Public Utility Regulation in New York, Massachusetts and Wisconsin under the Public Service Commission

by

Charlotte Proper

Submitted in partial fulfillment of the requirements for the degree of Master of Arts in the Graduate College

University of Arizona

1935

Approved: [Signature]

May 23, 1935

Major Professor
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Chapter I. Regulation in New York State</td>
<td>8</td>
</tr>
<tr>
<td>A. History of Commission Regulation</td>
<td>8</td>
</tr>
<tr>
<td>B. Valuation, The Rate Base and Rate of Return</td>
<td>12</td>
</tr>
<tr>
<td>C. Holding Company Regulation in New York</td>
<td>21</td>
</tr>
<tr>
<td>D. Accounting and Security Control in New York</td>
<td>28</td>
</tr>
<tr>
<td>E. Municipal Ownership and the Problem of Judicial Review</td>
<td>32</td>
</tr>
<tr>
<td>F. The Commission - Its Personnel and Problems</td>
<td>35</td>
</tr>
<tr>
<td>Chapter II. Regulation in Massachusetts</td>
<td>39</td>
</tr>
<tr>
<td>A. Brief History of Commission Regulation</td>
<td>39</td>
</tr>
<tr>
<td>B. Rate Regulation in Massachusetts</td>
<td>43</td>
</tr>
<tr>
<td>C. Regulation of Securities in Massachusetts</td>
<td>53</td>
</tr>
<tr>
<td>D. Holding Company Control in Massachusetts</td>
<td>61</td>
</tr>
<tr>
<td>E. Service Standards in Massachusetts</td>
<td>66</td>
</tr>
<tr>
<td>Chapter III. Regulation in Wisconsin</td>
<td>69</td>
</tr>
<tr>
<td>A. Introduction and Historical Background of Regulation</td>
<td>69</td>
</tr>
<tr>
<td>B. Valuation and Rate Regulation in Wisconsin</td>
<td>72</td>
</tr>
<tr>
<td>C. Security and Holding Company Control</td>
<td>82</td>
</tr>
<tr>
<td>D. Accounts and Reports</td>
<td>87</td>
</tr>
<tr>
<td>E. Service Standards in Wisconsin</td>
<td>89</td>
</tr>
<tr>
<td>F. Public Ownership in Wisconsin</td>
<td>91</td>
</tr>
<tr>
<td>Chapter IV. Critical Evaluation of Regulation in the Three States</td>
<td>95</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>Bibliography</td>
<td>104</td>
</tr>
</tbody>
</table>
PUBLIC UTILITY REGULATION IN NEW YORK, MASSACHUSETTS AND WISCONSIN UNDER THE PUBLIC SERVICE COMMISSION

INTRODUCTION

One of the most pertinent problems in our present day industrial and economic set-up is the regulation and control of utilities. The process of regulation has passed through numerous stages, many of which were difficult and trying. It is expedient therefore, before plunging into an analysis of regulation in New York, Massachusetts and Wisconsin, that I prepare the reader by laying the foundations in this introduction.

Utilities, especially the electrical companies, sell a peculiar combination of service and commodity, or in some cases, merely a service. With the increasing emphasis placed on power projects, e.g., Roosevelt Dam, St. Lawrence Project, and Muscle Shoals, it is timely to consider utility service from the viewpoint of the electrical companies, which are typical of the modern situation. For the most part, the product is one of local consumption, closely connected with the locus of distribution. Storage, except in unique cases, is rarely possible and due to this fact, it is necessary that the product be highly standardized. And finally,
transactions between the utility and the public take place on a cash basis. (1) These characteristics tend to make the public utility commodity or service, economically different from other products and services which we contact in daily life.

An almost inseparable auxiliary of the early regulatory bodies is the function and attitude of the Federal courts. We cannot begin to trace the development of regulation until we have satisfactorily discussed the role of the courts. The utility corporations have been favored by the antagonistic attitude of the lower Federal courts, which arrested state regulatory action by reversing commission decisions and by delaying statute and ordinance enforcement.(2)

Another auxiliary of state regulation was the franchise. The early franchises were short, and contained comparatively few restrictions. Service standards were non-existent and valuation for rate making was still in its immature stages, and curiously, the utility was not recognized as a natural monopoly. The forces of competition were considered as restrictive factors in rate determination.

The railroad commissions, as predecessors of the modern public service commissions, went through the developmental stages of first acting as an advisory body and later, about 1907 to be exact, assumed their mandatory position. Wiscon-

(1) Cooke, Morris L. Public Utility Regulation. p. 16
(2) Cooke, Morris L. Public Utility Regulation. p. 37
sin, however, at the time of the "Grange" agitation for railroad legislation, tried the mandatory attitude in its regulatory dealings, but soon abandoned it in favor of its former policy. The Massachusetts Commission maintained its advisory role which carried surprising weight in the control of railroads.

As an aid to the regulatory machinery of the commission, the franchise is an important document. The modern franchise, unlike the former loose charters, contains limitations of term, conditions of renewal, option of purchase by the municipality, common user privileges, requirements for street paving, franchise tax, extensions, and the regulation of rates and services. The use of referendum or franchise ordinances is many times made compulsory.

The two most popular and widely used franchises are the Indeterminate Grant and the Service at Cost Franchise. The Indeterminate Grant is characterized by the lack of a fixed term continuing until the grantor shall terminate it. This is an advantage because it eliminates the uncertainty and interruptions so frequently characteristic of the fixed term franchise. The municipality or the public may terminate it upon purchase of the utility's property. This type of franchise is quite prevalent with the municipalities in New York, Massachusetts and Wisconsin. The Service at Cost type of franchise embodies certain favorable points lacking in the former. This type of franchise proceeds to fix the
valuation of a property as a basis for ratemaking, and also to decide this question when the public purchases the property. On this valuation, minus accrued depreciation, and plus an authorized increase in investment that has been determined, the rate is fixed. An operating fund or surplus is thus established, and as a means of regulating this fund, the sliding scale of rates operates to maintain this fund at an equalization point. Accounts in this franchise are to be placed under public scrutiny. (1)

Before discussing in a general way the liabilities and problems that face the modern Public Service Commission, it is wise to review briefly those features of regulation over which the commissions have no control. The commissions lack jurisdiction over matters which relate to the use of streets for utility structures. Many parts of the laws deal specifically with utility and patron relationships. On the other hand, the utility company uses its franchise as a protective means against legislatures and city councils, which many times repeal laws and repudiate their obligations. In all cases, possible growth of a business should be anticipated, and a means of amortization for the ultimate protection of the owner, should be considered.

Let us peruse, not too profoundly, some of the major issues with which the state commissions as a whole have to cope. For the most part, two problems of primary interest

(1) Cooke, Morris L. Public Utility Regulation. p. 48
facing the regulators, are services and rates. Rate determination involves reasonableness of return plus the problem of finding the cost of service. The Courts hold that questions of finance and operating policy must be left largely to the discretion of private management. The right of the commission to intervene in a regulatory scope is permissible due to the monopoly character of the utility.

The entire question of rate making standards evolves about the valuation issue. There are several methods, some tried and some suggested, of evaluating public utility properties. The famed Smyth v. Ames rule is still used as a dogmatic base in valuations. (1) It involves elements of historical or original cost, reproduction cost, going concern value, development expense and early losses, market value of stocks and bonds, operating expenses and taxation values. The reproduction cost element, due to radical changes in price level since the war, has been the cause of much conflict. A newer scheme, which the Massachusetts commission claims to use is the prudent investment theory. However, it is doubtful whether the Department of Public Utilities in Massachusetts does actually use this method.

(1) 169 U. S. 466, 546 (1898)
in the orthodox sense. (1)

Besides valuation, other problems with which the commission is concerned are rate of return, operating expenses, income taxes, depreciation, and municipal contracts. Morris L. Cooke has classified the field of commission activity in the following manner:

1. Deciding jurisdictional questions
2. Making valuations
3. Reviewing operating expenses
4. Finding a reasonable return
5. Authorizing security issues
6. Authorizing public service operations
7. Accounting questions
8. Fixing reasonable rates
9. Discrimination questions (Rates and service)
10. Service standards. (2)

From the above array of problems, it is apparent that the commission is indeed overburdened and on many issues its function is likely to become merely that of a judiciary. In

(1) The courts, for a lack of a more definite substitute, support the Smyth v. Ames procedure in valuation. Some States have been more fortunate than others in possessing Federal courts which are favorable to their valuation practices. Massachusetts and Wisconsin may be numbered among these. New York, on the other hand, is less fortunate. The main point of contention revolves about the use of reproduction costs as a determinant in the valuation process, and the other contradictory element present in the "Federal rule".

(2) Cooke, Morris L. Public Utility Regulation. pp. 69, 70.
view of this above outline, with certain alterations, I shall consider exactly how each of the three states, Massachusetts, Wisconsin and New York, proceed to regulate its utilities, and at the close of this paper, I will attempt a comparison of the systems of regulations in each of these states. Because these commissions have been progressive in their policies, I have chosen them for my discussion.
CHAPTER I

REGULATIONS IN NEW YORK STATE

A. HISTORY OF COMMISSION REGULATION IN NEW YORK STATE.

The first state to be studied is New York, which like Wisconsin was one of the first to forge ahead and initiate revision of the unsatisfactory system of regulation prevailing until 1929.

Popular protest voiced itself in the New York legislature when it was found that the Edison Company and the New York Telephone Company both owned the New York Consolidated Company and the Empire City Subway Company respectively. To end complaints, an investigating commission with Charles E. Hughes as chairman was appointed. Holding Company regulation was recognized as a pressing problem in 1906, at which time a State Gas Commission was created whose purpose it was to supervise closely the New York City Gas and Electric Companies. Dissatisfied with the inertia on the part of these bodies, the public agitated for state wide control of a more embracing nature. Instead of limiting regulatory supervision to Gas and Electric Companies, the jurisdiction of the Public Service Commission, as it was now called, was extended to include all of the utilities within the state. On May 22,
In 1907, the New York legislature passed the Public Service Commission law and close on its heels followed Wisconsin (July 9, 1907) with an even more comprehensive plan. (1)

In the State of New York, two commissions were provided for, one which had jurisdiction over the metropolitan area of New York City and the other, the Up-state commission, with control over the remainder of the state. The basic law provided for the supervision of railroads, street railways, telephone, gas and electric properties. For the most part, with the exception of the appointment of a Transit commission to regulate transportation within New York City, the original law has not been changed. (2)

With the enactment of the new law, the public expected to terminate the prevalent abuses, but the utilities proved to be well up to the contest. These good intentions were interrupted by the war, which succeeded in diverting public attention to more pressing matters. The utilities seized the opportunity to reinforce their holdings by means of reorganization and consolidation into holding companies whose ultimate aims were exploitation and excessive profit making. In 1929, it was apparent that matters could not

(1) Mosher, Eugene. Electrical Utilities. A Crisis in Public Control. p. 6
continue along these lines and that some type of remedial action was in order. (1)

The old law was ambiguous and in several respects its administration was cumbersome due to its reliance on the orthodox Smyth v. Ames ruling in the determination of correct valuations of utility property. (2) The difficulty centered about the changing price levels since the war, the uncertainty of what constituted "fair value", and thirdly, the determination of unit prices, which might be applied to reproduction costs. After a quarter century of experiment with utility regulation, it was essential that past achievements be reviewed by an impartial investigative body. (3)

(2) 169 U. S. 466, 546 (1898) In essence, the Smyth v. Ames rule provides for the ascertaining of "fair value" through a consideration of the original cost of construction, the amount spent on permanent improvements, the amount and market value of its bonds and stocks, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses.
Influenced by public sentiment, Governor Smith suggested public ownership and control of the undeveloped water and power resources. It was pointed out that the holding companies controlled 98.5 percent of the kilowatt hours sold. To counteract these accumulative abuses, the "Thayer-Dunmore" bill was passed on April 6, 1929, creating the investigating commission to peruse thoroughly the existing utility law and make recommendations. There were nine men on the commission, three appointed by the Governor, three by the Assembly, and three by the Senate, with the Republican majority prevailing. Messers Knight, Hickey and Thayer were the Senatorial appointees, McGinnes, Stone and Dunmore, Assemblymen, and Adie, Bonbright, and Walsh, Governor appointees. These men were thorough and impartial in their undertakings, and they had powers sufficient for them to accomplish constructive work in the way of drafting and submitting measures and amendments. (1) The finished report was submitted February 28, 1930, and consisted of five hundred pages in which were included a majority and minority report, a report by Senator Thayer, a report by W. J. Donovan, a counsel, and notations on public utility laws in six foreign countries. (2)

(2) Sumner, J. D. op. cit. p. 259.
B. VALUATION, THE RATE BASE AND RATE OF RETURN

Most of the criticism in New York is on rates. Although there have been increases in the volume of business, improvement in the load factor, and reductions in the unit costs, there has not been a corresponding decrease in rates. Because of inadequate standards for rate determination and indefinite measures of the "fairness" of rates, the commission's action in most cases has been negative. The high level of rates is the result of the continued reversal of commission interpretation of indefinite statutes by the courts. To minimize litigation, the commission must abide by the Smyth v. Ames rules in arrive at fair value. The "rule" is essentially the combination of several conflicting criteria, such as original cost of construction, cost of permanent improvement, and the market value of stocks and bonds.

