COMMENTS

ON

A REPORT TO THE COUNCIL OF THE CITY OF PITTSBURGH

ON

THE CONDITION AND REQUIREMENTS

OF

MODERN MASS TRANSPORTATION IN THE PITTSBURGH DISTRICT

DATED DECEMBER 5, 1935

ΒY

JOHN BAUER, ECONOMIST, AND ALFRED E. SHAW, ENGINEER

January 27, 1936

National Transportation Library

Section 508 and Accessibility Compliance

The National Transportation Library (NTL) both links to and collects electronic documents in a variety of formats from a variety of sources. The NTL makes every effort to ensure that the documents it collects are accessible to all persons in accordance with Section 508 of the Rehabilitation Act Amendments of 1998 (29 USC 794d), however, the NTL, as a library and digital repository, collects documents it does not create, and is not responsible for the content or form of documents created by third parties. Since June 21, 2001, all electronic documents developed, procured, maintained or used by the federal government are required to comply with the requirements of Section 508.

If you encounter problems when accessing our collection, please let us know by writing to librarian@bts.qov or by contacting us at (800) 853-1351. Telephone assistance is available 9AM to 6:30PM Eastern Time, 5 days a week (except Federal holidays). We will attempt to provide the information you need or, if possible, to help you obtain the information in an alternate format. Additionally, the NTL staff can provide assistance by reading documents, facilitate access to specialists with further technical information, and when requested, submit the documents or parts of documents for further conversion.

Document Transcriptions

In an effort to preserve and provide access to older documents, the NTL has chosen to selectively transcribe printed documents into electronic format. This has been achieved by making an OCR (optical character recognition) scan of a printed copy. Transcriptions have been proofed and compared to the originals, but these are NOT exact copies of the official, final documents. Variations in fonts, line spacing, and other typographical elements will differ from the original. All transcribed documents are noted as "Not a True Copy."

The NTL Web site provides access to a graphical representation of certain documents. Thus, if you have any questions or comments regarding our transcription of a document's text, please contact the NTL at librarian@bts.qov. If you have any comment regarding the content of a document, please contact the author and/or the original publisher.

CONTENTS

<u>Pag</u>	e No
Introduction	1-3
Practicability of Buses for Mass Transportation Service	3-8
Equipment Requirements 8-	-10
Bus Operating Cost Estimates	-13
Estimated Investment Required for Proposed Bus System	-16
Recovery of Railway Passenger Traffic 16-	-19
Dr. Bauer's Recommendations on Control of Company Operating an Fiscal Policies	-20
Dr. Bauer's Estimate of Value of Existing Railway System	-22

THE BAUER REPORT

INTRODUCTION

The so-called Bauer Report on the subject "Conditions and Requirements of Modern Mass Transportation in the Pitts-burgh District," dated December 5, 1935, prepared by John Bauer, Economist, and Alfred E. Shaw, Engineer, has been reviewed by the staff of the Pittsburgh Railways Company, and the following comments have resulted.

The report was received by us just prior to the holiday season, a period in which the staff of the Railways Company was actively engaged in adjusting the transportation service to the increased traffic demands of that season, and it has not been until recently that we have been able to apply reasonably continuous effort to development of comments.

We have not attempted to comment upon every detail of the report or upon every argument advanced. We believe that any analysis of it would disclose that the authors had concluded, prior to actual study of the situation, that complete conversion of the railway service to bus operation is the solution of Pittsburgh's mass transportation needs. In May, 1935, before Dr. Bauer was employed by the City, he was quoted in the newspapers as having said,

"My studies in Pittsburgh must take all factors into account but my general predilection would be for general bus service at a five-cent fare."

The report makes reference to the improved street car developed by the Electric Railway Presidents' Conference Committee. The car is the result of a research into design which has extended over five years, and which has cost close to one million dollars. The report reads (page 43)

"The new car is already produced by at least two manufacturers and has been installed for substantial use in several instances, especially in Brooklyn, N.Y., and St. Louis, Mo."

