

several bases of prorating are most scientifically selected, the ultimate allocations can hardly be accepted as conclusive for the determination of rates.

It is to be observed, furthermore, that the basis of prorating to be adopted is an exceedingly important consideration, subject to wide difference of opinion. Mr. Reed may be correct in saying that for his particular company the bases selected by him would be satisfactory as between the different groups of consumers in the different territories served. But if we were concerned in an actual rate case, I might come to sharp disagreement with him. The final showing depends upon the methods used, and they depend upon judgment, which is not a fixed element in cost analysis and is affected by special interests. If there is doubt as to the proper bases to be adopted for any given company, there is much greater doubt whether any considerable uniformity could be reasonably established by a commission to apply to the various companies operating under different conditions. With my conception of the greatly varying conditions, I surmise that, for rate making purposes, a separate analysis must be made for each individual company. The steps and bases of allocation must be determined according to the special circumstances. I do not see how general rules can be laid down. I should wish to scrutinize very carefully the steps and processes selected for any particular company; and more, I should regard skeptically any general system for all the companies under the jurisdiction of a commission.

I have had considerable experience in cost apportionments for rate making, including uniform rules laid down by a commission. In one very important instance, I found especially that the general rules could not be applied to the special case; while they were satisfactory for administrative purposes, they produced unreasonable and unjust results under the particular circumstances. I had a hard job, however, to demonstrate the inapplicability of the rules. Perhaps this experience has produced special caution as to any comprehensive system which might prevent adequate scrutiny for individual cases. While accurate cost analysis is essential for rate making, the base of allocations must be carefully considered from the standpoint of the special facts of each company in relation to the consumers affected. When such an

analysis has once been made, I do not see any great benefit from continuous accounting to present, for each month or for each year, complete cost allocations covering all the various costs incurred by the company. The vast details would not only be tremendously expensive, but might readily interfere with intelligent, subsequent analysis and rate determinations.

It is necessary to have accurate costs in relation to the various functions of service. For the most part, however, the existing classifications already provide quite adequately for such costs as a matter of regular accounting. The allocations between communities, and especially between classes of service, are best made at considerable intervals as matters of special analysis. The great difficulty in rate making has not been the inadequacy of cost accounting, but rather the indeterminateness of the return allowed on the property; the bulk of the litigation has involved the determination of the fair value and the rate of return.

Apart from this phase of rate making, the established cost classifications, it seems to me, are reasonably satisfactory; they furnish quite completely the basic data for proper analysis in most instances, as between communities and classes of consumers. When a complete cost analysis has once been made, and a rate schedule has been established which fixes reasonably the relative rates between the different classes, there is then no further need of detailed allocations for each month or year. Only after a considerable period may a re-analysis be necessary, to take into account fundamental changes that may have taken place in the interval.

In conclusion, let me restate my general sympathy with improved accounting methods and more accurate cost statements. I am reluctant, however, to place approval upon methods which do involve great amounts of work, and whose results must be called in question when an actual case of rate making arises.

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serious exception, however, to many statements in the first four pages of this paper. I cannot help but take exception to these statements because they are to the general effect that the electric supply companies are hoodwinking the commissions, even when the companies are classifying their accounts in accordance with the prescribed methods.

In the first paragraph of the "Introduction" we find this: ". . . but the figures used for creating the formulae have seldom, if ever, been furnished to the consumer or to the utility commissions." It may be, and probably it is, true that a large proportion of the state commissions do not employ on their permanent staffs experts with the requisite education, training and experience to qualify them to develop the necessary facts from the data found in the books of the utility companies. I could name seven of the state commissions that do have on their permanent staffs experts of the kind I refer to. I could name three or four more commissions that, I know, do not have such permanent assistants.

On page 86, paragraph 3, I find this statement: "Under the present type of cost accounting a power and light company can render certain classes of service at a loss and have this loss made up by an excessive charge to other classes." Further down, referring to allocation of costs to classes of service, is this statement: "Until this is done the public, especially the small consumers who cannot employ an engineer to analyze their bills, will continue to look with suspicion not only upon the utility but also upon the commission."

In dealing with a matter as complicated as electric rates and the various factors which influence them, it goes without saying that the ordinary customer is not in a position ever to understand completely the logic of such rates. One must, as is the case with a great many other things in life, place some faith in those who are charged with the responsibility of safeguarding his interests. On page 87 Mr. Reed's paper deals with a matter which, unfortunately, has become quite controversial; that is, the wide variation between rates charged the ordinary small consumer and those charged the very large consumer whose bills run into many thousands of dollars a year. There have undoubtedly been cases where the companies have taken on large power customers at rates below those which should have been charged, partly on

the assumption that anything at all which would improve the load factor must in some way, not fully understood, benefit the customers as a whole, and sometimes partly with the idea of preventing the installation of a private generating plant which might in time expand its activities so as materially to interfere with the development of the electric power company. I know of but one instance in recent years in the state of New Jersey where a special rate was made at a point below the actual out-of-pocket costs, and that only because the distributing company purchased its power in accordance with a schedule which differed in its type from the schedule under which this power was sold to the ultimate consumer. Upon an analysis of the actual production cost it was found that the price to the ultimate consumer would not result in a real loss but would result in a loss to the distribution company, which, however, was owned and controlled by the company producing the power. This, of course, resulted in unfairness through an impropriety, which was later corrected by a change in the method of charging the distribution company by the production company. I cannot agree, however, that in the state of New Jersey today any company is selling electrical energy at a point below the out-of-pocket costs, in which is included the appropriate fixed charges on all of the property used and useful in the supply of the particular customers, or class of customers.

A careful and honest application of Mr. Reed's system of allocating costs to the various classes of service will, of course, result in a great improvement over the slipshod methods employed by many of the smaller companies, but I am inclined to think from a careful reading of Mr. Reed's paper that he has never read the original basic paper on this subject presented by Mr. Henry L. Doherty in the early 90's. If anyone interested in the allocation of costs by public utilities has not read this paper I should suggest that, before going any further in any study of this matter, he go back to Mr. Doherty's original paper. He should also read and study a paper written by Mr. George G. Earle some twenty-five years ago on the subject of water rates for the city of New Orleans. I do not agree that Mr. Earle has developed the truly logical system of rates, but it may be remembered that the city of New Orleans, a large city previously without any water system, had installed in a compara-