In addition, administrative difficulties such as the determination of fair value, the elements to be included and the weights to be allotted to each in its determination, the insufficiency of data to determine unit price, share in complicating matters. Since the World War, the application of "reproduction costs" as specified under the "federal rule" has resulted in several problems:

1. To what extent must change in reproduction cost be reflected in the new fair value?

2. How shall unit prices applicable to reproduction

(1) 169 U. S. 466, 546 (1898)
costs be determined under changed conditions (1)

Since the commission could not meet the companies with any definite stance, it shied away from the initiation of rate investigations. The majority faction of the investigating commission made several recommendations in consideration of the many difficulties encountered in rate regulation and valuation:

1. The "law of the land" shall prevail in determining the value of all existing properties except those of steam and street railways.

2. On the basis of such valuation, the commission be authorized to enter contractual rate agreements with the companies, if the latter so desire, for a ten year period.

3. To the initial evaluations are to be added the actual costs of future investments or additions. Rate regulation is to be accomplished through accounting control.

4. In case a utility balks at entering such an agreement "the commission shall use initial value and keep them up-to-date, according to the accepted means". (2)

Bauer proposed to make an initial valuation of all existing properties, and to base the evaluation on the "law of the land", considering reproduction as well as actual costs. A definite sum for each piece of property, including proper allowance for overhead, "going" value, deprecia-

tion, and physical wear, would be fixed. This amount would be regarded as a fixed, non-variable sum. Those additional investments made for public service could be added to this sum. A return of seven percent would be allowed, except where the credit condition of the utility would warrant any special adjustment.

To aid in the elimination of conflicting interests, rates would be generally based on the cost of service, including the return on properties in accord with exact quantities of record. Rates would cover operating expenses, all taxes and a sufficient return on property. In addition, the creation of an equalization reserve would serve to absorb frequent shifts in general rate levels. To this reserve is credited excess revenues above the total cost of service. All deficiencies are likewise deducted from the reserve. Fundamentally the cost basis would be substituted by the initial valuation, and the rate of return for the actual cost of capital with respect to existing properties. The commission would have jurisdiction over the fixing of rate differentiations among the classes of consumers, as it sees fit. (1)

Lack of definiteness as to the total cost of service which includes the total revenue requirements, is one of the points of conflict, according to Bauer.

The majority and minority reports of the investigating commission coincide on the suggestion that a rate base fixed at a certain figure which would be altered only by additions of future investments and subtractions of abandoned property, and an exact return for every company be established.

The newly proposed laws, growing out of the majority recommendation, added nothing to the old, except the mandate to make the municipalities parties in any valuation proceedings. The contract bill was amended to read that the municipalities had the right to enter into rate contracts with the companies for a period of ten years. Both these measures were vetoed by Governor Franklin D. Roosevelt, as they contributed nothing toward the solution of the problem.

The minority was more radical and introduced bills, the first of which advocated the compulsory plan of a definite rate base, modifiable by additions and abandonments; and a fixed return. These measures were approved by Governor Roosevelt.

Bauer's plan seems to take on the same characteristics as that set forth by the Minority. Valuation of existing properties is to be made according to the principles already in existence. Instead of optional short-term contracts, the minority commission advocated compulsory enforcement of rate based on initial valuations kept up-to-date by subsequent additions at cost, minus the book value.
of withdrawn property and the amount of depreciation reserve. As an optional measure, a twenty-five year contract plan was proposed. It is quite apparent that the success of any plan depends on its compulsory enforcement. To repeat, Bauer thought that a seven percent return was ample except where the financial condition of the company dictated otherwise. The Commission permitted a return of eight percent. This seems higher than the percentage allowed by Massachusetts and Wisconsin which seems to center around six percent.

In reference to the contract, the majority plan provides that the commission and the companies shall decide what the rate of return shall be on the initial valuation. To determine the rate of return on "future investments", the following would be considered:

1. The market price received from purchases for bonds and preferred stock.

2. In the case of common stock, a reasonable return, sufficient to attract new capital.

3. For additions in property, paid for by common stock issues, a fixed rate specified in the contract, would be applied to the total amount of such an investment. In any case, eight percent would be the limit above which the rate of return would not go. (1)

The minority plan proposed that the rate of return be based on the initial valuation of each company considering size, type and the financial standing of the company plus the actual cost of securing the capital. The other portion of the plan coincides with the majority plan. In order to provide for the attraction of new capital, each issue of common stock should be earmarked, and a permanent allowance made in the form of a fixed return thereon so calculated as to attract necessary capital."

Like Bauer's plan again, the commission suggests the establishment of a "rate equalization reserve". This would be the result of a ten-year accumulation equal to twenty percent of the entire rate base to which reserve all excess earning and deficiencies shall be credited or debited. If the balance in the reserve should fall below five percent of the rate base, a raise in the rates would be warranted. However, as a second stabilizing device omitted by Bauer, the minority includes a clause giving the Public Utility companies the right to make good in any one year, any deficit below a fair return, during the proceeding three-year period. (1)

Rather than commit themselves definitely, the majority of the investigating commission proposes to postpone

the question for a ten-year period. They are shifting the burden. The companies, on the other hand, feel well satisfied with conditions as they are and they persist in taking refuge in judicial decisions. The question presents itself as to whether or not a fixed rate base and rate of return is really the most expedient plan to follow. In other words, will incentives be neglected to such a degree as to result in managerial stagnation? It seems that the commission thought of this too, for they have provided a plan to perpetuate incentives which otherwise might be negligible.

First, it was suggested that a "sliding scale of dividends" be used in connection with some merit-rating scheme or flexible dividends to all voting common stock. Secondly, they recommend that the utility commission be given wide powers over practically all phases of operation so that it may check uneconomic expenditures and contracts with affiliated companies. Thirdly, that the commission negotiate agreements for division of economies of consolidations between companies and consumers. And finally, that the rate base and depreciation provisions will remove the present inducement to retain obsolete equipment in the property.

In addition to these recommendations, a substitute method of rate control was suggested probably as a means of doing away with the danger of inhibiting incentives. This was the cost of reproducing the service. Competitive
forces operating up to the point of increasing returns and decreasing returns would tend to keep rates down. (1)

The minority of the investigating commission seems very much in favor of prudent investment. Yet it has been stated that many people have lost interest in the prudent investment base, since present replacement costs may drop below investment costs. (2)

This phase of the regulatory problem (i.e., valuation and rate of return) is really of utmost importance and is the cornerstone of sound and effective supervision. Once this problem has been definitely settled, it seems that most of the difficulties would vanish. It is therefore, very disappointing to find that this is one of the particular problems on which the minority and majority cannot agree.

The law, as enacted, authorizes the commission to give immediate relief where it is needed. In other words, it clarified and extends the power of the commission to fix temporary rates. (3)

It establishes a minimum rate of return of five percent, below which the commission may not go in fixing temporary rates, and then authorizes the commission in its final determination to correct any error which might have been made in

(2) Ransom, W. L. "Valuation and Rate Making". American Academy of Political and Social Sciences. p. 54
view of the limited information at its disposal when it acted originally. The new measure also provided that the commission may require public utility companies to provide and maintain a perpetual inventory of the property used and useful in the public service. Rate cases are usually delayed because of the necessity of preparing an inventory and hence, an available and reliable inventory may be an important fact in causing the commission to be less reluctant to undertake investigations. A second provision demands that the company records be kept so as to show currently the original cost of the property. Original cost is usually a very prominent factor in valuation cases and has been so for the past forty years, as held by the Supreme Court. (1)

The Burchill Livingston law proposed to assess fees against the companies in order to partially meet the costs of regulation. This has been criticized vehemently on the basis that it is merely shifting the burden of finance. From these fees assessed on the companies affected, a revolving fund will be formed as working capital to pay the cost of such investigations until funds have been collected from the utilities. (2)

C. HOLDING COMPANY REGULATION IN NEW YORK.

It is best to go back a little to the beginning of the holding company problem, starting with the growth of this type of intercompany relations. It was, among other things, the large and wild growth of holding companies which the editorial in the "New York World" attacked. The holding company problem presented itself as far back as 1906. Holding companies are actual and legal operators and should be subject to control by the same authorities as the subsidiaries. As a suggestive measure, the commission should have control over the acquisition by holding companies of the interests in operating subsidiaries. Regulation of accounts, contracts, fees and services, salaries and dividends was recommended as necessary aids in keeping holding company operations under close scrutiny. (2)

Holding companies are not recognized by the courts as being public utilities and as a result, they are subject to limited regulation by the Public Service Commissions of the various states. Their security issues are unregulated (except in states with Blue Sky Law commissions). Their accounts are not subject to the uniform accounting provisions. The commission does not even have access to their

(2) Prendergast, W. A. Public Utilities and the People, pp. 94-95.
books. By charging for different services performed by the operating subsidiaries, they make enormous profits that sometimes deplete the earnings of the operating companies and result in higher rates charged to the consumer. Both the majority and the minority of the investigating commission agree that the holding companies themselves should be controlled and their books opened to inspection. (1)

Of course, the existence of the holding companies may be justified on the basis that they effect many economies and financial advantages which accompany large scale production and distribution under centralized management. Now, opponents might contend that the holding company movement has resulted in a concentration of control beyond the bounds of maximum efficiency. In either case, certain problems come to the fore, which require immediate attention. They are: First, how far shall supervision over these companies extend? Second, shall state or Federal jurisdiction prevail? (2)

Bonbright's plan would provide for full publicity of holding company accounts under prescribed and uniform systems. He believes that this is all that should be tried before more radical measures are put into effect. In this

(1) Bauer, J. op. cit. p. 397.
way the investors and the public service commission would be informed as to the actual transactions taking place between the holding companies and subsidiaries. Publicity of this type would tend to limit the number of unfair dealings.

The haphazard combination of systems of poorly integrated properties has resulted in systems contrary to the principles of engineering technique and operating efficiency. It is precisely this type of evil that the commission is aiming to eliminate. At present, New York state is divided between two systems, the Niagara Hudson System and the Associated Gas system. (1) About three companies control one-half and about fifteen companies control ninety percent of the utilities in New York state. (2) A rational plan or map of utility properties is very unlikely if the holding companies are left unrestrained to acquire those properties which they desire.

Since the utilities are permitted to charge only such rates as will yield them a fair return over and above their legitimate expenses of operation, the commission could insist that rates be limited to a point where revenues would cover expenses. This, of course, could best be accomplished by exposing, through publicity, the excessive

(2) Flynn, J. T. "Pyramiding of Holding Companies" op. cit. (1) p. 15.
service charges now in practice. It is a very vicious circle where a public utility system trades with itself through profitable transactions between the parent companies and the operating subsidiaries.

In 1930, the New York legislature passed two bills regulating the holding companies. The first law provided that the Public Service Commission shall have jurisdiction over:

1. All those holding one percent or more of voting capital stock of any utility company.

2. Over all affiliated interests having transactions besides ownership of stock and receipt of dividends with a utility company by means of the access to all accounts and records referring to such negotiations. This act also provided that "no management, construction, engineering or similar contracts, hereafter made with any affiliated interest as hereinafter defined, shall be effective unless it first have been filed with the commission." The commission shall have the authority to reject any contract which might be found contrary to public interest.

The second act prescribed a procedure for ascertaining the identity and respective interests of those controlling stockholding interests of one percent or more of the voting capital stock of the utility corporations.
The following are the steps necessary to record stockholdings in the annual reports.

1. Filing the copies of trust agreements under which stock is held.

2. Submission of the sworn statements by stockholders or successive stockholders in chains of ownership when required by the commission. This enables the commission to trace and evaluate inter-company transactions. (1)

To aid the commission in keeping vigilant, all purchases of ten percent or more of the voting stock must be approved by it. Likewise, in Massachusetts, the ten percent figure prevails, but in Wisconsin, the figure has been set at five percent. Mergers and consolidations in the public's interest were to be encouraged.

