## History of Argyle Power Plant

The history of the Argyle Power Plant and Waterworks began on April 21, 1905 when the following notice appeared in the Argyle Atlas:

"Special election notice: Notice is hereby given to the qualified electors of the village of Argyle, that s special election will be held in Partridge's hall, in the village of Argyle, Lafayette Co., WI. On Tuesday the 9<sup>th</sup> day of May, 1905, for the purpose of submitting to the people, the question of bonding the village for the construction of light and waterworks, to supply the inhabitants of said village with light and water, for fire and domestic purposes. The amount of said bonds is to be fifteen thousand dollars, (\$15,000). The poles of said election will be opened at 10 o'clock a.m. and closed at 4 p.m."

The people of Argyle expressed themselves on the question of public improvements and municipal ownership of public utilities in no uncertain manner at the election, when it was decided to build an electric light plant and a system of waterworks. The vote stood 79 for and 27 against. Predictions ranged all the way from twenty against to a vote of two to one in favor of, but no one predicted a majority of nearly three to one until the votes were counted. We have not learned the plans of the council, but they have the sentiment of the people in favor of immediately and vigorously pushing the work.

On June 23, 1905, F. W. Cole, a representative of the National Construction Co., of South Bend, Indiana, was in town and contracted with the village council for plans for a light and water plant. The engineer will be here next week and draw three plans which he will submit to the council which is not bound to accept any of them, though a stated price is agreed on for the drawing of the plans in case the bid of the company for construction should not be accepted. Mr. Cole gave it as his opinion that both plants could be put in for less than the amount of the bonds voted, and that should they get the contract the work can be completed before cold weather. He also recommends that gas be substituted for electric lights and claims it can be operated more economically and with greater profit. With a gas plant residences and public buildings could be heated and it could be used for cooking purposes.

However nothing definite will be decided until the plans have been submitted. The prospects now are that work will begin at an early date.

The village treasurer received \$15,000 from the state trust fund on March 2, 1906, the amount borrowed by the village council for the construction of a waterworks and lighting system, and the contract will undoubtedly be let at an early date.

John Powell, J. J. Uren, and G. S. DeVoe, representing the council went to Brodhead, Clinton, and Sharon last week, to inspect lighting systems in those places. There seems to be a question as to whether an electric light or a gas plant will be put in.

The council has come to no conclusion in the matter as there seems to be a division of opinion among the members. The plans and blue prints for the waterworks have been received from the engineer who was engaged to draw them. Regarding that system it has not been decided whether to use steam, water or gasoline power. If water power is used the power house will probably be located near where the old sawmill stood. If steam or gasoline is used the power will probably be located in the park.

On April 27, 1906 the village council decided to purchase the mill property for the sum of \$4500, and use the water power for running the electric light plant and waterworks. While this will be a more expensive plant in the start, they calculate that in the end the saving will more than pay for the property as the water power can be used an average of ten months in the year. At Blanchardville it cost \$600 last year for coal and the saving in this item would be considerable. Besides they expect to get some revenue from the mill during the day while the power is not required for other purposes.

It was not suspected that the old mill was so nearly all in until May 25th, 1906 when the workmen began to clear away to repair it. Then it was found that the husk frame and the timbers supporting the heavy machinery were rotted beyond repair, and that the building had slid toward the river until whole sections of joists had parted from the beams and were only supported by the old flooring planks. The north foundation had partly fallen, and one or two more cakes of ice striking it in the vulnerable point would have tumbled the whole structure into the river. Workmen began restoring the building and it will be put into good condition again.

In July of 1906 the village purchased their first load of power poles which at that time were made from white cedar. At this point in time the village council voted to purchase 2 water wheels from the James Leffel Co.

In August of 1906 the village council ordered a 60 Kw generator from Western Electric Co. for \$610 and a switchboard from Adams Co. for \$135. By October the water wheels had been set in the wheel pit at the power house and the machinery was being placed in position so that it could be attached to the dynamo as soon as it arrived. It was estimated that the village may have electric lights by the 20<sup>th</sup> of October, 1906. This did not mean however that the building would be completed by that time.

October 19, 1906, up to date the village had paid out \$11,000 on the electric light plant with more than \$1,000 worth of machinery to pay for, the lumber bill was unpaid and no engine provided for, to run the plant when the wheels are backwatered. The purchase of the mill property represents \$4,500 of this amount and the new wheel pit cost about \$2,000. Village purchased machinery for the mill from Allis-Chalmers Co. in Milwaukee.

After several delays in the delivery of the dynamo, it finally arrived and on November 7, 1906 the lights were turned on. As stated in the November 23, 1906 Argyle Atlas: Argyle now has electric lights and a wonderful change has been wrought in the old town. At 5:30, on Saturday November 7<sup>th</sup>, 1906 Engineer E. J. Manning announced that the plant was ready for work, Mayor Powell turned on the juice and behold there was light.

