

STATEMENT OF THE

Canadian Electric Railway Association

TO THE

Royal Commission on Railways and Transportation



AT OTTAWA, CANADA FEBRUARY 15th, 1932

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to the

Royal Commission on Railways and Transportation

by the

Canadian Electric Kailmay Association

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PREAMBLE

It is the intention of the Canadian Electric Railway Association to place before the Royal Commission on Railways and Transportation the salient features of electric railway operations in the Dominion of Canada, and briefly to sketch the history and development of urban, suburban and interurban electric railways, and the development of the motor bus and the motor coach by the electric railway industry. It is proposed to show the economic necessity for the utilization of the motor bus by the railways in the above mentioned services and the benefits derived by the communities served. It is proposed to show the type of business and volume of traffic handled by the motor bus and the motor coach, and that the bus and coach are negligible competitors of the steam railroads; also that the operations of these vehicles are highly regulated by governmental enactments. Figures will be furnished the Commission which will prove beyond the question of a doubt the efficiency of the motor bus and the motor coach in certain transportation services; further, that no additional highway capital or maintenance costs have been incurred by their operation. It is also proposed to show that there is no economic justification for further increase in motor coach taxation.

STATEMENT OF THE

CANADIAN ELECTRIC RAILWAY ASSOCIATION TO THE

ROYAL COMMISSION ON RAILWAYS AND TRANS-PORTATION

I.—INTRODUCTION:

(a) Status and Constitution of the Canadian Electric Railway Association—

The Canadian Electric Railway Association is a voluntary association of corporate companies and public commissions operating electric railways and motor bus and motor coach services in the Dominion of Canada. Organized in 1904 for the purpose of collecting and distributing information relating to the construction and operation of electric railways, the Association has functioned during the past twenty-seven years as the representative of the Canadian electric railway industry authorized to deal with matters pertaining to the industry at large and its relations with the public (Constitution and By-laws, Exhibit 1).

Membership in the Association is held by forty-five of the fifty-three electric railways reported by the Dominion Bureau of Statistics as operating in Canada in 1930. The remaining eight are small companies, each operating not more than five cars and ten miles of track. The assets of member companies represent over 97% of the total assets of the electric railway industry in the Dominion. Further, Association members carried over 98% of the total number of revenue passengers carried by all electric railways in the year 1930 and operated over 97% of the total car mileage. The Association therefore represents transportation undertakings which, as a group, operate the largest agency for land transport in Canada, apart from the steam railroads.

(b) Reasons for Submission of Statement-

Having in mind the extent of electric railway operations in Canada, the Association felt that a statement outlining these operations might be of interest and assistance to the Royal Commission on Railways and Transportation in its consideration of the general transportation situation throughout the Dominion. The Association desired also to record the significant facts of recent transportation developments directly affecting the operations of its members, and the population which they serve, including the utilization by electric railways of the motor vehicle. Further, as the official mouthpiece of the electric railway industry in Canada, the Association desired to place before the Royal Commission its views on matters involving the interests of that industry and the interests of other transportation agencies who have already made representation to the Commission.

Should further information be required touching on matters discussed in this statement or on any phase of the operations of the Association's members, the Association will be glad to place all its facilities for the collection of such information at the disposal of the Commission.

II.—SCOPE OF ELECTRIC RAILWAY OPERATIONS IN CANADA:

Detailed information covering the operations of electric railways in Canada is contained in the publication issued by the Dominion Bureau of Statistics, "Statistics of Electric Railways of Canada", for the year ending December 31st, 1930, (Exhibit 2) and in the Association's publication, "Electric Railway Statistics", for the year 1930 (Exhibit 3). As of December 31st, 1930, the fifty-three properties represented an investment in road and equipment of \$240,293,973. As of the same date total capitalization was \$224,089,000, consisting of bonded obligations to the extent of \$171,040,000 and capital stocks of \$53,049,000. Gross earnings from operations in 1930 totalled \$54,719,000, and aggregate net income after taxes and fixed charges was \$10,007,000.

As of December 31st, 1930, the fifty-three railways operated 2,367 miles of single track. Rolling stock included 4,060 passenger cars, 616 motor buses and coaches, 516 freight cars, 587 miscellaneous cars and 53 electric locomotives. This equipment served a population of over 4,000,000.

During 1930 revenue passengers carried totalled 792,-701.000.

Salaries and wages paid during 1930 totalled \$26,954,000, and at December 31st of that year employees numbered 18,340.

III.—HISTORICAL:

(a) Evolutionary Changes in Transportation in Canada—

Historical evolution of transportation in Canada may be said to have followed three main trends. During the early years of the country's settlement the principal channels of communication were the waterways. As the populaton increased and settlement progressed inland from the waterways, there followed a natural development of highways which for a time served as feeders for the water routes. Highway development became so extensive, however, particularly in the older settlements of the Maritime Provinces and Quebec and later in Ontario, that by the early years of the last century the post road with its stage coach had largely supplanted the waterways for the handling of passenger traffic. By 1841 there were, in Ontario, for instance, 6,000 miles of post roads on most of which regular stage coach routes were operated.

Then followed the railroad era, which may be said to have begun in 1851 with the commencement of a line between the two central Provinces of Quebec and Ontario. As railroad building progressed at an increasingly rapid rate, the stage coach as a long distance passenger carrier gradually disappeared and the highway once more was relegated to the role of a feeder route. For some sixty years the steam railroad maintained its place as the principal carrier of both freight and passenger traffic practically unchallenged. Then followed the introduction of the motor vehicle and the consequent stimulus to highway construction, which during the past twenty years has once more raised the highway to a position of major importance in the general transportation scheme.

From this brief summary it will be seen that the remarkable growth of motorized travel during the past two decades and the consequent transfer of an increasing volume of passenger traffic from the steam railroad to the private motor vehicle operating on the highway has a historical parallel in the displacement of the stage coach by the steam railroad.

(b) Development of Urban, Suburban and Interurban Transportation in Canada—

Changes in urban, suburban and interurban traffic have more or less paralleled the changes in long distance transportation since the first appearance of the highways. The first urban passenger common carrier used in Canada was the horsedrawn omnibus. This was superseded by horse car railways as early as 1861—the Cities of Montreal and Toronto having adopted this method of transportation in that year. Horse car systems in turn were replaced by electric railway systems, the first of which was opened at St. Catharines, Ontario, in 1887. This was followed by the inception of The Ottawa Electric Railway in 1891 and the electrification of the Montreal and Toronto systems in 1892. Electrification proceeded in the other principal eastern Canadian cities during the early nineties and by 1897 there were in operation thirty-five companies representing a capitalization of \$18,727,000. Aggregate capitalization was rapidly augmented during the subsequent fifteen years with the construction of additional systems in the newer cities of western Canada, the total having reached \$111,532,000 by 1911.

On the basis of the 1930 returns there were in the Dominion twelve systems carrying 10,000,000 or more passengers per year. These were located in Montreal, Toronto, Vancouver and district, Winnipeg, Hamilton, Ottawa, Quebec, Calgary, Windsor and district, Edmonton, London and Halifax, and they handled 90% of the total passengers carried by all roads.

