

1912.

VICTORIA.

PROGRESS REPORT

FROM

THE PARLIAMENTARY STANDING COMMITTEE ON RAILWAYS

ON THE PROPOSED

SUBURBAN ELECTRIC TRAMWAYS (EAST BRUNSWICK AND COBURG);

TOGETHER WITH

APPENDICES AND MINUTES OF EVIDENCE.

RETURN to an order of the *House*,

Dated 20th December, 1912, for

A COPY of the Progress Report from the Parliamentary Standing Committee on Railways on the proposed Suburban Electric Tramways (East Brunswick and Coburg).

(*Mr. Watt.*)

Ordered by the Legislative Assembly to be printed, 20th December, 1912.

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MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON RAILWAYS.

(Tenth Committee.)

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PROGRESS REPORT.

THE PARLIAMENTARY STANDING COMMITTEE ON RAILWAYS having, in accordance with the statement made by the Honorable the Premier in the Legislative Assembly on the 3rd October, 1912, been requested by him to inquire into the question of constructing several tramways in the suburbs of Melbourne, has the honour to report as follows:—

1. The suburbs in which it was proposed to construct tramways were East Brunswick, Coburg, and Campbellfield, and also Richmond, Hawthorn, and Camberwell, as well as South Melbourne. The matters referred to the Committee for inquiry were as follow:—

- (a) The advisability of constructing the whole or any portion of the tramways mentioned, from the stand-point of local requirements, by providing transit facilities for the residents of the suburban areas to be served by such tramways.
- (b) Whether the routes advocated by deputations which recently waited on Ministers, or by the municipal councils of the districts concerned, are the best for the traffic requirements and the development of such municipalities.
- (c) Whether such tramways will harmonize with the future development of the metropolitan tramway system.
- (d) The relation of such tramways to the suburban railway system.
- (e) The willingness of the local municipal councils to undertake the financial responsibility connected with such tramways.
- (f) The motive power to be employed for such tramways and the gauge of the tramways.

EAST BRUNSWICK AND COBURG TRAMWAYS.

2. It was indicated in the file of papers relating to the proposed East Brunswick and Coburg tramways forwarded by the Honorable the Premier to the Committee that the councils of those municipalities, in conjunction with the Broadmeadows Shire Council, had been for several months seeking authority to have a Trust constituted to construct an electric tramway commencing at the intersection of Park and Lygon streets, East Brunswick, and proceeding northward along Lygon, Holmes, and Nicholson streets to Bell-street, East Coburg, and thence westward along the latter thoroughfare for 48 chains to Sydney-road. It was also proposed that the Trust should acquire from the Coburg Council the horse tramway starting at the terminus of the Melbourne and Brunswick cable tramway at the intersection of Sydney and Moreland roads, Coburg, and running northward along Sydney-road to Bell-street, and thence north-west along Sydney-road to Gaffney-street, North Coburg, and should convert it to electric traction and extend the tramway northward along Sydney-road, past the Melbourne New General Cemetery, Fawkner, to the township of Campbellfield, in the Broadmeadows Shire. The East Brunswick and East Coburg electric tramway would, according to the proposal submitted, junction with the other at the intersection of Bell-street and Sydney-road, Coburg. An agreement had been come to with the Coburg Council that it was to hand over to the Trust the horse tramway and all appurtenances at the amount that it will have cost the council up to the date of transfer to the Trust. It was represented that in recent years there had been a large growth in the population of East Brunswick, and also of Coburg, while a number of dwellings had been erected at Fawkner, in the Broadmeadows Shire, and recently there had been several estates close to Campbellfield subdivided and sold for residential purposes. Moreover, the establishment of the new general cemetery at Fawkner had led to a desire by the relatives of persons buried there for transit facilities to the cemetery, as the only means of reaching there is by the mortuary train, which makes but one trip daily between the city and that burial ground. Evidence was given that many of the residents of East Brunswick were employed in offices, warehouses, shops,

and factories in Melbourne, and as most of them were living about half to three-quarters of a mile from railway or tramway facilities, they were placed at a great disadvantage in making their daily journeys to and from their places of business. Their nearest means of communication with the city was by the horse omnibuses running at intervals of from five to fifteen minutes from Albion-street southward along Lygon-street, and thence east along Park-street to the terminus of the Rathdown-street cable tramway, North Carlton. The fare charged by the omnibus was 1d., and by the cable tramway 2d. (provided six tickets were purchased at a time), making the cost of reaching the city by omnibus and tram 3d. A similar fare was charged for the journey from the city to East Brunswick. Many of the residents of East Brunswick, however, walked to the cable trams in Sydney-road, because if they rode in those cars before 9 a.m. they could secure a return ticket for 3d. If they entered the Sydney-road trams after that hour they had to pay 2d. for the journey into the City, and a similar fare for the trip back to Brunswick. But the drawback to using the Brunswick cable trams was that they were frequently overcrowded during the busy hours of the morning and evening, and, rather than be inconvenienced by having to stand for the greater part of the journey, numbers of the residents of East Brunswick preferred to use the horse omnibus and North Carlton cable tram, paying the higher fare to travel in comfort into and out of the city.

