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State of New Jersey

Board of Public Utility Commissioners
1937

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STATE OF NEW JERSEY

TWENTY-EIGHTH ANNUAL REPORT

OF THE

Board of Public Utility Commissioners

TO

HON. A. HARRY MOORE

Governor

FOR THE YEAR 1937

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Trenton, New Jersey, December 31, 1937

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BOARD OF
PUBLIC UTILITY COMMISSIONERS

HARRY BACHARACH, President

THOMAS L. HANSON,
Commissioner

FRANK J. REARDON,
Commissioner

FRANK H. SOMMER, Chief Counsel

JOHN A. BERNHARD, Assistant Counsel

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LETTER OF TRANSMITTAL

To His Excellency, A. Harry Moore, Governor of the State of New Jersey.

SIR:

In accordance with the provisions of Chapter 195 of the Laws of 1911, there is transmitted herewith a report of the work of the Board of Public Utility Commissioners during the year ended December 31, 1937.

The problems encountered in utility regulation are increasingly intricate. It remains true, nevertheless, that the interest of the people in effective regulation is so important that a complete understanding of the work of the Board is desirable. We have attempted, therefore, to make this report fully informative as to work accomplished and as to recent developments in regulation in New Jersey.

During the past year, the Board's staff has been strengthened through the addition of two new positions, the filling of two vacancies in key positions, and the addition of four engineers. These changes were the necessary first step in realization of the desire to make the regulatory processes in New Jersey more effective.

The Board has continued its policy of frequent review of the reasonableness of the rates charged for utility service. In this connection, the Board is developing its methods of statistical analysis of utility financial and operating results.¹ It is found that the pursuit of research studies is continually more important to a proper administration of the regulatory statutes.

Annual savings to consumers of electric, gas, telephone and water service in New Jersey amount to about \$2,630,000 as a result of rate reductions made during 1937.² These reductions were somewhat in excess of the average reductions experienced yearly over the past ten years, which period includes both depression and prosperous years. Continuation of rate reductions during 1938 will depend in part upon the trend of general business conditions.

New systems of accounts have been adopted for electric, gas and telephone utilities.³ The systems previously in use had become inadequate for effective regulation. The Board, however, is faced with the necessity of checking the determinations or estimates made by utility companies in compliance with the "original cost" provisions of these new systems of accounts. It will not be able to do so with the staff now available for this work. The Board is giving consideration to the adoption of revised annual report forms for the use of utilities under its jurisdiction.⁴ When this program is completed, the Board will have

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1. See page 9.
 2. See page 4.
 3. See page 35.
 4. See page 40.

more readily available the information required for frequent scrutiny and analysis of financial and operating results.

The Board also has required that utility companies subject to the new systems of accounts prepare studies with respect to specific rates of depreciation for the several classes of depreciable property.⁵ In order to determine the reasonableness of charges to operating expense on account of depreciation the Board will desire to study the propriety of proposed depreciation policies and practices. Studies of this character will also increase the burden of work on the Board's staff.

We desire to call your particular attention to the discussion in this report of the forms of cooperation with Federal agencies which have been given regulatory powers over utilities operating in New Jersey.⁶ Where joint jurisdiction exists, cooperation is essential because of the cost to both taxpayer and consumer and the possibility of conflict as a result of duplication of regulatory activity.

Respectfully submitted,

(Signed) HARRY BACHARACH,
President

(Signed) THOMAS L. HANSON,
Commissioner

(Signed) FRANK J. REARDON,
Commissioner

5. See page 40.

6. See page 75.

**TWENTY-EIGHTH ANNUAL REPORT
OF THE
BOARD OF PUBLIC UTILITY COMMISSIONERS
TO
HON. A. HARRY MOORE, Governor
FOR THE YEAR 1937**

I. DUTIES OF THE BOARD

Among the duties with which the Board of Public Utility Commissioners is charged are those of determining the reasonableness of prices for services supplied by public utilities operating in New Jersey and of requiring that these services conform to the highest feasible standards of adequacy and quality.

The jurisdiction of the Board extends to about nine hundred public utilities. In number, a very large proportion of these utility enterprises are motor bus carriers. The investment in utilities subject to the Board's jurisdiction, however, is largely in the plant and facilities of electric, gas and telephone utilities. During 1936, ten private electric utilities, fourteen gas and ten telephone utilities were supplying service in New Jersey.¹ These figures include three instances of combination gas and electric companies. Water utilities subject to the jurisdiction of the Board include forty privately owned and 164 municipal water utilities. The Board's authority also extends to steam and street railways and to other utility undertakings, such as sewerage companies and radio broadcasting stations.

The utility enterprises operating in New Jersey, exclusive of steam railways, have a total fixed capital investment somewhat in excess of one billion dollars.² The annual operating revenue of these utilities is now over two hundred and twenty-five million dollars. This represents a growth since 1922 of over one hundred percent in fixed capital investment and seventy-four percent in operating revenue. The largest investment, which amounts to thirty-eight percent of the total, is in plant and property devoted to supplying electric service. The book figures also show that thirteen percent of the total is invested in gas and nineteen percent in telephone fixed capital. Two companies combined, Public Service Electric and Gas Company and New Jersey Bell Telephone Company, account for fifty-four percent of the total utility fixed capital in New Jersey.

The Board is empowered to establish such systems of accounts as are necessary to afford an adequate understanding of the conduct of the

1. See Table 1, Appendix 1

2. See Table 2, Appendix 1

business of the public utilities. It has authority to inspect property and records and at its discretion to require the submission of information with respect to matters under its jurisdiction. An annual report of financial and operating results is required to be filed in such form as the Board may from time to time direct.

No public utility may issue any stock, bonds, or other securities, nor is any merger or consolidation valid, without the approval of the Board. Likewise, transactions involving the sale, lease, or encumbrance of property are within the Board's jurisdiction. In order to secure adequate review of the prudence of operating expense, the Board has been given authority to determine whether management, advisory or engineering contracts are in the public interest. Similarly, the Board has jurisdiction to determine reasonable charges to operating expenses to provide for depreciation of property and plant. In rate regulation the Board may value the property devoted to the public service and fix the reasonable and adequate return for the utility whose rates are under review. It exercises numerous other powers deemed by the legislature necessary to protect the public interest.

These and other regulatory powers have been delegated to the Board because of the conviction that undertakings affected with a public interest must be subjected to continuous regulation by an administrative agency of the State.

This report is to a considerable extent a review of the general process and results of regulation in this State, as well as a report on the specific work accomplished during the past year.

The trend of prices charged for utility service is a measure, however inadequate, of the effectiveness of utility regulation in New Jersey. Chapter 2 indicates the recent trend of rates and prices and discusses briefly several current ideas with respect to procedure in rate regulation.

II. REGULATION OF PRICES CHARGED FOR SERVICE

PRICE REDUCTIONS

During 1937 a total of sixty-seven new and revised rate schedules were filed, largely in consequence of negotiation and other activities of the Board, by electric, gas, telephone, telegraph and water companies operating in New Jersey. In no instance was an increase in rates charged for service effected by these revised rate schedules. Fourteen schedules providing for downward adjustments of rates were filed by electric utilities. The largest number of new schedules, twenty-nine, were filed by telephone utilities. Revised rate schedules were filed for the purpose of establishing a new and improved method of calculating toll charges. No changes in rates of charge were effected by these filings. In addition, the telephone utilities filed new schedules for the purpose of extending local exchange base rate areas. The hand set charge was largely eliminated during the year. Some minor reductions were received by gas and water consumers.

On the basis of the volume of business existing during the twelve months preceding the filing of revised rate schedules, the estimated annual savings to consumers are as follows:

Electric consumers	\$2,129,032
Telephone subscribers	472,864
Gas consumers	24,677
Water consumers	4,500
Total	<u>\$2,631,071</u>

Because Public Service Electric and Gas Company and New Jersey Bell Telephone Co. is each by far the largest utility of its type in the state, they are shown separately at several points in this report. Effective in 1937, reductions in electric rates of Public Service Electric and Gas Company were negotiated which resulted in annual savings amounting to \$1,503,400. This does not include the recent reduction, amounting to \$1,250,000, which was effective January 1, 1938. New Jersey Bell Telephone Company made reductions during the year which resulted in annual savings to users of its facilities estimated at \$456,000.

The reductions secured during a given year are not an adequate indication of the trend of the price of service in a given service area or in the entire state; neither are they an adequate measure of the savings which have accrued to the consumers.

Table 1 shows for each type of utility the total annual savings due to rate reductions taking place from 1928 to 1937, inclusive. That is, on the basis of the volume of sales existing during the year prior to each instance of rate reduction, utility consumers are now paying twenty million dollars less annually than they would pay if no rate reductions had taken place since January 1, 1928.

TABLE 1.
AMOUNTS BY WHICH THE ANNUAL COST OF ELECTRIC, GAS, TELEPHONE AND WATER SERVICE WAS LESS ON DECEMBER 31, 1937, THAN WOULD HAVE BEEN THE CASE IF THE RATE SCHEDULES IN EFFECT ON JANUARY 1, 1928, HAD REMAINED UNCHANGED.*

Type of Utility	Amounts of Reductions
Electric:	
Public Service Electric & Gas Co.	\$11,713,000
Other electric utilities	3,988,000
Total electric service	\$15,701,000
Gas:	
Public Service Electric & Gas Co.	\$ 1,716,000
Other gas utilities	732,000
Total gas service	\$ 2,448,000
Telephone:	
New Jersey Bell Telephone Company	\$ 1,807,000
Other telephone utilities	19,000
Total telephone service	\$ 1,826,000
Water utilities	98,000
Total	\$20,073,000

*The annual savings resulting from rate reductions taking place at intervals throughout the period were in each instance calculated on the basis of the volume of sales during the year preceding the rate reduction.

Of course, the savings resulting from lower rate schedules are actually considerably in excess of the indicated amounts because of the larger volume of sales in 1937 than ten years previously. More than three-quarters of the total amounts of reductions have been in rates for electric service. Other utility rates are declining less rapidly, principally for the reason that the markets for the other utility services are not expanding so steadily.

The accumulated savings realized over the entire period from these same rate reductions have been nearly \$90,000,000. These accumulated savings will continue to increase at the rate of \$20,000,000 annually, plus the effect of additional rate reductions taking place from year to year.

These benefits are to be credited to a large extent to the existence of a State policy of regulation and to the enforcement of that policy.

TABLE 2.
CUMULATED SAVINGS REALIZED BY CONSUMERS OF ELECTRIC, GAS, TELEPHONE AND WATER SERVICE OVER THE PERIOD FROM JANUARY 1, 1928, TO DECEMBER 31, 1937, AS A RESULT OF RATE REDUCTIONS TAKING PLACE DURING THAT PERIOD.*

Type of Utility	Cumulated Savings
Electric:	
Public Service Electric & Gas Co.	\$51,985,000
Other electric utilities	18,430,000
Total electric service	\$70,415,000

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Gas:		
Public Service Electric & Gas Co.	\$ 7,968,000	
Other gas utilities	3,383,000	
Total gas service	\$11,351,000	
Telephone:		
New Jersey Bell Telephone Co.	\$ 7,434,000	
Other telephone utilities	24,000	
Total telephone service	\$ 7,458,000	
Water utilities	235,000	
Total	\$89,459,000	

* The annual savings resulting from rate reductions taking place at intervals throughout the period were in each instance calculated on the basis of the volume of sales during the year preceding and cumulated over the years following the rate reduction.

A proper rate level is one which is not in excess of the value of service and which provides operating revenue sufficient to cover operating expenses prudently incurred plus a return equivalent to the lowest possible cost of the necessary capital. Of course, if the rate levels were reasonable in 1928 and again at the end of 1937, the price reductions which have taken place were made available because of technological and business economies experienced. Such economies are realized as a result of advances in the arts, expansion of the markets served and the growing size of the utility enterprises. The function of the Board is to insure that the savings which become available accrue to the consumers, and not to investors except as may be necessary to meet long run investment requirements on the terms most favorable to the consumers.

This review of savings which have been passed on to consumers during the past ten years cannot omit reference to the rising prices of other goods and services during the same periods. To the extent that utility operating expenses increase, reductions in the price of service are made difficult to secure. The rapid increase in taxes imposed on utility companies is particularly important in this respect. During a period of reviving business and expanding markets, the economies which become available yield a margin over advancing costs. If the volume of sales declines as a result of the appearance of a business recession, costs commonly continue to rise for a time and then decrease less rapidly than revenues. In view of the current recession, which began early in the fall of 1937 and the extent of which is uncertain, the prospects for continuing rate reductions during 1938 are not very bright.

FREQUENT REVIEW OF REASONABLENESS

The policy of the Board is to review frequently, at least annually, the reasonableness of rates charged for service by all the larger utilities operating in the state. In such a regulatory policy conference and nego-

tiation must play an important part. It cannot depend for effective results solely upon formal proceedings.

Experience in this state and elsewhere has shown that formal proceedings, involving expert testimony as to original cost, cost of reproduction and rate of return, are commonly expensive and time consuming. The expert testimony as to value and as to fair rate of return is commonly so widely divergent that reaching a fair final result on the available evidence is made extremely difficult. It has been, and is, the Board's desire to develop and follow a procedure which will avoid as far as possible the spectacle of expensive rate cases dragging out over many years before the Board and the courts.

For the purpose of its frequent review of reasonableness of prices charged for service by New Jersey utilities, the Board is now developing its methods of analysis of their financial and operating data. As the result of more adequate appropriations, statistical information will in the future be more satisfactory and better organized for effective utility regulation than at any time in the past. Observation and comprehension and detailed analysis of financial and operating data and trends will become increasingly important as the basis of the Board's informed judgment.

It is hoped by the Board that the information which will be afforded as a result of the classifications and principles of the new systems of accounts³ will be of great benefit in furthering prompt and economical regulation of rates. Effective administration of the new systems of accounts will tend to make information as to "original cost" or "prudent investment" more readily available for the future. With respect to *past* investments, it will be necessary to check the determinations or estimates made by the utility companies in compliance with the requirements of the new systems of accounts. The temporary effect will be to increase rather than decrease the amount of work required of the Board's staff, and it will be difficult to carry this work forward as rapidly as is desirable with a staff that is already overloaded.

"Original cost" figures are necessary as one of several evidences of value for rate making. If such cost figures are not readily ascertainable from the face of the accounts, they must be dug out by laborious and costly audits and property appraisals. The change in accounting requirements, which it is hoped will make historical cost more readily available does not decrease the importance of other evidences of value.

The delays and costs of formal rate cases have led to criticism of the present judicial rule of fair return on fair value and a demand for judicial approval of the exclusive use of "prudent investment" as a more stable rate base. To the present date, however, the Supreme Court has continued to avoid any specific formula for the fixing of utility rates. Historical cost and cost of reproduction have never been more than

3. See page 35.

pertinent evidence to be given the consideration appropriate in each particular situation. Whatever the available or pertinent evidence, the objective under the Court's rulings has been determination of the present fair value of property devoted to the public service. The end sought, however, is not fair value of property, as such, but the return which will result in the lowest long run cost of capital. Since the utility must secure funds for extensions and improvements in an intensely competitive capital market, information as to current prices is at least equally pertinent with historical prices.

Flexibility and ease of adjustment to changes in related costs and prices is highly desirable. Introduction of rigidity into the utility rate structure is opposed to economic principles and contrary to the long run public interest. *If changing values are not to be recognized in establishing the rate base they must be recognized in fixing the rate of return.*

The Board expects that the new systems of accounts will assist in the efforts to make records of amounts prudently invested continuously available. It hopes that the courts will explicitly and definitely sanction the reasonable use of specific price indices built up so as to be relevant for the determination of value. The present practice of the Board is to apply such specific price indices for the purpose of the periodic review of the reasonableness of rates.

It is frequently charged that state regulation has been ineffective. As a general proposition the charge is entirely fallacious. If the results of some formal rate cases frequently have been unsatisfactory, it may be due to ineffective procedure involving almost unlimited controversy and conflict and not to recognition of the several kinds of evidence as to values. There may be situations where no other procedure is possible. Utility companies, however, are beginning to understand that "profits" have no place in the utility business. The term "profits" is here used to mean earnings above the long time cost of capital, including in such cost the margins necessary to protect the credit position of the company. An aim of regulation is to determine that "return" which is a necessary part of the overall cost of supplying service. A combination of an understanding of the pertinent principles, an objective approach, and adequate basic data will do much to increase the effectiveness of regulation.

Since the objective sought is determination of the needed return, measurement of the rate of return is equally important with evidence as to value. The factors which underlie any reasoned determination of a rate of return in a specific circumstance have never been broadly determined. The evidence in formal rate cases is usually limited to the conflicting opinions of expert witnesses as to the rate of return necessary to make possible the financing of a hypothetical company of similar characteristics. The lack of a background of data with respect to the factors influencing reasonableness of return is also felt in the conduct

of informal negotiations with respect to rates.

The Board hopes that in the near future research will develop and make available to state regulatory commissions a backlog of factual information which will assist in the exercise of informed judgment. The Board is now cooperating with the Federal Communications Commission in a study of the cost of utility capital. It is desirable that the Board be able itself to undertake studies of this nature as the need arises. Such studies will be a significant contribution to regulatory practice if they extend to (1) determination of book and current costs, and trends of costs of capital to utilities of different types and characteristics, and (2) to measurement of the influence of various factors on appraisals of security values by investors.

TREND OF THE PRICE OF ELECTRIC SERVICE

The trend since 1922 of the overall price of electric service is shown by the following tabulation. So far as these data are conclusive, it appears that Public Service Electric and Gas and the other electric utilities operating in the state have gone along together in reducing the price of their service.

TABLE 3.
TREND OF AVERAGE PRICE PAID PER KILOWATT HOUR BY
ALL CLASSES OF CONSUMERS COMBINED.

Year	All Electric Utilities	All Electric Utilities excluding Public Service Electric & Gas Company
1922	5.1 cents	5.3 cents
1923	4.7	5.2
1924	4.7	5.4
1925	4.5	5.5
1926	4.5	5.4
1927	4.4	5.2
1928	4.4	5.2
1929	4.1	4.8
1930	4.1	4.7
1931	4.1	4.5
1932	4.1	4.5
1933	3.9	4.2
1934	3.8	4.0
1935	3.6	3.6
1936	3.3	3.3
1937	3.1	3.1

The decline in the price paid by consumers has been accompanied by a rise in the volume of sales. The volume of sales of electricity to ultimate consumers in New Jersey in 1937 was almost four and one-half times greater than the volume in 1922. The increase in sales by other utilities than Public Service Electric & Gas Company was such

that the volume in 1937 was over five times that in 1922.⁴ The electric light and power business has grown rapidly during this period and the operating enterprises have increased greatly in size. These trends together with technological improvements have been largely responsible for the lower prices for service. The lower prices in turn have induced a more extensive use by the consumer.