The fact is that there is only one such car in existence, operating in Brooklyn. Even that car has been greatly improved upon in the specifications of cars on order, and, up to date but two orders have been placed for a quantity of such cars, deliveries of which are to start in the Spring of 1936. It is difficult for us to see how Dr. Bauer could have made "an open-minded and reasonable survey" of the problem with so little knowledge of pending developments in improved street cars.

If he is correct in his opinion with respect to the obsolescence of street cars and the adaptability of gasoline buses to meet the mass transportation requirements of a large metropolitan area such as Pittsburgh, his opinion is in complete conflict with that of competent transportation men in the operating and manufacturing phases of the transit industry.

The authors of the report have concluded that gasoline buses will provide an economical and generally advantageous substitute for street cars to care for the mass transportation requirements of the Pittsburgh district for the following reasons:

- (1) Street car service has become essentially unsuited to the transportation needs of the territory, and the authors prophesy that the system never be able to recover any substantial part of its earning power.
- (2) A gasoline bus system will make a recovery of passenger traffic possible and will prove more economical and advantageous.

PRACTICABILITY OF BUSES FOR MASS TRANSPORTATION SERVICE

The Bauer Report claims superiority of the bus over the street car in point of speed as the result of flexibility. No plan of conversion which on the one hand requires a minimum of 36.5 percent more mass transportation vehicles in the downtown Triangle at the peak hour and on the other hand demands less efficient use of street space can boast this advantage.

The authors claim that the greater speed of the bus is the basic point of its superiority over street cars, and attempt to substantiate this claim by stating, on page 48, paragraph 2:

"This is really the basic point of superiority in buses over street cars. It applies not only to open roadway but particularly to business sections and the Triangle. The present painfully slow movement through the Triangle in rush hours would disappear. Apart from avoidance of congestion, however, the present cars equipped with high-speed motors probably operate as fast on open roadway as would be practically attainable by buses. For ordinary operation with block to block stops, the chief advantage of speed would be the avoidance of congestion."

and again in on page 48, paragraph 3:

"The chief speed superiority of buses over street cars is in the flexible adjustment of routing according to the source and flow of traffic."

and on page 47, paragraph 5:

"Flexibility and rerouting would be available for buses in the business sections and particularly in the Triangle."

pointing out, however, that municipal cooperation to facilitate bus operation in every practical way is essential, and recommending on page 105, paragraph 2:

"Parking should be prohibited entirely in the business sections through which bus routes are operated during rush hours."

After weighing the above statements, it appears that the authors would expect the maximum speed advantage to accrue from the alleged flexibility of bus operation in the congested downtown Triangle.

The authors claim that considerable improvement is possible because the bus is not confined to a fixed course. It is recognized by the Company that the design of the bus does not confine it to a fixed course. However, before this feature can be fully utilized, it would be necessary to actually accomplish the elimination of parking and to provide street capacity far in excess of the existing in the downtown Triangle or in the throats tributary thereto, now occupied by street car facilities.

There can be no argument against the elimination of parking. However, it is throughly unsound, as well as unfair, to assume bus operation without parking and compare it to

street car operation with parking. Furthermore, it is common knowledge that continuous effort toward the elimination of parking has met with little if any success.

In discussing flexibility, the report states on page 46, last paragraph:

"When one bus stops, the others on the same street can go around."

In the first place, suggestion of such a practice assumes all vehicles on the same to be on a common route, whereas as a matter of fact, many routes must use one street. Under such conditions each bus must either make or be in position to make all stops; and, therefore, must run in an orderly fashion in a single traffic lane. Even though this restriction did not exist, it is not possible to visualize 42-passenger buses, 96 inches in width, passing similar buses in the same direction, during the periods of peak traffic, on such streets as Fifth Avenue, Sixth Avenue, Sixth Street, Seventh Street, Ninth Street, or any one of many streets in downtown Pittsburgh and the streets contributory thereto having one effective traffic lane in each direction.

