

CONSTRUCTION OF NEW TRAMWAYS AND CONVERSION OF CABLE TRAMWAYS

As requested by the Board, I have to report upon the FINANCIAL EFFECT of the recommendations contained in the report of the Chief Engineer, dated 26th ulto., — it does not in any way criticise the engineering details contained therein.

I take up the matter from the point arrived at by the Chief Engineer on page 5 of his report, as follows:—

"Total expenditure in 15 years	...	£6,200,000
"Of this amount the conversion, including construction of cars to replace Cable stock, all of which should come out of the Renewals Fund, will cost about	...	<u>4,200,000</u>
"New capital to be raised in 15 years...		<u>£2,000,000"</u>

The questions involved are -

1. The position of the Renewals Reserve Fund from year to year as shown by the Board's Accounts.
2. The method by which the expenditure of £6,200,000 in 15 years can be financed.
3. The Board's ability to meet the operating costs and Statutory Appropriations of the enlarged undertaking from year to year.

In my calculations I have assumed that during the next 15 years —

- (a) No reduction of tramway fares will take place.
- (b) The operating expenses will remain as at present.
- (c) An interest rate of 6% per annum will be payable on new loans raised by the Board.
- (d) The Statutory payments to the State Consolidated Revenue will average £100,000 per annum.

The requirements of the Board's Act with respect to Reserves will remain as at present and that the Board will continue the policy adopted in respect of these funds for the year ended 30th June 1921, viz., Appropriation of 3½% on the capital cost of the undertaking to the Renewals Reserve fund and say 1½% to the General Reserve Fund.

- (e) The expenditure on conversion of the Cable System will be £4,200,000, evenly spread over 15 years, say £280,000 per annum. The expenditure on new lines will be £2,000,000, evenly spread over 15 years, say £133,000 per annum.

That apart from the conversion of the Cable System, a sum of say £20,000 per annum will be spent in renewals, principally connected with the Electric tramways.

1. THE POSITION OF THE RENEWALS RESERVE FUNDS FROM YEAR TO YEAR  
AS SHOWN BY THE BOARD'S ACCOUNTS.

Members of the Board are aware that although there are large credits in the Board's books to the Renewals Reserve Funds and Reconstruction Reserve, the whole of these reserves have been invested in its undertaking to provide capital expenditure which it would otherwise have been compelled to raise by means of loans.

The Renewals Reserve Fund at 30th June 1922 will probably stand at	...	£640,000
The Reconstruction Reserve Account at 30th June, 1922, will probably stand at	...	<u>£330,000</u>
		<u>£970,000.</u>

The two Accounts are credited with 5% per annum interest calculated upon the balance at credit on the 1st July in each year. For the current year the interest thus added will amount to about £40,000. If the Board continue to credit the Renewals Reserve Fund with 3½% per annum upon the capital cost of the undertaking ~~during the next five years~~, plus 5% interest on the ledger credit, and to debit the £300,000 per annum for conversion and renewals (see assumption (c) page 1), the Renewals Reserve Fund and Reconstruction Reserve Account will be exhausted by the 30th June 1930 (a period of about eight years).

On 30th June 1931 the annual deficit will be about £120,000 - slightly reduced during the remaining six years (making fifteen years in all). The total of the annual deficits (during the fifteen years) would be about £730,000.

The cost of conversion of the Cable System, £4,200,000, cannot therefore be financed from the Renewals and Reconstruction Reserves, unless an annual appropriation to such funds much in excess of 3½% on the capital cost of the undertaking be made.

In addition to the foregoing Funds, the Board has established a General Reserve Fund, which at 30th June 1922 will probably stand at about £170,000. If the Board continue to contribute say £50,000 per annum (as at 30th June 1921) the General Reserve Fund would be easily able to meet the annual deficits totalling £730,000 above referred to, and the General Reserve Fund plus 5% compound interest would stand at about £550,000 on 30th June, 1937.