Governor Lehman recommended that the Public Service Commission be given authority to approve or disapprove any arrangements, agreements, contracts, or payments between operating and holding companies, so as to establish more effective control over operations and expenditures. He also suggested that after July 1, 1933, operating companies in New York State should be forbidden to lend funds to companies which hold their stocks provided a time should be fixed within which such inter-company loans should actually be liquidated. (1)

The Public Service Commission recommended legislation to prevent operating companies from using their credit to finance holding companies or affiliated operating units except with the permission of the commission. There was a general belief that public utility operators should be barred from using revenues for any other purpose than operation maintenance, depreciation costs, the extension of facilities and services, and the payment of fixed charges and dividends to stockholders. Upstream loans from the operating company to the holding company tend to weaken the power of the operating unit to finance its own needs especially in times of depression. The depression has shown that the holding companies cannot finance their subsidiaries with any greater facility than the ordinary financial agencies which are open to the operating companies. (1) The legislature approved of closer supervision of utility company financing. (2)

The 1934 law prohibits lateral loans except with the consent and approval of the commission. These are loans from one subsidiary company to another. This law supplements the one passed in 1933, which prohibited upstream loans except with the commission's consent. On the assumption that the credit resources of an operating company

(1) New York Times February 4, 1933 p. 25
(2) New York Times April 11, 1933 p. 3
should be used to provide service at reasonable rates, these measures leave the commission to decide what are proper utility expenses. This policy should prevent operating companies from diverting their funds to recoup the losses of their affiliated companies. (1) The amendment also eliminated a provision which defined affiliated interests as those corporations which may be subject to the commission's jurisdiction in some other direction and which have not had transactions or dealings during a preceding two-year period. Pursuant to this authority, the Public Service Commission has redefined affiliated interests as those holding five percent of the voting stock of another public service corporation. The former ruling was to the effect that ownership of ten percent of such stock was to be construed as "affiliated interest".

Another amendment in 1934 provided that no charge for any management, construction, engineering, or similar service should be made by one affiliated company to another at more than the reasonable cost of such service. The burden of proof is on the company to justify such charges. The amendment of 1930 did not cover charges made for services without contracts, a fact which defeated the whole purpose of the law.

(1) New York Times May 13, 1934. Section 8 p. 2
D. ACCOUNTING AND SECURITY CONTROL IN NEW YORK.

Very closely allied with the holding company problem is the control and regulation of accounting and security issue. It is by the close supervision of the latter that the Public Service Commission hopes to keep holding company transactions under close scrutiny.

Briefly, under accounting control it was suggested that the burden of proof shall be placed on the company concerning any account questioned by the commission; that the annual corporate reports to the commission should disclose all the holders of one percent or more voting stock; and that there ought to be more frequent field audits. In reference to the latter recommendation, the investigating commission was of the opinion that an audit should be made at least once every two years, and should include both operating and capital accounts of all the companies within the jurisdiction of the commission. (1) This procedure would prove particularly valuable in cost research, and in keeping the perpetual inventories or valuations up-to-date. Another recommendation provided that the Public Service Commission "be given full authority over the method of computation and the amounts of all charges to operating expense accounts and offsetting credits to reserves for any purpose including depreciation or retirement". (2)

(1) Mosher, W. and Crawford F. Public Utility Regulation p. 135
It was further suggested that accounting procedure should be altered in reference to appliance sales, so that no expenses pertaining to them should be added to the cost of the utility services. The separation as herein stated has been likewise observed in Wisconsin and Massachusetts. These jobbing and appliance merchandising operations are to be segregated and cared for as a separate department which shall be charged with the proper proportion of overhead expense. The New York Commission directed that an accounting system be developed, including a report on which the full and complete cost of merchandising operations of utilities was apparent.

Almost inseparable with the regulation of accounts is the control over security issues. In the investigation, attention was drawn to the fact that New York's statutes were not uniform for all classes of securities and amendments were suggested to remedy this difficulty. Under the old act, the capitalization of merged companies was limited to the sum of the capitalization of the constituent company or to such sum plus additional amounts paid in cash. The amendment permitted capitalization of the reorganized company to be fixed at the "fair value" of the property involved, or such "fair value" plus any additional amounts paid in cash. (1) Colonel Donovan, counsel for the investigating commission, recommended that this section be reno-

(1) Mosher, W. and Crawford, F. Public Utility Regulation. p. 122
vated so as to limit the capitalization of a reorganized company to the actual or estimated original cost of the property. His suggestion was not favored.

In the background of holding company operations, consolidations and mergers, looms the important problem of stock acquisition and security issues. In many ways, manipulations of stock and securities can easily cover shady operations. The New York Public Service Commission announced that it would not approve the acquisition of stock of a utility corporation unless it could be shown that such acquisition would be in the public's interest. The pyramid ing of funds with the holding company on the top was a weakness instead of an asset because of the inability to procure liquid cash when crises presented themselves. (1)

For close supervision of security issues, it was recommended:

1. That the period during which Gas and Electric utilities may issue securities to pay for previous capital expenditures be reduced from ten to five years.

2. That provisions governing the issuing of securities be Telephone and Telegraph companies shall be made uniform with those applicable to other utilities.

3. Short term notes issuable without the consent of

the commission should not be allowed to exceed five per-
cent of the stated value of the outstanding securities. (1)

4. The prohibition of the issuances of stock in pay-
ment of dividends should be more specifically stated.

5. That the commission shall approve of every change
made in the voting rights of the stock of a public utility.

6. Any shift of stated capital to surplus shall be
prohibited. (2)

In most states, the Public Service Commission approves
of all securities before the operating company can make any
issue. Securities of holding companies in many cases, re-
main unregulated and the result is that stocks and bonds ex-
cceed par value or book value of the subsidiary’s securities
which form the only important assets of the holding company.
Due to the fall in general price levels, valuations made by
the Public Service Commission are likely to drop and endanger
holding company securities which are based on an inflated
capital structure. The holders of their securities and the
public as consumers will suffer from the above situation.
By an interpretation of the clause "the acquisition of less
than ten percent of the total capital stock issued", the ac-
quision of voting control escaped commission approval.
Thus in 1930, to remedy this evasion, a law was passed to

(1) Mosher, W. E. and Crawford, F. Op. Cit. p. 120
read "more than ten percent of the capital stock issued".

At present, it seems that the commissions are gradually getting the holding company situation well in hand. Under the amended law the commission can make procedure concerning accounts and securities definite.

E. MUNICIPAL OWNERSHIP AND THE PROBLEM OF JUDICIAL REVIEW.

The minority of the investigating commission proposes competition with the public as a means of rate regulation. It is their plan to permit the municipalities to construct plants with the least possible trouble, excluding the condemnation proceedings; also to permit the municipalities to serve surrounding territories without being required to request the privilege first. To replace private with municipal plants at the expiration of the franchise without buying up old obsolete property, is another plan of the minority. The majority rejects these suggestions as being impractical, until a system of more effective regulation is installed.

One of the bills sponsored by the minority proposed to grant to every municipality the full right to establish municipal ownership and operation, either through the purchase of existing properties, or the installation of new properties if they could not purchase the existing properties at a reasonable price. This was a necessary step to put an end to the opposition of the companies against the mandatory system.
The amended law authorizes municipal corporations to establish, own and operate gas and electric plants subject to certain conditions and restrictions, and to permit local units to extend their lighting systems into adjoining territories if the commission assents. If the municipality is to take action, it must first pass an ordinance to establish ownership and operation of a utility plant. The new ordinance must be advertised six consecutive weeks before an election is held on the plan. The election must be held at least ninety days after action is taken by the local board. Acquisition of utilities may be financed in whole or part by taxes or by bond issues. The bill does not require municipal ownership, but merely extends to the municipal corporations the power which villages now have. The Dunnigan Steingut bill removes all municipal corporations from commission control and supervision and provides that rentals and charges for services shall be fixed by the legislative body of the municipal corporation. The chief criticism is that the public should be protected against confiscation of their property because of unfair competition and against possible political interference.

Regarding municipalities, there is a suggestion that they be given the right to appear as a party in all proceedings before the Public Service Commission and before the courts, affecting the rates or services of the utilities...
within their area. (1)

However, all these amendments would be useless if the commission could not limit judicial appeal to state courts instead of the federal courts. The companies realize the power of the weapon in their possession. They can easily evade or postpone commission regulation by use of injunction and appeal to the federal courts. Sumner and Bauer believe that continued appeal by the utility companies to the lower federal courts results in the:

1. "Retrying of the entire case, and the United States Judicial Code does not provide for the certification of the record of the state administration body.

2. "At present, recourse to judicial review rests on the theory that rate making is more than a mere problem of the interpreting established law. Violation of the Fourteenth Amendment, as such, delays all action pending investigation. The state should retain jurisdiction over such problems affecting the welfare of its people so vitally." (2)

The majority suggests that the legislature request Congress to amend the Judicial Code as to "leave to the state courts the determination of the local problems involved in rate cases". To parallel the change in the United States Judicial Code, the state law must be amended to authorize the state commission to bring suit in the appellate division of the state court to enforce its orders. This will effectively combat Public Utility action in resorting to injunctions to restrain the enforcement of the commission's order. (3)

(3) Ibid
The investigating commission's work resulted in the passage of a bill keeping the jurisdiction of the cases in the state courts pending the determination of the matter under litigation.

F. THE COMMISSION - ITS PERSONNEL AND PROBLEMS.

In time the commission has been transferred from an administrative to a judicial unit. To supplement the commission's work, a People's counsel was proposed but was later rejected by the Governor on the ground that it would weaken the commission. The judicial role has been the result of two factors:

1. The insufficient appropriation by the legislature to make adequate investigation.

2. The conflict of interest developed because of inadequate standards of rate making under the "fair value" rule.

Before deciding exactly what the ideal commission should be, let us inquire into the annual reports from 1921 to 1929. Due to insufficient finances and an inadequate staff, the commission was handicapped. As a result, the abuses listed below were prevalent:

1. Failure to keep valuations for rate making purposes up-to-date.

2. Failure to check annually the rate of return on the value of the investments.
3. Failure to allocate overhead, generation and other costs to operating units after consolidation.

4. Failure to determine costs for various classes of consumers. (Industrial, Commercial and Domestic).

5. Failure to standardize rate schedules.

6. Failure to assist municipalities in the preparation of rate cases. (1)

The Investigating Commission called attention to the needs for additional financing of the New York commission and supplementary appropriations were made by the legislature. This is shown by a comparison made of the amount of appropriations needed in 1920 and the year 1929-1930. In New York, for the work of the Public Service and Transit Commissions in 1920, $804,231.59 was appropriated; whereas, in the year from 1929-1930, $1,034,521,000 was appropriated.

Let us examine the size of the staff, its organization and the personnel. In New York and Massachusetts, the staff is largely made up of engineers, whereas in Wisconsin the larger part of the staff is devoted to administrative problems. In 1920, the New York staff consisted of 231 members, and by 1929, the members had increased to 268 men, an increase of 16 percent. In New York the number of commissioners if five.

Most commissioners have a good legal background. It was stated that they could be better paid and furnished with a better staff of technical experts. (1) A commissioner should, moreover, be bi-partisan in political complexion. (2) The assisting staff includes engineers, attorneys, accountants, economist, secretaries, and stenographers. The staff should consist of permanent technicians who continue to be retained regardless of the appointment of new commissioners.

Usually, commissions which are underfinanced are neither willing nor are they properly represented to contest cases before the courts. This is particularly true since the utility companies have increased in resources and power due to consolidations and mergers. They are usually in a position to contest aptly the decisions of the commission. They employ large forces of legal talent for the sole purpose of avoiding if possible, or winning if necessary, cases under litigation.

As a result of such recommendations on the part of the investigating commission, the annual appropriations of the commission were increased by $120,000. Of this $35,000 goes toward the formation of a valuation and research division within the commission. The particular task of this

research bureau is to investigate "long run" problems. With the additional financial support, the general staff was to be increased. One or more "hearing deputies" were added to the staff in order to relieve the commission. (1) It has been stated by Mosher that the trouble was not so much in the law, but in the fact that its administration has been ineffective. (2)

Reference has been made to the Burchill Livingston act which provided that utilities should be assessed fees sufficient to partially cover the cost of regulation. (3) The ultimate effect of this law will be to give the commission more courage in the initiation of rate investigations.

These conclude so far, the attempts which have been made to render regulation tamper proof in New York. Amendments have been enacted to do away with evasion and misinterpretation of the existing utility law. New York State is well on the way toward a complete and effective system of regulation. Holding company regulation seems to be more effective than that concerning valuation and a stable rate base. Once the valuation problem is settled, it seems that all other questions will, more or less, solve themselves.

(3) C. F. p. 9 supra
A. BRIEF HISTORY OF COMMISSION REGULATION IN MASSACHUSETTS.

Massachusetts, generally viewed as a unique and persevering State in the realm of utility regulation, has the reputation for being a very progressive commonwealth in its courageous struggle to uphold the "prudent investment theory" in the face of disapproving courts and tradition, in favor of the "reproduction" theory. A brief historical description will be followed by a more intensive inquiry into the policies of the Bay State with respect to other matters of regulation.

