

1943
ANNUAL REPORT
BOARD OF PUBLIC WORKS

Grand Haven
Michigan



FOURTEENTH ANNUAL REPORT
of the
BOARD OF PUBLIC WORKS
GRAND HAVEN, MICHIGAN

For the fiscal year ended
September thirtieth
Nineteen Hundred Forty-three

**MUNICIPAL
POWER AND LIGHTING
SYSTEMS**

1896 - 1943

Cover—South Pier at harbor entrance, Grand Haven.

Page 2—Scene on water front in Grand Haven. Power Plant at right.

Page 11—Illuminated Honor Roll of men in service erected on City Hall grounds. Sponsored by the Junior Chamber of Commerce and provided by the Tri-Cities manufacturers and Service Clubs.



ADRIAN H. RINGELBERG
President

NELSON H. FISHER
CLIFFORD J. WALSH

ARTHUR G. WALTER
ABRAM J. WESSEL

J. BRYAN SIMS
Superintendent



PERSONNEL OF THE BOARD OF PUBLIC WORKS AND LENGTH OF TIME SERVED

Members

JOHN J. MULDER*
 EDWARD L. BEHM
 JAMES H. JOHNSTON†
 O. T. SCHUBERT‡
 HARRY J. SWANSON°
 HARTGER JONKER
 HUGH P. MULLIGAN§
 ARTHUR G. WALTER
 ADRIAN H. RINGELBERG ..
 ABRAM J. WESSEL
 NELSON H. FISHER
 CLIFFORD J. WALSH

	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
JOHN J. MULDER*		RE-ELECTED												
EDWARD L. BEHM			RE-ELECTED				PRESIDENT							
JAMES H. JOHNSTON†		PRESIDENT	PRESIDENT	RE-ELECTED										
O. T. SCHUBERT‡			PRESIDENT	PRESIDENT	RE-ELECTED						RE-ELECTED			
HARRY J. SWANSON°						RE-ELECTED	PRESIDENT				RE-ELECTED	PRESIDENT		
HARTGER JONKER			APPOINTED	ELECTED			RE-ELECTED	PRESIDENT	PRESIDENT					
HUGH P. MULLIGAN§					APPOINTED	ELECTED			RE-ELECTED	PRESIDENT				
ARTHUR G. WALTER								ELECTED					RE-ELECTED	
ADRIAN H. RINGELBERG											APPOINTED	ELECTED	PRESIDENT	PRESIDENT
ABRAM J. WESSEL											APPOINTED	ELECTED		RE-ELECTED
NELSON H. FISHER												ELECTED		
CLIFFORD J. WALSH												APPOINTED	ELECTED	

Superintendents

HARRY J. BADCON
 EDWARD L. BEHM
 J. BRYAN SIMS

Original members of Board elected are the first five listed and their terms in years as originally appointed are in the same sequence.

* John J. Mulder resigned June, 1932, and Hartger Jonker was appointed.
 † James H. Johnston resigned July, 1934, and Hugh P. Mulligan was appointed.
 ‡ O. T. Schubert resigned January, 1940, and Adrian H. Ringelberg was appointed.
 § Hugh P. Mulligan resigned January, 1940, and Abram J. Wessel was appointed.
 ° Harry J. Swanson resigned August, 1941, and Clifford J. Walsh was appointed.

THE ANNUAL REPORT

The Board of Public Works of the City of Grand Haven, Michigan, submits herewith its fourteenth annual report of the operations of the Municipal Electric System for the fiscal year ending September 30, 1943, with comparative figures taken from the audit of the city finances recently completed by the firm of Maihofer, Moore & DeLong.

The operating revenues of the system increased \$8,977.02, or slightly over 3%, compared with the previous year, due principally to increased usage of electricity in the community, however, there were 48 new residential meters added to the system during the fiscal year. Electrical consumption by residential users increased 7.6%. Commercial users consumption decreased 1.15%, and industrial power users consumption increased 9.44%. The average kilowatt hours used yearly per residential customer in 1937 was between 700 and 800 kwh. In 1942 this had risen to 1355, and in 1943 the average was 1421 kwh. Operating revenues from residential customers increased 5.5%, from commercial lighting customers it decreased 2.4%, and from industrial power customers it increased 3.16%.