In the Cities of Quebec and the Maritime Provinces the systems are generally operated by private companies under city franchises, while in a considerable number of cities in Ontario and western Canada they are owned and operated by the municipalities.

Utilization of the motor vehicle in city and suburban services commenced in 1918, and by 1921 three companies were operating thirteen motor buses. By 1931 the total number of motor buses operated in conjunction with city systems had increased to 413, distributed among sixteen cities.

Construction of interurban electric lines commenced in Ontario in 1891 and continued at intervals over a period of some twenty-five years. Development of this type of facility

was concentrated principally in the Toronto, Niagara and Lake Erie districts of Ontario and on the Pacific coast, and to a lesser degree in the areas contiguous to Quebec. Montreal and Winnipeg. At the close of the war there were in operation in Canada twenty-seven interurban electric lines but this number has been largely diminished during the past ten years, a result of abandonments due to the competition of the private passenger automobile. Coincident with this decline in the operation of interurban electric lines there has been during the past decade a rapid increase in the utilization of the motor coach in interurban services operated by electric railways. By the close of 1931 eleven electric railways were handling interurban passenger traffic with 379 motor vehicles of this type.

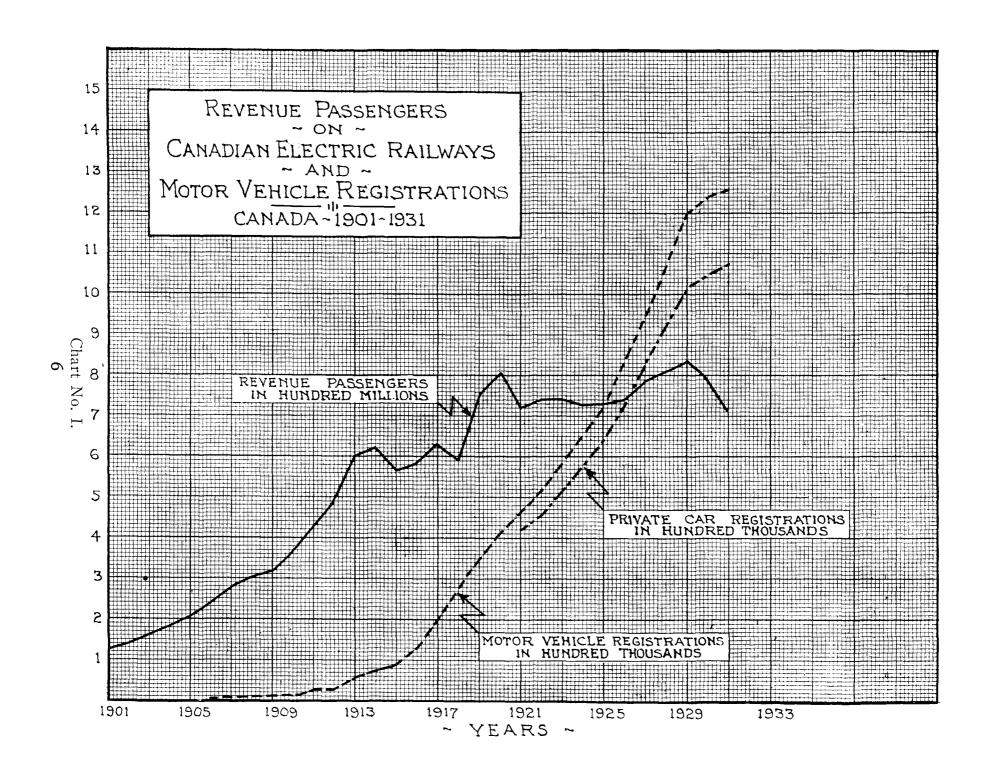
The significance of the rapid growth in the use of the motor bus and motor coach by electric railways will be discussed in detail in Section VI.

IV.—EFFECT OF MOTOR VEHICLE COMPETITION ON ELECTRIC RAILWAY OPERATIONS:

(a) Effect on Urban and Suburban Services—

Prior to 1920 the effects of motor vehicle competition on electric railway operation in Canada were of a relatively minor nature. Since 1920, however, such competition has been a very serious problem for electric railway operators in all parts of the Dominion.

Examination of the accompanying chart showing the trend of revenue passenger traffic on all electric railways in the Dominion, set against the trend of motor vehicle registration (Chart No. 1), clearly reveals the effects of this competition. During the period 1910 to 1920 aggregate annual revenue passenger handlings of all electric railways increased by 123%, the total for 1910 having been 360.964,000 and that for 1920, 804.711.000. Since 1920 the general trend has been slightly downward, total passenger traffic having exceeded the figure established in that year in only two of the ten years 1921 to 1930. This reversal of trend can be attributed only to increased use of the motor vehicle, registrations of which advanced from 407,064 in 1920 to 1,239,000 in 1930, an increase of more than 200°. In two representative cities, namely, Toronto and Montreal, there were in 1920 19.2 persons and 60 persons, respectively, per automobile; whereas in 1930 there were in Toronto 6.3 persons per automobile and in Montreal, 12.



A further significant factor is revealed by an annual traffic census made in Toronto by the Toronto Transportation Commission. Between 1923 and 1930 registration of private passenger automobiles in that City increased by 112%, whereas the volume of private passenger automobile traffic as recorded by autumn and spring traffic counts increased by 158% and 216%, respectively. In other words, not only the number of private motor cars but the frequency of their use by the individual owner has shown a marked upward tendency. Successful operation of street railways in the face of the competition indicated by these figures presents problems of obvious difficulty.

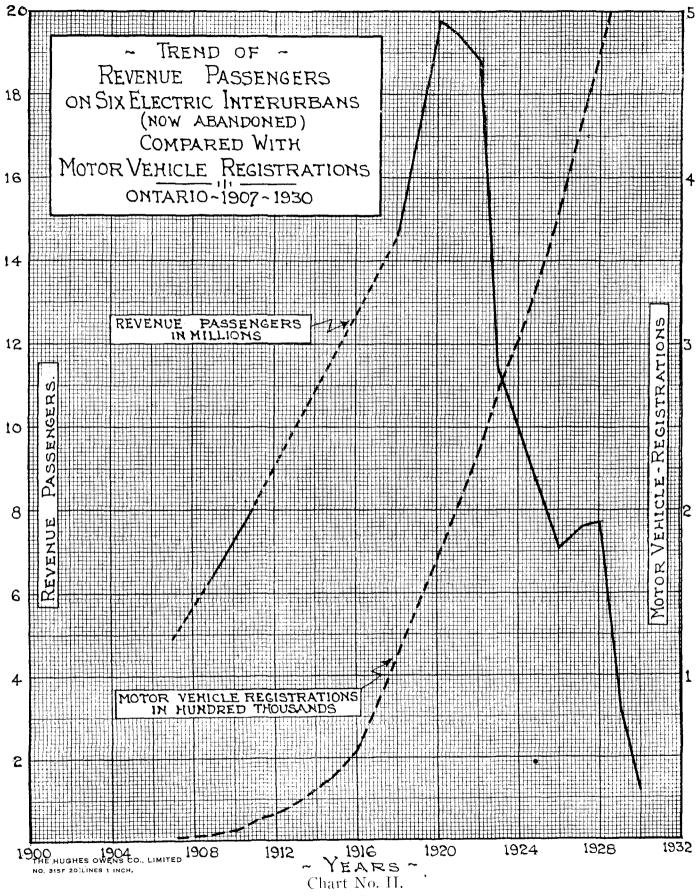
(b) Effect on Interurban Electric Services-

The impact of private motor vehicle competition on established transportation agencies has nowhere been more marked than in the field occupied by the interurban electric railways. Examination of interurban operating records for the past twenty years indicates that interurban passenger traffic reached its peak in 1920, since which year the decline has been so drastic as to result in the abandonment of a number of once profitable railway properties and the substitution of common carrier motorized services. It is sometimes stated that the motor coach has been a major factor contributing to this decline, but the Association wishes to stress the fact that utilization of the motor coach has been a negligible factor compared with the use of the private motor car.

