

# *Coffeyville Municipal Light & Power*

## *1901-2001 The First 100 Years*

*Early attempts to bring electric lights to Coffeyville.*

### **1890**

*April 2<sup>nd</sup>* - A private individual, J.H. Kuder, was granted a twenty-year franchise by the Coffeyville city commission to erect poles, string wires and to distribute electric current for lighting purposes. As part of this franchise, the City contracted for eight 2,000 candlepower arc lights to be installed, at locations designated by the Mayor and Councilmen, on or before June 1, 1890. It is believed that Mr. Kuder had operated his power plant located near the intersection of 4<sup>th</sup> & Santa Fe streets since 1886. However, the plant was ultimately unsuccessful and ceased operations only a few years after the franchise was granted.

### **1897**

*December 7<sup>th</sup>* - A special election was held to consider the issuance of \$17,000 in bonds for the construction of a municipal electric light and power plant. Although the bond proposition passed in a three-to-one vote, delays in locating an acceptable master electrician to prepare the plant specifications and a growing concern by some citizens as to the cost of electric lights compared with gas lights caused this first attempt to put in a municipal plant to become mired down in a political and legal tug-of-war lasting into 1900.

### **1900**

*June 6<sup>th</sup>* - A report by a committee appointed by the City Commission to investigate the electric light issue reads in part as follows: "...Gentlemen in this dawn of the Twentieth century there is but one light and that is electricity... Therefore, in view of the foregoing and the belief of your committee that the people of this city want electric lights... we would respectfully recommend... submission to the voters of a proposition to issue municipal electric light bonds in the sum of \$20,000 for the erection and equipment of a municipal electric light and power plant..." - C.S. Pellett, Andy Curry, and C.D. Metcalf, Electric Light Committee.

### *A second bond issue for electric lights is passed.*

*September 4<sup>th</sup>* - A second special election is held on the electric light issue and the proposition to issue \$20,000 in bonds for construction of an electric light and power plant easily passes.

*October 18<sup>th</sup>* - The City Commission passes Ordinance No. 480 awarding the contract for construction of an electric light & power plant to The St. Louis Electrical Supply Company of St.

Louis, MO, at a cost of \$17,952 leaving a balance of \$2,048 for the purchase of a site, gas connections, etc. The plans and specifications called for installation of a plant with 120 kW capacity provided by two Ideal steam engines each connected to a belt-driven 60 kW dynamo.



*Coffeyville Power Plant  
1904*

## 1901

March 6<sup>th</sup> – The City Commission passed Ordinance No. 490 establishing service rates for customers of the new municipal electric light and power plant as follows:

### FLAT RATES

#### Incandescent, 16 Candlepower lamps, for residences, churches, halls, etc.

1 to 6 lights – 25 cents ea./mo.

Each additional light until 12 are taken – 20 cents ea./mo.

Each additional light until 20 are taken – 15 cents ea./mo.

Each additional light after 20 are taken – 10 cents ea./mo.

#### Incandescent, 16 Candlepower lamps, for business houses, etc.

1 to 10 lights – 25 cents ea./mo.

Each additional light until 20 are taken – 20 cents ea./mo.

Each additional light after 20 are taken – 15 cents ea./mo.

Above rates for ordinary lighting. For lights burned till midnight add 20 percent to these rates, for lights burned all night add 50 percent to the midnight rate.

#### Arc Lights, 2,000 Candlepower lamps

1 light ----- \$3.50/mo.

2 lights ----- \$6.50/mo.

3 lights or over -- \$3.00 ea./mo.

Meter rates will be made on application, but no meter will be connected for less than ten lights, the minimum monthly charge where a meter is used shall be \$1.00 for residences and \$1.50 for business houses.