3. Some of the residents of East Coburg walked to the terminus of the Brunswick cable tramway at the intersection of Moreland and Sydney roads, while others living nearer Bell-street walked to Sydney-road and there entered the horse tram, travelling by it as far as Moreland-road, where they transferred to the Brunswick cable tramway. The fare charged on the Coburg horse tram between Bell-street and Moreland-road was 1d., but if a packet of tickets were purchased fifteen journeys could be obtained for 1s. It was urged that if the proposed electric tramway were constructed through East Brunswick and East Coburg it would relieve the overcrowding of the Brunswick cable tramway, and also assist in the development of those suburbs as residential areas, there still being many vacant building allotments in East Brunswick, and also ample room for the erection of dwellings in East Coburg.

CONNEXION WITH THE CITY.

4. No authority was sought at present to extend the East Brunswick and East Coburg tramway southward into the city. But it was stated in evidence that the co-operation of the Melbourne City Council was being sought to have the tramway constructed into the city along Lygon-street and the road on the south side of the Melbourne General Cemetery, and thence southward along Madeline-street to Queensberry-street, where the tramway would junction with the cable tramway running down Madeline-street and Swanston-street to Prince's-bridge. The Committee was informed that the Melbourne City Council had, when this project was brought under its attention, given a reply which was considered satisfactory. Nevertheless, it was made clear during the inquiry that the construction of the section of the proposed tramway from Park-street, North Carlton, to Queensberry-street was to be allowed to stand in abeyance for about two years, when the work would be undertaken, so that this section into the city might be ready for traffic about the time the cable tramways pass out of the hands of the Melbourne Tramway and Omnibus Company, which has a lease of the lines.

COBURG HORSE TRAMWAY.

5. The horse tramway along Sydney-road, Coburg, was purchased by the Coburg Council about two years ago for £2,100, which included the lessee's goodwill in the concern. Since then the council has expended some money in repairing the tramway track, which consists of grooved rails and wooden blocks laid on a concrete bed. The council, however did not consider it wise to incur any large expenditure in that direction, in view of the demand by the residents to have an up-to-date and fast electric tramway substituted for the obsolete and slow horse tramway. As already stated, the tramway extends northwards from Bell-street to Gaffney-street, the length of this section being 42 chains, or a little over half-a-mile, compared with 76 chains, or nearly 1 mile, the length of the section from Moreland-road to Bell-street. A fare of 1d. is also charged for the conveyance of passengers over the second or shorter section of the horse tramway, making the through journey 2d. If, however, passengers desire it, eight tickets can be purchased for 1s., and each ticket carries the passenger over the two sections, making the cost of the through journey 1½d. Last year 787,527 passengers were carried over the horse tramway. Of this number about 90 per cent. travelled over only the section between Moreland-road and Bell-street.

COST OF PROPOSED TRAMWAYS.

6. The Committee was informed that the Conference of representatives of the Brunswick, Coburg, and Broadmeadows Councils had not employed an electrical engineer to estimate the cost of the proposed tramways. An estimate of the cost had been made by taking the expenditure on the tracks and overhead construction of the Prahran and Malvern Tramways Trust as a basis, and also the evidence of Mr. W. G. T. Goodman, M.I.C.E. (who constructed the Adelaide electric tramways), given before the Royal Commission which reported last year upon the railway and tramway systems of Melbourne and suburbs. Speaking generally, this estimate may be regarded as a fair one at current rates of wages and prices of materials. No expert advice was tendered regarding the probable receipts of the tramways, and on this point there was much difference of opinion among the ratepayers of Coburg, some of whom asserted that the Conference had unduly inflated the estimated revenue by adopting too extensive an area, particularly in East Brunswick, as the gathering ground for traffic. This phase of the matter is dealt with in the next paragraph of this Report. Both the Conference and the opponents of the tramway scheme accepted the working expenses of the Prahran and Malvern Tramways Trust, which was 8½d. per car mile, as a guide in estimating the annual charges. The Committee, however, considers that it would be prudent to put the expenses down at 9d. per car mile, excluding interest and the sinking and renewal funds contributions, because it is probable that, owing to the distance at which the electric current will have to be supplied from the generating station (it being proposed to purchase the power), a higher rate will have to be paid for the current than is charged at Prahran.

POPULATION SERVED.