Attention is directed to the accompanying chart showing the trend of revenue passenger traffic on six of the electric interurban lines in Ontario recently abandoned, plotted against motor vehicle registration in that Province (Chart No. II). It should be pointed out by way of qualification that the sharp downward trend of passenger traffic during the years following 1920 was accelerated by the absorption of some trackage by connecting city systems, but such absorptions were by no means the dominant factor.

(c) Abandonments of Urban and Interurban Electric Railways in Canada Since 1924—

During the last eight years no less than eight urban and eleven interurban electric railways in Canada have been abandoned because of their inability to cope with private motor vehicle competition. These abandonments have involved a writing off of a capitalization totalling \$19,148,000,



or an amount equivalent to 8.5% of the total electric railway capitalization in Canada as of 1930. Abandonment of trackage totalled 369.62 miles, a figure equivalent to 18% of the total main line single track operated by all railways at the end of 1930. The following is a detailed statement of the abandonments included in the above summary:

Abandonments of Urban Electric Railways Since 1924.

Name of Railway	Capital- ization	Miles of Track	Year Abandoned
Calais Street Railway (New			
Brunswick)\$	200,546	6.45	1929
Kingston, Portsmouth and			
Cataraqui Street Railway	183,100	6.00	1930
Moncton Street Railway	155,484	2.72	1931
Peterboro Radial Railway	386,478	7.64	1927
St. Thomas Municipal Street			
Railway	81,935	20.99	1926
Sarnia Street Railway	263,381	8.25	1931
Sherbrooke Street Railway 1	,004,287	9.39	1931
Yarmouth Street Railway	877,851	3.00	1928
Total\$3	,153,062	$\overline{64.44}$	
<u>-</u>		====	

Abandonments of Interurban Electric Lines Since 1924.

Brantford and Hamilton Elec-		
tric Railway\$1,444,000	23.19	1931
Cape Breton Electric Com-		
pany 2,252,000	30.59	1931
Chatham, Wallaceburg and		
Lake Erie Railway 1,662,000	36.73	1927
Hamilton and Dundas Street		
Railway 223,540	6.98	1927
Hamilton, Grimsby and		
Beamsville Railway 499,148	22.60	1931
Hamilton Radial Railway 869,343	22.86	1929
Niagara, Welland and Lake		
Erie Railway 124,167	2.90	1930
Pictou County Electric Com-		
pany (Nova Scotia) 1,147,000	9.20	1930
Toronto and York Radial		
Railway 2,815,548	80.07	1929
Toronto Suburban Railway 4,619,000	59.86	1931
Woodstock, Thames Valley		
and Ingersoll Railway 340,000	10.20	1925
Total\$15,995,746	$\overline{305.18}$	
Grand Total	369.62	
====	=====	

In every case cited above—both urban and interurban—passenger traffic formerly carried by the electric lines is now handled by motorized services.

It will be observed that all of the urban abandonments have been in cities of relatively small population where traffic density is comparatively low. Inasmuch as electric lines are still operated in a number of similar cities, it is probable that there will be further abandonments in the future with a consequent increase in the use of the motor bus as a common carrier for the handling of urban traffic. Attention is directed also to the fact that nine of the eleven abandonments of interurban lines have been in Ontario, which Province has the highest registration of private passenger automobiles per capita, the provincial index being 6.8 persons per car as compared with an index of 9.5 for the Dominion as a whole.

V.—IMPROVED EFFICIENCY OF ELECTRIC RAILWAY OPERATIONS:

The Association desires to emphasize the fact that its member companies have been quick to realize the necessity of improving both the physical and economic efficiency of their operations as a means to counteracting the adverse effects of constantly increasing motor vehicle competition. Utilization of modern types of rolling stock and modern track construction has resulted in a material increase in the speed of operation. Frequency of service has also been increased. The majority of the city systems have also been successful in maintaining relatively low rates of fare and in retaining the universal fare system, despite increases in the areas served. General improvement in operating efficiency is reflected in the trend of the ratio between gross earnings and operating expenses during the eleven year period 1920 to 1930, as indicated in the following table:

Year	E	Ratio of Operating Expenses to Gross arnings—all Canadian Electric Railways
1920		79.16
1921	***************************************	80.71
1922		72.47
1924	***************************************	73.07
1928		69.71
	***************************************	68.79
1930		71.50

Improvement in the ratio as between the years 1921 and

1922 was partially accounted for by increases in fares in some cities, but as the rate of fare has remained relatively constant since 1922 the improvement since that date is attributable to increased operating efficiency.

VI.—THE MOTOR BUS AS AN URBAN AND SUBURBAN PASSENGER CARRIER:

(a) Growth of Motor Bus Operation by Urban Electric Railways—

As already stated in the historical introduction to this statement, utilization of the motor bus by Canadian electric railways commenced in 1918 in Winnipeg, 1919 in Montreal, and in 1921 in Toronto, the three companies operating thirteen buses in the latter year. The initial experiments with this type of vehicle made in these three centres were so successful that its use soon became general in the larger cities of the Dominion. By the end of 1931, sixteen electric railways were operating 413 motor buses in conjunction with their urban and suburban services.

Detailed figures recording the growth in bus passenger traffic in all sixteen cities during the eleven year period are not available but the general trend is indicated by the following summary of bus passengers handled by the Montreal and Toronto city bus systems:

	Urban Bus Pass	Urban Bus Passengers Carried		
Year	Bus Passengers Carried by Toronto Transportation Commission	Bus Passengers Carried by Montreal Tramways Company		
1922	3,623,553	*************		
1925	4,483,026	1,026,000		
1927	5,848,425	10,728,000		
1931	10,287,733	20,680,000		

(b) Reasons for the Increased Use of the Urban Motor Bus-

One of the primary reasons for the rapid increase in urban bus traffic indicated by the figures cited above has been the suitability of the bus for the handling of low density passenger traffic originating in the relatively sparsely populated districts on the outskirts of urban areas. Traffic from such districts is not of sufficient volume to warrant the construction of costly rail lines and power distribution facilities, yet provision of adequate, low cost transportation for such districts is essential to their development. Operating experience soon demonstrated that the bus was the ideal trans-

portation agency in this field. Once established, its use in feeder line services of both city and suburban systems soon became standard practice.