While the total revenues increased due to greater usage, operating expenses, exclusive of depreciation and voluntary taxes, decreased. However, the net income decreased, due principally to increased depreciation and voluntary taxes paid. The increase in depreciation and voluntary taxes was a result of increase in capital by the addition of the cost of the new generating unit. There was a general increase in wages. Also, \$1,716.37 was paid into the employees' pension fund established in May, 1943. Power plant operating expenses decreased \$8,401.77, due principally to less power being generated by the steam plant than the previous year, and also due to less maintenance work being done. Distribution and commercial expenses increased.

As the electrical usage per customer increases, particularly in the case of the residential customer, the return per kilowatt hour to the electrical system becomes proportionately smaller. This reflects the substantial rate reductions made in the past few years; for example, the average kilowatt hour in 1937 brought 3.3c, in 1941—2.6c and in 1943—2.19c. The decrease in net income was anticipated, and is due not only to increased expenses but also to past rate reductions. The plant produced over three times as much power in 1943 as it did in 1933, and nearly twice as much as in 1937.

Voluntary city and school taxes were paid in the amount of \$7,906.33. \$2,000.00 was paid into the general fund of the city, and \$4,980.00 was applied to the amortization of bonds which had been issued to build the municipal hospital in 1938-39. Substantial investments of depreciation and breakdown insurance reserve funds were made in government bonds as announced in the local newspaper from time to time.

COMMENTS OF AUDITORS

The following are excerpts taken from the yearly report:

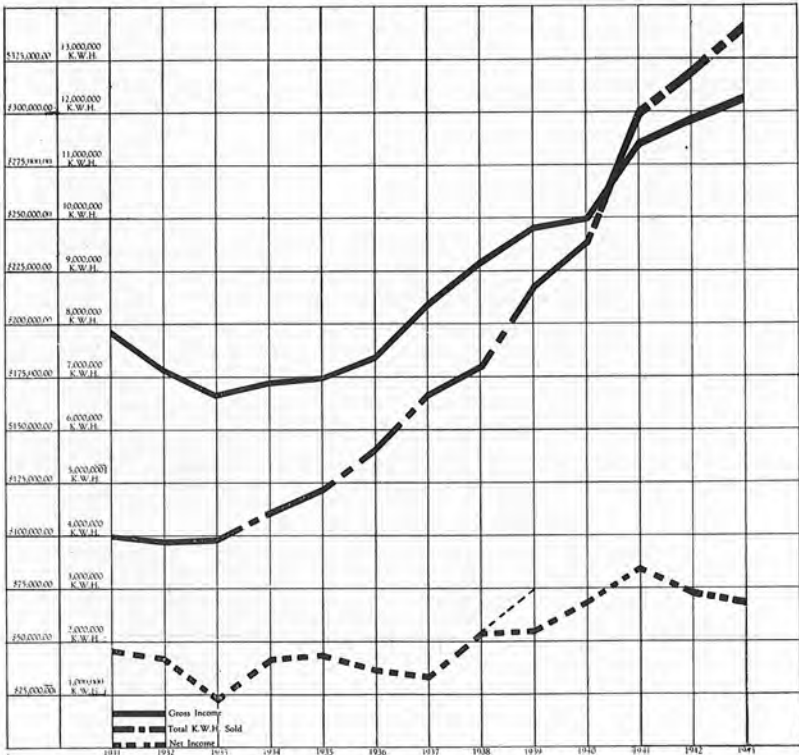
"We examined the minute book of the Board, and as far as we could determine, all transactions made during the year under review were in accordance therewith.

"The department obtained the principal portion of its funds from operating income. The funds thus obtained were used for the purchase of fixed assets, for contribution to the general fund of the city and the municipal hospital department, to increase the reserve for insurance and purchase investments (government bonds).

"Both the operating revenues and operating expense increased, the increase in operating expenses being greater than the increase in operating revenues, and this resulting decrease in net operating revenues was approximately equal to the decrease in net income to surplus.

"The increase in operating revenues was represented principally by increased revenues from residential light and commercial power. Operating expenses increased in some divisions and decreased in others.

Curves showing comparison of kilowatt hours sold with gross and net revenues, illustrating greater amount of current sold with correspondingly less gross and net income. (Small dotted line on net for 1938 shows amount of retroactive rate reduction returned to users in "paid" bills).



