of portable electric heaters and furnace motors.

## Favorable Opinions

Results of a customer survey administered in December 1988 by an independent marketing firm confirmed that Empire customers had favorable opinions of the company by an extremely one-sided margin of 97% to 3%.

### Virginia McKenzie

Virginia McKenzie spent 44 years at Empire. During her distinguished career she became the first female district manager and the first woman to lobby for the company in Jefferson City.

After graduating from Neosho High School, Virginia joined Empire in 1946 as a meter order clerk in the Neosho Customer Service Office earning \$100 a month. She moved to sales consultant in Neosho in 1975 and was named staff specialist of governmental affairs in 1978. In 1982 she returned to Neosho as assistant district manager and in 1986 was named district manager.

Reflecting back on her career Virginia stated, “We lobbyists were there to inform, educate and help make the decisions so important to both our company and our customers and to Missouri citizens. During this time, I made many friends throughout Missouri and learned much about the legislative process. - - - To say I was in the right place at the right time is an understatement. - - - I’m only thankful I was there and able to participate. Empire District Electric Company has been my friend and companion for many years and I consider myself fortunate that Mr. Fred Rouse came to my parents and asked them to encourage me to come to work for them.”

Virginia retired as the Neosho district manager in 1991.



## Average Payment Plan

The Average Payment Plan (APP) program was redesigned in 1989 to provide more customer choices. APP allowed qualified residential and commercial customers to pay a fixed amount each month, based on their expected annual usage — avoiding the extreme highs and lows of peak heating and cooling months. During an eight-week campaign at year end, over 5,000 additional customers were added to the APP program. Another 600 enrolled in the new electronic payment plan.

## Empire District Academic Challenge

Empire began funding the Empire District Academic Challenge in 1989, a program much like the General Electric College Bowl of the 1960s. The local half-hour television show enabled students from 29 high schools in three states to participate in a single-elimination tournament testing academic skills and knowledge. Scholarships for the winning teams were provided by Missouri Southern State College.



**ABOVE:** Bob Lamb with the 1989 United Way Presidential Award winners: Donna Simmons, Jeneane Chartier, Twyla Chapman, Vivian Robertson, Bill Eichman, Gene McMeen, Shelly Olson, Michael Rouse and Greg Sweet.

# 1990s

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## Iatan - Nation's Eighth Lowest-Cost Producer

The *Cogeneration* magazine named the Iatan Plant as the nation's eighth lowest-cost producer based on the 1990 average production cost of \$11.92 per net megawatt hour. *Power Engineering* also honored the plant during the year, listing it as the ninth lowest-cost producer in the country. The recognition was based on the plant's \$12 per net megawatt hour average during the five-year period from 1986 through 1990. The Iatan Plant also burned low-sulfur Western coal.

## Courtesy Docks at Ozark Beach

During the summer of 1990, a joint venture between Empire and the For-syth, Missouri, American Legion Post 592 resulted in the construction of two new courtesy docks at the Ozark Beach Powersite Dam Park. The American Legion provided the materials and Empire's Ozark Beach personnel constructed the docks. The units were designed with handrails and extra-wide ramps to accommodate the needs of disabled persons. One year later, Empire employees built a nature trail at the same site.

## Sulfur Emissions

In 1990, Congress passed clean air legislation which had serious ramifications for the utility industry. According to the legislation's standards for Phase II limits, sulfur emissions could not exceed 1.2 pounds per billion BTU beginning in the year 2000. Empire's recent conversion to Western coal, however, left them well-positioned to meet the Clean Air Act amendments. Empire anticipated earning compliance credits for the years 1995 through 2000 after reducing emissions at the Asbury Plant.

**OPPOSITE:** Line work in the 1990s.

**BELOW LEFT:** The rotary car dumper unloads Western coal at Asbury.

**BELOW RIGHT RIGHT:** A celebratory ribbon-breaking is held as the first load of Western coal arrives from Wyoming.



## Branson Blooming

The Branson area continued to grow at a tremendous rate. One particular area of growth was the development of the entertainment industry. The entertainment boom in Branson was so phenomenal that it had gained national attention. In 1991, Branson's amenities attracted four million tourists, 5% more than in 1990. The significant growth throughout Branson was a challenge for Empire as the area's needs dramatically increased from 7.5 megawatts installed capacity in 1960 to 117.6 megawatts in 1991.

By 1994, developers spent another \$89.8 million on construction in Branson. Empire's transmission and distribution crews were put to the test. As many as 14 crews were dispatched at any given time to install transmission and distribution lines in the Branson area, while the company crews connected power to more than 4,787 new customers during the year.

Thermal energy storage was a new Empire program that offered customers an opportunity to substantially lower their demand and reduce their cost by using ice storage systems. The systems made and stored ice during the night, and then used the ice to produce chilled water for air conditioning operations during peak periods. Two new theaters that opened in Branson during 1994 – the Mel Tillis Theater and the Welk Champagne Theater – installed ice storage systems as part of their cooling package. They provided Empire with a demand savings of 309 and 169 kilowatts, respectively, during the year. The Springfield Chapter of the American Society of Heating, Refrigeration and Air Conditioning Engineers presented the Mel Tillis Theater its 1994 Energy Conservation Award for its innovative conservation efforts.



## Empire Recognized for Growth

The July 1993 issue of *Electric Light and Power*, a national trade journal, recognized Empire as the seventh fastest growing utility in the nation in 1992, based on the 2.8% increase in customers served. In 1993, the company's growth rate rose even further to hit 3.2%.



**ABOVE:** Dispatchers, Jim Johnston (right) and Paul Butler (left) on duty in the newly expanded System Operations Center.

After two years of negotiations, major construction and an investment of \$30 million, Empire's conversion to low-sulfur Western coal became a reality. On July 28, 1990, the first train consisting of Empire's own railroad cars brought coal from the Rochelle Mine in Campbell County, Wyoming to the Asbury Plant. The new train schedule made one round trip approximately every four and a half days.

Before the end of the year the new source of fuel had improved plant availability, provided for better boiler performance and significantly reduced particulate matter and sulfur emissions. The Wyoming coal contained less than one half of 1% sulfur compared with 6% in the coal previously used.

The Environmental Protection Agency granted the Asbury Plant a five-year Phase I Acid Rain Permit, effective January 1, 1995. Under the permit, Asbury received 15,764 allowances for each year of the permit. Empire used approximately half of the allowances each year.

## System Operations Center

A major step in improving operations took place during 1990 with the expansion of the company's System Operations Center and implementation of a new Energy Management System. The new system integrated critical data and automated generation control to better manage purchase and production decisions to ensure the lowest cost.

## Service by Telephone

Service by telephone was introduced in 1990 to save customers from traveling to an Empire office. With the new service, residential customers were able to telephone their request for a service connect, final bill or service transfer. In most cases, customers were not required to pay a security deposit when they applied for service.

## Shareholder Rights Plan

A Shareholder Rights Plan was adopted by the Empire Board of Directors on July 26, 1990, to protect against unfair or coercive takeover strategies that could be directed at Empire. Designed to discourage takeover bids that do not offer terms which are fair to all shareholders, the plan provided protection against acquisitions of control without payment of a control premium to all shareholders.

## Southwest Power Pool Celebrates Fifty Years

The Southwest Power Pool, of which Empire was one of the eleven founding members, celebrated its 50th anniversary in 1991. This pool ensured the

### Fact:

In 1992, Empire continued to offer some of the lowest electric rates in the nation. Over the previous ten years, inflation had risen over 40% yet the cost of electricity in the region had increased slightly over 3%.

reliability of electric service to customers in a 500,000 square-mile region. At the time, forty-four electric utilities in Arkansas, Louisiana, Mississippi, Missouri, Kansas, Oklahoma, Texas and New Mexico participated in the pool.

### Florida Business Recovery Service

Empire entered into an agreement with IBM in 1991 for the use of its Florida Business Recovery Service Center. This precautionary plan protected Empire and its customers by allowing company administrative systems to function from the recovery site if the company's computer center was damaged or destroyed.

### Operation Green Tree

In 1991, a team of Empire volunteers planted 350 white pine saplings along a railroad right-of-way leading into the Asbury plant. This new program, called Operation Green Tree, was part of a beautification program to enhance the environment around Empire's facilities. The following year the company purchased tree saplings and employees planted them after hours. In all, more than 800 trees were planted to upgrade facilities located around the Asbury and Riverton Plants.



**ABOVE:** Operation Green Tree members prepare to plant saplings at Asbury. From left: H.R. Colgin, Harold Colgin, Bruce Baker, John Weitzel, Jack DeGraffenreid, Jess Reed, Jack Smallwood, Bob Bromley and Bill Howell.

**BELOW:** Crews gathered at Joplin T&D to discuss the route to Newton, Kansas, June 1992, before leaving to assist with storm damage cleanup.