In the majority of cities, buses operating on scheduled runs function as part of the universal fare system. Reciprocal transfer privileges are granted between the bus lines and the street railway lines and the same rate of fare applies on both services. This co-ordination of rail and motorized facilities has in many cases been a factor of considerable importance in the maintenance of the universal fare system, with consequent advantages to the travelling public.

In any consideration of the place of the motor bus in the field of urban transport it should be borne in mind that a number of smaller cities formerly served by electric railways are now entirely dependent upon the bus for common carrier passenger transportation.

VII.—ELECTRIC RAILWAY OPERATION OF INTER-URBAN MOTOR COACH SERVICES:

(a) Development of the Interurban Motor Coach as a Passenger Carrier—

Evolution of the motor coach in Canada may be said to have begun with the appearance of the "jitney", which ran on no definite route or schedule, paid no fee or business tax, and the driver of which was responsible to no one but himself. From this type of vehicle it was but a short step to the truck fitted with a bus body.

Attempts were made to give a fairly dependable service with this type of vehicle, but it was not until after the close of the war that the first coach companies were formed and multiple coach operation commenced. Initial results of this method of operation were sufficiently successful to induce a mushroom-like growth of operating companies, many of which were short-lived because of the inefficiency of their management and their failure to adopt sound methods of accounting. Individual failures, however, had little effect on the growth in traffic, and as demand increased there followed naturally a rapid improvement in the type of vehicle operated. The result was the appearance of the modern high-powered coach with its improved braking power, low centre of gravity and balloon tires, all of which have contributed to the safety, dependability and popularity of present day coach travel.

(b) Reasons for Entry of Electric Railways into Interurban Motorized Transportation Field—

Relatively early in the development of interurban motor coach services it became apparent that the new transportation agency threatened the stability of electric railway operation in many of the larger cities of the Dominion. Operation of independent bus lines over city streets paralleling existing electric lines resulted in diversions of traffic from the city systems which could not be ignored. It at once became obvious that were the electric railways to abandon the increasing volume of this profitable class of business to outside interests, the result would be not only serious losses in revenue but a gradual stifling of the city system.

That the electric railways were fully alive to the implications of the development is indicated by the report of the Bus and Coach Committee of the Canadian Electric Railway Association adopted by the Association in 1927:—

"It is becoming more and more apparent," stated the report,

"that the operations of automotive vehicles by the transportation agency of any given area should not be confined strictly to the geographical boundaries of such area. For the street railway system of a city to sit meekly by while others pre-cmpt all profitable interurban or suburban routes under conditions amounting in practice to perpetual franchises on such routes spells disaster in the long run to any such system. It involves a constantly increasing loss of local fares to such through-running buses, the creation of a network of outside franchises stifling and forbidding the normal growth of the local system and the occupancy by others of a field logically belonging to such system and necessary to the economical development of its urban services."

Still another pertinent factor was the fact that the decline in electric interurban passenger traffic had reached the point where it was becoming economically unsound to continue the operation of such lines.

In the light of all the circumstances there was but one logical course of action open to the electric railway companies, namely, participation in the interurban motor coach field. Such was the only course of action which would pre-

vent loss of revenue due to the operations of independent bus operators on city streets, forestall creation of competitive franchise rights, offset electric interurban losses, and protect both the electric railways and the travelling public against the injurious effect of uneconomic competition.

(c) Extent of Interurban Motor Coach Operations by Electric Railways—

Operation of interurban motor coach services by electric railways in Canada commenced in 1924, the pioneer railway in the field being the British Columbia Electric Railway Company, Limited. In most cases acquisition of the necessary franchise rights was by purchase from individual operators. The development proceeded at such a rapid rate that by the end of 1931 electric railways were participating in the operation of eleven companies using 379 interurban motor coaches distributed as follows:—

	2
Brantford Municipal Railway Commission	2
British Columbia Electric Railway Co., Ltd	7
the same of the sa	4
Gray Coach Lines, Limited (Toronto) 12	0
Highway King Coach Lines (Hamilton)	3
	2
	2
	4
Provincial Transport Company (Montreal) 10	6
(Including City Sight-seeing)	
	6
	3
Total	9

The Association desires to draw attention to the fact that the electric railways in the five largest cities in Canada now participate in the operation of interurban motor coach services.

A map showing the motor coach operation of the Provincial Transport Company, Montreal, and its affiliated companies is presented as a typical example. (Exhibit 4).

(d) Advantages of Operation of Interurban Motor Coach Services by Electric Railway Companies—

Previous to the entry of electric railways into the field of interurban motor coach transportation, coach lines radiating from the larger urban centres in Canada were largely in the hands of irresponsible operators, many of whom were not financially stable—a factor seriously militating against the safety, efficiency and dependability of operation.

Present conditions in the coach services now maintained by electric railways are in marked contrast to those which formerly prevailed. Equipment has been fully modernized and dependable scheduled service is maintained on a high efficiency basis. There has also been a marked improvement in the conditions affecting labour, particularly in regard to stability of employment and maintenance of high wage standards.

A further advantage of the operation of interurban motor coach services by electric railways is the fact that it enables co-ordination of such services with motorized services operated in urban and suburban areas. Unified control permits a diversified use of operating equipment which is mutually beneficial to all three services. This results in lowered capital and operating costs, benefitting not only the transportation services but the travelling public.

An additional economic advantage of the co-ordination of urban and interurban motorized services under electric railway control is the fact that it results in a reduction in both administrative and maintenance overhead costs. In many cases the management personnel of the two services is identical and vehicles operating in the two fields are serviced with the same maintenance facilities. Such a co-ordination is of obvious economic benefit to both services.

VIII.—REGULATION OF MOTOR COACH SERVICES:

(a) Governmental Regulations—

All motor coach operations in Canada are subject to specific regulation by direct governmental enactment. With minor exceptions in certain provinces, and excluding Prince Edward Island in which Province motor coach operations are negligible, these regulations cover weight, size and speed of vehicles, inspection of equipment, compulsory public liability and property damage insurance, rates of fare, timetables, financial responsibility of operators, physical fitness and qualifications of drivers and hours of work of drivers.

Weight of coaches is restricted in all provinces, except Manitoba and Alberta, the maximum allowance varying from 12,000 lbs. to 24,000 lbs. in accordance with the type of road in general use in the several provinces.

Size of vehicle is restricted in all provinces, except Alberta, 96 inches being the maximum width uniformly allowed.

Legal maximum speed varies from 30 to 40 miles an hour, 35 miles an hour being the maximum allowed in the majority of provinces.

In all provinces both buses and coaches are subject to police inspection at any time with respect to brakes, lights and mechanical equipment.

Public liability and property damage insurance is compulsory in all provinces and all provinces require the filing of both rates of fare and schedules.

Proof of financial responsibility is required in all provinces and may be given in any one of the following terms:—

- (a) Certificate of Insurance.
- (b) Surety Bond.
- (c) Money or Securities.

In each case the responsible minister may at his discretion require additional proof.

Physical fitness and qualifications of drivers are determined in all provinces either by observation or examination.

