

THE TORONTO HYDRO-ELECTRIC SYSTEM

THE NINTH ANNUAL REPORT OF

THE TORONTO ELECTRIC COMMISSIONERS, 1919

COMMISSIONERS' REPORT

To His Worship the Mayor and the Members of the Council of the Corporation of the City of Toronto:

Gentlemen:—Your Commissioners beg to submit their Ninth Annual Report on the operations of the Toronto Hydro-Electric System for the year ended 31st December, 1919, accompanied by the Revenue Account, Balance Sheet, and subsidiary statements. The Accounts have been audited by the Audit Department of the Corporation of the City of Toronto, whose certificate is appended thereto.

FINANCIAL POSITION AS AT 31st DECEMBER, 1919

The operations for the year 1919 have resulted as follows:

The gross income amounted to the sum of	\$2,504,758.31
The cost of electric current and the expenses of operation and management, including repairs and maintenance, absorbed the sum of	1,577,122.50
Leaving a surplus of income on operating account of	927,635.81
Interest, Depreciation, Exchange, Sinking Funds and Debenture retirements absorbed the sum of	923,484.49
Leaving a surplus of net income for the year of	\$4,151.32

Had the enterprise been conducted as a commercial corporation with perpetual share capital the net earnings for the year would have been shown at the amount of \$568,377.43, that being the sum of the interest payments, the sinking fund appropriations, the debenture retirements, and the net surplus. This would be the equivalent of a dividend at the rate of approximately 7% for the year on the average amount of capital invested.

The net funded debt at 31st December, 1919, less sinking funds in the City Treasurer's hands, amounted to the sum of \$8,244,533.89, all of which will be promptly paid at maturity by the annual retirements of the serial debentures and by the operation of the sinking funds applicable to the long term debentures.

The total amount of the unfunded debt at the same date was \$284,394.81, against liquid asset resources of \$1,346,456.17. Of the latter \$475,190.98 represented cash on hand and on deposit.

Surplus funds, representing profits after meeting all operating costs and exchange losses, had been accumulated at the same date to the amount of almost three million dollars as follows, viz:—

- (1) A Reserve Fund for the replacement in the future of buildings, plant and general equipment, as such wear out, of \$1,635,701.20
 - (2) Reserve Funds for general contingencies, for loss on American exchange, and for contingent liabilities arising out of the Workmen's Compensation Act, of 157,125.54
 - (3) Reserve Funds held by the Provincial Hydro-Electric Commission on account of the Toronto system, of 129,125.46
 - (4) Sinking Funds held by the City Treasurer for the retail at maturity of debentures, and interest thereon, of 910,100.61
 - (5) Serial debentures retired, thereby creating additional equity in underlying property, of 129,365.50
 - (6) Additional free surplus of 101,447.29
- Total Reserves as per Balance Sheet \$3,062,865.60
- (7) Less:
- (a) The Reserve for depreciation of leasehold property for which no value is held \$44,167.95
 - (b) The Reserve for loss on American exchange which was an actual incurred liability at the end of 1919 18,831.33
- Net Reserves of the Nature of Surplus \$2,999,866.32

This striking result has been accomplished in eight years after operating on a scale of consumers' rates, which, while materially lower at the beginning than that of the System's principal competitor, has been since substantially reduced—twice as to general rates, and twice as to street lighting rates; after charging all repairs and maintenance expenditure against income; after paying on the whole a higher rate of interest on the Debenture Capital than was anticipated at the inception of the enterprise—interest that may be regarded as the equivalent of a reasonable dividend on the like capital of a like enterprise privately owned; after establishing voluntarily a generous scale of compensation for all employees, and paying the still higher rates that by Conciliation Boards and otherwise have been added from time to time to the original voluntary scale; and after making liberal subscriptions to patriotic objects during the war, and liberal grants to employees who went to the Front, and to their dependents. In this connection it is worthy of special note that no charge has been made against Capital Expenditure at any time that should have been met out of Income. These funds therefore represent the accumulations of bona fide surpluses after meeting out of Income every element of operating expense properly attributable thereto.