Direct legislation was the precursor of the Railroad Board as a regulatory agency in Massachusetts. It was just at this time that the Massachusetts government encouraged railroad construction by extending aid in generous proportions. With the growth of the corporations the burden became increasingly heavy on the General Court.

It was not until 1874 that a general incorporation law applicable to street railways was passed. As early as 1863 a Board of Railroad Commissioners consisting of three individuals, appointed by the Governor, was created. It
is surprising to find that this act provided that all expenses were to be paid by the railroads. It was just recently that this provision was suggested again, and applied as a means of alleviating the burden of the heavy costs of regulation.

The incompetency of the legislature in dealing directly with the railroad corporations manifested itself in the Boston, Hartford and Erie Railroad scandal. The necessity of protecting the investors in order to attract capital was at once apparent. A permanent Board of Railroad Commissioners was finally created in 1869. It consisted of three competent persons, appointed by the Governor, with the advice and consent of the Senate. Its duties consisted of investigating and publicizing, while its powers were recommendatory as to rates and services. The largest portion of its work lay in investigation violations and reporting these to the railroad and legislature. Approximately seven years later the commission's jurisdiction was extended to cover the examination of railroad books and accounts to ascertain whether they met standard prescriptions. (1)

While the railroads were not compelled to abide by the recommendations of the commission, the usually found

(1) Barnes, I. R. Public Control on Massachusetts p. 12
it to their best interests to do so. As Charles F. Adams stated:

"This method of railroad supervision is peculiar to Massachusetts, but I do not hesitate to say that I believe it is the best and most effective method that has ever been devised, - the best for the community, and the best for the corporations .........." (1)

It was not long until the need was felt for a regulatory body to supervise the gas companies as well as to protect the consuming public. In 1885 a Gas Commission, consisting of three members appointed by the Governor for three years, was created. Its jurisdiction was enlarged to include electric light companies in 1887, and still later, in 1914, it was accorded power to regulate water companies. This Board had a little wider range of powers than those enjoyed by the Railroad Board. In addition to "summary powers over rates and service", the commission could prevent a company from invading a territory and laying mains in a section already served. This check on competition was permissive. The Gas Commission had the power to investigate complaints and order reductions in price or improvement in existing service. (2)

About a quarter of a century later the insufficiency of the scope of the Board of Railroad Commissioners was recognized and as a result in 1913 a Public Service Commis-

(1) Massachusetts House Document 225 of 1879.
sion consisting of five men was appointed. Of these, three were Railroad Commissioners, and the other two were new appointees of the Governor. There was a corresponding increase of term to five years, and additional remuneration was provided. As might be expected these were accompanied by an increase in responsibilities, including an addition of the agencies brought under commission control. Besides railroads, street railways, steamship lines, express car service companies, and telephone and telegraph companies were now under direct scrutiny of the commission. With this increase in duties, an enlarged corps of staff assistants was permitted. There was a general increase in the control of rates and the commission's position, as related to the enforcement of its orders and recommendations, was decidedly fortified. (1)

However, as a counterbalancing check on the Public Service Commission, there was always the Supreme Court in the offering to "annul, modify or amend any orders of the commission." (2)

In 1919 in face of the ambiguity resulting from the coexistence of the Board of Gas and Electric Light Commissioners and the Public Service Commission, the Department of Public Utilities was created. This Department consisted of five men appointed by the Governor for five years to assume all

(1) Barnes, I. R. Public Utility Control in Massachusetts p. 17
(2) Ibid. p. 18
of the duties of the two previous bodies.

This, however, merely takes into consideration the regulatory framework preliminary to a discussion of the details of commission regulation in Massachusetts.

B. RATE REGULATION IN MASSACHUSETTS.

As early as 1836 rates were the subject of regulation. In general the railroad fares were established by directors of the corporation, but ultimately the legislature might alter them to a point not lower than would assure an annual profit of less than 10 percent. It is assumed that this percentage was calculated on the amount of actual capital paid in. (1)

In 1870 the clause prohibiting rate reduction which might not guarantee a 10 percent earning was abolished because it inhibited expansion of trade and industry. In general, the Board of Railroad Commissioners lacked positive power to regulate the rates of the companies within its jurisdiction. One of the chief short-comings in the work of this Board was its lack of mandatory ability to enforce the outcomes of its rate investigations.

Broader and more tangible powers were given to the next regulatory agency, namely, the Public Service Com-

mission. The power to regulate completely the fares of all utilities under its jurisdiction was granted. (1) It had power to act on its own initiative regarding rates, rules or regulation. This is really evidence of the change from the advisory to the mandatory role of the commission. And finally, the Department of Public Utilities has assumed all of those powers previously granted to its predecessors. The only limit to commission action on rates is that they may not be so low as to be confiscatory.

This logically leads us to the question which has been a source of dispute and controversy since 1898 when the Smyth v. Ames rule was first promulgated. In this problem, we find that Massachusetts has originated a basis for computing the return which is similar neither to the reproduction cost theory nor the orthodox prudent investment theory. For purposes of comparison, I will merely indicate what the other theories are and analyze more closely the Massachusetts ruling. As Doctor I. R. Barnes says, the Massachusetts Boards have never made a valuation of the property of a utility to determine the basis upon which that utility should be permitted to earn a return. (2) The ultimate aim of commission regulation in regard to rates is to determine and set reasonable, non-discriminatory rates.

(2) Barnes, I.R. Op. Cit. l. 103
The Massachusetts definition of reasonable rates limits itself to a revenue sufficient to meet required expenses plus an additional amount necessary to yield a return on the prudent investment and attract sufficient capital to replenish the capital fund.

The essence of the reproduction theory has been concisely stated by Chief Justice Harlan in delivering the court decision in the Smyth v. Ames case:

"The basis of all calculations as to the reasonableness of rates must be the fair value of the property being used ... for the convenience of the public ... On the other hand, what the public is entitled to demand is that no more be exacted from it for use of a public highway, than the services rendered by it are reasonably worth."

Structural and functional depreciation must be considered if reproduction cost is to be given due weight. (1) It has been said that the fair value of the Smyth v. Ames case is present value. Neither original nor reproduction cost at current prices is controlling. The difficult part of comparing the present with the original cost of construction is the wide variation in price levels which make comparison a point of discord between regulatory bodies and the companies.

In contrast to the "federal rule" is the prudent investment theory which stresses reasonable cost of the ser-

(1) Chazeau, M. G. The Regulation of Electric Light and Power Companies in Massachusetts. p. 143.
vice as a potent rate determinant. This would apply to the gross as well as the net revenue.

A modification of this latter theory is the Massachusetts ruling which emphasizes the determination of reasonable rates by a level "sufficient to pay such dividends as will maintain the market value of its securities sufficiently above par, so that additional securities may be issued at or above their par value;" or, in other words, rates depend on the cost of obtaining capital, which by mere coincidence, resembles, somewhat, the federal rule. In Massachusetts the regulation of securities is an essential factor in the determination of reasonable rates.

Under the federal rule the investment usually includes tangible and intangible property devoted to public use. The utility is thus entitled to earn a fair return upon the present value of the property devoted to the public service. (1) It seems that the Federal concept of investment is limited to the amount of money initially paid into the corporate treasury by original holders of the corporate securities. In most cases this method would be a practical impossibility. Thus, those who prefer the prudent investment rule would more or less arbitrarily fix a base.

According to a decision set forth in the Scituate Water company case, it was held that in determining a base for

rates no single factor like the amount of securities issued, the original cost, or reproduction value is paramount, but all factors and circumstances connected with the investment of capital and the Public Service Corporation must be weighed before a true balance as to rates and return can be arrived at. (1) A rate base which takes as the controlling factor, capital honestly and prudently invested is sound both in law and in economics. (Customers v. Worcester Electric Light Company) (2)

In reference to the prudent investment rate base, the company's property would be appraised and then the accrued depreciation would be deducted. As a protection for the consumer, this flexible base would respond to changes in price level. Thus to compute the return this base plus additional investments or extensions figured at cost would be used. The major aim of the Department was to fix a price that would measure the increase in operating costs and enable the utility to earn its customary profit only with the economical aspect. It limited its approval to increases based upon higher production costs. (3) In Massachusetts the return has been computed on "the aggregate par value of the outstanding securities plus paid in premiums". The commission has refused to recognize reinvested earnings

(1) Public Utility Reports Digest Vol. 6 p. 5281
(2) Ibid p. 5316
as part of the investment. (1)

Massachusetts has been criticized for ignoring the fixing of a definite rate base. Thus, as far as it is ascertainable, it seems that the Massachusetts Department's base is the "aggregate par value of the outstanding stock, or that sum plus paid-in premiums". (2) Massachusetts believes that it has found the answer to sound regulation with its prudent investment rule. Quoting directly from the Northampton Gas Petition, it was stated that,

"A reasonable return can be determined upon broader and firmer grounds than those afforded by valuation of the property by the reproduction method when there exists such a policy as that declared by the Massachusetts Statutes, primarily adopted to restrict the original issue of capital stock...to the actual investment made by stockholders, to prohibit stock dividends and to limit additional stocks or bonds to such amounts as are reasonably necessary for authorized purposes, all with a view to keeping down the dividends burden which the public must meet in the rates charged." (3)

The Department's objections to reproduction cost may be summed up under four points:

1. Reproduction costs make assumptions contrary to sound business judgement in other than rate making problems.

2. It involves long and expensive investigations

(2) Barnes, I.R. Public Utility Control in Massachusetts p. 173.
(3) P.U.R. Digest p. 5331.
culminating in a composite guess that must be altered with every change in conditions. (1)

3. It renders investment in the public utilities speculative. (2)

4. It makes speedy and effective regulation of such companies impossible. (3)

This criticism, when considered positively, lays down indirectly those tenets of sound regulation which the Department of Public Utilities approves. In corroboration of the fourth objection the commission reports that under its system it is able to clear up a rate case within three months. (4)

Thus far, rates have been considered in the light of valuation, theoretical rate bases, computation of the rate of return. We now come to more concrete aspects of the rate problem.

In the Middlesex and Boston Rate case, the right to regulate rates upward was asserted. (5) To cite an incident illustrative of the almost "automatic regulation" of rates,

it was pointed out that in 1927 Governor Fuller of Massachusetts found that according to their earnings, thirty eight companies in Massachusetts could reduce their rates, including seventeen which had reduced them since 1925. After this intimation on the part of Governor Fuller, four companies reduced their rates, and numerous others suggested that they had intended to reduce rates. The purpose of this announcement was to aid in arousing opinion which might impel the legislature to grant to the Department the power of initiating rate reduction proceedings. (1) In reference to rate reductions it will be noted that while New York believes that the utilities have not shared in the depression, we find a different attitude on the part of the Massachusetts Department. Since times are not normal, it is contended that rate reductions should not be ordered without diligent consideration, unless, of course, it appears that a company is obviously earning an excessive return upon the capital employed in the enterprise. The percentage of dividends paid on the capital stock cannot be assumed to measure the reasonableness of rates. (2) The high dividend rate on the stock compared with the very low rate of return on the property is due to the fact that there have been invested in the business not only proceeds of the

(1) Raushenbush, H.S. and Laidler, H.W. Power Control 1. 108
(2) Barnes, I.R. Public Utility Control in Mass. p. 79.
sale of capital stock above its par value, but the earnings which the stockholders could have taken down as dividends but which were left with the company and represented by its surplus. (1)

Almost thirty years ago, Massachusetts, after experimenting with the sliding scale method of adjusting rates as modeled on the English system which expressed the interrelation of a standard price and a standard dividend, decided that automatic devices were artificial and impractical. (2) At this time, the Massachusetts Act of 1906 provided that rates ought to be put into effect, calculated to yield seven percent per annum on the par value of its capital stock with appropriate provision for a revision in the rates up or down, according to the amount actually earned. (3) In innumerable cases decisions of the Department of Public Utilities upheld the fact that a six percent return was a very attractive one. (4)

In summarizing for general comparative purposes the relative position of the Massachusetts Department of Public Utilities on the rate situation, it is important to note wherein its policy is improvable. As previously noted, the

(1) New York Times April 16, 1934. p. 16
(3) Welch, F. Cases on Public Utility Regulation p. 424.
Massachusetts system lacks a definite rate base. The fundamental prerequisite of effective regulation is a rate base which will not fluctuate with changing prices and conditions of operation. It seems that Massachusetts' theory of rate determination is less justifiable than that of the federal courts. The Massachusetts rule, like the prudent investment doctrine would include land only at its actual, original cost. Under no conditions, however, does the Massachusetts rule permit the inclusion of reinvested earnings as a portion of the investment deserving a return. Elements of going value have been rejected likewise by Massachusetts. Legally the Massachusetts policy is contrary to court rulings and concepts. In general, the companies have little cause for complaint because they recognize the generous attitude of the commission in its dealings. Barnes believes that the decisions of the Massachusetts bodies have viewed the consumers as "a matter of secondary importance or significance". (1) In addition, he criticizes their "uncertainty of procedure and indefiniteness of decision." As a result, the consuming public is unable to judge whether it is paying fair and reasonable rates. Barnes believes that by recognizing the right of the utilities to earn a return upon the present value of all the property used in the service, many of the troublesome legal questions arising from the Massachusetts practice would be undoubtedly allayed. (2)

(1) Barnes, I.R. Public Utility Control in Massachusetts, p. 213
(2) Ibid. p. 215
C. THE REGULATION OF SECURITIES IN MASSACHUSETTS.