Hours of work of drivers are limited in all provinces, except Manitoba, the maximum working time permitted in any 24 hour period ranging from eight to ten hours, ten hours being the rule in the majority of cases, excepting only New Brunswick, which permits ten hours' work in sixteen.

(b) Company Regulations-

The governmental regulations cited above are supplemented in most cases by further company regulations which are an additional guarantee of safe and dependable service. Most of the companies enforce regulations requiring complete physical examination of all drivers similar to that which is required for insurance purposes. Drivers are also carefully examined for vision, and rules providing for periodical re-examination of eyesight are strictly enforced. Some of the larger companies also maintain training schools for coach operators which provide instruction as to the mechanical features of the motor coach and supervised training in the operation of coaches under actual service conditions. Disciplinary control of operating personnel similar to that in effect on the steam railroads is also exercised. Physical equipment is thoroughly inspected and a thorough overhaul of all coaches at specific intervals is stipulated.

IX.—SAFETY OF MOTOR COACH OPERATION:

The effect of the regulations, both company and governmental, outlined above, on the safety of motor coach transportation is reflected in the relative rarity of accidents involving fatalities to motor coach passengers. Data collected by the Department of Provincial Highways for Ontario shows that not a single person travelling on a motor coach during the past five years in the Province of Ontario has been fatally injured.

X.—TYPE OF SERVICE PROVIDED BY MOTOR COACH:

(a) Motor Coach a Pioneer in a New Traffic Field-

In any consideration of the utility of the motor coach as a transportation agency it should be borne in mind that the coach provides a convenient, frequent and flexible point-to-point service of a type not offered by the steam railroads. The coach is able to pick up and discharge passengers not only at centres of population, but at almost any point on the route it traverses. This flexibility enables it to provide economical transportation for a scattered population and to render a service to the rural travelling public not matched by that of any other common carrier transportation agency. Steam railroads, on the other hand, are limited by the very nature of their operations to the handling of passenger traffic between centres of considerable population.

The Association wishes to stress the fact that, far from duplicating the passenger services provided by the steam railroads, the motor coach has largely originated the traffic it now handles. Such being the case, it cannot be said that the coach has built up its patronage by diverting traffic from other agencies. It should also be noted that the coach is able to serve communities not reached by the steam railroads, and it is not surprising, therefore, that on most motor coach routes the bulk of the traffic handled is local rather than through.

(b) Motor Coach the Most Efficient Agency for the Handling of Low Density Traffic—

The Association desires to point out further that because of the differences in the nature of the services rendered by the two agencies, motor coach services and steam railroad passenger services are complementary rather than competitive. Steam railroads are the most efficient land trans-

port agency yet devised for the handling of mass passenger movement over both long and short distances. Motor coach services, on the other hand, are the most efficient agency for the handling of low density traffic.

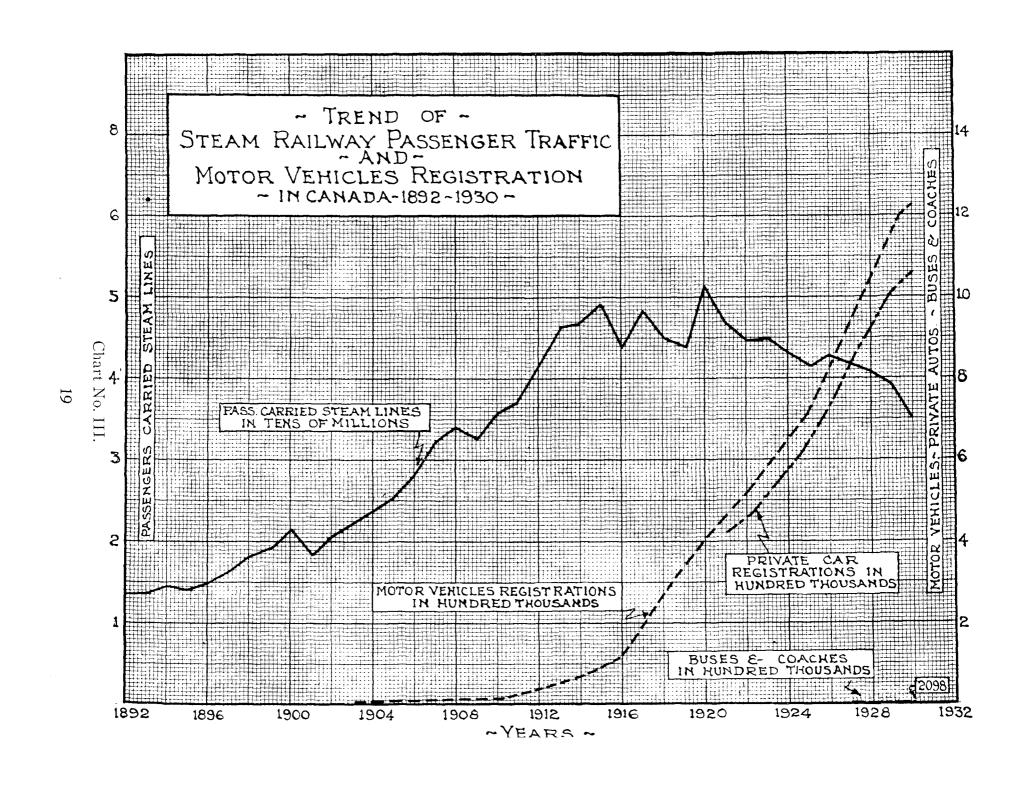
In adjusting their services to the various types of traffic demands, the electric railways have consistently recognized these two principles. Taking the City of Montreal as an example, we find that the motor coach services operated by the electric lines have made no attempt to compete with the steam railroads in the mass movement of commuter traffic and have confined their operations to the handling of traffic of lesser density. Similarly, in the Toronto area the motor coach services operated by the electric railway authority have made no attempt to compete with the steam roads in the handling of commuter traffic on a price basis, steam railroads' commuter rates in effect in that area being uniformly lower than those of the motor services. When it comes to the handling of passenger traffic moving over long distances, moreover, motor coach services, even did their operators so desire, are unable to compete with the steam railroads in the matter of speed.

XI.—MOTOR COACH SERVICES A NEGLIGIBLE FACTOR IN THE DECLINE IN RAILROAD PASSENGER TRAFFIC:

(a) Decline Chiefly Due to Increased Use of Private Passenger Automobile—

While it is generally recognized that the loss in passenger traffic experienced by the steam railroads during the past decade is attributable largely to the competition of the motor vehicle, the Association desires to emphasize the fact that the proportion of this loss attributable to the operation of motor coach services is relatively negligible.

In this connection attention is directed to the accompanying graph showing the trend of passenger traffic on all steam railroads in Canada set against registrations of all motor vehicles and registrations of all motor buses and coaches (Chart No. III). It will be noted that steam railroad passenger handling reached a peak of 51,318,000 in 1920, since which year the trend has been steadily downward, total annual passenger handlings having reached a low of 34,698,000 in 1930. During the same period total registrations of motor vehicles in Canada advanced from 407,064 to 1,239,888, the registrations of private passenger automobiles at the end of the period being 1,047,494. It will



be observed that even during the later years of the period of declining steam railroad passenger traffic, registration of motor buses and coaches was a factor relatively so negligible as to be represented graphically only with difficulty. Still more significant is the fact that during the early years of the period when motor bus and coach registrations were so few as to be impossible of segregation in graph form, the decline in steam railroad traffic proceeded at a rate equal to or exceeding the rate of decline registered during the latter part of the period. The Association suggests that this comparison is conclusive evidence of the fact that interurban motor coach operation has had little or no relation to the passenger traffic decline experienced by the steam roads.