### Choices Offered

One bright point of 1991 involved Empire employees participating in the Choices program. As a Choices franchise, Empire sent trained company volunteers to area high schools where they presented seminars on motivation



and time management, while covering academic and career consequences. These well-received programs provided students with guidelines that would help increase their options concerning personal and vocational goals.

### Integrated Resource Planning

Substantial progress was made during the year toward developing a far-reaching, demand-side management (DSM) program. DSM was intended to enable participating customers to better control their energy use and reduce the cost of their electric bills. At the same time, it would lower the growth

### Dennis Weaver Promotes Project Help

Hollywood actor and former Joplin resident Dennis Weaver starred in an Empire advertisement for Project Help. In the ad, he referred to his dad working for Empire.

**“Support Project Help.  
Your neighbors are  
counting on you.”**

“My dad used to talk about his early days with Empire District Electric and how neighbors always counted on neighbors. To help build a barn. Or to bring in the crops.  
“Well, today folks can pitch in to help their neighbors through Project Help. It’s an emergency fund for elderly or handicapped folks in this area who can’t pay their energy bills.  
“All you have to do is add a dollar or more each month to your Empire District bill. Call Empire today and pledge your support to Project Help. Your neighbors are counting on you.”

**Project  
HELP**  
your electric company

*Dennis Weaver*

The advertisement features a black and white photograph of Dennis Weaver wearing a cowboy hat. The text is arranged in a clean, professional layout with a thick horizontal line above the main headline. The Project Help logo includes two hands holding a power plug, and the Empire logo is a small circle with the word EMPIRE inside.



of the peak demand and allow the company to serve more customers while deferring costly capacity additions.

**ABOVE:** Ozark Beach Dam.

### **30-Year License Granted to Ozark Beach Powersite Dam**

A 30-year license was granted to Empire on March 31, 1992, for the operation of the Ozark Beach Powersite Dam hydroelectric plant. This source of low-cost power, which had been in operation since 1913, provided 3% of Empire's 1992 generation.

### **Thousand Points of Light**

On April 8, 1992, Empire was notified of being selected for special recognition as one of President George Bush's Thousand Points of Light. This honor was for the numerous programs Empire sponsored which benefited senior citizens.

### **National Energy Policy Act**

In 1992, major legislation was passed in favor of deregulating the electrical utility companies. The National Energy Policy Act opened the door for wholesale transmission wheeling.

### **Empire's Service Excellence Awards**

Jane Ann Blazic, Curtis Wilson, Ray Aschbacher and Gary Hammett were honored in June as the first recipients of Empire's Service Excellence Award. Honored for their outstanding customer service, these employees exemplified the company's commitment to be customer driven and as efficient as possible in all service activities. In January 1994, six more employees were added to Empire's Service Excellence honor roll. Awards were presented to Chris Baker, Tom Ball, Ralph Gunlock, Rick Field, Pete Peterson and Rich Crow.

## Outstanding Rural School Business Partner

The Missouri Association of Rural Educators named Empire the Outstanding Rural School Business Partner for the 1992-1993 school year. The award specifically recognized Aurora Empire employees for the support, time and resources they provided to the Aurora Elementary School.

## Flood Waters Damage Riverton Plant

Empire was forced to take the Riverton Plant out of service on September 25, 1993, due to severe flooding along the Spring River. The flooding caused damage to the plant's generating units, associated equipment and controls. Cleanup and repairs began on September 27. The two baseload, coal-fired steam units totaling 91 megawatts of capacity were brought back on-line on October 7 and 8.

**BELOW & OPPOSITE:** 1993 flood at Riverton.





**RIGHT:** The original Joplin Call Center group celebrates their opening with a cake and special t-shirts designed by Lynda Thompson. Front row: Lynda Thompson, Terry Oliver, Joyce Thomas. Back row: Donna Ferguson, Ann Butts, Janet Carr and Anna Lee Alumbaugh

**BELOW:** Ron Richard and Richard Russell packing boxes for the Christmas Elf Program.



## E Home Program

Empire's E Home Program was introduced for the first time in 1994. The program helped improve the energy efficiency and environmental quality for customers' homes.

## Customer Call Center

To help ensure that customers get fast, consistent service when they call, Empire began building a Customer Service Call Center in January 1995. The Joplin Call Center provided better customer access through additional lines and extended hours. The original operation began with only six employees. By 2003, the 24-hour-a-day, 365-day-per-year operation had grown to two locations and 35 employees, with an average of 1,225 calls per day.

## Christmas Elf Program

The Gatekeeper Christmas Elf Program created to help restore self-esteem to forgotten seniors during the holidays received national and state recognition. During the spring, the American Society on Aging (ASA) honored the program and presented Empire its 1994 ASA Business of the Year Award for companies with less than 1,000 employees. In November, Missouri Lieutenant Governor Roger B. Wilson presented Empire with the Missouri Community Business Award in recognition of the Christmas Elf Program.

## State Line Power Plant Established, Other Plant Changes

In 1995, a new 101-megawatt combustion turbine marked the establishment of the State Line Power Plant located west of Joplin. The \$37 million generating unit was fueled by natural gas and fuel oil.

Also in that year, the Energy Center was converted from oil to dual-fuel





operation and Ozark Beach became fully automated and controlled from the System Operations Center in Joplin. Meanwhile at Riverton, the 30-mega-watt Unit 6 was retired after 70 faithful years of service.

**ABOVE:** Cleaning up after a storm in the 1990s.

## Company-wide Reorganization

As Empire faced the possibility of deregulation of the utility industry in 1995, the company undertook the Competitive Positioning Process (CPP). Using employee teams, each segment of the company was evaluated to ensure the most efficient, cost-effective, and competitive structure was in place. The company was reorganized into four segments, Commercial Operations, Energy Supply, Finance, and General Services. Once the structure was in place, staffing needs were evaluated and adjusted accordingly. An enhanced voluntary early retirement program was offered and 53 of Empire's 654 employees accepted the offer.

## 1996 Review

The year of 1996 was full of challenges. Fuel and purchased power prices were much higher than anticipated. In April, parts of the service territory experienced a storm carrying high winds and tornadoes leaving nearly 25,000 customers without power. At the end of the year, an early winter ice storm left nearly 33,000 customers without service. Also, an agreement was signed by the company management and the Union. Both parties signed a new three-year contract.

### Fact:

In 1996, Congress introduced the legislation to deregulate the \$250 billion electric industry nationwide.

## Myron McKinney Becomes President

Robert L. Lamb retired from Empire as president on March 31, 1996. Lamb continued to serve on Empire's Board of Directors. Myron W. McKinney became Empire's president and chief executive officer on April 1st.

Reflecting on president Bob Lamb, McKinney stated, "There has never been a time when he asked me or anyone else to work harder than he was working. Bob demanded excellence, trusted his staff with significant authority, he led by example."

## Empire Provides New Solutions

In 1996, Empire provided a new solution when an established subdivision needed to have deteriorating underground cable replaced. The customers' desire was to minimize the damage to the landscape. This challenged the Empire management team to search for an alternative. Their solution was to use directional boring. This method left the landscape intact and reduced the company's cleanup costs. The process would be used, when possible, on other similar jobs.

Carmar, an industrial customer, had a unique problem for Empire to solve. The underground warehousing and storage facility was served primarily by surface-level facilities. Carmar requested that additional transformers be installed below ground to cover small-load needs. Empire developed and implemented standards to install conduit through 50 feet of limestone. Empire employees positioned primary distribution circuits, pedestals, transformers and three-phase primary lines in the underground facility.