7. Mr. F. W. Temple, Town Clerk of Brunswick, informed the Committee it was estimated by the Conference that 34,000 persons would be served by the proposed tramways, of whom 12,000 resided in Carlton and North Carlton contiguous to Madeline and Lygon streets; 15,000 in East Brunswick; and 7,000 in Coburg. As he stated in his evidence that the Conference recognised the Carlton section of the proposed tramway would not be constructed "until approximately the time when the whole of the tramways fall into the hands of the municipalities" the Committee did not take steps to check the population given for the Carlton section. Mr. Temple, in answer to a question, said that the population on the east side of Sydney-road, Brunswick, totalled 19,474. Of that number 12,112 resided east of a line drawn midway between Sydney-road and Lygon-street. Included in the 12,112 were 5,142 living between the east side of Lygon-street and Merri Creek. He explained the Conference considered that the new tramway passing through East Brunswick would draw traffic for half-a-mile on either side of it. That is to say, that its gathering ground for passengers would extend close up to the Sydney-road cable tramway, notwithstanding that the fares into the city and back therefrom on that cable tramway would be lower than those proposed to be charged on the new tramway. In consequence of this enlargement of the gathering ground for traffic the Conference had put the number of persons in East Brunswick to be served by the electric tramway down at 15,000 instead of 12,112. The opponents of the tramway scheme urged that not more than 9,135 persons residing in East Brunswick would be served by the new tramway, as, in addition to the lower fare prevailing on the Sydney-road cable tramway, the passengers by the electric system would be subjected to the inconvenience of changing cars either at Queensberry-street terminus or at Rathdown-street (North Carlton) terminus of the cable tramway. They also estimated the population of Coburg to be served by the proposed tramway at 6,000, to which they added 1,000 for the people residing at Fawkner and Campbellfield. This number practically agreed with the population estimated by the Conference. The Committee is of opinion that there was no justification for the Conference increasing the gathering ground for traffic in East Brunswick for the tramway by 3,000 persons, as was done. Indeed, it considers that a reduction should have been made instead of an increase, because the lower fare, the more frequent service, and the route traversed by the Sydney-road cable tramway were certain to attract traffic from the area east of a line drawn midway between Sydney-road and Lygon-street. Therefore, the Committee has reduced the number of persons living west of Lygon-street who are likely to use the Lygon-street electric tramway from 6,970 to 5,000, which, added to the 5,142 residing east of Lygon-street, makes a total of 10,142, compared with 12,112, the number residing in the area east of a line drawn midway between Sydney-road and Lygon-street. The number estimated by the Committee is about 1,000 more than that allowed by the opponents of the tramway scheme.

8. Figures were submitted by the Conference showing that the proposed electric tramways from Queensberry-street, Carlton, through North Carlton, East Brunswick, Coburg, and Fawcner to Campbellfield would on completion yield a surplus of £2,249. But the opponents of the electric tramways, discarding the Carlton section, as it was regarded as a matter more for the future than the present, presented a balance-sheet indicating that the sections through East Brunswick and Coburg to Campbellfield would show a loss of £18,982 for the first year after the tramways were in operation. The figures submitted by the opponents of the proposal did not work out exactly as stated by them. Nevertheless, they were sufficiently near to clearly show their case. On the other hand, it was apparent, on examining the balance-sheet prepared by the Conference, that it had not allowed for a sufficient number of car miles if the Lygon-Madeline streets section were to be of much value in relieving the overcrowding of the Brunswick cable trams. It was urged by the Mayor of Coburg and others supporting the proposal that the tramways should not at the outset be viewed entirely from the aspect of a business proposition, but as a means of developing desirable residential districts and spreading out the population of the metropolis into wider areas, so that people may live in more healthy surroundings and under better conditions. Moreover, the construction of the tramways would lead to increased population, and, by enhancing the value of property served by them, cause additional revenue to be received by the local municipal councils in the shape of rates. Then again, the Tramway Trust, if constituted, would save the councils the expense of maintaining that portion of the road occupied by the tramway, and the annual saving in that direction was worth consideration. On the other hand, the opponents of the electric tramways pointed out that if the lines were constructed as recommended by the Conference the large annual loss in respect of them would have to be borne by the different municipal councils on the basis of the number of car miles run in their respective territory, and this would entail such a heavy burden on the finances of the Coburg Council that its municipal rate, which was 2s. 3d. in the £1, would have to be more than doubled. Such a high rate as this would, instead of attracting population, deter persons from building in Coburg. It was felt by them that a burden would be placed on the ratepayers which they could not shoulder, and therefore they asked the Committee to protect the interests of the property-owners in Coburg by reporting against the tramway scheme so far as that municipality was concerned.

MODIFIED SCHEME.