Only the general trend of these average prices over a long period is significant. The proportions of service sold to various classes of consumers affect the results. Power and industrial service is supplied at relatively lower rates than the rates available to other classes of consumers. The demand for such service is relatively elastic and fluctuates with business conditions, thereby affecting the overall prices paid in a given year.

Information as to residential sales and revenue is fully available only for recent years. Residential kilowatt hours per customer and unit prices paid over the last four years are shown in the following table for the four largest electric utilities in the state.

	Average kwh. per customer			Average cents per kwh.		
	1934	1937*	Increase	1934	1937*	Decrease
N. J. P. & L. -----	582	756	174	6.7	5.4	1.3
Atl. City El. -----	490	632	142	6.6	5.4	1.2
Pub. Ser. -----	511	623	112	6.7	5.3	1.4
J. C. P. & L. -----	551	635	84	7.4	6.6	.8

* Twelve months ended September 30.

These figures show increases in typical consumption, accompanied by decreases in average prices paid. It should be noted that the average price paid may be influenced by seasonal character of business, density of land, competition with other fuels used for the same residential purposes, purchasing power of consumers in the territory and many other factors.

The decline in average prices paid by a class of consumers is not a measure of the trend of rates quoted by the utility for service to that class of consumers. In the typical schedule, progressively lower rates are quoted for successive blocks of use by the customer. Therefore, as the customers buy new appliances and increase their consumption the average price paid per kilowatt hour may decline appreciably without any change having taken place in the rate schedule.

The decline, from January 1, 1932, to December 31, 1937, in quoted prices for three representative amounts of service is shown in Table 4, for the eight private electric utilities in New Jersey.

4. See Tables 5 and 6, Appendix 1.

TABLE 4
CHANGE IN PRICES QUOTED BY NEW JERSEY UTILITIES FOR
REPRESENTATIVE AMOUNTS OF RESIDENTIAL ELECTRIC
CONSUMPTION.*

Company	25 kwh.		100 Kwh.		250 kwh.	
	1932	1937	1932	1937	1932	1937
Atlantic City Electric Co. ----	\$2.25	\$1.88	\$ 9.00	\$5.40	\$10.00	\$ 9.90
Jersey Central Pr. & Lt. Co. -	2.63	2.43	6.68	6.05	11.18	9.80
Millville Electric Co. -----	2.50	2.00	8.40	5.80	17.40	10.30
New Jersey Pr. & Lt. Co. ---	2.25	1.98	7.30	5.95	13.30	9.95
Orange & Rockland Elec. Co.	3.00	2.70	11.50	5.81	25.00	9.80
Public Service E. & G. Co. --	2.20	1.84	5.60	4.44	10.10	8.69
Rockland Electric Company--	2.75	2.08	7.48	5.78	13.48	9.99
So. Jersey Pr. & Lt. Co. ----	2.75	2.50	11.00	6.00	13.10	12.50

* Where room-basis rates were in effect five rooms are assumed for the typical residence. The calculated bills for 250 kilowatt hours of use are based on the rate schedule available for electric range consumption.

Any comparison between the respective levels of rates charged by these companies must involve consideration of all the various factors influencing the cost of supplying service. Such comparisons are in any case likely to be misleading. The data, however, do show considerable progress toward a lower level of quoted rates for residential electric service in New Jersey. Progress toward residential rate schedules of a really promotional type is not so marked.

It is believed that the utilities have an obligation to see that the prices charged and the form of the rate schedule encourage the maximum economical utilization of service. The Board, however, does not accept the idea that the market for residential electric service is so elastic that price reductions will always result in increased operating income. It is true that, where other conditions remain unchanged, a larger demand can be supplied at a lower unit cost and that a decreased price tends to result in an increased demand. The price, however, is only one among numerous factors which determine the amount of consumption in each particular service area. Even where, as a result of lower prices to consumers, the demand may be expected to develop to a level which will produce revenue equivalent to the total cost of supplying service, there is the difficulty of maintaining revenue and protecting credit position during the transition period.

The long run interest of consumers requires that the end of maximum economical utilization be reached without reducing the return of the utility below the level which results in the lowest cost of capital. By making rate reductions wherever it is possible to do so and at the same time maintain the credit of the utility, and by the utilization of rate schedules of a promotional type, an electric utility may do much to develop for itself a large and stable residential market. This approach

requires full recognition of the character of the present and potential market for the purpose of designing rates which will secure the maximum economic advantage. It also assumes full analysis of the market as the basis of an adequate and effective new business program.

TREND OF THE PRICES OF OTHER UTILITY SERVICES

The overall average price paid for gas service has declined less rapidly than the average price paid for electricity. Fluctuations in volume of sales to different classes of consumers are again a factor in accounting for the results. Particularly, this influence largely accounts for the decline in unit prices since 1932. The market continued to expand at a reasonably rapid rate until 1930, the year of maximum volume of sales, and has gradually contracted from that date until 1936. The decline in total demand apparently continued through 1934 and 1935 in spite of the business revival and increased demands for industrial use.⁵

TABLE 5
AVERAGE ANNUAL REVENUE PER THOUSAND CUBIC FEET FROM
THE SALE OF MANUFACTURED GAS IN NEW JERSEY

Year	1922-1937 All Gas Utilities	All Gas Utilities Excluding Public Service E. & G. Co.
1922	\$1.33	\$1.59
1923	1.29	1.58
1924	1.26	1.57
1925	1.25	1.57
1926	1.24	1.54
1927	1.25	1.52
1928	1.24	1.48
1929	1.26	1.49
1930	1.24	1.49
1931	1.24	1.46
1932	1.24	1.43
1933	1.23	1.43
1934	1.22	1.41
1935	1.21	1.39
1936	1.17	1.34

The average price paid per thousand cubic feet of gas for all utilities other than Public Service Electric & Gas Company has been at a higher level than in Public Service territory, but apparently there has been about the same downward tendency. The higher average price may be partially accounted for by a larger proportion of industrial sales in Public Service territory.

5. See Tables 7 and 6, Appendix 1.

The year 1937 saw the end of the special charge by the New Jersey Bell Telephone Company for the hand set type of instrument. The amount of the charge was originally 50 cents per month. In 1928 it was reduced to 25 cents, and on May, 1933, to 15 cents per month. Effective January 1, 1935, the Board secured a modification of the tariff, which provided that after thirty-six consecutive monthly payments by the subscriber the charge would be discontinued. In March, 1937, the charge was reduced to 10 cents per month and discontinued after twelve consecutive payments. A final revision in December, 1937, effective January 1, 1938, entirely discontinued the hand set charge for both old and new subscribers. The reductions in the hand set charge by other and smaller telephone companies in New Jersey have followed a somewhat similar pattern, except that in three instances the date of final elimination of the charge is August 1, 1938.

FORM OF RESIDENTIAL RATE SCHEDULE

The residential rate schedules of electric and gas utilities in New Jersey are generally applicable throughout the service area of the particular utility. Uniformity of rate structure thus has been achieved in one direction. The result has been a decrease in dissatisfaction and complaints due to differences in rates as between different communities in the same service area.

With respect to type of residential schedule, variations continue to exist. Differences in characteristics of market in different areas may make advisable the use of varied types of schedules. Such differences do not justify, however, the continuance of an excessive number of schedules for the use of residential consumers in a given area. Such complexity of rate structure only serves to confuse and create dissatisfaction. In most instances this complex situation is inherited by the present management. The superfluous schedules cannot be eliminated immediately because to do so would raise the price of service to certain customers. The rate structure will continue to be simplified as rate reductions are made and it becomes possible to eliminate old schedules without increasing the bills of any customers.

The residential schedules for electric and gas service are tending more and more to the promotional type, in which the price charged for additional amounts of consumption is related to value to the consumer for each specific additional purpose. The promotional rate has a price appeal for those purposes in connection with which consuming habits are not already formed.

This tendency may be illustrated by the issues in a formal proceeding during 1937. This proceeding resulted from a petition of the Perth Amboy Gas Light Company for approval of revised gas rate schedules

filed to become effective June 1, 1937. Since the revised schedules were designed to increase the operating revenue of the company they were suspended by the Board pending a hearing to determine their reasonableness.

For many years the Perth Amboy Gas Light Company had supplied gas for residential purposes under a straight line meter rate of \$1.30 per thousand cubic feet, with a minimum charge of 65 cents which included 500 cubic feet. The company was one of the few remaining gas utilities which had not adopted rate schedules of the promotional type. The residential schedule proposed by the company would have increased the bills of all customers with a monthly consumption of less than 2300 cubic feet. It provided for a minimum charge of \$1.00 for which the customer would have been entitled to use 400 cubic feet of gas. Upon consideration of the evidence developed at the hearing the Board concluded that the promotional features of the proposed schedule are in the public interest. The Board, however, increased the amount of gas to be included in the minimum charge from 400 to 500 cubic feet. As a result of this and other modifications, the revised rate schedules allowed to become effective did not increase the operating revenue of the company.

COMPLAINTS AS TO RATES

No formal complaints as to rates were filed with the Board by consumers during 1937. The only formal proceeding during the past year with respect to electric, gas, telephone or water rates, was the hearing on the petition by Perth Amboy Gas Light Company for increased gas rates. It is believed that the minimum number of formal proceedings, together with the significant savings which continually have been realized by consumers, indicate that the Board's policy of rate regulation by informal procedure and negotiation, is not ineffective.

A total of 269 complaints of an informal character, which in one manner or another concerned rate schedules, were received. These complaints were distributed as follows, by type of utility:

Electric rates	167
Gas rates	33
Water rates	37
Telephone rates	26
Sewer rates	5
Telegraph rates	1
Total	<u>269</u>

The majority of these informal complaints involve questions as to interpretation of terms or conditions of filed rate schedules or as to the availability of one schedule or another to a particular customer. In relatively few instances are there complaints as to the level of rates. Schedules are sometimes found to be inequitable or discriminatory in their

application or effect. By means of negotiation with the Company responsible, efforts have been made, and effectively, to remove inequitable situations as they are discovered by the Board.

SURVEY OF STATE INSTITUTIONS AND AGENCIES

During the year the Board conducted a survey of the supply and price of electricity available to state institutions and agencies. In preparing recommendations to the Department of Institutions and Agencies, consideration was given to existing institutional generating facilities, to the nature and size of the electrical load and to the reasonableness of the rates charged where service is purchased from public utility companies.

The survey indicated that savings of approximately \$13,000 per year can be effected. These savings are not yet realized because modifications in institutional plants are required in some instances and in others it remains to complete negotiations as to rates with certain utility companies.

As a result of electric rate reductions becoming effective during 1937 state departments, institutions, and agencies have benefited to the extent of \$8,200 per year.

III. CONTROL OF SECURITY ISSUES AND MERGERS

The primary objective of security regulation is to assure compliance with and prevent evasions of the law, and to preserve the credit of public utilities under the jurisdiction of the Board.

Security issues have as their object the obtaining of capital funds as distinguished from income, and capital may be secured only for specific purposes. Thus, the mere fact that obligations exist does not justify their capitalization. The Board's staff undertakes exhaustive inquiries and gives to the items discriminating scrutiny with a view to being satisfied that the proceeds from the obligations incurred were spent on items properly chargeable to capital account and not for items chargeable to operating expenses or income.

The purposes for which securities may be issued, although not specifically enumerated by statute, may be defined generally as follows:

1. The acquisition of property.
2. The construction, extension or improvement of plant or facilities.
3. The discharge or refunding of capital obligations.
4. The reimbursement of monies actually expended from income and used for the preceding purposes.

The amount of capital must not be more than is reasonably required. In its control of security issues, the Board acts on the basis of the most comprehensive information obtainable as to the financial, physical, operating, and market conditions pertaining to the property sought to be charged with new capital. The Board considers the character of the securities as well as their amount, the assets upon which they are based and the terms of the proposed sale or exchange. The Board is opposed to the issuance of securities for the purpose of applying the proceeds to replace existing property which ought to have been retired out of past earnings. It is generally understood that the term "purpose" in the statutory provisions relating to security issues is to be construed broadly and not narrowly. The Board's approval of the issuance of securities, however, is in no sense a guarantee. No administrative or regulatory process can relieve investors of the necessity of prudence or vigilance in making purchases. Neither does the approval of security issues oblige the Board to sanction rates sufficiently high to provide a return upon such securities. It is the policy of the Board, however, to insist that capitalization be related to the original cost or investment in the property and that there be presented adequate evidence of the probability that interest and other obligations will be met regularly and that the principal sum can be repaid at maturity.

APPLICATIONS RECEIVED FOR APPROVAL OF SECURITY ISSUES

During the past year sixty-nine applications were received from utility companies for approval of the issuance of bonds, preferred stock

and capital stock. A great majority of the petitions were submitted by bus utilities and frequently involved the issue of a nominal amount of capital stock for organization purposes. In fifty-seven instances the application was approved in whole or in part. In twelve instances the petition was either withdrawn or denied. If upon examination it appears to the Board that an inadequate basis exists for a proposed issue, or if the issue is for improper purposes, the utility is permitted to withdraw its application and the matter may never reach the stage of a formal proceeding.

The filing of a petition for approval of a security issue is followed by an examination of the records of the utility by the Accounting Department of the Board. In some instances the examination extends to a specific audit of the utility's accounts. The Engineering Department then makes the examination with respect to the purposes for which the funds are to be expended or the amounts already expended for improvements or new construction. In investigations with regard to proposed security issues there is continuous co-operation between the Accounting and Engineering Departments.

If the application for authority to issue securities is approved by the Board, the certificate of authorization states the character of the securities to be issued and the amount and purpose of the issue. A utility that accepts the certificate and issues securities thereunder must formally undertake to comply with the terms imposed by the Board as a condition to the approval of the issue.

SECURITY ISSUES AUTHORIZED BY THE BOARD

The Board authorized security issues during 1937 amounting to \$23,821,872 (See Table 6.) Approval of security issues for three electric utilities accounted for 75 per cent of the total amount authorized. On the other hand, approval of issues by fifty-one bus utilities accounted for only 1.3 per cent of the total. (See Appendix 2 for a list of these bus utilities and the amounts of securities authorized.) The routine of investigation and hearing may require nearly as much time in connection with a \$1,000.00 security issue as in connection with a new or refunding issue amounting to many times that amount.

More than 98 per cent of the securities issued during the year were bonds. There were a few instances of issuance of common stock and one instance of the issue of preferred stock by electric, water and railroad companies. The numerous instances of the issue of common stock by motor bus utilities were usually for organization purposes. Table 7 lists the companies for which the Board authorized security issues and shows in each instance the amount authorized.

TABLE 6
SECURITY AUTHORIZATIONS DURING 1937 CLASSIFIED BY KIND
AND AMOUNT OF SECURITY FOR EACH TYPE OF UTILITY COMPANY.

	Electric	Water	Motor Bus	Railroad	Total Securities	Percentage of Total
Number of authorizations -----	3	3	51	1	58	
Preferred Stock -----	50,000.00	--	--	--	50,000.00	.2
Common Stock -----	4,510.00	11,000.00	86,050.00	--	101,560.00	.4
Bonds -----	18,023,000.00	5,010,000.00	--	392,000.00	23,425,000.00	98.4
Notes -----	--	--	245,311.93	--	245,311.93	1.0
Total Securities -----	18,077,510.00	5,021,000.00	331,361.93	392,000.00	23,821,871.93	100.0
Percentage of Total -----	75.9	21.1	1.4	1.6	100	

The largest issue authorized during the year was a refunding issue by Atlantic City Electric Company, which amounted to \$18,000,000. The issue next largest in amount was the refunding issue of \$5,010,000 by Commonwealth Water Company; therefore, very little new financing was undertaken during the year. It appears from the statement below that the total amount of securities authorized for acquisition of property for new construction and for reimbursement of expenditures already made, amounted to about \$812,000, about 3 per cent of the total.

SECURITY AUTHORIZATIONS DURING 1937 CLASSIFIED ACCORDING
TO THE AUTHORIZED PURPOSES OF THE ISSUE

Purpose	Amount of Securities	Per Cent of Total
For the acquisition of property, new construction or reimbursement of expenditures actually made for such purposes -----	\$ 811,871.93	3.4
For the discharge or lawful refunding of bonds or other obligations -----	\$23,010,000.00	96.6

The volume of refunding also declined from the levels reached in the several prior years. Interest rates showed a tendency to strengthen during the summer. The business recession appearing in September and October may have been a contributing factor. It is estimated that as a result of refundings authorized during 1937, annual savings of \$430,000 were realized by the utilities. These savings in interest and amortization requirements are factors to be considered in judging the reasonableness of return and reasonableness of rates. A utility, however, should not be penalized for its ability to take advantage of the favorable money market by an insistence that without regard to other considerations, the entire amount of such savings be passed on to consumers.

The aggregate amount of financing authorized was some \$826,000 less than the amounts for which approval was requested by these companies. In addition twelve applications, for approval of security issues amounting to \$22,000,000, were withdrawn or denied during the year.

TABLE 7
SECURITY AUTHORIZATIONS GRANTED BY THE BOARD DURING
1937 TO ELECTRIC, GAS, TELEPHONE AND WATER UTILITIES AND
RAIL CARRIERS OPERATING IN NEW JERSEY.

Date	Name of Company	Kind of Security	Amount
Jan. 13	Atlantic City Electric Co. -----	Bonds -----	\$18,000,000
Feb. 25	Dover Township Water—Ocean County Water Co. -----	Common Stock -----	1,000
Apr. 21	Commonwealth Water Company ----	Bonds -----	5,010,000
Apr. 22	Mountain View Water Company ----	Common Stock -----	10,000
Sept. 24	Orange & Rockland Electric Co. ----	Preferred Stock and Bonds -----	73,000
Nov. 4	Pemberton Suburban Light & Power Company -----	Common Stock -----	4,510
Nov. 18	Hudson & Manhattan Railroad Co.--	Bonds -----	392,000
			<u>\$23,490,510</u>

MERGER OF PUBLIC SERVICE CORPORATION OF NEW JERSEY SUBSIDIARIES

An important proceeding during 1937 was with regard to applications for approval of the merger of eleven underlying companies of Public Service Corporation of New Jersey into its principal subsidiary, Public Service Electric and Gas Company. The applications sought approval of the mergers through the issue of new securities by Public Service Electric and Gas Company in exchange for the capital stock of the eleven non-operating subsidiaries, cash payment to be made for outstanding minority interests.