*Finally, the municipal light plant begins operations.*

*April 12<sup>th</sup>* – The new municipal electric light plant located between 6<sup>th</sup> & 7<sup>th</sup> streets along Santa Fe was put into operation for the first time to do actual work at 8 p.m. on this Friday evening. The fifty-two arc lights installed about town for street lighting were the first electric loads for the new plant. In the beginning, the streetlights were burned according to the “Philadelphia Moonlight Schedule” meaning that they were only used on particularly dark, moonless, or cloudy nights. Some of the first businesses connected to the new electric system were Upham’s, Whitney Lumber, A.R. McKenna, and the Tremont Hotel.



*Early day linemen stringing wire in 1906 at the SW corner of 9th & Maple near the Jefferson Theater. The arc light at the top of the pole is one of the original 52 lights installed in 1901.*

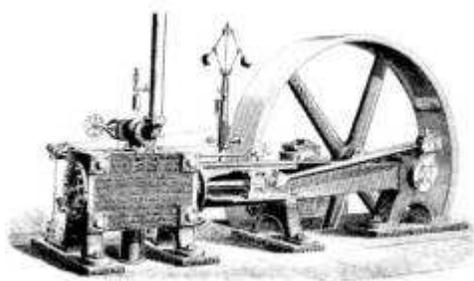
## 1904

*July 19<sup>th</sup>* - A special election to issue \$15,000 in bonds for expansion of the power plant was held and the proposition passes 7 to 1 with low voter turnout. The proposed expansion increased the plant capacity from 120 kW to 400 kW, sufficient to carry 100 arc lights and 5,000 incandescent lights.

## 1905

*February 9<sup>th</sup>* - The City Commission approved the purchase of major equipment for the power plant expansion including three Wekama tubular boilers, two Hamilton Corliss steam engines and two 200 kW dynamos.

*September 29<sup>th</sup>* – The first of two new 200 kW dynamos was put into service. As part of the plant expansion, the primary distribution line voltage in town was increased from 1,100 Volts to 2,200 Volts.



*Corliss type horizontal steam engine similar to the engines installed in the plant in 1905.*

## 1906

November 26<sup>th</sup> - Electric rates were revised under Ordinance No. 770 to include kWh meter rates in addition to the flat rates. Customers were given the option of providing their own meter, subject to approval by the utility, or having the utility provide a meter and paying a deposit.

*Kilowatt-hour meter - Westinghouse Type A manufactured 1903-1904. Early electric customers were given the option of paying a flat rate or purchasing their own kWh meter and paying a metered rate.*



## 1907

Though based on today's standards, the dim and flickering lamps of that era would be considered impossible, citizens were accepting this 'new-fangled' method of lighting homes in such volume that an increased capacity of 600 kW was essential.

## 1911

December 4<sup>th</sup> – The City Commission passes Ordinance No. 1185 establishing a “Big White Way” in the business district calling for the installation of electric lights on ornamental iron posts along each block within the district. Downtown merchants purchased the poles and the City furnished the installation and electricity. The cast iron posts were made locally by the Coffeyville Iron Works and later by Acme Foundry. Streetlights prior to this time were primarily located at intersections only. By 1915, there were 150 of these 5-light ornamental streetlights in the downtown district. The number of white-way fixtures had increased to 254 by 1932.



*This 1940s photo shows a typical “White-way” street lighting standard located in front of the J.J. Newberry Co. store on West 9th Street..*

## 1913

The downtown “White-way” lighting started in 1911 was the envy of other towns of this section. The additional street lighting load, coupled with increasing consumer demand made a further plant expansion to 900 kW necessary.

## 1917

Commercial and industrial activity accentuated by World War I brought a doubling of the plant capacity to 1800 kW with the addition of a 900 kW steam turbine. During this time, the power plant building was reconstructed around the existing machinery and the steel stacks associated with each boiler was removed and combined into a single 175 ft concrete smokestack. Reports of the time stated that the new turbine could be powered from the exhaust steam from the existing engines or directly by the new boiler that was configured to burn Southeast Kansas coal.