ON A KILOWATT HOUR GENERATED BASIS

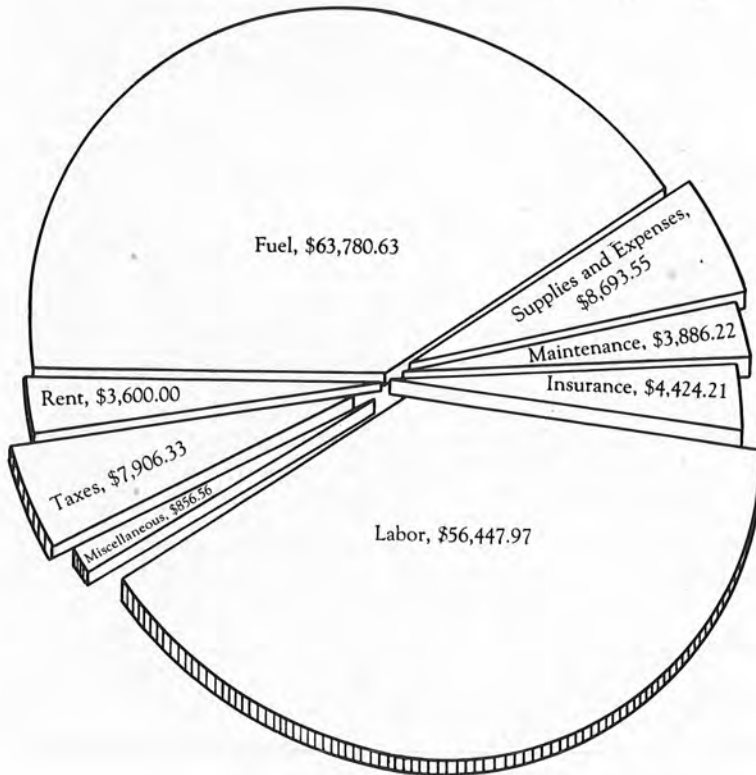
“The following comparison shows the amount of income and expense per kilowatt hour generated in each of the two years:

	1943	1942	Increases Decreases*
Operating Revenues	\$ 0.01929	\$ 0.01985	\$ 0.00056*
Operating Expenses	0.01505	0.01501	0.00004