These companies have for some years been controlled by Public Service Corporation of New Jersey. Their facilities have been leased to and operated by Public Service Electric and Gas Company, under leases ranging from 46 to 999 years. The lease contracts provide for payment by Public Service Electric and Gas Company of the interest requirements on the bonds and a specified amount per share on the common stock of the underlying companies. Consummation of the mergers will have no effect upon any contract for the purchase or sale of gas or electricity. The property of the lessor companies had been operated for many years as a part of the Public Service Electric and Gas system. These underlying companies had functioned only to receive the rentals and pass them along to their security holders by way of interests and dividends.

The following tabulation shows the names and total book assets of the companies involved:

Company	Total Assets
Somerset, Union & Middlesex Light Co.	\$ 4,501,637.88
Paterson-Passaic G. & E. Co.	10,317,824.79
New Brunswick Lt., H. & Pr. Co.	567,558.46
Gas & Electric Co. of Bergen County	7,085,482.13
So. Jersey Gas, Elec. & Traction Co.	21,590,607.01
Bordentown Elec. Co.	50,492.79
Cinnaminson Elec. Lt., Pr. & Ht. Co. of Riverton, N. J.	69,812.43
Orange Gas Lt. Co.	131,000.00
Newark Cons. Gas Co.	16,189,309.81
Hudson County Gas Co.	21,572,890.51
Essex & Hud. Gas Co.	8,501,325.20
	<hr/>
	\$90,577,941.01

The Board found that the proposed mergers are desirable and in the public interest. The corporate structure of the Public Service system will be greatly simplified. Public Service Electric and Gas Company will realize certain savings in operating expenses. Accounting control will be made easier. Elimination of complexity in the corporate structure is highly desirable from the point of view of regulation.

In the case of the Orange Gas Light Company, the application was for approval of merger with Newark Consolidated Gas Company. This merger has been consummated and the stock cancelled. The applications

for approval of the merger of the other underlying companies, including Newark Consolidated Gas Company with Public Service Electric and Gas Company have been approved by the Board. With one exception, the consummation of the mergers awaits approval of the Federal Power Commission, at least with respect to merger of the underlying electric companies. The exception is the Somerset Union and Middlesex Light Company, approval of the merger of which was given by the Federal Power Commission on June 10, 1937.

IV. CONTROL OF ACCOUNTS AND DEPRECIATION

Several administrative matters have been considered or acted on during the year with the aim of increasing the effectiveness of the Board's work. These matters have general application to various phases of the Board's activities.

ADOPTION AND ADMINISTRATION OF NEW SYSTEMS OF ACCOUNTS

Technological progress and accounting developments had tended to make the systems of accounts previously in effect in New Jersey inadequate as the basis for effective regulation. After extended consideration, new systems of accounts were adopted for Class A and Class B electric and gas utilities and for Class A telephone utilities and made effective January 1, 1938. For telephone utilities under its jurisdiction the Board adopted the system of accounts prescribed by the Federal Communications Commission for telephone utilities. The new system of accounts prescribed for electric and gas utilities were based on a system developed by the Committee on Statistics and Accounting of the National Association of Railroad and Utilities Commissioners. Several of the electric utilities operating in the State are under the jurisdiction of the Federal Power Commission, which has adopted a system of accounts for electric utilities under its jurisdiction substantially similar to that recommended by the National Association. In the interest of uniformity and in order to avoid a heavy burden of additional accounting work on New Jersey utilities which must conform to divergent accounting systems, the systems of accounts recommended by the National Association was used as a basis of the revised system adopted for New Jersey. The modifications were limited to those desirable in order to conform to the provisions of New Jersey statutes, or to meet particular situations existing in this state.

In prescribing these new systems of accounts, the Board, for the purpose of fixing rates or in determining other matters, does not commit itself to the approval or acceptance of any item appearing in any account. The prescribed classifications are designed to set forth the facts in connection with capitalization, physical plant, operating results, et cetera. In connection with such matters as may be before the Board from time to time, it will give such consideration as may be appropriate to the items appearing in the several accounts.

Effective administration by the Board of the "original cost" provisions of the new systems of accounts, will require extensive accounting and engineering examinations. The utility companies are allowed two years after the effective date of the new systems to complete the studies necessary for reclassification of their utility plant in accordance with the prescribed system. If the original cost provisions are to serve as a more effective aid to regulatory procedure than the provisions of the

older systems of accounts, the Board must find ways and means to check the accuracy of the estimates and determinations of original cost.

The new systems of accounts require that there be charged to an "adjustment account" amounts (1) which for past acquisitions is the difference between original cost, estimated if not known, and book cost as of December 31, 1937, and (2) in the case of future acquisitions is the difference between original cost and the cost of acquisitions. The amounts charged to the adjustment account are to be disposed of as the Board may authorize or direct. The Board will not lay down any advance rules by which it will act in directing the disposition of amounts charged to this account. Any rule which might be drafted at this time might be so rigid in application as to be arbitrary and unworkable. The character of the items entering into the account vary according to the nature of the facts in each particular case, and when these facts become known the Board will issue appropriate directions for the disposition of the amounts involved. The Board, however, considers the requirements of the systems of accounts to mean that the amounts in the adjustment account which represent investments in assets of continuing value will be retained in that account until they cease to exist or are retired, provision being made for their amortization.

Aside from the matter of giving effect to the original cost requirements, effective administration of the systems of accounts should proceed by periodic examination of the records and property of each utility enterprise. Such examinations would serve to assure strict compliance with the requirements of the accounting systems. For instance, the interests of consumers are adversely effected by failure to write out of fixed capital accounts amounts representing plant and facilities physically retired. The available staff has been able to examine the annual reports of utility companies to insure that they are submitted in correct form and has made field examinations in connection with security applications and other matters specifically before the Board. A continuing and cumulative advantage would be derived from periodic field inspections and examinations of the operating utilities, but the present staff of accountants and engineers is not large enough to make this completely possible.

Also, in connection with the administration of the revised systems of accounts, the Board is considering the advisability of requiring the establishment of continuing property records by the utilities under its jurisdiction.

STUDY OF REQUIREMENTS FOR ANNUAL REPORT FORMS

The annual report submitted to the Board by each public utility under oath is a most important source of the information necessary for regulation. These reports are utilized by the Board's engineers and accountants in connection with every regulatory activity.

Annual reports were received during 1936 from 897 utilities operating in New Jersey. In addition to the annual reports, thirty-six of the larger utilities are required to submit quarterly reports of financial and operating results. These quarterly reports make available information as to significant or unusual trends and exceptional transactions which might not otherwise come to the attention of the Board for more than a year after the time of their occurrence.

Upon receipt, the annual reports are examined by the Board's accountants. The following points are stressed in the examination:

1. Mathematical accuracy and correlation of schedules and statements within the report.
2. Compliance with the Uniform System of Accounts, the provisions of the Utility Act, and the rules, regulations and orders of the Board.
3. Assurance that securities are issued in accordance with the Board's certificate of approval.
4. Determination of the reasons for any unusual changes in the balance sheet and income accounts.
5. Review the administration of asset accounts, particularly with respect to recording re-appraisals of ledger values.

All incorrect or improper items are called to the attention of the company, even though the errors may be of minor importance, and it is believed that this practice has brought considerable improvement in the preparation of the annual reports.

The Board is considering the adoption of revised annual report forms to be effective for the year 1938. Since the report form must be related to the system of accounts, and because of the forms now in use are inadequate for other reasons, a change is necessary. The National Association has recommended to the state commissions revised annual report forms for electric and gas utilities. Furthermore, the Federal Power Commission has adopted for electric utilities a report form identical in all essential respects with that recommended by the National Association. In view of these circumstances, the Board is considering adoption of the annual report forms recommended by the National Association for electric and gas utilities, subject only to the modifications deemed necessary to meet local requirements and to secure conformity with the revised systems of accounts.

STUDY OF DEPRECIATION POLICIES AND PRACTICES

The calculation of depreciation charges by New Jersey utilities is by application of percentages to a variety of bases, including depreciable property, fixed assets, operating revenue and units of service sold. The differences in depreciation policy are suggested by the wide variations in the relationship between the depreciation reserve and amount of property subject to depreciation. In some instances *prima facie* indications are that the depreciation charges to operating expenses have been excessive, and in others inadequate to build up a reasonable reserve.

At the time of the adoption of the revised systems of accounts, the Board believed that additional time was necessary to allow development of adequate information and to permit careful thought to be given to the subject of depreciation requirements and policies. Therefore, the following requirement was included in its orders for the adoption of the revised systems of accounts for electric and gas utilities:

"2. That, within one year from the effective date of this system of accounts, each utility shall file with the Board, for its consideration, a statement showing the methods which the utility proposes to use in the determination of its annual charges for depreciation. Such method submitted for the approval of the Board shall provide for depreciation reserves adequate to maintain the integrity of the total investment in depreciable plant. Each such statement shall be accompanied by analytical studies establishing the propriety of the specific rates of depreciation for different classes of depreciable property, or composite rates for categories of depreciable property, which the utility proposes to use in determining its annual depreciation charges. Such rates may be tentative in consideration of continuing studies necessary to future revisions of the depreciation estimates."

Thus, the order specifically establishes depreciation accounting in terms of the standard that the reserve shall be adequate, and no more than adequate, to maintain the integrity of the investment in depreciable plant. It requires that each utility use the investment in depreciable plant as the basis of calculation of amounts of depreciation charge. Nothing is said as to method of accrual during the service life of the property; the order does not require straight line depreciation. Neither does the order establish rates of depreciation charge, which are expected to be a subject of future investigation.

V. REGULATION OF LOCAL TRANSPORTATION UTILITIES

LOCAL TRANSPORTATION UTILITIES IN NEW JERSEY

The Board has jurisdiction over fares and service, equipment and safety of operation of intrastate bus utilities and street railway companies but not over motor truck carriers. Its regulatory activities for the protection of the public interest, take the direction of investigations with respect to safety of equipment, control of the financial responsibility of the operators, efforts to eliminate ruinous competition, and the maintenance of adequate service at reasonable fares. It is believed that these objectives have been realized in large part in spite of the difficulties arising from the fact that more than 500 bus utilities operate in the state. Equipment has been steadily improved, service has increased in frequency, and accidents have been tremendously reduced. Recently there has been a strong tendency toward a reduction in fares, particularly in the fares for long hauls.

On December 1, 1937, a total of 483 companies or individuals were operating auto buses within the state of New Jersey on 439 routes, covering an aggregate of 5,762 miles. The Board has approved municipal consents for the operation of 3,939 buses over these routes. In addition, sixty-three companies or individuals operate a varying number of buses into or across the state, solely in interstate transportation. Since the enactment of Chapter 133 of the Laws of 1936, the Board, on the basis of the required examination of design and physical condition, has issued certificates of compliance with that Act for a total of 4,981 buses, which are approved for operation on intrastate and interstate routes and in charter and special trip service.

Four street railway companies continue to operate cars over nineteen routes extending to a total length of 263 miles.⁶

DEVELOPMENTS DURING THE PAST YEAR

A number of significant developments made their appearance in 1937 in local transportation in New Jersey. Several are suggested by the following important events related to transportation facilities or conditions:

1. The opening of the new municipal bus terminal in the City of Hackensack on April 24th, 1937.
2. The closing of the old Park Place Station of the Hudson and Manhattan Railroad, on Sunday, June 20th, 1937, and the transfer of the terminal facilities to the Pennsylvania Railroad Station at Market Street, Newark.
3. Substitution of all-service vehicles on fourteen major street railway routes operating in the cities of Newark, Jersey City and Paterson.

6. Public Service Coordinated Transport in North Jersey, Atlantic City and Shore Railroad in Atlantic City, Trenton-Princeton Traction Company, and Five Mile Beach Electric Railway Company in Wildwood.

4. Additional substitution of lighter and smaller motor buses for larger equipment on sparsely settled routes, with an increase in number of scheduled trips.
5. Further replacements of older type equipment by modern type vehicles, which afford greater safety, comfort and carrying capacity.
6. Opening of the new midtown tunnel between New Jersey and New York for traffic on December 22nd, 1937.

WORK OF THE BOARD'S STAFF

Special attention and investigation is necessary where changes such as those mentioned above take place. A continuous process of investigation and inspection is necessary in connection with the normal operation of the equipment, and as a result of the normal growth in size and number of bus carriers. Matters relating to applications, investigations, accidents, inspection of equipment and insurance which have been acted upon and disposed of by the Board and its staff are shown in the following tabulation:

MATTERS HANDLED BY THE STREET TRANSPORTATION DEPARTMENT DURING THE YEAR ENDED NOVEMBER, 30, 1937.

Character of Work	Number of Instances
Applications received -----	165
Complaints received -----	143
New buses inspected -----	923
Requests for equipment inspections -----	273
Examinations of buses on Board's initiative -----	8,175
Accidents investigated -----	80
Accident reports examined -----	536
Insurance records checked and filed -----	18,546
Miscellaneous matters of record -----	595
Certificates of compliance -----	797
Total -----	30,233

During the past year the Board's staff made 210 investigations for the purpose of appraising equipment in connection with applications of motor bus carriers for approval of security issues. This type of investigation requires examination of vehicles and other equipment as to physical condition, also examination of records for the purpose of establishing the amount of the owner's equity in the equipment and property which is the base of the security issue.

The detailed work necessary in connection with bus regulation and the number of matters handled in the course of a year is so extensive that it requires a considerable proportion of the time of the Board and its staff.

In this connection reference should be made to the movement to effect state regulation of intrastate motor truck freight carriers. This movement rests upon the conviction that such regulation would result in many of the benefits which are now obtained from the regulation of

motor passenger carriers. If the burden of motor freight carrier regulation is added to the duties of this Board an increase in personnel and in the appropriations for support of the Board's work will be required. The present resources and facilities of the staff are taxed to the limit by duties now imposed.

DECISIONS OF THE BOARD

During 1937 the Board rendered decisions with respect to 193 applications received from local carriers. The following tabulation shows these decisions distributed by subject matter.⁷

Number	Subject of Proceeding
16	Approval of municipal consents for new routes
33	" " " " " route extensions.
57	" " " " " change in routes.
15	" " " " " additional buses.
4	" " " " " not heretofore approved.
4	" " " " " for bus substitution for other types of transportation.
5	Approval of municipal consents for route combinations.
13	All service vehicle substitutions for trolley car.
31	Transfer of consents from one owner to another.
8	Service suspension applications.
1	Service resumption application.
7	Fare schedule reductions.
7	Route abandonments.
2	Time schedule revisions (not usually subject to hearing and decision).
3	Modifications of service limitations.

The purpose and effect of the 193 applications is clear from the foregoing descriptions of the subjects of proceedings. In addition, the Board rendered decisions in proceedings resulting from fourteen complaints as to fare structures, service, or competitive practices. These complaints originated on the initiative of the Board's staff or were filed by either municipalities or competing operators.

IMPROVEMENT IN DESIGN OF VEHICLES

The improvement in the safety and design of new passenger vehicles and in the service supplied has resulted in increased traffic and an improved transportation system throughout the state of New Jersey.

The new vehicles have a much better road balance and superior riding qualities. Safer operation is facilitated by the wide view of the highway from the position of the operator in the immediate front of the bus. Smoother operation is permitted by an increase in the power of the motors. Although not used to its fullest extent as yet, development of the side entrance door has increased the facility with which passen-

7. Since some applications involved more than one matter the sum of the items in the tabulation is in excess of the total number of applications acted upon.

gers are handled. Significant improvements have been made in appearance of the vehicles.

Such improvements and refinements seem greatly to increase the appeal to the public of this form of transportation. Increased riding, generally amounting to between twenty and thirty per cent, is noticed on lines where all-service vehicles have been substituted for the trolley car. The frequency of service has been increased to a very considerable extent. The latter improvement has been, in part, necessitated by the fact that the capacity of the new vehicles is considerably less than that of the trolley car.

THE PROBLEM OF THE METROPOLITAN AREA

On the whole, local transportation in New Jersey probably has developed to a point of adequacy at least equal to that found in any other state. In the northern metropolitan area, however, a serious transportation problem is presented. This region is characterized by a remarkable density of population over a large territory. In addition to local service within the cities, transportation must be afforded into each of the cities in the region from the surrounding residential territories, as well as to and from the several points of concentration. In addition, there is the requirement of adequate transportation facilities from each point in the entire area to New York City. The result is a network of bus lines which is exceedingly complicated, is in a state of continuous change, and requires continuous attention on the part of the Board. This is probably a special situation not duplicated in many other regions in the country.

The problem of providing adequate facilities and at the same time developing high speed transportation, is complicated by the fact that the streets and highways in the area were not designed for bus transportation. The streets for the most part are narrow and parking of other vehicles tends to increase the congestion. The bus routes are tortuous and the general movement of traffic extremely slow. The average rate of speed of buses throughout the state is between ten and eleven miles per hour. A recent survey of operation through Broad Street in Newark shows an average speed of slightly over three miles per hour during rush hours.

A partial solution may be additional restrictions on parking along streets in congested areas. Enlargement of bus stops will be advantageous. If the area of bus stops is extended sufficiently, different bus lines may be assigned different stopping points within each stopping area. These are matters largely under the control of municipal authorities.

EXISTING FARE STRUCTURES

The standard fare structure throughout the state is based on local five cent fare zones, with through fares equalling the sum of the local

zone fares. An outstanding exception to the rule has been established in Bergen County, where the through fares are less and, in many instances, no more than half the sum of the local zone fares.

No fare structure ever has been designed that has been wholly satisfactory either to the public or the operating utility. The zone system is objectionable in that it results in apparent discrimination between persons riding a given distance wholly within a zone and persons riding the same distance between two zones. This situation generally arises from an extension of service beyond an existing terminal of an established line with a five cent fare, in order to serve a new community which is entitled to service upon payment of a fare commensurate with the cost of supplying service over an extension which may be much shorter than the length of the original line. The fare structure in the state, therefore, has become extremely complicated. For the reasons indicated, differences in fares as between regions do not always appear to be justified by variations in local or operating conditions.