**BELOW:** The company's new logo and marketing slogan, *Services You Count On*, was introduced in early 1997.



**SERVICES YOU COUNT ON**

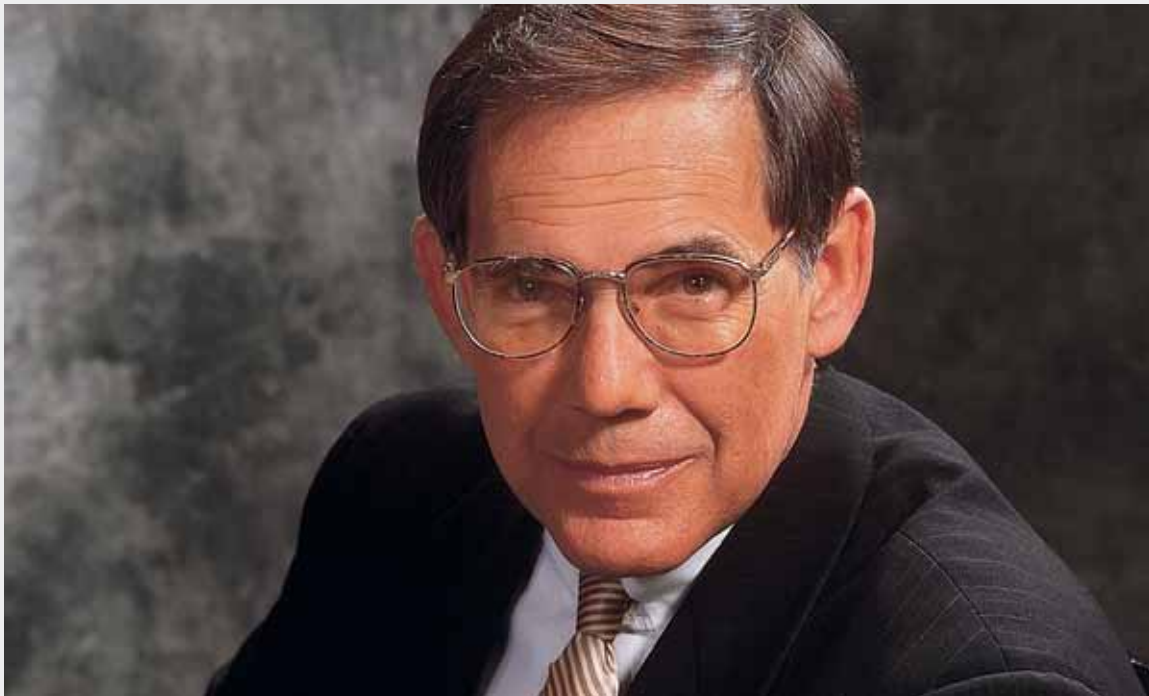
## **Myron W. McKinney**

The Board of Directors elected Myron W. McKinney to serve as president and chief executive officer on April 1, 1997, following the retirement of Robert L. Lamb on March 31, 1997.

McKinney represented Empire's managerial culture by working his way up from an entry level sales position to president of the company.

After receiving a degree in Business Administration from Missouri Southern State University, McKinney went to work for Empire as a sales consultant. He was promoted to numerous positions, including manager of the Columbus office and director of customer relations, before being elected the vice president of Customer Service. At the time of his appointment, McKinney became the youngest vice president in the history of the company.

McKinney's impressive civic involvement included serving as Chairman of the Board of Ozarks Public Telecommunications and president of the Joplin Area Chamber of Commerce and United Way. In 1983 McKinney was campaign chairman for the United Way leading the annual drive to a record year.



He also served as a member of the Board of Directors of Freeman Hospital, the Joplin Family Y, Joplin Rotary Club and the Jasper County Association for Social Services.

He received numerous awards through the years for his extraordinary dedication and commitment to his community and business. In 1984, the Joplin Jaycees named him Boss of the Year. He was Bolivar High School Outstanding Alumnus in 1997 and Missouri Southern State University Outstanding Alumnus and Joplin's Outstanding Citizen in 1999.





**ABOVE:** The Centurion Team with their Comdex award. Front row: Becky Reeves and Janet Carr. Back row: Dan Jones, Ron Hampton, Ron Yust, Phillip Anderson, Larry Walters and Peggy Samson.

## State Line Plant Expansion

One of the most outstanding achievements of 1997 was the completion of the new 152-megawatt gas turbine peaking unit at the State Line Plant. This was the second generating unit constructed at the State Line facility, bringing total plant capacity to 250 megawatts.

On the heels of that success, the company announced on October 2, 1998, a plan for the construction of a 350 megawatt addition to the State Line Power Plant.

## New Internet Web Site

In January 1997, as a way for customers to be in touch, an Internet web site was launched. ([www.empiredistrict.com](http://www.empiredistrict.com)).

## Power Plant Achievements and Upgrades

The Asbury Power Plant spring outage was a success as the 27-year-old plant went back online ahead of schedule. Asbury then achieved a record continuous run of 170 days.

For the year, the Asbury facility completed an all-time, on-line-hours record of 7,753 hours with only 178 forced-outage hours. This resulted in a record availability rate of 88.51%.

During 1997, technology upgrades were installed at both the Asbury and Riverton Plants. Asbury became more efficient when a new fiberglass cooling tower was installed, and at the Riverton Plant, refurbishment work was completed on the stack and a new overflow spillway was installed.

## Centurion

Centurion, a state-of-the-art Customer Information System (CIS), and its development team at Empire gained special recognition in several national publications throughout the year. Centurion, which was developed in-house at an extremely low cost, featured technical benefits both equal to or better than commercially available CIS selling for millions of dollars.

In 1997, Centurion was internationally recognized at the Comdex Internet Application Awards in Germany. Empire was the only United States company to be recognized and the only company in the world to received two awards at Comdex. In addition, in 1998 Centurion was honored for innovation by *Public Utilities Fortnightly*.

## Ice Storm Hits on New Year's Day

The Empire system and employees were tested early on in 1999 when an ice storm struck across the service area shortly after midnight on New Year's Day, knocking out power to 25% of Empire customers before it was through. Fighting frigid temperatures and gusting winds, employees worked through the following days to restore the system. Their quick, sustained response brought many calls of thanks from grateful customers.

## UtiliCorp United Inc.

On May 10, 1999, faced with the uncertainties possible deregulation held, Empire entered into an Agreement and Plan of Merger with UtiliCorp

**BELOW:** Ice storm, 1999.



United, Inc., a Kansas City-based utility with international operations. The agreement was approved by Empire stockholders at a Special Shareholders' Meeting on September 3. The combination of UtiliCorp, Empire and St. Joseph Light & Power (another small Missouri utility) was designed to form a western Missouri-based utility that would deliver world-class service and products to its customers and achieve significant economies of scale in its operations. The merger transaction was slated to be completed by late 2000.

## State Line Combined Cycle

In 1999, Empire began the largest construction project in its history with a 350-megawatt addition to the State Line Plant. The project was undertaken jointly with Westar Generating, Inc., a wholly owned subsidiary of Western Resources, Inc. The new generating unit would use combined cycle technology to capture and recycle waste heat created by the generating process. Also planned was a new 161-kV transmission line to be built in 2000 to accommodate the increased power generation. The new unit, scheduled to be online in mid-2001, would make the State Line Combined Cycle Plant one of the most efficient and environmentally friendly facilities in the nation.

Under the joint agreement,

Empire would own 60% of the combined cycle unit and would be responsible for operating the facility once construction was concluded. Westar would own the remaining 40%.

## New Products Offered

Empire added or expanded five product lines that assisted homes and businesses in protecting their electronic investments. The new expanded products for 1999 included point-of-use surge protectors; MeterTreater, a whole-house surge protection leasing plan; Generlink, an innovative solution for using portable generators; UPS (Uninterruptible Power Supply) System, which provided standby power and surge protection; and an extended power generator.

Empire was also offering an entire array of new services which included monitored security for homes and businesses (E-Watch), fiber optic leasing, monitored energy management and automation, and specialty lighting (E-Luminate). Just as Empire had marketed kitchen appliances seventy years before, the company continued to be a regional supplier of choice for energy and energy-related products.



**ABOVE:** Empire employees attend the groundbreaking for the State Line Combined Cycle Plant.

## **PeopleSoft and Centurion**

In late 1997, after a careful review of the available alternatives, Empire committed to purchase and implement an integrated financial and human resources software system from PeopleSoft, Inc.

The new software system was installed in 1999 replacing 20-year-old financial management and human resource software packages. The employee-designed Centurion Customer Information System was also installed. Centurion provided state-of-the-art technologies that gave the flexibility necessary to support both regulated and new non-regulated services. With this a flexible, more cost-effective client service technology replaced the mainframe system. During 1998 and 1999, Empire employees replaced every computer system that the company had built and installed over the previous 15 years.

## **Brick Stacks Removed From Riverton Plant**

Two distinctive landmarks were removed when the remaining two of the original four, 250-foot tall brick smoke stacks at the Riverton Power Plant were methodically dismantled. The first two stacks were razed during the 1950s.

## **Empire Employees Receive Les Reynolds Million Hour Award**

Despite all the challenges posed by nature, Empire employees marked a major milestone in July, reaching, for the first time in 32 years, one million man-hours worked without a lost time injury. Empire was presented with the Les Reynolds Million Hour Award for outstanding achievement in safety.

## **Order No. 2000**

On December 15, 1999, the FERC issued Order No. 2000 which encouraged development of Regional Transmission Organizations (RTO). RTOs were designed to administer the transmission grid on a regional basis. Order 2000 was intended to continue the process of promoting open and more competitive markets in bulk power sales of electricity that was begun with Order 888.

## **Empire Good Will**

In 1999, Empire employees raised a total of \$90,000 for the local United Way campaign. The majority of the funds were raised from employee donations. Other fundraisers included various in-house breakfasts and lunches. The cuisine varied from ham-n-beans to build-your-own nachos to breakfast burritos.

Empire also presented a check for \$3,050 to the Joplin and Springfield Ronald McDonald Houses. The funds were raised through the sale of 610 Empire collector replica bucket trucks.

And, once again, the annual Christmas Elf Program assisted in brightening the holidays for nearly 600 elderly citizens of the area.

## Y2K Prepared

With the century closing, Empire management created a task force to document and test areas of the company which could be affected by the rollover to the Year 2000 (Y2K). Their plan, named Year 2000 Readiness Plan, called for a multi-step approach. The plan included creating awareness of the Y2K problem, developing procedures for documenting readiness, developing a methodology for readiness planning and testing, and remediation of affected items pursuant to the Year 2000 Readiness Plan. In the end, approximately 150 employees spent an uneventful night at work on New Year's Eve, ready to respond to any Y2K rollover difficulties.

