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Carl H. Nau

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Depreciation Funds and Reserves in Public-utility Rate Cases

COMMENTS BY CARL H. NAU

The editor of THE JOURNAL OF ACCOUNTANCY submitted for my comment the foregoing paper by John H. Bickley in which he comments, inter alia, upon certain statements contained in the memorandum on "Treatment of replacement reserve funds", printed in THE JOURNAL of December, 1926.

In order to clear this discussion of certain misunderstandings or failures of minds to meet, it may be well to seek some common premise. The search for this starting point naturally leads to a consideration of the purpose of public regulation of utilities.

I believe that, broadly stated, the only justification for this regulation is the preservation of the equities between the utility and the consumer. Regulatory bodies have, therefore, generally attempted to fix the rates for service at a point where the public will pay such sum to the utility that the net income of the utility will represent a fair return upon the investment which it has made for the purpose of serving the public.

It was *equity* which dictated the use of "the fair value of the property of a utility at the time the inquiry concerning rates first arises" as the rate base, and in the end any attempt to interpret the laws so narrowly as to divest regulation of its real purpose will result either in the enactment into law of provisions intended to restore public control to its proper estate or in killing the goose that lays the golden egg.

Therefore, in approaching further discussion of the "Treatment of replacement reserve funds" let us consider "law" and "equity" as synonymous terms when and as applied to this question of regulation. The writer also wishes it to be understood that when he speaks of a utility having been "brought under regulation," he does not have in mind the mere enactment of the regulatory law, but rather the actual determination of the rate base and rate for the utility in question by the properly constituted regulatory body. I made a distinction in the life of the utility between the time when it operated unregulated and uncontrolled, charged all that the "traffic would bear" and took all of the gamble for

either loss or unconscionable profit, and the time when the regulatory body initially determined the rate base. After this time the accounts, which have been prescribed, automatically accumulate the cost of all additions to the property which, of necessity, would ultimately be reflected in authorized additional securities, either capital stock or bonds. If regulation is effective and the return on the investment is a fair one, there will be no ultimate increase in surplus out of which to finance additions to property.

By regulation of utilities the public has sought to secure to itself the benefits which arise from monopoly in public service without assuming the burdens which generally attend such monopoly. In return it should obligate itself to insure the stability of investments in property devoted to its service. If this be sound, no one could argue that a regulated utility, having been authorized to sell its securities and invest the proceeds in equipment at peak prices should at a subsequent time be forced to accept a return on this same equipment computed at normal prices, simply because the market had declined in the meantime. The converse applies equally well. Simply because of an upward turn of the market the utility should not be permitted to seek a revision of a value once determined. If the precedents be not in accord with this doctrine, they will have to be reversed or the machinery of equitable regulation will break down.

In order that my contentions may be entirely clear I have deliberately assumed the risk of being criticized for injecting an academic tone into this discussion, and, before passing to the remarks directly concerning the paper of Mr. Bickley, I wish to state it is my assumption that the only justification for a depreciation allowance is the fact that the gradual wasting of assets would otherwise result in a loss of value. I also wish to register the assumption that the value determined at the time of regulation is "fair" value, since the acts of regulatory bodies are not final and the parties to the inquiry have recourse to the courts.

In discussing Mr. Bickley's paper, I believe that every point which is relevant can be brought out by commenting upon the example of a utility having five units of property, each costing $15,000.

The rate for service would, of course, have been so fixed that the utility could earn a fair return on $75,000 which, at the rate of return assumed by Mr. Bickley, would be $5,250 per annum.

At the end of the third year the accumulated reserve for depreciation would be $15,000 (under the scheme presented, the fund would also be $15,000, whether in cash, or invested in securities or additions to property), but during the three years there would have been a loss in value in the original units of $15,000 so that after investing in a new unit the fair value would still be $75,000—represented by $60,000 remaining value in the five units and $15,000 in the new unit. (If the fund had been used in defraying the cost of the new unit it would be represented on the books by the contra credit to the account "Borrowings from deferred upkeep fund".)

It may be well at this point to consider the reasons for purchasing the new unit. If it were purchased to keep the plant up to its original capacity and efficiency without any increase in output, then the analysis above is complete. However, if there were an increased demand which necessitated the installation of the additional unit, the utility would have a right to provide such additional capacity out of the proceeds of new securities, and the investment (or value of the plant) for rate-making purposes would be $90,000, consisting of $60,000 remaining value of the original units, $15,000 depreciation fund, and $15,000 of property financed by the sale of new securities.

One difficulty which is always met in the discussion of any phase of depreciation is the complexity of the subject. This practically causes us to lose sight of the fundamentals and to reason in terms of derivatives.

Let us consider a utility which has been under regulation from the beginning and we shall probably agree that such utility is entitled to a fair return upon the money, or money's worth, which it has been authorized to invest in the service which it renders. Depreciation is invariably taken into consideration as an element of cost in determining the rate for service which is necessary to yield fair return.

In the case of a utility which has a franchise for a fixed term and which will cease operation at a definite time, the depreciation allowance must be such that during its period the utility will have had a fair return on its investment and, when it ceases operation, will be in a position to retire its securities at par.

In the case of a utility having a grant which, in effect, will permit it to operate in perpetuity, the depreciation allowance must be such that the utility will be able to keep its property in

condition to earn its fair return and will be called upon to make investment from the proceeds of new securities for only such additions to property as are made necessary by increased demand for service.

After complete consideration of Mr. Bickley's paper, I am more than ever convinced that the values upon which a utility is entitled to a return are "the fair value determined at the time the utility was brought under regulation plus the cost of such subsequent extensions and betterments as are financed by the sale of new securities" and that "the only interest which the public has in the depreciation or replacement reserve funds is that such funds be neither more nor less than necessary to replace all property at the proper time and that they be available when needed so that the public service will not suffer."