## 1920s

This period in the life of the municipally owned plant saw plant operations continually expand and private utilities expressed a desire in purchasing the revenue producing plant. Two private utilities proposed a buyout of the City’s municipal electric system by circulating petitions calling for a special election on their buyout proposal. However, on August 1<sup>st</sup>, 1922, citizens voted 3 to 1 to retain ownership of the utility and the phrase “THIS PLANT IS NOT FOR SALE” was later painted on the power plant’s 175 ft tall smokestack as a reminder of the community’s stance on this issue. It is said that these words were still visible when the smokestack was raised in 1949 as part of a plant expansion project.

*Oscar Jensen (1865-1942), a native of Denmark, served as Commissioner of Streets and Utilities during most of the 1920s. He was instrumental in the fight to keep local control of the municipal electric utility during the buyout campaign of 1922.*



Three Westinghouse steam turbines (1,500 kW, 2,000 kW, and 3,000 kW) were installed during 1923-1927, the old boilers were replaced, and the old belt-driven generators were scrapped resulting in a plant capacity of 6,150 kW. The existing plant walls were extended and a new roof supported by steel beams was added to accommodate the new equipment. Having weathered a buyout attempt earlier in the decade and later expanding to become a modern and efficient power plant made the Utilities Commissioner of the time, Oscar Jensen, quite proud of the electric system. To insure there was no question in the mind of the average passer-by as to who owned and operated this modern and efficient plant, a large, electric advertising sign, 20 x 80 ft, bearing the inscription “Coffeyville Municipal Light & Power” was purchased from the Mehl Brothers Sheet Metals Works of Coffeyville and installed on top of the expanded plant building.



*Coffeyville Power Plant in 1932 showing the phrase “THIS PLANT IS NOT FOR SALE” painted on smokestack.*

## 1930s

In the early days of the depression a small decrease in energy consumption occurred but for a short time only. After the first shock of economic distress passed, the upward trend of energy consumption continued on. By 1932, the utility supplied current to approximately 4,500 domestic customers and about 65 industrial plants and had a total system peak demand of 2,700 kW. Electric was furnished to 300 streetlights using 6,000 lumen lamps and 254 “White-Way” standards using 300 Watts each. In addition to the City of Coffeyville, the utility provided power to South Coffeyville, OK, Copan, OK, and Caney, KS. The approximate value of the plant had grown to \$975,000 from the initial investment of \$20,000 in 1901.

September 1939 brought completion of another plant expansion including the addition of a 5,000 kW Westinghouse turbine-generator.

*This entry on the West face of the plant was added in the late 1940's.*



## 1941-1946

World War II brought peak load demand to 7,900 kW much too close to plant capacity for comfortable operation. Wartime shortages and restrictions prevented an expansion to alleviate the danger of power outages due to overworked equipment.

## 1947-1949

Brought a return of material and equipment supplies making possible the completion of the expansion program. A 10,000 kW Westinghouse turbine-generator and new boilers were installed bringing plant capacity up to 21,500 kW. However, actual capacity was limited to 15,000 kW by the existing cooling towers. It was at this time that the current West facade and upper level offices at the north end of the plant were added. During this time, the primary operating voltage of the distribution system was increased from 2,300 Volts to 4,160 Volts.



*Coffeyville Power Plant following addition of Turbine-generator Unit #5 in the late 1940s.*

# 1951-1956

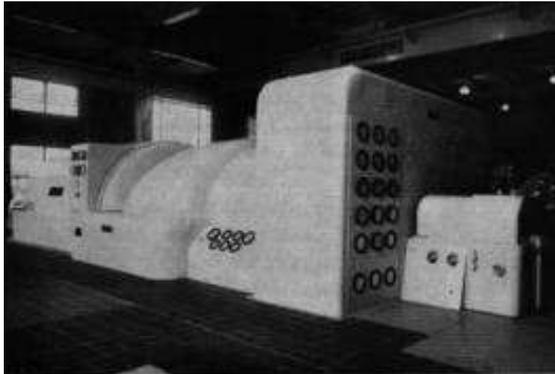
A new cooling tower was built in 1951 with a cooling capacity of 22,000 gallons per minute to allow for full output of the plant equipment.