9. Believing that the proposed tramways would show a loss during the first year of their operation, though not to the extent stated by the opponents of the proposal, but, nevertheless, sufficiently large to warrant caution being exercised, the Committee prepared the modified scheme, which is explained in detail in Appendices E, F, and G. In that scheme the Committee eliminated the section between Queensberry-street, Carlton, and Park-street, North Carlton. This was done because the Conference had no intention of constructing this section for the next two or three years. Moreover, the absence of any agreement with the Melbourne Tramway and Omnibus Company to carry passengers from Queensberry-street, Carlton, into the city at a nominal fare would be prejudicial to the financial success of the tramway, as the difference in the fare on the Lygon-street proposal (plus the 1½d. city ticket from Queensberry-street along Swanston-street to Flinders-street) and the fare on the Sydney-road cable cars would be so great as to deter many persons using the former, though they were residing in the area which, under ordinary circumstances, would be tributary to the new tramway. To deposit the electric car passengers at Queensberry-street and expect them to walk from there into and out of the city would likewise be detrimental to the undertaking. The Committee hopes that in the meantime, however, the authority which is to control the metropolitan tramway system on the expiry of the lease or interest of the Melbourne Tramway and Omnibus Company will have been constituted, and will have considered the question of the extension of the tramway system, and also the fares to be charged under the new management. At the same time, the Committee is of opinion that a tramway along Madeline and Lygon streets, Carlton, is necessary to relieve the overcrowding of the Brunswick cable tramway running in Sydney-road, and that it should be one of the first extensions taken in hand by the new authority.

10. To terminate the new tramway for the present at the intersection of Lygon and Park streets, as was contemplated by the terms of the Draft Bill, would also be prejudicial to the success of the scheme. Therefore, the Committee, in its modified proposal, has allowed for a temporary track being laid on the north side of Park-street,

which adjoins the North Carlton railway fence, and is unused by vehicular traffic, so that the passengers may be carried to and from the terminus of the Rathdown-street cable tramway, as is done by the horse omnibuses. According to a table published on page 24 of the Report of the Royal Commission which last year considered the railway and tramway systems of Melbourne and suburbs the average interval between the running of cars on the North Carlton cable tramway during the busy hours of the day is 3·92 minutes, and on the Carlton-Prahran lines it is a little over three minutes. On the Brunswick line it is but one minute, and on the Clifton Hill tramway 2·10 minutes. It will, therefore, be seen that if the traffic justified it additional cars could be run on the North Carlton line without unduly interfering with the trams operating other lines. Moreover, the horse omnibuses now bring a fair proportion of the East Brunswick residents to the Rathdown-street cable tramway, so that the additional traffic resulting from the electric tramway is not likely to seriously overcrowd the cars on that line. But should it do so extra trams could without much difficulty be put on the Rathdown-street line to meet the requirements. As a single-track tramway with turn-outs would be ample for the present needs of the East Brunswick and East Coburg traffic, the Committee in its estimate provided for the construction of such a tramway along Lygon-street—the first section terminating at Albion-street—instead of the double track suggested by the Conference. This was done to lessen as much as possible the financial burden of the ratepayers. The single track, however, would be laid in a position which would admit of its being duplicated as soon as the growth of traffic warranted that course. In preparing the estimate of cost the Committee took as its basis the sum of £7,924 per mile, which was the amount stated by Mr. Temple, Town Clerk of Brunswick, on behalf of the Conference, as the estimated cost of a single-track tramway, including overhead construction, but excluding land, buildings, cars, and electrical plant. As regards the buildings and electrical plant, the Committee based its estimate on figures furnished by Mr. W. Stone, Electrical Engineer of the Victorian Railway Department, who, at the Committee's request, assisted it in this matter. As stated earlier in this Report, the Committee put the working expenses down at 9d. per car mile, in lieu of 8½d., the figure used by the Conference, because it believes the charge for supplying electric power will be higher than at Prahran, owing to the distance from the generating station. The Committee accepted, so far as the East Brunswick and East Coburg sections were concerned, the estimated number of journeys per annum per head of the population quoted by the Conference, namely, 125, because these sections are removed from any railway or other tramway competition. But, for the reasons given in paragraph 7 of this Report, the Committee could not also accept the number of residents in East Brunswick stated by the Conference as being likely to use this electric tramway, though it adopted the population of East Coburg, 720, whom the Town Clerk of Coburg said would be served by the tramway. The estimates made by the Committee and given in Appendices E, F, and G, are but rough calculations. It gives the sources of information on which the figures are based, and leaves the councils and ratepayers concerned, who must necessarily have a better knowledge of the local conditions, to judge for themselves whether the estimates are reasonable, as the financial responsibility of the undertaking must rest with the councils and ratepayers, who should be satisfied with the prospective value of the tramways before constructing them. From the Appendices stated it will be seen that a single-track tramway from Rathdown-street along Park and Lygon streets to Albion-street would necessitate a capital outlay of £24,796 for a five-minutes' service during the busy hours of the week days, and a ten-minutes' service at other times. The horse omnibuses have a five-minutes' service, extending to ten and fifteen minutes during the slack hours, and the Committee considered that the new service should be equal to that, even after allowing for the greater speed of the electric cars. If too long an interval were allowed between the cars there would be the risk of traffic from the west side of Lygon-street being diverted to the Sydney-road cable cars. As the omnibus fare between Rathdown and Albion streets is 1d., this was taken as the tram fare in calculating the receipts. The annual charges for the first year of opening, including interest and sinking fund, are estimated by the Committee at £6,698 for this section, and the revenue at £5,282, leaving a deficiency of £1,416. The second section would be from Albion-street along Holmes-street, Brunswick, and Nicholson-street, Coburg, to Bell-street. The capital outlay for the two sections would total £36,638, giving a twenty-minutes' service on the second section, for which only one additional car would be required, and practically no increased outlay for buildings or electrical plant, the expenditure of the second section being limited to the extra car and the cost of the track and overhead