Further evidence as to the relative place occupied by the interurban motor coach in the passenger traffic field in Canada is contained in the following statement indicating passenger mile performance of the four land transport agencies:

Name of Agency	Passenger Mile	Percentage of Total
Electric Railways (including Feeder Bus Services) Interurban Motor Coaches Private Passenger Automobile Steam Railroads	300,000,000 12,960,000,000	14.5% 1.6% 70.7% 13.2%
Total	18,342,874,000	100%

Explanatory Note:

Basis 1930 Data

Private passenger automobile, basis gasoline consumption, average mileage per gallon, number of cars registered and average passengers per car. Steam railroads, Dominion Bureau of Statistics official figure. Electric railways, basis total passengers carried and average length of ride. Motor coaches, basis number of common carrier buses, average mileage per coach per year and average number of passengers per coach.

Here again the comparison indicates the relatively minor share of traffic handled by the motorized interurban services, the ratio of passenger miles by coach to the total being only 1.6%.

It should be noted further that the geographic distribution of interurban motor coach operation throughout the Dominion is such as further to minimize any possible competitive relationship between the operations of rail and coach services. Interurban motor coach operations in the Provinces of Alberta, Saskatchewan, Manitoba, Nova Scotia, New Brunswick and Prince Edward Island are of relatively little magnitude. It is a fact, nevertheless, that relative to

population and registration of passenger automobiles the decline in steam railroad passenger traffic has been as great in these Provinces as in others where coach operations are more extensive.

(b) Opinions of Steam Railroad Executives-

The relation of interurban motor coach services to steam railroad services was clearly stated by Mr. J. F. Deasy, Vice-President of the Pennsylvania Railroad, in testimony before the Interstate Commerce Commission of the United States in its investigation of the relationship between rail and highway transport services at Washington, March 4th, 1931. Mr. Deasy said:

"Our studies show that the decline in railway passenger revenues has been brought about primarily by the use of the private automobile. The motor bus has not deprived our railroad of substantially any more business than the interurban electric lines would have done if they had survived and expanded. Under no circumstances do I advocate regulations for the purpose of restricting highway competition for the benefit of rail carriers."

Attention is directed also to the opinion of Mr. Ralph Budd, President of the Great Northern Railroad, expressed in an address before the Transportation Club of Toronto in March, 1929:

"A thought commonly indulged in is that if buses were removed from the highways by taxes sufficiently high to accomplish that purpose, the railways would get the traffic the buses now handle, and that such traffic would be profitable. I do not believe that would be the result. . . . For the railways to be forced to put back in service trains to take care of the slight traffic that would return to them would be a real hardship and loss. I am sure the railways would lose in many instances by having the buses forced off short runs that have made possible the removal of unprofitable trains. . . . The public would suffer the loss of a service which in many communities is far better than it ever had before the frequent bus replaced the occasional train; many people would be obliged to use the more ex-. pensive automobile, and the aggregate tax contribution would be decreased rather than increased by the process."

XII.—TAXATION OF MOTOR COACH SERVICES:

(a) Bases on Which Motor Coach Highway Taxes are Paid-

In all of the provinces of the Dominion motor coach operations are subject to direct highway taxes of two types and in the majority of provinces to direct taxation of three types. These are:—(1) a tax on gasoline, (2) license fees, (3) a road tax based on seat miles or ton miles operated or on a percentage of gross revenue.

A uniform tax of five cents per gallon on gasoline consumed is collected in all provinces, excepting only Quebec, where the rate since December 1st, 1931, has been six cents. It should be noted that gasoline taxes in Canada are assessed only against the motor vehicle, taxes paid on gasoline used for purposes other than the fueling of motor vehicles being refunded, which indicates clearly that governmental authorities consider these taxes a special assessment for the provision of the highways over which the vehicles operate.

License fees vary with the weight of vehicle and vary also as between the several provinces, the annual fee for an eight ton coach ranging from \$320 in New Brunswick to \$31 in Alberta.

Road taxes are imposed in all provinces but Saskatchewan and Prince Edward Island. Three of the provinces collect this tax on the basis of seat miles operated, the rate being 1/10 of a cent per seat mile in Manitoba, 1/15 of a cent in Alberta and 1/20 of a cent in Ontario. Quebec charges a road tax at the rate of 1/10 of a cent per gross ton mile. The remaining three provinces impose road tax in the form of a percentage of gross earnings, the rate varying from one to two per cent.

All motor coach operations are also subject to municipal, corporation and property taxes, also to payment of excise taxes on bus bodies and import duties, none of which are applicable directly to highway maintenance but all of which are part of the general cost of the operation of the service. Taxation figures cited in the subsequent section of this statement will include only those taxes imposed directly for highway construction and maintenance in order that the relation between the highway taxes paid by motor coach operators and highway costs may be clearly indicated.

(b) Amount of Highway Taxes Paid by Motor Coach Services—

The amount of highway taxes paid by representative interurban motor coach services in Canada for the year 1930 as expressed in terms of percentage of gross revenue, tax paid per vehicle operated, and tax paid per mile of highway traversed is indicated in the following summary:—

Name of Company	Percentage of Gross Revenue	Taxes per Vehicle	Mile of Highway Traversed	No. of Coaches Operated
19 Largest Coach Companies Operating in	0.2066	(2022-16	**100.00	200
OntarioBritish Columbia Elec-	8.396%	\$822.46	\$100.89	309
tric Railway Co., Ltd.		332.21		29
D	(No ro	ad tax on	16 urban	buses)
Provincial Transport Co. (Montreal)		719.00	122.50	79
Winnipeg Electric Co		s include 1,314.80		ous) 14

As the Ontario companies whose taxation is cited above handled more than 93% of the interurban coach business conducted in that Province for the year stated, the figure \$822.46 may be taken as representing the average per vehicle tax paid by bus and coach operators in that Province. This approximates the average for the Dominion as computed on the basis of the taxes paid by a typical eight ton coach in all provinces, excepting Prince Edward Island, and weighted according to the number of common carrier coaches in use in the several provinces, the average per coach per year tax for all Canada on the basis of this computation being \$790.

(c) Comparison of Taxes Paid by Motor Coach Services with Those Paid by Other Transportation Agencies—

Examination of the relative taxes paid by all types of motor vehicles operating in Canada indicates that motor coaches are by far the most heavily taxed users of the highways in the Dominion. During the year 1930 revenue in all provinces from taxation of motor vehicles totalled \$42,821,508, whereas registrations of motor vehicles numbered 1,239,888. It follows, therefore, that the average per vehicle highway tax was \$34.53. This contrasts with the average motor coach highway tax of \$790 indicated in Sub-section (b) above. In other words, on the existing bases of taxation interurban motor coach services operating throughout the Dominion pay average highway taxes twenty-three times the average paid by all types of motor vehicles using the highways.

