

H I S T O R Y

MUNICIPAL ELECTRIC LIGHT UTILITY

CITY OF PAINESVILLE

August 25, 1934

On December 11, 1885, by authority of Ordinance Number 199, the Village of Painesville entered into a contract with the Globe Electric Company for the installation and operation of forty carbon electric street lights at a cost of \$6.00, per light per month. Time of contract three years.

The Globe Electric Company was in the Skewer Factory, then located just east of the Stowe Lumber & Coal Company property adjoining the Lake Shore & Michigan Southern Railroad right-of-way with a Generating Plant which consisted of two Western Electric Generators connected to the Skewer Factory engine using belt drive.

Beginning with 1888, Council of the Village conceived the idea of erecting a Municipal Plant and on March 19, 1888, adopted Ordinance Number 223, authorizing sale of bonds in the aggregate of \$12,500.00, for the purchase or erection of an Electric Light Plant. Bonds were issued April 1, 1888, at a five percent interest rate payable semi-annually and maturing September 1, 1889-1897.

Apparently, a Municipal Plant was erected by the Western Electric Company as on June 15, 1888, Council adopted a Resolution indicating that the Light Plant of the Western Electric Company was completed in accordance with terms of a Resolution adopted March 16, 1888, at an aggregate cost of \$12,948.90, and authorized acceptance.

The Plant was located on Village property north of Main Street and along the east side of St. Clair Street. To more readily identify the plant location with present date, it was located back of the Fire Station and continued in operation until December 19, 1908.

On April 28, 1893, Council by Ordinance Number 277, granted a franchise to The Commercial Electric Company for a term of five years for additional lighting service. The Company was required to tender a bond aggregating \$1000.00, as a guarantee to give service with four months from date of grant and reserved right to purchase plant at an arbitrated valuation upon expiration of franchise

With the granting of this franchise incandescent lighting was first introduced and the purpose of the grant was to give to the citizens an opportunity to use current in homes and business places for illumination purposes.

This Plant was built on the east side of Richmond Street and North of The Lake Shore & Michigan Southern Railroad right-of-way, now identified as Saari's Coal Yard on Burton Street and its operation started in August, 1893.

The Commercial Electric Company distributed current in the Village of Fairport for Commercial and Street Lighting consumption and to Commercial and private users in Painesville.

Council controlled the rate per light charge in the Village but fixed no unit price leaving same to the reasonable judgement of the Company to charge on a parity with other Villages similarly situated.

On March 1, 1895, the Village of Painesville entered into a contract with The Commercial Electric Company to install six sixteen candlepower incandescent lamps in the Electric Light Building at a cost of Five & 50/100 Dollars, per light per month during Moonlight Season or Eight (\$8.00) Dollars, per light per month for all night burning and one sixteen candle-power lamps at corner of Marion Avenue and South Street at a cost of Three (\$3.00) Dollars, per month.

Said contracts were authorized for a term of two (2) years as provided for in Ordinance Numbers 315 and 316 respectively and with expiration were renewed until the City decided to venture production of alternating current in 1907.

January 30, 1907

Council authorized the Light Committee to investigate feasibility of removing the Municipal Light Plant from rear of Engine House to some point on one of the railroads, provide plans and estimate of removal cost, including site and building and such additional machinery and equipment as necessary to operate at least forty more are lamps and insure all night service. The Committee was further authorized to secure such expert assistance as deemed necessary to make the investigation.

March 20, 1907

Superintendent of Lighting, W. M. Collister, submitted to Council specification of the different apparatus required in the contemplated remodelling and enlarging of the Electric Light Plant.

April 24, 1907

By ordinance Number 675 Council authorized purchase of The Painesville Cider & Manufacturing Company property for the sum of Twenty-Two Hundred Fifty (\$2250.00) Dollars, to be paid from monies appropriated for Lands & Buildings for the Municipal Electric Light Plant. (Present site.)