**BELOW RIGHT:** Vicki Williams and Dale Harrington discuss applicant qualifications.

### Vicki Williams

Vicki Williams became director of Human Resources in 1999. As director, her responsibilities encompassed employee relations, benefits, training and payroll.

A native of Alba, Missouri, Williams is a graduate of Alba High School. She began her career at Empire in 1966 in the computer services department. She moved to the personnel department in 1968 and was named assistant director of personnel in 1978 and manager of human resources in 1995.

Williams reflected on her career at Empire stating, "It is a great source of pride for me to see employees begin working in an entry level position and progress to being seasoned and respected employees of Empire. I am so proud and honored to have been involved in bringing those individuals into the company that will continue to build on our solid reputation of having skilled, 'good' people that take care of business so that our shareholders, customers and employees can be proud to be associated with Empire."



## A Century Closes

Empire president Myron W. McKinney summed up the 90th year in Empire's 1999 Annual Report stating, "The 90th anniversary of the company's founding was filled with significant achievements. It began with the challenges of a New Year's Day ice storm and ended with a smooth, uneventful transition to the year 2000. In between, we embarked upon our largest construction program ever, upgraded technologies throughout the organization, and achieved efficiencies and innovations that have set the stage for further progress in the future."

## 21st Century

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### EDE Holdings, Inc.

In 2000, Empire launched EDE Holdings, Inc., a holding corporation for the company's non-regulated businesses. EDE Holdings consisted of EDE Industries, Inc., which marketed contract lighting services, fiber optics and telecommunications, and E-Watch, a monitored security program. Conversant, Inc., another part of EDE Holdings, began business in 2002.

In early February 2003, Empire added dial-up Internet service to its existing line of non-regulated services with the purchase of Joplin.com. The purchase was made through Transaeris, a non-regulated subsidiary of EDE Holdings, Inc. Together, the two companies took the name of Fast Freedom, Inc. Joplin.com was the leading Internet provider in the Joplin area, serving nearly 6,000 customers. EDE Holdings, Inc. posted its first profitable period in the fourth quarter of 2003.

**BELOW:** The Annual Shareholders Meeting in 2000 featured displays of Empire's non-regulated product offerings.





**ABOVE:** Christine Broadwater, Tom Snyder and Myron McKinney (far right) join Missouri Department of Conservation officials to dedicate the new Cooper Creek Access.

**RIGHT:** Doug Garvin, Baxter Line Operations, climbs aboard Big Al.

## Digger Derrick for Sale

In March 2000, Empire donated \$3,045 to the Muscular Dystrophy Association from the proceeds received from the sale of a toy collector truck. The Digger Derrick truck, the second in a series, carried on a tradition of giving that began with the creation and sale of the Empire bucket truck, offered in 1998.

## Cooper Creek Access

On May 23, 2000, the newest public access to Lake Taneycomo was officially dedicated. The development of Cooper Creek Access was made possible through Empire's partnership with the Missouri Department of Conservation.

## Big Al

The newest addition to the Empire transportation fleet arrived in July, 2000. The Altec A. Class Transmission Line Truck, dubbed Big Al, was able to reach a height of 82 feet and surpassed the reaching capacity of the Teco truck. The 1982 Teco truck had a maximum height capacity of 65 feet.



## Centurion Receives Additional Awards

Centurion, Empire's customer information system, won top honors at the international Object Application Awards 2000 held in Vienna, Austria. Chosen from a field of more than 100 worldwide submissions, Centurion received the "Best Implementation of a Distributed Application using Object Technology" category.

## UtiliCorp Terminates Merger Agreement

On January 2, 2001, Empire received official notification that UtiliCorp was exercising its right to terminate the joint merger agreement. Under the terms of the agreement, either Empire or UtiliCorp could negate the deal if all regulatory approvals were not finalized by December 31, 2000.

## State Line Plant Gains New Combined Cycle Turbine

On June 25, 2001, the Empire system grew by 500 megawatts as the new combined cycle turbine came online at the State Line Plant. The operation was one of the most efficient and cleanest burning facilities in the nation. One feature of the plant was the heat recovery steam generators which play a crucial role in the high efficiency of the total plant. The heat recovery system worked by capturing the otherwise lost heat from the exhaust of the combustion turbines. The exhaust heat was recycled to supply enough steam to produce an additional 200 megawatts of power.

Other interesting facts concerning the plant were the unit generated enough power to supply 29,400 homes with electricity. The amount of natural gas consumed by the unit in one hour was sufficient to heat an average home every day for three years. The cost of the \$200 million expansion was comparable to the construction of the TWA Dome stadium in St. Louis Missouri.



**LEFT:** The State Line team displays the dedication plaque for the combined cycle project. Front row: John Woods, Terry Krause, Bill Howell, Brad Beecher and Tony Embrey. Back row: Bill McNeil, Keith Ketcherside, Joe Simmons, Roy Pugh, Shane Conley, Deborah Woods, Mike Malcolm, Larry VanGilder, Gary Pierce, Ed Easson.





**ABOVE:** State Line Combined Cycle Plant.

## **1000 Megawatts Reached For The First Time**

On August 9, 2001, the need for the recently-completed State Line Combined Cycle unit was punctuated when a record peak demand of 1001 megawatts was reached. The new peak occurred at 3:00 pm when the temperature climbed to 98 degrees.

## **Hedging Strategies**

Empire management continued to plan ahead by establishing prudent hedging strategies. Fuel and purchased power made up about 55% of the operating expenses. Fuel price volatility had major ramifications on both short-term and long-term purchasing strategies. In 2001, a hedging strategy was implemented for natural gas, which allowed use of both physical purchases and financial tools. Under this strategy, the company would hedge future natural gas requirements over time under a set of predetermined percentages. The aim was to lessen the impact of volatility in fuel and purchased power expenses and establish a more predictable basis for future rate proceedings.

In September 2001, Empire received approval from the Missouri Public Service Commission to implement an Interim Energy Charge (IEC) which provided a certain level of protection from the volatile wholesale fuel market. The IEC was scheduled to be in effect until October 2003. At that point, the actual fuel and purchased power costs would be audited and any amounts collected for the IEC above the actual costs would be refunded with interest to customers. With the addition of the IEC in Missouri, nearly 95% of the company's electric business had protection from fuel cost volatility.

## Call Center East Opens

The new Call Center East went online in the summer of 2001 to provide customers with quick responses to their inquiries. In addition, plans began for a global positioning system which would allow Empire to move more quickly by pinpointing service interruption problems.

## Myron McKinney Retires

Myron McKinney retired as president and CEO of Empire on April 30, 2002. He stated in the company's annual report, "After more than thirty-four years with Empire, I can honestly say I have been proud every day to be associated with this organization and the wonderful people who make up the Empire family. At Empire, integrity is not a word; it's a way of life." McKinney was named Chairman of the Board of Directors effective May 1, 2002.



**ABOVE:** The Ozark office was converted to a call center in 2001. Pictured: Twila Robbins, Martha Day, Tina Jung and Linda LeJeune.

## William (Bill) L. Gipson Becomes New President & Chief Executive Officer

Bill Gipson joined the company in 1981 in the Information Technology area and was promoted to manager of Economic Development in 1987. In 1995 he was promoted to director of Commercial Operations, and in early 1997, was named general manager of Commercial Operations. He was elected vice president of Commercial Operations in April 1997, executive vice president in 2001 and chief operating officer later that same year. In 2002 he was elected to the Board of Directors and became president and chief executive officer of Empire.

A native of Jasper County, Missouri, Gipson graduated from Missouri Southern State University (MSSU) with a Bachelor of Science degree in Management Technology.

Gipson served as chairman of the Missouri Energy Development Association and the Joplin Area of Chamber of Commerce. He served as a board member of the Missouri Development Association, the Edison Electric Institute, the Financial Research Institute, and as chairman of the Missouri Chamber of Commerce. He also served as a member of the MSSU School of Business Advisory Council, the MSSU Foundation and the Joplin Rotary Club.



## Missouri Energy Development Association

Empire joined with other Missouri investor-owned electric and natural gas companies in October 2002 to create the Missouri Energy Development Association (MEDA). Based in Jefferson City, Missouri, MEDA's purpose was to serve as an industry voice on legislative and regulatory issues. Empire president and CEO Bill Gipson became the chairman of MEDA's Board of Directors.

In 2003, MEDA played a key role in passing initiatives at the state level, including the authorization of the fuel adjustment clause for electric companies and predetermination for significant capital projects such as new generating facilities. On the regulatory side, MEDA worked for more balanced treatment of return on equity, pension expense and depreciation.