OPERATIONS OF 1919

The yearly averages of the monthly peak loads from the first complete year of the enterprise to the end of 1919 are as follows:—

Year.	H.P.	Year.	H.P.
1912.....	10,794	1916.....	36,158
1913.....	17,051	1917.....	44,855
1914.....	21,572	1918.....	54,392
1915.....	28,722	1919.....	47,600

The reduced average for the year 1919 is due principally to the slowing down of the munitions manufacturing industries occasioned by the Armistice, and to the inability of the Hydro-Electric Power Commission of Ontario to furnish additional power. For the latter reason the Commission restricted as much as possible the new business for the year 1919. At the governing rate of \$14.50 per H.P. fixed by the Provincial Commission the charge for the year would have been \$706,012.96, or only 28.2 per cent. of the gross income. After the close of the year's operations, however, the Provincial Commission advised your Commissioners that the cost of the power supplied them during the year was \$106,854.51 greater than had been charged under the standard rate aforesaid, and they directed your Commissioners to assume this deficiency, thereby raising the cost for the year to the sum of \$812,867.47 as stated above, or \$16.70 per H.P., instead of the standard rate of \$14.50 per H.P.

OPERATING EXPENSES: The expenses of operation and management amount to \$704,255.03, or 30.5 per cent. of the gross income, against \$661,201.83 for the preceding year, or 28.1 per cent. of the gross income of that year.

This increase is partly due to labor conditions. In common with the majority of other employers, your Commissioners found it necessary during the year to grant substantial increases to the employees of the System. The additional burden so assumed is not fully reflected in the accounts, for the reason that the increases did not come into force until after midsummer. A further increase has been requested this year. This was referred to a Board of Conciliation which at the time of writing has just issued its report in favor of a further increase. Your Commissioners have not yet, however, had an opportunity of considering the merits of the further increases so recommended. Such increases, combined with the rising cost of materials and the impossibility, owing to the shortage of power, of increasing the output, will in all probability lead to a necessary increase in consumers' rates.

CHARGES AGAINST OPERATING SURPLUS: The usual provision has been made for Interest, Depreciation, Sinking Funds, and Serial Debenture retirements.

An additional element appears, however, this year, in the provision of \$18,831.33 for "exchange on payments in respect of Interest and redemption of Debentures." This was occasioned by some of the Debentures having been made payable both as to principal and interest in New York as well as in Toronto, in consequence of which remittances had to be made to New York subject to the heavy discount on Canadian funds ruling at the times thereof. The obligation assumed to pay in New York was no doubt a necessity at the time the debentures were issued. This is an explanation of the cause of the charge; not a criticism of the terms attached to the debentures. In view of the adverse rates of American Exchange now prevailing and the tendencies thereof, a much larger outlay may be incurred during the current year for the same purpose.

Until equilibrium is restored between the reciprocal—and currently maturing—indebtedness of Canada and the United States, or until gold moves freely from the Dominion in settlement of international balances, rates of exchange adverse to Canada are liable to continue which may on occasions prove very severe. The possible consequences of this should be well considered when Canadian municipalities consider Canadian versus American bids for their debenture issues when they make them payable in gold in the United States. The obligation to pay the principal and interest of a Canadian debenture issue in gold in New York would prove seriously burdensome if the covering remittances had to be made at a premium of from say ten to fifteen per cent., as has been quite common of late. No one who fully appreciates the present International, Economic and Financial problems of the world would venture to place a limit of 15%, or even 25%, upon the possible maximum of adverse exchange, or any limit upon the period of its duration, or to hazard the opinion that immunity from its recurrence would follow the restoration of normal conditions, even though such restoration proceeded solely and wholly from the recovery of internal strength.

In the meantime it is worth noting that a five-year six per cent. Canadian debenture, sold at par in Canadian funds with half-yearly interest and principal payable in gold in New York, would cost the issuing municipality a little over 8 per cent. per annum if the covering remittances had to be made at an average adverse exchange rate of 10 per cent.; and if the average exchange should be 15 per cent., the cost of the loan would be a little over 9% per annum.

If six per cent. serial debentures were issued and sold at par in like funds, with equal annual instalments of principal maturing over five years, payable as to principal and half-yearly interest in gold in New York, the cost to the borrowing municipality would be approximately 9½ per cent. per annum on an average adverse exchange rate of 10 per cent., and approximately 11½ per cent. per annum on a like rate of 15 per cent. Shorter term loans would be still more costly—and especially so in the case of serial debentures—by reason of the exchange premium settling over a shorter period. These are illustrations—and illustrations only—of the effect of adverse American exchange on the cost of money borrowed under the conditions outlined. It is not suggested that five-year 6 per cent. debentures is a normal mode of municipal financing. In view, therefore, of the general uncertainty of the outlook, and the additional dangers inherent in the disturbed state of the world-at-large—dangers that are not by any means sufficiently realized by many, and that may well affect international trade for a long time to come—it is only the part of ordinary prudence to refuse to assume such an obligation, except in cases when the money is an absolute necessity, and when it cannot be obtained on other terms. During normal pre-war times this risk was negligible, and by reason of the greater marketability imparted to debentures by the condition in question, it was freely assumed. Under present conditions, however, in the case of debentures that are marketed in Canada the obligation should not be assumed. Debentures sold and marketed in the United States must, of course, under present conditions, be made payable in gold in the United States. But when such debentures are sold and marketed in Canada, and when such obligation is unnecessarily assumed, it puts it in the power of the Canadian investor to cash his coupons and collect his principal in New York whenever the rate of exchange is favorable to him, and to obtain thereby an additional profit at the cost of the borrower.

