

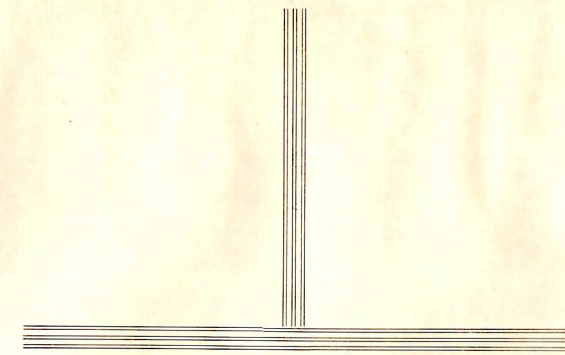
THE NINTH ANNUAL REPORT
for the fiscal year ended
September thirtieth
Nineteen Hundred Thirty-Eight

MUNICIPAL
POWER AND
LIGHTING SYSTEM

1896 ——— 1938



— BY THE —
BOARD OF PUBLIC WORKS



BOARD OF PUBLIC WORKS

HARTGER JONKER
President

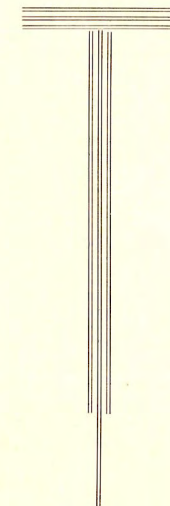
O. T. SCHUBERT

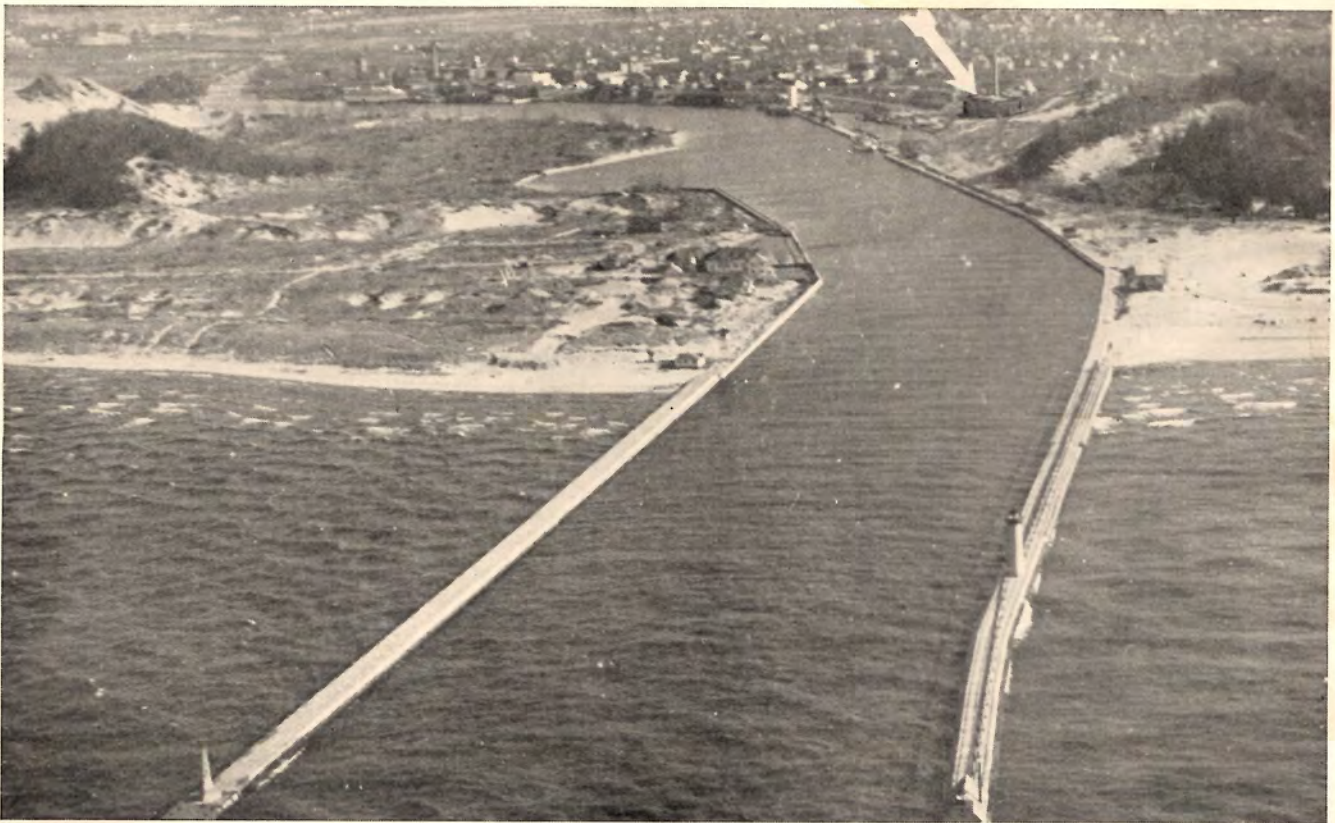
HUGH P. MULLIGAN

HARRY J. SWANSON

ARTHUR G. WALTER

J. BRYAN SIMS
Superintendent





HARBOR ENTRANCE TO GRAND HAVEN

POWER PLANT IN DISTANCE

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

MEMBERS	1930	1931	1932	1933	1934	1935	1936	1937	1938
JOHN J. MULDER*		RE-ELECTED							
EDWARD L. BEHM			RE-ELECTED				PRESIDENT		
JAMES H. JONSTON†	PRESIDENT	PRESIDENT		RE-ELECTED					
O. T. SCHUBERT			PRESIDENT	PRESIDENT	RE-ELECTED PRESIDENT				
HARRY J. SWANSON						RE-ELECTED PRESIDENT			
HARTGER JONKER			APPOINTED	ELECTED			RE-ELECTED	PRESIDENT	PRESIDENT
HUGH P. MULLIGAN					APPOINTED	ELECTED			
ARTHUR G. WALTER								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. Jonston resigned July, 1934, and Hugh P. Mulligan was appointed.

THE ANNUAL STATEMENT

The Board of Public Works is pleased to submit its Ninth Annual Report of the Grand Haven Municipal Electric System.

A comparative statement of operations for the fiscal years ending September 30, 1937 and September 30, 1938 as taken from the annual audit by the firm of Maihofer, Moore & DeLong is submitted for your consideration. It will be noted that the operating income increased \$20,095.96 from sale of current which compares with the increase of the previous year. Operating expenses increased \$5,666.75. Gross income increased \$13,976.42 and the net income increased \$20,862.38. This difference is attributed largely to the fact that non-operating expenses were reduced \$6,885.96. The operating revenues increased 9.57% while the operated expenses increased but 3.34%. The increase in net operating revenue plus a very substantial decrease in non-operating expenses resulted in the appreciable increase of \$20,862.38 in net income. The increase in operating revenue was represented principally by the increased revenues from the sale of residential light and commercial power. All other sales divisions of light and power, with the exception of Ferrysburg light, showed increases. This latter decrease is explained somewhat by the variations in rate reductions effective June 1, 1938.

It is notable that in spite of the rate reductions, which varied from 8% to 15%, the gross income from the residential groups substantially increased. Operating expenses increased in all but two expense divisions which showed decreases. However, the very substantial decrease in power plant supplies and the expenses, and more particularly in the cost of fuel, was of ma-

terial benefit in offsetting increases in other expense divisions.