Very intimately associated with rate regulation is the problem of security regulation which is at present in the limelight because of its implications in connection with the holding company problem as well as the rate situation. With the growth of large corporate interests, securities as a means of financing, has grown in importance. While the interest of the consumer is considered in regulation, the interest of the security holder must be given due consideration, if continued capital supply is to be forthcoming for employment in the public utility industries.

Ordinary interest in securities might be satisfied by mere citation of a generous rate of return, but we can hardly allow the problem to be so easily dismissed. Inquiring a little further, we meet statements regarding "returns sufficient to attract additional capital". In setting about to show just wherein security control is an indispensable part of our regulatory process, it will be useful to lay the historical background before discussing and evaluating present practices.

Utilities operating under the Massachusetts Department's jurisdiction have the reputation of being strongly financed, conservative institutions. (1) This calls for a closer in-

---

(1) Raushenbush, H.G. and Laidler, H.W. Power Control p. 149
spection of the Massachusetts system of control which is apparently conducive to such solidarity. According to Dr. de Chazeau, security control in Massachusetts rests on three tenets:

1. No stock should be issued below par except for cash.

2. All stock must be issued at a determined minimum price with a virtual requirement of pre-emptive rights of stockholders.

3. Such items as working capital, surplus, and stock premiums may not be capitalized. (1)

For a considerable period the Bay State relied principally on the regulation of security issues to secure the consumers against exhorbitant rates. Massachusetts was a pioneer state in the regulation of security issues, and all types of securities—common and preferred stock, bonds, coupon notes, and other evidence of indebtedness—are under close scrutiny. At the time of the incorporation of the public utility, the commission is extremely particular, and especially prohibits the issue of shares for less than the par value paid in cash as decided by the appropriate body. (2) The specific requirement that shares be paid for in cash rather than in property or services is made for the ultimate protection of the consumer.

Legislation previous to 1908 set limitations on the issuance of securities which met with objections. The provision that new stock of the public service corporation be issued at market value as determined by the appropriate commission was objected to on the ground that it might disturb state control of rates. Securities must sell at a price that is low enough to secure its sale. On the other hand, if the price of these securities is fixed too low, it might be inconsistent with public interest since the sale would fail to realize the needed amount and the result would be an inevitable rise in rates. Another objection centered around the provision for the sale at auction of any shares not subscribed for by the stockholders. (1) This might have the effect of dealing unjustly with loyal stockholders, since the extent of their control might be jeopardized and policies of the utility manipulated by selfish interests. (2) In addition, the anti-stock watering laws raised vehement protest.

All of these were altered and reincorporated into the law of 1908 which provided that a railroad or street railway should issue new shares to its stockholders proportionately and at a price that might be determined by them. Any shares not taken by the stockholders or an increase amount-

(1) Barnes, I.R. "The Challenge of the Massachusetts Commission" Public Utility Fortnightly Vol. 4, p. 542
(2) Barnes, I.R. Public Utility Control in Massachusetts. p. 44.
ing to less than four percent of the outstanding issues would be sold at auction. The law of 1908 prohibited the issue of shares at less than par value, paid in cash rather than in the form of property or services. According to the Board, the issue price was fixed by the utility directors subject to the approval of the Board, instead of being directly set by that body. (1)

This law of 1908 contains the essential features in security control and with several minor modifications, these provisions are still in force. Since 1908 there has been only one significant change in the laws regulating the price at which new stock is to be issued. For railroad and street railways, the issue price is fixed by the stockholders subject to the approval of the Department of Public Utilities. Gas and electric companies may offer the stock at a price set by the directors, but if it is too low, then the Department may intervene and fix the price at which additional stock is to be issued. However, the General Laws provide that stock could not be issued at a price lower than its par value. The General Laws were modified by a statute in 1928 which permitted the sale of additional issues at less than par value, by gas, water and electric companies, if sale at par or above par was found impossible. The main

objective in controlling the issue price of securities was to keep the stock on which dividends had to be paid at a minimum. (1)

Massachusetts is one among few states to determine the amount of securities in accord with the purposes of the company in issuing additional stocks. The restriction on amount is fixed at a point which would not exceed the fair value of the property of the utility as appropriately determined. At present, the Department gauges the amount of stock to the necessary approved purposes of the new issue. Since 1902, the issuance of preferred stock by Massachusetts utilities has been sanctioned, but only with numerous restrictions as to procedure, terms of preference, and the proportion between preferred and common stock. In addition, the funded debt that a company may assume is closely restricted. (2) It has been the general policy to restrict the amount of bonds issued, according to the amount of capital stock paid in. This policy was liberalized in 1914, when, under the Department's control, a company might incur indebtedness of twenty percent greater than the amount of paid-in capital. This amount is to be used to provide revenue for the required renewals.

The prohibition of stock and scrip dividends beginning

(1) Barnes, I.R. Public Utility Control in Massachusetts. p. 60.
(2) Ibid. p. 64.
in 1868 was the earliest limitation placed upon corporate stock issues in Massachusetts. (1) In line with its holding company policy is the prohibition against holding stock or guaranteeing the bonds of other companies, an exception being made in the case of the railroads.

In the case of consolidations, the Department has been very lenient in its control over security negotiations. The main concern of the Department is that the quantity and quality of service be maintained at no increase in charges. (2)

The stringent control of capital issues has been an extremely important part of the regulatory program of Massachusetts. Overcapitalization of companies within the state jurisdiction is practically non-existent. By this close regulation of capitalization and supervision of accounts, it is easy to determine exactly what sum stockholders have been subscribed in the local companies. With this wealth of information the Department of Public Utilities thus tends to emphasize the amount of the investment as a potent factor in the calculation of the return to be allotted to each company. (3) Massachusetts has regarded rates as a function of investment, or what will attract capital on the basis of limited but reasonably assured return. (4) If the general

(2) Barnes, I.R. Public Utility Control in Massachusetts. p. 73
consuming public is forced to pay a return on property acquired through excessive earnings, there is not any reason why it should pay in rates an amount in excess of that which it would have to pay under the "rule". Financial instability might be the ultimate outcome of paying a return on property acquired through excessive profits, since some of the companies might attempt to pay dividends out of depreciation reserves. As a result the company's credit would be deflated and to maintain its stock at par, the utility would be forced to pay more attractive dividends. (1) As an alternative to the exploitation of the consumer, the possibility of public operation of utilities, presents itself. The continuation of operation by private companies under contract with the public so that rates might be regulated is another plan that has been suggested. For stubborn companies, unwilling to enter voluntary rate contracts, free competition by the municipality might serve the same purpose.

With a view to carrying out its objectives maintenance of rates at the lowest figure with the usual satisfactory service, Massachusetts has tried to keep the dividend burden at the lowest possible level. To prevent the payment of dividends on a basis inflated by reinvested earnings, stock dividends have been prohibited. However, in the case

of a well managed company, the Massachusetts Department will permit the "plowing back" of a portion of their earnings into the company in order that they might receive returns above the average as a reward for efficiency and good business policy. (1) Massachusetts has generally refrained from setting a fixed percentage of profits to which a utility is entitled.

In his criticism of the regulatory policy in reference to security issues, Dr. de Chazeau believes the premium law to be inconsistent with the fundamental purpose of rate regulation under prudent investment — the attainment of service at rates no higher than those sufficient to reward actual investment. In essence the premium law requires stock to be issued at a price which in the opinion of the Department is not so low as to be inconsistent with the public interest. In addition to handicapping the Department in rate control, it also impelled managers to raise dividends to maintain the value of capital shares at this new par, even if it resulted in deferred maintenance and the inevitable undermining of operating efficiency. (2)

The weakness in the control of stock issues in Massachusetts has been the commission's lack of power to initiate rate proceedings. With that power those disadvantages of the premium law for consumers might have been eliminated.

(1) Mosher, W. and Crawford, F. Public Utility Regulation p.89
In summary, it has been said that excluding the so-called disadvantages of the premium law and the questionable validity of a refusal to capitalize working capital, the regulation of securities was generally effective. Because of its extensive information concerning the security investment in each of the utilities, the Massachusetts Department occupies an advantageous position when compared with other states.

D. HOLDING COMPANY CONTROL IN MASSACHUSETTS.

Before introducing the subsequent problem, I wish to remind the reader that because of its far reaching and significant implications for rates, holding company control, and service standards, the entire security problem must be kept in mind and continuously applied as this dissertation unfolds itself.

Holding company control has been stressed as an issue in the regulation of utilities throughout the state. In Massachusetts it was held that local utilities, by selling out to systems, holding companies or trust companies, cannot transfer the performance of their public duties to a third party without the consent of the state. It was pointed out that in numerous cases the ultimate purpose was not the holding of stock but rather the management and control of the policies of the utility. (1) While the laws in Massachusetts

do not provide for the control of local utilities or the ownership of one utility by another, this restriction on the part of the law is circumvented by the "voluntary association or trust" method.

The investigating commission found that operating companies comprising seven systems sell 90.5 percent of all the kilowatt hours consumed, while six systems control the generation of 93.3 percent of the entire output. (1) From another sources it was reported that 62.5 percent of the electric energy generated, and 85.2 percent of the gas sold in the Bay State were controlled by holding company groups. (2)

In reference to previous evasions of the law, a statute was passed in 1913 granting the Board authority to command information concerning inter-company relations. Approximately three years later the Commission advised all companies within its jurisdiction that control by officials and employees of engineering, construction and management organization corporations with which they contract, is wrong in principle and is justifiable only in the case where credit is weak and the future hazardous. Therefore, except under extraordinary circumstances, such contracts were forbidden. As a result of padding operating expenses, through these inter-company contracts, regulation is weakened.

These foreign systems have organized auxiliary companies for the purpose of exacting fees for management, financing and construction services rendered to the operating companies. Large profits were earned by the "service" companies from such one-sided transactions. (1) However, it was noted that the policy of basing all rates on the actual investment was a more or less automatic protector of consumer's interests against the manipulation of new holding companies and watered stock. Excessive profit immediately reveals itself in the price of the stock. (2)

It has been stated that virtually up to 1930 there was very little or no supervision of holding companies in the Bay State. In the Massachusetts Commission investigation three bills relating to holding company control were introduced in the 1930 legislature. In essence these bills included the requirement that utility companies file in addition to their annual reports complete sworn statements of their affiliations and those of their officials and directors; next that in all contracts with affiliated companies, the remuneration be subjected to review and determination by the commission; and finally, the extension of commission jurisdiction to include full access to the books, records, contracts, documents and memoranda of affiliated companies. (3)

(1) Frankfurter, F. "Public Service and the Public" Yale Review Vol. 20, p. 17
(2) "Wanted - A Consumer's Advocate" Nation Vol. 128, p. 151
In a test case, the right of the State Department of Public Utilities, to require a corporation selling stock in Massachusetts, to surrender to it the names of any Massachusetts shareholders was affirmed by the Supreme Court on March 16, 1932. (1)

In reference to the subject of the regulation of long term holding company contracts, it seems that any holding company desiring freedom from control might easily arrange its contracts upon a two year basis. The Department should have the power to review any such contracts regardless of the period. (2) On this subject the Chairman of the Department recommended that the Massachusetts legislature take another try at the courts and make at least the long time contracts subject to review by the regulatory body. To quote:

"The only way in which it will be possible to make these various pieces of paper, the mergers are issuing, good, is, it seems to me, through their being able to obtain valuable contracts which will run for a long number of years, and although not apparently bearing excessive terms at the outset, at least to the public eye, yet in the process of time, they having the field, with the growth of the business and the growth of the electrical industry increasing much faster than the growth of the invested capital, they will be able to get enough profit through these contracts to pay interest upon a lot of paper which represents practically nothing at the present time except various good wills and theories of people that the values of these various pro-

(1) New York Times March 17, 1932
(2) Chazeau, M. G. Op. Cit. p. 278
parties are such that they ought be allowed to issue the paper against them". (1)

It must be conceded that the Massachusetts regulatory system is unique. If its system were altered to resemble that of other states, giving the holding company the privilege to exploit which they now enjoy, the people of the Commonwealth would undoubtedly conclude that regulation of the rates of gas and electric would be too expensive to tolerate. The initiation of a system of public ownership or regulation by contract, instead of police power, would probably result. (2)

Another possibility of holding company control, which looms up in the foreground as a potential rival is that of federal regulation. Since these companies operate on such a large scale, and their scope of operations is an ever increasing one, it is very timely to begin considering federal control as a way out. It has been suggested that the people of Massachusetts do not appear as though they would yield to federal interference. (3) Still, for vigilant minds, this remains a prospect to be carefully watched in the future.