The plant has cost a good round sum, but we have something to show for our money and there is no question but that it is the best plant in southern Wisconsin. It is a fact that none of the nearby towns, little of big have their streets as well lighted as ours. There are four arc lights in the business district and on the residence streets the incandescent lights are only one hundred feet apart, ant the beauty of it is there is power enough and to spare. There are two water wheels, one 40 inch and one 30 inch, and the plant is being run by the smaller wheel at not more than half of its capacity, while the dynamo is of a capacity, more than double what towns of this size are using.

A few of the buildings are already wired and connected, orders are now in for the wiring of others that it will take six weeks to finish, and it won't be long before we will all have them. People driving in from the west at night are struck by the beauty of the scene and think we are having a carnival.

On November 26, 1906 the Village of Argyle adopted the following electric rates:

Safe Rate-40 cents per month flat rate

1 light - \$.40 / month

2 lights \$.75 / month

3 lights \$1.00/ month

Meter rate for energy was .08/kwh

The village furnished the meter and charged .25/ month rent.

Beginning January 4, 1907 the electric light department started giving us a morning service. The power is turned on at five o'clock, and everyone having their buildings wired can get service at that time. This is a good move as people dislike resorting to kerosene lamps in the morning when they have electric lights a part of the time. This will also make more revenue for the plant without any extra expense.

The Village of Argyle finished building council chambers at the power house in March of 1907 and the village elections will be held there this spring. On March 29, 1907 the grist mill was completed. The council hired someone to run the mill until fall when they rented the equipment to the millwright that installed it (Philip Eimerman). The mill could operate during the day when power was not being produced by the wheels.

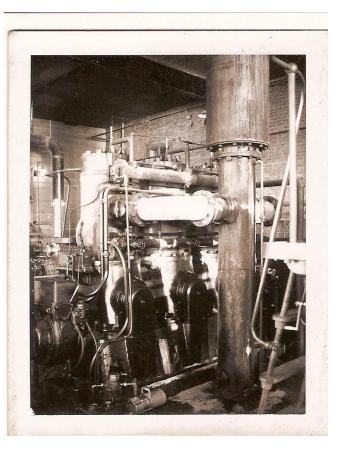
On July 9, 1914, the Village of Argyle council accepted a proposal from Fairbanks Morse Co to furnish one 60 HP oil engine for \$1560 installed. They also accepted the proposal from Western Electric Co. to furnish one 60 Kw D.C. 750 rpm generator completely furnished including switch board as specified for \$745. This engine was used to power the generator when the water wheels were backwatered.

On May 5, 1915 the electric light plant began all day service and a new contract was made with John Siversind and that he receive \$100/month for his service.

The Argyle light and water plant came near being destroyed by fire. The alarm was sounded about eleven o'clock in the evening of Friday Aug. 1<sup>st</sup>, 1919 when it was discovered that fire had broken out under the first floor. On account of the heavy rain Wednesday night the river was up to a point where the water wheels were backwatered and the auxiliary engine kept for such emergencies, was put into use. This was a seventy-five horse power oil engine with an exhaust pipe about six inches in diameter which ran thru the floor and went out at the tail race. A pine joist ran close to the pipe near where it went thru the floor, and as the engine had an unusually heavy load that night, the pipe got so hot that it set the joist on fire and soon spread on the underside of the floor. When the firemen arrived the engine room was so full of smoke that it was difficult to enter the building, but they ran in and remained as long as they could and would come out gasping for breath while another bunch would take their places. It was dangerous to get under the floor because of the fire and smoke, and the high water, but two of the boys finally got under with a hose at risk of their lives, turned the hose on the flames and the fire was soon out.

In 1920 the electric rates were redesigned as follows: .75 base charge, \$.10 for the first 50 Kwh, \$.08 for the next 50 Kwh, \$.06 for the next 50 Kwh, and \$.04 per Kwh for the remainder.

On March 1, 1923, the village council went to Fairbanks-Morse Co. in Beloit, WI. to examine engines with a view of buying one for the electric light plant, as the current standby engine was overloaded. They selected а Fairbanks-Moorse engine of 150 horse power capacity for \$9000, and immediate shipment was promised. The engine was installed on a base above the high water mark so that a cloudburst and a flood would not put the plant out of commission. Also in April of 1923 the Village of Argyle bought a 12,000 oil tank for \$435 to store the oil for the engine. The cost of diesel fuel in 1926 was .0975 per gallon.



The electric plant started providing all night service on February 4, 1927.

The year 1928 was the last year that the two old horizontal shaft water wheels were used. During that last year the electric plant had manufactured 365,000 kW, of which 50,000 kW was sold for power, 220,000 kW for lights, 39,000 kW for street lights, and 15,000 kW for pumping water. The community building used 21,000 kW and the stone quarry 8,000 kW.