In 1955, the new distribution warehouse was completed at 7th and Spring St. and distribution operations relocated to their new home from the old Water and Light building located north of the plant.



*Distribution Warehouse - 7th & Spring St.*

Another plant expansion to add a new 18,750 kW Elliott turbine-generator and associated boiler brought the total plant capacity up to 40,250 kW. The power plant building was extended further south to accommodate the new equipment.



*Elliott 18,750 kW Turbine-generator (Unit#6) added in 1956 and presently still in service.*



*Coffeyville Power Plant following addition of Turbine-generator Unit #6 in 1956.*

# 1966

Interconnection lines and transmission agreements were completed between the City and Kansas Gas & Electric securing an alternate source of power in the event of an extended shutdown of the power plant. Today, the main tie point between the City and KGE, now a division of [Western Resources](#), Topeka, KS, is located at what is known as Substation A on West 1<sup>st</sup> St.



*Substation A – the City's  
Main tie with KGE*

The latest plant expansion was completed adding a 38,000 kW General Electric turbine-generator and Foster-Wheeler boiler bringing plant capacity to 78,250 kW. The power plant building was again extended further south and required a slight re-routing of 7th Street between Spring and Santa Fe.

*Coffeyville Power Plant  
as it appears today.*





*Plant workers confer in the boiler room after reading instruments in this late 1960s photo. The two boilers to the left in the photo were replaced in 1997.*

## 1987-1989

In 1987, a 69 kV transmission line was installed between the power plant and the Coffeyville Airport Industrial Park to serve the growing electric demand and to improve the reliability of electric service to the industrial park customers. A 10 MVA capacity 69/12.47 kV step-down substation was completed at the industrial park in 1989 and installation of a supervisory control and data acquisition (SCADA) system was begun.



*Coffeyville Airport Industrial Park Substation completed in 1989.*

# 1997

A second 69/12.47 kV step-down substation rated at 22 MVA was constructed just south of the Coffeyville Airport Industrial Park to serve American Insulated Wire and to provide additional capacity to serve future industrial loads. A new boiler is installed at the power plant replacing the 1949 boilers and the 1956 boiler that was destroyed by an explosion in 1983.



*South Industrial Park Substation completed in 1997.*



*220,000 lbs/hr Nebraska Boiler installed at the power plant in 1997.*

# 1998-2000

Recent years have included the construction of a 200 MW, 138 kV interconnection substation and transmission lines connecting the city with the Public Service Company of Oklahoma (PSO), a division of [American Electric Power \(AEP\)](#), Inc. of Columbus, OH, construction of additional 69 kV facilities within the City and to the Industrial Park, modifications to several substations, upgrade of the SCADA system, creation of computer-based system maps and conversion of all distribution circuits to 12.47 kV. Total peak load now exceeds 100 MW, over 800 times larger than the plant capacity in 1901.



**Substation B – the City’s tie with PSO was completed in 1999.**

In 1999, the City of Coffeyville entered into an agreement with the [Grand River Dam Authority \(GRDA\)](#), Vinita, OK, for purchase of wholesale power and energy for resale to customers served through the City-PSO tie known as Substation B located on East 1<sup>st</sup> St.



**A new 25 MVA transformer for the Industrial Park Substation is unloaded – Spring 2000.**



***New 69 kV line under construction near entrance to Coffeyville Airport Industrial Park – January 2001.***

# 2001

This year, Coffeyville Municipal Light & Power celebrates a century of service to the

people of Coffeyville. We are proud of our utility's 100-year tradition of providing reliable electricity at a reasonable cost, and are grateful for the opportunity to carry on that tradition. Thank you, Coffeyville!