construction. For these two sections the annual charges are estimated at £9,615, including interest and sinking fund, and the receipts at £6,420, after allowing for traffic to Coburg Cemetery, leaving a deficiency of £3,195 for the first year of operating. This loss will, the Committee considers, be largely reduced in the course of a few years, as the tramway, following what has occurred elsewhere, should, with a continuance of normal seasons, induce people to build in East Brunswick and East Coburg, where the surroundings are healthy, and land suitable for residential purposes can be obtained at prices below those asked for building allotments in most of the southern suburbs.

SYDNEY-ROAD TRAMS.

11. As regards the section along Sydney-road which is being operated by the Coburg horse trams, the Committee agreed with the Conference that from the terminus of the Brunswick cable trams at Moreland-road to Bell-street, a distance of 76 chains, or almost a mile, there should be a double-track tramway. A single track would suffice for the present, but, considering the narrowness (66 feet) of the Sydney-road between those thoroughfares and the busy traffic of that road, which is the main road from the city to the northern districts, the Committee thought a single track, with a fast tram travelling on the wrong side of the road, would probably lead to confusion of the vehicular traffic and to accidents to the occupants of such vehicles, as well as to people crossing the street. In its estimate for the second section, from Bell-street along Sydney-road to Baker-street, a distance of about a mile, the Committee allowed for a single track only. This terminus would be within about half-a-mile of the northern boundary of Coburg. The Committee is of opinion that there is no justification for the construction of an electric tramway to Campbellfield, which is 9 miles from the General Post Office, especially as there is a railway running parallel with the proposed electric tramway all the way from Coburg to Campbellfield, and at no point more than about 200 yards away from Sydney-road. If better transit facilities are required for the residents of North Coburg, Fawkner, and Campbellfield, the re-opening of the Coburg and Campbellfield railway, at any rate as far as Fawkner for the present, should be sought rather than incurring a large expenditure in constructing a tramway. The line between Coburg and Fawkner Cemetery has to be maintained in running order for the daily mortuary train, and this aspect of the matter should not be overlooked by the Railway Department. If that line were operated by a steam motor service, say from 6.30 to 10 a.m. and from 5 to 9 p.m., it would, together with the afternoon mortuary train, give a service which should meet existing requirements. The guard could sell and collect the tickets, as is done on the Outer Circle railway, and it is unlikely that any expense need be incurred in putting the stations at Bell Park and North Coburg in proper order, as this railway should be regarded merely as a tram track, and be operated accordingly. It is suggested, as the Coburg and Broadmeadows Councils were prepared to guarantee payment of any loss arising from the electric tramway, that they should approach the Railways Commissioners with a business proposal to secure the re-opening of this line, with the limited service stated.

12. In Appendix G, showing the estimated cost of the Sydney-road section, the figures submitted by the Conference for a double track from Moreland-road to Bell-street have been taken, and also its estimate of the cost of a single line for the section from Bell-street to Baker-street. The figures furnished by Mr. Stone for the electrical plant have been relied on by the Committee. A service of seven and a half minutes has been provided for the first section, and one of fifteen minutes for the Bell and Baker streets section. A longer service than seven and a half minutes on the first section would result in loss of traffic, as many intending passengers would walk to and from the cable tramway, under the shelter of verandahs along Sydney-road, if there were an interval of twelve or fifteen minutes between the electric cars. The fare was based on 1d. for each section. If the existing practice of selling fifteen tickets for 1s. (or eight tickets for 1s. covering the two sections) were continued the receipts set forth in the Appendix would have to be reduced. Similarly, if the assets of the horse tramway on being sold left a deficiency, the capital expenditure given in the Appendix would have to be increased by that amount. It was proposed that there should be a connecting line between the East Coburg and Coburg electric tramways, by laying down a track from Nicholson-street to Sydney-road, either along Bell-street or along Moreland-road, a distance of 48 chains, and operating it. But if the track were made along Bell-street it would practically have no gathering ground for traffic on the north side, as the whole of that area is occupied by Pentridge prison. Any residences in that part of Bell-