May 29, 1907

W. N. Collister, Superintendent Electric Light Department submitted estimate of financial requirements for rebuilding Municipal Lighting Plant as follows:

Gas Engine & Producer -----	\$11,475.00
Generator, Lamps etc. -----	6,250.00
Engine Foundation & Remodelling	
Building -----	1,000.00
Wire, Poles etc. -----	275.00
T-O-T-A-L -----	\$19,000.00

During the period of consideration there was opposition to the purchase of a Gas Engine in Council. F. D. Malin and George C. Greene who were Council Members at the time were very much opposed to securing a Gas Engine feeling it would not work satisfactory besides being noisy. However, regardless of the objections a contract was made with J. J. Thompson & Sons Manufacturing Company, Beloit, Wisconsin, who guaranteed workmanship and performance with American Bonding Company as surety. City was to pay contract price on an installment basis and funds were secured by transferring surplus from other funds to the Electric Light Fund and to meet a possible deficit it was agreed to issue bonds when necessary.

In renovating the Cider Mill several wine casks were found therein by Mr. Collister who gave them to a Jow for the removal from the building.

E. L. Williams, present Engineer of the Power House entered the service February 14, 1908, and when he discovered the wine casks missing -- knowing there was approximately one hundred fifty gallons of delicious twenty year Catawba wine in some of the casks -- a vigorous search was made for the Jow and casks but without results -- it is claimed the wine was never found.

The new Electric Light Plant was put in operation February, 1908, and the Gas Engine was not a success. The exhaust discharge was very loud and objectionable. It has been said the residents could not sleep and Engineer A. W. Leland fearing the outfit dangerous resigned his position.

Mr. Williams then took charge and although the designer, a Mr. Berger, and a German Gas Engineer Antone Rappert worked diligently to correct the operating defects they were not successful and finally in May the Engine was ruptured and the old plant at the rear of the Engine House was restored to service.

On February 26, 1908, Council authorized issuance of bonds aggregating Three Thousand (\$3,000.00) Dollars, by adoption of Ordinance Number 710. These bonds were dated March 1, 1908, bearing four percent interest rate, payable semi-annually and maturing: March 1 and September 1, 1912 - 1914, money being used to defray expense of the Light Plant Expansion Improvement.

On June 10, 1908, the Board of Public Service declared the Thompson contract forfeited and suit was filed to collect the first payment made to the Seller, namely Five Thousand Seven Hundred Thirty-Seven & 50/100 (\$5737.50) Dollars. The City was successful.

Plans for a Steam Power unit was considered by Council on the same date as well as adoption of Ordinance Number 729 authorizing issuance of four percent bonds in the aggregate of sixty-Five Hundred (\$6500.00) Dollars, for purpose of extending, enlarging and improving the Electric Light Works of the City of Painesville.

These bonds were dated April 1, 1908, interest payable semi-annually and maturing: April 1 and October 1, 1921 - 1923, and also adoption of Ordinance Number 730, authorizing Board of Public Service to install a steam engine, boiler and all necessary appliances in the Electric Light Plant and to enlarge the building for the accomodation of same was passed on this date.

The steam unit was put in operation December, 1908, found satisfactory and old plant was dismantled.

Ordinance No. 748, adopted by Council November 25, 1908, authorized sale of 407 - 1000 acres of the 1 1/10 acres purchased from the Painesville Cider & Manufacturing Company.

Ordinance Number 749, adopted by Council same date authorized sale of the following equipment of the old light plant:

- 1 --- Russel Engine -- 14 x 20 cylinder;
- 2 --- Western Electric Sixty Light Arc Series Dynamos 9.6 Ampere;
- 100 - Western Electric Open Arc Lamps with Globes;
- 1 --- 3 Circuit marble switch board with wiring ammeters and lightning arrestors;
- 1 --- Closed Feedwater Heater;
- 2 --- Number 8 Double Leather Belts, each fifty feet long

On January 6, 1909, by adoption of Ordinance Number 754 Council authorized purchase of land from The Pittsburgh, Painesville & Fairport Railroad Company consisting of 17/100 acres which bordered on the west side of property purchased from The Painesville Cider & Manufacturing Company.

The value of land offered by the City was appraised at One Hundred (\$100.00) Dollars, and the land to be purchased from the Railroad Company was appraised at One Hundred (\$100.00) Dollars, consequently, the exchange was made with no cost to either party.

The Commercial Electric Company realizing the City would be a strong competitor sold their plant and franchise to J. Latimore in 1908. Mr. Latimore developed into the United Light & Power Company promoting Stock sales covering the Painesville & Geneva Generating and Distribution Plants to such an extent that he was enabled to abandon the Painesville Plant without serious financial loss and disposing of the distribution equipment to the Cleveland, Painesville & Eastern Railway Company.

Apparently, there is no record of sale returns from dismantled plant and we are unable to state amount City realized.