Net Operating Revenue	\$ 0.00424	\$ 0.00484	\$ 0.00060*
Non-operating Income	0.00009	0.00007	0.00002
Net Income to Surplus	\$ 0.00433	\$ 0.00491	\$ 0.00058*

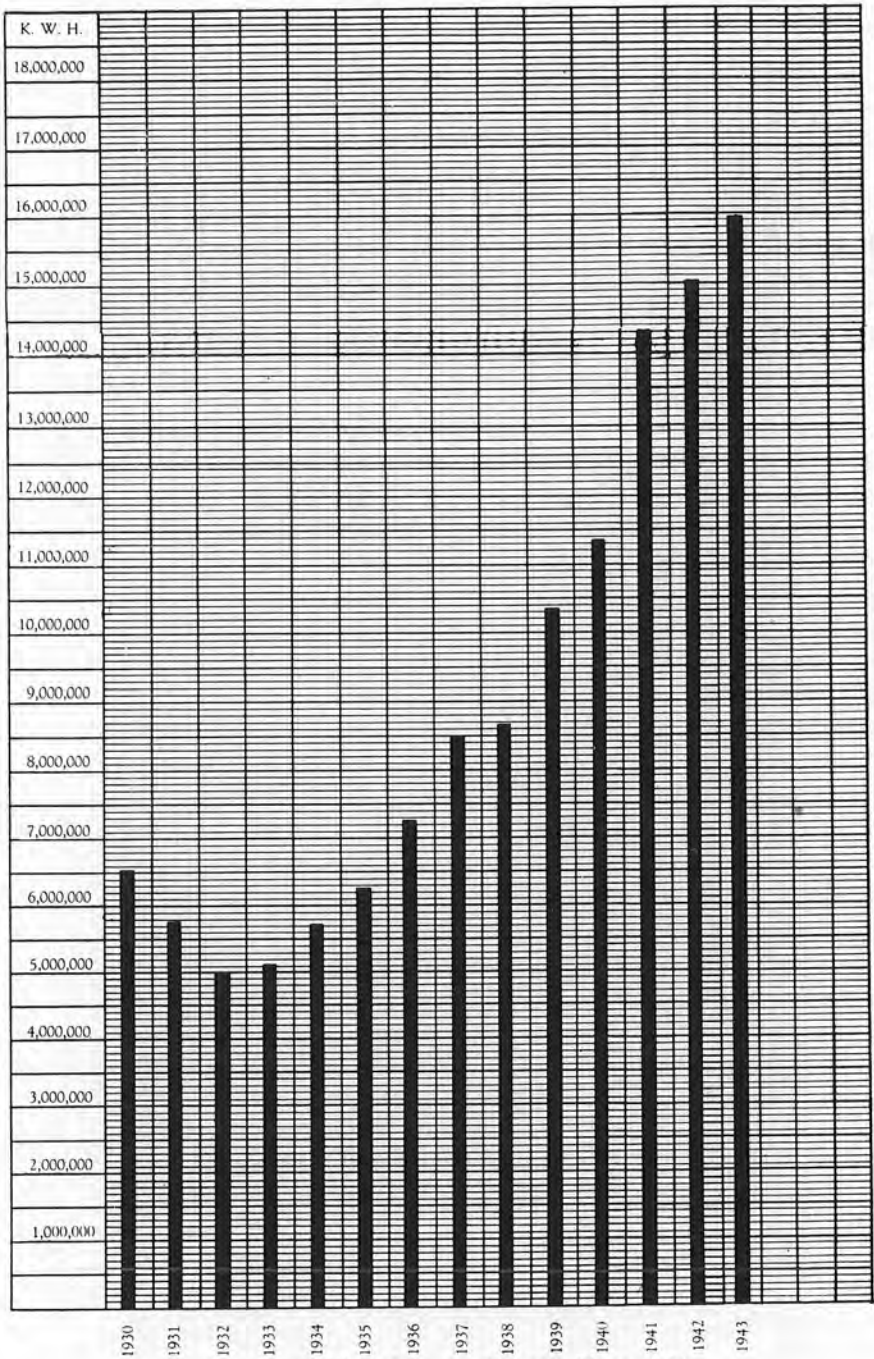
“On a kilowatt hour basis, the operating revenue decreased 2.82%, while the operating expenses increased 0.26%.