street would be served by either the Sydney-road trams on one side, or those in Nicholson-street on the other. If the track were laid along Moreland-road, and operated throughout the day, it would cause traffic which would otherwise feed the Lygon-street section to be diverted to the Sydney-road cable trams, with their cheaper fares, increasing instead of diminishing the overcrowding of that line. However, the Committee recognised that it would be advantageous to have but one car-shed for the East Brunswick and Coburg lines, so that cleaning and repairing the cars might be done by the same staff, and the rolling-stock also made interchangeable. The cost of erecting and equipping a separate car-shed and repair shop would involve practically as much outlay as providing an enlarged building in Lygon-street or Nicholson-street and laying down a light track merely to carry the cars over at a slow speed from and to the combined car-shed and repair shop in the mornings and at night. The cost of this light track has, therefore, been debited to the Sydney-road sections, as they have only been charged with 25 per cent. of the cost of the sub-station rotaries, transformers, switch-board, battery, and booster, that being about the additional capital outlay required for the electrical plant if both the East Brunswick and Coburg systems had to be operated. On the foregoing basis the Sydney-road sections would necessitate a capital expenditure of £29,368, and annual charges amounting to £8,134. Assuming that a population of 7,000 in Coburg were served by the Sydney-road electric tramway, that being the number given by the advocates of the proposal, and that 1,000 of them, including the residents bordering on Boundary-road, used the two penny sections, and made, on the average, 120 journeys per annum, and also assuming that each resident of the remaining 6,000 made, on the average, 112 journeys by tram in the year, this would give a total of 912,000 journeys, or about 16 per cent. more than was carried last year by the horse trams, and yield a revenue of £3,800 during the first twelve months the line was open, leaving a deficiency of £4,334.

CONCLUSION.

13. Answering the questions submitted to it, the Committee has to report—

- (a) That, from the stand-point of local requirements, it would be advisable to give authority to a Trust representing the Brunswick and Coburg Councils to construct a tramway, starting at the intersection of Rathdown and Park streets, Brunswick, and proceeding westward to Lygon-street, and thence northward along that street and Holmes and Nicholson streets to Bell-street, Coburg.
- (b) That this route is the best for the present traffic requirements, and for the development of such municipalities.
- (c) That the tramway will harmonize with the future development of the metropolitan tramway system, by eventually being carried along Lygon-street, North Carlton, and Madeline-street to Queensberry-street, Carlton, and there junctioning with the existing cable tramway.
- (d) That the tramway will not affect the suburban railway system.
- (e) That the local municipal councils have expressed their willingness to undertake the financial responsibility connected with such tramway.
- (f) That electricity be the motive power employed, and that the gauge of the tramway be 4ft. 8½in.

14. The Committee, however, considers that the city section of this tramway should not be undertaken till the authority which is to control the tramway system of Melbourne and suburbs has been constituted, and that that body should be brought into existence at as early a date as possible. It is also of opinion that the horse tramway in Sydney-road, Coburg, is obsolete, and should be supplanted by an up-to-date means of transit, and that authority to convert that tramway to electric traction and extend the line to about Baker-street, Coburg, should be given to the proposed Trust if the ratepayers of that municipality are willing to bear the financial responsibility connected with the undertaking.

E. H. CAMERON,
Chairman.

Railways Standing Committee Room,
State Parliament House,
Melbourne, 14th November, 1912.

[*Minutes of Evidence are not printed.*]

APPENDICES.

APPENDIX A.

ESTIMATED COST OF PROPOSED ELECTRIC TRAMWAYS.

Gauge, 4ft. 8½in.

SUBMITTED BY THE CONFERENCE OF THE BRUNSWICK, COBURG, AND BROADMEADOWS COUNCILS.