These are not submitted as reasons why Canadian Municipalities should not assume the necessary business risks that others must accept, but as reasons why they should not assume unnecessary business risks. The patriotism of Canadian Bond holders may, therefore, surely be relied upon—in view of the heavy burdens bequeathed by the war—to assist in protecting the country from risks of this kind when the monetary conditions of the time permit. With the cessation of Dominion War Loan issues there will, of course, be a corresponding increase in the power of the Dominion to absorb its own municipal issues.

GROSS INCOME AND OUTPUT: Despite the power shortage, the gross income increased by 6.4 per cent. over that of 1918; and the commercial income by 4 per cent. over that of 1918. The commercial income for the year amounted to 72.8 per cent. of the total, as compared with 78 per cent. in 1918, 71.8 per cent. in 1917, 67.0 per cent. in 1916, 66.4 per cent. in 1915, 63.9 per cent. in 1914 and 59.05 per cent. in 1913. The following table gives other instructive details of output, load and progress:—

End of	Meters in Use.	Street Lights	Kilowatt-Hours	Connected Load H.P.	Peak Load H.P.
1912.....	13,858	33,824	35,176,548	46,295	17,198
1913.....	24,999	38,944	65,052,351	68,461	22,520
1914.....	33,976	40,696	82,927,015	90,162	28,753
1915.....	39,284	43,411	109,601,981	111,413	40,180
1916.....	44,013	45,212	139,008,756	125,840	47,185
1917.....	50,461	45,841	171,591,213	169,818	56,562
1918.....	58,598	29,627	239,415,651	184,620	60,154
1919.....	63,762	45,091	180,609,933	176,351	59,618

Owing to the shortage of power during 1918 and 1919 it was necessary to stop canvassing for new business and to curtail the street lighting.

DOUBLE INCIDENCE OF SINKING FUNDS AND DEPRECIATION RESERVES: It is, perhaps, worth while again drawing attention to the double incidence of the Sinking Funds and the Depreciation Funds. If the enterprise were endowed with permanent capital issued in the form of irredeemable Capital Stock as is common to joint stock companies, the Sinking Fund charges that now have to be met out of income would be avoided; and the most severe obligation of sound finance would only require that depreciation funds sufficient to replace the Buildings and Equipment as they wear out should be accumulated out of Income. In view of the fact, however, that the capital of the enterprise has been raised by means of debentures that require to be paid off at maturity, it is necessary that such a sum be set aside out of income each year as will with the interest accruing thereto from its proper investment, amount to sufficient to pay the debentures at maturity. In the case of serial debentures which mature at specified rates from year to year, the amount of each year's maturity must be provided out of each year's income. As the Plant wears out it must, of course, be replaced, and to save making new debenture issues from time to time under the obligation of the Corporation of the City of Toronto to provide the new replacement plant, it is also necessary to accumulate out of income a depreciation fund sufficient thereto. Hence, a municipal utility such as this, while rendering service at cost, must include within its costs for the purpose of rate-making, not only the necessary annual sinking fund instalments and the necessary serial debenture instalments to retire the debenture capital at maturity, but also the depreciation funds required to replace the plant as it wears out.

It has been estimated by the officers of the Commission that the rates for residential and commercial light and power that have been charged during the past eight years, have saved its customers not less than approximately \$17,000,000 of the aggregate they would have paid had the normal rates that were in force in this city at the inception of the enterprise been continued.