“Summarizing the above comparison, it is to be noted that the number of kilowatt hours generated increased 6.01%. Because of this increase in volume, the operating revenue increased 3.01%. Operating expenses increased 6.29%.”

Graph showing relative operating expenditures for the fiscal year.



In addition to the above, \$5,873.14 was expended for labor on new construction.



Graph of Kilowatt Load Growth Since 1930.

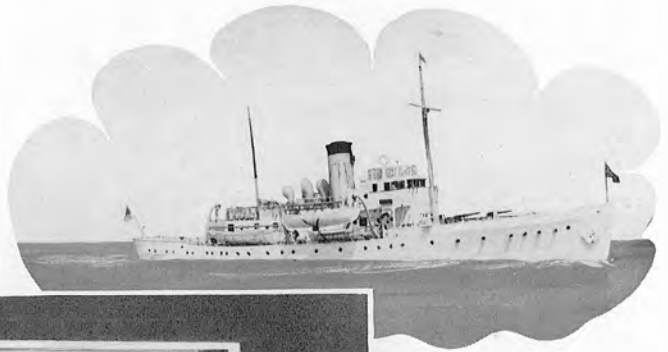
MUNICIPAL POWER AND LIGHT DEPARTMENT

COMPARATIVE STATEMENT OF OPERATIONS

Years Ending September 30, 1942 and 1943

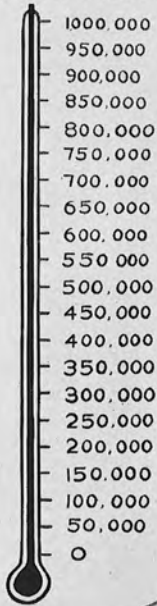
	Year Ending September 30, 1943	Year Ending September 30, 1942	Increase or Decrease*
OPERATING REVENUE	\$307,242.07	\$298,265.05	\$ 8,997.02
Miscellaneous Revenue	1,437.50	1,090.07	347.43
Total Revenue	\$308,679.57	\$299,355.12	\$ 9,324.45
OPERATING EXPENSES (Power Plant)			
Superintendence and Labor	\$ 24,182.49	\$ 22,485.15	\$ 1,697.34
Fuel	63,780.63	63,277.68	502.95
Maintenance and Repairs	3,886.22	12,287.99	8,401.77*
Supplies and Expenses	6,815.88	7,954.57	1,138.69*
Total Plant Expenses	\$ 98,665.22	\$106,005.39	\$ 7,340.17*
DISTRIBUTION EXPENSES (Power Lines, Etc.)			
Salaries and Labor	\$ 12,441.39	\$ 10,516.69	\$ 1,924.70
Transportation (Truck Upkeep, Etc.)	629.46	458.74	170.72
Supplies and Expenses	987.83	983.42	4.41
Total Distribution Expenses	\$ 14,058.68	\$ 11,958.85	\$ 2,099.83
UTILIZATION EXPENSES	\$ 1,717.95	\$ 2,588.67	\$ 870.72*
COMMERCIAL EXPENSES	\$ 1,579.99	\$ 1,496.30	\$ 83.69
GENERAL EXPENSES (Office Administration)			
Salaries	\$ 12,537.09	\$ 10,919.95	\$ 1,617.14
Office Supplies and Expenses	889.84	922.61	32.77*
Rent	3,600.00	3,600.00	-----
Insurance (Fire and Breakdown)	4,424.21	4,700.00	275.79*
Interest on Meter Deposits	433.53	511.72	78.19*
Interest—Other	157.53	115.01	42.52
Advertising	302.27	287.38	14.89
Bad Debts	198.24	232.70	34.46*
Transportation	529.84	363.03	166.81
Pensions	1,716.37	-----	1,716.37
Miscellaneous	878.38	1,180.12	301.74*
Total General Expenses	\$ 25,667.30	\$ 22,832.52	\$ 2,834.78
TOTAL OPERATING EXPENSES	\$141,689.14	\$144,881.73	\$ 3,192.59*
NET INCOME (Before Taxes and Depreciation)	\$166,990.43	\$154,473.39	\$12,517.04
DEDUCT:			
Taxes (City and School)	\$ 7,906.33	\$ 4,246.40	\$ 3,659.93
Depreciation	90,069.01	76,365.33	13,703.68
Total Deductions	\$ 97,975.34	\$ 80,611.73	\$17,363.61
NET INCOME	\$ 69,015.09	\$ 73,861.66	\$ 4,846.57*

* Denotes Decrease



United States Treasury

3RD WAR LOAN



“Over the top” to replace the gallant ship ESCANABA, sunk in the Atlantic while serving the war effort away from its home port, Grand Haven.



TRI-CITIES

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JOHN THOMAS NEW
GEORGE ZYSK
ROBERT E. BENNETT
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STANLEY WASKIN
EDWIN COOK
LORRAINE GREEN
GHE DYGLOPPER
KARLS PETERSON
JOHN BUTENHEIT
PETER HITCHCOCK
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DONALD DEBRUYN
THOMAS DENNING
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DORIS W. WIERINGA
JAMES W. OAKES
MIRKO LAMER
WOLFF W. WIERINGA
LILLIE LILLIE
OWEN LILLIE
DONALD PHILLIPS
JOHN LOPER
JOHN JUSTEMAN
LAVIN BURGHOORN
JOHN JOHNSTON
FRED KELLER
MAX LITZ
WM SLIKKA
EDWARD ROEBERG
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DUDS ZELLAR
EDVO JOHNSON
ROBERT KOIDMAN
HAROLD JOHNSON
HENRY SNYDER
ARCHIE SWINEY
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EDWARD REGELIN
JAMES DIRKZE
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JAMES WESSEL