**BELOW:** Enhanced stainless steel wheel at Ozark Beach Plant.

## Power Plant News

Construction for the \$55 million addition began at the Energy Center during the summer months of 2002. The two 50 - megawatt FT8s used jet

engine technology to produce efficient power with very low emissions when fueled by natural gas. The company gained additional efficiencies in the construction by using the existing Energy Center site and some of its current infrastructure. The FT8s were the company's most efficient, simple-cycle generating units.

The State Line Combined Cycle Unit was named one of the five lowest-cost providers of combined-cycle generation in the nation by *Power* magazine in 2002.

Ozark Beach employees replaced two of the hydro facility's water wheels and, in the process, gave the units a complete maintenance overhaul. The previous water wheels dated back to the early 1930s. According to plant manager Tom Snyder, the average life expectancy of the wheels was usually thirty to forty years. The replacement stainless steel wheels with an enhanced design allowed an almost 20% increase in output. The remaining two wheels were replaced two years later. With all four water wheels replaced, the generation capacity was increased from 16 megawatts to nearly 19 megawatts.





In 2002, the control room at the Asbury Plant converted to high-tech with the installation of a fully automated Distributed Control System (DCS). One of the key benefits of the new DCS was its extensive data collection capability. This dramatically enhanced the plant staff's ability to analyze problems that occur during plant operation.

Empire continued to support the environment by renewing the Asbury program to burn tire derived fuel (TDF). TDF was a fuel source made by recycling tire products. Asbury's controlled conditions and continuous emission monitoring system ensured that TDF was environmentally safe. Plans called for burning up to 10,000 tons of TDF each year, or about 1% to 2% of Asbury's total fuel. It is estimated that 10,000 tons was equal to just about one million scrap tires.

## International Lineman's Rodeo

Some of Empire's line crews competed at the 19th Annual International Lineman's Rodeo in Bonner Springs, Kansas. A total of 234 teams of linemen representing the United States, the United Kingdom, Canada and Jamaica participated in the event. The event tested the skill and safety of the competitors and provided an opportunity to share experiences with others in their unique trade.

**ABOVE:** The Energy Center team installs a plaque to dedicate the expansion project. Pictured: Brian Berkstresser, Bill Shipley, Joe Simmons, Dale Jasumback, Joe Ruark (Asbell Construction), Buck Shirk, Darren Roper, Ryan Kerschen, Willie Sturm, Jeff Asbell (Asbell Construction), Loy Mahan, Robert Massey, Richard Metsker, and Brad Beecher.



**BELOW:** United Way team captain, Yvonne Copeland, and Scuba Bill helped raise funds for another successful campaign..

## Empire Good Will

Since the creation of the first formal economic development program in 1946, Empire continued to play an active role in the local communities. In 2002, Empire donated an unused tract of land to a not-for-profit organization in Neosho, Missouri. The Joplin Area Chamber of Commerce named Empire its 2002 Industry of the Year citing contributions toward improving the quality of life and the impact it has had on the local economy. An individual honor went to Rick Wallace, manager of line operations in Ozark, Missouri, who received Chamber Member of the Year from the Ozark Area Chamber of Commerce. Empire cyclists took part in the Children's Miracle Network Bike Tour and brought home the trophy for the company with the most participants.

Empire employees raised more than \$120,000 for area United Way organizations during 2002. They also gave their talents and resources to area schools by providing school supplies, judging science contests and reading to children. In 2002, Empire celebrated the 20th anniversary of Project Help, a joint program for the American Red Cross. Over those two decades, \$570,000 in assistance had been distributed to the elderly and handicapped for meeting emergency, energy related needs.

## Empire Acquires Precision Products

On July 17, 2002, EDE Holdings, Inc., a company subsidiary, together with other investors, acquired the assets of the Precision Products Department of Eagle Picher Technologies, LLC, a manufacturer of close-tolerance metal products whose customers are in the aerospace, electronics, telecommunications and machinery industries. The acquisition was accomplished through the creation of the newly formed, non-regulated limited liability company, Mid America Precision Products. EDE Holdings acquired a controlling 50.01% interest in this newly formed company through a cash investment of \$650,000.

## Empire Museum Relocates to Joplin Museum Complex

As 2002 closed, The Empire District Electric Company Museum located at the company's headquarters was moved to the Joplin Museum Complex. A display area at the Complex was renovated to accommodate the new exhibit. For many years, members of the Empire Retirees Association collected significant artifacts and memorabilia. After museum representatives learned of the unique collection, they became interested in ensuring its preservation while making it more readily accessible to the community. The Empire District Electric Company has had a long association with the museum. Empire became the museum's first corporate sponsor in 1931.

## Empire Sells E-Watch

On January 3, 2003, Empire sold E-Watch, a monitored security business, to Federal Protection, Inc. of Springfield, Missouri.



### Southwest Power Pool Receives RTO Status

The Southwest Power Pool (SPP), of which Empire was a member, received conditional approval for regional transmission organization (RTO) status on February 10, 2004.

### Empire Receives Three Awards from Missouri Governor Holden

In October 2003, Empire received three Missouri awards from Governor Bob Holden, the Pollution Prevention Award, the Recycling Award and the prestigious statewide Environmental Excellence Award. These awards recognized the Asbury Plant’s TDF program, which recycled old tires into fuel for power generation.

### Two New Turbines at Energy Center

In late April 2003, two new generating units were completed at the Energy Center. Units 3 and 4 were finished on time and on budget. Plant Manager Joe Simmons stated, “These new units consist of smaller components so they’re easier to install and maintain.” Aside from their manageable size, each unit contains two 25-Megawatt FT8 gas-fired turbines which are a derivative of the Pratt and Whitney JT8D aircraft engine. These units became

**ABOVE:** The Empire Museum in Joplin Museum Complex.

**BELOW:** Governor Holden presents the Environmental Excellence Award to Chris Schafer, Bob Bromley and Brad Beecher.





**ABOVE:** Energy Center, units 3 & 4.

the most efficient, simple-cycle generation owned by the company. The new peaking units could come online and reach full capacity in about ten minutes. They also feature the latest technology in continuous emissions monitoring. Plant managers could monitor and control each of the four Energy Center units and the State Line Unit 1 (which also fell under the operational duties of Energy Center staff) from inside the new main control room.

## **Deadly Tornado Ravages Region**

On May 4, 2003, a series of deadly tornadoes ripped through the Empire District region. Empire employees were immediately called to action. Called “a 50-year to 100-year event” by the National Weather Service, the three supercell storm systems devastated local communities and huge swatches of rural areas. Damage to the Empire system was unprecedented. The storm destroyed two substations and significantly damaged others. The losses were monumental including 170 transmission poles, three steel towers, more than seven miles of transmission lines, about 1,400 distribution poles and nearly 50 miles of distribution line. About 30,000 of the company’s 157,000 customers lost power. By midnight the next day, power had been restored to all but 10,000 customers.

The storm touched down in southeast Kansas, then crossed into southwest Missouri, delivering devastating damage. It ranged in width from 200 to 300 yards. The communities of Carl Junction, Pierce City and Stockton suffered the worst damage. In the end, the tornado left a path of destruction of approximately 75 miles.



## Joplin Main Street Receives New Period Street Lights

Empire assisted the City of Joplin with new historical period light fixtures on Main Street from Fourth Street to Eighth Street. The project was the inspiration of the City of Joplin and Main Street Joplin. Main Street Joplin was a not-for-profit organization that assisted in the revitalization of the downtown area.

## July 4th Storm Knocks Out Power

During the morning of July 4, 2004, thunderstorms wreaked havoc on the region knocking out power for 35,000 Empire customers. High winds caused severe damage to hundreds of trees. Many of the limbs landed directly on power lines or inconveniently blocked roads making access to remote, rural areas problematic. Power was restored to most of the region by July 8, however, on that evening another burst of thunderstorms moved through the area causing some additional outages. By the following day, power was once again restored.

**ABOVE:** Empire crews repair storm damage in the Aurora area.



## Empire Crews Assist Southern States

In September 2004, for the first time in company history, Empire line crews were dispatched to lend assistance with a hurricane restoration effort. Hurricane Ivan ravaged the southern states of Mississippi, Alabama, Florida and South Carolina. Empire personnel came to the aide along with 1,800 utility workers from across the nation. Ivan's wrath contained winds of more than 130 mph and left 1.4 million people without power.

Nearly one year later, Empire personnel were called to Mississippi to help with the relief efforts from the devastating damage caused by Hurricane Katrina. Empire dispatched 21 crew members who worked 5,600 man-hours to assist in the restoration effort.

**BELOW:** Empire Katrina relief crew.



## Empire Receives Distinguished Citizen Award

On November 30, 2004, the Ozark Trails Council of the Boy Scouts of America honored Empire and its employees with their Distinguished Citizen Award. The award was given in recognition of the generous dedication of time, service and financial gifts Empire and its employees have continually shown the region.

## Safety Record Reached

Congratulations were in order as the employees at Empire surpassed the 1.5 million man-hour plateau without a lost-time injury. On December 12, 2004, for the first time in the 95-year history of the company, the 1.5 million man-hour goal without a lost-time injury was reached.