2 miles 0 chains of double track from Queensberry-street, Carlton, northwards along Madeline and Lygon streets to Park-street, Brunswick.	
1 mile 48 chains of double track from Park-street, Brunswick, northwards along Lygon and Holmes streets to Moreland-road, Brunswick.	
1 mile 0 chains of double track from Moreland-road, Brunswick, northwards along Sydney-road to Bell-street, Coburg.	
<hr/> Total, 4 miles 48 chains of double track, with tarred macadam surface, at £11,887 per mile, including overhead construction and 90-lb. grooved rails ..	£54,680
1 mile 0 chains of single track from Moreland-road, Brunswick, northwards along Nicholson street, Coburg, to Bell-street.	
0 miles 48 chains of single track from intersection of Nicholson and Bell streets, Coburg, westwards to intersection of Bell-street and Sydney-road, Coburg.	
1 miles 40 chains of single track from Bell-street northwards along Sydney-road to Boundary-road, Coburg.	
2 miles 0 chains of single track from Boundary-road northwards along Sydney-road to Campbellfield.	
<hr/> Total, 5 miles 8 chains of single track at £7,925 per mile	40,417
Buildings	10,000
Fifteen cars at £1,150 a	17,250
Land purchase	1,000
Battery, booster, and switch gear	3,500
Sundries and furniture	1,900
<hr/> Total	<hr/> £128,747

APPENDIX B.

ESTIMATES OF RECEIPTS AND ANNUAL CHARGES.

SUBMITTED BY THE CONFERENCE OF THE BRUNSWICK, COBURG, AND BROADMEADOWS COUNCILS.

Receipts.

12,000 estimated population in Carlton and North Carlton to be served by proposed tramway.

15,000 estimated population in East Brunswick to be served by proposed tramway.

7,000 estimated population in Coburg to be served by proposed tramway.

Total, 34,000 estimated to be served by proposed tramway.

Estimated journeys per annum per head of population served, 125.

Estimated average receipt per passenger, 1·75d. per journey, 34,000 × 125 = 4,250,000 × 1·75d. £30,990

Annual Charges.

Working expenses, 500,000 car miles at 8·5d.	£17,708
Interest on £128,747 at 5 per cent. per annum	6,437
Provision for sinking fund, 1½ per cent. per annum	1,930
Renewal fund at 1·28d. per car mile	2,666
	<hr/> 28,741
Surplus	<hr/> £2,249

APPENDIX C.

ESTIMATED COST, ETC., OF PROPOSED CARLTON, EAST BRUNSWICK, COBURG, AND BROADMEADOWS ELECTRIC TRAMWAY.

SUBMITTED BY COBURG OPPONENTS OF THE PROPOSAL.

Capital cost of $7\frac{1}{2}$ miles of tramways (excluding the 2 miles Carlton section from Queensberry- to Park streets, estimated by Conference to cost £23,774, or £11,887 per mile), including overhead construction, cars, buildings, battery, booster, &c. £104,973

Annual Charges.

Interest at $4\frac{1}{2}$ per cent. per annum on £104,973	£4,723
Sinking fund at $2\frac{1}{2}$ per cent. per annum	2,624
Renewal fund at $2\frac{1}{2}$ per cent. per annum	2,624
533,370 car miles, for a service averaging 10 minutes, at $8\frac{1}{2}$ d.	18,692
Total annual charges	£28,663

Receipts.

9,135 estimated population in East Brunswick to be served by proposed tramway from Park-street, Brunswick.

6,000 estimated population in Coburg to be served by proposed tramways along Nicholson-street and also along Sydney-road.

1,000 estimated population at Fawkner and Campbellfield to be served by proposed Campbellfield section.

Total, 16,135 estimated population served.

Estimated journeys per annum per head of population served, 90.

Estimated average receipt per passenger, 1'6d. per journey, $16,135 \times 90 = 1,452,150 \times 1'6d.$ 9,681

Estimated deficiency £18,982

APPENDIX D.

MODIFIED SCHEME.

ESTIMATED COST OF PROPOSED EAST BRUNSWICK AND COBURG ELECTRIC TRAMWAY.

Submitted by Coburg Opponents of the Proposal.

Estimated cost of track from Brunswick-road (close to Park-street, Brunswick) along Lygon-street, Brunswick, and Moreland-road and Sydney-road, Coburg, to Gaffney-street, including overhead construction, cars, buildings, &c.	£73,330
Estimated annual charges	£16,069
Estimated annual receipts	9,081
Estimated deficiency	£6,988

APPENDIX E.

ESTIMATED COST OF EAST BRUNSWICK ELECTRIC TRAMWAY.

PREPARED BY THE RAILWAYS STANDING COMMITTEE.

The estimate of cost of permanent track was based on a sum stated by the Municipal Conference, and the estimate of cost of car-shed and electrical plant on figures furnished to the Committee by Mr. W. Stone, electrical engineer, Victorian Railways.

12 chains of temporary track in Park-street from north end of Rathdown-street to railway crossing, Lygon-street, including overhead construction and ordinary bonding.. ..	£742
96 chains of single track from Park-street along Lygon-street to Albion-street, East Brunswick, including overhead construction and turn-outs	9,504
Five cars at £1,150 each (four in running for five-minutes' service during busy hours and one spare car)	5,750
Car-shed, tracks and overhead construction in shed, pit, battery room, converter room, repair shop, &c., plus 10 per cent. contingencies, but excluding land purchase	4,155
Two sub-station rotaries, transformers, switchboards, battery, and booster, plus erection and 10 per cent. contingencies	4,345
Total capital expenditure, excluding land purchase	£24,796

Annual Charges.