That the Toronto Electric Commission has been able to meet the double charge above-mentioned from which private enterprise, when carried on with irredeemable capital, is exempt; to relieve the credit of the ratepayers of the burden of replacement debentures; and to furnish light and power at the rates, and with the savings to the public that have been mentioned, will, perhaps be regarded as a sufficient vindication—at least from the material and administrative points of view—of the policy of establishing The Toronto Hydro-Electric System and of the work of your Commissioners. It is only just, however, in this connection, to acknowledge the exceedingly valuable work of the General Manager, Mr. H. E. Cousens. For the past seven years he has rendered services that have been uniformly marked by candor, by the highest order combined with fidelity and courtesy in equal degree. During this whole period he has had no holidays and during the war period and especially when the shortage of power was acute, he labored incessantly with a cheerful willingness beyond all praise. The manufacturers of the City are greatly indebted to him for the ingenuity he displayed in limiting substantially the interruptions in their service and their consequent losses. He is now about to proceed to Europe on a well-deserved three months' leave of absence, and your Commissioners wish him all the rewards that such high service entitles him to.

POWER SHORTAGE:

A reference to the power shortage which all are more or less, while some are painfully, familiar, is expedient. The power shortage, which, as a matter of fact, was entirely baseless—that the shortage might have been avoided by the exercise of proper foresight, gained a limited credence. The simple and fundamental fact is that it was due to a demand for power that, on occasions, was greatly in excess of the available supply. The excess demand itself was largely the result of war conditions. The special demands occasioned by munitions manufacturing, and the further demands created by the scarcity and costliness of coal, which diminished the supply and raised the price of competing power, combined to make abnormal demands on Niagara Hydro-Electric power. Generating stations cannot be built over night and the result was an inevitable shortage, which, while severely felt by many, could not have been avoided by anyone under the controlling circumstances of the time.

Your Commissioners understand that the power at present available at Niagara Falls for distribution to the Municipalities, is approximately 185,000 H.P.; that the Provincial Commission is supplying approximately 40,000 H.P. to individual consumers in Ontario; that it is exporting approximately 50,000 H.P. to the United States under contracts entered into by the Ontario Power Company prior to the acquisition thereof by the Provincial Commission; that in all probability the Queenston-Chippawa development, which was commenced by the Provincial Commission in 1917, will, by the fall of 1921, have a first instalment of 100,000 H.P. available for commercial use; and that no appreciable increase in the allotment of power to the participating municipalities can be expected until the Queenston-Chippawa development reaches the stage indicated. Therefore, appearances, though the power shortage during the coming winter will be at least as severe as during the last winter. In cases where an uninterrupted supply is of paramount importance it would seem that the only way to secure such in the meantime is by making some arrangement for auxiliary power. It is unnecessary to say that your Commissioners will, at all times, do the best that can be done with the resources at their disposal, but they cannot deliver power that they cannot obtain. It is beyond the present power of man to prevent the interruptions to a regular supply that are caused by changing winds, accumulations of ice, and other contingencies affecting the generating stations and the transmission plant alike.

The lesson—so far as the Toronto System is concerned—from the shortage, actual and prospective, and from unavoidable interruptions in the service, seems to be that a powerful steam reserve plant is a necessity. Such a reserve plant would furnish, up to the limit of its capacity, substitutionary power in times of stoppage and supplementary power in times of shortage. With the present high cost of construction and of coal it is obvious that both capital and operating costs of such a plant would be high and that corresponding increases in the rates would be necessary. The matter, however, is of such vital importance to manufacturers and other users of power that the additional cost would be little compared with the losses it would avoid.

Another conclusion to which the shortage points is that the Government should acquire and develop, prudently by degrees, and on just terms, the principal power sources and power plants of the Province. It is unquestionable that the Government and Municipal Hydro-Electric movement in the Province of Ontario restrains private ownership from developing such sources and plants to their fullest service efficiency. The dependence of the commercial, industrial and related interests of the Province on ample supplies of power at the lowest practicable cost fully justifies such a policy. It is further necessitated by the present absolute dependence of the Province on the United States for coal supplies. While the policy of the American Government and the attitude of the American people have, in this matter, been just and considerable in the past, the United States has its own industrial, political, and other difficulties to contend with. These difficulties cannot fail to cause a justifiable apprehension that a stoppage of sufficient supplies for the needs of the Province is a possibility fraught with most serious consequences to the economic life of the Province and to the friendly relations between the respective countries. It should, therefore, be the policy of both the Dominion and the Ontario Governments to free the important interests at stake, as much as possible, from all such risks. The two countries are dependent on each other in respect of many vital matters. An absolute embargo by either on the export of necessities to the other, except in times of great justifying national emergencies, would be inconsistent with the friendly relations of the past, the ideals of both American and Canadian peoples, and fatal to future amity. A policy of reprisals, which would be the inevitable consequence of an unnecessary embargo, would inflict serious commercial injury on both peoples apart altogether from other consequences. Our sources of economic independence should be developed to the full for reasons both of national pride and of national well being.