## Wind Generation

Company history was made in 2004 when Empire signed a 20-year contract with PPM Energy. The agreement provided for the purchase of energy generated from 100 individual wind turbines at the 150-megawatt Elk River Windfarm in Butler County, Kansas.

The Elk River Windfarm is an 8,000-acre area located near Beaumont, Kansas. At the time, wind energy offered an environmentally friendly alternative that was affordable as well as stable in price. If the energy generated by wind at Elk River were generated at a typical coal generation plant, nearly 300,000 tons of coal fuel would be consumed per year.

Empire's vice president of Energy Supply, Brad Beecher, stated, "We're not only gaining the environmental benefits of a renewable fuel source, we're creating a balanced mix of generation options which enhances price stability."

The decision for alternative sources of energy was timely with market prices for purchased power and natural gas hitting record highs and rail transportation issues occurring throughout the Midwest impacting coal inventories. This project represented the largest wind generating operation in the state of Kansas. The site was also located close to existing transmission.

During the first quarter of 2006, the "Power on the Prairie" generated 142,595 megawatt-hours of power and contributed an estimated savings of about \$4.2 million in purchased power costs.



**ABOVE:** Elk River Windfarm.

## Riverton Plant Celebrates 100 Years

2005 marked a 100-year anniversary for the Riverton Plant. A Centennial Celebration of the Riverton Plant and a groundbreaking ceremony for a new generating unit, referred to as Unit 12, was held on May 21, 2005.

## New Substation for Webb City

A new \$2.75 million substation was completed just north of Webb City. The new substation was constructed to meet the growing needs of the Webb City area and was officially named the Cardinal Substation with its strong connection to the home team of the Webb City Cardinals.

**BELOW:** Empire representatives and Webb City community leaders dedicated the new Cardinal Substation on June 8, 2005.



## Asbury Plant Shines

The Asbury Power Plant was recognized as one of *Power* magazine's Top Plants in 2005. The plant received the award for mixing pieces of tire-derived fuel (TDF) into the coal fuel supply while not compromising local air quality.

In December of 2005, the Asbury Plant set a record for running 4,624 continuous hours or 192.7 days without a work stoppage. The previous record was set in 2000.

**BELOW:** Asbury employees after a successful spring maintenance outage.



## Tornadoes Hit Branson

On March 11 and 12, 2006, the Branson area experienced a series of strong storms, tornadoes and straight-line winds. The Missouri communities of Marionville, Clever and Billings also suffered damages. For a short period of time, about 8,500 customers were without power.

## Plum Point

In keeping a balanced generation portfolio, Empire signed an agreement to become a partner in the Plum Point Energy Station located near Osceola, Arkansas. Construction of the 665-megawatt coal-fired plant began in March of 2006. Empire's commitment was to own a 50-megawatt share of the plant.

## Empire Acquires Natural Gas Operation

On June 1, 2006, Empire branched out, acquiring another utility when they purchased the Missouri natural gas distribution operations of Aquila Inc.

The newly formed Empire District Gas Company was a wholly owned subsidiary consisting of 48,500 customers representing 44 communities in northwest, north central, and west central Missouri. The gas system included 1,274 miles of transmission and distribution mains. The acquisition allowed for some diversity by balancing the company's summer electric air-conditioning peak with the gas company's winter heating peak.



**ABOVE:** Bill Gipson and Aquila CEO Rick Green sign documents completing the sale of Aquila's Missouri gas operations to Empire.

## Energy Star Light Bulb

In 2006, Empire embarked on its second year in the Energy Star, "Change a Light, Change the World" program. Empire teamed up with the Missouri Department of Natural Resources and Midwest Energy Efficiency Alliance to become a sponsor of the program that offered Empire residential customers instant rebates to encourage use of CFLs. By using 75% less energy than standard bulbs, energy savings of \$30 per bulb was possible. Customers purchased 9,800 bulbs through the program in 2006.

**BELOW:** Ice storm, January 2007.

## Paralyzing Ice Storms Cover Service Area

History was rewritten in 2007 when two destructive ice storms bore down on the area, the first in January and the second in December.

On January 12, a paralyzing ice storm that raged for three days affected the majority of the Empire service territory. Crews worked through the freezing rain and ice putting lines back up only to have more continue to fall. At the height of the damage, more than half of the company's customers – or a total of 85,000 – were without power.

Communities that suffered the most severe damage included those in and around Aurora, Neosho, Ozark and Bolivar in Missouri as well as towns in northeast Oklahoma and northwest Arkansas. Many other parts of the service area experienced damage and power outages as well.

Empire enlisted an additional 1,500 workers from across the country to assist the company's 400 employees working in the field during the restoration effort.

Finding lodging for all the outside workers proved to be another challenge. Rooms quickly filled in Joplin, forcing alternate planning. With many hotels unavailable in





**ABOVE:** Ice storm, January 2007.

**RIGHT:** Riverton employees with new Unit 12.

Springfield, which was also hit by the storm, Empire was forced to bus visiting crews to hotels and motels in Branson. In total, Empire rented out about 7,300 room nights to board the workers.

During the effort, 1,800 poles, 3,500 crossarms, and 400 transformers were replaced, and nearly 100,000 calls were received in the company's call center.

By January 23, the company reported less than 2,500 customers without power. Many of those remaining had property damage that hindered reconnection.

As a side note, by March 15, city work crews in Neosho had removed nearly 105,000 cubic yards of tree limbs as part of the storm cleanup. This amount equaled to an astonishing 29,000 pickup truck loads. According to Neosho finance director, Bob Blackwood, the cost for cleaning up the city was around \$1.6 million to \$1.7 million.

For this storm, the total cost to Empire alone exceeded \$20 million. This amount was substantially higher than the \$7 million incurred from the tornadoes that swept through the area in May of 2003, previously the most damaging storm in the company's history.

Then, on December 9, as the Christmas holiday approached and thoughts were turning to family and festivities, Empire was hit again. This time, 65,000 customers were affected, many in and around the Joplin area.

The damage was similar to the January ice storm, with lines and equipment succumbing to the affects of heavy ice and wind. Empire crews were assisted by 1,200 contract personnel and by December 19, virtually all custom-



ers were restored to service.

On January 31, the company announced they had incurred expenses of more than \$18 million in the repair effort.

That same month the company and its employees were honored with the Edison Electric Institute “Emergency Recovery Award.” This was the first time Empire employees had been chosen to receive this national award given in recognition of their “perseverance through the harshest of conditions,” in response to the January 2007 ice storm.

Speaking at the company’s annual meeting in April, Bill Gipson, president and CEO, remarked, “I couldn’t be more proud of my fellow employees and the outside crews who assisted us during the restoration. Their performance was nothing short of heroic. This award is a tribute to their skill, dedication, and tenacity. And their repeat performance eleven months later when we were dealt a second storm further amplifies my pride in our employees.”

## Riverton Plant Adds New Turbine

On Tuesday, April 10, 2007, Riverton Unit 12 came online. The new generating unit was a Siemens Westinghouse V84.3A2 combustion turbine fueled by natural gas. To accommodate the new turbine, a new 161-kilovolt substation was constructed on the site, existing plant-structures were removed and a new natural gas lateral line and metering station were constructed. Total investment in the plant, on-site transmission and substation facilities was \$49 million. The new unit offered high efficiency, economical operation and low emissions.

## NOx Reduction

Installation of a selective catalytic reduction system was added to the Asbury Power Plant. Selective catalytic reduction is a process where a gaseous or liquid reducing agent (anhydrous ammonia in Asbury’s case) is added to the flue or exhaust gas stream and is absorbed onto a catalyst. The ammonia reacts with NOx in the exhaust gas to form water vapor and nitrogen gas.

With the new system in place, an 85% reduction in NOx could be achieved.

## New Substation for Republic

A new substation was constructed for Republic, Missouri, to meet the fast growing population. Over the preceding five years, 1,067 building permits were issued in Republic totaling \$144 million. During this period, Empire responded to this extraordinary growth by investing \$8 million in improvements, including \$1.8 million for the construction of the new substation.

## Additional Street Lights for Joplin

New street lights were added to Joplin as a result of a public safety tax which was passed by the electorate in November 2006. The street lighting project entailed nearly 4,000 new street lights. The new 150-watt, high pressure sodium lights had a longer life span and produced 16,000 lumens of



**ABOVE:** Bob McKenzie and Rick Stockton discuss the street lighting project in Joplin.

**BELOW:** Vince Weatherly at work on the new Republic Substation.



lighting power compared to the former 175-watt mercury vapor light which provided just 6,800 lumens.

## **Fiber Optic Growth**

Fiber optics continued to be a successful growing business. Starting in 1996 with a first year goal of \$5,000 in revenue by 2007, revenue had grown to more than \$3.6 million. The network consisted of 835 miles of fiber with 475 connections.