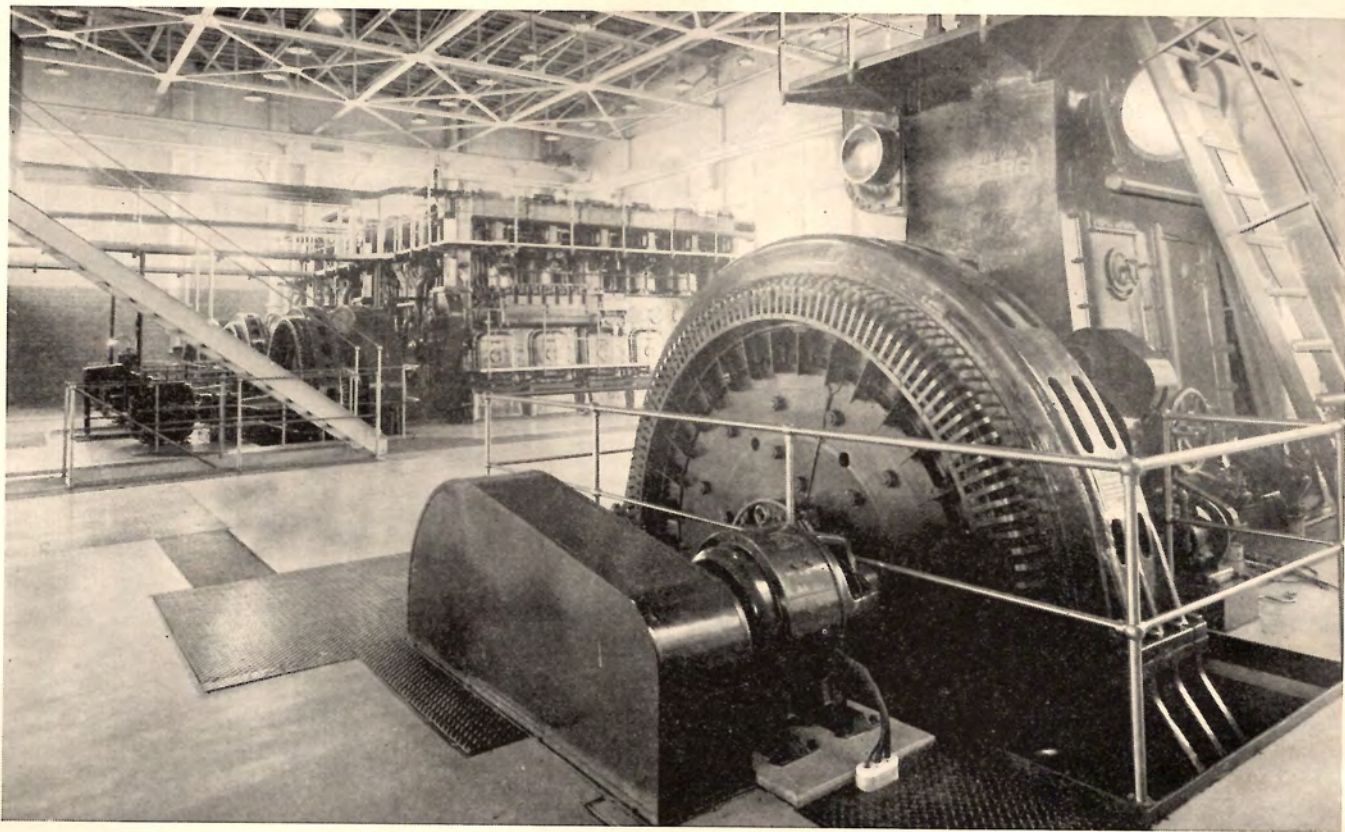
The number of K.W.H. generated for the two years are as follows: K.W.H. generated in year ending September 30, 1937—8,494,500. K.W.H. generated in year ending September 30, 1938—8,677,400. There was an increase of 182,900 K.W.H. generated. On a K.W.H. basis the operating revenues increased 7.24% and the operating expenses increased 1.15%, while on a dollar basis the operating revenues increased 9.57% and the operating expenses increased 3.34%. This is accounted for by the decrease in electric rates put in effect during the year.

It should also be noted that a substantial reduction in power consumed by the plant auxiliaries was made which resulted in an appreciable decrease between the amount generated and the amount sold.

During the year the Board paid city and school taxes in the amount of \$7,442.54 into the tax fund, and also paid \$15,600.00 into the general fund, \$3,600.00 of which represents rent. These items directly effect savings to the city administration, and when added to other tangible services rendered, represents a substantial interest return to the city on the investment.

During the year reviewed seventy-six new customers were added to the system. Fifty of these were served without line extensions and twenty-six were served by building short extensions. The average consumption per residential customer increased substantially, which is not only in keeping with the trend of the electrical industry, but is reflected from the rate reductions made.