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ANTHONY VAN BREDA
JOHN PHILLIPS
JOHN LOPER
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GEOG. LITZ
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GERRIT PETERSON
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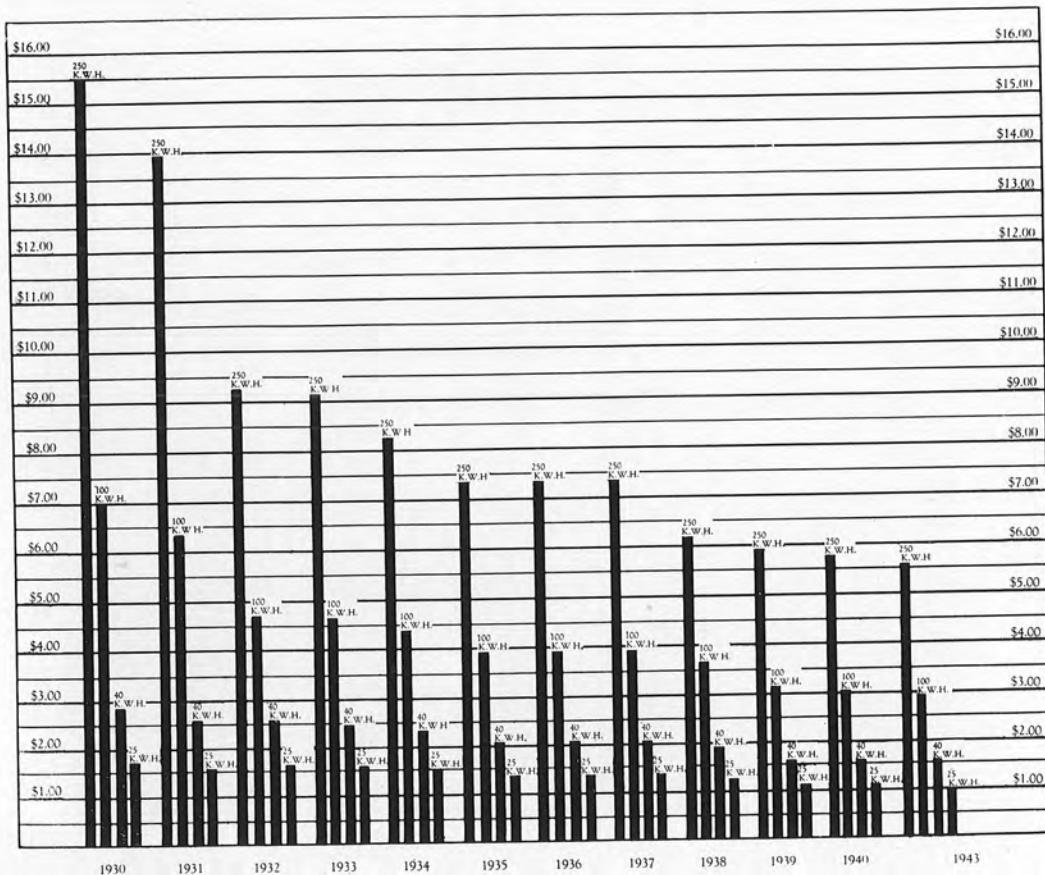
PAUL RIEMERSMA
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CHESTER DUSNIK
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CLARENCE ELMELP
GERRIT VERWOERT
ROBERT VER WOERT
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ALVIN COOK
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WM WILDS
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EDWIN ZELTZER
LARRY E. COX
SOULE T. BITTING

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JAMES W. COSEN
GEO. W. BROWN
HOWARD W. H. W.
GEORGE LANNING
EDWARD LANNING
ANNE L. LANNING
ROBERT J. TURNER
LOUIS J. TURNER
R. F. ADAMS
M. C. LEVINE
SHELDON WOOD
ALBERT SCOTT JR
IVAN S. MILLER
LAWRENCE MCFADDEN
ALBERT SCOTT JR
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CORNELIUS DEBOER
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ALVIN STREY
ALVIN COOK
CHARLES CORRELL
JOHN VYNN
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HERMAN SWIFTNEY
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JOHN VYNN
JOHN ROZNECK
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HOWARD BOVE
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FRANCIS PITRE
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GILBERT HEADY
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JULIAN KASPERMAN
FRANK SWITNEY
NICHOLAS M. CHAEL
FRED C. MILLER
ROBERT SMIT
H. HOCKENRALTH
HUGH KRAMP
W. G. BIRDS
GERALD D. BURNSIDE
HIRAM D. TUFTS
WESLEY B. HOOK
JOHN VAN DYKE JR
ROBERT ROOSSEIN
FRANK W. MERSER
G. VAN WERKUM
EMER JUSTEMA
EDWIN ZELTZER
LARRY E. COX
SOULE T. BITTING



Cost of 25, 40, 100 or 250 Kilowatt Hours to Residence Customers since 1930.