The Gas Producer Engine was shipped to Pittsburgh and we are advised after making some changes it was operated successfully and satisfactorily.

During 1909 and 1910, the City issued bonds aggregating -- Fifteen Thousand (\$15,000.00) Dollars, which funds were used for the purpose of extending, enlarging and improving the Electric Light Works.

These improvements consisted chiefly of the erection of pole lines and installing thereon distribution wires for the handling of A.C. current for incandescent illumination.

During 1912, bonds were issued aggregating -- Sixty-Five Hundred (\$6500.00) Dollars, to provide funds for the purchase of equipment for line extensions.

In 1914, bonds were issued in the aggregate of -- Five Thousand (\$5000) Dollars, to provide funds for the purpose of making necessary changes in distribution equipment; further extension of lines; laying of conduits and erection of light standards etc.

Thus with beginning of the new Plant in December, 1908, the distribution system was increased annually until 1915 or expiration of seven years before any Plant expansion was needed.

Beginning with 1915, and ending in 1925, bonds were issued in the aggregate of -- Three Hundred Thirty-Six Thousand (336,000.00) Dollars to provide funds for general rehabilitation in the manufacturing and distribution of current.

- 1915 ----- Acquired a new Erie City 372 Horse Power Boiler and a 500 K.W. Kerr Generating Unit with accessories.
- 1919 ----- Acquired a new Erie City 482 Horse Power Tubular boiler and a 1000 K.W. Ridgeway Generating Unit with accessories.
- 1923 ----- Acquired a new Connelly 580 Horse Power Boiler and 1500 K.W. Allis-Chalmers Generator with accessories, together with building expansion, construction of spray ponds etc.

During period of operation 1915 to 1923, the Erie Boiler performance was not satisfactory and it very often occurred that the required steam pressure was not always available for necessary generating requirements and in the meantime the demand for current continued to grow, consequently the Connelly Boiler was purchased in 1923, and after its installation the steam troubles were at an end.

The program was completed in its entirety during 1925, but not paid for until 1926.

Demand for current continued to grow with expansion of the Distribution System, and, since electric equipment usually became obsolete and expensive to operate after a service of ten years, it was recognized by Council that another improvement program would have to be sponsored and, since, it was felt the surplus accrued to credit of Electric Light Fund was of sufficient size to warrant beginning of further expansion and construction Engineers Hadlow, Hughes, Hick & Conrad, Incorporated, were hired on a six percent basis to prepare, plans, specifications and supervise construction of the program beginning in the late fall of 1928, and completed in the Spring of 1930.

Bid solicitations were advertised for and all contracts were awarded on a competitive basis as follows:

AWARDED TO

FOR

BID

The Mitzel Co., Keith Bldg., Cleveland, Ohio	Addition to & Alterations in present Boiler House	\$26,104.00
D. Donnolly Boiler Co. Ivanhoe Road Cleveland, Ohio	New 573 H.P. Boiler-Class S.S. No. 25 erected complete exclusive of brick work, Foundations and breeching	11,580.00
American Eng. Co., Aramingo Ave., Philadelphia, Pa.	One 7 Retort 21 H.C. 7 Double 18" roll Stoker with drives and accessories	13,367.00
Foster-Wheeler Corp., 165 Broadway New York	Foster Superheater complete with thermometer well; flange 8" pipe connections; flanged connection for pop valve; cleaning doors; supports; chemical thermometer; two thermometer well etc. for Connolly class S.S.-25 boiler rated for 573 H.P., except that last row of tubes will be removed, erected in place for steam piping	2,620.00
D. Connolly Boiler Co. Ivanhoe Road Cleveland, Ohio	Install boiler breeching to connect new 573 H.P. Class S.S. -25 boiler to present breeching	1,249.00
C. W. Kennedy & Co. 1290 Buntz Rd., Lakewood, Ohio	Boiler brick work for new 573 H.P. Class S.S.-25 Connolly boiler	6,950.00
Foster-Wheeler Corp., Leader Bldg., Cleveland, Ohio	One water cooled bridge wall for Class S.S.-25 guage pressure boiler fired with 21 H.C. 7 Taylor Rotary ash discharge stoker	6,120.00
Buffalo Forge Co., Box 985 Buffalo, N.Y.	Motor driven forced draft fan with one piece cast iron bed plate, inlet boxes, clean-out doors on fan casing and inlet boxes, out- board bearings, etc. Fan to have sleeve bearings and without outlet dampers. Motor ball or roller bearings of squirrel cage type with compensator.	1,655.00

AWARDED TO

FOR

BID

The Brooks-Balsom Co.
1966 E. 79st.
Cleveland, Ohio

Platform and walk-ways
around 573 H.P. Class S.S.
-25. Connolly Boiler with
stairs, ladders, railings,
etc.