Attempts have been made to establish so called "readiness to serve charges" as a part of fare structures, but they have not been successful. The zone system is the best so far evolved. It results in a charge which is, at least in some degree, adjusted to the amount, as distinguished from frequency only, of service use.

VI. RAILROAD REGULATION

The jurisdiction of the Board over railroads in the state of New Jersey extends to the convenience, necessity and adequacy of the service, and the reasonableness of intrastate passenger and freight rates. Requirements with respect to safety of operation are imposed. The Board investigates all accidents, whether train or at a grade crossing. Information as to the number of accidents occurring on railroads in New Jersey, during 1937, is given by Appendix 3. The Board has jurisdiction over changes in station facilities, as well as over abandonments and other matters having to do with frequency and adequacy of service.

During 1937 the Board's staff made investigations and prepared reports with respect to numerous matters, the diverse character of which is indicated by the following categories:

1. Curtailment of passenger train service by withdrawal of certain trains or elimination of certain train stops. The number of such instances was 37 during the year.
2. In nine instances investigations were made relative to passenger fares, commutation rates or tariff regulations.
3. Eighteen complaints were received relative to overcharges. Investigation led to adjustments of the charges.
4. Six major train accidents occurred during the year. Thoroughgoing investigations are carried out for the purposes of determining the cause of the accident and preparing recommendations designed to prevent recurrence.
5. Miscellaneous requests for information relating to the procedure and rules of the Board, and investigation of complaints as to train service and train or station facilities. The number of such complaints and requests for information was 85 during the year.
6. In 1937 there were 15 certificates of approval issued for construction of industrial sidings over highways and the widening of crossings.
7. Investigations and hearings leading to issuance of 46 certificates or decisions relating to such matters as sales of land, the establishment of new public grade crossings, and the adequacy of passenger train service.
8. Applications for reduction of hours of station agents at certain points and consolidation of facilities of two or more stations under one agent.

The total number of tariffs filed with the Board during 1937 by carriers operating in the state of New Jersey was 6,244. These new and revised tariffs are classified as received, examined and acted upon, sometimes by suspension. The Board's staff is at present inadequate for a complete and prompt analysis of changed tariffs, rules and regulations. Improvement would require increased appropriation.

As a result of increasing competition in the general transportation field there was a total of 200 petitions received during the year requesting that reduced freight rates be allowed to go into effect on less than the statutory notice of thirty days.

The 1936 decision of the Board, as to intrastate rates on "whiting," which was appealed to the Interstate Commerce Commission by the

carriers, was sustained in a decision by that Commission dated October 5, 1937. An application for increases in freight rates for certain heavy commodities was granted after hearings before the Board and before the Interstate Commerce Commission.

The proposal of the Hudson and Manhattan Railroad Company to increase its fares between points in New Jersey and New York City from 6 cents to 10 cents is an interstate matter, not under the jurisdiction of the Board. The proposed increase has been protested by Jersey City acting for itself and other communities. In this matter the Board offered its cooperation and has furnished information from its records and other assistance to the protestants.

The reduction in passenger service by the Trustees of the New York, Susquehanna and Western Railroad resulted in an investigation by the Board, with reference to the public interest affected. Permission to curtail the number of trains operated daily was granted, though not to the extent proposed by the Trustees.

The Board and its staff has given consideration to the possible effect on transportation in New Jersey and to the effect on New Jersey industries of the petition of eight Southern states to the Interstate Commerce Commission for a reduction of rates applicable to northbound freight traffic and has made its records and the results of its considerations available.

The total of 3,250 steam and electric railroad bridges are under the jurisdiction of the Board. Included are 65 bridges with movable spans. Numerous bridges throughout the state have been reconstructed or improved during the year and the inspections show that both electric and steam railroad bridges are generally in good condition. Inspections have been made of all railroads, including both main and branch lines, except branch lines operated as yard tracks.

The scope and coverage of inspections during 1937 of bridges, track and roadbed, on main and branch lines, were as follows:

Main line and branch line inspections	207
Bridges, trestles and culverts inspected	2,678
Miles of track and roadbed inspected	2,023

VII. ELIMINATION OF GRADE CROSSING HAZARDS

The development of the motor car and the increase of volume of high speed highway traffic has been accompanied by growing hazards to life and limb where highways cross railroads at grade. The efforts of the state to diminish this hazard takes the form of traffic rules, separation of grades, installation of grade crossing protective devices and educational activities.

The following table showing number of accidents, deaths, and injured for the past six years probably indicates a slightly favorable trend in the face of a rising volume of traffic and increased speed of operation. It is uncertain as to whether or not the favorable trend has continued during the past three years. These statistics clearly demonstrate the necessity of vigorous prosecution of the program for diminution and elimination of the grade crossing hazard:

NUMBER OF ACCIDENTS AND NUMBER KILLED AND INJURED
AT GRADE CROSSINGS IN NEW JERSEY*

Year	Number of Accidents	Killed	Injured
1937	175	39	76
1936	173	27	75
1935	170	49	88
1934	202	35	103
1933	211	30	103
1932	234	60	135

* Involving collisions between automobiles and trains; also pedestrians struck by trains. Report is for twelve months ended November 30th of each year.

The program for the elimination of such hazards includes both the separation of grades at crossings and installation of protective devices at grade crossings.

The jurisdiction of the Board of Public Utility Commissioners with regard to ordering the separation of grades at railroad-highway crossings extends to all public highways other than state highways. The separation of grades at railroad crossings of state highways rests with the State Highway Department.

The Board has sole jurisdiction, however, as to protective devices for all public, including state, highway-railroad crossings within New Jersey.

A. GRADE SEPARATION IN NEW JERSEY UNDER THE JURISDICTION OF THE BOARD

Method of Initiating Proceedings

It is provided by statute (Chapter 57, Laws of 1913 and amendments) that proceedings for separation of grades at railroad-public high-

way (other than state highway) crossings may be initiated in one of three ways:

1. Petition in writing to the Board of Public Utility Commissioners by the agency having charge of the finances of any municipality or by the county having jurisdiction over the highway.
2. Petition in writing to the Board by the railroad company or companies whose tracks cross or are crossed at grade by the public highway.
3. By the Board of Public Utility Commissioners on its own motion.

After notice a hearing is held by the Board and a separation of grades according to an approved plan may be ordered following the hearing.

Division of Cost

An amendment (1930) to the Act of 1913 provides that the entire cost of such separation of grades shall be paid 50 per cent by the railroad company or companies affected and 50 per cent by the state. Any change or removal of the property or facilities of a utility company (other than the railroad company) required to effect the separation of grades is paid for solely by such utility company.

The state's share of the cost of these projects is financed out of the Grade Crossing Elimination Fund to a maximum limit of \$2,000,000 per annum, which money may be derived from the sale of bonds. It is provided (ch. 102, Laws of 1930) that, in any year in which funds are not available in the Grade Crossing Elimination Fund, \$2,000,000 out of the tax on motor fuels be allotted to the Board of Public Utility Commissioners for separation of grades.

A further amendment (390, Laws of 1933) provides that if funds are granted or allotted by the United States Government or any of its agencies, the Board is authorized, with the consent and approval of the Governor, to allot and credit any or all of the funds so received toward the part of the expense to be borne by the railroad or railroad companies affected.

Federal Aid

Two types of grants have been available from the United States Government as aids to the State of New Jersey for its separation of grades program:

1. Grants through the Federal Administration of Public Works of approximately 45 per cent of the entire cost of construction of approved projects.
2. Grants through the Federal Bureau of Public Roads to meet the entire cost of construction (not including land) of approved projects. These grants are administered by the State Highway Department and are designated as "Works Program—State Highway Department Projects".

In the case of either type of grant, orders for the project are issued by the Board after hearing. The construction contracts for "P.W.A. Projects" are awarded by the railroad companies involved and the work is carried out under their immediate supervision. The "Works Program—State Highway Department Projects" are constructed under the supervision of the State Highway Department, which awards the contracts. Through the Board of Public Utility Commissioners the state bears one-half and the railroad companies affected are required to assume the other one-half of the cost of land.

Applications for grants of 45 per cent of the entire cost of eight P.W.A. Projects have been made to the Federal Government. Twenty-four grade crossings were covered by these projects. Grants amounting to \$2,630,655 have been allotted to six of these projects, which six projects will effect the separation of grades of eighteen crossings. Three of these projects (one crossing each) were completed during the past year, and the others are under construction.

Out of a total of eighteen "Works Program-State Highway Department Projects" initiated, fourteen were completed during the past year, two are under construction and two were disapproved by the Bureau of Public Roads. There is an additional project under order, involving five grade crossings, for which the entire amount of "Works Program-State Highway Department Project" funds available will be sought to defray partially the cost of construction.

Projects Paid for Entirely by the State and Railroad Companies

During the past year a project including one crossing was completed and paid for exclusively by the state and the railroad company affected (See Appendix 4). Another project including three crossings was ordered by the Board and is expected to be paid for in the same manner.

Work of the Board's Engineering Staff

The engineering staff of the Board has given continuous technical assistance in the selection of proper plans for the separation of grades, in checking detail plans, specifications and estimates before the award of contracts, as well as following the details of construction in the field, in the case of projects in which the state shares in the cost of construction.

Summary of Projects

Twenty-seven construction projects are regarded as active and have received the attention of the Board's Staff.⁸ The classification and present status of these projects are as follows:

8. For identity, location and details concerning these projects see Appendix 4

P.W.A. Grade Crossing Elimination Projects:

Completed	3
Under construction	3
Applications pending but favorable action improbable	2
Total	<u>8</u>

Works Program—State Highway Department Projects:

Completed	14
Under construction	2
Not started; State potentially obligated for one-half the cost	1
Total	<u>17</u>

Projects Under the Statute Where Costs Are Divided Equally
by State and Railroad:

Completed	1
Not yet started	1
Total	<u>2</u>
Total grade crossing elimination projects	<u>27</u>

B. INSTALLATION OF PROTECTIVE DEVICES

The cost of separating existing crossings at grade is so great that such separation can economically be undertaken only where a combination of high speed and a large volume of traffic on both highway and railroad creates a condition of extreme hazard. Since the state must continue to rely to a large extent upon protective devices, it is highly desirable that they be adequate and selected to meet the situation existing at each crossing.

During the past year the Board's Staff has undertaken a re-survey of the crossings now in service throughout New Jersey. It has recorded the location, the character of the highway and railroad right of way, information as to the volume of traffic and speed of operation on both the highway and railroad, the physical situation at the crossing and other pertinent information. A record is maintained of accidents occurring at each crossing. These data are essential to a wise and proper selection of crossings in order to secure the most effective utilization of available funds for separation of grade. They are essential also to a determination of whether installation of protective devices is to be required and in selection of the type to be installed. This survey will be concluded within a short time.

The number of protective devices installed during the twelve months ended November 30th, 1937, and during the past six years, is shown in Table 8, following:

TABLE 8.
 ADDITIONAL PROTECTION INSTALLED AT PUBLIC GRADE
 CROSSINGS IN NEW JERSEY DURING THE SIX YEAR PERIOD
 FROM DECEMBER 1, 1931, TO NOVEMBER 30, 1937.*

Type of Protection	1932- 1936	1937**	Total 1932-1937
1. Gates -----	5	3	8
2. Watchman -----	61	11	72
3. Audible and/or visible signals -----	121	33	154
4. Back lights added to visible signals ----	30	41	71
5. Annunciator train approach bells -----	5	7	12
6. Standard crossing signs (reflex) -----	38	14	52
7. Standard crossing signs -----	112	18	130
8. Standard approach signs -----	87	4	91

* Report is for twelve months ended November 30th of each year.

** The location and the nature of the new protection at each location is shown by Appendix 5.

A "protected" crossing is defined as one specially protected or at which is installed a type of protection other than a standard crossing sign. The number of protected and other crossings as of December 31, 1936, on Class I railroads in New Jersey⁹ was as follows:

Type of Protection	Number
1. Gates -----	332
2. Watchman -----	185
3. Both audible and visible signals -----	143
4. Audible signals only -----	121
5. Visible signals only -----	312
6. Total specially protected -----	1,093
7. Total not specially protected -----	1,536
8. Grand total -----	2,629

It appears that somewhat more than forty per cent of the crossings are protected. Only Massachusetts and Rhode Island, each of which has a smaller total number of crossings, surpass New Jersey in percentage of crossings protected. Including railroads other than Class I, the number of protected crossings in New Jersey on December 31, 1937, was 1,314.¹⁰

It is believed that the installation of additional protection at crossings has proceeded with reasonable rapidity. It has already been pointed out that over the past six years the number of accidents had declined in

9. Statistics of Railroads in the United States, 1936 Interstate Commerce Commission.

10. Information as to the total number of crossings in the state on this date will become available only upon completion of the survey referred to above, which survey also extends to private crossings.

spite of the increasing volume of highway traffic. It is recognized, however, that the program of providing protection must proceed as rapidly as possible until the number of crossing accidents has been reduced to an absolute minimum. The railroad companies have shown a willingness to cooperate in the elimination of crossing hazards, but during recent years their willingness has been affected by their restricted income.

TABLE 9.
NUMBER OF ACCIDENTS AND NUMBER KILLED AND INJURED
AT GRADE CROSSINGS, DISTRIBUTED BY TYPE OF
PROTECTIVE DEVICE.*

Type of Protection	Number of Accidents		Killed		Injured	
	1932- 1936	1937	1932- 1936	1937	1932- 1936	1937
1. Gates -----	135	23	41	6	94	8
2. Flagman -----	145	23	25	4	92	10
3. Flashing light signals or automatic flagman -----	236	33	75	5	116	18
4. Other audible and visible signals --	30	9	9	1	30	2
5. Alarm bell -----	66	9	17	0	33	3
6. Standard crossing signs -----	205	53	30	14	102	28
7. Private crossings -----	116	25	29	9	37	7
Total -----	953	175	226	39	504	76

* Report is for twelve months ended November 30th of each year.

Table 9 shows for the period 1932 to 1936, collectively, and for 1937 separately the number of accidents and the number killed and injured at crossings where different types of protective devices had been installed. These statistics show that the greatest number of accidents occurred at what are called "protected" crossings, that is, crossings protected by other than standard crossings signs. During the six years, however, 258 accidents occurred and 44 persons were killed at crossings protected only by standard crossing signs. It appears that the relative frequency of accidents occurring at "unprotected" crossings is increasing. Accidents at private crossings, over which the Board has no jurisdiction, contribute to the totals.

There were twenty-three accidents and six persons were killed in 1937 at crossings protected by gates. This fact does not mean that gates are not the most effective device which is in common use at the present time. It does mean that the crossings thus protected and at which the accidents occurred involve a large volume of high speed motor traffic, frequent train movements, restricted views, or a combination of such factors. It is obvious that in each particular situation protective devices vary in degree of effectiveness. It is clear, too, that no method of protection short of separation of grade is wholly effective.

New protective devices of the barrier type are now appearing on

the market and are attracting considerable attention. These new devices apparently give positive protection but only so far as preventing collision with trains is concerned. The Board will watch developments along this line with interest.

The position of New Jersey may be viewed favorably in comparison with other states insofar as proportion of crossings protected is concerned. The situation cannot be viewed with complete satisfaction, however, when consideration is given to the number of persons who are killed or injured annually in grade crossing accidents.

VIII. REGULATION OF UTILITY SERVICE

HANDLING OF COMPLAINTS

All inquiries and informal complaints relating to service supplied by gas, electric, water, sewer, telephone and telegraph companies are referred to the Service Inspection Division of the Board's staff and assigned to inspectors. Their investigation includes arranging interviews with the complainants so that their complaints and questions may be properly examined.

The company is then given an opportunity to state its position. Finally, the inspector makes an independent investigation of the facts and his conclusions, if approved by the Chief Engineer, are transmitted to the interested parties through the Secretary of the Board. The inspector's conclusions are not binding upon either the Board, the complainant or the utility. Either complainant or utility may apply to the Board for a formal determination of the matter. The inspector's recommendations, however, generally have been accepted by the interested parties. In no case during the past year has a customer requested that a complaint be formally reviewed by the Board. In many instances, in order to comply with the recommendations of the Board's inspectors, the utilities have liberalized their rules or interpretations of the terms and conditions of their rate schedules.

Investigation of matters informally brought before the Board requires nearly the full time of the present small staff of the Service Inspection Division. Our inspectors are able to devote only limited time to other important duties, such as inspection of plants and facilities, meter departments, voltages, records of consumers' meters and calibration of meter standards.

Complaints referring to rate levels and the application of rate schedules are referred to other divisions of the Board's staff but in many instances, the reference to rates being incidental, interviews are arranged and the matter is carried to a conclusion by the Service Inspection Division. As a result of the adjustment of unreasonable charges, following analyses of complaints, customers and prospective consumers have saved during the past year an aggregate of \$20,840, which sum is far in excess of the cost of maintaining the Service Inspection Division.

NUMBER AND CHARACTER OF COMPLAINTS

The informal complaints received during 1937 are classified in Table 10 by type of utility and by character of complaint. About seventy per cent of the more than 700 complaints concerned commercial practices such as billing, collecting, deposits, disconnection of service and application of other rules and regulations of the company. Difficulties arising over applications for extensions of service to points beyond the existing limits of distribution accounted for an additional eighteen per

cent of the total number of matters handled. The remainder, or twelve per cent, included various questions relative to the quality of service and the accuracy of meters.

TABLE 10
ANALYSIS OF INFORMAL COMPLAINTS RECEIVED DURING 1937

Type of Utility	Extensions	Billing & Commercial Practices	Meter Tests	Service	Total
Electric -----	103	246	10	42	401
Gas -----	9	140	3	7	159
Water -----	14	84	4	15	117
Telephone -----	7	43	--	10	60
Sewer -----	--	3	--	--	3
Totals -----	133	516	17	74	740
Percentage					
of Total -----	18	70	2	10	100
Number of meter test summaries received and analyzed -----				348	
Number of calorimeter tests received and analyzed -----				150	

The 740 complaints listed in the above table do not include the 269 informal complaints with respect to rates, which were discussed in Chapter II. Therefore, the total number of complaints received from consumers of utility service during 1937 was 1,009. It appears that complaints are received most frequently with respect to the rates and service of electric utilities, with the next largest number coming from the customers of gas utilities.