Conclusions drawn from observations in Pittsburgh and corroborated by qualified traffic authorities point out that such passing of vehicles, commonly called "weaving" or "snaking" destroys street capacity and is in addition productive of accidents.

The authors suggest that desirable short-looping and through-routing are available with buses and have not been accomplished with street cars owing to -

"technical difficulties of adjustment, because of fixed tracks."

As a matter of fact, many plans have been developed dealing with both of these possibilities, some of which have been adopted, resulting in intense public disapproval. Through-routing is generally impractical and uneconomical because of the dissimilar traffic characteristics of the routes which might be combined. Bus conversion would in no way alter these conditions

The Bauer Report advances a theory called "Practical Rapid Transit" which it claims is applicable to Pittsburgh with the flexibility of gasoline buses, but does not discuss it beyond generalities. Any type of service which requires the division of traffic between local and express could only result in less convenient service from the standpoint of frequency to each group of passengers. In addition there would be the highly unpopular necessity of transferring considerable numbers of passengers who now have through service between local and express routes not to speak of increased costs as the result of uneven loading and probably very limited overall time saving to any patron.

Schedules written on the basis of actual checks of present traffic, and designed to provide not only the required capacity but also to provide it at the minute it is needed

demonstrate the necessity of introducing into the downtown Pittsburgh district a minimum of 647 buses during the peak hour (5:00 to 6:00 P.M.) to replace 474 street cars, a minimum increase of 36.5 percent in the number of vehicles. This would increase traffic congestion as certainly as the elimination of taxicabs obviously decreased it when labor difficulties suspended taxicab operation a few years ago.

It is difficult to understand how a plan which is represented to be the solution for the mass transportation problem can result in improved operation when, on one hand, it requires at least 36.5 percent more mass transportation vehicles in the congested business district during the peak hour (with possibilities of even a greater addition) and on the other hand, demands less efficient use of street space. The estimated increased number of vehicles required is a minimum because it is based on the unwarranted assumption that buses will perform as efficiently, seat for seat, as street cars. Such an unwarranted assumption was necessary because there is no experience in this country available to support an accurate forecast of the probable operating results.

The authors of the Bauer Report are themselves uncertain of the ultimate results which might ensue from a complete conversion of the present system to bus operation. The report states on page 12:

"**** we firmly believe that the entire street railway system is essentially obsolete from the standpoint of transportation function **** and an orderly program of conversion to buses should be adopted." On page 61, however, of their report, the authors qualify their statement as follows:

"While we are convinced that conversion is immediately practicable **** nevertheless we recommend experimental conversion. We realize, of course, that complete immediate shift (to buses) might lead to serious mistakes and conceive also that we might be wrong in our concention of bus advantages."

We desire it to be understood that the management of the Company regards the solution of the transportation problem to be dependent upon a coordination and proper application of street cars, trolley buses and gasoline buses. Nothing in this statement is to be construed as indicating that the management has, up to now, or proposes in the future, to confine the service to the use of street cars.

EQUIPMENT REQUIREMENTS

The Bauer Report assuming complete conversion to bus operation, states the maximum bus requirements to be as follows:

page 6: "Conversion of all existing routes would require about 850 buses for present peak traffic."

and again on page 51:

"****for a total fleet of 850 buses which would be ample to meet present transportation needs ****."

These statements are ambiguous. In one place the figure is indicated as being an approximation, whereas in the second instance the authors express no doubt of the adequancy of 850 buses to provide the required service.

Based upon the unwarranted assumption the buses can load and unload otherwise perform heavy mass transportation

service as efficiently as street cars, the required minimum number of buses as determined by detailed scheduling is 1,124. The assumption is unwarranted because gasoline buses, operating under Pittsburgh conditions, cannot perform heavy mass transportation service as efficiently as street cars. Consequently the number of buses which would actually be required would be greater than 1,124. How much greater can be nothing but conjecture since no comparable operating experience is available.