(1) Rausmanbush, H.S. and Laidler, H.W. Power Control p. 123
(2) Ibid. p. 117
E. SERVICE STANDARDS IN MASSACHUSETTS

Attention will now be directed to problems relating to the determination and maintenance of service standards for public utility companies. A discussion of this type of control brings us into more intimate contact with the consumer's point of view which stresses the best service for the lowest possible rates. As Charles Francis Adams said sixty years ago:

"The reduction of this tax to the lowest possible amount paid for the greatest possible service rendered, always observing, of course, the precepts of good faith and the conditions of a sound railroad system, ...this must be the great object the commissioners retain always in view."

What Mr. Adams said applies with equal force to the more recent utility service. (1)

Utility obligations as to service include the duty to serve adequately and the duty to serve all indiscriminately. While the Massachusetts Commission has not established any general street railway standards, it has established certain regulations with respect to safety devices on street cars, the operation of the cars over railroad crossings at grade, the heating of cars, etc., which are applicable to all street railways operating within the

(1) Frankfurter, F. "Public Service and the Public", Yale Review Vol. 20, p. 1
Commonwealth. For purposes of safety, lighted headlights, wheelguards, and handbreaks are essential devices. In addition every self-propelled car on surface lines shall be equipped with mechanical devices for distributing sand on the rails. Provision for heating the cars in cold weather are specified. Thus, we see that the commission has set certain specifications with a view to insuring the safety and the comfort of the user of the service.

These prescriptions cover all fields of utility service. For the purpose of checking up on the maintenance of standards, the Massachusetts Department has inspections and rating devices. The Massachusetts staff of nine made up to about 1932: 87,323 meter tests; 544 heating value tests and two plant inspections. In addition, the Massachusetts commission has devised a rating scale for telephone service. The elements graded include the following: equipment and maintenance, loaded circuits, test inspections, adequacy of equipment, speed and adequacy of service, regularity of service, and trouble records. (1)

Here again, Massachusetts leads the other states in the regulation of standards. Since utilities are of a monopolistic or quasi-monopolistic nature, competition which often has the tendency of raising service standards, is lacking. However, some utilities, especially the gas and

Electric corporations are really competing monopolies. Each tries to outstrip the other in perfecting modern appliances that will further the sale of its product or service. So, in essence, in order to keep up its sales, the service will have to improve and rates will have to be reduced.

Finally, a brief description of the personnel is in order. The Massachusetts Department consists of five members appointed by the Governor for five years. Under their jurisdiction falls the regulation of electrical utilities, gas utilities, street railways, railroads, motor carriers, water and telephone companies. The phases of regulation include rates, service, securities, accounts, transfers, and certificates.

To conclude this study on Massachusetts then, it must be stated that the policy of the Bay State is one of the most progressive in this field. With its unique system of rate determination and valuation, its extensive regulation of securities, its stringent control of holding companies, and finally, its modern methods of testing and rating service standards, this Commonwealth is indeed to be lauded.
CHAPTER III

REGULATION IN WISCONSIN

A. INTRODUCTION AND HISTORICAL BACKGROUND OF REGULATION

Wisconsin is the final state to be considered in this paper. Like New York and Massachusetts, Wisconsin has been a leader in promulgating regulatory policies.

The Wisconsin executive and legislative branches recognize the necessity for an adequate staff to meet the increasing demands and responsibilities facing the commission. Provision is made for this staff to be properly financed so that its activities will not be hampered.

Doctor Lilienthal believes that the Commission should stress its administrative and inquisitorial powers as distinguished from its judicial powers. In reviewing a case, he believes that politics and public clamor should play no part in the final decisions of the Commission. The case should be decided solely on the records before that body. As a final aid to regulation in Wisconsin, Doctor Lilienthal believes that the statutes from which the commission derives its powers should keep step with recent industrial and social changes. (1)

The Wisconsin Commission has the holding company situation, rates, depreciation, securities, finance of commission investigations, and service standards very well controlled, but its present position has been the culmination of a long struggle, and the credit for its success is due mainly to the La Follettes and their progressive adherents. 

At approximately the same time as New York enacted its laws creating a Public Service Commission, Wisconsin passed a law that was even more comprehensive. This however, was not the first experience of Wisconsin with regulatory legislation of this type. It was in the seventies that Wisconsin initiated its policy as a member of the "Granger Movement" which succeeded in revolutionizing railroad legislation. Wisconsin was responsible for the Potter Law of 1874, which was repealed two years later. Even at this time, Wisconsin displayed its leadership aspects in regulatory policy. It is necessary to review railroad legislation in order to ascertain exactly what the Wisconsin attitude was, for railroad regulation was the precursor of utility regulation. In the early years of the twentieth century railroad legislation was made the subject of political issues. In 1904 the railroad valuation bill provided a campaign issue for Governor La Follette, who regained office in spite of railroad opposition. With some

(1) New York Times July 5, 1932 Section II, p. 2
delay; this bill became a law in 1905. (1) This law provided for an appointive railroad commission consisting of three members, with the power to instigate investigations. This commission was of the mandatory, or so-called "strong type". The law of 1907 consisted of three parts:

1. An amendment to the law of 1905 which extended the provisions which applied to the railroads, to street railways and telegraph companies.

2. Commission jurisdiction was extended to heat, light, water, power and telephone companies.

3. The extension to street railways of the indeterminate permit. As contrasted with the New York legislation, water and telephone companies were brought under commission jurisdiction and authority over gas and electric companies was enlarged to a greater degree than that enjoyed by the New York commission. (2)

Since 1907, the Commission has relentlessly pursued the course of strict control over various phases of utility operation. Valuation, because of its far-reaching importance in the field of regulation, should be considered first.

(2) Ibid. p. 23.
B. VALUATION AND RATE REGULATION IN WISCONSIN.

Like Massachusetts, Wisconsin is noted for the formulation of a specific rule governing valuation. In valuation for purposes of approving a sale, authorizing the issuance of securities, or determining compensation to be paid for condemnation of a utility's plant, all of the utility's property must be considered whether or not particular units might be "useful" as devoted to public utility service. (1) To determine the reasonableness or unreasonableness of a company's rate structure, a critical examination of the company's operating condition must be made, instead of comparing the rate schedules with those of another utility. (2)

The Wisconsin railroad commission first used the principle of treating "going value", or the general outlay expended in setting the company in actual motion at the inception of the developmental stage, as an inevitable loss in calculated income. During the early stages of establishing a business, the return is either very slight or there is no return. In fact, there may be an outlay on the part of the management to keep the business in existence and functioning. This sum expended in the early stages of the business seems to compose

(1) Spurr, H. C. Public Utility Reports p. 447.
(2) Ibid. p. 198.
just as essential a part of the investment as direct expendi-
tures for land, buildings and other physical property. While Wisconsin has usually proceeded to capitalize necessary early losses, it has recognized the possibility of amortizing such costs. (1) The method which has been followed by the Commis-
sion aims to determine as far as possible what the actual cost of developing the business in question has been, and to what extent, if at all, such losses have been recovered in later years of operation. (2) As developed originally, the Wis-
consin "deficits theory" was based on the investment theory of valuation, whereas, it has been used by other commissions with other standards of valuation. It has been criticized on the fact that the deficit principle tends to encourage extra-
vagant management and might culminate in the existence of a bankrupt utility possessing greater value than a successful and profitable concern.

According to a decision in the Marinette v. City Water Company Case, it was stated that "the ascertainment of the fair value of a public utility property is not possible by any rule or formula, but must be determined by the exercise of reasonable judgement." (3)

"The book value is not a reliable indication of the value of a utility plant, where it has not

(2) Ibid. pp. 589-590.
(3) P.U.R. Digest Vol. 6, p. 5265.
been the company's practice to make deductions from its property accounts for parts abandoned or for depreciation accrued." (1)

In 1918 the Wisconsin Commission states its preference for the prudent investment theory in the Milwaukee Electric Light Company v. Milwaukee Case.

"The investment reasonably and prudently made is the most equitable standard of fair value for rate making as between the utility and the consumer where such investment may be ascertained; reproduction cost being useful in proportion as it tends to throw light upon investment rather than as being in and of itself the measure of value." (2)

In a comparison of the Wisconsin method and the "cost of reproduction" theory, it has been said that the former was less speculative and relied on facts more. In essence, this so-called Wisconsin method consisted in capitalizing the deficits accrued during the early period before earnings permitted a reasonable return on the investment and including such amounts as part of the rate base. (3)

Wisconsin is a laboratory constantly experimenting with new forms of control. This is displayed in the formulation of a plan called the "Wisconsin Commission's continuous inventory plan". The essential effect of this new system is supposed to speed up regulation. In its early stages of installation, a large staff would be necessary, but after

(1) P.U.R. Digest Vol. 6, p. 5293
(2) Ibid, p. 5305
its establishment, the routine work of the continuous inventory would necessitate comparatively few men. (1) With the adoption of this plan, it is expected that appraisal for rate making purposes may be dispensed with.

According to the Wisconsin proposal the commission each year would be informed as to the proportion of fixed capital property used in the rate base in each utility in the state in accordance with:

1. Original or historical cost
2. Cost of the property to the present owner
3. Cost of reproduction as of a recent date or period.

Thus, it may be seen that the Wisconsin undertaking contemplates the amassing of much detailed material. However, a basic inventory is essential and a careful record of the subsequent additions and retirements is necessary before any continuous inventory is to be anticipated. If possible, this basic inventory is to be used in terms of original cost. As a practical alternative to meet the otherwise extremely costly procedure, it was suggested that wherever possible, recent valuations should be made use of and time be allowed to erase the importance of basic valuation. This would come about since the retirement of the older property would eventually result in a record which may be considered

a true original cost record. (1)

The continuous inventory system stresses the use of fixed capital units, of which there are two types, retirement units and indexing units. A retirement unit may be defined as any item or group of items treated as a unit when retiring the property from the books of the account. The indexing unit is an item or group of such items of fixed capital property to which is applied an index number while translating the cost of such items from one period to another on a reproduction cost basis, or from an historical cost basis to a reproduction cost basis. (2) These units are subdivided into major, minor and lot units, which are in turn classified according to book accounts, rate making districts and year of installation. These in essence form the basic composition of the fixed capital record system, which is the basis of the Wisconsin Plan. As a supplement to furnish proof of property the plant measurement records require the association of descriptive data and detailed specifications with the dollar records pertinent to each unit. (3)

In spite of the burdensome initial expenditure, this plan is expected to more than pay for itself by decreasing

---

(2) Ibid. Vol. 14, p. 21
(3) Ibid. p. 22
time and money spent in the process of regulating the utilities and thus save the public money by ultimating resulting in "lower rates, cheaper utility service and greater public satisfaction."

The present plan as accepted by the Wisconsin Commission seems to favor the prudent investment theory. This newly developed plan appears to embody the prudent investment idea and parts of the "federal rule". Points of similarity are historical cost, and the cost of reproduction as an initial basis on which to establish the rate base in accordance with the amount of fixed capital property included. The Wisconsin plan seems to have a good deal in common with the Bauer plan of setting the valuation. The Wisconsin plan provides for:

1. Rewriting every company's property accounts to show the initial valuation. Bauer proposed to make an initial valuation of all existing properties, and to base the evaluation on the "law of the land", considering reproduction as well as actual costs.

2. The addition of all subsequent investments.

3. The placing of both of these factors under continuous accounting control maintained through charges to operating expenses, depreciation and other reserves.

Basically, the aims and purposes of the Bauer and Wisconsin plans are exactly the same; however, there may be
some small differences in the details of methodology. In addition to determining the price for purchase or condemnation, the basic valuation may serve as a means for rate determination and for setting the rate of return.