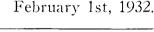
It should be noted also that motor coach taxes paid in Canada exceed those paid in the majority of the states of the United States. Examination of the accompanying chart (Chart No. IV) reveals that the Ontario coach tax—which as has already been stated approximates the average for the Dominion—is larger than that paid in forty of the states of the Union. It will be observed, moreover, that the Canadian provincial figure is considerably in excess of those prevailing in all the Border States, where climatic conditions are similar to those prevailing in the Dominion.

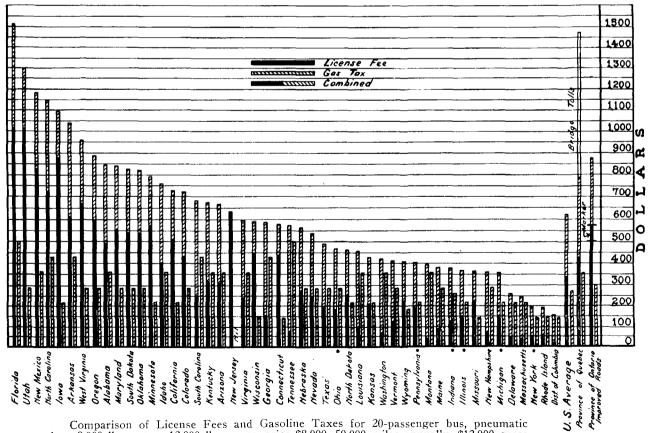
Bus or Coach License Fees and Gasoline Taxes in Various Places in Dollars per Bus per Year

Information for United States taken from "Special Taxation for Motor Vehicles", issued by the Motor Vehicle Conference Committee of the National Automobile Chamber of Commerce, showing taxes in force on January 1st, 1932.

"License Fees" as used here, include road taxes. They are sometimes assessed in dollars per bus per year, cents per seat mile, cents per ton mile, dollars per ton, dollars per seat, percentage of revenue, percentage of bus value, etc.

Province of Ontario—1/20c per seat mile + \$72 for marker; and Gas Tax 5,951 imp. gals. (a) 5c = \$297.55.





Comparison of License Fees and Gasoline Taxes for 20-passenger bus, pneumatic tires, 9,000 lbs. net or 12,000 lbs. gross, price \$8,000, 50,000 miles annually, \$12,000 gross receipts, 7,142 U.S. gals. of gasoline, 30 H.P.

XIII.—RELATION BETWEEN HIGHWAY COSTS AND HIGHWAY TAXES PAID BY MOTOR COACH SERVICES:

(a) Relative Use of the Highway by Motor Coach and Other Motor Vehicles—

Examination of a comprehensive highway traffic census made by the Department of Highways of Ontario, in which Province the density of both private passenger automobile traffic and motor coach traffic has reached the highest figure recorded in the Dominion, reveals the fact that motor coach use of the highway is a relatively negligible proportion of the total motor vehicle use of the highway. Analysis of the tabulated returns which show the movement of motor vehicles of all types over all the main highways of the Province during the years 1929 to 1931 indicates that the mean ratio of motor coach traffic to the total over the period was 0.71%, the percentages ranging from 0.67% during summer months to 1.65% during winter months.

Attention is also directed to the fact that the coach is extremely economical in its use of highway space in comparison to the private passenger automobile. An analysis of the relative space occupied by motor coaches and private passenger motor cars moving over typical highways of the Dominion has shown that on the basis of passengers carried the motor coach is three times as efficient in its use of the highway as is the private automobile.

(b) Highway Taxes Paid by Motor Coach Compared with Highway Capital and Maintenance Cost and Proportionate Use by Coach of Highway—

Comparison of the taxes paid by coach services per mile of highway traversed with highway carrying costs reveals that the motor coach has been shouldered with an altogether disproportionate share of the cost of the right-of-way it uses.

As already indicated in Section 12, Sub-section (b), above, the average tax per mile of highway traversed by the motor coach services of companies operating in the Province of Ontario is \$100.89. It will be recalled also that the average taxes paid by this group of representative Ontario operators approximate the average for the Dominion. During 1930 total maintenance costs, including snow cleaning, on 2.737 miles of Ontario provincial highway were \$2.097,967, an expenditure of \$766.23 per mile. According

to Mr. R. M. Smith, Deputy Minister of Highways for Ontario, the construction cost of surfaced highways in that Province averages \$27,000 per mile. On the basis of depreciation charges of 3% and interest charges of 5%, it follows, therefore, that the per annum capital charges on the type of highway used by interurban motor coach services in Ontario are \$2,160 per mile. Combining the two figures, we arrive at a total per annum maintenance and carrying cost of \$2,926.23 per mile. On comparing this total with the motor coach tax per mile of highway traversed, it will be found that the motor coach services in Ontario are paving taxes equivalent to 3.44% of the total annual cost of provincial highways over which they operate. As indicated in Subsection (a) above, motor coach use of the highway is only 0.71% of the total motor vehicle use; moreover the motor coach is three times as efficient in its use of highway space as the private passenger automobile. Bearing in mind the fact that motor coach taxation in Ontario approximates the average for the Dominion, the Association submits that these figures are ample basis for the assertion that the motor coach is now paying through highway taxation an amount greatly in excess of its equitable share of the cost of building and maintaining the right-of-way which it uses.

(c) Motor Coach Operation Not a Dominant Factor in the Designing of Highways in Canada—

The Association would point out further that there is no foundation for the statement frequently made by critics of motor coach services that coach operation has increased the cost of highway construction by necessitating the building of heavier type roads than would be built were no such services operating. The fact that modern coach construction takes into account the distribution of weight, so as to give the lowest possible wheel load, and at the same time utilizes balloon tires so reduces the impact of the coach on the highway that it has very little greater effect than that of the private passenger car.

Authoritative evidence on this point was given by Hon. Thomas H. MacDonald, Chief of the United States Bureau of Public Roads, before the Interstate Commerce Commission of the United States during a hearing on co-ordination of motor transportation in March, 1931. On this occasion Mr. MacDonald said:

"A twenty-five passenger bus and a seven passenger auto, both equipped with pneumatic tires, have almost the same impact on the road.

"We have certain minimum thickness of road that is necessary to build if there were nothing heavier than the ordinary passenger cars and farm trucks to use. I think it is a fair conclusion that as far as the building of our main state roads is concerned, the relatively small amount of common-carrier usage by trucks, or even the operation of buses upon our highways made very little difference in the building of the roads. We would be building the roads just as wide and just as thick as we are, if there were no common carriers."

This opinion is concurred in by Mr. R. M. Smith, Deputy Minister of Highways for the Province of Ontario, who declared before the Engineering Institute of Canada, at Toronto, on February 5th of this year, that Ontario provincial roads are designed not on the basis of coach traffic or the weight of coaches or other common carriers, but on the basis of strength and durability standards governed by climatic and weather conditions and the physical features of the localities in which the roads are built.