Interest at 4½ per cent. on £24,796	£1,116
Sinking and renewal funds at 4½ per cent.	1,116
Ten-minutes' service each way, or twelve trips of 108 chains per hour for eighteen hours daily, except Sundays, or 98,852 car miles per annum at 9d. per car mile	3,706
Five-minutes' service during busy hours of each week day, or 20,282 additional car miles at 9d.	760
Total	£6,698

Receipts.

5,000 estimated population west of Lygon-street, East Brunswick, to be served by proposed tramway.

5,142 estimated population east of Lygon-street, East Brunswick, to be served by proposed tramway.

10,142 total population served.

Estimated journeys per annum per head of population, 125 (estimate of Conference).

Receipts per passenger, 1d., 10,142 × 125 × 1d. --	5,282
Deficiency first year	£1,416

APPENDIX F.

ESTIMATED COST OF EAST BRUNSWICK AND EAST COBURG ELECTRIC TRAMWAY.

PREPARED BY THE RAILWAYS STANDING COMMITTEE.

Cost of East Brunswick (Albion-street) section, as shown in Appendix E	£24,796
108 chains of single track from Albion-street northwards along Holmes-street, East Brunswick, and Nicholson-street, East Coburg, to Bell-street	10,692
One car extra to operate this section for a twenty-minutes' service	1,150
Total capital expenditure, excluding land purchase	£36,638

Annual Charges.

Interest at 4½ per cent. on £36,638	£1,648
Sinking and renewal funds at 4½ per cent.	1,648
Cost of five and ten minutes' service on Park-street and Albion-street section, as shown in Appendix E	4,466
Cost of twenty-minutes' service on second section, Albion-street to Bell-street (half-cost of ten-minutes' service on first section for similar distance)	1,853
Total	£9,615

APPENDIX F—*continued.**Receipts.*

Revenue on first section, as shown in Appendix E	£5,282
720 persons in East Coburg, stated by the Town Clerk of Coburg as being served by this (second) section, plus 180 in East Brunswick adjacent to Holmes and Davis streets and Moreland-road likely to also use this section reckoned at 125 journeys per annum, $900 \times 125 \times 2d.$ per journey	938
Special traffic to Coburg Cemetery	200
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	£6,420
Estimated deficiency	£3,195

APPENDIX G.

ESTIMATED COST OF PROPOSED SYDNEY-ROAD, COBURG, ELECTRIC TRAMWAY.

Gauge, 4ft. 8½in.

PREPARED BY THE RAILWAYS STANDING COMMITTEE.

The estimates of track in Sydney-road were furnished by the Municipal Conference. The figures relating to car-shed, &c., and electrical plant were supplied to the Committee by Mr. W. Stone, electrical engineer, Victorian Railways.

1 mile of double-track tramway from Moreland-road along Sydney-road to Bell-street, Coburg..	£11,887
1 mile of single-track tramway from Bell-street along Sydney-road to north side of Baker-street, Coburg	7,925
Two cars for seven and a half minutes' service on Moreland-road-Bell-street section, one car for fifteen-minutes' service on Bell-street-Baker-street section, and one spare car (making four cars) at £1,150 each.. .. .	4,600
48 chains of light track from Sydney-road to Nicholson-street or Holmes-street to run cars morning and night from and to combined car-shed	2,976
Cost of additions to car-shed at East Brunswick or East Coburg to accommodate Sydney-road cars	894
Cost of additions to electrical plant (rotaries, transformers, &c.) to provide power for Sydney-road cars	1,086
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Total capital expenditure, excluding land purchase	£29,368

Annual Charges.

Interest at 4½ per cent. on £29,368	£1,321
Sinking and renewal funds at 4½ per cent.	1,321
Seven and a half minutes' service = eight trips each way per hour, or sixteen trips of 1 mile each per hour for eighteen hours per day, or 288 car miles per day for 339 full days in the year (313 plus 52 half-days) = 97,632 car miles per annum on Moreland-road-Bell-street section.	
Fifteen-minutes' service on second section from Bell-street to north side of Baker-street = 48,816 car miles.	
Total, 146,448 car miles at 9d.	5,492
	<hr/>
Total	£8,134

Receipts.

6,000 persons in Coburg who would be served by Moreland-road-Bell-street section at 112 journeys per annum at 1d. per journey	£2,800
1,000 persons in North Coburg and bordering on Boundary-road who would be served by Bell-street-Baker-street section at 120 journeys per annum at 2d. per journey.. .. .	1,000
	<hr/>
	3,800
Estimated deficiency first year of operation	£4,334