TABLE 11
INFORMAL COMPLAINTS RECEIVED AND HANDLED BY THE BOARD, CLASSIFIED BY TYPE OF UTILITY

Years	Electric	Gas	Water	Telephone	Sewer	Total
1937	401	159	117	60	3	740
1936	361	84	184	34	5	668
1935	512	160	220	92	11	995
1934	537	191	278	95	7	1,108

Tables 11 and 12 show the number of complaints received by the Board during the past four years, classified by type of utility and by the nature of the complaint. Although there was again an increase during 1937 in total number, it appears that the number of complaints received has declined over the four-year period. The decline has been most marked in the case of water utilities and least evident in the case of gas utilities, where the number of complaints received in 1937 was almost double the number received during the prior year.

TABLE 12
INFORMAL COMPLAINTS RECEIVED AND HANDLED BY THE
BOARD, CLASSIFIED BY NATURE OF COMPLAINT

Year	Extensions	Billing and Commercial Practices	Meter Tests	Service	Misc.	Total
1937	133	516	17	74	--	740
1936	145	462	14	47	--	701
1935	153	744	44	32	22	1,163
1934	110	907	50	33	8	1,108

A glance at Table 12 shows that in each year the great majority of complaints related to billing and commercial practices. It is also evident that the decline in total number of complaints was accounted for by the decline in the number relating to billing and commercial practices and the number requiring meter tests. On the other hand, there is an evident tendency for complaints with respect to service and extensions of service to increase in frequency.

The utility companies are required to report to the Board all interruption to service. These reports indicate in detail the area affected, the number of customers who were without service, and the cause of the interruption. Major interruptions of service are investigated with the aim of doing whatever may be possible to prevent recurrence of similar situations. In December 1936 a major interruption affected the business district of the City of Newark. The failure, caused by short circuit and fire at the Essex Station of Public Service Electric and Gas Company, continued for approximately five hours and resulted in considerable injury and inconvenience to the public. Public Service Electric and Gas Company is now completely remodelling its Essex Switching Station for the purpose of preventing similar failures in the future.

METER TESTS

The bills of gas, electric and water consumers are based on the consumption indicated by the companies' meters. It is imperative, therefore, that all meters operate with reasonable accuracy. Approved standard testing equipment is maintained by the Board. These appliances are regularly calibrated by the United States Bureau of Standards and are used in turn to calibrate the standards used by the various companies in testing consumers' meters. After calibration, the company standards and gas provers are sealed by the Board's inspectors.

The Board's rules require utility companies to make periodic tests of meters for the purpose of insuring their continued accuracy. The summaries of the tests, showing the limitation of accuracy of all meters tested and approved, are filed with the Board.

Any customer may apply to the Board for test of a meter supplying him with utility service, accompanying this request with a nominal fee

of \$1 for each meter. If, upon testing by the Board's inspector, the meter is found to be registering fast beyond the allowable limits of accuracy as prescribed by the Board, the fee is returned and the company is required to make the appropriate refund.

EXTENSION RULES

The character and method of application of rural extension rules is highly important because of the connection with the development of the rural market. The problem of rural electrification, however, is somewhat less pressing in New Jersey than in other states. The "rural" area is primarily residential and not agricultural. Service is already physically available to residents in almost all so-called rural communities. At the end of 1935 the State of New Jersey was fourth on the list with regard to percentage of *farms* receiving electricity from a central station. In New Jersey 60.5 per cent of the total number of farms (25,378) were electrified.

With respect to the guarantees required, the extension rules in New Jersey appear to be less exacting than those in effect in many other states. Our rules provide that the cost of a distribution extension chargeable to a prospective customer shall not include the meter, transformer or any part of the house service connection. Neither are guy poles, primary construction parallel to secondary construction, and excess costs due to extraordinary conditions encountered during construction included in calculating the amounts of deposits. The extension rules merely set the maximum limit of deposits which may be required. The actual practices of the utilities may vary in the direction of requiring a smaller deposit. Some of the companies waive extension deposits which do not amount to more than amounts varying from \$50 to \$100. Other companies will install a certain number of feet of distribution line, as 500 feet, without deposit for one regular customer.

An analysis of present construction costs chargeable to the prospective consumers in New Jersey indicates that rural extensions commonly cost about \$1,000 per mile. During the past year about 430 miles of new line have been constructed by New Jersey companies. Reduction of extension costs to their present levels are due in a measure to adoption of improved design and more economical extension construction practices. The Board will continue to urge the companies to enlarge, wherever possible, their rural line construction programs. The extension rules are now being studied by the Board with a view to their possible revision.

IX. COOPERATION WITH FEDERAL REGULATORY AGENCIES

An increasing number of federal agencies have been given exclusive or joint regulatory power over railroads and public utilities in New Jersey and in other states. The Interstate Commerce Commission has long exercised a predominant regulatory authority with respect to railroads. Three additional regulatory agencies are now functioning in the federal field. The Federal Power Commission, as first established by the Water Power Act of 1920, consisted of the Secretaries of War, Interior and Agriculture. Recreated in 1930 as an independent commission with full-time members, the Federal Power Commission now has responsibility for the enforcement of the Federal Power Act of 1935. The Federal Communications Commission has jurisdiction over interstate and foreign communications by wire and radio and over companies providing these services. The third new federal agency, the Securities and Exchange Commission, controls the issuance of securities to the public by both utilities and competitive enterprises, and is charged with the regulation of the securities exchanges. It has the further duty of administering the Public Utility Holding Company Act of 1935.

Each of these federal agencies has jurisdiction at some points over the same companies or the same subjects of regulation as are included within the jurisdiction of this Board. With the development of the administrative procedures of these new federal commissions, cooperation between state and federal agencies will become indispensable to effective regulation. The purpose of this chapter is to indicate the points at which the exercise of power by these federal agencies affects or parallels the work of this Board and to suggest the nature of the cooperation which is desirable. The scope and extent of the jurisdictions of these federal agencies is indicated by reference to their decisions and activities or by consideration of the apparent meaning of the statutes from which their regulatory powers are derived.

INTERSTATE COMMERCE COMMISSION

The Interstate Commerce Commission is the oldest of the several federal regulatory agencies. It has achieved a high reputation for the performance of its duties with respect to control of transportation. Its rich experience has caused it to serve as the model administrative tribunal and it has molded commission powers and procedures for regulation of other public service industries.

The federal statutes defining federal and state relations within the structure of railroad regulation now provide an extreme subordination of state to federal power. This present situation is, however, the product of a long process of evolution. The grants of power to the Interstate Commerce Commission have been marked by continuous judicial sanction of the jurisdiction exercised.

The almost exclusive occupation of the field by the Interstate Commerce Commission extends to all matters of rates and service and to speed regulations. The Commission is empowered by statute to prescribe intrastate rates in lieu of those established by mandatory action of state regulatory commissions, insofar as discrimination or inequitable burdens may result from the relationship between interstate and intrastate rates. The Commission has tended to require intrastate rates to conform to the level of interstate rates even in the absence of evidence that rates established under state commission authority would injure interstate shippers or impose substantial financial loss upon the carriers. However, in *Shreveport cases* following the decisions of the Interstate Commission in *Ex Parte* 115 the Commission apparently has held that undue discrimination cannot be presumed from the mere failure of the state commissions to allow the same advances as were permitted by the Commission for interstate application.

As a result of the insistence of the state commissions, a co-operating agreement was entered into in 1922 and approved by the Interstate Commerce Commission and a majority of the state commissions. The agreement opens the way for any state commission to suggest cooperation in a proceeding or matter before the Interstate Commerce Commission. Similarly, the Commission may suggest to a state commission cooperation in any matter pending before the state commission which may have an effect upon matters subject to the jurisdiction of the Interstate Commerce Commission. The Federal and state regulatory agency is each left free to decide whether it will invite or agree to cooperation.

The proceedings in a large proportion of general rate cases have been conducted on the cooperative basis. The cooperative procedure, however, was especially designed for *Shreveport cases* and has been very little used for that class of proceedings. In proceedings involving the reasonableness of intrastate rates, therefore, the Interstate Commerce Commission is commonly without the intimate knowledge of local conditions, and of matters bearing on local rates, which is in the possession of the state commission.

In the Motor Carrier Act, the Interstate Commerce Commission's powers over passenger and freight motor carriers in interstate and foreign commerce were restricted in that it may not authorize motor carriers to conduct intrastate operations and may not interfere with the exclusive exercise by each state of its power to regulate such intrastate operations. The authority of the Commission to regulate the rates of motor carriers does not extend to the prescription of intrastate rates even for the purpose of eliminating discrimination. Therefore, no *Shreveport cases* are possible under the Motor Carrier Act. The act also contains the same provision for cooperative conferences and joint hearings as does the Interstate Commerce Act. More than one-half of the cases proceeding to formal hearings in the Motor Carrier Bureau have

been heard before joint boards. Furthermore, special committees representing state commissions have been appointed to confer with representatives of the Bureau with respect to safety regulations, insurance and bonds of indemnity.

The control of transportation now exercised by the Commission has evolved in response to pressing past and present needs. The fact that the flow of traffic has no relation to state boundaries and that the same railroad plant and facilities serve both interstate and intrastate commerce has resulted in a unity of operation which requires a central regulatory authority. Moreover, the movement of freight and passenger traffic is predominantly interstate. The intrusion of a federal tribunal into the sphere formerly occupied by the state was dictated by considerations of sound policy. It is a guiding principle that the jurisdiction of a regulatory agency should be territorially co-extensive with the organization and operations of the utility. The railroads are definitely a national enterprise. The country is tied together by a network of railroad lines. The commerce that is wholly intrastate is incidental and supplemental to the commerce which is interstate. This Board, therefore, is relatively inactive with respect to regulation of intrastate rates, service and safety of operation. The authority of the Federal agency is supreme with respect to these matters which come within its jurisdiction and the participating state agencies have no power to control action in case of conflict. A mutual attitude of cooperation is essential, however, to a smooth and efficient functioning of the agencies of our dual system of government.

FEDERAL COMMUNICATIONS COMMISSION

The provisions of the Federal Communications Act of 1934 extend to all interstate and foreign commerce by wire or radio and to all persons within the United States engaged in such commerce.

The application of the Act is limited by the provision that:

"Nothing in this Act shall be construed to apply or to give the Commission jurisdiction with respect to (1) charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service of any carrier, or (2) any carrier engaged in interstate or foreign communication solely through physical connection with the facilities of another carrier not directly or indirectly controlling or controlled by, or under direct or indirect common control with, such carrier; except that sections 201 to 205 of this Act, both inclusive, shall, except as otherwise provided therein, apply to carriers described in clause (3)," (Section 2 (b).)

These jurisdictional limits suggest that the purpose of Congress was to provide regulation for that field of commerce which is beyond the regulatory power of the state. The Act does not apply to intrastate communication service and any carrier engaged in interstate commerce solely through physical inter-connection with unaffiliated carriers is exempt. No *Shreveport* cases are possible under the Communications

Act. With special reference to telephone companies, it is further provided that:

"(b) Nothing in this Act shall be construed to apply, or to give the Commission jurisdiction, with respect to charges, classifications, practices, services, facilities, or regulations for or in connection with wire telephone exchange service, even though a portion of such exchange service constitutes interstate or foreign communication, in any case where such matters are subject to regulation by a state commission or by local governmental authority." (Section 221 (b).)

The Long Lines Department of the American Telephone and Telegraph Company is clearly within the exclusive jurisdiction of the Federal Communications Commission. The Associated Companies, however, are subject to both federal and state regulatory authority. The telephone plant of the New Jersey Bell Telephone Company, and of each of the other Associated Companies, is used jointly for exchange and toll service. The toll service is both interstate and intrastate. Therefore, determination of the reasonableness of rates for any of these three types of service requires allocation or "separation" of plant, of revenue and of operating expenses.

The United States Supreme Court has remarked that:

"The separation of the intrastate and interstate property, revenues and expenses of the company is important not simply as a theoretical allocation to two branches of the business. It is essential to the appropriate recognition of the competent governmental authority in each field of regulation."*

* Smith v. Illinois Bell Telephone Co. (1930) 282 U.S. 133, 75 L. ed. 255.

It appears that the Federal Communications Commission is now giving detailed and active attention to the problem of separation. The matter is of equal importance to the state regulatory agencies. Existing accounting records do not provide any convenient basis of separation for purposes of regulation between exchange and toll or between intrastate and interstate toll business. Only a small part of the intricate facilities of a telephone plant is used exclusively in either intrastate or interstate operation.

If the Long Lines Department were to absorb the interstate toll operations of the Associated Companies, it apparently would eliminate the necessity of costly separation studies for effective rate regulation. Such a step should make easier both the work of the Federal Communications Commission and the state regulatory commissions. The business which thus would be absorbed by the Long Lines Department is definitely of national character and not properly a subject of state regulation. The interstate toll traffic, however, is a comparatively small proportion of the total telephone business and the telephone rate problem remains essentially a state problem.

The attention which the Federal Communications Commission is giving to the problem of "separation" indicates a policy of cooperation

with state commissions and a desire to so delimit the areas of jurisdiction as to avoid duplication in regulation.

The Communications Act contains provisions similar to those in the Interstate Commerce Act authorizing joint hearings, conferences and boards. It is clear that cooperation is especially necessary where the same company supplies both intrastate and interstate service. The exercise of authority by either the Federal or the state agency, with respect to matters exclusively under its jurisdiction, influences the situation which is the concern of the other regulatory agency.

The Act also provides opportunity for cooperation and exchange of views with respect to accounting requirements. The revised system of accounts, prescribed by the Communications Commission in 1935, was developed on the basis of cooperative discussion and consideration with the state commissions. It has now been adopted by this Board to become effective January 1, 1938.

It appears to be the intent of the Communications Commission to use its general powers to require the filing of reports and information in such a way as to assist in the work of the state commissions and to encourage effectiveness and uniformity in regulation.

The Rates and Research Department of the Communications Commission has prepared, and is making available to state commissions, factual studies of existing toll rate structures and the principles underlying the Bell System's toll rate structures. The availability of information from such a central source will be of great advantage and will assist the state commissions in giving continuous and effective attention to telephone regulation. In this manner these data will become available with far greater economy than if each state commission is compelled to rely entirely upon its own resources. This Board is cooperating with the Commission in the preparation of a special study of data pertinent to determination of the fair rate of return in utility regulation.

SECURITIES AND EXCHANGE COMMISSION

The Commission's control of security issues under the Securities Act of 1933 extends equally to utility and non-utility enterprises. The security laws lay stress on the filing of reports and provide publicity and liability for misleading statements. Under the Holding Company Act, however, the Commission has direct control over the issuance of securities and other transactions of both holding and subsidiary companies.

The principal activities of subsidiary operating utilities which may be subject to control by the Securities and Exchange Commission are the following:

- (a) Issuance and sale of long term securities, and the alteration of priorities or voting powers of outstanding securities.
- (b) Solicitation of proxies, powers of attorneys, etc.

- (c) Retirement and redemption of securities.
- (d) Short time borrowing aggregating more than five per cent of the principal amount and par value of outstanding securities.
- (e) Acquisition or sale of securities or utility assets.
- (f) Inter-company loans.
- (g) Management, advisory and construction contracts.
- (h) The structure of the holding company system.

Every subsidiary company is required to keep such accounts as the Commission shall prescribe and must supply to the Commission such information and reports as may be required. It is provided that where the accounts of a company are prescribed under the provisions of state law, the rules or orders of the Commission shall not be inconsistent with the requirements imposed under the state law; nor is any public utility company relieved from the duty to keep the accounts and records required by the law or by the commission of any state. The Securities and Exchange Commission is not prevented from imposing such additional requirements regarding the keeping of accounts as it may deem necessary or appropriate. (Section 20 (b).)

With certain exceptions allowed by the Act, every security issue by a registered holding company or its subsidiaries must be registered with the Commission. Such a declaration becomes automatically effective unless the Commission objects within a specific period of time. It may not permit a declaration regarding the issue or sale of a security to become effective unless it finds that the requirements and conditions specified in the Act are satisfied. For instance, a new issue must be reasonably adapted to the security structure of the system and the earning power of the company.

The Commission, however, "by rules and regulations or order, subject to such terms and conditions as it deems appropriate in the public interest or for the protection of investors or consumers, shall exempt" the issue and sale of securities by any subsidiary company "if the issue and sale of such securities are solely for the purpose of financing the business of such subsidiary company and have been expressly authorized by the state commission, of the state in which such subsidiary company is organized and doing business * * *". (Section 6 (b).) Therefore, the Act contemplates that prior authorization by the Commission shall not ordinarily be required of operating utilities. A further provision requires the holding company or subsidiary to file, within ten days after any issue, such information as may be called for by the rules and regulations of the Commission.

It is further provided that if a state commission having jurisdiction over the issuance of securities shall inform the Securities and Exchange Commission that applicable state laws have not been complied with, the Commission shall not permit a declaration to become effective until satisfied that compliance with the state laws has been effected. (Section 7 (g).)

These provisions clearly provide a method whereby duplication in regulation of the issuance of securities may be avoided. They afford the Securities and Exchange Commission opportunity, however, to review financing even where state commission approval has been rendered.

Inasmuch as one of the fundamental purposes of the Act was to effect simplification of holding company systems, the Commission was given power to supervise the further growth of such systems. Section 9 gives to the Commission jurisdiction over the acquisition of any security or utility assets by a subsidiary of a registered holding company, but excludes from the necessity of commission approval the acquisition of *utility assets* where such acquisition has been expressly authorized by the state commission. The exemption also extends to the acquisition by a public utility of the securities of a public utility which is its own subsidiary, where all the public utility companies in the system are organized in the same state, where the business of each company is substantially confined to the state, and where the acquisition has been expressly authorized by the state commission. (Section 9 (b).) Thus, the exemption provisions with reference to securities are not as broad as those applied to utility assets.

The Commission may not approve the acquisition of securities or utility assets "unless it appears to the satisfaction of the Commission that such State laws as may apply in respect of such acquisition have been complied with, except where the Commission finds that compliance with such State laws would be detrimental to the carrying out of the provisions of Section 11". (Section 10 (f).)

It is made the duty of the Commission, under Section 11, to require that each registered holding company and each subsidiary company take such action as the Commission may find necessary to (1) limit the operations of holding company to a single integrated public utility system, or under certain specified conditions to one or more additional integrated public utility systems, and (2) to "insure that the corporate structure or continued existence of any company in the holding company system does not unduly or unnecessarily complicate the structure, or unfairly or inequitably distribute voting power among security holders. of such holding company system". (Section 11 (b).)