The village borrowed \$20,000 from the state trust fund on March 8<sup>th</sup>, 1929 for the purpose of rebuilding the electric light plant and purchase of new equipment for the purpose of changing from 220 volt DC to 110 volt AC.

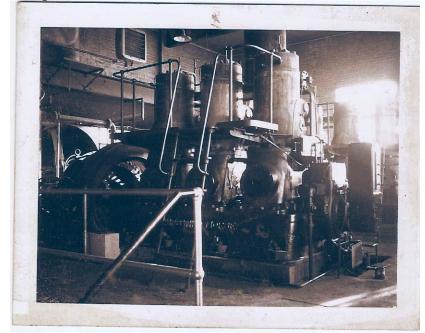
The Village ordered an extra generator on June 4, 1929 from Rockford Power Machinery Co. for \$1168, a switchboard for #2344, and a chain drive for the exciter to be installed for \$90 from the same co.

The upgrade to the power plant was bid @ \$8372. The village council accepted the bid from James Leffel Mfg. Co for a 39-B-2-138 RPM water turbine. FOB Argyle \$4835. They also accepted the bid from Electric Machinery Mfg. Co for a 75 KVA 138 RPM electric generator FOB Argyle \$5841.

W.H. Shons, of Freeport, who was awarded the contract for the concrete work at the power plant, started the construction for installing the new hydrogenerator on July 25, 1929. The contract called for tearing out the old concrete, and necessitated building a cofferdam above the head gates of the flume.

During this construction period of new concrete work for the hydro and construction of coffer dams to keep water out of the generator pit, all of the power was generated by the engine which ran on a 24 hour schedule, with no chance to cool off.

The Village of Argyle borrowed \$15,000 to convert the light plant from DC to AC on April 1, 1930.



The village

contracted with Fairbanks Morse to provide a 225 HP 148 KW full diesel generator set for the sum of \$22,740 on April 20, 1937.

A meeting of citizens of the Village of Argyle was held in the community building in April of 1937 for the purpose of discussing the advisability of purchasing electric energy from Wisconsin Power & Light Company instead of enlarging our own plant by the purchase of an extra engine as planned by the village board.

Two agents of the Wisconsin Power and Light Co. were present and stated the advantages from their standpoint. After that a citizen of the Village of Argyle arose and made a motion to give the Village Board a vote of confidence in their action on buying a Diesel engine. This motion was carried without a dissenting vote and the meeting adjourned.

Perhaps many of our citizens do not realize the many advantages Argyle has in its municipally owned light plant. Instead of the village having to be taxed to support the plant it is not only self-supporting but supplies the power for street lighting and water pumping free, that would have to be raised by taxation should it be hooked up to the power line and not only that but it earns a substantial surplus over expenses every year that has made it unnecessary for the Board to levy any Village tax for a number of past years. While our rates may be slightly higher than in some places having the power lines we are "sitting pretty" and if the power line can afford to pay \$35,000 for the hook-up, which they offered to do, by the same token Argyle can well afford to be independent.

On January 20, 1938 the REA was formed and an agreement was signed for Argyle to furnish power to Lafayette County Cooperative. Electric power manufactured at the Argyle plant will be furnished to approximately 452 rural subscribers over approximately 142 miles of power lines. This power was to be furnished at \$1.25/kw demand and .01/kwh. These rural areas included Willow Springs, Kendall, Belmont, Blanchard, Seymour, Darlington, Shullsburg, Monticello, Gratiot, Wayne, Wiota, Lamont, Fayette, and Argyle townships.

REA was serving 245 farms in the county on July 21, 1938, over 157 miles of lines from Argyle; the load had begun being served in late June. On November 10, 1938 the REA had received approval for extension of 81 more miles of line This extension includes lines to serve Adams and Jordan townships.

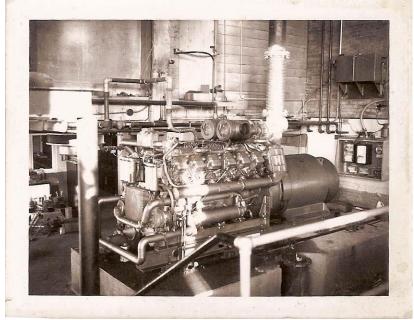
By September 1, 1939 all REA lines were energized and the cooperative supplied power to 635 patrons over 303 miles of lines.

On November 7, 1941 the village adopted an off-peak water heating rate suggested by the PSC, Fixed charge of .25, min. charge 1.00/month and energy charge of .011/ Kwh.