The report contains no explanation as to how the estimate of 850 buses was obtained. The authors may feel that they have indicated its derivation by the stated assumption that in the peak hours 25 percent more buses than street cars would be required due to the lower passenger capacity of the buses. Such an assumption is erroneous. It is based upon the assumption that passenger traffic over the full peak hour period presents itself for transportation in a uniform manner, whereas there is a condition of rapid increase in travel to an acute period of limited duration when the demand for service is heavy and is succeeded by a period gradual decline.

If we are correct in assuming that the authors used a 25 percent increase, it is indicated that they estimated 680 street cars were operated to furnish the peak hour service at the time the estimate was prepared. It happens that 680 street cars is the average of the peak hour requirements of traffic checks taken in April and in November 1934, which data was

available to the authors. Obviously, an average period cannot represent maximum requirements. Maximum demand upon street railways occurs in December prior to and immediately following the Christmas holiday, and sufficient equipment must be provided. If the estimate was predicated upon the peak requirements as of the period indicated, it is still deficient and omits provision for spare equipments to provide for breakdowns and for mechanical inspections which must be regularly scheduled to insure safe operation. Determination of the number of buses required is a problem identical with the determination of the number of street cars scheduled, and in any estimate consideration must be given to the time of as well as to the maximum amount of passenger travel which occurs.

BUS OPERATING COST ESTIMATES

The report estimates that 29 cents per vehicle mile would be required for bus operating expenses and 3 cents per vehicle mile for return on investment, a total of 32 cents. The sole support of this estimate is a tabulation of operating costs of other bus companies.

The authors state that they adjusted the operating costs of other companies to account for particular operating conditions in Pittsburgh. They make no attempt to show the character or extent of such adjustments.

The companies upon whose operating results the authors based their conclusions do not provide comparisons in any respect to an operation such as is proposed for Pittsburgh:

Ten of the companies are long-distance operators, conducting service over open country highways. Obviously their costs could have no weight when compared with costs of operations conducted in congested business and residential districts where the speed of operation is materially lower. Six of the companies whose cost experience the authors used operate in New York City. None of these operations is comparable to Pittsburgh, for the reason that they are not performing a mass transportation service in its entirety but are furnishing an auxiliary service. They supplement a mass transportation service provided by the subway, elevated, and surface car service, upon which the bulk of the population is carried and which are required to handle the allimportant peak-hour demands for service. Two of the companies operate what is substantially a feeder service, confined in general to outlying districts, and in no sense have they developed a cost experience which could be related to a city-wide service, such as would te required in Pittsburgh. Thirteen of the companies upon whose cost experience the authors relied operate a maximum of 99 buses and a minimum of 27 buses of various sizes and in communities materially smaller then Pittsburgh, and provide no indiction of the results that might be obtained in an all-bus service operated in a large metropolitan area. companies represent a combination of urban, interurban

interstate service. In one of these companies the authors have made an arbitrary allocation of costs between street cars and buses.

In the comparisons the authors have given no evidence of consideration of the size of equipment operated, prevailing wage rates, material prices, and other items which influence cost. A superficial breakdown of costs furnished in the report discloses definite deficiencies and omissions.

To permit a check of the estimate of operating cost, the Bauer Report should have furnished a detail indicating whether or not the authors took into account elements of expense such as cleaning of coaches, the lighting, heating and ventilation of garages, superintendence, emergency equipment and other similar items.

In the preparation of a counter-estimate, we have made provision for the elements of cost which would have to be borne by a complete bus system in Pittsburgh. Our estimate represents the minimum costs which might result and assumes favorable operating conditions probably not attainable in actual practice. To estimate on any other condition would require actual experience, or knowledge of the experience of another operation of similar magnitude and type - none of which, of course, is available.