THE FISCAL YEAR

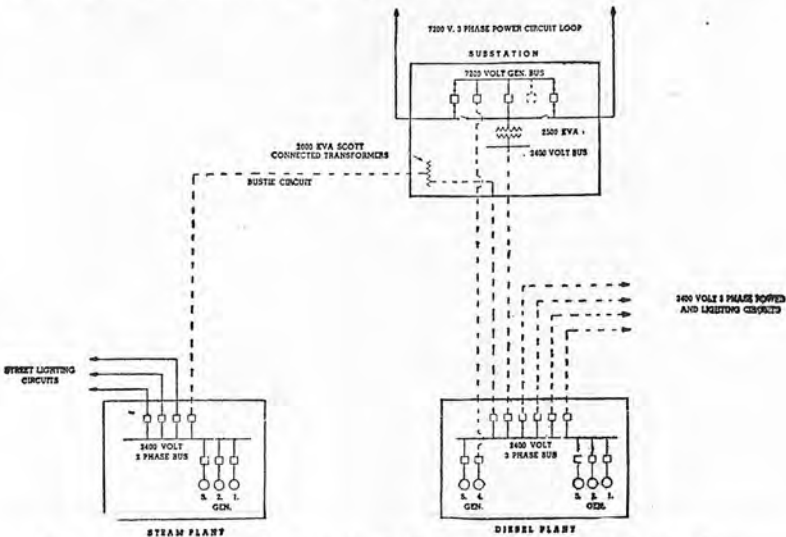
In keeping with general conservation measures due to war time conditions and resultant lack of building, no extensive electric line construction was done during the year under review.

POWER PLANT

Routine maintenance was carried on, but some general overhauling of Diesel engines deferred during 1942 and 1943 is planned for 1944. This overhauling had been deferred while the larger Diesel engine generating unit of 3390 kva was being installed and during its early stages of operation.

The newer unit has made a very satisfactory operating record during the past two years, carrying much of the industrial load and generating at 7200 volts feeding directly into the industrial power loop around the city. The Diesel generating plant consisting of a 2000 kva unit installed in 1937 and three 1000 kva units, two of which were installed in 1931 and the third in 1934, in addition to the 3390 kva unit, has supplied the greater part of the electric power. The less efficient 3000 kw steam turbine generating plant was maintained principally as standby.

Lightning caused some damage to the generator of the No. 5, 2250 hp, 2000 kva Diesel unit, and additional lightning protection with differential generator winding protective relay equipment was installed. This type of protection was provided on the newer 3390 kva unit at the time of its installation. Priority was obtained and CO₂ fire protective equipment was purchased for installation in the Diesel plant.



Electrical Diagram of Principal Circuits in Steam, Diesel Plants and Steel Outdoor Sub-station

EXTENSIONS AND REBUILDING OF DISTRIBUTION LINES

Lines were rebuilt at Gerhard Park, in Ferrysburg and near Madison Street in Grand Haven. It was necessary to rebuild a 7200 volt distribution extension to supply additional capacity to the Coast Guard Training Station.

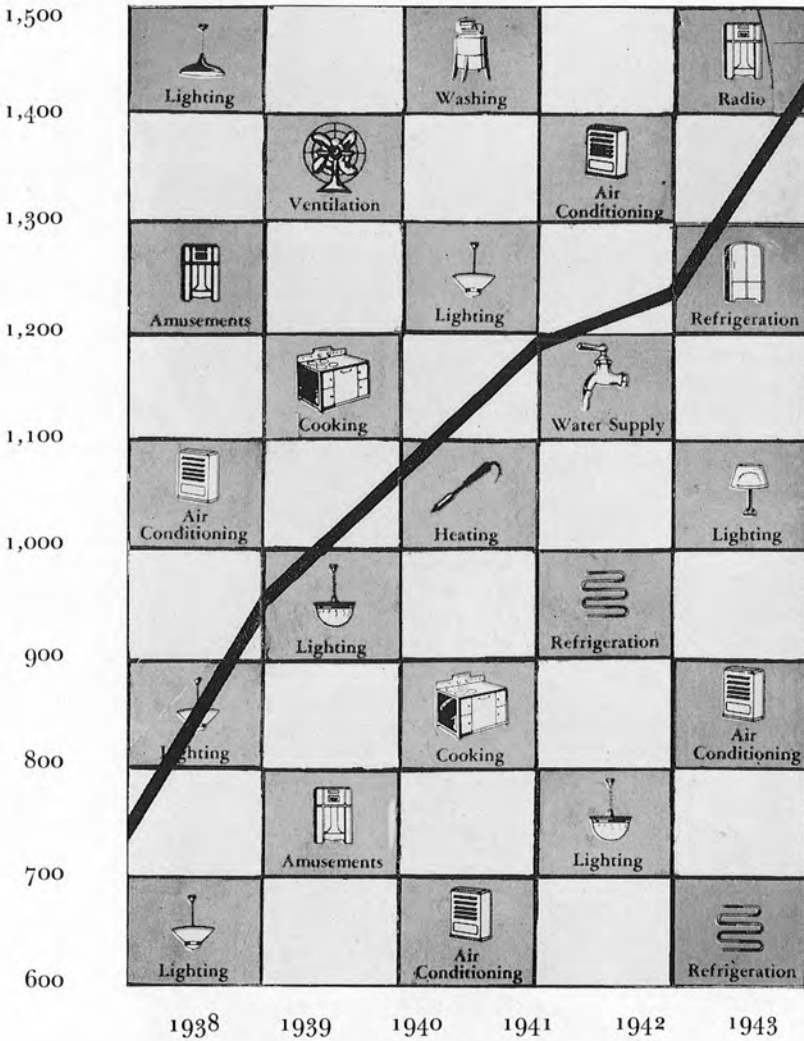
Increased transformer capacity was supplied to The Challenge Machinery Company, Fant Monument Works, Laughead & Company and others. A primary and secondary extension was made between Grant and Slayton Streets east of Griffin to serve new homes which were built.