\$2,758.00

Becker-Seidel Co.,
2341 E. 22nd St.
Cleveland, Ohio

Power Piping

8,282.30

John C. Boehm Co.
1555 Hamilton Ave.,
Cleveland, Ohio

Suction & supply ducts for
force draft fan under 573
H.P. Boiler; Coal Hopper
extensions on 580 H.P. Connolly
482 H.P. Erie City and 372
H.P. Erie City Boilers; Ash
Chute and Sifting Hoppers and
chutes under new 573 H.P. Boiler

2,222.00

The Stephan Co.,
1016 Euclid Ave.,
Cleveland, Ohio

1-2" Seven element soot
cleaner for 573 H.P. Connolly Boiler
with Foster-Wheeler superheater.
Boiler fired with Taylor 21 H.C.
7 Stoker. 3 Elements Chrome
Alloy. 4 Elements E.H. Seamless
tubes. All head valves
operating full floating Type H.
Cast Steel. All parts of
cleaner designed for 250#
pressure 200 degress Fahrenheit
superheat.

1,290.00

Hagan Corporation
502 Bowman Bldg.,
Pittsburgh, Pa.

Combustion control system on
new 573 H.P. Class S.S.-25
Connolly Boiler fired with
Taylor 21 H.C. 7 Stoker.
Control system to be extended
to present system using present
Master Regulator on the 372
H.P. Erie City Boiler and re-
installing on new Connolly
Boiler

895.00

Allen, Sherman, Hoff
Company,
225 E. 15th St.,
Philadelphia, Pa.

Sectional Cast Iron Ash Hopper
complete with quenchers, tile
lining, refractory lined hand
operated water collecting ash
gates, etc. under a 21 H.C. 7
Taylor rotary ash discharge
stoker under a class S.S.-25
Connolly boiler rated 573 H.P.

2,348.00

AWARDED

FOR

BID

The Fairfield Eng. Co. 420 E. 115th St., Cleveland, Ohio	A skip ash hoist using present Galion Coal Hoist except engine and cable. The Galion Hoist shall be moved, repaired, painted and set up. New hoist shall have push button control and shall be installed with all auxiliaries	\$1,900.00
Clark Asbestos Co., 1893 East 55th St., Cleveland, Ohio	All pipe covering	775.00
Fred J. Taylor Painesville, Ohio	Install electric wiring system for all motors, controls and lighting	2,207.83
Stephens & Adamson Mfg. Company Hanna Bldg., Cleveland, Ohio	Erect one Coal Silo and coal handling equipment	11,840.00
Foster-Wheeler Corp., 165 Broadway New York, N.Y.	1-Connection Type Super- heater for 580 H.P. Connolly Boiler complete with piping connections and appurtenances	6,760.00
H. C. Folver Co., 7016 Euclid Ave., Cleveland, Ohio	Addition to and alterations in present Turbine Room	21,340.00
Allis-Chalmers Mfg. Co. Milwaukee, Wisconsin	Furnish and erect a 2500 K.W. 80% Power Factor horizontal Turbo-Generator with direct connected exciter and accessories	53,229.00
Elliott Company	Furnish and erect one surface condenser on single stage circulating pump; two condensate pumps; air ejector mercury column vacuum gauge; mercury barometer; 54" diameter expansion joint; 30" face to face; tools and one 14" atmospheric relief valve and all appurtenances and auxiliaries	14,388.00

AWARDED TO

FOR

BID

F. J. Taylor Painesville, Ohio	Install electric connectives between new switch board panel and new 2500 K.W. turbo- generator and all auxilliaries and appurtenances in connection with same; electric lighting system and all other work specified	\$3,746.00
Becker-Seidel Co., 2341 E. 22nd St., Cleveland, Ohio	Install power piping for 2500 K.W. Allis-Chalmers turbo- generator; Elliott Company condenser and all auxilliary equipment for both units	5,608.90
Rankin-Dutney Corp., 6300 Euclid Ave., Cleveland, Ohio	Pipe covering as outlined	1,027.00
Hadlow, Hughes, Hick & Conrad, Inc., 850 Euclid Ave., Cleveland, Ohio	Engineering and Inspection 6% of awarded bids	12,615.72
T-O-T-A-L	C-O-S-T -----	222,877.75

When the final estimate was approved by the Construction Engineers the City possessed sufficient funds to make prompt payments. Consequently, for the first time in history a rehabilitation was successfully executed and paid for without resorting to the sale of bonds.