The Board's Act, Sec. 22 (1) (b) (III) permits the adoption of this course should the Board deem it expedient.

It will probably be advisable in future to reduce the annual appropriation to General Reserve Fund and to correspondingly increase the appropriation to Renewals Reserve Fund.

2. THE METHOD BY WHICH THE EXPENDITURE OF £6,200,000 in 15 YEARS CAN BE FINANCED.

As explained, the Reserve Funds referred to are already invested in the Board's undertaking. The present reserves are therefore not available, in cash, to meet any portion of the expenditure of £6,200,000 in fifteen years.

The annual expenditure on conversions, renewals and new tramways is assumed at £433,000 per annum (See page 1 of this report).

The annual appropriation to Reserve Funds at say 5% on the capital cost of the undertaking is at present about £200,000 and at the expiration of 15 years the appropriations will grow to about £300,000 per annum.

If the Chief Engineer's proposals are carried out at an even rate of expenditure during the next 15 years, the Board will, each year, require to borrow sums amounting to £233,000 during the first year, and diminishing to £133,000 in the 15th year. The total amount to be thus borrowed in 15 years will be about £2,750,000. This, however, depends upon the Board's ability to allocate the full 5% of the capital cost of the undertaking each year for a period of 15 years.

This aspect of the question is dealt with under the next heading.

3. THE BOARD'S ABILITY TO MEET THE OPERATING COSTS AND STATUTORY APPROPRIATIONS OF THE ENLARGED UNDERTAKING FROM YEAR TO YEAR.

The Chief Engineer's estimate (page 5) anticipates, when the full programme has been carried out, a surplus on operating expenditure of £790,000 per annum.

It is based on two assumptions:

Annual expenditure on tramway fares per head of population served, £2.14.0.

An average of 11 passengers per car mile.

For the year ended 30th June 1921, the Board's Accounts show an annual expenditure on tram fares per head of the population of £2.11.0 and an average of about 10½ passengers per car mile.

If these latter figures are used, the surplus on operating expenditure would be -

Revenue	...	£2,805,000
Operating expenses	...	<u>2,280,000</u>
Surplus on operation	..	<u><u>£ 525,000.</u></u>

The history of tramway development shows that the extension of tramway facilities is usually followed by an increased expenditure on tram fares per head of the population. On the other hand, the Board will consider whether in view of the special circumstances now

operating in this State it is wise to assume that the population of the Metropolis will be in a position to increase its expenditure.

An increase in the average passengers to be carried per car mile, (viz. from 10 $\frac{1}{2}$  to 11 passengers per car mile) may be possible if the Electric cars which are to replace the existing Cable cars be designed to hold a greater number of passengers. On the other hand, the Board may be compelled to take steps to reduce the "overcrowding" which at present obtains at hours of "peak" loading.

The new lines to be constructed <sup>will not</sup> carry as many passengers per car mile and will not therefore return as great a revenue per car mile as those at present in existence. I am of opinion that the lower estimate (viz. £525,000 per annum) will not be realised.

I submit the following figures to meet the Chief Engineer's observation, page 5, "For payment of Interest and Statutory Charges":

Estimated deductions from Gross Surplus on Operation.-

Payments to Consolidated Revenue	... £100,000
Appropriations to Renewals and other Reserve Funds, 5% on £6,000,000 (cost of Conversion excluded)	... 300,000
Interest on new loans to be raised, £2,750,000 at 6% and Sinking Fund at 1%	... 192,500
Interest on existing loans	... 65,000
Sinking Funds and Redemption of existing Debentures	... 14,000
Municipal and other Rates	... 20,000
Employees' Sick-Pay and Contributions to Employees' Benefit Society	... <u>10,000</u>
	<u>£701,500.</u>

If this total be deducted from the Chief Engineer's estimated surplus on operation (£790,000) it shows a net surplus of £88,500 per annum. If they be considered in relation to the more conservative estimate of £525,000, a net deficit of at least £176,500 per annum will result.