One hundred and forty-two electric stove installations were furnished and four electric water heaters installed. With the new low off-peak water heater rate in effect in June, it is anticipated that this type of load will show a material increase during the coming year.



An interior view of the Power Plant showing the 2250 horse power Nordberg engine (in the foreground) and the three 1140 horse power De La Vergne engines

MUNICIPAL POWER AND LIGHT DEPARTMENT

COMPARATIVE STATEMENT OF OPERATIONS

Years Ending September 30, 1937 and 1938

	Year Ending September 30, 1938	Year Ending September 30, 1937	Increase or Decrease*
OPERATING INCOME (Sales of Current)	\$229,985.94	\$209,889.98	\$20,095.96
Miscellaneous Income	320.78	773.57	452.79*
Total Income	\$230,306.72	\$210,663.55	\$19,643.17
OPERATING EXPENSE (Power Plant)			
Superintendence and Labor	\$ 20,125.61	\$ 19,401.15	\$ 724.46
Fuel	26,482.61	42,119.42	15,636.81*
Maintenance and Repair	14,497.53	6,543.91	7,953.62
Supplies and Expenses	4,777.79	4,753.06	24.73
Total Plant Expenses	\$ 65,883.54	\$ 72,817.54	\$ 6,934.00*
DISTRIBUTION EXPENSE (Power Lines, Etc.)			
Salaries and Labor	\$ 9,809.08	\$ 8,567.46	\$ 1,241.62
Transportation (Truck Upkeep, Etc.)	415.80	541.41	125.61*
Supplies and Expenses	612.16	520.21	91.95
Total Distribution Expenses	\$ 10,837.04	\$ 9,629.08	\$ 1,207.96
UTILIZATION EXPENSE	\$ 2,621.92	\$ 3,502.83	\$ 880.91*
COMMERCIAL EXPENSE	\$ 1,514.03	\$ 1,304.97	\$ 209.06
GENERAL EXPENSE (Office Administration)			
Salaries	\$ 10,818.66	\$ 9,513.14	\$ 1,305.52
Office Supplies	679.71	1,031.38	351.67*
Rent	3,600.00	3,600.00	-----
Insurance (Fire and Breakdown)	3,309.00	4,775.05	1,466.05*
Interest on Meter Deposits	455.32	426.76	28.56
Interest on Contract and Loans	2,340.24	-----	2,340.24
Advertising	375.31	673.93	298.62*
Bad Debts	266.22	321.22	55.00*
Transportation	369.91	336.81	33.10
Miscellaneous	1,530.39	1,007.59	522.80
Total General Expenses	\$ 23,744.76	\$ 21,685.88	\$ 2,058.88
TOTAL OPERATING EXPENSES	\$104,601.29	\$108,940.30	\$ 4,339.01*
NET INCOME (Before Taxes and Depreciation)	\$125,705.43	\$101,723.25	\$23,982.18
DEDUCT:			
Taxes (City and School)	\$ 7,442.54	\$ 5,653.24	\$ 1,789.30
Depreciation	63,426.92	55,210.46	8,216.46
Change-over from 2 to 3 Phase	234.30	3,992.94	3,758.64*
Dismantlement of Fixed Assets	-----	3,127.32	3,127.32*
Total Deductions	\$ 71,103.76	\$ 67,983.96	\$ 3,119.80
NET INCOME	\$ 54,601.67	\$ 33,739.29	\$20,862.38

* Denotes Decrease

THE FISCAL YEAR

During the fiscal year ending September 30, 1938 several improvements of a general nature were made to the property.

A new 100,000 gallon steel underground fuel oil storage tank was purchased and installed to supplement the original 100,000 gallon tank installed in 1930. The new tank is constructed of one-quarter inch and three-sixteenths inch steel with special annular ring reinforcement to withstand sand load, and was installed complete at a cost of \$4,097.77. Plans were also formulated for a third fuel tank to be installed during the latter part of 1938. This additional fuel capacity not only places the property in a better purchasing position, but also provides adequate fuel reserve in the event of emergencies.