In connection with the administration of these provisions of Section 11, the Commission may take jurisdiction over the purchase and sale of assets, the acquisition and exchange of securities, the distribution of voting rights and other matters which may be involved in a plan of reorganization to which an operating utility is a party.

In any proceeding in a court of the United States, the court may appoint the Commission as sole trustee or receiver for any subsidiary public utility. The statute provides that the Commission must be given an opportunity to be heard before any person other than the Commission is appointed receiver or trustee. A reorganization plan affecting any

such subsidiary public utility may be proposed in the first instance by the Commission and, if proposed by others, must be approved by the Commission prior to submission to the court. (Section 11 (f).)

The Securities and Exchange Commission has authority to regulate and establish rules with respect to such transactions as inter-company lending by public utilities in a holding company system, the declaration or payment of dividends by public utilities, the solicitation of proxies and the negotiation and performance of other inter-company transactions. For instance, the Commission has authority to establish such rules with respect to dividends as it finds necessary to protect "financial integrity" and working capital, and to prevent distributions except from earned surplus. (Section 12 (c).)

It is unlawful for mutual service companies to enter into or take steps in the performance of any management or construction contract except in accordance with such terms and conditions as may be prescribed by the Commission. (Section 13.)

Although the Securities and Exchange Commission has jurisdiction over subsidiary operating companies with respect to many important matters, its control applies primarily to the holding company and its transactions with operating subsidiaries. Although the state commission has certain powers with respect to transactions between operating utilities and affiliated interests, the control by the state applies primarily to the operating company end. As cooperating procedures are developed, the two sets of regulatory agencies will be of material assistance to each other in furthering effective regulation.

FEDERAL POWER COMMISSION

The extent of the overlap of jurisdiction, and the influence on the exercise of state regulatory powers, depends jointly upon the power granted to the Federal Power Commission and upon the definition of 'licensee' and 'public utility'.

With respect to 'licensees,' through adoption of the Federal Water Power Act of 1920 and the 1935 Amendments, the Congress asserted its jurisdiction over all potential power projects on navigable waters. The jurisdiction of the Federal Power Commission may extend to projects on non-navigable streams where tributary to navigable streams and where the flow may influence the navigable capacity of such streams.¹¹

With respect to 'licensees,' through adoption of the Federal Water Power Act as follows:

11. For instance, the Commission has assumed jurisdiction over the Tuckertown Project of the Carolina Aluminum Company on the Yadkin River in North Carolina. The Yadkin River is non-navigable but is the principal tributary of the Pee Dee River, which in the past has been navigated but which has been little used during recent years.

"The term 'public utility' when used in this Part or in the Part III means any person who owns or operates facilities subject to the jurisdiction of the Commission under this Part." (Section 201 (e).)

The status of an electric company as a subject of regulation thus depends upon the ownership or operation of facilities subject to the jurisdiction of the Commission. These facilities are described by the Act as follows:

"The provisions of this Part shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this Part and the Part next following, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter." (Section 201 (b).)

This grant of regulatory power over 'public utilities' is not based upon the concept of the dedication of property to public use but results from an assertion of federal power under the commerce clause of the Constitution. The Congress expressly excluded from the jurisdiction of the Power Commission facilities used for the generation of electric energy, facilities used in local distribution and facilities used for transmission in intrastate commerce. Therefore, *Shreveport proceedings* are not possible under the Federal Power Act. In a "Declaration of Policy" immediately preceding the paragraph quoted above it is set forth that the Federal regulation is "to extend only to those matters which are not subject to regulation by the states". (Section 201 (a)).

The provisions of the Act are apparently construed by the Federal Power Commission to mean that it has jurisdiction over a company that owns no interstate transmission facilities but which generates and sells energy at wholesale to a company operating in another state. Furthermore, a generating or distributing company becomes a 'public utility' subject to the jurisdiction of the Commission no matter how unimportant the transmission line which extends across a state boundary or no matter how insignificant a proportion of its supply of energy is sold at wholesale in interstate commerce. With reference to the subjects over which it has jurisdiction, the authority of the Commission apparently is as complete as if the utility engaged in no intrastate business whatever.

The authority to regulate wholesale transmission in interstate commerce or the rates at which electric energy shall be sold at wholesale in interstate commerce, does not affect the powers of the state commission, for the reason that prior to the enactment of the Federal Power Act the state had no power to regulate such rates and service except by indirect means.

The same is not true with respect to other subjects over which jurisdiction has been given to the Commission. Its powers are in many respects similar to those typically exercised by a state commission. No public utility as defined in the Act, may sell, lease, or dispose of its facilities, merge or consolidate such facilities, or purchase any security of any other public utility without the consent of the Commission. No 'public utility' may issue any security or assume any obligation without the Commission's authorization.¹² It has authority to fix rates of depreciation for 'public utilities' and licensees under its jurisdiction. Each licensee and 'public utility' is required to keep such records as the Commission may prescribe. The Commission has power to encourage voluntary, and, under specified conditions to require interconnection and coordination of the facilities of operating utilities.

The Act provides that the Power Commission at its own discretion may refer to a board, composed of a member or members from each state affected, any matter arising in the administration of the provisions with respect to utilities engaged in interstate commerce. It is provided that the action of such a board shall have such force and effect as the Commission shall determine. (Section 209 (a)). The Commission is authorized, under such rules as it may prescribe, to hold joint hearings with any state commission in connection with any matter over which the Commission has authority. Section 209 also authorizes the Commission to make available to state commissions any of its rate, valuation or other experts at no cost to the state commission beyond reimbursement of the employment and traveling expenses of such witnesses.

A plan of cooperative procedure for matters under the provisions of Section 209 was approved in 1936 by the Power Commission and the National Association of Railroad and Utilities Commissioners and was recommended by the National Association for the state commissions represented in its membership.

With respect to accounts, it is provided that nothing in the Act shall relieve any utility from keeping any accounts or records required to be kept under authority of state law. (Section 301 (a)). The Federal Power Commission cooperated with the Committee on Statistics and Accounts of the National Association in the preparation of the system of accounts recently prescribed by the Power Commission for electric utilities under its jurisdiction. The system of accounts adopted by the National Association and recommended to the state commissions differs only in minor details from the classification of the Power Commission.

The Commission is given authority to require licensees and public utilities to carry "a proper and adequate depreciation account" and by order to fix "the proper and adequate rates of depreciation of the several classes of property of each licensee and public utility". (Section 302 (a)).

12. The authority with reference to security issues does not extend to public utilities organized and operating in a state under the laws of which its security issues are regulated by state commissions.

Presumably, the "classes of property" referred to constitute facilities used in interstate transmission. The paragraph concludes as follows:

"Nothing in this section shall limit the power of a State commission to determine in the exercise of its jurisdiction, with respect to any public utility, the percentage rate of depreciation to be allowed, as to any class of property of such public utility, or the composite depreciation rate for the purpose of determining rates or charges."

A public utility may not sell, lease or otherwise dispose of facilities of a value in excess of \$50,000.00 and subject to the jurisdiction of the Commission, or merge or consolidate such facilities, or acquire any security of any other public utility without first securing the approval of the Commission. The Commission is required to give reasonable notice of the application to the Governor and commission of each state in which is located the physical property affected.

For instance, the Power Commission recently has exercised jurisdiction over the merger of local, non-operating gas utilities with Public Service Electric and Gas Company. The merger of gas utilities, entirely intrastate in their operations, seems to be only remotely related to the limited interstate movement of electricity by the Electric Department of one of the merging companies. As a result of this assumption of jurisdiction, hearings were held by the Power Commission which were similar in all essential respects to those already held by this Board. It is our opinion that such independent exercise of regulatory power over the same subject is highly undesirable.

NEED FOR CO-OPERATION

This survey of the scope and extent of the powers of the Federal Commissions reveals the growing complexity of the structure for the regulation of utilities in the United States. In some respects the federal commissions occupy a field from which the state commissions previously were largely excluded. In other respects, the Federal and state commissions exercise parallel authority over the same subjects of regulation.

There are many points at which both the state commissions and a Federal agency have jurisdiction over the same subject of regulation. In some instances, if all regulatory agencies insist upon the exercise of the powers with which they are endowed, the approval of three commissions may be required for a transaction by a utility company.

A large measure of cooperation is provided for in the Federal regulatory statutes. It is believed that both the state and Federal agencies will disregard their duty to the public if they do not undertake to proceed on a basis of full and active cooperation. Such procedure is necessary where joint jurisdiction clearly exists with respect to various subjects of regulation. It should also extend to a reasonable construction of the regulatory statute and the marking out of a practical line of

demarcation between the jurisdiction of the Federal and state commissions.

Failure of cooperation will lead to complete duplication of effort and to conflict in regulation. Duplication of the regulatory processes will result in increased burdens for both consumers and taxpayers. A multiplicity of proceedings will increase the uncertainty and limit the incentives of management. Effective regulation cannot long tolerate such waste and uncertainty.

The new Federal regulatory agencies have indicated a policy of cooperation with the state commissions. The long standing Committee on Cooperation between state and Federal Commissions has given active consideration of the problem. In accounting control in particular, the desire to secure uniformity has led to active cooperation and joint procedure.

Without cooperation and the ability to agree as to the conclusions, conflicting decisions and orders are unavoidable. The Federal power is supreme where it is lawfully exercised. Therefore, the result of the exercise of joint regulatory powers might be to reduce the state commissions to a condition of impotency so far as these particular powers are concerned.

The third alternative might be re-examination of the entire question of the appropriate administrative area. It was pointed out above that the authority of the regulatory agency should be geographically co-extensive with the organization and activities of the subject of regulation. It is a principle of the democratic system, however, that the burden of proof as to necessity is on those who would substitute centralized for local government and administration. The provisions of the recent Federal regulatory acts indicate clearly the intent and purpose of Congress to preserve and strengthen the state commissions.

The consumer of local utility service should continue to receive the benefit of regulation by the local state commission and should not be compelled to resort to Washington for protection of his rights. The jurisdiction of the state commissions over intrastate utility service should be protected from any possible encroachment of Federal authority. The people of New Jersey should be fully aware of the extent of the trend toward centralized regulation of public utility enterprises. They are also concerned with the reasons and the adequacy of the reasons for that trend.

APPENDICES

APPENDIX 1

GENERAL STATISTICS

TABLE 1
NUMBER OF PRIVATE COMPANIES SUPPLYING UTILITY SERVICE AND
NUMBER OF CONSUMERS SERVED—1936

	No. of Companies	No. of Consumers or Riders
Electric Companies		
Public Service Electric & Gas Company-----	1	972,916
Other Companies -----	9	282,253
	10	1,255,169
Gas Companies		
Public Service Electric & Gas Company-----	1	766,390
Other Companies -----	13	184,142
	14	950,532
Water Companies		
Hackensack Water Company-----	1	86,600
Other Companies -----	39	163,060
	40	243,660
Telephone Companies		
N. J. Bell Telephone Company-----	1	656,901
Other Companies -----	9	11,023
	10	667,924
Bus Lines and Street Railways:		
Public Service Coordinated Transport-----	1	389,870,124
Other Bus Lines (Class A)-----	26	78,235,426
(Class B)-----	46	29,291,561
(Class C)-----	377	71,967,930
Other Street Railway Companies (a)-----	6	88,389,707
Total -----	456	718,535,548

(a) Includes Hudson & Manhattan Railway Company

TABLE 2
FIXED CAPITAL INVESTMENT, BY TYPE OF UTILITY

Utility	1922	As of December 31, 1935	1936	Per Cent of Total, 1936
Electric Utilities:				
Public Service Elec. & Gas Co.----	\$76,512,631	\$293,037,663	\$294,273,392	
Other Companies -----	18,155,931	123,873,740	123,450,309	
Total -----	94,668,562	416,911,403	417,723,701	38.8
Gas Utilities:				
Public Service Elec. & Gas Co.----	35,184,321	89,706,662	90,448,378	
Other Companies -----	21,181,217	46,295,748	46,985,543	
Total -----	56,365,538	136,002,410	137,433,921	12.8
Water Utilities:				
Hackensack Water Co.-----	17,521,925	29,914,140	30,603,703	
Other Companies -----	36,111,378	43,421,421	43,849,502	
Total -----	53,633,303	73,335,561	74,453,205	6.9
Telephone Utilities:				
N. J. Bell Tel. Co. (a)-----	55,923,535	197,224,493	200,209,300	
Other Companies -----	2,041,899	3,708,266	3,749,279	
Total -----	57,965,434	200,932,759	203,958,579	18.9
Bus Lines and Street Rys.:				
Public Service Coord. (b)-----	103,415,574	113,394,761	109,014,856	10.1
Other Bus (Class A, B and C)-----		19,728,327	19,850,368	1.8
Other Street Railway Cos.-----	140,999,275	115,343,171	115,168,372	10.7
Total -----	244,414,849	248,466,259	244,033,596	22.6
Total -----	\$507,047,686	\$1,075,648,392	\$1,077,603,002	100.0

(a) N. J. Bell Tel. Co. did not exist in 1922. The figures are for the New Jersey property of the N. Y. Tel. Co. and the Delaware A. T. & T. Co.

(b) The data for 1922 are for Pub. Serv. Ry. Co. and Pub. Serv. R.R. Co.

PUBLIC UTILITY COMMISSIONERS' REPORT

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TABLE 3A
AMOUNTS OF OPERATING REVENUE, BY TYPE OF UTILITY

Utility	1922	1935	1936	Percentage Change	
				1936 Over 1922	1936 Over 1935
Electric:					
Public Service E. & Gas Co.---	\$27,660,026	\$65,113,317	\$68,108,926	146.2	4.6
Other Companies -----	7,064,537	19,132,524	20,464,432	189.7	7.0
Total -----	34,724,563	84,245,841	88,573,358	155.1	5.1
Gas:					
Public Service E. & Gas Co.---	23,152,426	26,218,182	26,206,375	13.2	-0.1
Other Companies -----	7,091,101	7,715,878	7,747,128	9.3	0.4
Total -----	30,243,527	33,934,060	33,953,503	12.3	0.1
Water:					
Hackensack Water Co.-----	2,198,196	3,617,824	3,714,276	69.0	2.7
Other Companies (a)-----	5,626,811	5,648,150	5,772,486	2.6	2.2
Total -----	7,825,007	9,265,974	9,486,762	21.2	2.4
Telephone:					
N. J. Bell Tel. Co. (b)-----	17,096,147	42,323,690	45,307,182	165.0	7.1
Other Companies -----	384,243	466,491	509,024	32.5	9.1
Total -----	17,480,390	42,790,181	45,816,206	162.1	7.1
Bus Lines and Street Rys.:					
Public Service Coord. (c)-----	26,414,625	22,029,144	23,395,518	-11.4	6.2
Other Bus Companies					
(Class A, B and C)-----		16,799,157	17,520,213		4.3
Other Street Ry. Companies---	13,091,383	6,846,098	6,972,347	-46.7	1.8
Total -----	39,506,008	45,674,399	47,888,078	+21.2	4.9
Grand Total -----	\$129,779,495	\$215,910,455	\$225,717,907	73.9	4.5

(a) Water companies whose gross revenue is \$10,000 per year, or more.

(b) See the footnote on Table 2.

(c) See the footnote on Table 2.

TABLE 3B
AMOUNTS OF OPERATING EXPENSE, BY TYPE OF UTILITY*

Utility	1922	1935	1936	Percentage Change	
				1936 Over 1922	1936 Over 1935
Electric:					
Public Serv. Elec. & Gas Co.---	\$16,226,952	\$26,744,649	\$28,400,739	75.0	6.2
Other Companies -----	4,908,496	10,229,222	10,556,373	115.1	3.2
Total -----	21,135,448	36,973,871	38,957,112	84.3	5.4
Gas:					
Public Serv. Elec. & Gas Co.---	14,724,180	13,672,737	14,067,863	- 4.5	2.9
Other Companies -----	4,921,520	4,949,855	5,110,604	+ 3.8	3.3
Total -----	19,645,700	18,622,592	19,178,467	- 2.4	3.0
Water:					
Hackensack Water Co.-----	800,540	1,009,611	1,050,400	+31.2	4.0
Other Companies -----	3,005,177	2,359,323	2,516,660	-28.1	6.7
Total -----	3,805,717	3,368,934	3,567,060	- 6.3	5.9
Telephone:					
N. J. Bell Tel. Co. (a)-----	11,843,224	30,515,759	31,493,061	165.9	3.2
Other Companies -----	299,828	335,209	366,534	22.3	9.3
Total -----	12,143,052	30,850,968	31,859,595	162.4	3.3
Bus Lines and Street Rys.:					
Public Service Coord. (b)-----	18,079,130	17,200,797	18,014,893	- 0.4	4.7
Other Bus Companies					
(Class A, B, and C)-----		14,909,349	15,747,220		5.6
Other Street Ry. Companies---	8,205,349	3,394,332	3,482,165	-57.6	2.6
Total -----	26,284,479	35,504,478	37,244,278	+41.7	4.9
Grand Total -----	\$83,014,396	\$125,320,843	\$130,806,512	57.6	4.4

* Including depreciation and uncollectible bills but not taxes.

(a) See the footnote on Table 2.

(b) See the footnote on Table 2.

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TABLE 3C
AMOUNTS OF TAXES, BY TYPE OF UTILITY

Utility	1922	1935	1936	Percentage Change 1936 Over 1922	Percentage Change 1936 Over 1935
Electric:					
Public Serv. Elec. & Gas Co.---	\$2,874,554	\$11,445,562	\$12,462,624	333.6	8.9
Other Companies -----	586,155	2,359,224	2,672,669	336.0	13.3
Total -----	\$3,460,709	13,804,786	15,135,293	337.4	9.6
Gas:					
Public Serv. Elec. & Gas Co.---	2,560,162	4,264,299	4,465,517	74.4	4.7
Other Companies -----	691,809	979,490	1,001,140	44.7	2.2
Total -----	3,251,971	5,243,789	5,466,657	68.1	4.3
Water:					
Hackensack Water Co.-----	530,237	1,003,723	1,088,570	105.3	8.5
Other Companies -----	786,740	1,104,925	1,129,875	43.6	2.3
Total -----	1,316,977	2,108,648	2,218,445	68.5	5.2
Telephone:					
N. J. Bell Tel. Co. (a)-----	1,767,790	4,917,388	5,656,275	20.0	15.0
Other Companies -----	36,666	64,516	68,830	87.7	6.7
Total -----	1,804,456	4,981,904	5,725,105	217.3	14.9
Bus Lines and Street Rys.:					
Public Service Coord. (b)-----	2,654,476	2,148,908	2,329,014	12.3	8.4
Other Buses					
(Class A, B, and C)-----		769,919	990,699	--	28.7
Other Street Ry. Companies---	1,065,765	883,871	912,690	14.4	3.3
Total -----	3,720,241	3,802,698	4,232,403	+13.8	11.3
Grand Totals -----	\$13,554,334	\$29,941,825	\$32,777,903	141.8	9.5

(a) See Footnotes on Table 2.