Rates are extremely important from the consumer's standpoint as well as that of the utility company. In 1907, at the time of the passing of the Public Service Commission Act, Wisconsin made it compulsory for every public utility to file schedules showing all rates, tolls and charges, in force at the time, for service rendered by it within the state. These rate schedules were not to exceed the level in force April 1, 1907. (1) No changes in schedules which would result in an increase in rates to consumers would be permitted unless approved by the commission after an investigation and hearing. If upon investigation of a complaint or otherwise, the Commission should find that the charges made by the utility are unreasonable, discriminatory, or preferential, it shall determine the reasonable rates to be followed. The costs of such investigations are levied upon the utilities at fault. (2)

The commission believes that rates for all services rendered should be reasonable and just, considering the "value of the public utility, the cost of maintaining and

(1) Dineen, W. Wisconsin Statutes. p. 14
(2) Ibid. p. 20
operating the same, the proper and necessary allowance for depreciation thereof, and an adequate return upon the capital invested." (1) The Wisconsin commission permits special rates to be charged that would be compensatory for unusual services. (2)

Within recent years, especially since the investigation by the Maverick Commission, rate reductions have been ordered. The Wisconsin Telephone Company has been ordered to reduce its rates by 12.5 percent on the basis of 1931 receipts. (3) The commission insisted that the new rates will be ample to insure a six percent return on the common stock. Massachusetts too seems to think that a six percent return in general is an attractive one. While the courts have primarily considered the cost of operation and return upon value, it must not be forgotten that it is still the law that rates, regardless of their effect upon the financial condition of the company, cannot exceed what the services are reasonably worth. (4)

Both New York and Wisconsin approve the informal conference and negotiations as a means of adjusting rates instead of the formal rate hearings which usually result in

---

(2) Spurr, H. C. Public Utility Reports p. 208
(3) New York Times July 6, 1932 p. 34
hostile feelings between the utilities and the commission. (1) Voluntary rate reductions by the companies as soon as they are aware that their rate of return is exceeding the rate usually permitted by the commission would be the ideal situation. Formal rate cases are slow, tedious proceedings which are very costly to both the utility and the state. They involve intensive legal and technical preparation with consequent antagonisms which often partially, or wholly, nullify past effort spent in building up desirable public relations. Witsell recommends the substitution of voluntary action on the part of the utilities through informal conferences with the commission. (2)

While treating the subject of rate investigations, it is timely to consider the attitude of the Wisconsin Commission in reference to the financing of these hearings. In 1931, the Wisconsin legislature authorized the commission to charge the costs and expenses involved in investigations to the public utilities. In thirty-four jurisdictions, it was reported that some or all the expenses of regulation are paid by the company regulated. (3)

This is an extremely important measure, since the commission cannot be denounced for inefficiency until they are

equipped with the staff and necessary amounts of money to carry through these investigations. There are generally two methods used by the various states in financing commission regulation.

The first is the flat appropriation method where a fixed sum is set aside in the budget to take care of commission activities. In some states this fixed sum is supplemented by license or other fees. The main objection to this method is its lack of flexibility, since past allowances usually serve as the basis for calculation of the future appropriations. (1)

The second major method of financing the cost of regulation is the imposition of the cost upon the utilities. The Wisconsin legislature in 1931 provided for utility financing, by a combination of three methods:

1. A flat appropriation, supplemented by,

2. A power in the commission to assess the costs of special investigations upon the particular company in question, and supplemented by,

3. A pro rata assessment against all utilities based on gross revenues for the remaining expenses of the commission, not attributable to particular inquiries. No more than one-half of one percent of gross operating revenue derived from

intrastate operations in the last preceding calendar year, can be charged against any utility. (1)

The Wisconsin statute has been commended because of its flexibility. (2) With a careful and exacting system of cost accounting, the possibility of controversies on items for bills for special investigations are at a minimum.

If rate regulation is to take place by means of the investigation system, then Wisconsin undoubtedly is making secure its source of revenue to facilitate the correct application of the law in the public's interest. The utilities benefit from these investigations, for they are insured at least a fair rate. The state of Wisconsin goes half way in assisting the financing of regulation by appropriations.

C. SECURITY AND HOLDING COMPANY CONTROL IN WISCONSIN.

Practically all of the State commissions have come to recognize the increasingly important role that securities play in the regulation of rates, holding companies and maintenance of service.

The Wisconsin Railroad Commission held that plant additions can be financed only from bonds, general appropria-

(2) Ibid.
tions, special assessments, assets, from depreciation reserves, or from surplus earnings available to pay a return on the investment. Rates must not be raised to produce sufficient revenue to cover additions. (1)

Since 1931 no securities may be issued by any utility until it shall have obtained permission from the commission. A utility may not issue securities except for money, property or services actually received by it. This stock may not be sold at less than its par value, or the market value as fixed in the commission's certificate of authority. (2) By a statute passed in 1931, it was provided that whenever the commission finds the capital of a utility impaired, after investigating, it may order the company to cease payment of dividends on its common stock until such impairment has been made good. (3) On July 15, 1932, the Wisconsin Commission made use of this power and ordered all utility operating companies to cease dividend payments to holding companies until they can show to the satisfaction of the commission that such dividends are not at the expense of proper reserves for maintenance or depreciation. This order was promulgated as a protection of the consumer's interests. (4)

(2) Dineen, W. M. Wisconsin Statutes p. 93
(3) Ibid. p. 98
(4) "Two States Find Ways to Hold Utility Holding Companies" Business Week July 27, 1932 p. 22
The commission regulates securities with holding company control in mind. Practically all of the relations between operating and holding companies are of concern to any state commission which is aware of its responsibilities. The commission must be given extensive authority over all transactions between the holding company and its subsidiaries, if the state is to be held accountable for the protection of consumer and investor interests. (1)

It is very difficult to extend the jurisdiction of state control to embrace the foreign corporations because holding companies are very often not public utilities, and many of these companies operate on an interstate basis. (2) Commission control is restricted to those measures arising out of their regulation of the operating accounts and financial policies of the operating companies, payments for special services, legal, financial, engineering and purchasing, the issuance of securities, and the commission's approval or disapproval of any appreciable amount of the stock of the public utility. In all three states, New York, Massachusetts and Wisconsin, the commission may set down rules governing the filing of reports, contracts, or access to records of transactions between the operating and affili-

ated company. However, holding companies often succeed in evading these restrictions, since many companies are controlled by foreign capital. The main purpose behind this is to determine the reasonableness of the charges made to the operating units. (1)

By an act passed in 1931, Wisconsin defines "affiliated interests" in terms similar to the New York statute, except that five percent in place of ten percent of the voting stock is established as evidence of affiliation. New York soon saw the loophole that the ten percent left, and in a recent amendment the Empire State reduced the percentage to five. The Wisconsin commission is to have complete power over the authorization of contracts or arrangements for the furnishing of services, or the purchases or sale of property between a utility and an affiliated interest. The commission in addition, is to receive verified copies of the cash records of the company furnishing services to the affiliated unit. The Wisconsin Commission reserves the right to assert the reasonableness of any charge. (2)

Mr. Lilienthal would give the state commission power to regulate holding company regulations on the following points of contract.

1. Financial transactions, including "open accounts",

(2) Ibid. p. 364.
loans between parent and subsidiary companies.

2. Payments of dividends made by the subsidiary to the parent, before provision has been made for depreciation and surplus.

3. Abuses through the medium of unreasonable or unnecessary management and supply contracts. (1)

From the above evidence, it is quite apparent that Wisconsin has a wide enough range of power to scrutinize holding and operating company transactions. In some respects its powers are even more far-reaching than New York's or Massachusetts's. Even with its far-reaching control over the various relations between the parent and operating company, evasion of the law is bound to exist. State jurisdiction at its best is, of necessity, limited. By a careful manipulation of contracts of long or short term duration, they escape commission scrutiny. The holding companies employ devious means to evade commission regulation of their operations.

D. ACCOUNTS AND REPORTS.

An important appendage in holding company regulation is the Commission's exacting prescriptions and control over utility accounts and reports. They are advantageous in determining reasonableness of charges in utility transactions. The Wisconsin legislature of 1929 on the question of the accounting of gas and electric companies, decided that each should keep separate accounts to show all profits or losses resulting from the sale of appliances or other merchandise. In the determination of rates, such profits or losses connected with the sale of merchandise shall not be considered. (1) At an investigation made of the problem, representatives of the utilities attributed a large portion of their costs related to the sale of merchandise to the promotion of the sale of the companies' utility service or product. The commission believes that the legislature intended that there should be charged to the merchandising business all costs associated with the conduct of that business.

Martin Glaeser, in his article "A Year of Innovations in Regulation" asserts that the commission will emphasize the accounting approach to its regulatory problems. (2)

(2) Glaeser, M., Public Utility Fortnightly Vol. 10, p. 561
In Wisconsin, accounts were reclassified to expedite regulation. The following steps are, in essence, the procedure followed in the classification of accounts:

1. A given account should have the same meaning at all times for all companies of the same class.
2. Capital accounts should reveal original costs.
3. Accounts should be divided and subdivided into no greater and no less detail than is practically useful to the commission.
4. The system of accounts should, as far as practicable, facilitate cost accounting for utility services.
5. In depreciation accounting, the sinking fund basis or straight line basis is substituted as a means of deprecations accounting instead of retirement reserve method.

The "fixed capital purchase adjustment" is designed to include the difference between the amount approved by the public service commission for the purchase of any utility plant and the actual original cost of constructing and installing such a plant, less amounts in the depreciation reserve. The purpose is to perpetuate records of original cost and to minimize variations in cost records by reason of changes in ownership.

The new classification sets up twelve balance sheet accounts, three operating expense accounts, and a new clearing and apportionment account to record transactions with
affiliated companies.

These accounts and reports supply the commission with a basis on which to judge company operations. With the contemplated installation of the "perpetual inventory method" of valuation, the role of accounting will grow in importance. It is necessary to make the pertinent entries of additions and abandonments if records are kept up-to-date. It is expected that under the "perpetual inventory" system that the accounting staff will be comparatively small once the system is installed properly and working smoothly.

E. SERVICE STANDARDS IN WISCONSIN

As an agency for the protection of consumers' interests the commission has set certain service standards which differ with the type of the utility's product or service. In its report of 1926-1928, the Wisconsin Commission says that its field inspectors have rendered assistance wherever possible "to improve construction and operating conditions in connection with securing compliance with the standard for telephone service." The Wisconsin law aims at integrating all sources of supply and transmission systems, whether publicly or privately owned. (1) It seems to fit in very well with modern trends of rationalizing industry. The

paralleling of service and lines should be prohibited where existing facilities are ample to meet the necessary requirement. (1)

Many generalizations as to safety and adequacy of service in the operation of utility properties may be set down. However, each property requires specific treatment.

The commission ordered each electric railway operating in Wisconsin to abide by the prescribed rules and restrictions covering the filing of its book of rules governing operation of cars and trains, trainmen's time tables, etc.

With its inspection work as a basis, the railroad commission before 1906 developed a system of "rating" utilities. The engineers, upon inspecting individual plants, determine the extent to which they measure up to the service standards determined upon by the state, conceived the idea of establishing a series of grades which when added would give the commission an idea of the performance of the various plants in the state. (3)

As an example, in rating gas and electric companies on the one hundred point scale, they include: creeping meters, allowable errors, installation tests, periodic

---
(2) Cooke, M. L. Public Utility Regulation p. 119
(3) Morgan, C. S. Regulation and Management of Public Utilities p. 262
tests, meter testing equipment, request tests, referee
tests, meter readings on bills, heating value, calorimeter
equipment, interruptions, station records, voltage varia­
tion, pressure and voltage surveys, sulphur restrictions,
etc. (1)

The whole inspection department of the Wisconsin Com­
mission consists of twenty-two engineers on the staff who
are responsible for inspection plus evaluation and special
investigation of utility matters including rates. It is pos­
sible in electric utilities to use company records to check
on the voltage for any locality. A single inspector can
cover the gas manufacturing plants. This single inspector
can cover meter tests and pressure surveys. In addition,
service complaint records are checked and carefully followed
up. (2)

F. PUBLIC OWNERSHIP IN WISCONSIN

Finally, it is essential that we consider public owner­
ship as an alternative to the present system. Since 1931,
Wisconsin has progressed further in this direction than any
state up to the present. It considers public ownership

(2) Ibid. p. 176.
preferable to the continued abuses under the "fair value" ruling.

The Wisconsin program was originated by the Wisconsin League of Municipalities and was taken over by the Progressives several years ago. The La Follettes were instrumental in its instigation. The measures are far reaching and radical and resemble in parts the laws of Ontario, New York, and states of the Pacific Northwest. Wisconsin goes much further than these other states in restricting the scope of private utilities and furthering the interests of public ownership. (1) Their plan provides:

1. The states and municipalities should be granted the right to furnish electrical energy.

2. Effective regulation of both public and private companies.

3. A public power corporation would supply the necessary machinery to coordinate existing public and private power plants and develop an integrated program for the state.