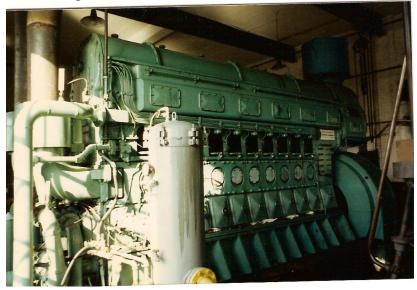
November 1, 1946, the Village Council entered into a contract with Fairbanks Morse to provide one 300 Kw diesel 6 cylinder engine and generator for \$43,200. This engine was installed in March 1948.

In December 1946 the village started receiving power from REA during the evening once a week and by July 1951 we had started receiving power on a 24 hour a day basis with supplemental energy being produced by our hydro and diesels. In August 1968 the Village of Argyle system voltage was converted from a 2300 volt Delta system to a 2400/4160 volt Wye system.



In November 1968 one of the 3 cylinder engines was replaced with a V12 Dorman engine rated at 660 Kw.

With the load growth that came along with our industrial growth in Argyle, in the early 1970's it wasn't long and we needed more capacity. On July 10, 1973 the V12 Dorman engine was replaced with the first of two Fairbanks Morse 38D8 1/8 OP engines rated at 1136 Kw.





The second of these engines was installed in 1989 making the total capacity of the plant 2.2 megawatts. These engines were built in the 1940's as power for ships and submarines for the Navy during WWII. They served us very well up to turn on the century, when plans began for their retirement due to the need for overhaul and need for more efficient and environmentally friendly equipment.



During the fall and winter of 2003, these engines were retired and removed from the building. Building modifications began for the installation of a new 2250 Kw Caterpillar 3516 V16 Diesel Generator. This generator was put into service in June of 2004. This unit is in service today along with the hydro generator that was installed in 1929.

On March 14, 1978 the Western Wisconsin Municipal Power Group (WWMPG) was formed to effect joint development of electric energy resources, production, and distribution of electric power. The members of this agency included: Arcadia; Cashton; Barron; Cumberland; Elroy; Fennimore; New Lisbon; Richland Center; River Falls; Viola; and Merrillan

The Argyle Municipal Utility became a member of the Western Wisconsin Municipal Power Group (WWMPG), in 1980. This organization has ownership in the Shared Transmission Service with Dairyland Power Cooperative. We negotiate our power contracts with Dairyland as a group. The group has evolved into two more organizations. The second being the Upper Midwest Municipal Power Agency (UMMPA). It has now evolved to Upper Midwest Municipal Energy Group (UMMEG).

The current members of UMMEG are:

Arcadia Argyle Cashton Cumberland Elroy Fennimore New Lisbon Viola Merrillan Lake Mills. IA Osage, IA Forrest City, IA Independence, IA St. Charles, MN McGregor, MN Lanesboro, MN The Argyle Utility also was involved in the construction the Argyle Butter Solar project, a 6 acre solar array located at the north end of Breeze Terrace in Argyle. The facility generates over 800 Kw of electricity and is directly connected to the Argyle distribution system. Argyle has a 25 year contract to take all of the energy from this facility.



This solar project is part of a much larger project that was developed by UMMEG (Upper Midwest Municipal Energy Group), which Argyle is a member of. Other members that are involved with this "Butter Solar" project are:

Arcadia, Cashton, Cumberland, Elroy, Fennimore, Forest City, Lanesboro, New Lisbon, and St. Charles. All together the Butter Solar Project has 30 Mw of solar energy being generated into our respective distribution systems.

Argyle and the other members of UMMEG also purchase wind energy from the Rugby windfarm in South Dakota, and the Cashton Greens wind farm in central Wisconsin.

As of 2020 Argyle's power mix is 24% solar, 17% wind, and 57% coal/natural gas.

Over the history of the light plant, several people had worked at the light plant. The first record we have found was that a man by the name of John Aeschliman was the first electrician at the plant. On November 19, 1907 the Village of Argyle hired John Siversend as electrician at the power house. He took the place of John Aeschliman. On Sept. 3, 1926, two others were hired to help at the light plant, Oscar Windon and Hjalmer Nelson.

Clifford Penniston was hired as a relief operator at the light plant on July 1, 1927, for .35/hour and .50/hour for doing repair work inside and outside. Clifford Penniston was hired as superintendent of the light plant on May 2<sup>nd</sup>, 1930.

Howard Johnson started working as an assistant at the light plant in November, 1938 and worked for the village until he resigned on September 1, 1943. On October 18, 1943 Bernard Marti was hired as helper and the light plant. He resigned on September 21, 1945 and the village hired James Penniston as helper.

Paul Mueller was hired on September 6, 1946. Other that worked at the plant included Robert Flint, David Everson, and Rick Phillipson. The current superintendent of the plant is Randy Martin. He began as superintendent on August 22, 1988 and will retire on December 31, 2021 after more than 33 years of service.