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VALUATIONS REPORTS CONSTRUCTION MANAGEMENT

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39 BROADWAY
NEW YORK

New York, June 7, 1933

The City of Seattle,
Department of Lighting,
County City Building,
Seattle, Washington.

Dear Sirs:

In accordance with our commitment defined in Ordinance No. 63718 of The City of Seattle, dated May 29, 1933, we have made an examination of the business and physical property of the Department of Lighting of The City of Seattle, for the purpose of reporting upon the "fair value in use" of all of the physical property of the Department as existing May 31, 1933. The results of our investigation, as set forth in this report, may be briefly summarized as follows:

(a) Based upon our inspection of the physical property in question, and upon average prices for materials and labor as of May 1933, for all property except the Diablo power development, we estimate the "fair value in use" (represented by the reproduction cost new less depreciation) of such property at \$37,152,500. The Diablo development, not yet in service, has cost to date \$6,925,148. Therefore we estimate the "fair value in use" of all the physical property of the Department as existing May 31, 1933 at \$44,077,649, as set forth in the attached report for inclusions

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and exclusions and for deductions for depreciation. The property was found to be well maintained and in good operating condition.

(b) From examination of the Department's business, and from contacts made by our engineer during his field investigation, it is apparent that the Department's organization is well managed and effective. There was no evidence of machine politics within the Department, and no indication of appointments to any important positions of inefficient employes based upon political influence. All important positions are filled under Civil Service Rules.

(c) The growth of the business of the Department since completion of the initial power plant in 1904 has been substantial, the amount of annual gross revenue having shown steady, continuous increases except for the decline during the recent depression as indicated on attached chart, "Annual Peak and Average Load". Considering the class of the property and the nature of the load, we consider the operating cost per k.w.h. billed (as disclosed by the Department's records for 1932) as satisfactory.

(d) The rates charged for energy by the Department are set forth in the report and are substantially the same as charged by the Department's principal competitor, the Puget Sound Power & Light Company. Domestic electric rates are such as to encourage the use of electric ranges. There were nearly 26,000 ranges in service at the end of 1932 supplied from the Department's lines.

(e) Information obtained during the investigation leads to the opinion that the Department of Lighting obtains at the present time approximately 60 per cent of the total revenue of electric

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power and lighting business and that the Puget Sound Power & Light Co. obtains the other 40 per cent. The Department secures the bulk of the residential business and the Puget Sound Power & Light Company obtains the bulk of the commercial business.

(f) Convincing forecasts of immediate future trends of growth are difficult on account of the reversal in trend during the last two years. The future rate of growth of the business will of course depend largely upon the time and rate of recovery from the existing world-wide depression. As the City of Seattle is the largest in the northwest and the chief port and railroad terminal in that territory with extensive Alaskan and Oriental commerce and a large lumber industry, its ultimate future development appears assured.

(g) The development of the Skagit River on which the City has embarked for its principal source of future energy involves three dams and power houses, namely, in their order going upstream and in succession of development: Gorge, Diablo and Ruby. The Gorge plant has already been developed to a capacity of 53,500 k.w. with the head available from the present timber crib dam, or 93,000 k.w. with the added head anticipated from the proposed future masonry dam. The Diablo dam has been built complete with tunnel and penstocks, the construction of the power plant has been started and practically all necessary machinery is on the ground. Nothing has been done on the Ruby development other than surveys.

To date there has been expended on the Diablo development, including surveys of the Ruby dam site and reservoir, ap-

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proximately \$6,900,000. It is estimated that about \$1,375,000 will be required to finish the Diablo power house with a transmission line as far as the Gorge power house. It is also estimated that additional capital of about \$1,152,000 will be required over and above the outstanding warrants to cover obligations already contracted, for office building extension in Seattle and to cover the amount due the operating fund on account of construction and needed for working capital. It is also estimated that approximately \$2,250,000 more will be required to complete the duplicate 220 k.v. transmission line (for which the conductors have already been purchased) from Diablo to Seattle and to provide the necessary stepdown substation, synchronous condenser capacity and the distribution facilities.

The ultimate development of Ruby dam and reservoir, including the necessary purchase of timber, is estimated at \$18,500,000 additional.

(h) The present generating facilities of the Department of Lighting have a capacity of about 124,000 k.w. compared with a peak load which occurred in 1930 of about 95,000 k.w. The full development of the Diablo project (not yet in service) will provide additional generating capacity of about 120,000 k.w.

On account of the relatively large increase in generating capacity that would be provided from full development of this project in comparison with the Department's past peak load requirements, the program for carrying out the full development should be designed to correspond with the Department's future load requirements.

Very truly yours,

Jord. Bacon & Davis, Inc.

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