We estimate the minimum costs to be 36.33 cents per bus mile for operation and 4.75 cent per bus mile for return on investment, or a total of 41.08 cents per bus mile.

To determine the annual bus mileage which would be necessary under favorable operating conditions, an unwarranted assumption, we have prepared schedules applying the bus to the passenger traffic requirements at various times of the year for 1935 level of business, and found that 34 millions of bus miles would be necessary; and this, of course, is a minimum. The operating cost of this mileage, excluding return on investment, is \$12,352,200 or \$1,612,000 greater than the 1935 street car operating costs, and in excess of the actual revenues. Obviously, an operation producing such a result could have no financial credit.

ESTIMATED INVESTMENT REQUIRED FOR PROPOSED BUS SYSTEM

The report offers varying estimates of valuation of the converted system, all of which are deficient. A number of deficiencies are apparent which may account for the inconsistencies.

The report estimates that valuations which would result from a complete conversion to bus operation would be as follows:

(page 6): "Conversion of all existing routes would require about 850 buses for present peak traffic, or approximately \$13,000,000 for buses and other facilities. With increase in traffic, the ultimate investment would come to a maximum of \$20,000,000."

(Page 51): "The total investment of \$3,000,000 for all other plant and facilities besides buses, would probably be sufficient to meet basic transportation needs. The aggregate investment would come well within \$14,000,000 to provide sufficiently for the present traffic. **** The total investment with the expansion in traffic would probably never exceed \$20,000,000."

(page 98): "As a rough estimate, the aggregate new investment for bus operation would probably come within \$15,000,000 and \$20,000,000."

The authors propose that as present street railway facilities are diminished, car houses and shops be converted to bus use. The total conversion cost is estimated at \$3,000,000. By adding this amount to the cost of buses, the number of which has already been proven inadequate, a total valuation of \$13,000,000 is derived. The report states that this amount would be adequate to meet present basic transportation needs. This assumption presupposes that railway property which would be transferred and would become used and useful in bus operations would be appropriated without allowing return on the valuation of the property involved. Such would be contrary to fundamental valuation procedure.

Adequate consideration has not been given to the following items:

- Provision for materials and supplies and for adequate working capital.
- 2. Provision for emergency or towing trucks, snow-fighting equipment, telephone equipment, furniture, and kindred items.
- 3. The land value of property upon which garage facilities would be located.
- 4. The value of existing car houses, shops, administration buildings, and equipment, which would be adaptable to a bus system.

- 5. The Mt. Washington Tunnel adapted to use of buses has a value of over \$3,000,000 in itself.
- 6. The value of 34 bridges and viaducts, the maintenance and renewal responsibility of which is a present obligation of the Railways Company, and which, if not borne by the Railways Company, would revert to a public body.
- 7. The authors conceded that certain rights-of-way over which the street car lines are operated, such as the Dormont line and the West View-Bellevue line, would have to be paved because they provide the most direct and convenient access to the territory served. They blandly assume that the City of Pittsburgh, or boroughs, as the case might be, will pave the rights-of-way for bus and public travel. Lacking a definite commitment on the part of those who would relieve the Company of this obligation, as well as lacking provision for appropriation without compensation to the Company for right-of-way to the value roughly of \$1,500,000, it would seem to be unsound to omit these items of value which the bus operation might be required to assume.

The authors state that \$20,000,000 valuation would be the ultimate investment. On page 5 it is predicted that complete conversion to buses -

"within five years **** should easily result in doubling present traffic volume."