(b) See Footnote on Table 2.

TABLE 3D
AMOUNTS OF NET OPERATING INCOME, BY TYPE OF UTILITY

Utility	1922	1935	1936	Percentage Change 1936 Over 1922	Percentage Change 1936 Over 1935
Electric:					
Public Serv. Elec. & Gas Co.---	\$8,558,520	\$26,923,106	\$27,245,563	218.3	1.2
Other Companies -----	1,569,886	6,544,078	7,235,390	360.9	10.6
Total -----	10,128,406	33,467,184	34,480,953	240.5	3.0
Gas:					
Public Serv. Elec. & Gas Co.---	5,868,085	8,281,149	7,672,995	30.8	-- 7.3
Other Companies -----	1,477,772	1,786,530	1,634,384	10.6	-- 8.5
Total -----	7,345,857	10,067,679	9,307,379	26.7	-- 7.6
Water:					
Hackensack Water Co.-----	867,419	1,604,491	1,575,306	81.6	-- 1.8
Other Companies -----	1,834,894	2,183,902	2,125,951	15.9	-- 2.7
Total -----	2,702,313	3,788,393	3,701,257	37.0	-- 2.3
Telephone:					
N. J. Bell Tel. Co. (a)-----	3,485,133	8,157,846	6,890,543	97.7	--15.5
Other Companies -----	37,749	73,660	66,766	76.9	-- 9.4
Total -----	3,522,882	8,231,506	6,957,309	97.5	--15.5
Bus Lines and Street Rys.:					
Public Service Coord. (b)-----	5,681,120	3,051,611	2,679,439	--52.8	--12.2
Other Buses					
(Class A, B and C)-----		782,231	769,919	--	-- 1.6
Other Street Ry. Companies---	3,820,269	2,577,492	2,567,895	--32.8	-- 0.4
Total -----	9,501,389	6,411,334	6,017,253	--36.7	-- 6.2
Grand Totals -----	\$33,200,847	\$61,966,096	\$60,464,151	82.1	-- 2.4

(a) See the footnote on Table 2.

(b) See the footnote on Table 2.

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TABLE 4
SUMMARY OF ELECTRICAL SUPPLY TO PRIVATE UTILITIES
IN NEW JERSEY—1936

Supply	(Thousands of K.W.H.)
Generated by New Jersey Utilities—Gross:	
Steam Generation	3,991,394
Hydro Generation	1,816
Total Gross Generation, as reported.....	3,993,210
Less Reported Station Use.....	104,924
Net Output at Generating Stations.....	3,888,286
Purchased from Industrial Plants and Municipal Utilities.....	22,736
Total Supply from New Jersey Sources.....	3,911,022
Imported from Other States:	
A—Transactions with affiliated interests	
1—Interchange agreements	49,780
2—Firm power contracts	1,587
B—Transactions with non-affiliated interests	
1—Interchange agreements	228,307
2—Firm power contracts	—
Total imported from other States.....	279,674
Total Electrical Supply	4,190,696
Disposition of Supply	
Sales to ultimate consumers in New Jersey.....	2,743,441
Sales to New Jersey municipalities for re-sale.....	7,056
Exported to other States:	
A—Transactions with affiliated interests	
1—Interchange agreements	770,397
2—Firm power contracts	4,692
B—Transactions with non-affiliated interests	
1—Interchange agreements	112,022
2—Firm power contracts	—
Total exported to other States.....	887,111
Used by electric utilities in other departments.....	61,570
Total used and sold by utilities.....	3,699,178
Supplied without charge	406
Unaccounted for—Line Loss, etc.....	491,112
Total Electrical Supply Disposed of.....	4,190,696

TABLE 5
ANNUAL SALES OF ELECTRICITY TO ULTIMATE CONSUMERS
BY PRIVATE UTILITY ENTERPRISES (a) IN NEW JERSEY

	Total Sales		Average Revenue per kwh. (cents)
	Quantity (Thousands of kwh.)	Revenue (Thousands of Dollars)	
1922	663,872	33,963	5.12
1923	827,499	38,772	4.69
1924	911,079	43,205	4.74
1925	1,105,280	49,950	4.52
1926	1,314,275	59,077	4.50
1927	1,506,206	66,380	4.41
1928	1,705,405	74,224	4.35
1929	2,005,625	81,806	4.08
1930	2,104,529	86,053	4.09
1931	2,161,179	88,193	4.08
1932	2,030,587	83,956	4.13
1933	2,042,840	79,773	3.91
1934	2,156,689	82,470	3.82
1935	2,327,326	82,740	3.56
1936	2,611,663	86,897	3.33
1937 (b)	2,934,181	91,654	3.12

(a) Companies classified as A, B, or C under the System of Accounts. The effect upon the results of omitting Class D companies is negligible.

(b) Twelve months ended September 30th.

TABLE 6

ANNUAL SALES OF ELECTRICITY TO ULTIMATE CONSUMERS BY PRIVATE
UTILITIES IN NEW JERSEY, EXCLUDING PUBLIC SERVICE
ELECTRIC & GAS COMPANY AND ITS PREDECESSOR

	Total Sales		
	Quantity (Thousands of kwh.)	Revenue (Thousands of Dollars)	Average Revenue per kwh. (cents)
1922	129,941	6,884	5.30
1923	161,215	8,390	5.20
1924	168,609	9,041	5.36
1925	193,166	10,587	5.48
1926	237,562	12,767	5.37
1927	281,026	14,715	5.24
1928	311,908	16,141	5.18
1929	374,554	17,959	4.79
1930	418,938	19,484	4.65
1931	445,209	20,047	4.50
1932	411,070	18,446	4.49
1933	423,931	17,837	4.21
1934	459,391	18,283	3.98
1935	510,632	18,584	3.64
1936	613,524	19,998	3.26
1937 (a)	677,915	21,266	3.14

(a) Twelve months ended September 30th.

TABLE 7

ANNUAL SALES OF GAS TO ULTIMATE CONSUMERS BY
PRIVATE UTILITY ENTERPRISES (a) IN NEW JERSEY

	Total Sales		
	Quantities (Millions of cubic feet)	Revenue (Thousands of Dollars)	Average Revenue per thousand cubic feet
1922	21,619	\$28,702	\$1.33
1923	23,735	30,691	1.29
1924	24,141	30,530	1.26
1925	24,761	30,876	1.25
1926	27,179	33,751	1.24
1927	27,818	34,831	1.25
1928	29,321	36,485	1.24
1929	30,599	38,056	1.26
1930	31,259	38,831	1.24
1931	31,137	38,502	1.24
1932	30,119	37,208	1.24
1933	28,243	34,750	1.23
1934	28,502	34,800	1.22
1935	27,649	33,591	1.21
1936	28,718	33,649	1.17

(a) Includes companies classified by the system of accounts as A, B, and C. The effect upon the results of omitting Class D companies is negligible.

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TABLE 8
ANNUAL SALES OF GAS TO ULTIMATE CONSUMERS BY PRIVATE UTILITY
ENTERPRISES IN NEW JERSEY, EXCLUDING PUBLIC SERVICE
ELECTRIC & GAS COMPANY AND ITS PREDECESSORS

	Total Sales		Average Revenue per thousand cubic feet
	Quantities (Millions of cubic feet)	Revenue (Thousands of Dollars)	
1922 -----	3,883	\$6,193	\$1.59
1923 -----	4,177	6,620	1.58
1924 -----	4,283	6,739	1.57
1925 -----	4,475	7,016	1.57
1926 -----	5,044	7,771	1.54
1927 -----	5,275	8,012	1.52
1928 -----	5,534	8,181	1.48
1929 -----	5,846	8,685	1.49
1930 -----	6,049	8,987	1.49
1931 -----	6,104	8,940	1.46
1932 -----	5,933	8,492	1.43
1933 -----	5,514	7,887	1.43
1934 -----	5,509	7,774	1.41
1935 -----	5,340	7,449	1.39
1936 -----	5,597	7,490	1.34

APPENDIX 2

SECURITY ISSUES BY MOTOR BUS CARRIERS DURING 1937					
Date	Name of Carrier	Kind of Security	Amount of Securities		
			Common Stock	Notes	Total
1937					
Jan. 28	George C. Krebs, Inc.	5 promissory notes	-----	\$5,000.00	\$5,000.00
Feb. 18	The E. & A. Bus Company, Inc.	20 shares no par	\$2,000.00	-----	2,000.00
18	Motorbus Lines	11 shares par, Class B	1,100.00	-----	1,100.00
Mar. 18	M. & G. Bus Co., Inc.	20 shares no par	1,000.00	-----	1,000.00
18	Pauls Transit Co.	10 shares no par	1,000.00	-----	1,000.00
Apr. 1	Grossman Bus Company, Inc.	15 shares no par and notes	1,050.00	5,487.90	6,537.90
8	Clinton Avenue Bus Company	No par common	1,000.00	-----	1,000.00
22	Derby Bus Company	No par common and notes	1,000.00	5,232.00	6,232.00
29	J. Crane Transportation Co., Inc.	10 shares par	1,000.00	-----	1,000.00
29	Serec Bus Company, Inc.	21 shares no par	1,000.00	-----	1,000.00
May 13	White Horse Pike Bus Co., Inc.	180 shares par	18,000.00	-----	18,000.00
20	Browell Bus Co.	10 shares par	1,000.00	-----	1,000.00
20	The Molmar Bus Transportation Corporation	10 shares no par and notes	1,000.00	5,380.00	6,380.00
20	Saks Bus Transport Company, Inc.	3 shares no par and notes	1,000.00	8,381.28	9,381.28
20	Van Buren Bus Company	10 shares no par	1,000.00	-----	1,000.00
27	Pagach Bus Corporation	Notes and mortgage	-----	5,000.00	5,000.00
June 3	J. & J. Bus Company, Inc.	20 shares no par and notes	2,000.00	8,499.33	10,499.33
3	Keogan Bus Company	10 shares par and notes	1,000.00	6,780.00	7,780.00
3	Serbo Bus Company	10 shares par and notes	1,000.00	8,155.68	9,155.68
10	The Ace Bus Transportation Corporation	10 shares no par and notes	1,000.00	7,812.96	8,812.96
10	The Drogin Bus Company	10 shares no par and notes	1,000.00	7,593.60	8,593.60
10	Filida Bus Corporation	10 shares no par and notes	1,000.00	7,744.80	8,744.80
10	Martucci Bus Company	500 shares par	5,000.00	-----	5,000.00
17	Alfred F. Bauer, Inc.	30 shares no par and notes	1,500.00	13,590.00	15,090.00
29	Saffron Bus Company, Inc.	11 shares no par	1,100.00	-----	1,100.00
29	Zrenner-Casper Bus Company, Inc.	100 shares no par	1,000.00	-----	1,000.00
July 22	J. & H. Bus Company, Inc.	11 shares no par	1,100.00	-----	1,100.00
22	Koll Motor Transportation Co.	19 shares par	1,900.00	-----	1,900.00
22	The Bloom Bus Company, Inc.	20 shares par and notes	2,000.00	3,307.44	5,307.44
22	Bryant & Shelton Company	10 shares par	1,000.00	-----	1,000.00
22	The Ellmas Bus Company	20 shares par and notes	2,000.00	6,100.00	8,100.00
22	The Marmer Bus Corporation	10 shares par and notes	1,000.00	7,680.00	8,680.00
22	E. J. Shannon Bus Company	40 shares par	4,000.00	-----	4,000.00
22	Edward Sweeney, Inc.	20 shares par	2,000.00	-----	2,000.00
22	Takrab Bus Company	10 shares no par	1,000.00	-----	1,000.00
28	The Krebs Bus Company	Notes	-----	8,400.00	8,400.00
28	The Leo Bus Company	10 shares par and notes	1,000.00	8,000.00	9,000.00
28	The Montgomery Bus Corporation	10 shares par and notes	1,000.00	8,000.00	9,000.00
28	The Tufano Bus Corporation	10 shares par and notes	1,000.00	8,400.00	9,400.00
28	The West Side Bus Corporation	10 shares par and notes	1,000.00	8,000.00	9,000.00
Oct. 28	Phox Bus Company	15 shares no par and notes	1,500.00	6,360.00	7,860.00
28	Sokolow & Glick	10 shares par and notes	1,000.00	7,070.79	8,070.79
Nov. 4	John A. Policastro	125 shares no par and notes	2,000.00	18,400.00	20,400.00
4	Rubenstein Bus Company	15 shares no par	1,000.00	-----	1,000.00
4	Vistar Bus Company, Inc.	21 shares no par	1,000.00	-----	1,000.00
10	The Cottage Bus Company	10 shares par and notes	1,000.00	8,640.00	9,640.00
10	The Malley Bus Company	35 shares par and notes	3,500.00	6,000.00	9,500.00
10	Richmond Bus Lines	51 shares no par and notes	5,100.00	18,296.15	23,396.15
18	The Saranella Transportation Co.	12 shares no par	1,000.00	-----	1,000.00
Dec. 1	Consolidated Bus Lines, Inc.	Guarantee of lease	-----	-----	-----
9	The Garfield & Passaic Transit Co.	15 year notes	-----	28,000.00	28,000.00
9	The Marveth Bus Corporation	24 shares no par	1,200.00	-----	1,200.00
			<u>\$86,050.00</u>	<u>\$245,311.93</u>	<u>\$331,361.93</u>

APPENDIX 3

ACCIDENTS ON RAILROADS DURING 1937

	Killed	Injured
Collisions:		
Passengers -----	0	4
Employees -----	2	15
Others -----	1	2
Derailments:		
Employees -----	1	3
Passengers -----	0	8
At Bridges and Tunnels:		
Passengers -----	2	1
Employees -----	0	0
Others -----	1	2
Struck by Locomotives or Cars:		
Employees -----	13	10
Others -----	42	29
Getting On or Off Trains:		
Passengers -----	1	144
Employees -----	8	27
Others -----	2	16
Coupling or Uncoupling Cars:		
Employees -----	1	3
Other Causes:		
Passengers -----	0	88
Employees -----	6	159
Others -----	1	22

APPENDIX 4

DETAILS OF GRADE CROSSING ELIMINATION PROJECTS

ABSECON (P.-R.S.L.)

After hearing on July 28, 1937, the Board issued an order for the elimination of five grade crossings in the City of Absecon.

The financing of this project, which is estimated to cost \$1,200,000, is expected to be accomplished with funds from the Bureau of Public Roads, the State, and the Railroad Company.

ALLENDALE (ERIE R.R.)

During 1936 hearings were held on an application of the Borough of Allendale for the elimination of grade crossings on Crescent, Allendale, and Park Avenues and on Orchard Street with the main line tracks of the Erie Railroad.

Under date of July 28, 1937, the Board issued an order to eliminate the crossings.

The Railroad Company has made a survey of the site and is proceeding with the preparation of construction plans.

ASBURY AVENUE, ATLANTIC TOWNSHIP (C.R.R. OF N.J.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on March 5th, 1936, issued an order to eliminate the grade crossing.

Contract for construction was let by the State Highway Department October 27, 1936, and the project was opened to traffic in June, 1937.

Funds from the Bureau of Public Roads were allotted to meet the entire cost of construction and costs for property acquired were shared equally by the State and Railroad Company.

AVENEL STREET, WOODBRIDGE TOWNSHIP (P.R.R.)

One of the projects for which a grant of 45% of the cost was made by P.W.A.

A detailed description of the project, based on the plan approved by the Board, was given in the Annual Report for 1935.

Work on the project was started by railroad forces September 24th, 1936, construction under contract began November 4, 1936, and the project was completed on November 30, 1937.

After construction was under way the Board, on April 15, 1937, acting on application of the Township of Woodbridge, amended its order so as to include a pedestrian subway as part of the project.

Matters of final accounting are in progress. State funds meet one-half the total cost of the project.

BELLEVILLE TURNPIKE, KEARNY (ERIE R.R.)

A "Works Program-State Highway Department" project involving two separate grade crossings on which the Board initiated proceedings and on December 12, 1935, issued an order to eliminate the grade crossings.

Contract for construction was let by the State Highway Department October 6, 1936, and construction was completed in October, 1937.

It was not necessary to acquire any property for the construction of this project and all matters relating to it have been concluded.

CENTRAL AVENUE, WESTFIELD (C.R.R. OF N.J.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on October 2nd, 1935, issued an order to eliminate the grade crossing.

Construction started April 13, 1936, and the project was opened to traffic October 9, 1937.

Funds from the Bureau of Public Roads were allotted to meet the entire cost of construction. Costs of property acquired and of property damage are shared equally by the State and Railroad Company. Receipt and clearance of bills for State's share of property costs are only matters not concluded.

COLONIA BOULEVARD AND SUCKER BROOK ROAD, COLONIA (P.R.R.)

Execution of the order of the Board to eliminate these crossings was held in abeyance pending the outcome of litigation on a similar order in the Iselin case.

In the meantime funds to aid in the construction of the project became available through a 45% grant from P.W.A.

Work was started by railroad forces on November 14, 1936, and construction under contract began March 22, 1937. Construction made favorable progress during the year and the project is approximately 97% completed.

State funds meet one-half the total cost of the project.

COMLY ROAD, LINCOLN PARK (D.L.&W. R.R.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on October 2nd, 1935, issued an order to eliminate the grade crossing.

Construction started April 14, 1936, and the project was opened to traffic in January, 1937.

Funds from the Bureau of Public Roads were allotted to meet the entire cost of construction.

Receipt and clearance of bills for the State's share of property costs are only matters not concluded.

CREAMERY ROAD, GREAT MEADOWS (L.&H.R. RWY.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on October 8, 1935, issued an order to eliminate the grade crossing.

Contract for construction was let by the State Highway Department in September, 1936, and construction was completed in January, 1937.