The citizenry might be interested in knowing Painesville owns and operates one of the most modern Electric Plants in Northern Ohio.

The operation of the two Spray Ponds were found objectionable especially to adjoining property owners during freezing or winter season, so in order to correct this condition Council decided to modernize the Water Cooling System by erection of a Forced-Draft Water Cooling Tower and abandonment of one Spray Pond keeping the other available for emergency use.

The service of Hadlow, Hughes, Hick & Conrad, Inc., Cleveland, Ohio, was secured to promote this improvement at terms not to exceed six percent of the total bids and contracts were let on a competitive bid basis October 31, 1932, to the following contractors:

AWARDED TO

FOR

BID

Foster-Wheeler Corp. 1170 Ivanhoe Road Cleveland, Ohio	Forced draft Cooling Tower 68 Degree wet bulb guaranteed topoperate without noise in excess of water fall noise	\$ 12,180.00
Ingersoll-Rand Co. 1420 Williamson Bldg., Cleveland, Ohio	Combination circulating condensate pumps and iar ejector	3,162.00
T. E. Ruggles Madison, Ohio (Payne & Beymer)	Concrete work including foundations etc.	6,500.00
Smith-Oby Company 6107 Carnegie Ave., Cleveland, Ohio	Inside Piping	3,262.00
Smith-Oby Company 6107 Carnegie Ave., Cleveland, Ohio	Outside Piping	2,189.00
Durkee Electric Co., 6007 Euclid Ave., Cleveland, Ohio	All wiring as specified \$2187.00 -- Extras \$637.00	2,824.00
Hadlow, Hughes, Hick & Conrad, Inc., 850 Euclid Ave., Cleveland, Ohio	Engineering & Inspection 6% of Bids & Extras	1,807.02
T-O-T-A-L	-----	\$ 31,924.02

When this improvement was completed the operation noise of the tower was found excessive and the erector, Foster-Wheeler Corporation was required to erect a wind tunnel on either side of the tower to eliminate with no additional cost to the City. The addition was completed in the early spring of 1934; tested and accepted during June and July, 1934, and paid for from earnings.

Thus another improvement program was carried out without resorting to bond assistance.

It has been recommended by City Manager Moody that another Coal Silo be erected to avoid missing different grades of coal and give more coal storage for emergency service.

Preliminary steps now being taken regarding this recommendation which will involve an expenditures of approximately Fifteen Thousand (\$15,000.00) Dollars.

The Electric Light Utility has gradually expended under Municipal Administration until there are four thousand four hundred light and power consumer served.

In addition to improving the Generating Plant, the distribution system has, likewise, been improved by pole and wire renewals until the entire system is in good physical condition and the consumers of current are enjoying benefit of rates said to be equal to the lowest in the State of Ohio.

SCHEDULE OF RATES

1910	First	50 K.W.H.	@ 10¢	per K.W.	
	Second	50 "	@ 8¢	" "	
	Third	50 "	@ 7¢	" "	
	Fourth	50 "	@ 6¢	" "	
	Over	200 "	" 5¢	" "	

(No Discount)

1912	First	100 K.W.H.	@ 7¢	per K.W.	
	Next	50 "	@ 6¢	" "	
	Next	50 "	@ 5¢	" "	
	Over	200 "	@ 4¢	" "	

(No Discount)

1913	First	200 K.W.H.	@ 6¢	per K.W.	
	Over	200 "	@ 5¢	" "	

1917	First	100 K.W.H.	@ 7.8¢	per K.W.	
	Next	50 "	@ 6.7¢	" "	
	Over	150 "	@ 5.6¢	" "	

(10% Discount)

1924	First	100 K.W.H.	@ 7.3¢	per K.W.	
	Next	50 "	@ 6.2¢	" "	
	Over	150 "	@ 5.1¢	" "	

(10% Discount)