Double the present volume would be equal approximately to 1928 traffic. We estimate that a minimum of 1830 buses would be

required to handle this traffic, at a cost of \$22,000,000 without provision for garages and other facilities inadequately provided for by the authors. Detailed schedules were not drawn
to arrive at this estimate. It was derived by proportion, based
upon maximum 1935 traffic volume. The number of buses (1830)
is a minimum, and is based upon the unwarranted and unjustified
assumption that buses can perform as efficiently, seat for seat,
as street cars in the rendition of mass transportation service.
It is evident that this assumption becomes increasingly unsound
as the number of buses increases, because the increase in number
of buses in actual operation would produce a condition of congestion which would in turn require additional buses, so that the
over-all efficiency of operation would be constantly decreasing.

RECOVERY OF RAILWAY PASSENGER TRAFFIC

In the report the authors prophesy that the level of earnings from street railway operations would never rise substantially above \$11,500,000. They base their prediction on an alleged failure of railway patronage to follow the index of general business activity. The report is dated December 5, 1935, but the authors underestimated 1935 revenues by \$400,000.

We believe it to be a readily appreciated fact that railway passenger traffic depends upon and responds to the volume of employment and payrolls. The number of people requiring transportation is dependent upon regular employment over a fairly long period of time. We need quote no statistics to show that despite reports of an improvement in general business activity, there prevails a large amount of unemployment and a large number of workers engaged in part-time work. In the December 15th, 1935 issue of The Cleveland Trust Company BUSINESS BULLETIN there appears a statement of Mr. Leonard Ayres, Vice President of the company:

"We have in this country the anomaly of prevailing business cheer when about one-fifth of our workers are still unemployed ****."

And it can be added that those who are employed on relief projects are not able to maintain an average standard of living level. The source used by the authors to secure the index of general business activity also contains the index of employment and payrolls, but they did not avail themselves of this measure. A comparison of the trend of railway passengers with that of employment, payrolls, department store sales, and other indices relating to industrial production will show that railway traffic has substantially followed their trends.

Past experience in the street railway industry has indicated that passenger traffic declines less rapidly then employment and payrolls in the period of depression and is delayed in its recovery. The former is due to delay in adjustment of living standards and the latter is due to financial inability to promptly resume previous living standards and the habits incident thereto.

Railway passenger traffic responded to improvements in employment and payrolls in the latter months of 1935. In December 1935 the railway facilities carried over 1,000,000 more passengers than they did in December, 1934. The increase is approximately 7.5 percent. Traffic figures for a transportation system in New Jersey (one of the companies cited in the Bauer Report) 81 percent of whose operations are carried on by buses, showed an increase of approximately 3.5 percent in this period. This would seem to cast some doubt on the essential obsolescence in the utility of street railways.

The statement is made in the report that traffic volume in September and October 1935 was generally the same as that in July and August 1935, whereas the trend commencing in August was continually upward, with October producing the highest revenues for any October since 1931. The report carries an estimate for gross revenues for 1935 of \$11,500,000, whereas the actual was \$400,000 greater, an increase of 6,000,000 passengers. The authors stated the net earnings for 1935 would be \$900,000 whereas they will probably be \$1,110,000, although final figures are not available. Recent trends of revenue indicate an annual gross revenue of \$12,700,000 or an increase over the estimate of 18,000,000 passengers.

In discussing past and future trends of Pittsburgh
Railways Company passenger traffic, the report makes no mention
of the experience of other transportation companies, which have
experienced substantially the same trends as that of the Pittsburgh

Railways Company's traffic regardless of the fact that they have had sizeable bus operations for a number of years.

DR. BAUER'S RECOMMENDATIONS ON CONTROL OF COMPANY OPERATING AND FISCAL POLICIES

With respect to the extent of control which Dr. Bauer contends the City should properly have over the financial and operating affairs of the Company, the report has this to say on page 7:

"24. The powers of the City should be enlarged so that it can determine not only the order and rate of conversion, but also exercise effective control over all matters affecting public interest. While it should not assume the work of management, it should have determining control over all matters which affect investment, improvements of service, costs, rates, and general public convenience."