(d) Coach Operation not Subsidized-

To the charge frequently made by interests antagonistic to motor coach services that the motor coach is a subsidized transportation agency, the Association would respectfully offer emphatic and unqualified denial. Unlike certain other transportation undertakings, no interurban motor coach operator in Canada has received direct governmental subsidy, either by way of cash payments, land grants, guarantee of securities, or otherwise. Moreover, the charge that interurban motor coach operation has been indirectly subsidized by construction of highways at public expense is without foundation in fact. This becomes apparent when comparison is made of aggregate annual revenue from motor vehicle taxation with aggregate expenditures on improved highway construction and maintenance throughout the Dominion, and due consideration is given to the disproportionate share of the motor vehicle taxation borne by the motor coach.

It is fair to say that our roads would have been brought to the degree of improvement of the average gravelled country road costing roughly \$3,000 a mile even if the motor vehicle had not appeared upon the scene, an adequate road system being essential not only to industry and commerce but to the railroads which are dependent on the feeder highways for the vast bulk of their business, both passenger and freight. Let us then in making the following estimate include in our costs all roads in Canada as good as or better than gravel, and allow a construction cost per mile for each type at a rate estimated by Mr. R. M. Smith, Deputy Minister of the Provincial Highways of Ontario, less \$3,000 per mile—a fair figure for what the cost would have been without the influence of the motor vehicle.

Total Maintenance and Carrying Charges on all Improved Roads in Canada in 1930

Miles		
70,942	Gravel Roads at \$5,000 per mile	\$354,710,000
	(allowing for some improvement over	
	average country road)	
4,992	Water-bound Macadam at \$20,000 per	
,	mile	99,840,000
1,445	Bituminous Macadam at \$27,000 per	, ,
,	mile	39,015,000
1,275	Bituminous Concrete at \$27,000 per	, ,
,	mile	34,425,000
1,421	Cement Concrete at \$27,000 per mile	38,367,000
17	of other construction at \$27,000 per	-,,,,,,,,
	mile	459,000
80,092	Total	\$566,816,000
00,052	Less 80,092 Miles at \$3,000 per mile	240,276,000
	1	\$326,540,000
	T	
	Interest at 5% on above	16,327,000
	Depreciation at 3% on above	9,796,200
	Total Maintenance on Main and Sec-	
	ondary Highways and Country	
	Roads in Canada, 1930	15,393,228
	Total Maintenance and Carrying	
	Charges	\$ 41,516,428
	-	

As the Revenue from motor vehicle taxation in the Dominion of Canada for 1930 was \$42,821,508, it follows that the motor vehicle is paying more than its full share of the total cost of highways.

(e) Highway User Not the Only Beneficiary of Highway Construction—

The Association would also direct attention to the fact that the highway user is not the only beneficiary of highway construction. Not only the highway user, but the provinces as a whole, the communities situated on the highway and the owners of property abutting thereon and in the vicinity, are also beneficiaries. What the proportionate division of costs among the beneficiaries should be is open to question. One conclusion arrived at after exhaustive study of the problem is that of the Royal Commission on Transport in Great Britain, which body in 1930 recommended that the assessment against the highway user might equitably be two-thirds of the total. While not subscribing to this figure, the Association agrees that there should be some division of cost based on the benefits derived.

It should not be overlooked, however, that the benefits, both social and economic, accruing to both the province at large and the communities directly served by highways are of large proportions. During the year 1930, to cite only one factor, expenditures by foreign automobile tourists in Canada were estimated at \$202,000,000. In a very real sense this amount may be characterized as dividend accrued on account of highway construction. Only a very small fraction of the total was received by the provinces in the form of taxation. The bulk of it passed directly to the general business community and particularly to those communities served by the highways. In other words, it was a benefit accruing to these communities by reason of highway construction. If, as the Association has already agreed, it is reasonable that the highway user should pay a share of highway costs proportionate to the benefit he derives from the use thereof, it is equally reasonable that other beneficiaries should pay a share which, in the light of the figure above cited, should be very considerable.

XIV.—UNHAMPERED OPERATION OF MOTOR VEHICLE SERVICES OF VITAL NECESSITY TO SOCIAL AND ECONOMIC LIFE OF THE DOMINION:

The Association desires also to emphasize the fact that efficient and economical transportation of all types is of vital importance to the social and economic life of the Dominion. Motor coach services are part of a secondary land transport system, based on the development of the motor vehicle, which during the past twenty years has not only proved its efficiency but demonstrated its enormous value to the life of the country.

Moreover, the Association submits that in the light of the facts cited in this statement, abolition or restriction of interurban motor coach services would be of little or no immediate benefit to the steam railroads. As already indicated, interurban motor coaches carry only 1.6% of the total passenger movement in the Dominion. It has been shown also that much of this interurban movement is of a type that is not and cannot be serviced by the steam roads. Apart altogether from the unwisdom of attempting to direct the flow of traffic in accordance with the self-interest of any particular transportation agency, the claim that restriction of interurban motor coach operation would result in the diversion of a major volume of passenger business to the steam railroads is obviously absurd. Equally untenable, in view of the relative extent of their passenger handling, is the argument sometimes advanced that taxation of the private passenger automobile should be reduced and that of the common carrier coach increased. Even accepting selfinterest as a proper motivation, why seek to restrict an agency carrying 1.6% of the total traffic while at the same time stimulating use of an agency carrying 70% of the total? Such action would only further embarrass the steam railroads, while at the same time penalizing that section of the highway travelling public which is dependent upon the motorized common carrier for the opportunity to use the highway in which it has a vested interest.

The Association would also point out that the force of criticism of motor coach services by the steam railroads is considerably minimized by the fact that these roads refused to take advantage of the facilities offered by the motor vehicle when pressed to do so by provincial authorities. Evidence bearing on this point is contained in a statement made by Hon. Leopold Macaulay, Minister of Highways for the Province of Ontario, before the Electric Club of Toronto on January 20th, 1932. On this occasion Mr. Macaulay said:

"Both Premier Henry and myself, as Ministers of Highways, and authorities of other provinces too, I believe, have repeatedly but unsuccessfully urged the railroads to go into auxiliary lines of traffic, and operate trucks and buses as feeders to their long run principal lines. We would have welcomed the railway companies as operators of such services in this province, but they could not see their way clear to enter the field."

Questions of steam railroad opinions and attitudes aside, however, the Association feels that the desirability of maintaining the freedom of the highway cannot be too strongly emphasized. Regulation of highway services there should be, and is; but regulation should never be allowed to take the form of discrimination based on the self-interest of any given transportation agency.

It has already been shown that in relation to the total of motor vehicle taxation, interurban motor coach services are now overtaxed. There is no reasonable justification, therefore, for further increases in motor coach taxation. Further levy on the motor coach could have no other effect than the penalizing without just cause of a highway transportation utility which has demonstrated beyond question its economic efficiency in the field it serves. Inevitably the burden of such penalty would have to be borne by the travelling public in the form of increased rates of fare or reductions in service, which are not justified by the demonstrated facts of the case.

Respectfully submitted,

CANADIAN ELECTRIC RAILWAY ASSOCIATION,

per Thomas Vien, Counsel.