

## CHAPTER XV

### ELEMENTS DESERVING SPECIAL CONSIDERATION WHEN RATES ARE TO BE FIXED

(*Note:* This chapter is substantially as it appeared originally in the author's "Public Utility Rate Fixing," now out of print.)

#### A — Obsolescence

**Obsolescence Cannot Be Predicted.** — An appliance, machinery or a process of manufacture in use by a public utility may under efficient management at any time be replaced and superseded by a better device or process. When this is the case more or less property is usually discarded, which, under the conditions as they prevailed when this property first came into use, should have served for many years longer. Obsolescence has forced its abandonment.

The knowledge that obsolescence may shorten the term of usefulness of a machine or of portions of any plant used in the public service has prompted valuation experts and the rate-regulating authorities to attempt estimates of the allowances which should be made in the earnings to cover the prospective abandonment of property due to this cause.

The last word has not been said in the discovery of new forces in nature and their adaptation to human requirements. It is the belief of many engineers, for example, that the internal combustion engine will put the old types of marine engines of ocean freighters on the scrap heap, and yet the older type under gradual development to its present high state of efficiency has maintained itself for more than a hundred years.

The use of oil in place of coal, not alone as a producer of gas but also as fuel in the production of steam, has caused appliances and machinery to be abandoned which would otherwise have continued in service. No one today can be sure which of two