Although there are numerous references in the report to the varius matters over which the City shall have the determining control, the foregoing probably represents in brief what Dr. Bauer had in mind. Although he does not so directly state, he has subsequently indicated that if the municipality were given the extent of control he recommends, it would in no sense become a partner in the transportation enterprise to the extent of becoming liable for the financial consequences of such policies.

If the City were given control of the financial and operating policies of the Company to the extent Dr. Bauer proposes it would result in the Company furnishing the capital and operating expenses to carry out financial and operating policies laid down by a group which would have no financial responsibility

for their acts. Clearly, the proposal is unsound, inequitable, and impractical.

DR. BAUER'S ESTIMATE OF VALUE OF EXISTING RAILWAY SYSTEM

Dr. Bauer's opinion is that street railways are essentially obsolete, and he proposes that the Company accept a valuation of \$20,000,000 on the existing property. To support his estimate he has advanced a new and unique method of determination of utility valuation.

The method employed by him is to capitalize the "firm net earning power" of the street railway system, and he has, in effect, prophesied what the "firm net earning power" will be.

"Net earnings" as a basis of valuation of public utility companies has no standing before regulatory commissions or Courts constituted to pass on and review such matters.

There is only one method by which the property of utility companies can be valued. This method of valuation, as laid down in decisions of the United States Supreme Court, contemplates, among other things, a complete inventory and appraisal of the Company's physical plant and facilities. In Pennsylvania, it is the responsibility of the Public Service Commission, operating under the terms of an Act of Legislature known as the Public Service Company Law, to find and determine the fair value of the property of utility companies operating in the state. Dr. Bauer's appraisal is admittedly not determined by recognized valuation methods, and he has stated that if the valuation were determined

by recognized valuation methods, a figure conforming substantially to the present agreed valuation would result. (page 80)

Dr. Bauer has proposed impracticable methods of valuation in other instances.

In 1931, he appeared before the Public Service Commission of New York as a witness for the Washington Heights Tax Payers

Association, in a complaint against the New York Edison Company, contending for a rate reduction. In this case he developed a method of valuation upon which the Commission commented as follows:

"It is obvious that such testimony can furnish no adequate basis upon which to make a finding as to value or reasonableness of rates. Dr. Bauer's figures have no proper foundation ****."

Again in this same case, when the exhibits supporting his appraisal of valuation of the company's property were offered in evidence, the Commission as a whole decided,

"**** they should not be received as they did not furnish a basis upon which a finding of value or the reasonableness of rates may be made and as no adequate foundation has been laid."

In 1931, he apeared as witness for the City of Atlanta in a case before the Public Service Commission of Georgia, involving the Atlanta Gas Light Company. In this case the Commission found that, in their opinion,

"**** Dr. Bauer is not qualified to testify as an expert as to valuations of utility properties and utility rates."

The Company is asked to bind itself by a firm contract to the effect that \$20,000,000 represents the fair value of its

"essentially obsolete" property, merely on the stated and unsupported opinion of Messrs. Bauer and Shaw that that amount is the maximum value the property will support, and that gasoline buses will prove to be a completely successful substitute for street cars; and yet they admit that their opinion may be disproved by actual experience.

From the foregoing it is evident that neither the Company not the City can, by agreement, establish the value of the physical plant and facilities in the Railways system.

The Bauer Report proposes that the valuation of \$20,000,000 be amortized over a period of years, and that provision should be made for this amortization during the period of such agreement as the Company and the City may enter into. The amount of annual amortization provided for is suggested at \$1,500,000 per year. The Company cannot agree that \$20,000,000 represents the fair value of its property, but even if it could accept that valuation it would be impossible to set aside \$1,500,000 of earnings each year for amortization of the value, and maintain the existing railways system in safe and efficient operating condition. This would be true even if the extent of the Railways system and its ability to set aside such earnings were not being constantly decreased by conversion to bus operation such as Dr. Bauer proposes.