Funds from the Bureau of Public Roads were allotted to meet the entire cost of construction. The State and the Railroad Company shared equally the costs of land acquired.

All matters relating to the project have been concluded.

CROSSING 1400 FEET EAST OF WOODRUFF'S GAP, TOWNSHIP OF SPARTA (L.&H.R. Rwy.)

This crossing was also included for consideration on the "Works Program-State Highway Department" list. The board initiated proceedings and on October 2nd, 1935, issued an order to eliminate the grade crossing.

However, the Bureau of Public Roads would not approve the project for inclusion in the current program and enforcement of the Board's order is in abeyance.

DEANS ROAD, SOUTH BRUNSWICK TOWNSHIP AND BLACK HORSE LANE,

NORTH BRUNSWICK TOWNSHIP (P.R.R.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on December 4th, 1935, issued an order to eliminate the crossings. This order was later modified on June 29, 1937, to eliminate the Deans Road crossing on its present alignment.

Contract for construction of the project was let by the State Highway Department on August 4, 1937. Construction is making favorable progress with approximately 35% of the project completed.

Funds from the Bureau of Public Roads were allotted to meet the entire cost of construction. The State and the Railroad Company share equally the costs of property acquired for the project.

DEWEY AVENUE, WHARTON (D.L.&W.R.R.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on October 5, 1935, issued an order to eliminate the grade crossing.

Construction started April 23, 1936, and work under contract was finished in January, 1937.

Receipt and clearance of bills for the State's share of the cost of property acquired are only matters not concluded.

ELIZABETHPORT (C.R.R. OF N.J.)

After a suspension of several years, due to the inability of the Railroad Company to meet its share of the cost, construction was resumed on this project November 14, 1936. Funds to aid in completing the work became available in the form of a grant from P.W.A. in an amount not to exceed \$2,110,950.00. The project will be completed in accordance with revised plans adopted by Modification of Order dated July 23, 1935, which now comprehend the elimination of grade crossings at thirteen streets and two branch lines of the railroad.

Construction is progressing with railroad forces and under a series of construction contracts let by the Railroad Company upon approval by the Board and P.W.A. To date six such contracts have been awarded and it is expected two additional contracts will cover the balance of contract work involved in the project.

Contract No. 1 for construction of a sewer in Caspian Street was completed November 9, 1937.

Construction on the project as a whole is approximately 27% completed.

FORT LEE ROAD, BOGOTA (N.Y.C.R.R. W.S.R.R.)

Application for grant to aid in the construction of this project was made to P.W.A. in March, 1937.

Studies have been made of the possibility of constructing a bridge over the railroad at Main Street which would permit vacating the grade crossing on Fort Lee Road thereby effectuating its elimination. Estimates of the cost for such a plan have been made and the Borough of Bogota may apply for a rehearing for consideration of it.

FRANKLIN AVENUE, PENNINGTON (READING CO.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on October 2, 1935, issued an order to eliminate the grade crossing

Construction started in October, 1936, and the project was completed in November, 1937.

Funds from the Bureau of Public Roads were allotted to meet the entire cost of construction

Receipt and clearance of bills for the State's share of the cost of property acquired are only matters not concluded.

GLEN ROCK (ERIE R.R.)

Further hearings on an application by the Borough of Glen Rock for an order to eliminate two crossings on Rock Road in accordance with a new plan were held in June, October and December. Case continues under hearing.

HAMMONTON-WEYMOUTH ROAD, DA COSTA, ATLANTIC COUNTY (P.-R.S.L.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on February 4, 1936, issued an order to eliminate the grade crossing.

Funds from the bureau of Public Roads were allotted to meet the entire cost of construction

Construction started in December, 1936, and was completed in July, 1937.

Final accounting on property bills is in progress.

JIMMY LEE CROSSING, ESTELL MANOR, ATLANTIC COUNTY (P.-R.S.L.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on February 4, 1936, issued an order to eliminate the grade crossing.

Contract for construction was let by the State Highway Department on January 11, 1937, and construction was completed in September, 1937.

Bills for the State's share of the cost of property acquired are being audited.

LAKE AVENUE (GOODMANS), SCOTCH PLAINS (L.V.R.R.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on October 2nd, 1935, issued an order to eliminate the grade crossing

Construction started July 27, 1936, and the project was opened to traffic in January, 1937

Funds from the Bureau of Public Roads were allotted to meet the entire cost of construction.

Receipt and clearance of bills for the State's share of property costs are only matters not concluded.

LAMBERTS MILL ROAD, WESTFIELD AND TOWNSHIP OF SCOTCH PLAINS (L.V.R.R.)

The Board initiated proceedings for the elimination of this crossing and on March 5, 1936, issued an order to eliminate the crossing.

This project was originally included on the "Works Program-State Highway Department" list, but at the request of the Railroad Company it was removed from the list and construction proceeded under the terms of the Davis Act, whereby the State and the Railroad Company share the cost equally.

Construction started September 8, 1937, and was completed October 18, 1937.

Receipt and clearance of bills for the State's share of the cost of the project are only matters not concluded.

LEESVILLE AVENUE, WOODBRIDGE TOWNSHIP (P.R.R.)

One of the projects for which a grant of 45% of the cost was made by P.W.A. Work on the project was started by railroad forces November 30, 1936, and

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construction under contract began in January, 1937. With the exception of a few minor details the project was completed on November 30th, 1937.

Matters of final accounting are in progress. State funds meet one-half the total cost of the project.

MULFORDS, ANDOVER TOWNSHIP (L.&H.R. Rwy.)

This crossing was included for consideration on the "Works Program-State Highway Department" list. Proceedings were initiated by the Board and on October 2nd, 1935, an order to eliminate the grade crossing was issued.

However, the Bureau of Public Roads would not approve the project for inclusion in the current program and enforcement of the Board's order is in abeyance

NEWTON-SPARTA ROAD, ANDOVER (L.&H.R. Rwy.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on October 2nd, 1935, issued an order to eliminate the crossing.

Contract for construction was let by the State Highway Department in August, 1936, and construction was completed in September, 1937.

Funds from the Bureau of Public Roads were allotted to meet the entire cost of construction. The State shared no costs in connection with the project.

All matters relating to this project have been concluded.

OAK TREE ROAD, ISELIN (P.R.R.)

An order to eliminate the grade crossing on Oak Tree Road and the main line tracks of the Pennsylvania Railroad was issued by the Board on March 22nd, 1934. Execution of the order was delayed during litigation by the Railroad Company in an unsuccessful effort to obtain relief from it.

In the interim funds to aid in the construction of the project became available through a 45% grant from P.W.A.

Construction was started on September 24, 1936, and was completed on November 30, 1937.

Matters of final accounting are in progress. State funds meet one-half the total cost of the project.

PARK AVENUE, SOUTH PLAINFIELD (L.V.R.R.)

Agreement on price for the Kellogg property permitted clearance in October 1937, of the final item relating to this project.

PASSAIC (ERIE R.R.)

Further hearings on the application of the City of Passaic for a general elimination of grade crossings in the City were held in September and October to consider an alternate plan proposed by the City. Hearings concluded upon withdrawal of alternate plan and case is now in conference

SPRINGFIELD AVENUE, BERKELEY HEIGHTS (D.L.&W.R.R.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on October 2nd, 1935, issued an order to eliminate the grade crossing

Construction started April 27, 1936, and the project was opened to traffic in January, 1937.

Funds from the Bureau of Public Roads were allotted to meet the entire cost of construction.

Receipt and clearance of bills for the State's share of property costs are only matters not concluded.

TALMADGE ROAD, RARITAN TOWNSHIP (P.R.R.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on October 25, 1935, issued an order to eliminate the grade crossing.

Contract for construction was let by the State Highway Department on August 18th, 1936, and construction was completed in September, 1937.

Receipt and clearance of bills for the State's share of the cost of property acquired are only matters not concluded.

12TH STREET OR WHEAT ROAD, FOLSOM, ATLANTIC COUNTY (P.-R.S.L.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on March 26, 1936, after a re-hearing of the case, issued an order to eliminate the grade crossing.

Contract for construction was let by the State Highway Department on April 7, 1937, and construction is approximately 85% completed.

Funds from the Bureau of Public Roads were allotted to meet the entire cost of construction.

Auditing of bills for the State's share of the cost of property acquired is in progress.

WASHINGTON AVENUE, NEW MARKET (L.V.R.R.)

A "Works Program-State Highway Department" project on which the Board initiated proceedings and on January 7, 1936, issued an order to eliminate the grade crossing at Washington Avenue.

The proceedings originally affected three grade crossings located in close proximity to each other on Prospect Street, Main Street and Washington Avenue but the Board considered the method proposed to accomplish the elimination of the three grade crossings as part of one project impractical and discarded it in preference for a plan affecting the elimination of the grade crossing on Washington Avenue only.

Contract for construction was let by State Highway Department on March 31st 1937, and construction was completed in November, 1937.

Funds from the Bureau of Public Roads were allotted to meet the entire cost of construction.

Receipt and clearance of bills for the State's share of the cost of property acquired are matters not yet concluded.

WILLOW AVENUE, HOBOKEN (N.Y.C. & ERIE R.R.'s)

Matters of final accounting between the railroads, the State and P.W.A. were concluded in June, 1937.

WILSON AVENUE, NEWARK (C.R.R. OF N.J.)

The order to eliminate this crossing was originally issued by the Board May 1st, 1933, but extensions of time for beginning the work were granted from time to time and construction of the project did not start until January 7, 1937, after funds to meet part of the cost became available through a P.W.A. Grant.

Work under contract with the Standard Bitulithic Company is making favorable progress with construction approximately 92% completed.

WOODBIDGE—(FIVE CROSSINGS) (P.R.R.)

Action on application for 45% grant to aid in the construction of the project is pending.

APPENDIX 5

ADDITIONAL PROTECTIVE DEVICES INSTALLED AT GRADE CROSSINGS
DURING THE TWELVE MONTHS FROM DECEMBER 1, 1936
TO NOVEMBER 30, 1937

Location	Crossing	Railroad	Protection Installed
Absecon	Shore Road	P. R. R.	2 Flashing light signals, back lights.
Athenia	Mt. Prospect Ave.	D. L. & W.	1 Automatic flagman, 1 Crossing sign.
Augusta	Stradders Crossing	D. L. & W.	2 Flashing light signals, bell attached.
Augusta	Highway	Lehigh	Back lights added to flashing lights.
Baleville	Highway	L. & N. E.	Back lights added to flashing lights.
Bruglers	Highway	L. & N. E.	Back lights added to flashing lights.
Bergenfield	New Bridge Rd.	N. Y. Central	Back lights added to flashing lights.
Delanco	Coopertown Rd.	P. R. R.	2 Flashing light signals.
Dover	Morris Ave.	C. R. R. of N. J.	New crossing at grade. 2 Standard crossing signs, protected by member of crew.
Dumont	Maple Ave.	N. Y. Central	Back lights added to flashing lights.
Dumont	New Milford Rd.	N. Y. Central	Back lights added to flashing lights.
Elmer	State Route No. 48	P. R. S. L.	Reflex standard crossing signs installed.
Englewood	Brookside Ave.	Erie	2 Flashing light signals. 2 Reflex crossing signs. 2 Reflex stop signs.
Englewood	Forest Ave.	Erie	2 Flashing light signals. 2 Reflex crossing signs. 2 Reflex stop signs.
Great Notch	Francisco Ave.	Erie	2 Reflex approach signs.
Gloucester	Powell St.	P. R. S. L.	2 Flashing light signals, back lights attached.
Harrington Park	La Roche Ave.	N. Y. Central	Back lights added to flashing light signals.
Harrington Park	Harriet Ave.	N. Y. Central	Back lights added to flashing light signals.
Harrington Park	Old Tappan Rd.	N. Y. Central	Back lights added to flashing light signals.
Haworth	Haworth Ave.	N. Y. Central	Back lights added to flashing light signals.
Hawthorne	Wagaraw Rd.	Erie	2 Reflex approach signs. 2 Reflex standard crossing signs.
Kenvil	Kenvil Ave.	C. R. R. of N. J.	1 Standard crossing sign.
Lafayette	State St.-Snooks	D. L. & W.	2 Flashing light signals, bell attached.
Linden	Lower Road to Rahway	C. R. R. of N. J.	New crossing at grade. 2 Standard crossing signs, protected by member of crew.
Linden	Stiles St.	C. R. R. of N. J.	New crossing at grade. 2 Standard crossing signs, protected by member of crew.
Linden, West of 2650'	Linden Ave.	C. R. R. of N. J.	New crossing at grade. 2 Standard crossing signs, protected by member of crew.
Linden, West of 3826'	Linden Ave.	C. R. R. of N. J.	New crossing at grade. 2 Standard crossing signs, protected by member of crew.
Linden, West of 3832'	Linden Ave.	C. R. R. of N. J.	New crossing at grade. 2 Standard crossing signs, protected by member of crew.

Location	Crossing	Railroad	Protection Installed
Lindenwold	Linden Ave.	P. R. S. L.	2 Flashing light signals with back lights.
Lyons	Lake Road	D. L. & W.	2 Flashing light signals, bells attached.
Manahawken	Bay Ave.	Southern N.J.R.R.	Protected by member of crew.
Manumuskinn	State Route No. 49	P. R. S. L.	Reflex crossing signs installed.
Metuchen	Grove St.	P. R. R.	Gates installed.
Millville	Main St.	P. R. S. L.	Flashing light signals removed from center to side of highway—back lights added.
Millville	5th & Sassafras Sts.	P. R. S. L.	Back lights added.
Millville	Pine St.	P. R. S. L.	Flashing light signals removed from center to side of highway—back lights added.
Millville	Second St.	P. R. S. L.	Flashing lights removed from center to side of highway—back lights added.
Millville	Oak St.	P. R. S. L.	Flashing lights removed from center to side of highway—back lights added.
Millville	Vine St.	P. R. S. L.	Back lights added.
Millville	Third St.	P. R. S. L.	Flashing light signals removed from center to side of highway—back lights added.
Millville	Mulberry St.	P. R. S. L.	Flashing light signals removed from center to side of highway—back lights added.
Millville	Fourth St.	P. R. S. L.	Flashing light signals removed from center to side of highway—back lights added.
Pelletown	Highway	L. & N. E.	Back lights added to flashing light signals.
Piscataway	Mt. Pleasant Ave.	C. R. R. of N. J.	1 Standard crossing sign.
Pitman	Holly Ave.	P. R. S. L.	Annunciator bells in watchman's shanty.
Pitman	Pitman Ave.	P. R. S. L.	Annunciator bells in watchman's shanty.
Pitman	Broadway	P. R. S. L.	Annunciator bells in watchman's shanty.
Richland	State Route No. 48	P. R. S. L.	2 Flashing light signals, back lights added.
Riverdale	Riverdale Road	Erie	2 Reflex crossing signs. 2 Flashing light signals.
Riverdale	Hamburg Turnpike	Erie	1 Automatic flagman. 2 Reflex crossing signs. 2 Reflex stop signs.
Riverton	Cedar St.	P. R. R.	2 Flashing light signals.
Rochelle Park	Maple Ave., Saddle River Rd.	Erie	Back lights added.
Roselle Park	Galloping Hill Rd.	Lehigh	Gates, 24 hour operation.
Somerville	State Route No. 31	C. R. R. of N. J.	2 Flashing light signals.
So of Barnegat	State Route No. 4	Southern N. J.	Protected by member of crew.
Trenton	Lalor St.	P. R. R.	Annunciators and indicators.
Waterford	Main St.	P. R. S. L.	2 Flashing light signals. 1 Automatic bell. Gates, 7 A.M.-7 P.M.
Wenonah	Mantua Ave.	P. R. S. L.	Annunciator bell in watchman's shanty.
West Norwood	Blanche Ave.	N. Y. Central	Back lights added to flashing light signals.
West Norwood	Norwood Ave.	N. Y. Central	Back lights added to flashing light signals.
Westville	River Road	N. Y. Central	2 Flashing light signals, back lights attached.
Williamstown	State Route No. 42	N. Y. Central	Reflex crossing signs installed.
Woodbury	Barker Ave.	P. R. S. L.	Annunciator bells in watchman's shanty.

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Location	Crossing	Railroad	Protection Installed
Yorkship	Fairview St.	P. R. S. L.	Annunciator bell in watchman's shanty.
Bacon's Neck	Bacon Neck Rd.	C. R. R. of N. J.	Discontinuance of railroad.
Bacon's Neck	Tappin Road	C. R. R. of N. J.	Discontinuance of railroad.
Bayside to Greenwich	6 Private Crossings	C. R. R. of N. J.	Discontinuance of railroad.
Dorothy	So. Jersey Ave.	P. R. S. L.	Discontinuance of railroad.
Frenchtown, So. of	Case's Crossing	P. R. R.	Discontinuance of railroad.
Greenwich	Canton Road	C. R. R. of N. J.	Discontinuance of railroad.
Haddonfield	Park Ave.	P. R. S. L.	Discontinuance of railroad.
Haddonfield	Berlin Road	P. R. S. L.	Discontinuance of railroad.
Mulford's	Sink Hole Crossing	L. & H. R. R.	Discontinuance of railroad.
Picton, West of	Fanwood Rd., 4880' Lehigh West of Lam-berts Mill Rd.		Discontinuance of railroad.
Waldwick	Prospect St.	Erie	Discontinuance of railroad.
Colonia, West of	Sucker Brook Rd.	P. R. R.	Crossing eliminated.
Colonia, West of	Private Crossing	P. R. R.	Crossing eliminated.
Dayton, East of	Private Crossing	P. R. R.	Crossing eliminated.
Braddocks	Braddock Ave.	P. R. S. L.	Crossing widened.
Daretown	Pittsgrove Road	P. R. S. L.	Crossing widened.
Friendship	State Route No. 44	P. R. S. L.	Crossing widened.
Minotola	Summer Road	P. R. S. L.	Crossing widened.
Monroeville	Frank Isle Road, Daretown Road	P. R. S. L.	Crossing widened.
Palatine	Greenville Road	P. R. S. L.	Crossing widened.
Parkintown	Parkintown Road	P. R. S. L.	Crossing widened.
Sewell	Turner's Road	P. R. S. L.	Crossing widened.
Winslow	Spring Garden Rd.	P. R. S. L.	Crossing widened.
Mountain View	Preakness Ave.	D. L. & W.	Under consideration for elimination.

