

**PUBLIC UTILITIES,  
THEIR COST NEW  
AND DEPRECIATION**

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Public utilities, their cost new and depreciation by Hammond V. Hayes

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# PUBLIC UTILITIES

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COST NEW AND  
DEPRECIATION

BY  
HAMMOND V. HAYES, Ph.D.  
CONSULTING ENGINEER



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## PREFACE

THE valuation of public utility undertakings is a mixed question of fact, judgment and law. A comprehensive treatment of this subject requires the combined knowledge of the engineer, the economist and the lawyer. The following pages, written by an engineer, cannot be offered as an authoritative discussion of the legal questions involved. On the other hand the engineer, who is called upon to prepare and present most of the figures required by courts and commissions as evidence of the value of the property of such undertakings, must have a sufficient knowledge of the legal questions that are at issue to enable him to obtain properly and intelligently the figures needed by the tribunals whose duty it is to assign the fair present value. This must be offered in explanation of the many quotations from decisions of courts and commissions which have been incorporated in the present volume.

It has seemed to many who have studied this subject that the precedents are diverse and that much must yet be done before the fair present value of the property of public utilities can be defined. It is a question whether general rules can ever be laid down as to what the fair present value will be in all cases. It would seem as if such value must always be determined by "the well instructed judgment" of a broad minded and impartial tribunal. But even admitting this, a careful reading of all available

decisions shows that much of the diversity is produced by a lack of understanding on the part of the engineer of what is meant by "original cost" and by "depreciation." The efforts of the engineer in most appraisals appear to have been concentrated upon the ascertainment of the replacement cost to the entire neglect of original cost. Moreover, "depreciation" has been confused with "deterioration" and, as a consequence, the loss in value of a property has been made dependent, in some way or other, upon the physical efficiency of the plant.

The object of the present work has been largely to bring to the minds of those, whose duty it is to ascertain the figures representative of value, three distinct issues: first, that it is the duty of the appraiser not to ascertain the fair present value, that function belongs to the court or commission, but to ascertain with accuracy such figures as are necessary evidences of value and loss of value; second, that the original cost can be obtained without inordinate difficulty and is a figure of importance to those who must rule as to what the fair present value should be; and third, that depreciation is affected only indirectly by inefficiency and that, as a necessary consequence, depreciation is dependent wholly upon the relation of the age to the life of the perishable property.

It is appreciated that, as a practical matter, evidence as to possible value will be offered by experts employed by one side or the other in a controversy, and that, as a necessary consequence, such experts will be inclined to advocate figures most favorable to the interests of their employers. On the other hand, it is a fact that a long step toward the removal of the present apparent diversity of rulings will have been made when the experts'



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figures faithfully represent the true replacement cost, the actual original cost and the real loss in value due to depreciation.

It is hoped that the following pages may aid in reaching this desirable and necessary result.

HAMMOND V. HAYES

Boston, June 2, 1913.



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