A primary line was rebuilt from Grand Avenue to the city limits along the lake which was necessitated by the washing away of the sand due to high water. Work of this nature was also completed at South Highland Park. Shifting of sand necessitated maintenance work at the County Park on the North Shore.

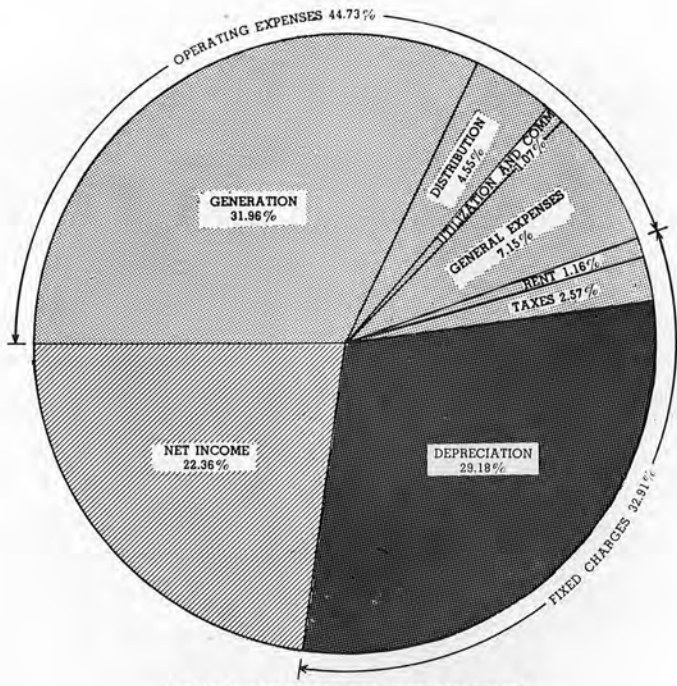


Encroachment of Lake Michigan on shore line necessitates relocating distribution lines.

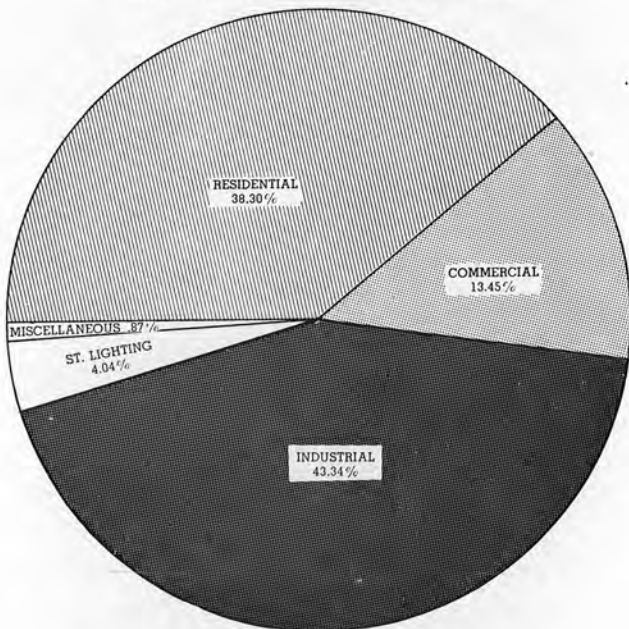
Thousands of kwh



Load growth curve of the system.



DISPOSITION OF REVENUES
 Total area of chart equals \$308,679.57



SOURCE OF REVENUES
 Total area of chart equals \$308,679.57