**ABOVE:** Meridian Way Windfarm.

## **Flood Waters Close Ozark Beach Plant**

The Ozark Beach Plant sustained a long-term outage when White River flooded over the dam. Record-setting rainfall amounts occurred during the months of March and April. At flood peak, the water crested at the highest level since the construction of Table Rock Dam. Due to the flooding, the plant did not go on line until August 2008.

## **Satellite Communications**

The employee friendly E-Work came online in 2008. The program, developed by Empire's Information Technology Department, allowed each truck to communicate via satellite with the office throughout the day, enabling linemen to receive jobs and complete jobs without having to return to the office. The new program also did away with the cumbersome, time-consuming hand-written paper work that existed previously.

## Kelly Walters

Kelly Walters became the first female senior officer in 2006 when she was elected vice president – Regulatory and Services. Walters’ job responsibilities include corporate communications, information services, land administration, planning and regulatory, purchasing and stores and safety and environmental services. She joined the company in 1988 as a fuel accountant and held various accounting and management positions before being named director of auditing in 1997. During a four-year separation, she served as the Director of Financial Services for Crowder College in Neosho. She returned to the Company in 2001 as Director of Planning and Regulatory and was later named General Manager of Regulatory and Services.

A native of southwest Missouri, Kelly holds a Bachelor of Science degree in Accounting from Pittsburg State University and a Masters degree in Human Resource Management from Webster University, St. Louis, Missouri.

Kelly serves as a member of the Crowder College Foundation Board and is a former board member and treasurer of the American Red Cross Southwest Missouri Chapter. She is a graduate of Leadership Missouri, and is a member of the Anderson Lions Club and serves on the Missouri Workforce Investment Board.

Walters summed up her career at Empire, “There have been many female managers at Empire and I am honored to be included in that group. Regardless of gender, it is a great responsibility and I have and

will continue to work hard to obtain the respect of those working with me.”

She is also pleased to be a part of Empire’s second hundred years. “For 100 years, Empire’s culture has encouraged people to do their individual best to provide safe, reliable service to our customers and solid value to our stockholders. This tradition will continue as we move forward, and I look forward to being a part of Empire’s future.”



## Tornado Hits Tri-State Area

Another deadly storm struck Empire’s service territory May 10, 2008. The storm packed winds up to 170 miles per hour, baseball-size hail and a series of deadly tornadoes. It stretched through the states of Kansas, Oklahoma and Missouri leaving 14,000 customers without power.

## Meridian Way Wind Farm

Ground was broken for the Meridian Way Wind Farm in Cloud County, Kansas, on April 11 , 2008, and commercial operations began in Decem-

**ABOVE:** Kelly Walters with Otto Martin and Bob Barchak of Land Administration as they survey maps of company land holdings.



ber 2008. The wind farm, owned and operated by Horizon Wind Energy, is located near Concordia, Kansas, and was expected to provide 350,000 megawatt-hours of energy annually.

Empire signed a 20-year purchased power agreement with Horizon Wind Energy for 105 megawatts of Meridian Way. The project consists of 35 three-megawatt Vesta V90 wind turbines. The structures stand 260 feet tall at the hub and have a blade diameter of nearly 300 feet. They kick into operation with a nine-mile-per-hour wind and cut off when wind speeds reach 58 miles per hour.

When combined with energy from Elk River Windfarm, the two projects were expected to provide about 15% of Empire's energy needs in 2009.

## A Final Word

As The Empire District Electric Company ended a century of service, its workforce had expanded to 733 employees. Its electric segment had grown to provide service to 167,645 customers in 121 incorporated communities in Missouri, Kansas, Oklahoma, and Arkansas with 1,281 miles of transmission lines, 6,857 miles of distribution lines, and 1,255 megawatts of generation. The natural gas segment was providing service to 44,703 customers in 44 communities in northwest, north central, and west central Missouri through 87 miles of transmission mains and 1,113 miles of distribution mains. Water was provided in three Missouri communities to about 4,500 customers through 87 miles of mains, and the non-regulated subsidiary for the fiber optics business had 84 customers.

**BELOW:** Natural gas service is extended to the Marmaton River Project in Nevada. Pictured: Don Vernon and Norman Wilson.





**William L. Gipson**  
President and Chief Executive Officer

October 2009

As Brad was writing our 100-year history, there was much discussion of generating plants, poles, and electric and gas lines. Clearly it is our business to build these kinds of facilities in order to serve our customers. But our business is much more than kilowatts and mcfs; our business is people.

In a way, this is true of every business. But energy utilities, especially small, investor-owned utilities like Empire, embody the concept in a special way. The work we do ensures that factories and hospitals operate, that ballparks are lit for night games, that homes are warm. We – “we” meaning Empire employees and shareholders – impact the lives of everyone in the Empire service territory every single day, and when we’ve done our jobs right, they don’t even notice.

It is this role that we play in our communities and our awareness of the responsibilities it entails that form the core values of Empire. We work hard every day to ensure that our customers get reliable, cost-effective energy, that our communities receive the benefits of a good corporate citizen, that our employees enjoy a positive work experience, and that our shareholders receive a good return on an investment of which they are proud.

Our legacy and our values will continue to guide us as we face the challenges ahead. We have an obligation and a commitment to go forward thoughtfully. We take this duty seriously as we constantly strive to fulfill our mission to be a respected supplier of energy and services.

*Bill Gipson*

**The Empire District Electric Company**  
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## Celebrating a Century of Service

Since the early days of The Empire District Electric Company, employees and their families have enjoyed gathering for food and fun at picnics. To celebrate the 100-year anniversary, three picnics were held with over 1,300 employees, retirees, and their families enjoying the festivities.



**ABOVE:** Annual picnic for Empire employees at Riverton, July 14, 1914.

**OPPOSITE:** Joplin's Schifferdecker Park, the former location of Empire's Electric Park, was the perfect spot for the Joplin picnic.





**THIS PAGE:** Rain early in the day didn't dampen the spirits of picnic-goers in Ozark.





**THIS PAGE:** There was plenty of friendly competition in Sedalia with ladder golf and hula hoop contests.

## About the Author

Brad Belk is a native of Joplin, Missouri. He has been a practicing public historian for the last twenty-two years. Belk is an author, educator, archivist, historian, exhibit designer, conservator and historical film script composer and producer. He has been associated with the Joplin Museum Complex since 1987 and currently holds the position of Executive Director. The Joplin Museum Complex is committed to preserving the history of Joplin, the Tri-State Mining District and southwest Missouri.

Belk graduated from the University of Missouri in 1978, and attended the University of Kansas, as well as graduate work at Pittsburg State University and the University of Oklahoma.

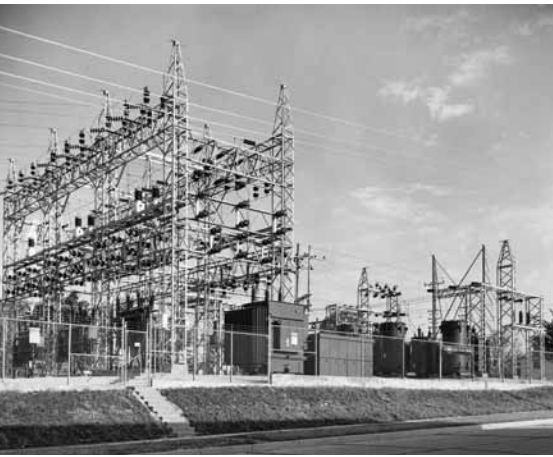
He is currently a member of the Joplin Elk's Elkland Advisory Committee, Joplin Sports Hall of Fame Selection Committee, Missouri History Speakers' Bureau, American Association of Museums, American Association For State and Local History, Association of Science Museum Directors, University of Missouri Alumni Association, The Archeological Conservancy, Society of American Archivist, Seven Eagle Club of Center Creek Golf Club, National Council on Public History, National Trust for Historic Preservation, an honorary Life Member of the Joplin Historical Society and historian of the Joplin Rotary Club.

Belk has held official positions in a wide variety of organizations including: president of the Merle Evans Circus Tent #27; vice president of the Heritage Trust; president of the Ozark Museums Association, secretary, treasurer and co-founder of the Tri-State Gem and Mineral Society; co-chairman of the City of Joplin's 125th Celebration; chairman and host of the 1999 state conference for the Missouri Alliance for Historic Preservation; director of the Crystal Cave Rediscovery Project; adjunct faculty member of Missouri State University; board member of the Route 66 Association of Missouri; board member of the Missouri Alliance for Historic Preservation; chairman of the Route 66 monolith project; advisory board member of the Joplin Convention & Visitor's Bureau and Joplin chairman for the Missouri Lek Trek.

He has served on the advisory committee for the Jasper County Centennial Courthouse Committee, Vision Joplin and the 2001 Capital Improvements City Task Force.

For a decade Belk provided an historical photograph and narration for the weekly "The Way We Were" feature in *The Joplin Globe*. He has assisted *The Joplin Globe* in numerous historical series and celebrations. In 2009 Belk began writing a monthly column for the newspaper.