The three 1140 horse power De La Vergne engines were completely overhauled by the operating crew under the supervision of a factory engineer. This maintenance work had been deferred to some extent during the past several years due to the urgent need for the engines prior to the installation of the Nordberg unit, and accounts for the unusually large maintenance figure in the report.

Four new 250,000 circular mill, 5,000 volt insulation, 3-conductor cable, 2400 volt feeders were installed with underground 4" duct work and manholes suitable for these and other additional feeders. This installation will replace obsolete outgoing feeders from the steam plant and assist in assuring continuous service.

General improvements to grounds and buildings were made. Space formerly occupied as a coal yard was filled in with soil and sodded, and shrubbery planted. Also an unsightly wooden coal scale house was torn down and other similar improvements made. Considerable maintenance work on the steam plant building was done. This had been deferred for sev-

eral years and was necessary to protect the building from further deterioration, also to reduce heating expense and fire hazard.

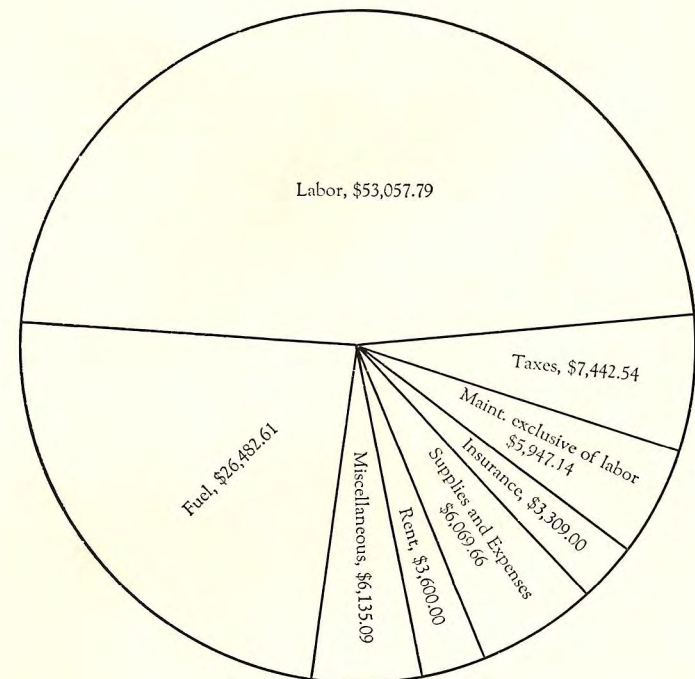
A parking space of 3,500 square feet with concrete curbing and asphalt paving was constructed in the front of the power plant building which provides parking conveniences for employees and visitors to the plant. This improvement, together with work done by the U. S. Government Engineering Department, has materially improved the general appearance of the area.

Design of a one story addition to the power plant to house the existing Nordberg muffler installation and thereby recover heat for the buildings was completed and the plans are to complete this work during 1938-39. This extension is designed to be large enough to house two exhaust waste heat boilers to be installed in the future for heating buildings with steam without using the fuel fired boiler.

A detailed bus mapping system of the electrical distribution in Grand Haven, Ferrysburg and rural districts was instituted and all maps completed. This system is set up to operate in a continuous manner, whereby a constant record of all extensions is made, thus making the mapping self-perpetuating. Detailed sketches with possible economies to be worked out will be made from the maps. Also the mapping system makes a quick appraisal possible of the distribution plant investment. A work order and estimating system for new extensions and construction was instituted in conjunction with the mapping which will permit more accurate cost studies with resultant economies. This system will also give an excellent detailed record of distribution expenditures.