1927	First	100 K.W.H.	@ 6.5¢	per K.W.	
	Next	50 "	@ 5.5¢	" "	
	Next	1350 "	@ 4.5¢	" "	
	Over	1500 "	@ 3.5¢	" "	

(5% Penalty)

1928 First 150 K.W.H. @ 5.5¢ per K.W.
 Next 1350 " @ 4.5¢ " "
 Over 1500 " @ 3.5¢ " "

(5% Penalty)

			1931	-1932
1929	First 100 K.W.H. @ 5¢ per K.W.		4.5¢	4¢
	Next 300 " @ 4¢ " "		3.6¢	3.2¢
	Next 600 " @ 3¢ " "		2.7¢	2.5¢
	Next 9000 " @ 2¢ " "		1.8¢	1.8¢
	Over 10000 " @ 1/5¢ " "		1.35¢	1.35¢

(5% Penalty)

(5% Penalty)

The present prevailing rates are available to all users namely domestic, commercial and power consumers and the City even permits metering all current consumption on one meter if customer so desires but where different voltages are required the customer is obliged to adjust at his own expense and supply transformation.

It will be observed that prior to January 1, 1926, it was necessary to issue bonds with which to obtain funds for improvements due to fact that the Receipts were not sufficient to operate, maintain, expand and meet Sinking Fund requirements.

Since that date, however, the complex has been changed and the Electric Light Utility has proven a worth while venture by paying its own way.

To comprehend some idea as to the value of this Utility we quote below official records covering Receipts and Disbursements.

DATE	RECEIPTS	DISBURSEMENTS	DISTRIBUTION MAINTENANCE	INVESTED	SINKING FUND
1926	218,123.68	206,824.51	11,557.46		40,000.00
1927	220,617.89	167,324.90	17,237.41		40,000.00
1928	220,122.90	239,759.52	18,607.50	60,000.00	41,100.00
1929	240,770.28	283,347.26	25,461.02		34,425.00
1930	256,947.50	247,197.99	22,580.50		32,225.00
1931	203,825.22	216,646.94	18,084.97	66,789.00	32,225.00
1932	238,930.19	180,221.20	11,509.88		34,600.00
1933	195,303.43	205,123.49	22,890.13	25,856.56	25,000.00

Note -- Distribution Maintenance Investments and
 Sinking Fund included in Disbursements.

It is believed the Plant value and Distribution System is easily worth \$1,500,000.00 to the citizenry of Painesville City although the Cleveland Electric Illuminating Company made a strong bid to purchase the franchise and rights in 1926, for \$765,000.00 but after due deliberation the offer was rejected.

The bonded indebtedness has been reduced as follows:

Total Bonds Issued -----	\$362,500.00
January 1, 1926 -----	280,000.00
January 1, 1927 -----	253,000.00
January 1, 1928 -----	226,000.00
January 1, 1929 -----	196,000.00
January 1, 1930 -----	171,000.00
January 1, 1931 -----	147,000.00
January 1, 1932 -----	122,000.00
January 1, 1933 -----	97,000.00
January 1, 1934 -----	77,000.00
August 1, 1934 -----	68,000.00

Thus the aggregate Bonded Indebtedness at the end of 1934 will be \$53,000.00, maturing as follows:

1935 -----	\$ 16,000.00
1936 -----	14,000.00
1937 -----	11,000.00
1938 -----	8,000.00
1939 -----	4,000.00

which will all be paid from Plant earnings and it is felt that the Utility in itself is a worth while asset to the Stockholders residing in the City.

The personnel for operation consists of:

1 -- Engineer -----	@ \$200.00 per month
3 -- Assistants -----	@ 150.00 " "
4 -- Firemen -----	@ 125.00 " "
2 -- Laborers -----	@ .55 per Hour
1 -- Laborer -----	@ .40 per Hour

DISTRIBUTION

1 -- Chief Electrician -----	@ \$200.00 per month
5 -- Linemen -----	@ .70 per hour
2 -- Linemen -----	@ .50 " "
1 -- Groundmen -----	@ .50 " "
1 -- Meter Reader -----	@ .50 " "

In addition to the Plant and Distribution Valuation quoted the Cash and Investment balance July 31, 1934, is as follows:

Cash -----	\$27,304.39
Investment -----	<u>143,186.56</u>
T-O-T-A-L -----	\$ 170,490.95