Both estimates necessarily involve the disappearance of the whole of the present Reconstruction and Renewals Reserve Funds (which will appear in the 30th June 1922 Balance Sheet at about £970,000 ) and these Funds will show no credit balances until after 30th June 1937.

In addition, the General Reserve Fund will, during the years 1930 to 1937, be called upon to contribute a sum of about £120,000 per annum for Renewals and Conversions.

It is also assumed in both estimates that the new lines to be constructed at a cost of about two million pounds will prove as profitable as the Board's existing Cable and Electric tramways. On the other hand, no credit has been given in my estimate for a possible improvement in the earning capacity of the Cable tramways after conversion to electric traction, or for a possible reduction in the car-mile operating cost of such tramways consequent upon a supply of cheaper current from Morwell. Any saving in the cost of current would, however, be relatively small.

Unless, therefore, the construction of new tramways and the conversion of the Cable system to electric traction will provide a surplus over operating expenses sufficient to meet the corresponding new Interest and Sinking Fund obligations, the Board will be unable to allocate to reserves the 5% per annum upon the capital cost of its Undertaking. Any diminution of the appropriation to Reserve Funds below 5% per annum will of course necessitate a corresponding increase in the £2,750,000 to be borrowed during the next 15 years, and an increase in the annual deficits to the extent of the Interest and Sinking Fund on the additional loans.

FROM ANOTHER STANDPOINT.

Although not directly arising from the Chief Engineer's report I may be permitted to offer another view of the financial aspect of tramway extensions and Cable tramway conversions. -

Any deficits in the Board's annual accounts may be met (Sec.90 of Act No.2995) by -

- (a) the transfer of any available balance from its General Reserve Fund,
- (b) charging same to the revenue for the following year (i.e. carrying the deficit forward),
- (c) the levy of a general rate upon the whole of the tramway metropolis.

The policy of meeting deficits from the General Reserve Funds should, if possible be avoided. The expedient of carrying forward increasing deficits will not commend itself to the Board and the levy of a tramway rate to meet deficits incurred by the operation of new tramways will meet with disfavor.

The Board is therefore practically compelled to balance its accounts each year.

The increase of tramway fares has been in operation since 7th March 1921. Assuming that substantial appropriations to the various Reserve Funds will be made by the Board for the year ending 30th June 1922, a surplus of £30,000 may remain, £10,000 of which may be carried forward to the next year, and the balance will be available for distribution amongst the municipalities.

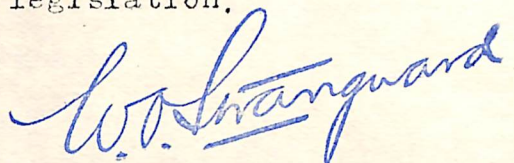
New tramways have already been approved by the Board, which, when constructed, will probably involve deficits for the first year or two almost equivalent to the surplus above referred to. Any additional new tramways and any conversions of existing cable tramways will probably increase the Board's expenditure at the least to the extent of the Interest, Sinking and Reserve Funds upon the Capital required to be borrowed.

The dominating consideration resulting from the operation of the Board's Act therefore appears to be -

What annual losses on new lines or conversion of cable tramways can the Board finance from its surplus each year?

If new lines or conversions which will nearly provide their operating expenses and Statutory charges be selected, a moderate programme would be justified, but if purely developmental tramways involving heavy losses on operation be chosen, a very restricted annual <sup>capital</sup> expenditure will be possible.-

- (a) Unless relief can be obtained in respect of part or the whole of the payments to the State Consolidated Revenues under Sec. 88, Act No.2995 (Approximately £100,000 per annum).
- (b) Unless tramways which will result in heavy deficits be constructed under "Betterment Rate" legislation.



Secretary

8th May, 1922