During the year the Conservation Department of the State of Michigan made improvements to the Oval bathing beach which included considerable paving and parking space for over 300 automobile trailers. It became necessary, therefore, that the existing electrical distribution system be reconstructed. Realizing the importance of this State Park to the City of Grand

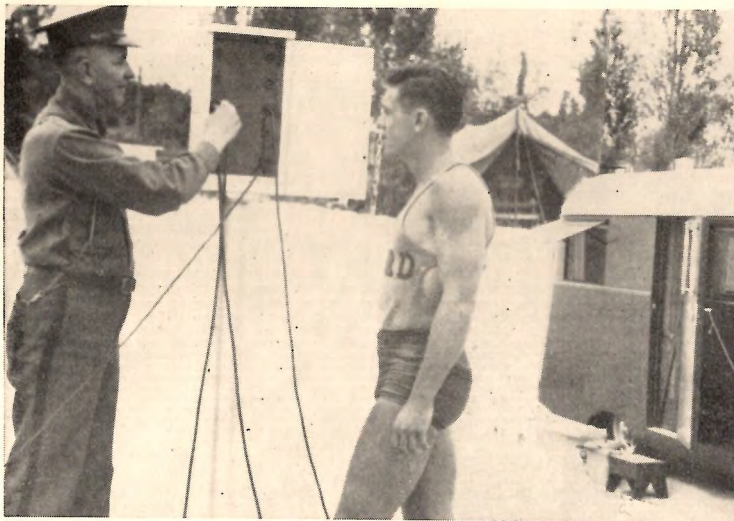
Haven, it was decided to provide electric service for the trailers with an underground distribution system at a cost of \$3,839.03. Five thousand eight hundred feet of No. 4 special marine service duplex cable was installed, terminating in outlet boxes conveniently placed to the rear of the trailer locations. This installation gives Grand Haven one of the most complete installations of its nature in the United States with 310 underground electric outlets, and was well received by the tourists who used approximately twice the amount of current as during the previous year, when only fifty overhead outlets were available.



Production cost graph showing relative expenditures

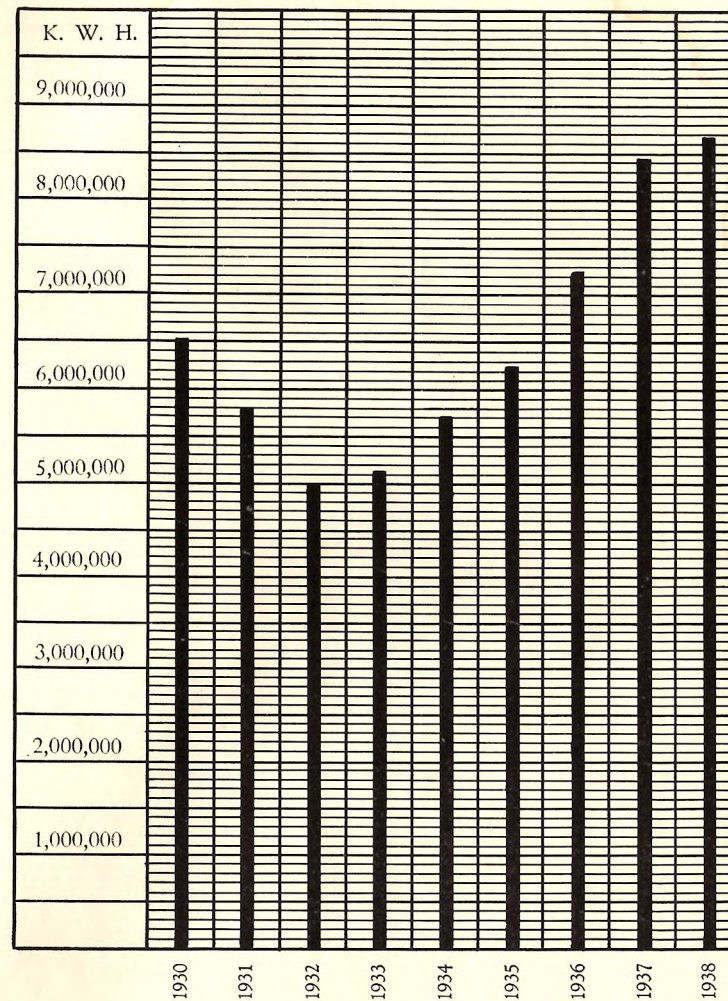


Two 100,000 gallon fuel oil storage tanks with power plant and part of harbor in distance



Typical electric outlet box of underground electric distribution system available for over 300 tents and trailers
Ample electric service for cooking, lighting, radios, etc.

GRAPH OF K. W. H. LOAD GROWTH OF PLANT
SINCE 1930



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