The first step toward this goal was an act passed in 1930 providing for the creation of power districts. These districts are to be composed of one-half or more of the municipalities of a given area, asking for an election to

(1) New York Times July 5, 1930 Section 2, p. 2
find out whether a power district shall be created. This
district would have the power to "own, acquire, or con­
struct and operate any water power, or hydro-electric plant
within or without the district, and to sell to the public,
to any municipality, to the state or any state institution,
heat, light, power, service and other services." The dis­
trict has power of eminent domain, the right to use public
highways, and to grant certificates of convenience and ne­
cessity to any utilities within the district. (1)

The second step was the constitutional amendment to
permit the state to engage in the generation and distribu­
tion of light, heat and power. A state utility corporation
was created to coordinate publicly operated plants. This
corporation was vested with powers to enter contracts with
the owners of utilities for numerous purposes. This cor­
poration will be a state utility department, devoting its
time to promotional and research activities rather than to
judicial functions. This Wisconsin plan provides a means
for rationalizing the utility industries for public purposes.

And so with the trend toward public ownership, as a
final phase of Wisconsin's regulatory policy, we are pre­
pared to pronounce the Wisconsin system as one of the most
progressive and promising of future results. There should

(1) Mosher, W. and Crawford, F. Public Utility Regulation
p. 518
be no doubt left in our minds that with the foresight shown on the part of the Wisconsin utility control champions that this type of utility ownership is worthy of careful inspection and watching. It is very likely that with New York and Massachusetts making provisions for municipal competition that they will essay a trial similar to that already launched in Wisconsin.
CRITICAL EVALUATION OF REGULATION
IN THE THREE STATES

Regulation as now generally practiced has failed to protect investors in public utility securities against the loss of billions of dollars resulting from unsound methods of financing and valuation. The present system of control has failed to secure rate reductions for the consumer and has not been successful in safeguarding the credit of the companies placed under its supervision.

In the "Report of the Policy Committee" at the Conference on Regulation, the following analysis of existing regulation was presented: (1)

1. Retail rates, especially in the electrical utilities are not based on the true cost, for providing this class of service. These rates must bear the brunt of assuring the company a fair return.

2. Valuation under the "fair value" rule represents no real standard.

3. Accounting tends to conceal and distort essential

facts on which rates, service and security issues are predicted.

4. Holding companies still remain outside of commission regulatory control.

5. Court procedure which permits utilities to appeal the decision of state regulatory bodies directly to the federal courts before exhausting their remedies in state courts, should be altered.

6. Regulatory technique tends toward the viewing of the commission as a court which awaits issues to be raised, rather than as an administration body.

This same body proceeded to make nine recommendations which would remedy existing abuses and evasions under the prevalent system of control:

1. The development and adoption of a technique of regulation that will include initiation by the commission of rate changes and other steps.

2. The establishment by law of the prudent investment principle of valuation.

3. Rate determination on the basis of the actual cost of each class of service including a fair profit on the capital required for each service.

4-a. Revision of the present uniform classification of accounting which positively and accurately reveals the true financial status.
4-b. Classification of revenues as specifically received from the various prices, services or other sources.

5. Federal incorporation of holding companies with adequate control over security issues and accounting.

6. Withdrawal of the power of the lower federal courts to review and nullify decisions of the commission.

7. Provisions for publication by state commissions of regular bulletins to distribute in popular form.

8. Authorization of municipalities after a referendum vote to build, acquire and operate public utility systems without certificates of convenience and necessity.

9. Provision for national and state power planning either by the commission or special boards so that future developments will be economically sound and in accord with public needs. (1)

With this list as a general background for my discussion, I will endeavor to evaluate the extent to which each of the three states conform with these suggestions.

The trend in all three states is decidedly away from the present "fair value" ruling, which in itself is merely a combination of several contradictory elements, incapable of definite calculation. In New York, the question of con-

stitutionality seems to prevent that state from openly applying the prudent investment theory. However, both majority and minority divisions of the investigating commission have assailed the reproduction cost theory, and recent legislation has favored Bauer's plan, namely, the use of the perpetual inventory of the property used and useful. A second amendment stresses the necessity of maintaining company records to show currently the original cost of the property.

Massachusetts has openly braved court rulings by applying its own plan which is in reality a modification of the prudent investment theory. However, the Massachusetts procedure has been attacked because of absence of a fixed rate base. Wisconsin, on the other hand, has favored the continuous inventory method of applying the prudent investment theory. In this respect, its valuation system is similar to that of New York.

The influence of court decisions on state commissions seems to have no deterring effect in Wisconsin and Massachusetts, (1) but the New York Public Service Commission seems to feel that application to the lower federal courts by the utilities before they have exhausted the means offered by the state judicial system adversely affect regu-

lation in the Empire State.

Massachusetts and Wisconsin both agree on the rate of return that should be allowed, which they fix at six percent except where the special condition of the company requires an adjustment. However, New York has fixed the minimum rate of return below which the commission may not go in determining temporary rates, at five percent. New York and Wisconsin both feel that the utilities within their respective jurisdictions have not lowered their rates to a degree that would be possible during the depression. Wisconsin has ordered the Wisconsin Telephone Company to reduce its rates some twelve percent. Whereas, Massachusetts on the other hand has taken sides with the utilities and has maintained that dividend rates can by no means be made a criterion for the reasonableness of rates. In the role of rate reductions, the Massachusetts Department accepts the position of a suggestive body.

The next point of comparison is that of securities. New York and Wisconsin seem to accept security control as part of the holding company problem. Massachusetts stresses this phase of regulation, making it one of the pivotal points of control. Of the three states, Massachusetts emphasizes security regulation. However, under the prudent investment plan it is extremely essential that securities be regulated as part of the entire program.
All of the states have properly assumed attitudes of stringent regulation of operation between parent and operating companies. Massachusetts defines holding company affiliates as holders of ten percent voting stock, whereas, Wisconsin and New York, by a recent amendment, limit this percentage to five. All inter-company contracts must be approved by the commissions.

Because of their use of perpetual inventory plans, the accounting approach to valuation and holding company transactions has been stressed particularly in New York and Wisconsin. Glaeser believes that accounting will come into its own as a means of control. Service standards are prescribed in detail affecting every type of product and service in each of the three states. Wisconsin and Massachusetts, in particular, make use of rating scales as a basis for comparing utility service throughout the state.

Finally, the policy of providing for municipal competition and public ownership, has progressed further in Wisconsin than possibly in any other state in the union. Municipalities have been authorized to compete with privately owned companies, and the state has been divided up into power districts. In Massachusetts, municipal competition has not been so actively proposed. The companies and the people are satisfied with the present regime. This is said to be due to the smooth functioning of control
under the prudent investment theory. However, rather than submit to the "federal rule" (reproduction cost and "fair value") with its abuses, two alternatives have been suggested, either public ownership or the establishment of contractual relations between the utilities and the state for the purpose of regulating rates. In New York a law has been passed making these contracts permissive on the part of the utility. Wisconsin's legislation on this phase is the most positive and constructive.

Judging the three states on the basis of relative speed in dealing with investigations and hearings, Massachusetts has been said to dispose of rate cases within three or four months. The Wisconsin and New York bodies favor the conference method of dealing with rate cases in place of the costly system of formal rate hearings which invariably result in antagonistic feelings between the state and the utilities.

Many commissions have been judged by the size of their staff and the size of the appropriations allotted to them. Propaganda has been fostered to the effect that commission type regulation is ineffective and that public dissatisfaction with these bodies is growing. When one considers the size of the Wisconsin Commission and staff together with their allotted amount of appropriations, this criticism seems hardly warranted.
All three states have laws assessing the costs of rate investigations on the utility. It is probable that the Wisconsin measure is a little more detailed, involving state appropriations plus the levying of expenses on the utility for investigations involving their interests. The New York proposal aims to create a revolving fund that may be constantly used for investigative purposes.

Comparing the size of the state commission's staffs, as of 1920 and 1929, it is found that the size of the Massachusetts' staff has not increased, whereas, the New York staff shows a sixteen percent increase, and the Wisconsin staff an eight and one-half percent increase. It is likewise interesting to note that Massachusetts is the only one of the three possessing no legal staff. This is probably due to the type of rate hearings, the speed with which hearings are accomplished, and the disposition of the utility companies toward the commission. After comparing the merits of the appointive and elective types of commission, it was concluded that the appointive method is likely to function more successfully. It is interesting to note that all three of the states appoint their commissions.

After a consideration of the general development of the state commission, there is a very noticeable trend toward centralization. Massachusetts and New York have changed from a system regulated by multiple commissions to the
single commission. The substitution of a one-man commission for the present system has been predicted. It is supposed that as a reflection of the dictatorial age a new era will come into existence where a state public utility coordinator will succeed the present commission.
BIBLIOGRAPHY

I. Books:

1. American Academy of Political and Social Sciences
   Philadelphia 1932
   Bonbright, F. "Evils of the Holding Company"
   Flynn, J. T. "Pyramiding of Holding Companies"
   Patterson, E. M. "Power and the Public
   Ransom, W. L. "Valuation and Rate Problems"

2. Anderson, Williams, The Work of the Public Service
   Commission University of Minnesota, Minnesota 1913

3. Barnes, I. R., Public Utility Control in Massachusetts
   Yale University Press, New Haven 1930

4. Cabot, Philip, Problems in Public Utility Management
   McGraw Hill Book Company New York 1930

   Press Company New York 1924

6. Dineen, William (Compiler) Wisconsin Statutes
   Public Service Commission of Wisconsin, Madison 1933

7. Dorau, Herbert B., Materials for the Study of Public
   Utility Economics. Macmillan Company New York 1930

8. Glaeser, Martin G., Outlines of Public Utility
   Economics. Macmillan Company New York 1927

   Utilities Reference Shelf Series: H. G. Wilson Com-
   pany New York 1934.
   Macmillan Company New York 1931
II. Manuscript:

de Chazeau, Melvin G. Ph.D. Thesis: The Regulation of Electric Light and Power Companies in Massachusetts - A Study of Public Utility Control

III. Magazine Articles:

5. Anonymous, "Opinions on Utility Regulation", Electrical World Volume 100, December 17, 1932


11. Bauer, John, "Valuation Yardsticks" Public Utility Fortnightly Volume 5, April 3, 1930


14. Cameron, M. K., "The Political Pressure on the State Commissioners", Public Utility Fortnightly Volume 5, February 20, 1930

15. Cooke, Morris L., "Round Table Conference in New York" New Republic Volume 70, April 27, 1932

16. Dewey, Ralph, "Dr. Frankfurter Ventures Three Postulates of Improved Regulation" Public Utility Fortnightly Volume 11, Page 478 April 13, 1933


22. Knowlton, A. E., "State Commissions Solve Regulation of Holding Companies" Electrical World Volume 100 December 3, 1932

23. Knowlton, A. E., "Regulation - A Cross-section of Opinion" Electrical World Volume 95, June 7, 1930


27. Marx, Guido H., "How to Control Public Utilities" Nation, Volume 132, April 1, 1931
28. Mathews, G. C., "Regulation of Utility Securities"
   Public Utility Fortnightly Volume 5, March 20, 1930
29. Mosher, William E., "Utility Regulation at the Bar"
   New Republic Volume 75 June 7, 1935
   Nation Volume 130 May 28, 1930
    State Commissions", Public Utility Fortnightly
    Volume 10 p. 543 ff. November 10—24, 1932
    ments of the State Commissions" Public Utility
    Fortnightly Volume 11, January 19, 1933
33. Norris, G. W., "The Ultimate Goal of Public Utility
    Regulation" Public Utility Fortnightly Volume 5
    March 6, 1930
34. Olmstead, H. M., "Strengthening Utility Regulation
    in New York, American City February, 1934 p. 79
35. Pinchot, G., "What's Wrong with the Utilities and
    What the State Commissions Should do about it"
   Public Utility Fortnightly Volume 12, p. 750 ff.
   December 21, 1933
36. Ramsey, M. L., "Judicial Supervision of Commission
    Regulation - A Study of Court and Commission Re­
    lations in Massachusetts" Journal of Land and Public
   August - November, 1931
37. Ripley, William Z., "The Utility Conference" *New Republic* Volume 70 May 18, 1932


42. White, E. M., "Public Utility Regulation" *Nation* Volume 136 May 3, 1933

IV. Newspaper Articles:

**NEW YORK TIMES**

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Date</th>
<th>Page</th>
<th>Column</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>October</td>
<td>17</td>
<td>60</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>33</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>42</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>November</td>
<td>8</td>
<td>24</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>39</td>
<td>2</td>
</tr>
<tr>
<td>1931</td>
<td>January</td>
<td>8</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>February</td>
<td>17</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>March</td>
<td>4</td>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>29</td>
<td>43</td>
<td>1</td>
</tr>
<tr>
<td>1932</td>
<td>March</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>7</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>October</td>
<td>25</td>
<td>61</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>November</td>
<td>3</td>
<td>33</td>
<td>1</td>
</tr>
<tr>
<td>1933</td>
<td>January</td>
<td>5</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>February</td>
<td>14</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>