To further preserve the region's local history, Belk began writing books and producing historical DVDs in 1993. The following publications were written by Belk: (The \* symbol denotes that Belk was a co-author.) \* *Crystal Cave: Hidden Jewel of Joplin* (1998), *To Our Absent Brothers* (1999), *100 Years and Growing Strong* (1999), *The American Photographic Series: The Best of Joplin* (1999), \**Joplin Keepsake Album* (2000), \**Joplin Souvenir Album* (2001), \**Joplin Historical Guide* (2003), *A Mausoleum Walking Tour of Mount Hope Cemetery* (2004), *Orley's Legacy: The History of Freeman Health System* (2005), *First United Methodist Church 100 Years 1905-2005* (2005), *Murwin Mosler's Gift to Joplin* (2005), *For the Families: Ronald McDonald House Celebrates the First Ten Years* (2009), and \**History Guide Joplin & Carthage, Missouri* (2008). In 2009 Belk assisted in creating and writing



**ABOVE:** 26th Street substation #59.

**BELOW:** Sales consultant demonstrating light fixture in the 1920s.



a website covering the history of lead and zinc mining in Jasper County for Missouri Digital Heritage [www.sos.mo.gov/mdh/collections.asp](http://www.sos.mo.gov/mdh/collections.asp).

The following film productions which have been shown on local and regional television networks were co-written and co-produced by Belk: “From the Ground Up”- a three part series on the history of Joplin (1993-1996); “Tri-State Mining Roundtable” (2002); “The Joplin Museum Complex” (2003); “Scientific, Geological Wonders and Curiosities In and Near Joplin” (2003); Exploring the Mausoleums at Mount Hope Cemetery” (2004); Route 66: Missouri’s Mother Road” (2006); “Hometown Heritage Series” (2007); “Thomas Hart Benton - - - from the Ozarks and Beyond” (2008); “Heart of a Community: The Story of Freeman Health System” (2008) and “The History of Missouri Southern State University” (2009).

Belk was honored by receiving the Missouri Governor’s 2006 Missouri Humanities Award for his “special contribution to a community’s understanding of its heritage” as well as “preserving the history of southwest Missouri.”

In 1991, Brad married Belinda Porter. Both are extremely active in serving the Joplin community with their time and talents. They reside with their furry, four-legged family members Bea, Bella, Boo Boo, Baby and Blossom in the Eastmorland district of Joplin.





# Bibliography

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## Books

- Barnhart, Robert. The American Heritage Dictionary of Science. Houghton Mifflin Company, 1986.
- Boorstin, Daniel J. The Americans The Democratic Experience. Vintage Books, 1974.
- Conrad, Edward A. Tri-State Traction The Interurban Trolleys Of Southwest Missouri, Southeast Kansas and Northeast Oklahoma. Heartland Rails Publishing Company, 2004.
- Dulken, Stephen Van. Inventing The 20th Century 100 Inventions That Shaped The World From the Airplane to the Zipper. Barnes & Noble, Inc., 2007.
- Gibbons, Charles E. ed. Angling in the Archives News of Half-Century Ago - - - and beyond. H. Lang Rogers, 1996.
- Gibbons, Charles E. ed. Angling in the Archives More News of Half-Century Ago - - - and beyond. Joplin Globe, 2000.
- Gibson, Arrell M. Wilderness Bonanza: The Tri-State District of Missouri, Kansas, and Oklahoma. University of Oklahoma Press, 1972.
- Kirkendall, Richard S. A History of Missouri. University of Missouri, 1986.
- Kirkman, Kay, and Stinnett, Roger. Joplin, A Pictorial History. Donning Publishing, 1981.
- Livingston, Joel T. A History of Jasper County, Missouri, and Its People. 2 vols. Lewis Publishing Company, 1912.
- McCarty, Jim. Let There Be Light. Donning Company Publishers, 2005.
- Morris, Richard B. and Greenleaf, William. U.S.A. The History of a Nation. Rand McNally & Company, 1969.
- Morris, Robert R. OGE Energy Corp. Our First 100 Years 1902-2002. Donning Company Publishers, 2001.
- North, F. A., ed. History of Jasper County, Missouri. Mills and Company, 1883.
- Panati, Charles. Pantai's Parade of Fads, Follies, and Mania. Harper (GAPPP), 1991.
- Parnell, Todd. A Century of Family Reminiscence Postcards From Branson. PFLP Publishing L. L. C., 2006.
- Polk, R.L., ed. Joplin City Directories. 99vols. 1910-2009.
- Renner, G. K. In Pursuit of Excellence Missouri Southern State College 1937-1992. Donning Company Publishers, 1993.
- Renner, G. K. Joplin From Mining Town to Urban Center. Windsor Publications, 1985.
- VanGilder, Marvin L. Jasper County The First Two Hundred Years. Bell Books, 1995.
- Vennard, Edwin. Management of the Electric Energy Business, McGraw-Hill Book Company, 1979.
- Young, Harold H. Forty Years of Public Utility Finance. University Press of Virginia, 1965.

## Newspapers

Baxter Springs Citizen  
Bolivar Free Press  
Carl Junction Standard  
Carthage Press  
Joplin Business Journal  
The Joplin Globe  
The Joplin News Herald  
Kansas City Star  
Kansas City Times  
Southwest City Republic  
Stockton Cedar County Republican

## Magazines, Periodicals, Privately Published Material and Empire In-House Publications

Bailey, F. F. "A Short Story of the Big Dam." Taney County Republican, July 10, 1913.

"Power Industry Forecasts Changes in Next 10 Years." Business Week, January 28, 1931.

"Electric Utilities Cut Budgets For 1932 Construction by 28%." Business Week, January 6, 1932.

"Competition Lines Up For Air-Conditioning Sales." Business Week, May 18, 1932.

Hoag, David D. A History of The Empire District Electric Company, Joplin Printing Company, 1923.

An Introduction to The Empire District Electric Company, 1966.

"Electricity and Human Labor." The New Republic, January 8, 1940.

Empire Builder. Vol. 1-2, 1924-1926.

Empire Builder. Vol. 3-4, 1926-1928.

Empire Builder. Vol. 5, 1928-1929.

Empire Dispatch (dates)

Empire District Electric Company Open House, 1987

Empire District Electric Company Annual Reports, 1930 – 2009.

Empire In The Mid-Eighties, 1985.

Empire Tomorrow, E. J. Drewelow, May, 1963.

Groundbreaking Empire's Asbury Plant P. and M.'s Empire Coal Mine, September 15, 1967.

Hi-Voltage. Vol. 3, 1921-1923, Vol. 4-5, 1924-1926, Vol. 6. 1926-1927, Vol. 7. 1927-1928, Vol. 8, 1929, Vol. 12, 1938, Vol. 13, 1939, Vol. 14, 1940, Vol. 15, 1941, Vol. 16, 1942, Vol. 17, 1943, Vol. 18, 1944, Vol. 19, 1945, Vol. 20, 1946, Vol. 21, 1947, Vol. 22, 1948, Vol. 23, 1949, Vol. 24, 1950, Vol. 25, 1951, Vol. 26, 1952, Vol. 27, 1952, Vol. 28, 1953, Vol. 29, 1954, Vol. 30, 1955, Vol. 31, 1956, Vol. 32, 1956, Vol. 33, 1957, and Vol. 34, 1958.

History and Information Concerning The Gas Service Company. 2 volumes. 1925-1957.

History of the Joplin Municipal Plant, 1920.

Joplin Gateway To The Ozarks, Joplin Chamber of Commerce, 1951.

1934 Progress Report Distribution Department The Empire District Electric and Associated Companies, 1934.

1936 Progress Report Distribution Department The Empire District Electric and Associated Companies, 1936.

1954 Empire –Gram, 1954.

1909 October 16 1959 50th Anniversary Open House, 1959.

"The Coming Boom in Kilowatts." Fortune, December, 1939.

The Empire District Electric Company Annual Report, 1909-2008.

The Empire District Electric Company Joplin, Missouri Presents The Empire Story, 1952.

The Empire District Electric Company, Industry of the Month, 1990.

The Sale of the City's Municipal and Street lighting Equipment to The Empire District Electric Company, 1929.



**ABOVE:** November 8, 1910.

**FOLLOWING:** Empire line crew.

**BELOW:** Lowell Dam, Riverton.



The Securities Salesman, July, 1921.

Welcome to the Asbury Plant, 1970.

White River Valley Historical Quarterly Anniversary Issue, Spring, 1963.

Whitton, Mary Ormsbee. Electricity – The New Servant and What It

#### Costs

Government Publications and Records

Ordinance No. 98, March 15, 1887.

## Interviews

Katie Barton  
Jeff Bertelson  
Sandy Blakeley  
Jeff Brown  
Jeneane Chartier  
Angela Cloven  
Gary Clark  
Harold Colgin  
Vernon Corkle  
Dee Lynn Davey  
Millie Dickerson  
Rhett Elliott  
Tina Gaines  
Wade Gilkey  
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