Further, under competent guidance, the investments involved in such a policy would be self-sustaining, and could be made a source of public revenue, while in addition they would greatly increase the producing and competing capacity of the people of Ontario—two of the great necessities of post-war times.

The value of Hydro-Electric energy is illustrated in some measure by comparing the quantity of bituminous coal imported into the City of Toronto in the year 1919 with the quantity that would have been required had Hydro power not been available. The official figures indicate that in the year 1919, 85,461 tons of bituminous coal were brought into Toronto. To generate from steam the power purchased by the Toronto Hydro-Electric system from the Provincial Commission during that year would have required approximately 358,000 additional tons of coal. The cost of this coal would have been more than three times the amount paid for the power taken from the Hydro-Electric Power Commission of Ontario. The quantity of coal that would be required to generate the total quantity of power sold by the Toronto Hydro-Electric System is founded upon a number of its operations, would be over 2,000,000 tons, and the cost, at prevailing prices from year to year, is estimated at over \$10,000,000, as against a cost for the electric current taken from the Provincial Commission of approximately \$4,100,000. In addition to the great saving so effected by the substitutionary use of electric power, this has had, during the last year, an appreciable effect in relieving the adverse exchange situation, while it has also been of material value in relieving overtaxed transportation facilities, and releasing coal for heating purposes. When the coal savings arising from the whole Niagara water power developments are taken into account, the resultant benefits of the kinds indicated are enormous.

FLAT RATES:

The proposal has been made in some quarters that power should be delivered to all municipalities within the Niagara zone by the Hydro-Electric Power Commission of Ontario at the same rate. While it is probable that this proposal will be seriously entertained in responsible quarters, it is perhaps worth while pointing out that the delivery of electricity, involving, as it does, a cost varying with the distance traversed and the quantity transmitted, resolves the proposal into a plan to subsidize consumers in certain districts at the expense of those in other districts, and as such it is not likely to be received with favor where a proper sense of commercial independence, rectitude and fair play prevails. Further, the entire Municipal Hydro System is founded upon a number of binding contracts between the separate participating municipalities, and the Provincial Commission. In these contracts the basis of charge is clearly set out, and the investments of the participating municipalities have been made in good faith on the strength thereof. To treat these contracts as "Scraps of Paper" would provoke most serious litigation, would destroy all faith in, and ultimately would wreck the movement beyond hope of repair.

CONCLUSION:

Your Commissioners with your full approval and with the full support of public sentiment authorized during the war period, a number of patriotic subscriptions and grants amounting to a total of \$83,450.04, of which \$72,028.82 was paid to dependents of employees with the colors.

Now, however, the war is over! The great arch-enemy of freedom and the deadly enemy of the British Empire has been utterly overthrown. Let humble thanks be given! The most stupendous catastrophe of human history has engaged the world's stage during the past six years. The events are still too close at hand to be seen in their full magnitude, and the terrible consequences in their final relentless expression have not yet sufficiently developed to be appreciated aright. The highest pinnacles of sacrifice have been scaled by a dauntless heroism never surpassed in the history of the world. The lowest depths of infamy have also been sounded. We may try to forget the infamy, but the indelible proofs of the unimaginable suffering it beget, remain among us, and forbid—and rightly forbid—that we should forget it. But while remembering it as a protection against the foolish, insidious, and fatal optimism that would gamble with the rights, liberties and dignities of free peoples, let us turn with concentration of purpose to the new duties before us. The call of the day is for reconstruction and repair. The unity of purpose that animated the people of this country, in common with their kind and kin across the seas and with their gallant Allies in the high but tragic duties of the war, should now less animate them in the tasks of peace. The legacies of the war in the way of material burdens are heavy; but the recuperative power of the country is great and adequate. Class strife must cease; co-operation and goodwill must take its place; thrift and honest toil must reassert their power; if the future of the country is to be assured. Governmental and Municipal, no less than private economy, must be the order of the day. Extravagant public loans and projects should be discharged. The ready spirit of the people of this Dominion has shown itself in many crises. Your Commissioners believe that this spirit will not be invoked in vain as we turn once more to the paths of peace. The high duty and privilege of caring adequately for the blighted lives among us—the heritage of war—must ever remain in the forefront as a sacred task—a task charge upon the hearts and the possessions of all.

Respectfully submitted,
THE BOARD OF COMMISSIONERS,
P. W. ELLIS, Chairman, T. L. CHURCH, Mayor, GEO. WRIGHT, Commissioner.
Toronto, 15th July, 1920.